CapTech®

Part I A – Technical Proposal	
RFP Title:	Workers' Compensation Regulatory Software System
RFP:	3212
Vendor Name:	CapTech Ventures, Inc. Attn: Adam Hofheimer, Managing Director
Address:	7100 Forest Avenue, Second Floor Richmond, Virginia 23266 Email: AHofheimer@captechconsulting.com Phone: (804) 545–3384
Opening Date:	11/18/15
Opening Time:	2:00 PM

www.captechconsulting.com

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Others Talk,
We Listen.

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III. Tab III: Vendor Information Sheet (RFP 11.2.3.3)

RFP 11.2.3.3: "The vendor information sheet completed with an original signature by an individual authorized to bind the organization must be included in this tab."

Please see the page that follows for a completed Vendor Information Sheet.

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VENDOR INFORMATION SHEET FOR RFP 3212

Vendor Must:

A) Provide all requested information in the space provided next to each numbered question. The information provided in Sections V1 through V6 will be used for development of the contract;

B) Type or print responses; and

C) Include this Vendor Information Sheet in Tab III of the Technical Proposal.

V1	Company Name	CapTech Ventures, Inc.

V2	Street Address	7100 Forest Avenue, Second Floor

V3	City, State, ZIP	Richmond, Virginia 23266

V4	Telephone Number		
	Area Code: 804	Number: 545-3384	Extension: N/A

V5	Facsimile Number		
	Area Code: 804	Number: 355-4220	Extension: N/A

V6	Toll Free Number		
	Area Code: N/A	Number: N/A	Extension: N/A

V7	***Contact Person for Questions / Contract Negotiations, including address if different than above***
	Name: Adam Hofheimer
	Title: Managing Director
	Address: Same as above
	Email Address: ahofheimer@captechconsulting.com

V8	Telephone Number for Contact Person		
	Area Code: 804	Number: 545-3384	Extension: N/A

V9	Facsimile Number for Contact Person		
	Area Code: 804	Number: 355-4220	Extension: N/A

V10	***Name of Individual Authorized to Bind the Organization***	
	Name: Steve Holdych	Title: COO

V11	Signature ***(Individual must be legally authorized to bind the vendor per NRS 333.337)***	
	Signature:	Date: 11/6/2015

IV. Tab IV: State Documents (RFP 11.2.3.4)

RFP 11.2.3.4: "The State documents tab must include the following:"

IV.A. Signature Pages: Amendments (RFP 11.2.3.4.A)

RFP 11.2.3.4.A: "The signature page from all amendments with an original signature by an individual authorized to bind the organization."

Please see the pages that follows for signed Amendment 1.

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ALL ELSE REMAINS THE SAME FOR RFP 3212.

Vendor must sign and return this amendment with proposal submitted.

Vendor Name: CapTech Ventures, Inc.

Authorized Signature: _____

Title: COO Date: 11/6/2015

This document must be submitted in the "State Documents" section/tab of vendors' technical proposal.

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IV.B. Attachment A *(RFP 11.2.3.4.B; 11.6.2)*

RFP 11.2.3.4.B: "Attachment A – Confidentiality and Certification of Indemnification with an original signature by an individual authorized to bind the organization."

Please see the page that follows for a completed and signed Attachment A.

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ATTACHMENT A – CONFIDENTIALITY AND CERTIFICATION OF INDEMNIFICATION

Submitted proposals, which are marked "confidential" in their entirety, or those in which a significant portion of the submitted proposal is marked "confidential" **will not** be accepted by the State of Nevada. Pursuant to NRS 333.333, only specific parts of the proposal may be labeled a "trade secret" as defined in NRS 600A.030(5). All proposals are confidential until the contract is awarded; at which time, both successful and unsuccessful vendors' technical and cost proposals become public information.

In accordance with the Submittal Instructions of this RFP, vendors are requested to submit confidential information in separate binders marked "**Part I B Confidential Technical**" and "**Part III Confidential Financial**".

The State will not be responsible for any information contained within the proposal. Should vendors not comply with the labeling and packing requirements, proposals will be released as submitted. In the event a governing board acts as the final authority, there may be public discussion regarding the submitted proposals that will be in an open meeting format, the proposals will remain confidential.

By signing below, I understand it is my responsibility as the vendor to act in protection of the labeled information and agree to defend and indemnify the State of Nevada for honoring such designation. I duly realize failure to so act will constitute a complete waiver and all submitted information will become public information; additionally, failure to label any information that is released by the State shall constitute a complete waiver of any and all claims for damages caused by the release of the information.

This proposal contains Confidential Information, Trade Secrets and/or Proprietary information as defined in ***Section 2 "ACRONYMS/DEFINITIONS."***

Please initial the appropriate response in the boxes below and provide the justification for confidential status.

Part I B – Confidential Technical Information			
YES		NO	SH
Justification for Confidential Status			
N/A: No Trade Secrets and/or Proprietary Information			

A Public Records CD has been included for the Technical and Cost Proposal			
YES		NO (See note below)	SH
Note: By marking "NO" for Public Record CD included, you are authorizing the State to use the "Master CD" for Public Records requests.			

Part III – Confidential Financial Information			
YES	SH	NO	
Justification for Confidential Status			
CapTech has only provided the information required in Part III, including Tax ID, DUNS, and audited financial statements			

CapTech Ventures, Inc.
Company Name

Signature

Steve Holdych, COO
Print Name

11/6/2015
Date

This document must be submitted in Tab IV of vendor's technical proposal

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IV.C. Attachment C *(RFP 11.2.3.4.C)*

RFP 11.2.3.4.C: "Attachment C – Vendor Certifications with an original signature by an individual authorized to bind the organization."

Please see the page that follows for a completed and signed Attachment C.

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ATTACHMENT C – VENDOR CERTIFICATIONS

Vendor agrees and will comply with the following:

(1) Any and all prices that may be charged under the terms of the contract do not and will not violate any existing federal, State or municipal laws or regulations concerning discrimination and/or price fixing. The vendor agrees to indemnify, exonerate and hold the State harmless from liability for any such violation now and throughout the term of the contract.

(2) All proposed capabilities can be demonstrated by the vendor.

(3) The price(s) and amount of this proposal have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, vendor or potential vendor.

(4) All proposal terms, including prices, will remain in effect for a minimum of 180 days after the proposal due date. In the case of the awarded vendor, all proposal terms, including prices, will remain in effect throughout the contract negotiation process.

(5) No attempt has been made at any time to induce any firm or person to refrain from proposing or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal. All proposals must be made in good faith and without collusion.

(6) All conditions and provisions of this RFP are deemed to be accepted by the vendor and incorporated by reference in the proposal, except such conditions and provisions that the vendor expressly excludes in the proposal. Any exclusion must be in writing and included in the proposal at the time of submission.

(7) Each vendor must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFP. Any such relationship that might be perceived or represented as a conflict should be disclosed. By submitting a proposal in response to this RFP, vendors affirm that they have not given, nor intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant or any employee or representative of same, in connection with this procurement. Any attempt to intentionally or unintentionally conceal or obfuscate a conflict of interest will automatically result in the disqualification of a vendor's proposal. An award will not be made where a conflict of interest exists. The State will determine whether a conflict of interest exists and whether it may reflect negatively on the State's selection of a vendor. The State reserves the right to disqualify any vendor on the grounds of actual or apparent conflict of interest.

(8) All employees assigned to the project are authorized to work in this country.

(9) The company has a written equal opportunity policy that does not discriminate in employment practices with regard to race, color, national origin, physical condition, creed, religion, age, sex, marital status, sexual orientation, developmental disability or handicap.

(10) The company has a written policy regarding compliance for maintaining a drug-free workplace.

(11) Vendor understands and acknowledges that the representations within their proposal are material and important, and will be relied on by the State in evaluation of the proposal. Any vendor misrepresentations shall be treated as fraudulent concealment from the State of the true facts relating to the proposal.

(12) Vendor must certify that any and all subcontractors comply with Sections 7, 8, 9, and 10, above.

(13) The proposal must be signed by the individual(s) legally authorized to bind the vendor per NRS 333.337.

CapTech Ventures, Inc.

Vendor Company Name

Vendor Signature

Steve Holdych, COO

Print Name

11/6/2015

Date

This document must be submitted in Tab IV of vendor's technical proposal

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IV.D. Vendor Licensing Agreement *(RFP 11.2.3.4.D)*

RFP 11.2.3.4.D: "Copies of any vendor licensing agreements and/or hardware and software maintenance agreements."

Not applicable: CapTech proposes a custom-built solution; we therefore do not have any pre-defined licensing agreements or hardware/software maintenance agreements. Title of the system will transfer to WCS upon completion of the work. We will perform warranty support, as described in Section VII.B.12.

IV.E. Certifications and Licenses *(RFP 11.2.3.4.E)*

RFP 11.2.3.4.E: "Copies of applicable certifications and/or licenses."

Not applicable: CapTech proposes a custom-built solution.

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V. Tab V—Attachment B: Technical Proposal Certfiication of Compliance with Terms and Conditions of RFP (RFP 11.2.3.5)

RFP 11.2.3.5.A: "Attachment B with an original signature by an individual authorized to bind the organization must be included in this tab."

RFP 11.2.3.5.B: "If the exception and/or assumption require a change in the terms or wording of any section of the RFP, the contract, or any incorporated documents, vendors must provide the specific language that is being proposed on Attachment B."

RFP 11.2.3.5.C: "Only technical exceptions and/or assumptions should be identified on Attachment B."

RFP 11.2.3.5.D: "The State will not accept additional exceptions and/or assumptions if submitted after the proposal submission deadline. If vendors do not specify any exceptions and/or assumptions in detail at time of proposal submission, the State will not consider any additional exceptions and/or assumptions during negotiations."

Please see the pages that follows for a completed and signed Attachment B.

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ATTACHMENT B – TECHNICAL PROPOSAL CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFP

I have read, understand and agree to comply with ***all*** the terms and conditions specified in this Request for Proposal.

YES X I agree to comply with the terms and conditions specified in this RFP, with documented exceptions attached.

NO _____ I do not agree to comply with the terms and conditions specified in this RFP.

If the exception and/or assumption require a change in the terms in any section of the RFP, the contract, or any incorporated documents, vendors ***must*** provide the specific language that is being proposed in the tables below. If vendors do not specify in detail any exceptions and/or assumptions at time of proposal submission, the State will not consider any additional exceptions and/or assumptions during negotiations.

CapTech Ventures, Inc.
Company Name

Signature

Steve Holdych, COO
Print Name

11/13/2015
Date

Vendors MUST use the following format. Attach additional sheets if necessary.

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EXCEPTION SUMMARY FORM

Proposed deletions are shown by striking through the applicable language, and proposed additions are shown by underlining the applicable language.

EXCEPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (Complete detail regarding exceptions must be identified)
1	All	All	It is our understanding that Nevada seeks to have a robust, flexible system supporting DIR's WCS organization. It is also our understanding that while there is a desire to have a system delivered meeting all functional and technical requirements described within the RFP, the budget available to accomplish the system is fixed. As such, after requirements have been fully described and vetted during the Business Process Re-engineering Phase, DIR will work with CapTech to modify the agreed upon functional delivery scope in such a way that preserves both the proposed timeline and cost for system delivery. This may require modifying the scope to accommodate the schedule and cost; CapTech will help WCS prioritize the features determined to be mission-critical. In examining the requested scope, CapTech firmly commits to delivering the following: • A rigorous set of detailed requirements and business processes fully describing the future state of how WCS desires to perform their business. • A prioritized set of features WCS determines to be critical to accomplishing within their organization, with scope and duration assessed for each feature. • A modern technology platform tailored for the WCS than can expand and grow with features in an efficient and flexible manner. • Baseline functional system accomplishing critical tasks as prioritized by WCS and agreed to by CapTech when assessing the scope of the detailed requirements. CapTech believes that the whole functional scope of the RFP can only be delivered, if the following hold true: • Key Nevada staff and decision makers are dedicated to the engagement, providing complete, accurate, and thorough information throughout the duration of the effort. • Automated business rules and process workflows are low complexity. • General functional capabilities supporting multiple use cases are leveraged. • Nevada secures the right to leverage Kentucky's Litigation Management System (LMS) assets as much as possible, including visual and technical designs, as well as some source code. • EDI implementation with carriers is deferred to a later date. Our specific experience in implementing the IAIABC R3 EDI

EXCEPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (Complete detail regarding exceptions must be identified)
			standard in the Worker's compensation industry is that this is a minimum year-long effort with an additional six months required to effectively bring insurers and carriers onboard. However, we will provide a secure online method for insurers, TPA, and self-insured to submit claims.
2	2	10	Insert the following definition after the definition of "WAN" and before the definition of "WCS": "Warranty Period – 12 months."
3	4.3.2	21	For clarity, revise the first sentence as follows: "The system must have ~~robust~~ commercially reasonable security features that meet all applicable state and industry security standards."
4	4.4.1.3	22	Revise as follows: "The system shall be compliant with all applicable State of Nevada security policies, statutes and standards."
5	4.4.1.9	22	Revise as follows: "The system shall allow authorized users to search by any data field defined as searchable during the requirements phase. (All such identified data entered into the system should be searchable.)"
6	4.4.13.3.A	32	Clarification: Electronic Data Interchange will be a part of the requirements analysis and scope prioritization, but will not be included as a part of the software delivery because it will be too complex to include with the other scope requested.
7	5.2	36	Clarification: The description of the deliverable review process is too long to allow the project to move at the pace that it needs to proceed in order to be successful. We propose that the initial review process by WCS be limited to a week and the clarification questions and updates to the deliverable take the next week so that by the end of 2 weeks, the deliverables are approved and baselined. During the negotiations or at the beginning of the project, we can work together with WCS to formalize the details of this process.
8	5.2.3.1(E)	37	Revise as follows: "Deliverables reasonably determined to be incomplete and/or unacceptable for review will be rejected, not considered delivered and returned to the contractor."
9	5.2.3.4	39	Revise introductory language as follows: "If the State reasonably considers a deliverable not ready for review, the following will be returned to the contractor:"
10	5.15.2.1	50	Revise as follows: "The vendor will provide immediate corrective action for any system defects during the Warranty Period."
11	5.15.2.2	50	Revise as follows: "The vendor will provide user support during normal business hours during the Warranty Period."
12	5.15.2.3	50	Revise as follows: "The vendor will provide clear release notes for all system upgrades, patches and fixes during the Warranty Period."
13	8.1.1	66	Revise as follows: "Upon review and acceptance by the State, payments for invoices ~~are normally~~ shall be made within ~~45 – 60~~ 30 days of receipt, ~~providing~~ provided all required information, documents and/or attachments have been received."
14	13.3.3	84	Revise as follows: "The awarded vendor shall be responsible for the ~~proper~~ commercially reasonable custody and care of any State owned property furnished by the State for use in connection with the performance of the contract and will reimburse the State for any loss or damage by vendor, reasonable wear and tear excepted."
15	13.3.4.1	84	Clarification: CapTech will primarily work out of our Richmond, VA-based Delivery Center for the duration of the project. We will travel to

EXCEPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (Complete detail regarding exceptions must be identified)
			Henderson, NV for critical meetings, but utilize video conferencing tools for the remaining meetings and interactions.
16	13.3.4.3	85	Revise as follows: "The contractor must comply with ~~the~~ applicable State standards for hardware, software and communication lines."
17	13.3.5.3	85	Revise as follows: "Nothing contained herein shall relieve the contractor of the responsibility for proper installation and maintenance of the work, materials and equipment required under the terms of the contract until all work has been completed and accepted by the State or the contract is terminated in accordance with the provisions set forth herein."
18	13.3.6	85	Revise the second sentence as follows: "Upon completion of the work, the contractor shall leave the site in a clean and neat condition reasonably satisfactory to the State."
19	13.3.10	88	Clarification: CapTech will primarily work out of our Richmond, VA-based Delivery Center for the duration of the project. We will travel to Henderson, NV for critical meetings, but utilize video conferencing tools for the remaining meetings and interactions.
20	13.3.12	91	Add a new Section 13.3.12.7 to read as follows: "As used herein, "the software" shall mean the software developed and implemented by the contractor for the State hereunder, and "the system" shall mean the system developed by the contractor for the State hereunder, including without limitation the software."
21	13.3.15	92	Revise as follows: "To the extent of any limited liability expressed in the contract, the contractor agrees to indemnify, defend and hold harmless, not excluding the State's right to participate, the State from any and all claims, actions, damages, liabilities, costs and expenses, including reasonable attorney's fees and expenses, arising out of any claims of infringement by the contractor of any United State Patent or trade secret, or any copyright, trademark, service mark, trade name or similar proprietary rights conferred by common law or by any law of the United States or any state said to have occurred because of systems provided or work performed by the contractor hereunder, and, the contractor shall do what is necessary to render the subject matter non-infringing in order that the State may continue its use without interruption or otherwise ~~reimburse all consideration paid by the State to the contractor~~ provide the State a pro-rata refund of the applicable consideration actually paid by the State, prorated for the number of days the State could not use the applicable part of the system. Notwithstanding anything to the contrary in this Section 13.3.15, contractor's indemnity obligations under this Section 13.3.15 shall not apply to an infringement claim if such claim (A) arises out of a modification of the system that was not made by the contractor, (B) arises out of a combination of the system with hardware or software not provided by the contractor, (C) would not have arisen but for the State's failure to use the most current version of the system, or (D) is the direct result of contractor's strict compliance with any written design instructions provided by the State."
22	13.3.21	94	Add the following language to the beginning of the Section: "During the Warranty Period, ~~Licensor~~ contractor represents and warrants . . ."
23	Contract Form: 2	1	Add a new paragraph F. to read as follows: ""Warranty Period" – means defect resolution/bug fixes for 12 months after production launch."
24	Contract	3	Revise second sentence as follows: "The State may terminate this

EXCEPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (Complete detail regarding exceptions must be identified)
	Form: 10(B)		Contract, and Contractor waives any and all claim(s) for damages except with regard to payment for work performed up to the date of written notice of termination, effective immediately upon receipt of such written notice (or any date specified therein) if for any reason the contracting Agency's funding from State and/or federal sources is not appropriated or is withdrawn, limited, or impaired."
25	Contract Form: 10(E)	4	Revise introductory language as follows: "In the event of termination of this Contract for any reason, the parties agree that the provisions of this Section survive termination, except that in the event of termination of this Contract by the State without cause or by Contractor for cause, subparagraph (2) shall not apply:"
26	Contract Form: 12	4	Revise as follows: "The State will not waive and intends to assert available NRS Chapter 41 liability limitations in all cases. ~~Contract liability of both parties shall not be subject to punitive damages.~~ Both parties agree that damages for breach of this Contract shall be limited to direct damages in the amounts set forth below, and the parties expressly waive any right, and shall not be able to recover from a breaching party, any damages beyond those set forth below. WITHOUT LIMITING THE FOREGOING, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, PUNITIVE AND/OR INCIDENTAL DAMAGES WHATSOEVER (INCLUDING LOSS OF PROFITS, LOSS OF DATA, AND BUSINESS INTERRUPTION), EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSS OR DAMAGE. Liquidated damages shall not apply unless otherwise specified in the incorporated attachments. Damages for ~~any State~~ breach by either party shall never exceed ~~the amount of funds appropriated for payment under this Contract, but not yet paid to Contractor, for the fiscal year budget in existence at the time of the breach. Damages for any Contractor breach shall not exceed one hundred and fifty percent (150%) of~~ the Contract maximum "not to exceed" value. Contractor's ~~tort~~ liability for bodily injury or property damage shall not be limited."
27	Contract Form: 14	4	Revise as follows: "To the fullest extent permitted by law ~~Contractor~~ each party shall indemnify, hold harmless and defend, not excluding the ~~State's~~ indemnified party's right to participate, the ~~State~~ other party from and against all liability, claims, actions, damages, losses, and expenses, including, without limitation, reasonable attorneys' fees and costs, arising out of any alleged negligent or willful acts or omissions of ~~Contractor~~ the indemnifying party, its officers, employees and agents."
28	Contract Form: 15	6	Revise last sentence as follows: "If at any time during the period when insurance is required by the Contract, an insurer or surety shall fail to comply with the requirements of this Contract, as soon as Contractor has knowledge of any such failure, Contractor shall ~~immediately~~ promptly notify the State and ~~immediately~~ promptly replace such insurance or bond with an insurer meeting the requirements."
29	Contract Form: 23	7	Revise as follows: "~~Contractor~~ Each party shall keep confidential all information of the other party, in whatever form, produced, prepared, observed or received by ~~Contractor~~ such party to the extent that such information is confidential by law or otherwise required by this Contract."
30	Contract	8	Insert "For the duration of the Warranty Period" at the beginning of

EXCEPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (Complete detail regarding exceptions must be identified)
	Form: 26		paragraphs A. and B.
31	Contract Form: 26	8	Add new paragraph C. to read as follows: "C. DISCLAIMER. TO THE EXTENT PERMITTED BY LAW, THE WARRANTIES SET FORTH IN THIS CONTRACT ARE EXCLUSIVE AND THERE ARE NO OTHER EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS, INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY AND FITNESS FOR A PARTICULAR PURPOSE."

ASSUMPTION SUMMARY FORM

ASSUMPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	ASSUMPTION (Complete detail regarding assumptions must be identified)
1	All	All	The estimated level of effort defined in this proposal depends on the requirements defined in the RFP. Any changes to those requirements will require a change request and may increase the overall price of the application development
2	All	All	Program scope is also limited to the interpretations and limitations of the requirements as defined in our RFP response.
3	All	All	Signoff of requirements, business rules, and designs will indicate the client's approval that the documents are accurate and complete and will be a basis to build future project documentation.
4	5.6	41-42	Requirements defined, documented and agreed upon in the initial requirements and BPR analysis phase of the project will take precedence over the requirements in the RFP.
5	All	All	While onsite at the WCS facility during agreed upon times, CapTech personnel will have access to a workspace, equipment, software, and supporting infrastructure as necessary to accomplish their assigned tasks. This includes network access, internet access for remote connectivity, any necessary office automation software and web access.
6	All	All	CapTech will be given access to relevant system and technical documentation at the beginning of the project.
7	All	All	CapTech is expecting that the WCS decision maker will be available in the requirements gathering meetings.
8	All	All	WCS has 3 days to provide answers to clarifying questions submitted by CapTech regarding requirements and business rules.
9	All	All	WCS will be ready at the project start to provide the information regarding the business requirements and workflow rules to enable the high-level design to be completed. Any delays in providing these definitions will extend the timeline and add to the project cost.
10	All	All	Once a deliverable has been approved, changes to that deliverable must go through the change control and scope change processes.
11	All	All	The solution application system will not be mobile responsive.
12	All	All	End user computers will need to have Javascript enabled.
13	All	All	WCS will be responsible for accessibility testing.
14	All	All	All 508 compliance device testing will be performed by WCS.
15	All	All	The application will only implement at most one interface to one data feed.

ASSUMPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	ASSUMPTION (Complete detail regarding assumptions must be identified)
16	All	All	If the project is cancelled for any reason, CapTech will be paid on a prorated basis for all progress made on paid deliverables
17	4.2	20	All applicable development, test, and production environments will be prepared by WCS and ready for the project team at the commencement of the development sprints designated in the project plan.
18	4.2	20	The environments in CapTech's response will be hosted on State of Nevada servers and maintained by State of Nevada staff.
19	4.2	20	The Development and Test environments are expected to be fully available (e.g., services, databases, networks, accesses, other) throughout the life of the project. Any downtime in these environments that delay the project team due to down time or triaging environment issues will trigger a change request to reflect the cost for an individual or the team's delays.
20	4.2	20	WCS or the State of Nevada will be responsible for establishing and setting up Visual Studio Online for application lifecycle management (version control, automated builds, automated deployment).
21	4.2	20	WCS or the State of Nevada will execute Infrastructure changes within three (3) business days of the submitted request from CapTech
22	4.2	20	WCS or the State of Nevada will setup servers and give CapTech administrative access to servers that CapTech must configure. WCS will satisfy these requests within 3 business days of the request.
23	4.2	20	Any changes to an interfacing system or data feed, including software, hardware, data, must be reviewed with CapTech to determine whether this will cause a change to the scope, schedule, and/or budget.
24	4.4	21-34	Uploaded documents will be restricted based on file size rather than page numbers.
25	4.4	21-34	The solution will not read or process content of submitted documents.
26	4.4	21-34	Lookup values will be maintained through the use of SQL Scripts.
27	4.4	21-34	CapTech will use Amazon SES (Simple email service) for sending email that is not sent through MailChimp (e.g., notifications/alerts delivered via email).
28	4.4	21-34	Visual design implementation based on Kentucky design, changes limited to styles within the existing CSS classes and image/icon changes.
29	4.4	21-34	No custom visual design for public web site will be required (will look like internal WCS site).
30	4.4	21-34	FTP file processing will be limited to one incoming file format, and validation will be limited to what the application already does.
31	4.4	21-34	The user interface design will be based on the Kentucky application screen designs and format (e.g., menu design, date selection, address entry, etc.). We will work with WCS to modify the visual design (color palette and images), data and business rules on the pages.
32	4.4	21-34	The business processes are assumed to be low complexity with minimal (i.e., 3 or fewer) exception processes outside of the standard case.
33	4.4	21-34	Once the future state business processes are determined and documented, WCS will review and reprioritize the overall scope of the project to allow the delivery to match the WCS goals. This will require a change to the scope, schedule and/or budget to match the new priorities.

ASSUMPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	ASSUMPTION (Complete detail regarding assumptions must be identified)
34	4.4	21-34	All RFP requirements are limited in scope to include, at most, the explicit examples listed. The requirements will not be unbounded by statements similar to "… will include but not be limited to …."
35	4.4	21-34	Of WCS' existing paper forms, CapTech will only implement the following 5 forms—C4, D-17, D-35, D-37, D-38. These forms will be implemented as web forms based on their existing appearance (i.e., form redesign is out of scope for this project).
36	4.4	21-34	The registration process for insurers, self-insurers and TPAs will follow the model that was developed for Kentucky's DWC. All other registrations (e.g., injured workers, lawyers) will not be validated with any WCS data because they will be only submitting forms or making payments vs. reviewing claim information.
37	4.4.2	23-24	Logic for automatic case assignment is restricted to evaluation of fields on the case and can be implemented in workflow design with no external code or input from external sources required.
38	4.4.11	30	Reports will be generated from the operational database instead of from a data mart.
39	4.4.11	30	CapTech will provide up to 15 management reports with standard query parameters (e.g., date range, department, case type).
40	4.4.11	30	The dimensional model for the report table will have the following maximums: • Up to 30 ETL mappings • Up to 7 data sources • Up to 3 subject areas with 2–3 facts and up to 5 dimensions per fact
41	4.4.11	30	Users will not have the ability to schedule reports.
42	4.5	33	WCS will be responsible for engaging a third-party security assessment firm to perform vulnerability testing on the application to confirm that the application satisfies all applicable security requirements. As a best practice, CapTech cannot perform this work.
43	5.2	36-39	WCS will provide feedback of the final version of the deliverables within 5 business days. After CapTech makes the changes to the deliverables as defined by WCS, WCS will approve the updated version of the document within 2 business days. Any changes to the document at that point will go through the change control process and may impact the schedule and/or pricing.
44	5.6	41-42	WCS will provide CapTech with formal equations for the specific financial calculations that must be implemented as a part of the audit system.
45	5.9	44-45	CapTech will migrate existing data as is. Any data transformation or cleanup will be performed in advance by WCS.
46	5.9	44-45	All forms have been keyed into their existing systems and we will not have to migrate any paper-based forms that have not been entered into current systems.
47	5.9	44-45	CapTech will migrate data from the Versa/Iron Data system (Oracle), the Claims Indexing System (Oracle), and any Access databases that follow a single common data structure (i.e., we will only develop one Access migration program that can be run off of multiple databases that have the same structure).

ASSUMPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	ASSUMPTION (Complete detail regarding assumptions must be identified)
48	5.10	45-46	WCS will perform User Acceptance Testing (UAT) in the time specified in the project plan. CapTech must approve the UAT plan before starting UAT. CapTech will assist DWC in creating the UAT plan.
49	5.10	45-46	WCS is responsible for developing a UAT Plan, creating UAT test cases, and staffing the UAT with full time testers. For each Sprint's UAT, WCS will be ready to test the application with enough staff to allow for continuous testing until that Sprint's UAT is completed.
50	5.12	47-48	WCS Staff to be trained have proficiency in the current system as well as insight into related inputs and outputs to be able to understand the functions the new system should perform.
51	5.12	47-48	WCS employees will not experience significant organization structural changes.
52	5.12	47-48	Key WCS managers will take an active role in supporting the training.
53	5.15	50	The warranty is invalid if WCS makes any changes to the application without the express written consent of CapTech.
54	5.15	50	During the Warranty Period of this effort CapTech will: a. Provide Tier 3 Technical Escalation support on a 24/7 basis. b. Respond to support requests initiated by WCS technicians. c. Resolve issues within SLA's based on three sets of classification: • **Classification 1: Critical Issue** – This would be considered an issue that results in the entire LMS being down or unusable for any reason – impacting all potential users. In this situation, once DWC makes CapTech aware of the issue, CapTech would acknowledge the issue and provide an initial response within 1 hour during regular business hours. The goal for any issue like this would be to address it within the same business day or before the next business day begins. • **Classification 2: Medium Issue** – This would be considered an issue that may impact performance of the system (but still usable) affecting all users or possibly a more severe issue that is localized and only impacting a small portion of the user base. For these types of issues, CapTech would acknowledge the support request from WCS within 4 hours and have an initial response back with a targeted delivery date/time for the fix before the end of the following business day. In most cases, CapTech would aim to resolve these issues within 3-4 business days. • **Classification 3: Minor Issue** – These issues would cover support requests for things like report updates or modifications and would essentially be minor enhancements that cannot wait for the next full enhancement release. For these types of issues, CapTech would again acknowledge the support request from WCS within 4 hours and have .an initial response back with a targeted delivery date/time for the fix before the end of the 2nd business day. In most cases, CapTech would aim to resolve these issues within 10 business days.

ASSUMPTION #	RFP SECTION NUMBER	RFP PAGE NUMBER	ASSUMPTION (Complete detail regarding assumptions must be identified)
55	5.15	50	During the Warranty Period of this effort, WCS will: • Assign technical administrators to participate in all required system support training developed and scheduled by CapTech • Provide Tier 1 Help Desk Support for End Users • Provide Tier 2 Technical Support for Help Desk reported issues. • Assign two primary employees available and authorized to escalate Tier 3 Technical Escalation support requests.
56	5.15	50	CapTech is not responsible for system outages or increased response times due to systems out of scope/control or infrastructure provided by the WCS.
57	6.4	57	CapTech is expected to staff the key personnel listed in this proposal. If scheduling conflicts arise, CapTech will staff the role with a comparable resource and provide WCS with that person's resume.
57	6.4	57	CapTech has the flexibility to replace non-key personnel with resources having equivalent experience without obtaining prior approval from WCS.
59	6.6.6	60	CapTech will perform the work for this project on-site at WCS's facilities in Henderson, NV or in CapTech's Richmond, Virginia Delivery Center.
60	6.7	60	Any delays in the project schedule not caused by CapTech (e.g., late delivery of dependent tasks from third parties or other external entities) will result in a change request if CapTech resources are required to spend additional time on the project.
61	13.1.9	80	CapTech is providing a custom-built solution, not a commercial off-the-shelf product. As such, we do not have any existing maintenance/service agreements, license agreements, or lease and purchasing agreements. Our proposal includes the terms and conditions contained within the RFP, except where we have made an exception or assumption in our response. We describe our warranty in this proposal at length.

This document must be submitted in Tab V of vendor's technical proposal

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VI. Tab VI—Section 4: System Requirements *(RFP 11.2.3.6; 4; and 4.1)*

RFP 11.2.3.6: "Vendors must place their written response(s) in **bold/italics** immediately following the applicable RFP question, statement and/or section."

RFP 4.1: "Vendors must explain in sufficient detail how the vendor will satisfy the Division of Industrial Relations/Workers' Compensation Sections project requirements described below and in Attachment L, Requirements Matrix. If subcontractors will be used for any of the tasks, vendors must indicate what tasks and the percentage of time subcontractor(s) will spend on those tasks."

UNDERSTANDING OF NEED: ***Modernization is not a single activity/engagement, but rather an evolution. Successful organizations are constantly making minor adjustments in their processes and technology to support a more nimble and effective organization.***

Currently, the Nevada Division of Industrial Relations (DIR) Workers' Compensation Section's (WCS) ability to meet its mission (regulatory authority) is significantly hampered as a result of both outdated technology and organizational processes. Each unit has created their own sets of access databases, excel spreadsheets, system workarounds, and processes to help execute their specific job functions. Further, the current VERSA system is continually circumvented wherever possible and most mission critical organizational functions are managed outside of the systems, which negates accuracy and the transparent management of job functions. Further, there is not a clear enterprise view into tasks and no central, accurate repository for outcome analysis and reporting.

To that end, WCS first requires an assessment of your current state to provide a high-level of clarity, identify all operational gaps, and define a roadmap of processes and supporting technology that will enable positive and evolutionary change. With the assessment in hand, the chosen contractor can launch a modernization effort focused on enhancing both organizational processes as well as the mission critical information systems to provide the foundation for improvements and transparency.

The overall goal should be to allow staff to refocus attention on the highest priority items such as compliance, penalty determination, and collections while providing the data to improve outcomes and more efficiently meet its mission. The future system design should focus on clean data entering the system from its source and structuring work items by their overall priority to the mission. This is particularly important for penalty collection—although penalty origination is a robust and successful function of the organizations, WCS is not able to understand the status of collection processes and may not be collecting a significant portion of these penalties resulting in a major loss of revenue for the state and inability to enforce the overall regulatory authority. The new system must enable transparent management of penalties to increase collections—this new system could be paid for with the enhanced revenue stream.

> ***Custom-built solution (not out of the box) provides new, innovative technology that is 100% tailored to WCS' needs***

HIGH-LEVEL PROPOSED SOLUTION: ***CapTech proposes a custom application built primarily on the Microsoft stack that is wholly created to meet WCS' specific and unique needs. To reduce the total development cost and improve usability, CapTech will leverage best practices from our other similar workers' compensation projects—including applications and assessments for Virginia, Missouri, Kentucky, Georgia, Iowa, and others.***

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Eliminating redundancy by moving to a paperless system

The future system will harness the concept of Master Data Management (MDM) so that all entities internally and externally can be managed transparently within a single system. Further, the system will eliminate data duplication and redundancy while moving the State to an automated, paperless system—as we have done for the Commonwealth of Kentucky. Further, we will implement role-based security.

Figure 1 represents the high level functional system that CapTech proposes.

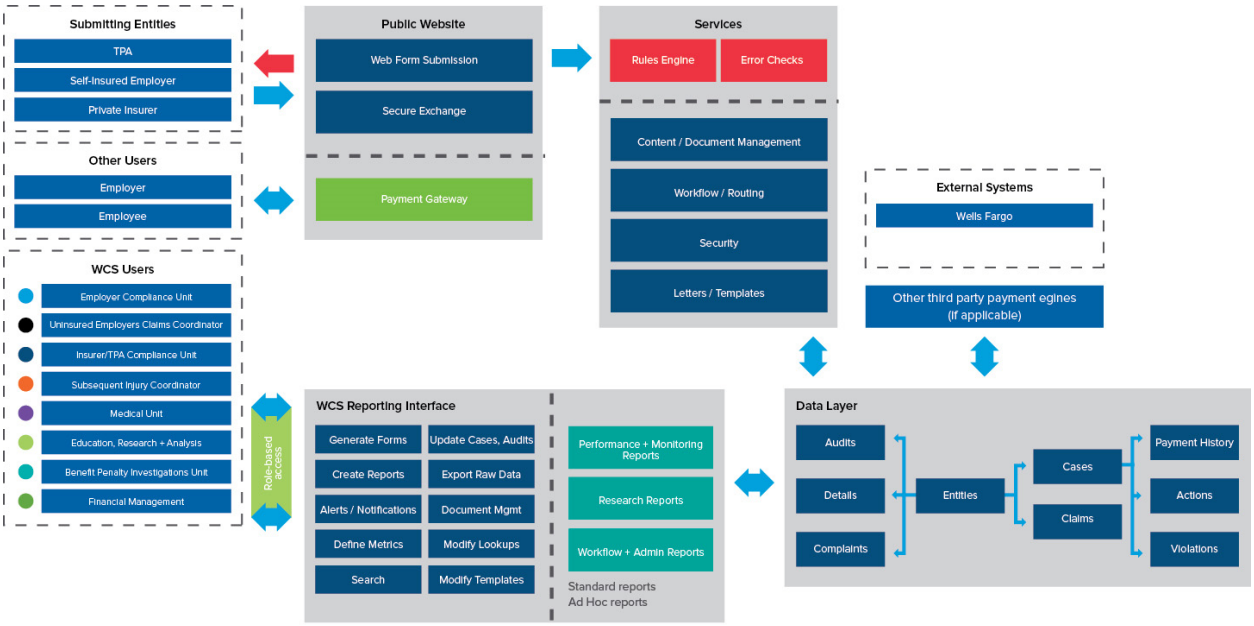

Figure 1. HIgh-level Functional System Design

CapTech is a proven leader in helping government and financial services clients meet their missions. We do this by delivering custom, modern software solutions that meet the express needs of our clients. As a result of our success in custom delivery, we have been recognized recently by delivering award winning platforms in Virginia and throughout the entire country. The following are the benefits of this proposed solution to WCS:

- *Benefit 1—Leveraging Modern Technology: for WCS, CapTech will build a completely custom .NET-based solution using modern, best-in-class components and technologies. Because CapTech does not believe in taking old technology and transferring it to new clients, we are not providing an "off the shelf" solution. Rather, we will take lessons learned and use a repeatable framework to create a new, innovative software package that meets WCS stated requirements. As a result, each component of WCS' system will incorporate best practices and meet your needs precisely—giving your users the ability to be more productive in the long-term.*
- *Benefit 2—Sophisticated Data Analytics: further, the solution includes thoughtful data analytics capabilities. Our Data Architect will build sophisticated reports that help WCS drive more efficient audits by identifying the entities who are most likely to be out of compliance and who can pay. The system will take the manual guesswork out of the process.*
- *Benefit 3—Intuitive User Experience: CapTech will also perform user research and design the system to have an intuitive "self-service" User Interface (UI) that enables WCS employees to easily learn and interact with the system. This is a key differentiator from most government*

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systems and contractors—the system is on par with what CapTech designs for our commercial clients, such as Navy Federal Credit Union's mobile banking application.

More specifically, our proposed solution includes three primary components—business process reengineering, technical, and data (described below):

Summary of Business Process Reengineering (BPR) Solution: We will begin this work with a thorough Business Process Analysis and Reengineering effort. A BPR effort will provide the base for defining current processes and how those processes could be dramatically improved through automation and prioritization. The BRP will provide new processes from which requirements for the new system will be generated.

> **CapTech's vast workers' comp experience allows us to "hit the ground running"**

CapTech's key differentiator is our vast workers' compensation experience and expertise—which provides us with an understanding of WCS' processes, terminology, and stakeholders and allows us to "hit the ground running" to define processes that can be accomplished with a modern technical infrastructure.

In addition to efficient processes, CapTech's BPR effort will focus on Return on Investment to help define the value for WCS and the State of Nevada moving forward. We will assess the overall process landscape for the manual and systematic processes. The analysis will include data gathering to determine efficiencies gained through system solutions and determine prioritization for reengineering of critical business processes. The result of the BPR will include a long-term roadmap, which will include components that will be built as part of this engagement as well as application components that may not create the highest value to the organization but should be accomplished as part of the future evolution of the organization.

> **Technical solution: ASP.NET MVC; SQL Server; SSRS; SSAS; and RESTful web services**

Summary of Technical Solution: Based on the RFP requirements, CapTech proposes a .NET-based solution for the new WCS system. The internal and external portals will be developed using ASP.NET MVC storing data in a SQL Server database. SQL Server Reporting Services (SSRS) and SQL Server Analysis Services (SSAS) will provide reporting and business intelligence features. We will use RESTful web services to integrate with external entities. Additional technical design details are provided in Section VI.B that follows.

Summary of Data Solution: To ensure actionable reporting and analytics with minimal downstream, backend maintenance costs, CapTech proposes a system with a robust data architecture that enables the ingestion of multiple data elements and the linking/joining of various entities. For example, the data model will enable the linking of entities (e.g., employers, medical providers, TPAs, etc.) to audit data, case data, claim data, other entity details, etc. Further, case data will be linked to payment history, case actions, and violations. Figure 8 (see Section VI.C.1.9) illustrates the proposed master data model in detail.

> **Robust data architecture yields actionable reports/analytics with minimal downstream backend maintenance costs**

The sections that follow, as well as Attachment L: Requirements Matrix (Tab XI), provide more details on our solution.

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VI.A. Computing Platform *(RFP 4.2)*

RFP 4.2: "The server and desktop environments at the Department of Business & Industry and DIR is Windows. For virtual environments VMWare is used. DIR uses Acronis software for performing image backups.

In terms of hosting applications, DIR is open both a State hosted or vendor hosted solutions. DIR will evaluate the merits of each. The state hosting options include:

4.2.1 DIR hosting on one of their existing servers (or purchase new server); or

4.2.2 EITSD hosting on a virtual server in the state server farm facility.

Systems hosted on State servers should run on a Windows Server environment. However, DIR is open to other platforms.

CapTech recommends a State of Nevada-hosted solution. CapTech's delivery principle is to develop business applications that harness non-proprietary solutions and repeatable design patterns—making it much easier for our clients to manage the solution after delivery and turnover. As such, CapTech recommends harnessing existing State investments to both lower the overall cost of the solution and to make it easier for transition to the State for long-term enhancements, operations, and maintenance.

CapTech's application will be designed for hosting on a Windows infrastructure. We assume that Nevada has the following (or comparable) servers available (note: this requires a single web server and a single database server for each of the dev, test, training, and prod environments):

Server Type	Server Model	CPU	RAM	Disk	OS
Database Server	Dell R730	Intel Xeon v3 3.5 GHZ (4 core)	64 GB (4 x 16GB)	RAID 10; 800GB Usable (4 x 400GB SSD)	Windows Server 2012 R2 Standard
Web Server	Dell R630	Intel Xeon v3 3.0 GHZ (4 core)	16GB (2 x 8GB)	Raid 10; 300GB Usable (2 x 300GB 10k RPM)	Windows Server 2012 R2 Standard

VI.B. Technical Requirements *(RFP 4.3)*

RFP 4.3: "The following are some, but not all technical requirements:"

The technical design will consist of a standard multi-layer architecture as depicted in Figure 2. The solution architecture is based on the Microsoft platform, including Windows Server, SQL Server, and .NET. A detailed description of each layer follows the Figure that follows.

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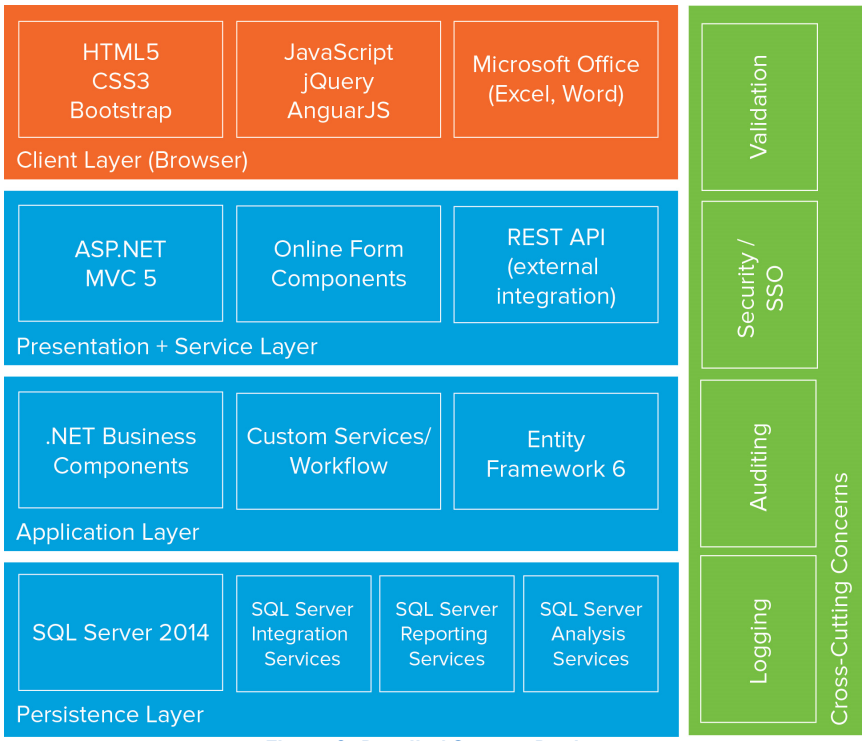

Figure 2. Detailed System Design

Client Layer: ***The user interface (UI) layer is responsible for displaying web standard content that is consumed by a web browser. This layer incorporates HTML, JavaScript, and CSS as standardized by World Wide Web Consortium (W3C). In developing the UI, we will achieve our mutual goal of creating a rich, consistent experience for WCS stakeholders. CapTech will utilize years of industry experience developing modern user interfaces and will employ the latest in client side technologies to build a modern UI.***

> ***UI will create a rich, consistent experience for stakeholders***

CapTech will utilize HTML5 and CSS3 to develop the application's views, bringing modern web standards to the WCS. Responsive frameworks have become increasingly popular in recent years because they enable web-based applications to target multiple devices and form factors with a single set of common user interface code. Bootstrap is a responsive design framework that accelerates the UI design and development process and brings with it a host of modern interface elements. Although support for mobile devices is outside of the scope of this effort, the use of a responsive framework such as Bootstrap will enable WCS to support mobile devices on the web in the future with reduced additional development overhead.

> ***Responsive design framework allows future mobile device support with minimal additional development***

For the purpose of improving the user experience and responsiveness of the application, CapTech proposes using JavaScript frameworks, jQuery, and AngularJS—jQuery is one of the most popular JavaScript frameworks available. It provides a set of core, cross-platform features for Document Object Model (DOM) element selection, traversal, and manipulation, as well as a host of other features. AngularJS is an open source JavaScript framework that brings the Model View Control (MVC) pattern to the client-side of a standard web application, creating a clear separation between

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static and dynamic page content. AngularJS includes built-in functionality for data binding, input validation, and back-end service communication.

Presentation Layer: The MVC pattern illustrated below separates the application into three main components: the model, the view, and the controller. MVC allows for testable and maintainable UI by separating business logic, presentation, and URL routing by decoupling dependencies of the application. This pattern and practice will create an interface-driven design and allow for application modifications to be made fluently without having to update multiple components.

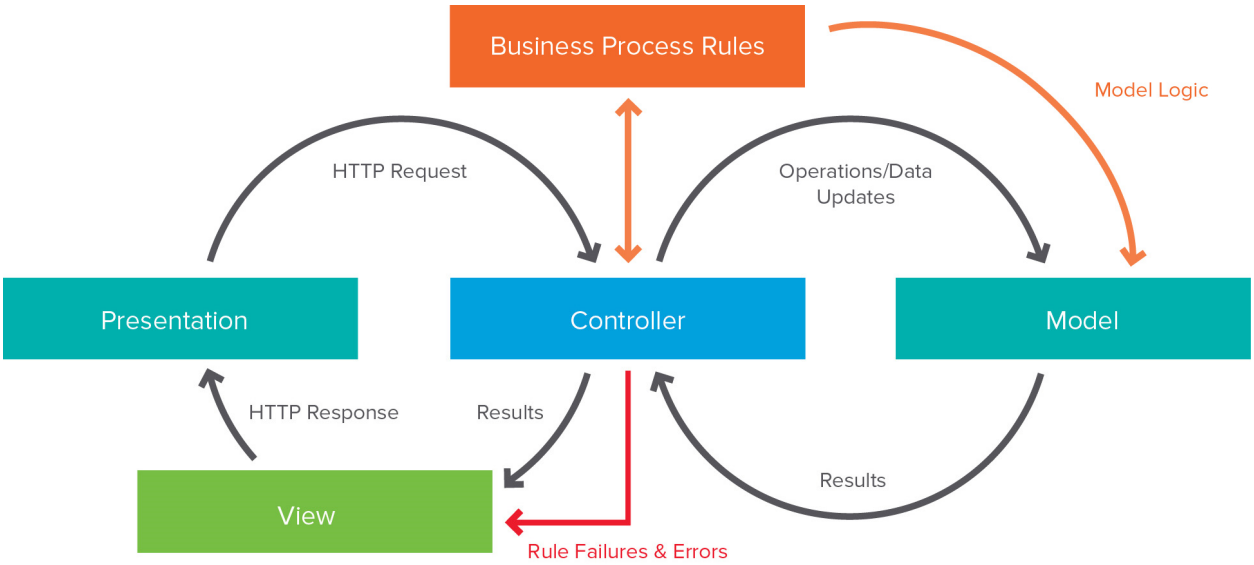

Figure 3. MVC Architectural Pattern

The model represents the state of a particular aspect of the application. The controller handles interactions, updates the model to reflect a change in the state of the application, and then passes information to the view. The view accepts necessary information from the controller and renders a UI to display that information.

> ***Separating application layer from UI and persistent layers provides scalability and flexibility***

Application/Services Layer: The application layer is responsible for accepting requests from the presentation layer to request or persist data or to carry out certain rules-based processes. This layer will be built on .NET 4.5 and will make use of ASP.NET Web API. Web API is a platform for building lightweight HTTP services, ideally suited for internal and external APIs that back RESTful applications. By separating the application layer from the UI and persistent layers, the architecture provides extensible and scalable components for flexibility.

The application layer will also make use of the Entity Framework for data access. Entity Framework is an object-relational mapper that enables .NET developers to work with relational data in a cost effective manner. Entity Framework can also call stored procedures and functions when required for performance or architectural reasons.

Data Layer: The data layer is responsible for end user data as well as application configuration and user management data. This layer will be built on SQL Server 2014. This layer will house stored procedures for interfacing with data and SQL Server Reporting Services (SSRS) for reporting on the

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data. We will develop parameterized SSRS reports to satisfy standard reporting needs and use SSAS for ad hoc querying.

VI.B.1. Web-based Solution Supporting Standard Browsers (RFP 4.3.1)

RFP 4.3.1: "The proposed vendor solution should be web-based and support standard commercial browsers:"

The solution is a web-based application using HTML, JavaScript, and CSS as standardized by World Wide Web Consortium (W3C). The application will support the latest versions of Internet Explorer, Chrome, Safari, and Firefox browsers.

VI.B.2. Robust Security Features (RFP 4.3.2)

RFP 4.3.2: "The system must have robust security features that meet all state and industry security standards. This includes the encryption of sensitive data such as Personal Identifiable Information (e.g. SSNs). The system must support complex passwords and enforce periodic resetting of passwords."

CapTech has experience across a range of industries in developing secure web applications for clients that meet stringent industry standards. For example, many of our solutions in the healthcare industry must meet strict HIPAA and PII regulations, while solutions for financial services clients often must be PCI-compliant. The approach described below shows all of the factors that CapTech will consider to secure data in transit or at rest, in memory or on disk.

Web applications present many security challenges. The broad reach of a web application means it is a common target for malicious users. Secure authentication and authorization must be developed even as data is being sent over public networks. An overview of the top issues that need to be addressed in an Internet-based web application is shown in the figure below.

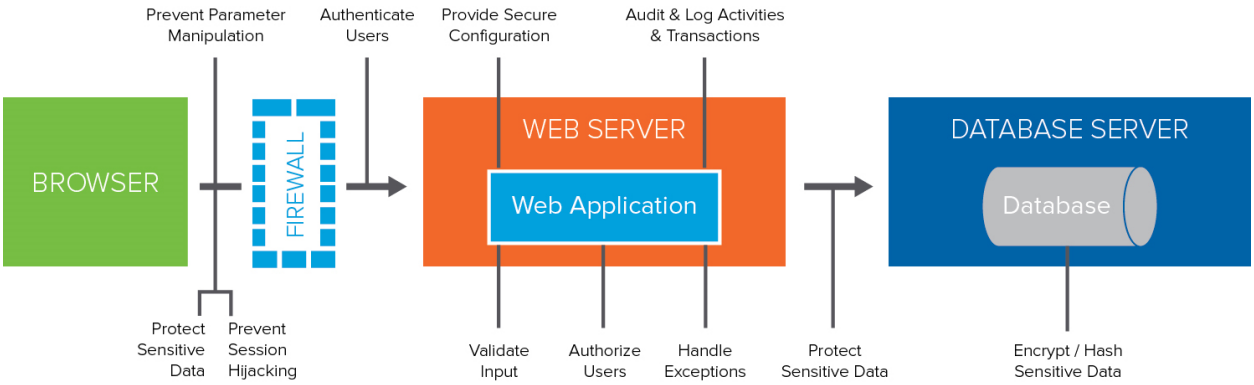

Figure 4. Top Security Concerns in Web Applications

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- *Protect Sensitive Data: authenticate, encrypt, and protect the confidentiality and integrity of sensitive network traffic*
- *Prevent Parameter Manipulation: prevent modification of data passed between the browser and the web application*
- *Prevent Session/Authentication Hijacking: prevent malicious users from compromising passwords, keys, session tokens, or authentication flaws to gain unauthorized access*
- *Authenticate Users: determine the identity of a user*
- *Validate Input: detect and prevent unauthorized or malicious input*
- *Provide Secure Configuration: ensure configuration can be securely updated*
- *Authorize Users: determine if the authenticated user has permissions to perform an action*
- *Handle Exceptions: handle exceptions in a user-friendly and secure manner*
- *Audit and Log Activities and Transactions: maintain a trail of user activities*
- *Encrypt/Hash Sensitive Data: keep data secure "at rest"*

The first step is to secure the infrastructure of the WCS web application. The infrastructure consists of network connections, operating systems, the web server, and the database server. Network connections must be secured, operating systems hardened, IIS (the Windows web server) security configured, and SQL Server (the database server) security configured. Infrastructure security addresses the "Protect Sensitive Data" security concern and provides a thorough start to a defense-in-depth approach to security.

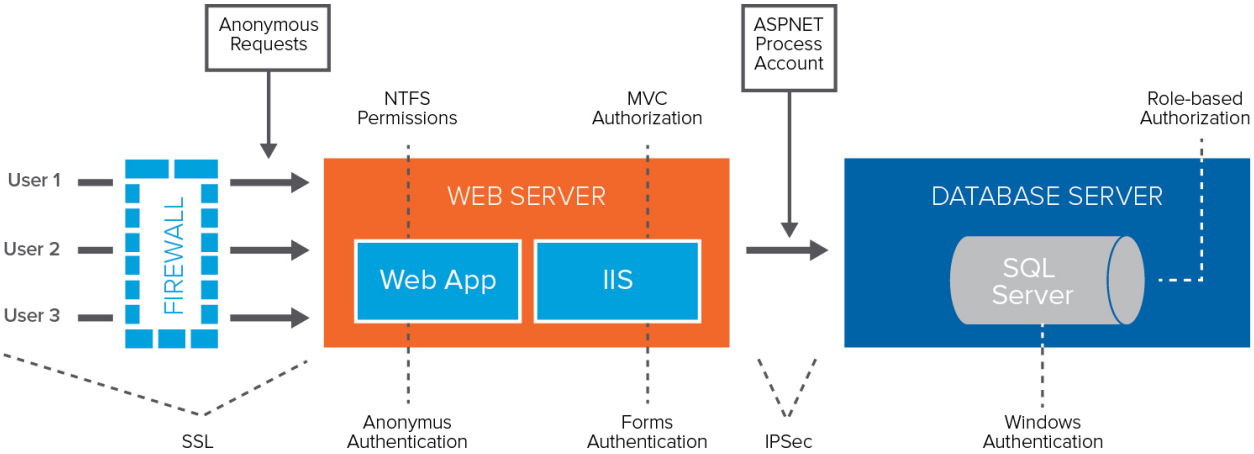

Figure 5. Security Configuration

In Figure 5, incoming user requests are anonymous because they are from the Internet. SSL is used to secure the communication from each user's browser to the web server. IIS is set to anonymous authentication and uses NTFS file permissions for additional security. The WCS Web Application uses Forms Authentication to authenticate users and role-based membership security to authorize access to modules within the application. The connection from the web server to the database server is secured via IPSec, which secures content between two servers in a Windows-based network. The connection to the database uses the ASPNET process account and connects to SQL Server using Windows Authentication. Database roles are used to limit access to the database for additional security.

The final step is to secure the WCS web application. Each of the remaining top security concerns will be covered on a per item basis.

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Prevent Parameter Manipulation: ***To prevent modification of data passed between the browser and the web application, the WCS application will recheck the permissions to the item being requested, use explicit parameter binding, and follow the TryUpdateModel pattern. The TryUpdateModel pattern gets the latest model data from the database and then attempts to update only the explicitly specified properties before the database update is made with user input.***

> *The proposed security configuration prevents malicious users from doing harm*

Prevent Session/Authentication Hijacking: ***To prevent malicious users from compromising passwords, keys, session tokens, or authentication flaws to gain unauthorized access, the solution will protect against Cross Site Scripting (XSS) and use the AntiForgeryToken functionality in ASP.NET MVC. Properly encoding user-supplied input using the ASP.NET AntiXSSLibraries will prevent XSS attacks. The AntiForgeryToken embeds a unique ID into every form page with a hash of the user's ID and form ID. A hacker will either not have the token or will be logged in as a different user. SSL is used to protect the connection (Protect Sensitive Data).***

Authenticate Users: ***To determine a user's identity, Forms Authentication will be used to validate a username/password with credentials in the WCS database. Standard security precautions will be used, such as hashing the password with salt, using SSL, and checking for excessive login attempts to prevent dictionary attacks.***

Authorize Users: ***To determine if the authenticated user has permissions to perform an action, the WCS solution will use a custom ASP.NET Membership and Role Provider. The provider encapsulates the logic for assigning users to roles. Access is limited by using the Authorize attribute with a list of permissible roles. Portions of the user interface may be hidden or altered based on role. This prevents user confusion over seeing an element that the system will not allow them to use or interact with because they do not have the permissions.***

Validate Input: ***Data Annotations and ASP.NET Request Validation will be used to detect and prevent unauthorized or malicious input. Request Validation inspects HTTP traffic for malicious input and stops processing if malicious input is found. Data Annotations ensure that data is valid before being saved to the database. The database will also enforce data constraints, foreign key relationships, and unique constraints.***

Provide Secure Configuration: ***To ensure the configuration can be securely updated, the solution will perform two activities. First, sensitive configuration settings stored in the web.config file can be encrypted using Windows encryption. Second, configuration information stored in the database will require a high-level administrative application role and changes will be audited.***

Handle Exceptions: ***The solution will handle exceptions in a user-friendly and secure manner. Exceptions will be handled as close to the source as possible. Exceptions that propagate up to the UI will be caught by a last-chance exception handler and logged using ELMAH, an "Error Logging Modules and Handlers" component. All exceptions will be logged. The ASP.NET setting to show detailed error messages will be disabled.***

Audit and Log Activities and Transactions: ***The solution will use an auditing component and a logging framework to audit and log activities and transactions. CapTech has developed a SQL Server-based auditing component that captures all changes to specified tables and stores them in an audit table. The audit table can be searched for activities related to a specific business entity to determine the user that made the change, the old and new values, and the date and time of the change.***

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Serilog is the logging framework that will be used. Serilog is an open source logging tool. Serilog makes it easy to add logging statements and save them in a variety of output systems, including text files, event logs, or a database. The database will also have auditing columns including CreatedBy, CreatedDateTime, LastModifiedBy, and LastModifiedDateTime.

Encrypt/Hash Sensitive Data: To keep data secure "at rest," SQL Server will encrypt stakeholder-related fields that contain PHI, if any. The encryption key used will also be encrypted by the server operating system. Passwords will be hashed with a salt value to create unique hashes even if two users use the same password. All access to the SQL Server database server will be logged. Additionally, SQL Server can use Transparent Data Encryption (TDE) to ensure the files themselves cannot be accessed to gather protected data. SQL Server TDE requires SQL Server Enterprise Edition.

Additional Security Concerns: In addition to the items covered above, the Open Web Application Security Project (OWASP) has a Top 10 list of web security vulnerabilities. Most of the security vulnerabilities have been covered above with the exception of SQL injection. SQL injection attacks are still very common. The solution will guard against them by using Entity Framework and parameterized queries. Stored procedures that are used will have a security review to ensure they are not vulnerable to injection attacks. No SQL concatenation will be permitted unless unavoidable. If it is unavoidable the code will be marked for security reviews and penetration testing.

VI.B.3. User Friendly Reporting Tools *(RFP 4.3.3)*

RFP 4.3.3: "The system must have user friendly reporting tools that allow knowledgeable users to extract the information they need from the system."

The system will include various reporting tools and features that will enable WCS and other Nevada users the ability to rapidly access data, develop on demand reports and address ad hoc inquiries. The system will contain the following features:

> *Reporting tools provide users rapid data access, on-demand reports, and ad hoc queries*

- *A directory structure that enables users to navigate through and search existing, standardized reports.*
- *A flexible user interface (similar to Excel) that enables users to develop custom reports and visualizations based on the proposed, underlying data structure and associated metrics, measures and attributes.*
- *The ability to create/define reporting parameters and run reports pertaining to management, operations and other statistics.*
- *The ability to export raw data from reports/database for analysis outside of the reporting tool.*
- *The ability to publish reports for other users/viewers.*

VI.B.4. Backup and Recovery Capabilities *(RFP 4.3.4)*

RFP 4.3.4 "The system must have full backup and recovery capabilities."

CapTech will work with WCS to develop appropriate backup and disaster recovery procedures. These procedures typically include database backups, Virtual Machine image snapshots, backups of crypto-graphic keys, and configuration information. In the event of a Disaster Recovery event, full installation instructions for the solution will be available, including a brief description of key settings so that WCS personnel know what to configure and how to configure it.

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VI.B.5. Exchanging Information (RFP 4.3.5)

RFP 4.3.5: "The system must provide efficient and secure methods of exchanging information between external stakeholders (e.g. insurers, TPAs, medical providers, injured workers, etc.)."

CapTech will provide standard integration primarily through RESTful web services developed using Microsoft's WebAPI. WebAPI delivers HTTP standards compliant services built with REST (Representational State Transfer) principles. This is the design pattern that services throughout the industry are using. CapTech will also use file-based information exchange (through FTP for example) where appropriate.

VI.C. Functional Requirements (RFP 4.4)

RFP 4.4: "The requirements matrix, referenced in Section 4.6, Requirements Matrix contains a list of requirements across the various business unit as well as industry stakeholders.

In the first major task of the project the state and the vendor will work together to identify opportunities to streamline business processes and refine requirements."

The sections that follow detail our proposed functional solution, as well as how we will handle business process reengineering.

VI.C.1. General Enterprise Requirements (RFP 4.4.1)

RFP 4.4.1: "General Enterprise Requirements – These are system features and functionality that supports all business processes within WCS. This category of requirements includes, but not limited to the following:"

VI.C.1.1 Worker Compensation Industry Standard Data Elements and Data Collection/Distribution Methods (RFP 4.4.1.1)

RFP 4.4.1.1: "The system shall include worker compensation industry standard data elements, edits, and data collection/distribution methods. (Note: the state understands that the standards may need to be implemented in phases. The vendor should be knowledgably about IAIABC EDI-standards)."

CapTech and our proposed key personnel are all knowledgeable of IAIABC EDI standards; in fact, our proposed Account Manager and Managing Director of Government Solutions (Mr. Adam Hofheimer) recently served as the Chairman of the EDI Claims Committee, which has jurisdiction over the IAIABC EDI standard as well as the jurisdictional and trading partner (Insurers, TPAs, etc.) training programs. We have more than 50 CapTech consultants with direct workers' compensation subject matter expertise that continually support our quality delivery.

> ***50+ CapTech employees with direct workers' comp. expertise***

Our secure data intake process (as represented by the "public website" box within Figure 1, previously shown) will accept data submissions from a variety of entities, e.g., TPAs, Self-Insured Employers, Private Insurers, etc. We will implement the process as part of the proposed, integrated solution in ASP.net. The data intake process will be accessible to all users via a "Submission website" that is hosted in the Nevada data environment.

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The data intake process will consist of the following components:

1. *The web submission form is a web-based form that enables the submission of all relevant, industry-standard data elements (e.g., inputs from D-35 and D-37 forms) online.*
2. *The secure exchange is an updated version of the legacy Nevada submission platform. This exchange will be accessible through the new Submission Website and will allow all users to upload relevant forms via secure file transfer protocol (SFTP). The secure exchange will contain a simple graphical user interface (GUI) that enables users to drag-and-drop and/or upload forms from their local machines onto a directory contained within the submission website.*

VI.C.1.2 Transmitting and Receiving Data Electronically (RFP 4.4.1.2)

RFP 4.4.1.2: "The system shall make maximum use of various industry standards for transmitting and receiving data electronically. The system shall have the appropriate electronic interfaces for "customer" data submission."

Based on Exception #1 in Attachment B, we cannot commit to this requirement and remain within WCS' stated maximum budget. CapTech will use its expertise working with implementing EDI standards within the Workers Compensation community to define the requirements and standards necessary for Nevada to accomplish IAIABC EDI R3 compliance. The scope, timeline, and costs associated with completing this work will be delivered as part of this engagement.

Preliminarily, the paragraphs below describe how we could meet this requirement in the future:

The web submission form would provide all submitting entities the ability to enter relevant inputs through the submission website. This form would leverage industry standards for transmitting and receiving data electronically. The data elements captured throughout the data transmission process will conform to IAIABC standards as described in Section VI.C.1.1. These standards contain, but are not limited to, the following:

- *Https secure connections used for all web-based forms, would authenticate all visited pages and protect the privacy and integrity of all data exchanged.*
- *SFTP used to host all digitally uploaded forms, allow file access, file transfer, and file management over a secure data stream.*
- *508 Compliance used to ensure accessibility for all submission website users.*
- *Other Electronic Data Interchange (EDI) standards applied per Nevada requirements. For example: ANSI, EDIFACT, TRADACOMS or ebXML.*
- *If applicable, CapTech would use standard ANSI definitions to ensure consistency in received data. Within these definitions, Nevada could identify errors within specific data elements, loops (i.e., hierarchy of insurer, employer, employee, etc.) and segments (i.e., composite data structures).*

Received data would conform to IAIABC EDI-Standards. Each component of transferred data would confirm the following categories:

- *Trading partner background information—sender name, physical address, trading partner type, etc.*
- *Trading partner contact information—business contact, technical contact.*
- *Trading partner transmission specifications—a physical identifier associated with the profile.*
- *SFTP account information—name, email-address, user name, password, transmission timestamp, source public network IP address.*
- *Receiver Information—technical contact, business contact.*

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- ***Receiver's ANSI Transmission Specifications*—segment terminator, date element separator, sub-element separator, sender/receiver qualifier and ID, date and time, ISA information, etc.**

Depending on WCS' requirements, data transmission errors could result in (1) a partial acceptance and notification to the original transmitter; or (2) a rejection with detailed reason codes sent to the transmitter. Further, per WCS requirements, the system could also include bill submission reason codes (BSRC) to ensure that cancellations, corrected/verified claims, and replaced claims can be represented properly in the backend data environment.

VI.C.1.3 Compliant with Nevada Security Policies, Statues, & Standards (RFP 4.4.1.3)

RFP 4.4.1.3: "The system shall be compliant with all State of Nevada security policies, statutes and standards."

The application will be compliant to State of Nevada security guidelines and regulations.

VI.C.1.4 Secure Transmission and Reception of Data (RFP 4.4.1.4)

RFP 4.4.1.4: "The system shall provide for the secure transmission and reception of data. This includes encrypting data when appropriate."

To ensure compliance in handing personally identifiable information (PII), the proposed web submission form will provide secure data transmission and reception protocols. These standards contain, but are not limited to, the following:

- ***128 bit secure socket layer (SSL) encryption* to secure all connections to the submission website and allow for sensitive information, such as social security numbers, to be transmitted securely. All form-based data will be encrypted at rest and in transit.**
- ***Secure logins* will be administered and applied to all users. This enables Nevada to link back all submitted content (and respective errors) to individual users, employers, TPAs, etc.**
- ***Password protection* will be used to protect the information contained behind all web forms.**

VI.C.1.5 Reduce Manual Data Entry (RFP 4.4.1.5)

RFP 4.4.1.5: "The system shall significantly reduce the amount of manual data entry (from the operation as it is today) required to capture data by effectively utilizing currently available enabling technology."

By using web forms, the new submission website will minimize the amount of manual data entry required by WCS and external users. Figure 6 illustrates how CapTech will generate new web forms based on existing workers' compensation forms.

> ***In a similar project, CapTech built a workers' comp system for Kentucky that will have them paperless by 2017***

In a similar workers' compensation engagement with the Commonwealth of Kentucky, CapTech built a .NET application that provides a simple, online tool for initiating, documenting, and managing workers' compensation litigation. The application offers a paperless alternative that attorneys or those representing themselves can use to initiate workers' compensation claims and submit litigation-related documents; court reporters can use to submit depositions and hearing transcripts; and other parties to a claim (such as insurance carriers, employers, medical providers, and claimants) can use to view claim details and monitor activity. Because of the new application, Kentucky expects that their claims process will be paperless by 2017.

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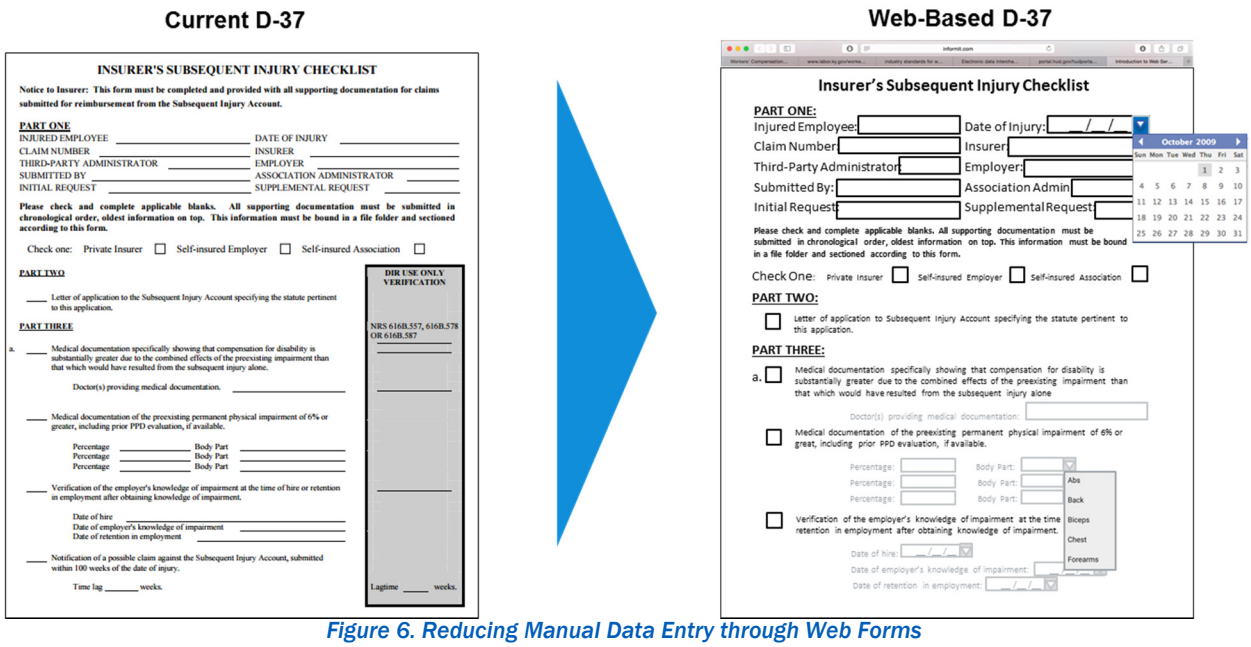

Figure 6. Reducing Manual Data Entry through Web Forms

VI.C.1.6 *Automate Correspondence* *(RFP 4.4.1.6)*

RFP 4.4.1.6: "The system shall provide the capability to automate correspondence. This can include, but not limited to: Allow users to create/modify/setup letter templates; Automatic generation of form letters (populated from the database); Mail merge, automatic generation of mail labels; and Automatic generation of letters and emails (based on WCS business rules)."

The solution will allow users to generate correspondence from templates. Users will be able to create/modify/setup letter templates through word processing software, such as MS Word, and upload them into the application. The templates can include selected fields that will be populated with data from the application. CapTech will work with WCS during the initial analysis phase of the project to define the fields that can be populated and the business rules that determine when correspondence is generated.

VI.C.1.7 *Standard Reports, Statutory Reports, and Ad Hoc Inquiries* *(RFP 4.4.1.7)*

RFP 4.4.1.7: "The system shall provide all necessary standard reports required to manage day-to-day operations across all WCS business functions, meet statutory reporting requirements, and ad hoc inquiries. These reports shall be easy for end users to run. The system shall allow a trained staff member, familiar with WCS' data, to make modifications to the reports as requirement may change over time."

CapTech's solution will contain a reporting platform that enables system users to access data and other visualizations on demand. Further, this platform will contain a variety of ad hoc user functions (e.g., data downloads, querying tools, data update forms, etc.) that will allow select users to manage and manipulate source data. This platform will dynamically link to the proposed data environment, allowing users to interact with live data within all reports.

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Per the RFP requirements, CapTech has categorized all reporting types into three groups:

1. *Performance and Monitoring reports illustrate general business metrics (e.g., claim volume) behind the underlying data structure. These reports are typically used by all user functions.*
2. *Research reports provide insights pertaining to cases, violations, relationships between entities, etc. These reports are used primarily by the Employer Compliance Unit and Insurer/TPA Compliance Unit and the Benefit Penalty Investigations unit to isolate specific pieces of information pertaining to cases and claims.*
3. *Workflow and Admin reports illustrate the general administrative status (e.g., submission history, delays, open/close status, etc.) of cases, audits, claims, etc.*

Figure 7 illustrates these three reporting categories and includes a listing of sample reports pertaining to each category. This figure also illustrates which reports apply to each user family.

Figure 7. Proposed Reporting Categories and Sample Reports Per Category

VI.C.1.8 Reporting/Query Tools (RFP 4.4.1.8)

RFP 4.4.1.8: "The system shall provide reporting/query tools that allow end users to create and run reports (users can define data, selection, filter, sort criteria, and basic mathematical formulas). Capabilities shall include, but not limited to: Ad hoc report generation; Complex data searches; Generation of statistical reports; Trend analysis reports; Ability to download results into documents and spreadsheets (including transferring queries to Microsoft Office products); and Printing reports."

The reporting platform will contain functions that enable users to create and modify complex data searches and statistical reports, manage the proposed system's underlying data sets, develop reports ad hoc, and dynamically analyze data through the reporting interface. Users can download the results into MS Office products, primarily MS Excel. A listing of user functions and example use cases are included in the table below. These functions will be included in the reporting and query interface.

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Function	Description	Example Use Case
Define/Select Data	Use can select data elements for inclusion in a specific report or data extract	The TPA Compliance Unit would like to define which constitutes a case delay and then select all delayed cases based on that logic
Filter Data	User can select specific data elements to show on a given report	The Employer Compliance Unit would like to select all open cases
Sort Data	User can re-order outputted data based on specific logic	An Issuer would like to view corrective actions and sort based on the type of corrective action administered
Apply mathematical formula	User can apply specific metrics to outputted data (e.g., sums, averages) to generate mathematical outputs for given parameters	Financial Management would like to evaluate the average time to complete tasks. They would define the start and end point for a specific task type and then apply the "average" metric on a group of related tasks
Ad Hoc Report Generation	Users can create new reports on the fly using metrics, measures and attributes defined within the database and reporting platform	Financial Management would like to create a new report that evaluates claim volume over time for a specific type of entity. The user would leverage the system's reporting tool to build this report by selecting the "claim" attribute and the "time" measure.
Complex Data Search	Users can search the entire database for specific items or groupings of items based on a condition	The Medical Unit would like to search for a specific audit and then extract all findings pertaining to that audit
Generation of Statistical Reports	Users can view data based on specific statistical concepts, e.g., distributions of claims based on amount	The Benefit Penalty Investigations Unit would like to evaluate the distribution (via histogram) of payment amounts for a specific set of claims
Trend Analysis Reports	Users can evaluate various volume or mathematical formulas (e.g., averages) over time, based on a specified interval (e.g., daily)	The Subsequent Injury Coordinator would like to evaluate the volume of claims over time based on a specific parameter
Download Reports into Spreadsheets and Documents	Users can extract data feeds pertaining to reports in Excel or comma-delimited formats	The Uninsured Employers Claims Coordinator would like to manually download details for specific claims (e.g., diagnosis codes) for separate analysis in Excel
Printing Reports	Users can print out reporting outputs via the reporting interface	The Education, Research and Analysis Unit would like to print fines and violations for a specific employer

VI.C.1.9 Search by Any Data Field (RFP 4.4.1.9)

RFP 4.4.1.9: "The system shall allow authorized users to search by any data field. (All data entered into the system should be searchable)."

WCS' reporting capabilities are only as strong as the system's underlying data architecture. CapTech proposes a robust, relational data architecture as represented in Figure 8. This architecture will enable WCS to maintain a variety of relationships between data elements such as cases and entities. Figure 8 also describes these relationships via arrows. CapTech will work with WCS to include a unified data structure that can be used for all reporting and data collection. The strategic design and use of the proposed data structure/master data model will minimize downstream maintenance costs for WCS and provide a variety of other benefits:

- ***Given a rigid set of data relationships and an appropriate indexing/linking system, all current and future data elements can be quickly integrated into the existing data architecture (e.g., if a new***

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claim element is included in the D-37 form, that element can simply be included in the "Claim table").

- *Given all of the pre-established relationships, current and future reports can provide researchers with detailed "data maps" that associate a variety of entities to other data elements (e.g., linking a case to an employer and then that employer to respective medical providers and/or employees).*
- *By creating a robust data structure, additional reporting elements (e.g., measures pertaining to existing data elements) do not need to be recreated in the reporting tool backend. This provides WCS with two key benefits: (1) a reporting tool can be easily "swapped out" at a later date; and (2) redundancy between the data environment and the reporting backend.*

> ***Robust data structure allows for more reporting elements without backend development***

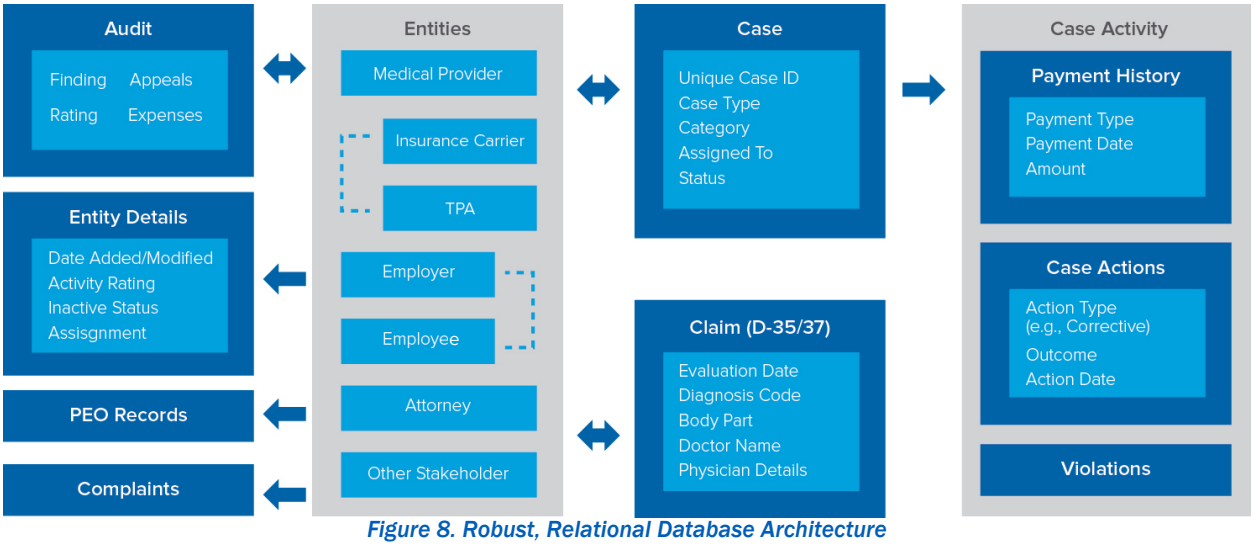

Figure 8. Robust, Relational Database Architecture

User search features should be linked closely to the elements of the proposed data architecture. CapTech's solution will enable users to query the database for data pertaining to the data elements described in the detailed reporting layer. For example, users can search by: audits, entity types, cases, claims, case actions, D-35 data elements, audit findings, etc.

VI.C.1.10 Intuitive User Interface (RFP 4.4.1.10)

RFP 4.4.1.10: "The system shall have an intuitive user interface."

CapTech has extensive experience designing web applications that are both intuitive and engaging. Our designs are grounded in user research and content analysis as well as industry best practices and established principles of cognitive psychology. Working with our talented in-house user experience staff, we will define the UI components for each module that meet WCS' specified requirements. Next, we will review those components that carry through the pages of each module and across the application system to identify common elements and design patterns. Based on this analysis, we will derive a set of standard UI objects and patterns, which we will then recast into a set of design templates to guide the application developers in creating a coherent, appealing, and user-friendly experience across all the modules in the system.

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During the User Experience Design, the BSAs will develop screen mock-ups of the key components identified during the requirements analysis. In addition, CapTech will use existing User Experience assets, such as the screens from our other Workers Compensation projects, to kick-start the process. Next, CapTech will begin work on the information architecture and navigation design. The navigation design hinges directly on the site hierarchy, and the layout of the site depends heavily on the navigation itself. The underlying information architecture of the application requires a coordinated design approach.

Next, CapTech will develop prototypes or low-fidelity comps. The comps include just enough to communicate the intent of each design. Users will then test the comps to determine the design effectiveness. The results will indicate where improvements to the design can be made. This leads to the development of the Conceptual Design.

High-fidelity wireframes build upon the low-fidelity designs and describe the behavior of all interactive aspects of the site through enhanced detail and full annotations. Think of these detailed wireframes as the blueprint for the application: the instructions the developers need to build the system. Construction of the high-fidelity wireframes continues into the development Sprints.

VI.C.1.11 Streamlined Navigation (RFP 4.4.1.11)

RFP 4.4.1.11: "The system shall have streamlined navigation, where there is a minimal amount of screens and clicks to accomplish a task."

CapTech's Information Architecture best practices allow us to develop intuitive, streamlined navigation based on the techniques described above (Section VI.C.1.10). In addition, CapTech has tools available that could be used during the project to assist with the screen design. One of those tools, Card Sorting, is a technique to guide a group of users to generate a category tree, which helps CapTech design the final Information Architecture, workflows, and web navigation. If this option were used, CapTech would work with key stakeholders to execute a formal Card Sorting exercise that will inform the taxonomy of the new application.

An effective card sort supports the design process by defining a categorization agreement that is representative of an end user's first attempt to find content with the provided navigational choices. Through this technique, CapTech would create a goal of establishing the naming of categories and identification of items inside categories. The output of this process will be a high-level site map structure and taxonomy that is based on end user mental models.

At the end of the closed card sorts, CapTech would review the results of the exercises with the Nevada project team to adjust findings and make decisions/adjustments accordingly.

VI.C.1.12 Document Management Capabilities (RFP 4.4.1.12)

RFP 4.4.1.12: "The system shall provide document management capabilities where documents are integrated into tasks that are performed by WCS staff."

Internal WCS users will be allowed to upload documents into cases to provide additional supporting information that can be used to process the cases. In addition, external users to the application will be able to upload files, where appropriate, when submitting web forms. CapTech will work with WCS during the initial analysis and requirements phase of the project to identify the system requirements that will dictate the types and size of the files that can be uploaded. Note that the uploaded files will just be used for reference by the users—the application will not open the files and automatically pull data from the file for processing.

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VI.C.1.13 Referencing Hard-Copy Paper Files Stored Off-Site (RFP 4.4.1.13)

RFP 4.4.1.13: "The system shall have the capability of referencing hard-copy paper files that are stored off-site. The system shall allow the capture of reference numbers assigned to the off-site records."

The application will allow users to manually enter a reference number for paper files associated with a case. This reference will be carried by the application throughout the case processing to allow users to have easy access to the reference number of the hard copy paper files at any time.

VI.C.1.14 Eliminate or Reduce Paper Forms (RFP 4.4.1.14)

RFP 4.4.1.14: "The system shall, where feasible, eliminate or reduce paper forms (Potential exceptions in cases where "wet" signatures or notary is required)."

The application will convert some of today's paper forms into web forms where users can enter the form information directly online instead of via paper. The online web forms will capture the data and use it to initiate business rules to route the case to the appropriate WCS staff. Because the data is captured online, WCS can process the form directly through the application and route it to all steps to complete the processing. We will work with WCS during the initial phase of the project to define the business rules for routing web forms through WCS to be processed.

> ***Converting paper forms to web forms to reduce or eliminate paper altogether***

VI.C.1.15 Modify System Lookup Values (RFP 4.4.1.15)

RFP 4.4.1.15: "The system shall provide the ability for a trained system administrator (with minimal technical background) to modify system lookup values."

CapTech designs all of our applications with the intent of our clients taking over and maintaining them after we complete our warranty support. Where possible, we make business rules configurable to allow the business staff or administrators to update the rules as the business needs change. We expect to design WCS' system in a similar manner to increase the amount of changes that can be completed through configuration items instead of requiring a software developer.

VI.C.1.16 Setup and Modify Letter Templates (RFP 4.4.1.16)

RFP 4.4.1.16: "The system shall provide the ability for a trained system administrator (with minimal technical background) to setup and modify letter templates."

The application will use Word templates combined with a third-party software component as the letter templating engine. WCS will be able to use merge fields or special template syntax to identify where specific data values should appear in the template. The application will merge the values into the template. Updating the template can be done by a system administrator with minor amounts of training.

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VI.C.1.17 Streamlined Workflow Type Functionality (RFP 4.4.1.17)

RFP 4.4.1.17: "The system shall provide streamlined workflow type functionality."

The application will have automated and manual workflow defined to route input web forms and cases to the appropriate WCS staff member or work group. The automated business rules will allow a case to be routed based on a completed activity, new data, or the passage of a defined amount of time. Where appropriate, users will be able to manually route a case or override the current routing rules to send the case to a different queue. The business rules to define the routing details will be defined during the initial requirements phase of the application.

VI.C.1.18 Configure "Alerts" (RFP 4.4.1.18)

RFP 4.4.1.18: "The system shall allow authorized users to configure "alerts" based on dates, timeframes, task dependencies, etc."

Alerts will be available in the application. Users will be able to configure alerts based on dates and timeframes. Some alerts will be created automatically based on task dependencies. Users will be able to view alerts in the application in an area dedicated to alerts.

VI.C.1.19 Scalable and Flexible Architecture (RFP 4.4.1.19)

RFP 4.4.1.19: "The system shall be developed using an architecture that is scalable and flexible, and can adapt to future requirements."

The application architecture is scalable by adding new web servers to accommodate increased requests. The database server can be scaled up to support increased requests, or the data can be shared in the rare event that the amount of scalability exceeds the ability to upgrade the database server. The architecture will be flexible based on the design and separation of logic into discrete components according to design best practices and significant workers compensation industry experience.

VI.C.1.20 Reasonable Response Time/Performance (RFP 4.4.1.20)

RFP 4.4.1.20: "The system shall have reasonable response-time/performance for both "Back office" users (state staff) and external customers (accessing services over the Internet). Note: The state understands the vendor is not responsible for those items outside its control, such as the State's network or the Internet. This requirement is to ensure the vendor's solution is properly designed for performance and efficiency."

The application will have reasonable response times for WCS staff ("back office" users) and external users. Web development best practices such as JavaScript and CSS bundling and minification will be used to reduce page load times combined with database and .NET component performance tuning. Items like bandwidth, network latency, and desktop computing power are outside CapTech's control and will not be included in the performance testing.

VI.C.1.21 Backup and Recovery Capability (RFP 4.4.1.21)

RFP 4.4.1.21: "The system shall have a comprehensive, reliable backup and recovery capability along with a recovery plan and instructions."

CapTech develops comprehensive operational manuals, sometimes called "runbooks," that cover the backup and recovery of the application and all related assets. The recovery capabilities are tested during the system testing phase so WCS personnel can verify that they cover everything required to restore the application.

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VI.C.1.22 Download Query Results into MS Office (RFP 4.4.1.22)

RFP 4.4.1.22: "The system shall allow users to easily download query results into Microsoft Office products (e.g. Excel)."

Reports and query results in the application will be available through SQL Server Reporting Services (SSRS) and SQL Server Analysis Services (SSAS). Both SSRS and SSAS can be rendered or export to Excel. PowerPivot is part of Excel 2013 and connects to SQL Server, typically through SSAS.

VI.C.1.23 Role Based Security and Access Controls (RFP 4.4.1.23)

RFP 4.4.1.23: "The system shall provide role based security and access controls."

ASP.NET Identity will be used to provide role-based security. Actions can be secured at the role-level and the visibility of certain items, such as buttons or menu items, displayed or hidden based on role. Users will be assigned to roles within the application.

VI.C.1.24 Manage and Retrieve Contact Records (RFP 4.4.1.24)

RFP 4.4.1.24: "The system shall provide the capability to effectively manage and retrieve contact records (people, organizations, etc.)."

The application will import the existing set of WCS contact information and give the appropriate user roles access to retrieve and modify this data. The online forms can be manually associated to the appropriate contact information after review by WCS staff. We will work with WCS during the initial phase of the project to determine which user roles should have the ability to edit or delete this data.

VI.C.2. Case Management (RFP 4.4.2)

RFP 4.4.2: "The system must support integrated case management functionality used across the WCS organization which involves, claims, complaints, investigations, audits, issuing of fines/penalties/corrective actions.

Case management intersects across the various business units, e.g. Employer Compliance, Insurer-TPA Compliance, etc."

The application will provide Case Management functionality for a variety of WCS units. The major case management components include the following—

1. ***Case Selection & Assignment: Cases can be initiated based on predefined factors such as a form being submitted or the appropriate amount of time has passed for an audit to be triggered. We will work with WCS to define the triggers for automated and manual case initiation. New audit cases will be assigned to individual WCS staff members or business units to allow the cases to be worked. The business rules for Case Assignment can take into account attributes such as geographic location and claim history to properly assign the case. Throughout the life of an audit, the case can be transferred to a different WCS staff member or business unit to accommodate a change in priorities or schedules.***

2. ***Lifecycle Workflows: As a staff member is working a case, the application will manage the workflow to move the case through the various steps. As tasks are completed, the case will move to the next step in the process or can trigger external events such as initiating correspondence or triggering a penalty. WCS staff members can monitor the progress of the workflow and manually suspend or change the workflow where appropriate.***

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3. *Case Status Engine:* ***The application will monitor user input and data from external interfaces to determine when the case's status has changed which could trigger new workflow events. For example, a new claim or ruling could trigger a notification or message sent to the WCS case owner. In addition, a missed deadline may trigger a notification to the WCS case owner to initiate a new step in the workflow, such as leveeing a penalty. The status engine will work in conjunction with the workflow to push accounts through the case. Figure 9 demonstrates an example of how this component worked for a similar case management functionality with the State of Missouri—the picture shows one way in which the status of each step in an audit case can be shown. We will work with WCS during the initial analysis and requirements phase of the project to determine the best way to display case status information to the users.***

Figure 9. Sample Audit Status Engine from CapTech's Similar Case Management Work with the State of Missouri

4. *Outbound Correspondence:* ***WCS staff members will be able to select correspondence templates or create their own templates to use for outbound correspondence. New templates could be manually or automatically routed to team leads or supervisors for approval prior to usage. Figure 10 demonstrates an example of how this component worked for our similar Case Management work with the State of Missouri—the image shows how a user could manually submit correspondence by selecting the button at the bottom of the screen. During the initial analysis and requirements phase of the project, we will identify the outbound correspondence types and determine whether they should be automatically generated based on the workflow or manually submitted by the user.***

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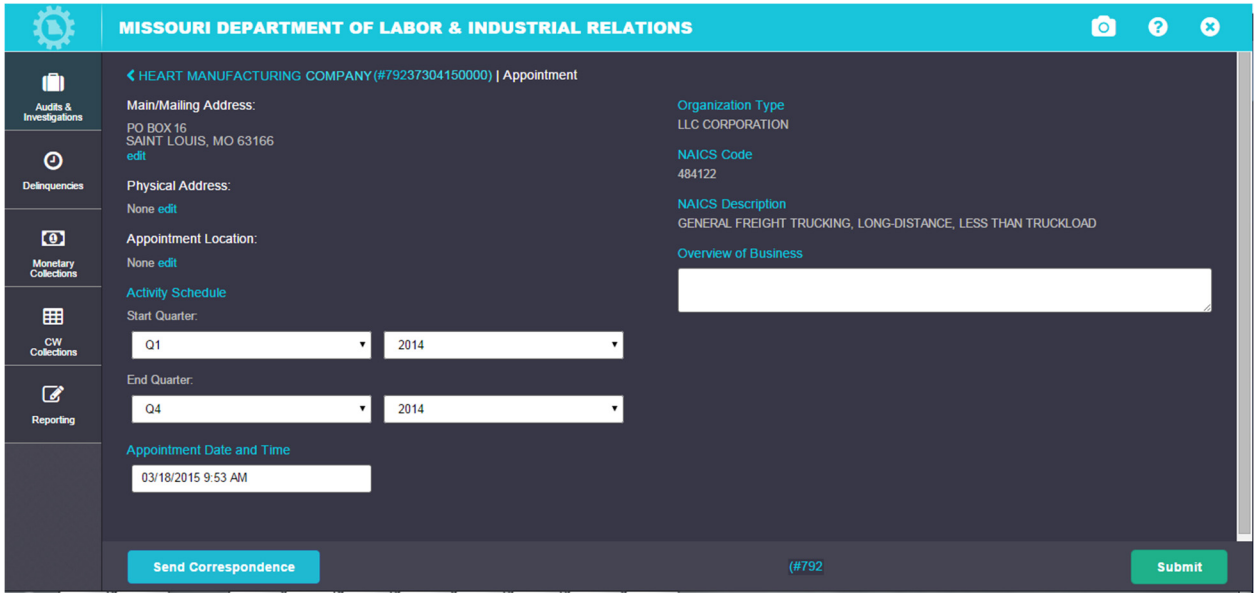

Figure 10. Sample Outbound Correspondence from CapTech's Similar Case Management Work with the State of Missouri

5. ***Calculation Support:*** ***The application will calculate basic financial calculations to allow WSC staff members to see the results of new data on an amount due. These calculations will not replace the more exhaustive accounting calculations within Advantage, but they will provide support for those calculations that cannot be completed until the transaction is forwarded to Advantage. The calculation details will need to be provided by WSC during the initial requirements and analysis phase of the project.***

6. ***Determination & Review Support:*** ***When the WCS staff member has collected all of the information related to the case, the application will allow the staff member to indicate the final determination and route it to a team lead or supervisor for review. The workflow could also define business rules that allow for automatically calculated determinations or rules that do not require team lead or supervisor review. These business rule details will be defined during the initial requirements and analysis phase of the project.***

VI.C.3. Employer Compliance Unit Requirements *(RFP 4.4.3–4.4.4)*

RFP 4.4.3: "The system must support the Unit's needs. The unit enforces workers compensation laws in relation to employer compliance. The unit takes measures to ensure that employers carry appropriate worker comp insurance for their employees. The unit will conduct investigations/audits if it appears an employer does not maintain proper coverage. Various methods are used to identify possible violators, including: (1) review of NCCI insurance cancelation listings - to determine coverage; (2) complaints; (3) referrals; (4) uninsured claims; or (5) other methods.

Note: WCS is open to consideration of other methods/information sources to determine insurance coverage."

RFP 4.4.4: "The unit will investigate uninsured workers compensation claims (C-4 from Medical Unit) to determine if there was an employer-employee relationship at the time of the injury. The claimant can be referred to receive treatment paid through the Uninsured Employers' Claim Account (managed by the Uninsured Employers Claims Coordinator). The claimant's case would be forwarded to the WCS contract TPA who will make the determination and schedule treatment as appropriate.

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The unit issues fines and premium penalties against employers that fail to maintain proper workers compensation insurance for their employees. They also have the authority to investigate potentially uninsured employers and order cessation of business for non-compliance. The unit can refer cases to the State Attorney General.

The unit also registers and regulates Professional Employer Organizations (PEOs) aka employee leasing companies. On an annual basis, the PEOs must complete and submit the application package (includes proof of NV workers comp insurance) and pay a registration fee. If requirements are met the unit issues an Employee Leasing Certificate.

The unit issues "extra territorial" certificates to companies that are insured by state worker compensation funds from other states, and have employees working temporarily in NV. The certificates are typically valid for 180 days."

CapTech developed an auditing solution for the Unemployment Insurance division of the Missouri Department of Labor and Industrial Relations (DOLIR). In the DOLIR application, we developed the core audit functionality that is requested within WCS' audit requirements. We are expecting that we will be able to use many of the design concepts from DOLIR's application and adjust it for WCS' purposes. A high level-overview of the audit functionality is described above in Section VI.C.2 of this proposal. Responses to the specific requirements can be found in the requirements spreadsheet.

VI.C.4. Insurer/TPA Compliance Unit Requirements *(RFP 4.4.5)*

RFP 4.4.5: "The system must support the Unit's needs, including:"

VI.C.4.1 Insurer/TP Audits (RFP 4.4.5.1)

RFP 4.4.5.1: "The unit audits workers comp insurers & TPAs at least every five (5) years. The audits are to ensure that insurers, TPAs, employers, and healthcare providers are in compliance with NV statutes & regulations which govern workers compensation. In preparation for audits, the auditors need to gather information on previous violations, fines, penalties, etc. Auditors will also, request that that insurers provide worker comp claim information for the last period, typically one year of data."

The application will allow auditors to review the information for the insurer or TPA under audit, including previous violations, fines, and penalties. We will work with WCS during the initial analysis and requirements phase to determine how much of the previous claim information from the last year can be entered into the application

VI.C.4.2 Complaints by Injured Workers (RFP 4.4.5.2)

RFP 4.4.5.2: "The unit also investigates complaints brought by injured workers or their representatives and renders determinations on the complaints."

WCS can manually initiate audits in the application that originated from complaints by injured workers or their representatives. WCS auditors can record the determinations in the application.

VI.C.4.3 Actions from Audits and Investigations (RFP 4.4.5.3)

RFP 4.4.5.3: "The unit can issue notices of correction, order plans of corrective action, levy administrative fines & issue benefit penalties (related to complaints & audit cases)."

Auditors can indicate in the application that there are notices of correction and/or order plans of corrective action. In addition, auditors can record the amount of fines or penalties against the insurer or TPA under audit. In any of these cases, these actions can initiate other actions, such as generating a letter, based on the business rules within the application.

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VI.C.4.4 Claimant Contests Claim (RFP 4.4.5.4)

RFP 4.4.5.4: "A claimant who wants to contest some aspect of their claim (e.g. compensability, award, stipulations, etc.) can appeal to the Department of Administration, Hearings Division. DIR Legal Counsel handles WCS cases presented at the Hearing Division. This unit also reviews worker comp related Orders & Stipulations that come out of the Hearings Division and follow up to verify that insurers and TPAs comply."

The application will allow Legal Counsel to review the historical information about insurers or TPAs. We will work with WCS during the initial requirements and analysis phase of the project to determine whether there are any additional requirements that should be considered to be added to the scope of the application after the initial system has been delivered.

VI.C.5. Medical Unit Requirements (RFP 4.4.6)

VI.C.5.1 Supporting Needs of Medical Unit (RFP 4.4.6.1)

RFP 4.4.6.1: "The system must support the needs of this unit, including:"

RFP 4.4.6.1.A: "The Medical Unit oversees the Panel of Rating Physicians and Panel of Treating Physicians."

RFP 4.4.6.1.B: "The Medical Unit assigns Rating Physicians using an unbiased "rotation" methodology based on various parameters, including specialty, geographic, location, etc."

RFP 4.4.6.1.C: "The Medical Unit performs investigations related to C-4s from healthcare providers (cannot find insurance for claim), billing/payment determinations, compliance with laws and Regulations."

RFP 4.4.6.1.D: "The Medical Unit issues fines & penalties, disciplinary actions, corrective measures, etc. The Unit also does outreach and training."

The application will assign Physicians based on parameters and business rules defined during the initial analysis and requirements phase of the project. The Physician assignment will be limited to four parameters and five workflows. The application will allow C-4s to be entered directly into the application to initiate an investigation which can result in determinations being recorded and fines or penalties levied against an insurer or TPA. Any disciplinary actions or corrective measures can be recorded in the application and generate a notification that can be sent out to the insurer or TPA.

VI.C.5.2 Education, Research & Analysis Unit (RFP 4.4.6.1)

RFP 4.4.6.2: "The system must support the needs of this unit, including:"

RFP 4.4.6.2.A: "The unit consists of two sections:

(1) Education Section - performs education and training of insurers, TPAs, employers, employees, healthcare providers, and others; and

(2) Research & Analysis Section (R&A) - conducts research, special projects, collects data from external stakeholders and collects data on WCS operations."

RFP 4.4.6.2.B: "The Education Section, in addition to developing courses and conducting training, they also perform outreach to stakeholders. One method of outreach is through email notifications. Stakeholders can subscribe to through WCS' website and select the categories they are interested in."

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RFP 4.4.6.2.C: "R&A collects & compiles internal data related to WCS' overall operation, performs analysis, and generates reports related to that data. Key reports include: Monthly WCS Activities & Achievements (operational metrics, including fines & penalties), Performance Measures, and various reports required by statute."

RFP 4.4.6.2.D: "R&A collects & compiles data from external entities, primarily insurers and TPAs. Insurer and TPA contact and relationship information is used to support investigations and audits (across all units), and to perform data calls (requests for specific reporting requirements)."

RFP 4.4.6.2.E: "R&A manages the fines and penalty records, including the generation and mailing of determination/fine/penalty letters. Posting of payments is performed by the Business & Industry Fiscal unit (separation of duties). R&A is also responsible for management reporting related to fines/penalties and accounts receivable. Uncollectable accounts are referred to the State Controller for collections."

Ability to administer "data calls" to insurers and TPAs

The application will support the needs of the Education, Research and Analysis unit in several ways:

- ***CapTech proposes using MailChimp or a similar email newsletter service to maintain and send email newsletters. MailChimp and similar services provide easy methods of stakeholder signup, group categorization, and the ability to send email, track bounce rates, and more. The tool offers an easy-to-use WYSIWYG designer for emails.***
- ***The system will allow Nevada to report on a variety of operational data. Refer to Section VI.C.7 for an overview of the operational types of reports that CapTech proposes (note that operational reports are included under the "performance and monitoring" and "workflow and admin" categories). Refer to section O for a detailed overview of these reports. Refer to section VI.C.1.8 for details on the user interface functions that will initially be available to each WCS user. This section includes details about automatically rolling up data and generating standard activity and performance measurement reports.***
- ***The application will allow WCS staff to administer "Data Calls" to insurers and TPAs through manually entering data regarding their interactions. The data that can be recorded includes the information indicated within this requirement. Authorized WCS users will be able to view the history of these interactions. In addition, the application will allow for the streamlined collection of information from insurers and TPAs. The application will convert up to two paper forms into web forms to accept information required of TPAs and insurers.***

The application will allow WCS staff to levy fines and penalties by entering the amount against the offending party. The fines and penalties can trigger letters that can be printed and manually mailed to the offending party. WCS staff can record payments against a case and the remaining amount due (if appropriate) can be calculated. The application will be able to generate an aging report of the amounts due by dates based on the manually entered data regarding fines/penalties and payments. The application will record and display information about adjustments, write-downs and write-offs that are manually entered y authorized users.

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VI.C.6. Subsequent Injury Coordinator (RFP 4.4.7–4.4.7.1)

RFP 4.4.7.1: "The system must support the needs of this unit, including:"

VI.C.6.1 Financial Incentiviser for Employers (RFP 4.4.7.1.A)

RFP 4.4.7.1.A: "The Subsequent Injury Unit provides a financial incentive for employers to hire workers with a permanent physical impairment. The costs of subsequent injuries are paid from the subsequent injury accounts (there are 3 accounts), and reimbursements are made to insurers - private carriers, self-insurers, and associations. The unit ensures the following:

(1) Validity of claims;

(2) Monies are not improperly released in cases of errors;

(3) Payments are in accordance with the approved medical fee schedule; and

(4) Safeguard against fraud."

The application will support the Subsequent Injury process through the lifecycle of a claim, including the establishment of a claim record through the filing of the data from a D-37 form through a web form.

VI.C.6.2 Form D-37 Process (RFP 4.4.7.1.B)

RFP 4.4.7.1.B: "Claims are submitted to WCS, using the Form D-37 (with associated case documentation), by an insurer, association, TPA, or insurer's designated agent. The subsequent Injury Coordinator reviews the case:

(1) Verifies the D-37 is properly completed;

(2) Verifies medical bills;

(3) Verify claim calculations;

(4) Verify all appropriate documents are in the claim file; and

(5) Complete the Itemized Subsequent Injury Checklist. In some situations the case is referred to the Medical Unit for review. The Subsequent Claims Coordinator provides recommendations of approval or denial to the Subsequent Injury Boards and DIR Administrator."

The application will support the Subsequent Injury process by allowing insurers, associations, TPAs, or the insurer's designated agent to submit the D-37 information via a web form. The WCS staff will review the information prior to acting on it to validate that it is a legitimate claim. The WCS staff will be able to enter and maintain information about the process and print letters from pre-defined templates. The subsequent Injury Coordinator will review the case and enter the results of the findings within the application. Documents will be able to be uploaded and attached to a claim by WCS staff.

VI.C.6.3 DIR Administrator Determinations (RFP 4.4.7.1.C)

RFP 4.4.7.1.C: "The Self Insured Employers Account and the Associations of Self-insured Public or Private Employers Account has their own review boards. The Division of Industrial Relations Administrator administers the account for private carriers. Determinations are processed as follow:

(1) For self-insured employer or associations of self-insured employers the DIR Administrator will submit to the appropriate board his acceptance or denial recommendation (within 45 days), and the boards will render a determination (within 120 days total); and

(2) For a private carrier, the DIR Administrator will render a determination (within 120 days)."

The application will allow the review boards from the Research & Analysis group to record determinations resulting from a review of the claim.

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VI.C.6.4 Appeals Process (RFP 4.4.7.1.D)

RFP 4.4.7.1.D: "There is an appeals process in the event that there is a disagreement with the determination (e.g. denial of claim or related expenses). Self-insured employer or associations of self-insured employer's cases can request an appeal hearing with their respective boards. Private carriers can request an appeals hearing with the Appeal Officer at the Department of Administration. If the claimant disagrees with the decision from the appeals process, the next step is to file an appeal with the District Court."

The application will support the Officer in conducting research for the appeal hearing. CapTech will work with WCS during the initial requirements and analysis phase to determine whether any other requirements should be added to this scope and reprioritized against the other requirements.

VI.C.6.5 Approved Reimbursements for Claims (RFP 4.4.7.1.E)

RFP 4.4.7.1.E: "For approved reimbursements for claims, the Subsequent Injury Coordinator will submit a request to the Department of Business & Industry Fiscal Unit, who in turn requests the State Controller to make the payment to the claimant."

The application will allow the Subsequent Injury Coordinator to indicate in the application that a payment was requested to the State Controller.

VI.C.7. Uninsured Employers Claims Coordinator (RFP 4.4.8–4.4.8.1)

RFP 4.4.8.1: "The system must support the needs of this unit, including:"

VI.C.7.1 UECC (RFP 4.4.8.1.A)

RFP 4.4.8.1.A: "The Uninsured Employer's Claims Coordinator (UECC) oversees the claims administration to ensure appropriate benefits are provided and gives prior authorization. Uninsured claims are typically referred to the UECC by the Employer Compliance Unit (Form C-4 process). The DIR legal counsel also reviews the claim."

The application will allow ECU to assign uninsured claims to UECC or UECC will be allowed to manually open an Uninsured Employers Claim. In addition, the UECC will be able to see all information related to the claim, including any attached documents

VI.C.7.2 TPA Administration of Claims (RFP 4.4.8.1.B)

RFP 4.4.8.1.B: "WCS contracts with a TPA to administer claims. The TPA makes the determination on claims. WCS staff has access to the contract TPAs system and can lookup information related to claims. The TPA sends WCS monthly bills, and reports containing: list of claims, counts, and expenditures per claim and total amounts ($). The TPA has 30 days to accept or deny a claim."

The application will allow WCS staff to record and lookup information regarding an Uninsured Employer claim. The type of information that can be recorded includes UECC's findings and recommendations, contract TPA's determinations, appeals activities and modifications to the claim scope or amounts. In addition, the application will generate an output claim file that can be manually sent to the contract TPA.

VI.C.7.3 Department of Adminstration Hearings Division (RFP 4.4.8.1.C)

RFP 4.4.8.1.C: "The appeals process involves the Department of Administration Hearings Division."

The Hearings Division will be able to login to the application to review the information regarding claims that are appealed.

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VI.C.7.4 TPA Invoices (RFP 4.4.8.1.D)

RFP 4.4.8.1.D: "The contract TPA invoices are forwarded to the Dept. of Business & Industry Fiscal Unit, which requests payment from the State Controller's Office."

The application will allow users to log that an invoice was received a paid to a TPA regarding a claim that was processed.

VI.C.8. Benefit Penalty Investigations Unit (RFP 4.4.9–4.4.9.1)

RFP 4.4.9.1: "The system must support the needs of this unit, including:"

VI.C.8.1 Benefit Penalty Investigations (RFP 4.4.9.1.A)

RFP 4.4.9.1.A: "Benefit penalty investigations are investigations of insurers, TPAs, employers, and medical providers, which may result in a benefit penalty payment to the injured worker. If a violation is found, a penalty is awarded to the injured employee - $3,000 to $50,000 - and an administrative fine - $1500 for the initial violation or $15,000 for a second or subsequent violation - is imposed against the offending party (e.g. insurer, TPA, etc.). There is another type of penalty - the "Three-Times Penalty", where an Insurer or TPA has unreasonably refused to pay a claim within 30 days of receipt of the C-4 Form. The WCS can award the injured employee an amount equal to three-times the amount that was refused or unreasonable delayed."

The application will allow an external user to submit a benefit penalty complaint and associated documents through the WCS web site. The Benefit Penalty Investigation Unit will review the complaint to confirm it is legitimate before acting on it. The application will allow the Benefit Penalty Investigation Unit to enter information about the complaint including investigative activities, findings, recommendations, review steps, results (determinations), appeals and results, award penalty amounts, modifications to the claim scope or amounts and non-payment complaints.

VI.C.8.2 Complaint Forms (RFP 4.4.9.1.B)

RFP 4.4.9.1.B: "Complaint forms are received by WCS (majority are filed by the injured employee's attorney). The unit investigates the complaint. Based on the results they prepare the "Findings of Fact Draft Determination". The determination is reviewed by - the District Manager, DIR legal counsel, and WCS Chief Administrative Officer."

External users can submit a complaint via a web form within the application. The findings of the complaint can be recorded within the application and routed to the appropriate person or team.

VI.C.8.3 Appeals (RFP 4.4.9.1.C)

RFP 4.4.9.1.C: "Appeals go to the Department of Administration, Appeals Division. The Appeals Division can affirm, deny or order an adjustment to the case."

External users can submit an appeal via a web form within the application. The appeals are routed to the Department of Administration for review. The application will allow the findings of the review to be recorded.

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VI.C.8.4 Determination Award Penalty (RFP 4.4.9.1.D)

RFP 4.4.9.1.D: "If approved the unit will issue a "Determination Award Penalty". A letter will be sent to all parties involved. The respondent has 10 days to pay or 30 days to appeal. If not payment is made then it goes into collections."

The application will allow users to record when a "Determination Award Penalty" is issued and generate letters to all parties involved. The user will indicate whether the determination has been paid or else the application can automatically record that the account has been forwarded to collections.

VI.C.9. Financial Management (RFP 4.4.10)

VI.C.9.1 Financial Functions of WCS (RFP 4.4.10.1)

RFP 4.4.10.1: "The primary financial functions that WCS performs involve accounts receivables and payment processing related to the collection of fines and penalties. The system must support fiscal business functions within WCS, including:"

The application will support payment processing and recording of receivables as defined below.

VI.C.9.1.1 Online Payment Portal (RFP 4.4.10.1.A)

RFP 4.4.10.1.A: "The system shall provide a secure online payment portal for fines and penalties, with the ability to accept credit cards, debit cards and eChecks."

The application will have a secure online payment portal that external users (e.g., employers, insurers) can use to pay fines and penalties with credit cards, debit cards and eChecks. CapTech will follow the Nevada and industry security standards to provide a secure payment portal. Users will have to provide identifying information to allow the payment to be applied to the proper account.

VI.C.9.1.2 Online Payment Portal Integration with Wells Fargo (RFP 4.4.10.1.B)

RFP 4.4.10.1.B: "The online payment portal shall integrate with the States merchant services and payment processing platform (Wells Fargo is the current contractor and provides industry standard integration methods)."

The application will integrate with one of Wells Fargo's payment gateways (we expect it to be Authorize.Net) to allow employers and insurers to pay fines and penalties online with credit cards, debit cards and eChecks.

VI.C.9.1.3 Manage Accounts Receivables (RFP 4.4.10.1.C)

RFP 4.4.10.1.C: "The system shall provide the capability to effectively manage accounts receivables, primarily related to fines and penalties. The system shall include, but not limited to the following:

- Generate aging accounts receivable reports;
- Show account details;
- Show summary record counts;
- Automatic generation of reminders and delinquency notices;
- Track adjustments to balances (tracking all history), e.g.;
- Reductions in amounts (include reduction reason and date);
- Write-offs;
- Support payment plans;

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- Support posting partial payments"; and
- The system shall, when a payment is made on a receivable, automatically update the related "case record" to show that the fine or penalty was paid"

The application will track fines and penalties that WCS manually applies to cases. The application will track the amount due, adjustments to balances, reductions in amounts, write-offs, payments and partial payments. When a payment is applied to the account, the application will adjust the amount due in the case to record the payment. Payments can be made in full, as a partial payment or according to a payment plan. The application will display information about the accounts that are due, both in summary form counts and detailed information, and be able to display aging information on the accounts.

VI.C.9.2 Lookup Payment History for Insurer/TPA or Employers (RFP 4.4.10.2)

RFP 4.4.10.2: "Allow users (authorized) in various units to lookup records for an insurer/TPA or employers to see payment history. (To avoid the situation where one unit needs to call another unit to get information)."

CapTech will work with WCS during the initial analysis and requirements phase to identify the user roles that should have access to payment history. Authorized users will have access review payment history for insurer/TPA or employer accounts.

VI.C.9.3 Capture Financial Related Transactions (RFP 4.4.10.3)

RFP 4.4.10.3: "The system shall capture financial related transactions in the system in a manner consistent with the State's general ledger accounting code structure. The system shall allow users to "roll-up" transactions into totals for reconciliation purposes and for posting the state financial system (Advantage)."

WCS will provide the details for the accounting code structure to allow the financial designs to be consistent with the State's general ledger accounting code structure. The application will be able to calculate totals for reconciliation purposes. The roll-up transaction totals can be manually posted into the state financial system (Advantage). During the initial analysis phase, CapTech will review the complexity of the Advantage system to determine the cost to build an automated interface to post transactions to Advantage.

VI.C.9.4 Implement Separation of Duties (RFP 4.4.10.4)

RFP 4.4.10.4: "The system shall provide the capability to properly implement separation of duties.

(Note: The scope of the new system does not include an automated interface to Advantage. However, the system should have flexibility to accommodate an interface in the future.)"

CapTech will work with WCS to define the business rules for separation of duties for financial transactions. We expect that this will be implemented based on assignment of roles and implementing different capabilities for the different roles to prevent any one role from having too much control over the financial transactions.

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VI.C.10. Reporting & Business Intelligence (RFP 4.4.11)

VI.C.10.1 Reporting and Data Analytics Needs (RFP 4.4.11.1)

RFP 4.4.11.1: "The system must support reporting and data analytics needs within WCS, including:

A. Standard management & operational reports;
B. Reports mandated by statute (e.g. reports to the Legislature);
C. Special requests, such as requests by attorneys, stakeholders, etc;
D. Request from WCS investigators in relationship to a case/claim; and
E. Research and special projects."

CapTech's proposed system will include reporting and data analytics functionality (Figure 7, previously), which is linked closely to a maintainable and relational data model (Figure 8, previously). The reporting and data analytics functions will contain a variety of management and reporting capabilities. CapTech has bucketed WCS' reporting needs into three categories as outlined in Section VI.C.1.7: Performance and Monitoring; Research; and Workflow and Admin.

CapTech will work with WCS to define and develop a set of 20 initial reports; however, the reporting interface will provide WCS the ability to develop new reports on the fly, leveraging the relational data model described in Figure 8 (previously). These reports can be developed by WCS users and can be built to any specification as mandated by statutes, attorneys, stakeholders, etc. Further, the platform will provide reports to address WCS investigator, research-based, and special project requests.

The table below contains a listing of example reports and analytical functionality that may be included with the underlying data model:

Report Type	Report Type	Example Use Case
Monitoring and Perf	Audits by complaints	Quantify and trend audits based on complaint types (e.g., non-payment complaints)
Monitoring and Perf	Claim volume	Quantify claims over time
Monitoring and Perf	Claim and payment amounts	Track claim amount (full, partial, delayed) over time, by entity, by appeal, by DIR/Board determinations
Monitoring and Perf	Case delays	Quantifies cases that are taking too long and explains why (e.g., x) a case is taking too long
Monitoring and Perf	Case breakdowns	Count cases by status (e.g., open, closed)
Monitoring and Perf	Violation volume	Track violations over time, by employee, employer, insurance, appeal type, etc.
Monitoring and Perf	Corrective actions	Volume of corrective actions over time, by entity type, by corrective action type
Monitoring and Perf	Rating Physician activity and assignments	Rating physician activity status over time, by physician type, by inactivity reason, by education
Research	Previous violations, fines and enforcements	Pull employer records related to workers compensation
Research	Parties involved	Individuals linked to employers
Research	Related events	Key events, related events and event dates
Research	Audit results and findings	Results from previous audits
Research	Insurance coverage details	Manipulates insurance cancelation and reinstatement data to identify employer coverage gaps
Research	Correspondence trails	Tracks interaction between DIR and Extra Territorial companies
Research	Attorney General interactions	Links case referrals to interactions with the Attorney General

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Report Type	Report Type	Example Use Case
Research	Claims details	Breakdown of claims by diagnosis codes, body parts, etc
Research	Issuer and TPA relationships	Relationships between Issuers and TPAs based on case files and contact records
Research	Appeals activities	Tracks appeals associated with each claim
Research	Complaints activities	Any activities or other details related to complains
Research	Investigation and case details	View investigation info…
Workflow and Admin	Case status	Tracks volume of cases based on status, by type, investigatory, etc.
Workflow and Admin	Audit/Case assignments	Shows which entities are assigned to specific cases (e.g., physicians)
Workflow and Admin	Average case open time	The average amount of time that a case is open, by case type, by assignee type
Workflow and Admin	Average time to complete tasks	The average time to complete tasks, by task status, by assignee type
Workflow and Admin	Claim submission status/history	Listing of submitted claims by employee, employer, etc, over time
Workflow and Admin	Accounts receivable delays	Tracks age of payments/fines, past due dates based on targeted entities
Workflow and Admin	Data call notifications	Identifies entities that have data calls, rejections and each entity's respective status
Workflow and Admin	Stakeholder roster	Identifies and tracks stakeholder website registrations

VI.C.10.2 Standard, Ad Hoc, and Custom Reports (RFP 4.4.11.2)

RFP 4.4.11.2: "The system shall provide comprehensive reporting capabilities that include:

A. Standard reports (that are executed on a routine basis);

B. Ad-hoc reports that users can build using an intuitive user-interface and specify selection, sort, criteria; and

C. Users can build reports without requiring knowledge of complex database structures (i.e. data elements are presented in terms understandable by a WCS user)."

The proposed reporting platform will allow WCS users the ability to view standard reports, create ad hoc reports, and develop custom reports for reuse.

Standard reports are pre-existing reports that leverage the underlying data represented in Figure 8, previously. CapTech will work with WCS to define and build an initial set of standard reports; however, WCS users can also develop custom reports that can be designated as a "standard report" for ongoing, future use. Because standard reports dynamically pull data from the source data environment, standard reports always contain the most up-to-date information.

Users can build ad hoc reports easily with an intuitive reporting UI

Ad-hoc reports are reports that are created for single of minimal use—typically for one-time analytical requests. The reporting platform will enable users to generate ad hoc reports via the same mechanism as standard reports; however, these reports can be deleted from the platform once they are no longer needed for Nevada.

The reporting interface will allow users to build reports based off the data elements defined in Figure 8, previously. The interface will be simple and graphical. CapTech will work with WCS to design user functions within the specification of the ASP.net environment.

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Further, users will be provided with a variety of other controls that include:

- ***Selecting data elements/attributes***
- ***Defining metrics on existing data (e.g., averaging payment amounts)***
- ***Creating charts, graphs, or other visualizations***

VI.C.10.3 Link and Report from Various Tables in the Database (RFP 4.4.11.3)

RFP 4.4.11.3: "The system shall allow users to link together and report data from various tables in the database, for example:

A. Workers comp claims;
B. Complaints;
C. Cases (investigations/audits);
D. Employers;
E. Insurers;
F. TPAs;
G. Medical providers; and
H. Violations/fines/penalties/actions."

To ensure that the entities and relationships described in RFP Requirement 4.4.11.3 are represented, CapTech's solution will conform to the high-level schema described in the figure below. This figure represents the proposed data structure, illustrating the relationships between data elements (with reference to items A–H in RFP Requirement 4.4.11.3).

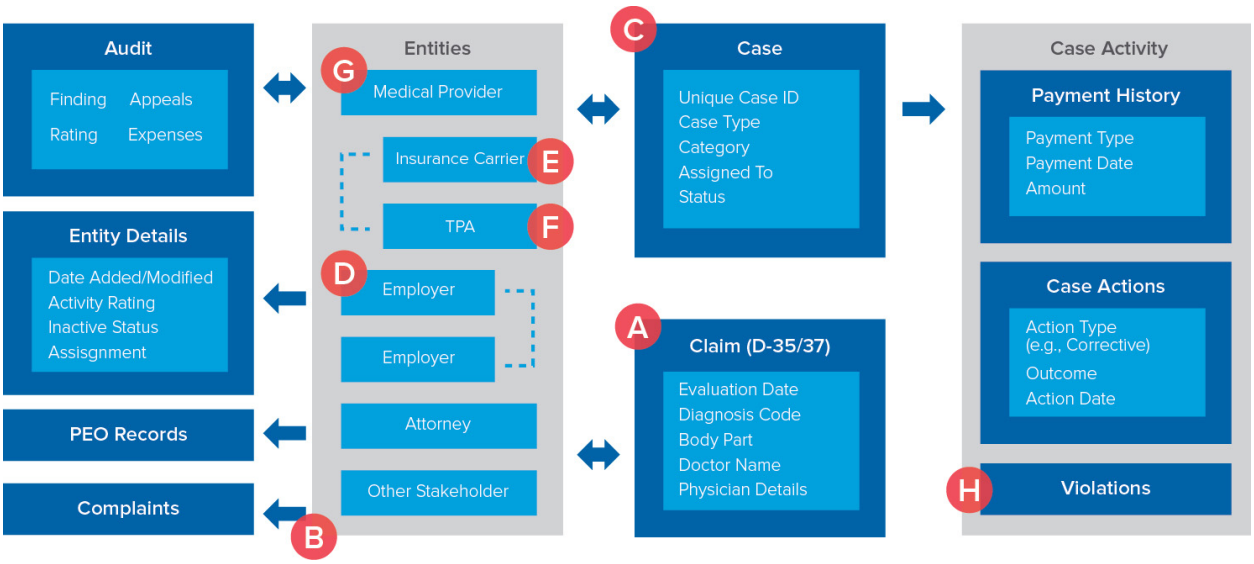

Figure 11. Data Structure and Relationships between Data Elements

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VI.C.10.4 Generating Statistical Data (RFP 4.4.11.4)

RFP 4.4.11.4: "The system shall allow generating statistical data from the system, e.g. record counts, summations, averages, etc."

CapTech's proposed data structure will enable WCS users to rapidly generate data aggregations, metrics, and statics on the underlying data. Example metrics can include, but are not limited to:

- ***Average case open time***
- ***Average time to complete specified tasks***
- ***Count of complaints, claims, violations, enforcements, etc.***
- ***Sum of payment amounts for a specific case***

Data structure allows for rapid generation of statistical data

The table in 0, previously, also describes how specific statistical functions can be applied to various reporting data elements.

VI.C.10.5 Report on Historical Trends (RFP 4.4.11.5)

RFP 4.4.11.5: "The system shall provide the ability to report on historical trends based on user defined criteria."

CapTech's proposed data structure will enable WCS users to rapidly generate reports containing historical data. Example metrics can include, but are not limited to:

- ***Audit volume over time based on complaint types***
- ***Claim, violation, and audit volume over time***
- ***Claim submission history for a given entity***

VI.C.10.6 Publish Reports Viewable by Others (RFP 4.4.11.6)

RFP 4.4.11.6: "The system shall provide the ability to publish reports so that other individuals can view them."

CapTech's solution enables WCS users to create new reports based on the data structure outlined in Figure 8, previously. The interface will allow these users to make all custom-built reports available to other users (also accessible through the same interface). If administrative rights need to be applied for viewing purposes (i.e., if certain users should be restricted from viewing certain reports), the publishing user must work with the system admin to set user privileges within the reporting platform.

VI.C.11. Claims Data Collection (RFP 4.4.12; 4.4.12.1–4.4.12.4)

RFP 4.4.12.1: "WCS currently collects claims data in the Claims Indexing System. Entities that send in data – Only Nevada private insurance carriers are required to submit information."

RFP 4.4.12.2: "Self-Insured & Self Insured Associations are exempt. Some of them do submit but it is voluntary. Information is submitted on a D-38 Form (some send copies of the forms and"

RFP 4.4.12.3: "Some upload batch files to a secure FTP site). The D-38 is a form which uses elements (including SSNs) from requirements put forth in NRS 616B.018 element."

RFP 4.4.12.4: "WCS has been collecting Indexing information for approximately 12 years, however, the database includes the entire database of SIIS/Employers efforts before WCS took over the program.

NOTE: As part of this project, WCS working with the industry, is looking to re-define what data is to be collected and how. This may require a phased effort to minimize risk and impact to the WCS

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and industry stakeholders. The following will be the primary drivers for defining claim data requirements:

A. Statutory requirements (e.g. NRS 616B - Indexing Claims);

B. WCS internal requirements (Support audits/investigations research/analysis projects; and inquiries from other entities);

C. DETR's requirements (To identify overlaps between unemployment benefits and workers compensation benefits); and

D. Industry Requirements (Methods to submit data to WCS, and industry comparisons/benchmark studies)."

WCS currently houses the VERSA and Claims Indexing System—each of which contains a variety of claims data. The data migration process for the underlying data sets as described previously. To successfully collect new data, CapTech will develop the claims submission system described in this proposal. CapTech's data model, described in Figure 8 (previously), is designed to accommodate new data elements over time without any changes to the underlying data structures, referential integrity and underlying reports.

CapTech will also work with Nevada to define new claims-based data elements that can be included in the new data submission system per the NRS 616B data element list. CapTech will execute "analytics use case" sessions with Nevada to determine new WCS data, DETR and industry requirements. The resulting "analytics use cases" will be used to determine and prioritize which data elements should be included in future versions of the system. Example data elements that can be included into the new data model are, but not limited to:

D-38 Data Element	Potential Use Case
Registration, Update, or Request	Trend registrations over time, by specific segments. Evaluate for inconsistent registration patters pertaining to specific entities.
Sex, Birthdate	Segment case status by demographics of individuals who submit claims
Claim Type - Lost Time, Medical Only	Segment claims by type and geographic to target potential vulnerabilities
Date Claim Closed, Date Re-Opened	Evaluate claim open/response time by various segments
Closure Pursuant To NR616C.235(1,2)	Evaluate how often a condition occur where special procedures are taken in the closure of a claim by insurer
Private Insurer Address	Geographic analysis on areas of higher concentration for claims submission
Policy Effective and Expiration Date	Record patters of policy registration and start/end dates. Leverage predictive models on resource requirements to meet new registrations/policy needs by demographic region or issuer location

CapTech will also leverage existing data to improve the new system's ability to capture new data and identify specific entities. For example, the historical SIIS/Employer data will be used to create unique identifiers for employers and other entities.

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VI.C.12. Industry Requirements (RFP 4.4.13)

VI.C.12.1 Streamline Industry/WCS Interactions and Exchange Appropriate Information (RFP 4.4.13.1)

RFP 4.4.13.1: "The workers compensation industry includes insurers, self-insured and TPAs. The primary focus for Industry requirements are to:

A. Streamline how the industry and WCS interact; and

B. Ensure WCS and the industry stakeholders exchange appropriate information on a timely basis."

CapTech will build the application with the intent of reducing paper by collecting information electronically from the industry. CapTech is proposing to build web forms for up to five of the current paper forms. The RFP mentions five forms that we are proposing to automate into a web form: C-4, D-17, D-35, D-37, and D-38. During the analysis and requirements phase, we will work with WCS to prioritize the forms to determine which forms provide the highest value to automate into a web form. At the end of this initial phase, it may be appropriate to replace the forms above with other forms that will provide the most value to collect the data online. If so we will work with WCS to adjust the scope and terms of the contract to allow that to occur.

VI.C.12.2 Automated Solution for D-35 Process (RFP 4.4.13.2)

RFP 4.4.13.2: "The system shall provide an automated solution to the D-35 process, where insurers/TPA's could submit the D-35 forms online and have the system automatically assign the next appropriate physician/chiropractor on the list."

As described in Sections 5.3, 5.5 and 5.6 of CapTech's Attachment L Requirements Matrix response, we will provide an automated solution to the D-35 process, where insurers/TPA's could submit the D-35 forms online and have the system automatically assign the next appropriate physician/chiropractor on the list.

VI.C.12.3 Electronically Submit Claims to WCS (RFP 4.4.13.3)

RFP 4.4.13.3: "The system shall provide an efficient method for insurers and TPAs to electronically submit claims data to WCS. The system shall provide several options for data submission, including, but not limited to:

A. Electronic Data Interchange (using standard industry data formats).

B. Web user interface where claim data can be keyed in by insurer/TPA staff (typically for smaller entities that do not have the resources and infrastructure to use EDI)."

The application will assist in reducing the paper processed by WCS by allowing several forms to be filed online, including allowing insurers/TPAs to file C-4's (Claim for Compensation/Report of Initial Treatment) via a web form. For large firms, requirements related to implementing IAIABC EDI R3 will be developed and scope for a subsequent phase of the effort.

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VI.C.12.4 Electronically Submit Claims to WCS (RFP 4.4.13.4)

RFP 4.4.13.4: "The system shall provide:"

VI.C.12.4.1 Effective Data Validation/Error Checking (RFP 4.4.13.4.A)

RFP 4.4.13.4.A: "Effective data validation/error checking;"

During the initial requirements and analysis phase, CapTech will work with WCS to document the data validation and business rules that will be used on the web forms to collect input data from insurers, self-insured and TPAs. These business rules will be implemented to improve the quality of the data received into the application and guide the user to provide the proper information to WCS.

VI.C.12.4.2 UI for Insurers to Lookup Previously Submitted Data (RFP 4.4.13.4.B)

RFP 4.4.13.4.B: "User interface for insurers to lookup their data that previously submitted; and"

The application will allow authorized representatives from insurance companies to view prior submissions to WCS. Identifying which data should be displayed and the registration process for insurance company users will be defined during the initial requirements and analysis phase of the project.

VI.C.12.4.3 Security for Data Submissoin (RFP 4.4.13.4.C)

RFP 4.4.13.4.C: "Security for data submission (e.g. encrypted data transmission, secure login and user management)"

To provide for secure data transfer, the proposed web submission forms will follow secure data transmission and reception protocols. These standards contain, but are not limited to, the following:

- ***128 bit secure socket layer (SSL) encryption to secure all connections to the submission website and allow for sensitive information, such as social security numbers, to be transmitted securely. All form-based data will be encrypted at rest and in transit.***
- ***Secure logins will be administered and applied to all users. This enables Nevada to link back all submitted content (and respective errors) to individual users, employers, TPAs, etc.***
- ***Password protection will be used to protect the information contained behind all web forms.***

VI.D. Security Standards (RFP 4.5)

The security approach is described in detail in Section VI.B.2.

VI.D.1. State Security Standards for Transmission of Personal Information (RFP 4.5.1)

RFP 4.5.1: "System must meet State security standards for transmission of personal information as outlined in NRS 205.4742 and NRS 603A."

The security configuration described in Section VI.B.2 meet the standards NRS 205.4742 and NRS 603A.

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VI.D.2. Protection of Sensitive Information (RFP 4.5.2; 4.5.2.1–4.5.2.3)

RFP 4.5.2: "Protection of sensitive information will include the following:"

RFP 4.5.2.1: "Sensitive information in existing legacy applications will encrypt data as is practical."

RFP 4.5.2.2: "Confidential Personal Data will be encrypted whenever possible."

RFP 4.5.2.3: "Sensitive Data will be encrypted in all newly developed applications."

The database will be encrypted using SQL Server Transparent Data Encryption (TDE). Confidential or sensitive data will not be stored in external files unencrypted unless required by the method of information exchange. For example, flat files exchanged using FTP may not be encrypted because the external system does not support encrypted files.

VI.D.3. Documented Security Specifications (RFP 4.5.3)

RFP 4.5.3: "All information technology services and systems developed or acquired by agencies shall have documented security specifications that include an analysis of security risks and recommended controls (including access control systems and contingency plans)."

The technical design documentation includes a detailed section on security specifications. The security described in Section VI.B.2 will be defined in detail covering the risks, controls, and contingency plans.

VI.D.4. Security Requirements (RFP 4.5.4)

RFP 4.5.4: "Security requirements shall be developed at the same time system planners define the requirements of the system. Requirements must permit updating security requirements as new threats/vulnerabilities are identified and/or new technologies implemented."

Security will be defined concurrently with the system requirements and System Design/Implementation Configuration (Task 2) defined in Section VII.B.4.

VI.D.5. Security Requirements in Solicitation Documents (RFP 4.5.5)

RFP 4.5.5: "Security requirements and evaluation/test procedures shall be included in all solicitation documents and/or acquisition specifications."

CapTech includes security testing in all applications. WCS is responsible for performing a security test or any PCI Compliance scans.

VI.D.6. Back Doors (RFP 4.5.6)

RFP 4.5.6: "Systems developed by either internal State or contracted system developers shall not include back doors, or other code that would cause or allow unauthorized access or manipulation of code or data."

CapTech will not include any "back doors" or similar code that would allow unauthorized access. WCS will have all of the source code and can inspect it to ensure there are no unauthorized access entry points.

VI.D.7. Approval of Security Specifications (RFP 4.5.7)

RFP 4.5.7: "Security specifications shall be developed by the system developer for approval by the agency owning the system at appropriate points of the system development or acquisition cycle."

Security specifications will be developed in the System Design/Implementation Configuration (Task 2) defined in Section VII.B.4.

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VI.D.8. Change Control and Approval Process *(RFP 4.5.8)*

RFP 4.5.8: "All system development projects must include a documented change control and approval process and must address the security implications of all changes recommended and approved to a particular service or system. The responsible agency must authorize all changes."

The change control and approval process for CapTech and Nevada WCS will include security as an area that changes may impact. If the security area is checked, then a description will be included about related security changes so that WCS can authorize the changes with an understanding of the security impacts. Please see Section VIII.J for more information.

VI.D.9. Disposal of Obsolete Systems *(RFP 4.5.9)*

RFP 4.5.9: "Application systems and information that become obsolete and no longer used must be disposed of by appropriate procedures. The application and associated information must be preserved, discarded, or destroyed in accordance with Electronic Record and Record Management requirements defined in NRS and NAC 239, Records Management."

WCS will be responsible for disposal of obsolete systems.

VI.D.10. Compliance with Policies *(RFP 4.5.10; 4.5.10.1–4.5.10.6)*

RFP 4.5.10: "Software development projects must comply with State Information Security Consolidated Policy 100, Section 4.7, Software Development and Maintenance and State Standard 131, "Security for System Development.'"

RFP 4.5.10.1: "Separate development, test and production environments must be established on State systems."

RFP 4.5.10.2: "Processes must be documented and implemented to control the transfer of software from a development environment to a production environment."

RFP 4.5.10.3: "Development of software and tools must be maintained on computer systems isolated from a production environment."

RFP 4.5.10.4: "Access to compilers, editors and other system utilities must be removed from production systems."

RFP 4.5.10.5: "Controls must be established to issue short-term access to development staff to correct problems with production systems allowing only necessary access."

RFP 4.5.10.6: "Security requirements and controls must be identified, incorporated in and verified throughout the planning, development, and testing phases of all software development projects. Security staff must be included in all phases of the System Development Lifecycle (SDLC) from the requirement definitions phase through implementation phase."

CapTech will assist WCS with establishing separate development, test, and production environments on state systems. Development will occur on CapTech laptops using Visual Studio. Production environments will not include the installation of Visual Studio.

The System Design/Implementation Configuration deliverable defined in Section VII.B.4 will include the appropriate processes to control the transfer of software through the environments from development to production. The processes will include the ability to assign short-term access for troubleshooting issues in production. WCS security staff will be included throughout the development lifecycle.

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VI.E. Requirements Matrix *(RFP 4.6; 4.6.1–4.6.7)*

Vendor must:

RFP 4.6.1: "Present the platform requirements for efficient operation of the system;"
RFP 4.6.2: "Review the requirements matrix carefully to insure that the proposed system design addresses all of the requirements;"
RFP 4.6.3: "Tie each data element/function to the vendor's project plan by task number;"
RFP 4.6.4: "Respond to all of the requirements by properly coding and indicating how the requirement is satisfied. The proposed costs and project plan must reflect the effort needed to satisfy the requirements."
RFP 4.6.5.: "Identify, for each of the system requirements identified in the requirements matrix, whether it is: …"
RFP 4.6.6: "Identify whether each requirement is in the firm fixed price included within the cost proposal."
RFP 4.6.7: "Describe how the proposed system meets the requirements specified within this RFP."

Please see the completed Requirements Matrix (Attachment L) in Tab XI.

Per Exception #1 in Attachment B, the firm fixed price provides the maximum requirements for WCS' stated fixed budget. Nevada seeks to have a robust, flexible system supporting DIR's WCS organization. It is also our understanding that while there is a desire to have a system delivered meeting all functional and technical requirements described within the RFP, the budget available to accomplish the system is fixed. As such, after requirements have been fully described and vetted during the Business Process Re-engineering Phase, DIR will work with CapTech to modify the agreed upon functional delivery scope in such a way that preserves both the proposed timeline and cost for system delivery. This may require modifying the scope to accommodate the schedule and cost; CapTech will help WCS prioritize the features determined to be mission-critical.

In examining the requested scope, CapTech firmly commits to delivering the following:

- ***A rigorous set of detailed requirements and business processes fully describing the future state of how WCS desires to perform their business.***
- ***A prioritized set of features WCS determines to be critical to accomplishing within their organization, with scope and duration assessed for each feature.***
- ***A modern technology platform tailored for the WCS than can expand and grow with features in an efficient and flexible manner.***
- ***Baseline functional system accomplishing critical tasks as prioritized by WCS and agreed to by CapTech when assessing the scope of the detailed requirements.***

CapTech believes that the whole functional scope can only be delivered if the following hold true:

- ***Key Nevada staff and decision makers are dedicated to the engagement, providing complete, accurate, and thorough information throughout the duration of the effort.***
- ***Automated business rules and process workflows are low complexity.***
- ***General functional capabilities supporting multiple use cases are leveraged.***
- ***Nevada secures the right to leverage Kentucky's Litigation Management System (LMS) assets as much as possible, including visual and technical designs, as well as some source code.***
- ***EDI implementation with carriers is deferred to a later date. Our specific experience in implementing the IAIABC R3 EDI standard in the Worker's compensation industry is that this is a minimum year-long effort with an additional six months required to effectively bring insurers and carriers onboard. However, we will provide a secure online method for insurers, TPA, and self-insured to submit claims.***

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VII. Tab VII—Section 5: Scope of Work *(RFP 11.2.3.7)*

RFP 11.2.3.7: "Vendors must place their written response(s) in **bold/italics** immediately following the applicable RFP question, statement and/or section."

RFP 5: "The scope of work is broken down into tasks, activities and deliverables. The tasks and activities within this section are not necessarily listed in the order that they should be completed."

VII.A. Preliminary Project Plan *(RFP 5; 1.1; 4.6.3)*

RFP 5: "Vendors must reflect within their proposal and preliminary project plan their recommended approach to scheduling and accomplishing all tasks and activities identified within this RFP.

All tasks performed by the awarded vendor may be reviewed by the QA monitor as well as State staff."

RFP 1.1: "The resulting contract(s) will be for a contract term of one (1) year six (6) months, anticipated to begin upon BOE approval, subject to Board of Examiners approval anticipated to be January 12, 2015, through June 30, 2017."

RFP 4.6.3: "RFP 4.6.3: "Tie each data element/function to the vendor's project plan by task number;"

The preliminary project plan consists of three phases, totaling approximately 12 months from the start date to implementation, followed by an additional 12 months of ongoing defect support/ maintenance ("warranty period").

12-month project (start to implementation) + 12 months of warranty support

VII.A.1. Phase 1: Requirements, BPR, and Technical Design

During this phase, the CapTech team will be dedicated to planning and establishing a baseline understanding of the following components:

- ***Project Planning and Requirements***
  - ***Key project participants, timeline, and dependencies***
  - ***Scope and requirements***
  - ***Project scope reprioritization***
- ***Technical Design***
  - ***Application design***
  - ***Data modeling***
  - ***Content Management***
- ***Visual Design***

VII.A.1.1 Project Planning and Requirements

The CapTech Project Manager (PM) will work with the WCS team to refine the project schedule to allow the project team and WCS leadership to have a holistic view of the project and confirm that it includes all controls, reviews, approvals, and dependencies. The key task during this phase will be to engage with WCS stakeholders to define the future state business processes and the detailed functional requirements. The CapTech architect will get access to the development environment, configure local development environments, ready the hosted development environment, and review the existing code base.

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In conjunction with the BPR and functional requirements, CapTech will also develop a blueprint that shows a roadmap as to how WCS can implement the desired functionality in a phased approach. Given the WCS' statements in the RFP, we fully expect that the roadmap will include more scope and extend beyond the terms of CapTech's proposed schedule and budget. Based on our experience, we suggest a refinement of the project at this phase to repurpose scope items and budget to the highest priority and value items for WCS. CapTech will be willing to work with WCS to redefine the scope, schedule and pricing to fit these WCS' newly defined priorities and remaining budget.

VII.A.1.2 Technical Design and Architecture

Prior to development, CapTech will finalize the initial system design through reviews and approvals by WCS' IT Lead. The design documents will govern all technical components of the solution, including architecture and an initial data model, content management design, and security approach.

As a best practice, CapTech has observed that long-running development projects benefit significantly from a well thought out design completed early in the project lifecycle. CapTech acknowledges that once development begins, the team may encounter new information, which may necessitate change to the original design baseline. With the benefit of upfront design, the team will be able to more effectively mitigate project schedule risk, socialize key technical decisions early, communicate change more succinctly with WCS' stakeholders, and minimize rework significantly.

Early in the process, the data team will begin drafting the logical and physical data model for the solution based on their understanding of the requirements and the business domain. CapTech's data architect will map applicable data to the future state solution. The mapping documentation will facilitate development efforts and ensure no feature gaps result in the solution.

VII.A.1.3 Visual Design

In this phase, the Business Systems Analysts (BSA) will develop screen mock-ups of the key components identified during the requirements analysis. In addition, CapTech will use existing User Experience assets, such as the screens from our other Workers Compensation projects, to kick-start the process. Next, CapTech will begin work on the information architecture and navigation design. The navigation design hinges directly on the site hierarchy, and the layout of the site depends heavily on the navigation itself. The underlying information architecture of the application requires a coordinated design approach.

Next, CapTech will develop prototypes or low-fidelity comps. The comps include just enough to communicate the intent of each design. Users will then test the comps to determine the design effectiveness. The results will indicate where improvements to the design can be made. This leads to the development of the Conceptual Design.

High-fidelity wireframes build upon the low-fidelity designs and describe the behavior of all interactive aspects of the site through enhanced detail and full annotations. Think of these detailed wireframes as the blueprint for the application: the instructions the developers need to build the system. Construction of the high-fidelity wireframes continues into the development Sprints.

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VII.A.2. Phase 2: Development and Testing

CapTech will develop and test the application during five sprints. The first four sprints will each last six weeks with the final sprint lasting four weeks. The development team will create five separate releases of code into system test followed by a release into User Acceptance Testing (UAT).

After each Sprint's development is complete and the code is released into the test environment, CapTech will perform system testing for two weeks followed by a UAT period of two weeks. This cycle will repeat for each sprint with the exception of the last sprint. At the end of the last sprint, the system testing will have a duration of three weeks and the UAT will last five weeks in duration. During each sprint, the BSAs will work with the WCS to define the detailed requirements and business rules for the subsequent sprint.

As with any system, there are architectural and cross-cutting concerns that must be built early in the process to support development of the system going forward. Non-functional aspects of the system, such as security and access, will be built in the early stages of the development process. Furthermore, the development team's primary goal in the early stages of the development cycle will be to build a framework on which the rest of the system's functional components will be built.

Once the system framework is in place, CapTech will focus on developing each of the application modules in the subsequent sprints. At the beginning of each development sprint, CapTech's PM will conduct a planning session with all stakeholders to determine the set of stories to be completed during each Sprint. The development team will continue to build from requirements, with each unit being thoroughly unit tested and peer reviewed prior to System Integration Testing (SIT) and UAT.

> *Iterative development approach gives WCS early and frequent views of the system*

One of the big benefits of this iterative development approach is that WCS will get an early view of the application, both from a look & feel as well as the functionality. With each sprint, CapTech will present a demo of the resulting application to WCS which will give WCS become familiar with the user interface and have the opportunity to conduct a 2-week UAT to test the functionality.

In addition, during this phase CapTech's PM will conduct weekly project review meetings and generate weekly status reports documenting the project's financials, key milestone dates, risks, and other metrics.

VII.A.3. Phase 3: Implementation

Upon completion of the Development and Testing phase, we will promote the code to the UAT environment for final acceptance testing. Throughout UAT, CapTech will continue to support WCS' UAT testing team. CapTech will follow the State's standards for testing and addressing defects based on severity. In an effort to minimize the amount of identified defects during UAT, CapTech will work with WCS' Subject Matter Experts (SME) to understand all relevant business processes prior to UAT. As UAT completes, CapTech will assist the State in identifying the appropriate test cases for future regression test runs.

CapTech will provide a consultant who specializes in Organizational Change Management to conduct training sessions on the solution with key business and IT stakeholders.

During release planning, CapTech will complete the documentation of the production deployment and back out plans, and the PM and Development Lead will conduct production deployment and

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back out plan reviews and walkthroughs with the IT Leads and support teams, as appropriate. Lastly, the team will release and validate the new solution in production.

VII.A.4. Post-Production Support and Transition

Following the successful deployment to production, the project will enter a 12-month post-production support period during which time we will resolve production defects defined by WCS according to the procedures detailed in the Transition Plan.

The project team will provide on-site support during the first two weeks of production; for the remaining 11.5 months, the team will provide remote support.

CapTech refers to this period as a "Warranty Period," during which time CapTech will complete the following tasks:

- *Mentor and train WCS' technical administrators and IT staff on the specifics of the system in order to build an understanding on how the system works. The goal is to provide knowledge transfer sufficient for WCS to operate and maintain the system with internal staff at the end of three months.*
- *Provide Tier 3 Technical Escalation support.*
- *Respond to support requests initiated by authorized State technicians.*
- *Resolve issues within SLA's based on three sets of classification:*
  - *Classification 1: Critical Issue—this would be considered an issue that results in the entire application being down or unusable for any reason, impacting all potential users. In this situation, once the WCS makes CapTech aware of the issue, CapTech would acknowledge the issue and provide an initial response within 1 hour during regular business hours. The goal for any issue like this would be to address it within the same business day or before the next business day begins*
  - *Classification 2: Medium Issue—this would be considered an issue that may impact performance of the system (but still usable) affecting all users or possibly a more severe issue that is localized and only impacting a small portion of the user base. For these types of issues, CapTech would acknowledge the support request from the state within 4 business hours and have an initial response back with a targeted delivery date/time for the fix before the end of the following business day. In most cases, CapTech would aim to resolve these issues within 3-4 business days.*
  - *Classification 3: Minor Issue—these issues would cover support requests for things like report updates or modifications and would essentially be minor enhancements that cannot wait for the next full enhancement release. For these types of issues, CapTech would again acknowledge the support request from the WCS within 4 business hours and have an initial response back with a targeted delivery date/time for the fix before the end of the second business day. In most cases, CapTech would aim to resolve these issues within 10 business days.*

During the Warranty Period for this application, WCS will be responsible for the following:

- *Assigning technical administrators and technical staff to participate in all required system support training developed and scheduled by CapTech.*
- *Providing Tier 1 Help Desk Support for End Users*
- *Providing Tier 2 Technical Support for Help Desk reported issues.*

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- ***Assigning staff to triage user issues to determine whether the root cause is data related, training related, or code related.***

VII.A.5. Project Plan

The initial project plan is shown on the pages that follow, including detailed deliverables tied to each of the tasks from Section 5 of the RFP. Each of the tasks indicates CapTech's submission of the deliverable plus WCS' review and final approval.

It is important to note that if the project starts the week of 1/11/16 and the scope and schedule remain the same, the application would be delivered around the end of year holidays. If that holds true, we will adjust the schedule to acknowledge the team's expected time off to allow the rollout plan to have the appropriate support needed to provide for success.

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ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
1	**Nevada WC Regulatory System**	**510 days**	**Mon 1/11/16**	**Fri 12/22/17**		
2	5.3 Project Kickoff Meeting	1 day	Tue 1/12/16	Tue 1/12/16		
3	**5.4 Planning and Administration**	**270 days**	**Mon 1/11/16**	**Fri 1/20/17**		
4	**5.4.3.1 Detailed Project Plan**	**20 days**	**Mon 1/11/16**	**Fri 2/5/16**		
5	Complete Project Plan	10 days	Mon 1/11/16	Fri 1/22/16		CapTech
6	Submit Project Plan	0 days	Fri 1/22/16	Fri 1/22/16	5	CapTech
7	WCS Review	5 days	Mon 1/25/16	Fri 1/29/16	6	WCS
8	Final Updates and WCS Approval	5 days	Mon 2/1/16	Fri 2/5/16	7	CapTech,WCS
9	**5.4.3.2 Defined processes for managing and controlling the projec**	**20 days**	**Mon 1/11/16**	**Fri 2/5/16**		
10	Complete Project Mgmt Process Definition	10 days	Mon 1/11/16	Fri 1/22/16		CapTech
11	Submit Project Mgmt Process Definition	0 days	Fri 1/22/16	Fri 1/22/16	10	CapTech
12	WCS Review	5 days	Mon 1/25/16	Fri 1/29/16	11	WCS
13	Final Updates and WCS Approval	5 days	Mon 2/1/16	Fri 2/5/16	12	CapTech,WCS
14	**5.4.3.3 Risk Management Plan**	**20 days**	**Mon 1/11/16**	**Fri 2/5/16**		
15	Complete Risk Mgmt Plan	10 days	Mon 1/11/16	Fri 1/22/16		CapTech
16	Submit Risk Mgmt Plan	0 days	Fri 1/22/16	Fri 1/22/16	15	CapTech
17	WCS Review	5 days	Mon 1/25/16	Fri 1/29/16	16	WCS
18	Final Updates and WCS Approval	5 days	Mon 2/1/16	Fri 2/5/16	17	CapTech,WCS
19	5.4.3.4 Participation at all meetings	270 days	Mon 1/11/16	Fri 1/20/17		CapTech
20	5.4.3.5 Written monthly status reports	270 days	Mon 1/11/16	Fri 1/20/17		CapTech
21	**5.6 BPR and Detailed Requirements**	**70 days**	**Mon 1/11/16**	**Fri 4/15/16**		
22	**5.6.3.1 Report of To-Be business processes flows with description of underlying technology used to streamline processes**	**55 days**	**Mon 1/11/16**	**Fri 3/25/16**		
23	Complete BPR & Functional Requirements	45 days	Mon 1/11/16	Fri 3/11/16		CapTech,WCS
24	Submit BPR & Functional Requirements	0 days	Fri 3/11/16	Fri 3/11/16	23	CapTech
25	WCS Review	5 days	Mon 3/14/16	Fri 3/18/16	24	WCS
26	Final Updates and WCS Approval	5 days	Mon 3/21/16	Fri 3/25/16	25	CapTech,WCS
27	MILESTONE: WCS Scope, Requirements, Timeline Reassessment	5 days	Mon 3/28/16	Fri 4/1/16	25	WCS
28	**5.6.3.2 DIR-WCS detailed system requirements report**	**55 days**	**Mon 1/11/16**	**Fri 3/25/16**		
29	Complete System Requirements	45 days	Mon 1/11/16	Fri 3/11/16		CapTech,WCS
30	Submit System Requirements	0 days	Fri 3/11/16	Fri 3/11/16	29	CapTech
31	WCS Review	5 days	Mon 3/14/16	Fri 3/18/16	30	WCS
32	Final Updates and WCS Approval	5 days	Mon 3/21/16	Fri 3/25/16	31	CapTech,WCS
33	**5.6.3.2 Visual Design**	**35 days**	**Mon 2/29/16**	**Fri 4/15/16**		

ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
34	Complete Visual Design	25 days	Mon 2/29/16	Fri 4/1/16	23FS-10 d	CapTech,WCS
35	Submit Visual Design	0 days	Fri 4/1/16	Fri 4/1/16	34	CapTech
36	WCS Review	5 days	Mon 4/4/16	Fri 4/8/16	35	WCS
37	Final Updates and WCS Approval	5 days	Mon 4/11/16	Fri 4/15/16	36	CapTech,WCS
38	**5.7 System Design/Implementation Configuration**	**70 days**	**Mon 1/11/16**	**Fri 4/15/16**		
39	**5.7.3.1 System design documentation**	**35 days**	**Mon 2/29/16**	**Fri 4/15/16**		
40	Complete System Design	25 days	Mon 2/29/16	Fri 4/1/16	23FS-10 d	CapTech
41	Submit System Design	0 days	Fri 4/1/16	Fri 4/1/16	40	CapTech
42	WCS Review	5 days	Mon 4/4/16	Fri 4/8/16	41	WCS
43	Final Updates and WCS Approval	5 days	Mon 4/11/16	Fri 4/15/16	42	CapTech,WCS
44	**5.7.3.2 Gap/Fit analysis**	**70 days**	**Mon 1/11/16**	**Fri 4/15/16**		
45	Complete Gap/Fit Analysis	15 days	Mon 1/11/16	Fri 1/29/16		CapTech
46	Submit Gap/Fit Analysis	0 days	Fri 4/1/16	Fri 4/1/16	40FF	CapTech
47	WCS Review	5 days	Mon 4/4/16	Fri 4/8/16	46	WCS
48	Final Updates and WCS Approval	5 days	Mon 4/11/16	Fri 4/15/16	47	CapTech,WCS
49	DEPENDENCY: DEV and TEST Environments Set-up	0 days	Fri 4/1/16	Fri 4/1/16	40FF	CapTech,WCS
50	**5.8 Build and Implement System**	**180 days**	**Mon 4/11/16**	**Fri 12/16/16**		
51	**Sprint 1**	**50 days**	**Mon 4/11/16**	**Fri 6/17/16**		
52	**Test Plan**	**25 days**	**Mon 4/11/16**	**Fri 5/13/16**		
53	Complete Test Plan	15 days	Mon 4/11/16	Fri 4/29/16	35FS+5 da	CapTech
54	Submit Test Plan for Review	0 days	Fri 4/29/16	Fri 4/29/16	53	CapTech
55	WCS Review	5 days	Mon 5/2/16	Fri 5/6/16	54	WCS
56	Final Updates and WCS Approval	5 days	Mon 5/9/16	Fri 5/13/16	55	CapTech,WCS
57	Define Detailed Business Rules	30 days	Mon 4/11/16	Fri 5/20/16	35FS+5 da	CapTech,WCS
58	Development	30 days	Mon 4/11/16	Fri 5/20/16	35FS+5 da	CapTech
59	System Test	10 days	Mon 5/23/16	Fri 6/3/16	58	CapTech
60	5.8.3.1.1 Sprint 1 Demonstration	3 days	Mon 6/6/16	Wed 6/8/16	59	CapTech
61	5.10.3.1.1 Sprint 1 system, including test data	0 days	Fri 6/3/16	Fri 6/3/16	59	CapTech
62	5.10.3.2.1 Sprint 1 Vendor training of UAT team	3 days	Mon 6/6/16	Wed 6/8/16	59	CapTech,WCS
63	WCS Conduct Sprint 1 UAT	10 days	Mon 6/6/16	Fri 6/17/16	59	WCS
64	5.10.3.4.1 Sprint 1 - Technical support and defect remediation	10 days	Mon 6/6/16	Fri 6/17/16	59	CapTech
65	**Sprint 2**	**50 days**	**Mon 5/23/16**	**Fri 7/29/16**		
66	Define Detailed Business Rules	30 days	Mon 5/23/16	Fri 7/1/16	58	CapTech,WCS
67	Development	30 days	Mon 5/23/16	Fri 7/1/16	58	CapTech

ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
68	System Test	10 days	Mon 7/4/16	Fri 7/15/16	67	CapTech
69	5.8.3.1.2 Sprint 2 Demonstration	3 days	Mon 7/18/16	Wed 7/20/16	68	CapTech,WCS
70	5.10.3.1.2 Sprint 2 system, including test data	0 days	Fri 7/15/16	Fri 7/15/16	68	CapTech
71	5.10.3.2.2 Sprint 2 Vendor training of UAT team	3 days	Mon 7/18/16	Wed 7/20/16	68	CapTech,WCS
72	WCS Conduct Sprint 2 UAT	10 days	Mon 7/18/16	Fri 7/29/16	68	WCS
73	5.10.3.4.2 Sprint 2 - Technical support and defect remediation	10 days	Mon 7/18/16	Fri 7/29/16	68	CapTech
74	**Sprint 3**	**50 days**	**Mon 7/4/16**	**Fri 9/9/16**		
75	Define Detailed Business Rules	30 days	Mon 7/4/16	Fri 8/12/16	67	CapTech,WCS
76	Development	30 days	Mon 7/4/16	Fri 8/12/16	67	CapTech
77	System Test	10 days	Mon 8/15/16	Fri 8/26/16	76	CapTech
78	5.8.3.1.3 Sprint 3 Demonstration	3 days	Mon 8/29/16	Wed 8/31/16	77	CapTech,WCS
79	5.10.3.1.3 Sprint 3 system, including test data	0 days	Fri 8/26/16	Fri 8/26/16	77	CapTech
80	5.10.3.2.3 Sprint 3 Vendor training of UAT team	3 days	Mon 8/29/16	Wed 8/31/16	77	CapTech,WCS
81	WCS Conduct Sprint 3 UAT	10 days	Mon 8/29/16	Fri 9/9/16	77	WCS
82	5.10.3.4.3 Sprint 3 - Technical support and defect remediation	10 days	Mon 8/29/16	Fri 9/9/16	77	CapTech
83	**Sprint 4**	**50 days**	**Mon 8/15/16**	**Fri 10/21/16**		
84	Define Detailed Business Rules	30 days	Mon 8/15/16	Fri 9/23/16	76	CapTech,WCS
85	Development	30 days	Mon 8/15/16	Fri 9/23/16	76	CapTech
86	System Test	10 days	Mon 9/26/16	Fri 10/7/16	85	CapTech
87	5.8.3.1.4 Sprint 4 Demonstration	3 days	Mon 10/10/16	Wed 10/12/16	86	CapTech,WCS
88	5.10.3.1.4 Sprint 4 system, including test data	0 days	Fri 10/7/16	Fri 10/7/16	86	CapTech
89	5.10.3.2.4 Sprint 4 Vendor training of UAT team	3 days	Mon 10/10/16	Wed 10/12/16	86	CapTech,WCS
90	WCS Conduct Sprint 4 UAT	10 days	Mon 10/10/16	Fri 10/21/16	86	WCS
91	5.10.3.4.4 Sprint 4 - Technical support and defect remediation	10 days	Mon 10/10/16	Fri 10/21/16	86	CapTech
92	**Sprint 5**	**60 days**	**Mon 9/26/16**	**Fri 12/16/16**		
93	Define Detailed Business Rules	20 days	Mon 9/26/16	Fri 10/21/16	85	CapTech,WCS
94	Development	20 days	Mon 9/26/16	Fri 10/21/16	85	CapTech
95	System Test	15 days	Mon 10/24/16	Fri 11/11/16	94	CapTech
96	5.8.3.1.5 Sprint 5 Demonstration	3 days	Mon 11/14/16	Wed 11/16/16	95	CapTech,WCS
97	5.8.3.2 Delivery fully functional system that the vendor has fully tested	0 days	Fri 11/11/16	Fri 11/11/16	95	CapTech
98	5.8.3.3 Walkthrough of entire system prior to UAT	3 days	Mon 11/14/16	Wed 11/16/16	95	CapTech,WCS
99	5.10.3.1.5 Sprint 5 system, including test data	0 days	Fri 11/11/16	Fri 11/11/16	95	CapTech
100	5.10.3.2.5 Sprint 5 Vendor training of UAT team	3 days	Mon 11/14/16	Wed 11/16/16	95	CapTech,WCS

ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
101	WCS Conduct Sprint 5 UAT	25 days	Mon 11/14/16	Fri 12/16/16	95	WCS
102	5.10.3.4.5 Sprint 5 - Technical support and defect remediation	25 days	Mon 11/14/16	Fri 12/16/16	95	CapTech
103	**5.9 Data Migration**	**250 days**	**Mon 1/11/16**	**Fri 12/23/16**		
104	**5.9.3.1 Detailed data migration plan**	**30 days**	**Mon 5/23/16**	**Fri 7/1/16**		
105	Complete Data Migration Plan	20 days	Mon 5/23/16	Fri 6/17/16	58	CapTech
106	Submit Data Migration Plan	0 days	Fri 6/17/16	Fri 6/17/16	105	CapTech
107	WCS Review	5 days	Mon 6/20/16	Fri 6/24/16	106	WCS
108	Final Updates and WCS Approval	5 days	Mon 6/27/16	Fri 7/1/16	107	CapTech,WCS
109	**5.9.3.2 Test cases for validating converted data (ensure accuracy of data migration)**	**30 days**	**Mon 6/6/16**	**Fri 7/15/16**		
110	Complete Data Migration Test Cases	20 days	Mon 6/6/16	Fri 7/1/16	105SS+10	CapTech
111	Submit Data Migration Test Cases	0 days	Fri 7/1/16	Fri 7/1/16	110	CapTech
112	WCS Review	5 days	Mon 7/4/16	Fri 7/8/16	111	WCS
113	Final Updates and WCS Approval	5 days	Mon 7/11/16	Fri 7/15/16	112	CapTech,WCS
114	**5.9.3.3 Migrate data to test and production environments**	**250 days**	**Mon 1/11/16**	**Fri 12/23/16**		
115	**TEST Environment**	**25 days**	**Mon 7/4/16**	**Fri 8/5/16**		
116	Migrate Data to Test Environment	20 days	Mon 7/4/16	Fri 7/29/16	110	CapTech
117	CapTech Validation	20 days	Mon 7/4/16	Fri 7/29/16	110	CapTech
118	WCS Validation	20 days	Mon 7/4/16	Fri 7/29/16	110	WCS
119	Final Updates and WCS Approval	5 days	Mon 8/1/16	Fri 8/5/16	118	CapTech,WCS
120	**PRODUCTION Environment**	**250 days**	**Mon 1/11/16**	**Fri 12/23/16**		
121	Migrate Data to PRODUCTION Environment	5 days	Mon 12/19/16	Fri 12/23/16	176SS	CapTech
122	WCS Validation	5 days	Mon 1/11/16	Fri 1/15/16		WCS
123	**5.10 User Acceptance Testing**	**5 days**	**Mon 5/9/16**	**Fri 5/13/16**		
124	5.10.3.3 CapTech Review of DIR-WCS's UAT plan and cases	5 days	Mon 5/9/16	Fri 5/13/16	55	CapTech,WCS
125	**5.11 Documentation**	**55 days**	**Mon 9/26/16**	**Fri 12/9/16**		
126	**5.11.3.1 User Manual**	**50 days**	**Mon 9/26/16**	**Fri 12/2/16**		
127	Complete User Manual	40 days	Mon 9/26/16	Fri 11/18/16	94SS	CapTech
128	Submit User Manual	0 days	Fri 11/18/16	Fri 11/18/16	127	CapTech
129	WCS Review	5 days	Mon 11/21/16	Fri 11/25/16	128	WCS
130	Final Updates and WCS Approval	5 days	Mon 11/28/16	Fri 12/2/16	129	CapTech,WCS
131	**5.11.3.2 Online help functionality and content**	**55 days**	**Mon 9/26/16**	**Fri 12/9/16**		
132	Complete Online Help	45 days	Mon 9/26/16	Fri 11/25/16	94SS	CapTech
133	Submit Online Help	0 days	Fri 11/25/16	Fri 11/25/16	132	CapTech

ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
134	WCS Review	5 days	Mon 11/28/16	Fri 12/2/16	133	WCS
135	Final Updates and WCS Approval	5 days	Mon 12/5/16	Fri 12/9/16	134	CapTech,WCS
136	**5.11.3.3 System administration/operations guide**	**25 days**	**Mon 10/24/16**	**Fri 11/25/16**		
137	Complete Sys Admin/Ops Guide	15 days	Mon 10/24/16	Fri 11/11/16	94	CapTech
138	Submit Sys Admin/Ops Guide	0 days	Fri 11/11/16	Fri 11/11/16	137	CapTech
139	WCS Review	5 days	Mon 11/14/16	Fri 11/18/16	138	WCS
140	Final Updates and WCS Approval	5 days	Mon 11/21/16	Fri 11/25/16	139	CapTech,WCS
141	**5.11.3.4 Technical system design report**	**25 days**	**Mon 10/24/16**	**Fri 11/25/16**		
142	Complete Tech sys design report	15 days	Mon 10/24/16	Fri 11/11/16	94	CapTech
143	Submit Tech Sys Design Report	0 days	Fri 11/11/16	Fri 11/11/16	142	CapTech
144	WCS Review	5 days	Mon 11/14/16	Fri 11/18/16	143	WCS
145	Final Updates and WCS Approval	5 days	Mon 11/21/16	Fri 11/25/16	144	CapTech,WCS
146	**5.12 Training**	**65 days**	**Mon 10/10/16**	**Fri 1/6/17**		
147	**5.12.3.1 Training plan**	**25 days**	**Mon 10/10/16**	**Fri 11/11/16**		
148	Complete Training Plan	15 days	Mon 10/10/16	Fri 10/28/16	94SS+10 c	CapTech
149	Submit Training Plan	0 days	Fri 10/28/16	Fri 10/28/16	148	CapTech
150	WCS Review	5 days	Mon 10/31/16	Fri 11/4/16	149	WCS
151	Final Updates and WCS Approval	5 days	Mon 11/7/16	Fri 11/11/16	150	CapTech,WCS
152	**5.12.3.2 Training materials and scenarios**	**35 days**	**Mon 10/31/16**	**Fri 12/16/16**		
153	Complete Training Materials	25 days	Mon 10/31/16	Fri 12/2/16	148	CapTech
154	Submit Training Materials	0 days	Fri 12/2/16	Fri 12/2/16	153	CapTech
155	WCS Review	5 days	Mon 12/5/16	Fri 12/9/16	154	WCS
156	Final Updates and WCS Approval	5 days	Mon 12/12/16	Fri 12/16/16	155	CapTech,WCS
157	**5.12.3.3 Fully functional training environment with data**	**30 days**	**Fri 10/21/16**	**Fri 12/2/16**		
158	DEPENDENCY: TRAINING Environments Set-up	0 days	Fri 10/21/16	Fri 10/21/16	94	CapTech,WCS
159	Implement release to training environment	5 days	Mon 11/14/16	Fri 11/18/16	95	CapTech
160	WCS Review	5 days	Mon 11/21/16	Fri 11/25/16	159	WCS
161	Final Updates and WCS Approval	5 days	Mon 11/28/16	Fri 12/2/16	160	CapTech,WCS
162	**5.12.3.4 Training**	**15 days**	**Mon 12/19/16**	**Fri 1/6/17**		
163	Conduct Train the Trainer Sessions	10 days	Mon 12/19/16	Fri 12/30/16	156	CapTech,WCS
164	WCS Review and Approval	5 days	Mon 1/2/17	Fri 1/6/17	163	WCS
165	WCS Conduct Remaining Training Sessions	5 days	Mon 1/2/17	Fri 1/6/17	163	WCS
166	**5.13 Transition to Production**	**75 days**	**Mon 9/26/16**	**Fri 1/6/17**		
167	**5.13.3.1 Production transition plan**	**20 days**	**Mon 9/26/16**	**Fri 10/21/16**		

ID	Task Name	Duration	Start	Finish	Predecessc	Resource Names
168	Complete Production Transition Plan	10 days	Mon 9/26/16	Fri 10/7/16	94SS	CapTech
169	Submit Production Transition Plan	0 days	Fri 10/7/16	Fri 10/7/16	168	CapTech
170	WCS Review	5 days	Mon 10/10/16	Fri 10/14/16	169	WCS
171	Final Updates and WCS Approval	5 days	Mon 10/17/16	Fri 10/21/16	170	CapTech
172	**5.13.3.2 Final conversion of legacy data to new system**	**10 days**	**Mon 12/19/16**	**Fri 12/30/16**		
173	Complete Production Data Conversion	5 days	Mon 12/19/16	Fri 12/23/16	101	CapTech,WCS
174	WCS Review and Approval	5 days	Mon 12/26/16	Fri 12/30/16	173	WCS
175	DEPENDENCY: PRODUCTION Environment Set-up	0 days	Fri 10/21/16	Fri 10/21/16	94	CapTech,WCS
176	Implement release into Production Environment	5 days	Mon 12/19/16	Fri 12/23/16	101,175	CapTech
177	5.13.3.3 Technical support after go-live for at least two weeks	10 days	Mon 12/26/16	Fri 1/6/17	176	CapTech
178	**5.14 Post Implementation Review**	**75 days**	**Mon 10/24/16**	**Fri 2/3/17**		
179	**5.14.3.1 Post Implementation Review Plan**	**20 days**	**Mon 10/24/16**	**Fri 11/18/16**		
180	Complete Post Implementation Review Plan	10 days	Mon 10/24/16	Fri 11/4/16	94	CapTech
181	Submit Post Implementation Review Plan	0 days	Fri 11/4/16	Fri 11/4/16	180	CapTech
182	WCS Review	5 days	Mon 11/7/16	Fri 11/11/16	181	WCS
183	Final Updates and WCS Approval	5 days	Mon 11/14/16	Fri 11/18/16	182	CapTech,WCS
184	5.14.3.2 Execute Plan	30 days	Mon 12/26/16	Fri 2/3/17	176	CapTech,WCS
185	5.14.3.3 Resolution of system and vendor operational issues	30 days	Mon 12/26/16	Fri 2/3/17	176	CapTech,WCS
186	**5.15 Warranty and Corrective Maintenance**	**260 days**	**Mon 12/26/16**	**Fri 12/22/17**		
187	5.15.3.1 Timely corrective action on all system defects	260 days	Mon 12/26/16	Fri 12/22/17	176	CapTech
188	5.15.3.2 User support	260 days	Mon 12/26/16	Fri 12/22/17	176	CapTech
189	5.15.3.3 Release notes	260 days	Mon 12/26/16	Fri 12/22/17	176	CapTech

VII.B. Vendor Response to Scope of Work *(RFP 5.1; 5.1.1–5.1.3)*

RFP 5.1.1: "Within the proposal, vendors must provide information regarding their approach to meeting the requirements described within Sections 5.4 through 5.15."

RFP 5.1.2: "If subcontractors will be used for any of the tasks, vendors must indicate what tasks and the percentage of time subcontractor(s) will spend on those tasks."

RFP 5.1.3: "Vendor's response must be limited to no more than five (5) pages per task not including appendices, samples and/or exhibits."

The sections that follow provide CapTech's approach to meeting the requirements of RFP Sections 5.4–5.15. We do not propose any subcontractors.

VII.B.1. Planning and Administration *(RFP 5.4)*

VII.B.1.1 Objective *(RFP 5.4.1; 5.4.1.1)*

RFP 5.4.1.1: "Objective: To establish a clear, comprehensive project plan and processes, and tools to effectively manage the project through to completion. Also, ensure effective collaboration between the contractor and stakeholders throughout the project."

The first phase of the project includes a comprehensive Business Process Reengineering process that will identify opportunities for improvement, define detailed system and functional requirements, and finalize the level of effort to develop the system. Our Project Manager (PM) will also work during this phase to develop a clear, comprehensive project plan that maps out the business case and clearly defines target business benefits, costs, project objectives, constraints, and risks. Objectives of this phase are to define the project and complete the business case.

CapTech PMs have vast experience planning projects as well as managing them against success metrics established during the initial project planning phase. We will work with WCS to document the main goals and outcomes of the project and to establish project deliverables and schedules to deliver units of work aligned to the goals for the overall project. During project planning, we will implement the appropriate mechanisms to track progress against project goals, such as deliverables and milestone trackers, which will be updated and reported upon on weekly. These mechanisms allow us to confirm we are delivering within schedule and budget. The tools we typically use for project planning include Microsoft Project, Excel, and Jira (an Agile/Scrum tracking tool) to establish initial project baselines and to track project milestone progress and resource allocations.

VII.B.1.2 Activities *(RFP 5.4.2)*

VII.B.1.2.1 Define Project Plan, Schedule, Deliverables, and Roles/Responsibilities *(RFP 5.4.2.1)*

RFP 5.4.2.1: "DIR and the vendor work together to define the detailed project plan, schedule, deliverables, and roles and responsibilities."

CapTech's Project Manager will base our project plan upon our proven delivery methodology and analysis of similar engagements. CapTech has deep knowledge of workers' compensation and will create a plan we know is achievable. This plan will incorporate time for unplanned deviations in project schedule and shifting prioritization of requirements.

CapTech's PM will work with the WCS team to finalize the project's scope. The PM will also refine the project schedule to allow the project team and WCS leadership to have a holistic view of the project and confirm that it includes all controls, reviews, approvals, and dependencies. CapTech will

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engage with WCS stakeholders and all appropriate IT partners to confirm the non-functional requirements and key project deliverables are accounted for as project tasks and/or user stories.

In addition, the PM and Business Systems Analysts (BSA) will document the Knowledge Transition Plan, Communication Plan, and Test Plans, which we will leverage throughout the life of the project. CapTech will partner with the project stakeholders to assess the degree of training required for project success. The overall training strategy must address organization readiness, new technical skills, new operational processes, and system workflows. As defined by the Communication Plan, CapTech's BSAs will partner with WCS to begin appropriate internal and member-related communications during this phase and throughout the lifecycle.

VII.B.1.2.2 Define Processes/Tools to Manage/Control the Project (RFP 5.4.2.2)

RFP 5.4.2.2: "DIR and the vendor will also define the processes and tools to manage and control the project (including change control and communication plan)."

The final project plan will include a detailed Change Control Plan and Communication Plan.

Change Control: Generally, CapTech's Change Control Plans include two parts: 1) Software Policy and 2) Change Requests. The software policy describes how the code base changes, describing the checkout/in process and how the code migrates through the various environments (local, unit, integration, and production) as it is verified and tested. The change request policy describes the process for requesting and approving changes to all non-code project elements, such as requirements, budget, resources, etc. This may describe a Change Control Board or other approval mechanism, as appropriate.

One of the key responsibilities of CapTech analysts throughout the project lifecycle is requirements management. Requirements management involves instituting a change request process, actively managing/negotiating requirements throughout the project lifecycle, and maintaining the requirements traceability matrix.

Communication Plan: The Communication Plan will describe the specific meetings and status communications that the project team will expect to hold and produce. The plan will identify the audiences involved in the communication, describe the meeting details required, and outline the expected agendas and minutes that will be produced for each meeting. The plan will also identify how deliverables will be presented, reviewed, and approved, as well as any escalation strategies.

VII.B.1.2.3 Develop Project Risk Management Plan (RFP 5.4.2.3)

RFP 5.4.2.3: "DIR and the vendor will work together to develop a project risk management plan."

CapTech will establish effective processes and guidelines to identify, communicate, mitigate, and monitor project issues and risks that have any real or potential impact on the delivery of project scope, schedule, quality, or cost. We will be proactive in promptly tracking and identifying issues and risks and provide detailed information on proper control of and response to any that arise. We will maintain an issues and risks log and provide weekly updates on issues and risks so that all parties impacted are aware of status and progress against resolution (i.e., "path to green").

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VII.B.1.2.4 Bi-Weekly Project Status Meeting (RFP 5.4.2.4)

RFP 5.4.2.4: "Vendor to participate in bi-weekly project status meetings with DIR and other stakeholders."

CapTech will provide frequent status reporting to the WCS project and contract manager through bi-weekly status meetings, as well as weekly and monthly project status reports. We will work with WCS PMs to establish the format and content of these status meetings and reports. At a minimum, status meetings and reports will cover progress made against established schedule, financial burn status, deliverables status, resources, and any issues or risks that are identified. When a project is determined to be "yellow" or "red" for any reason, the CapTech PM will work with WCS leaders and performers to identify and document detailed "path to green" resolution plans.

VII.B.1.2.5 Project Related Meetings (RFP 5.4.2.5)

RFP 5.4.2.5: "Vendor to attend and participate in all other project related meetings. When appropriate the vendor will need to prepare materials and/or briefings for the meetings."

CapTech anticipates that this project will be highly collaborative between our team and WCS. We will meet with WCS throughout the project to discuss requirements, project status, priorities, and more.

VII.B.1.2.6 Written Monthly Project Status Reports (RFP 5.4.2.6)

RFP 5.4.2.6: "Vendor to provide written monthly project status reports to DIR. Contents must include: overall completions status in terms of DIR approved project plan and deliverable schedule, accomplishments during the period, problems encountered and proposed/actual resolutions, what is to be accomplished in the next reporting period, identification of schedule slippage and strategy for resolution, contractor staff assigned and their location and schedule, and state resources required for activities during the next time period."

Please see Section 0 above.

VII.B.1.3 Deliverables (RFP 5.4.3)

5.4 PLANNING AND ADMINISTRATION DELIVERABLES			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.4.3.1	Detailed Project Plan	5.4.2.1	15
5.4.3.2	Defined processes for managing and controlling the project	5.4.2.2	N/A
5.4.3.3	Risk management plan	5.4.2.3	5
5.4.3.4	Participation at all meetings	5.4.2.4 ~ 5.4.2.5	10
5.4.3.5	Written monthly status reports	5.4.2.6	10

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VII.B.2. Workers' Compensation Regulatory Software System (RFP 5.5)

RFP 5.5: "The vendor needs to deliver a turn-key system that supports WCS' needs. The following outlines the major project tasks and deliverables/work products. Upon mutual agreement, DIR and the vendor can modify the plan and approach as appropriate to ensure the project is executed in the most effective manner.

The preference is not to have a "water-fall" project approach, but one where DIR staff is interactive with the vendor during each task so that they understand exactly what will be delivered as the end product. Vendors should describe their project approach/methodology in their proposal."

Our process provides close monitoring of user and stakeholder requirements flexible enough to identify and resolve risks for a measurably better final product

Using an iterative/Agile project management methodology, WCS receives predictable delivery of the solution with the added ability to verify requirements iteratively and make real-time improvements—leading to a measurably improved final product that more closely aligns to desired outcomes. CapTech's project team will leverage key principles of Agile methodology to enhance project success. These include early and frequent identification and resolution of risks, daily stand-up meetings to determine status, iterative design and development, frequent validation of work products for continuous improvement, and deconstructing deliverables into smaller components ("Sprints") to allow for daily progress and quick wins for WCS.

We consistently deliver web-based applications on time and within budget, meeting end-user needs and expectations. We have used an Agile methodology on several dozen similar projects, including workers' compensation applications for Kentucky, Missouri, Virginia, and others.

The proposed Agile approach segments objectives into manageable pieces of work while providing WCS with demonstrable, incremental progress. CapTech consultants will partner with WCS' technical and business teams to accomplish the project objectives and will hold scheduled meetings with WCS management and stakeholders to validate the information gathered and to demonstrate development progress. As with all of our efforts, CapTech consultants will partner closely with WCS stakeholders to openly communicate and ensure that project expectations are met. Throughout the engagement, CapTech will apply prior experiences, technical and industry expertise, and best practices to ensure quality results.

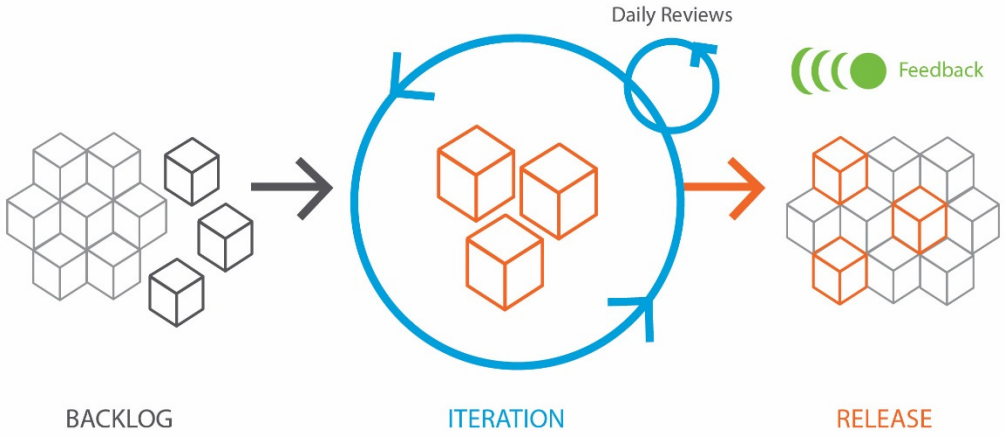

Figure 12. Agile Project Management Methodology.

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The following are key characteristics of an Agile/Scrum methodology:

- *Self-organizing teams—the best architectures, requirements, and designs emerge from self-organizing teams. At regular intervals, the team reflects on how to become more effective and then tunes and adjusts its behavior accordingly. Daily stand-up meetings support the most efficient and effective method of conveying information to and within a development team with face-to-face conversation.*
- *Product progression in a series of time-boxed "Sprints"—working code is delivered every four weeks instead of as a "big bang" at the end of the project and WCS is more involved with the system delivery. The working code is used as the primary measure of progress.*
- *Requirements captured as items in a list of "product backlog"—changing requirements are better accommodated using Agile processes—allowing the development to adjust as priorities evolve. During the first Sprint, we will develop a product backlog containing all of the desired features and functionality. At the beginning of each Sprint, we will review the backlog and "groom" it to ensure it contains the highest priority items.*

Each Sprint will focus on a specific set of user activities as defined by the WCS Product Owner and project team. During each daily stand-up meeting, facilitated by the CapTech Project Manager, the project team will review completed tasks, tasks in-flight, and any impediments to prevent the completion of all planned Sprint stories. In addition, CapTech will ensure all user stories and acceptance criteria are documented, development activities are completed, testing plans and scripts are created and executed, completed stories are demonstrated to project stakeholders, and all the proper approvals are documented and stored in the approved WCS document repository.

VII.B.3. Task 1—BPR and Detailed Requirements (RFP 5.6.1; 5.6.1.1)

RFP 5.6.1.1: "Objective: Identify opportunities to improve WCS business processes by applying enabling technologies and best practices. Also, confirm and finalize WCS' detailed system requirements."

During Task 1, CapTech will complete a thorough analysis of WCS' business processes and system requirements. Over the course of 8 weeks, we will review each of the seven business units identified in the RFP as well as take a holistic view of your organization. To create time and budget efficiencies, we will assign two parallel analyst teams to focus on approximately one business unit each per week. For each business unit, we will:

- *Interview stakeholders and review documentation*
- *Understand current business processes to the extent that it is necessary to design future processes*
- *Prepare future-state process documentation*
- *Review/refine documentation with WCS*
- *Prepare detailed system requirements*

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VII.B.3.1 Activities (RFP 5.6.2)

VII.B.3.1.1 Review WCS' Core Business Processes (RFP 5.6.2.1)

RFP 5.6.2.1: "The vendor will review WCS' core business processes, including interfaces to external entities and make recommendations on how to streamline the processes and increase efficiencies. This may also include a cost/benefit analysis of the proposed changes."

CapTech uses both a top-down and a bottom-up approach when performing strategic assessments. This provides end-to-end findings that inform a high-value future state model.

At the top, CapTech will conduct interviews with representatives various departments. Interviews focus on added value, use of data, identification of gaps, and process outputs. Specifically, CapTech decomposes the application functionality to understand:

- ***How the current applications are being used***
- ***Users of the application***
- ***Data sources***
- ***Process flows to determine the inputs, outputs, and modifications required***
- ***Application usage patterns***
- ***Key metrics and metrics definition***

In the bottom-up approach, CapTech works closely with technical analysts and leads to understand the current state architecture, opportunities for improvement, environments, future state goals, and technical solutions. The following dimensions are evaluated:

- ***Process—Manual and Systematic:*** ***Document manual and systematic processes to identify requirements for reengineered processes. CapTech will assess the current state processes to identify manual, error-prone activities to be addressed by the solution. Additionally, we will determine, at a high-level, what data is used and what data stores are available***
- ***Technology—Infrastructure Landscape:*** ***Technology is reviewed to understand how people are aligned within the organization to support the business. The current state technology landscape is mapped. The technology map considers how technology is used to create value for business lines. At this time, we will also assess the current user interface—however, completing a content analysis and redesigning the look/feel is outside of this work.***

The observations from the process assessment and technology evaluation are constantly synchronized. Through these interviews and by reviewing the systems, documentation, data, workflows, and other assets, CapTech confirms the current state and identifies key requirements of the future system and reengineered processes.

The result is a report of current state and 'To-Be' business process flows with a description of underlying technology used to streamline the processes.

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VII.B.3.1.2 Verify and Document Detailed Information System Requirements (RFP 5.6.2.2)

RFP 5.6.2.2: "The vendor will work with DIR to verify and document the detailed information system requirements. The requirements will need to be at a level of detail to support the development/configuration and testing of the new system. Requirements should include, but not limited to information requirements, interfaces, security requirements, reporting requirements, business rules, and audit trails."

Throughout the Current State Analysis, CapTech will identify key opportunities for improvement through reengineered processes and the technical solution. The analysis will result in 'To Be' process documentation and detailed system / solution requirements. The requirements will include:

- ***Business Requirements: Requirements that state key business needs for the solution based on the 'To-Be' processes. These requirements will capture the methods for removing: identified manual activities, inaccuracies driven by process and system complexity, and availability of information for the system users.***
- ***Functional System Requirements: Detailed requirements that state the critical functions of the system in regards to interface, available data, and system processes. These requirements provide the necessary information to facilitate the system build and full solution.***

VII.B.3.2 Deliverables (RFP 5.6.3)

5.6 BPR AND DETAILED REQUIREMENTS			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.6.3.1	Report of To-Be business process flows with description of underlying technology used to streamline processes.	5.6.2.1	15
5.6.3.2	WCS detailed system requirements report.	5.6.2.2	15

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VII.B.4. Task 2—System Design/Implementation Configuration (RFP 5.7; 5.7.1)

RFP 5.7.1.1: "Objective: The objective of this task is to develop a detailed design document that describes the system architecture, the software and hardware components. The design documentation should be to a level of detail that all project stakeholders can understand what will be developed/implemented. Note: Vendor's proposing Commercial-Off-The-Shelf (COTS) software solution, this task will include a "gap/fit" analysis."

Prior to development, the initial system design will be created early in the project. It will be finalized, reviewed, and approved by WCS. The design documents will govern all technical components of the solution including architecture and low level design details such as component design, data model, reporting, and security. As a best practice, CapTech has observed that long-running modernization projects benefit significantly from a comprehensive design completed early in the project lifecycle. CapTech does acknowledge that once development begins, the team may encounter new information which may necessitate changes to the original design baseline. With the benefit of upfront design, the team will be able to more effectively mitigate project schedule risk, socialize key technical decisions early, communicate change more succinctly with WCS members, and minimize re-work.

At the same time the data team will begin drafting the logical and physical data model for the WCS solution based on an understanding of the requirements and the business domain. The success of the solution depends upon the migration of existing data into the new operational database for the system. CapTech's data architect will map applicable database tables, columns, stored procedures, functions and other objects to the future-state solution. Based on that mapping, CapTech will develop a process for migrating data from each existing data source into the WCS solution database. CapTech proposes Microsoft's SQL Server Integration Services (SSIS) as the proper tool for migrating data. As a data transformation tool, SSIS is highly-regarded throughout the data management community. SSIS packages developed and tested by CapTech will ensure clean, repeatable migrations throughout test cycles and the final production conversion.

VII.B.4.1 Activities (RFP 5.7.2)

VII.B.4.1.1 Review WCS' Core Business Processes (RFP 5.7.2.1)

RFP 5.7.2.1: "Based on requirements, the vendor will develop system design specifications. This includes, but not limited to:

A. Overall system architecture, including technology that will be used;

B. Software products (vendor owned and 3rd party projects);

C. Hardware components;

D. General user interface design (e.g., look, feel, navigation, workflow, storyboard);

E. Database structures;

F. Security;

G. Backup and recovery;

H. Interfaces to external entities; and

I. If the vendor is proposing a COTS solution, then a gap/fit analysis will be performed. The vendor will identify which requirements are met and which ones will require customizations or work-around processes. COTS vendors will also need to provide the system design specification (described above)."

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CapTech architects apply creativity and experience to define a solution that meets the business objectives and requirements from the BPR and Detailed Requirements developed in Section VII.B.3. The team creates appropriate foundations of the technical architecture, documents and communicates with WCS, and then finalizes the design. During the high-level design phase, CapTech designers prepare conceptual design artifacts and models such as the system architecture, software component list, and hardware component specifications. Once the conceptual design artifacts have been completed, work continues to the detailed design artifacts such as the UI design, database model, security implementation, API design, and operational aspects.

CapTech will define the UI and other design related components comprising each page layout so that they meet the specified requirements. WCS will be provided with two high level options from which to choose one that will be delivered. Once the final design has been chosen; CapTech will review those components that carry through the pages of each module and across the application system to identify common elements and design patterns. Based on this analysis, we will derive a set of standard UI objects and patterns, which we will then recast into a set of design templates to guide the application developers in creating a coherent, appealing, and user-friendly experience across all the modules in the system.

VII.B.4.2 Deliverables (RFP 5.7.3)

5.7 SYSTEM DESIGN/IMPLEMENTATION CONFIGURATION			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.7.3.1	System design documentations (can include prototypes)	5.7.2.1 A-H	15
5.7.3.2	Gap/Fit analysis	5.7.2.1 - I	15

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VII.B.5. Task 3—Build and Implement System (RFP 5.8; 5.8.1)

RFP 5.8.1: "Objective: The objective of this task is to develop, test, and deliver a fully functional system that meets WCS' requirements. COTS vendors, as part of this task, will install and configure/customize their proposed system. Throughout this task, the vendor must work closely with WCS staff to verify the system will meet their requirements in an intuitive and efficient manner."

CapTech will begin developing the solution. Based on CapTech's and WCS agreed upon final set of requirements determined to be in-scope within the schedule and budget constraints of the program, we plan to take a module-based approach to develop the system. This allows WCS to see early progress on the various modules of the system.

As with any system, there are architectural and cross-cutting concerns that must be built early in the process to support development of the system going forward. Non-functional aspects of the system, such as security and access, will be built in the early stages of the development process. Furthermore, the development team's primary goal in the early stages of the development cycle will be to build a framework on which the rest of the system's functional components will be built. Later in the development process, the development team will continue to build from requirements, with each unit being thoroughly unit tested and peer reviewed prior to System Integration Testing (SIT) and UAT.

Upon completion of the Development and Testing phase, the code will be promoted to the UAT environment for final acceptance testing. Throughout UAT, CapTech will continue to support the WCS UAT testing team. CapTech will follow WCS standards in the testing approach and how defects are addressed and resolved based on severity. In an effort to minimize the amount of defects that are identified during UAT, CapTech will work with the BA/testing team to understand all relevant business processes prior to UAT. As UAT completes, CapTech will assist WCS in identifying the appropriate test cases for future regression test runs.

The final vulnerability and performance scans will be conducted on the full and complete code base at the conclusion of SIT and UAT. In addition, CapTech will provide a trainer who specializes in OCM to prepare training materials and conduct a train the trainer session on the solution with key business and IT stakeholders.

During release planning, CapTech will complete the documentation of the production deployment and back out plans, and the PM and Development Lead will conduct production deployment and back out plan reviews and walkthroughs with the IT Leads and support teams, as appropriate. Lastly, the team will release and validate the new solution in production.

VII.B.5.1 Activities (RFP 5.8.2)

VII.B.5.1.1 Review WCS' Core Business Processes (RFP 5.8.2.1)

RFP 5.8.2.1: "Establish development and test environments."

Having clearly defined environments for various purposes and having adequate resources allocated to those environments is essential for successful development, deployment, and adoption of large scale applications. To that end, CapTech will set up the following four environments to handle needs from the development phase to post-deployment phase. The following table describes, at a high-level, the purpose, role, and resource needs of these four environments.

Environment	Description
1. Development	While the actual development will be coded on the developer workstations, the development environment will contain servers to deploy the solution. The WCS solution will require servers for each of the components (e.g., web, database) as defined in the system design deliverable.
2. Test	The testing environment will support all forms of testing activity including full integration, regression, and user acceptance testing (UAT). A dedicated team of testers and business users will be primary

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Environment	Description
	users of this environment. The entire application, with all its supporting modules, will be hosted in this environment. The testing environment will contain a set of application servers to host the external portal, internal portal, and back-end components. Due to the lack of a pre-production/staging environment, Test must be built to mimic Production.
3. Production	The production environment will be the full final WCS solution. The end users and members of WCS staff will be the primary users of this environment. The entire application, with all its supporting modules will be hosted in this environment. The testing environment will contain a set of application servers to host the external portal, internal portal, and back-end components.
4. Training	CapTech recognizes user adoption as a key to this projects success. As a result, CapTech will set up a dedicated training environment to train the agency staff. Ideally, this environment will have minimal but dedicated resources to host the application components in its entirety. But, if need be, the training environment could share some of its components, such as database server and content management server, with the development environment. The training environment does not need to be clustered.

Additionally, CapTech highly recommends a fifth environment, typically called Pre-Production or Staging. After the initial release, a Staging environment allows WCS to perform staged releases or serve as a warm backup or disaster recovery environment for the WCS solution. Staged releases are where changes might be approved for deployment to Production on a certain date in the future, but additional changes are being made that need to be tested in the Test environment. If a Staging environment is built, the Test environment no longer needs to mimic production, using less servers.

CapTech will work with WCS to set up and configure the Development environment early in the project. The rest of the environments will have defined milestones for completion by the end of requirements and design.

VII.B.5.1.2 Review WCS' Core Business Processes (RFP 5.8.2.2)

RFP 5.8.2.2: "Develop system and test system."

Using an Agile project management methodology, WCS receives predictable delivery of the system with the added ability to verify requirements iteratively and make real-time improvements—leading to a measurably improved final product that more closely aligns to desired outcomes. CapTech's project team will leverage key principles of Agile methodology to enhance project success. These include early and frequent identification and resolution of risks, daily stand-up meetings to determine status, iterative design and development, frequent validation of work products for continuous improvement, and deconstructing deliverables into smaller components ("Sprints") to allow for daily progress and quick wins for WCS.

Specifically, we will use The CapTech Way™—a formalized SDLC methodology—to ensure that WCS' system is delivered successfully (Figure on the next page). Based on accepted industry best practices, our methodology is non-technology specific and creates continuity between project management, systems architecture, software development, and other programs. Each phase of The CapTech Way™ has a built in method for gathering and reporting data on the project; we complete the entire SDLC during each Sprint, ultimately delivering working, tested code at the end of each Sprint. The sections below describe each phase.

Initiate: The first phase of the project maps out the business case and clearly defines target business benefits, costs, project objectives, constraints, and risks. Objectives of this phase are to define the project and complete the business case.

Analyze Problem: CapTech's Analyze workflow combines strategic analysis to determine the benefits of a proposed project and business modeling to understand the structure and dynamics of an organization. Strategically focused projects drive to the true nature of an organization's needs and are a critical foundational step in any successful business transformation. Our methodology ensures rigor, consistency, and accountability necessary to answer the all-important question: "What do we need?"

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Model Solution: ***CapTech designers apply creativity and experience to define a solution that meets business objectives detailed in the Analysis step. The team creates appropriate foundations of the technical architecture, evaluates alternative approaches in detail, and, with WCS, selects the one that best meets requirements. During the high-level design phase, CapTech designers prepare conceptual design artifacts and models to begin to realize the vision of the stakeholders. Once the conceptual design artifacts have been completed, CapTech designers consult with the system architect and begin to identify the system components necessary to realize the solution.***

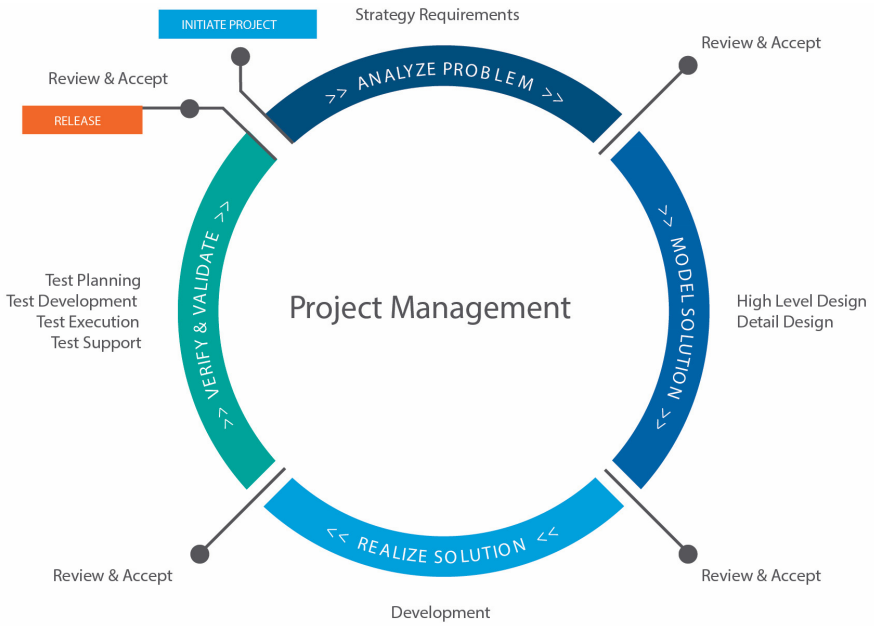

Figure 13. CapTech Way™ SDLC. Creating continuity between project management, systems architecture, & development

The detailed design phase involves refining the high-level design artifacts into detailed programming specifications. To do this, CapTech designers prepare detailed specifications for each system component, including the presentation layer (web pages/screens), service and application layers (web services), and databases/back end systems. Once the detailed design artifacts are complete, CapTech designers review the specifications with the development team to share the vision of the stakeholders and to ensure a common understanding of the system design.

Realize Solution: ***The Development phase is where requirements, designs, and resources are brought together to achieve the project's objectives. Realization of plans and models is not confined to simply creating code. Realization workflow items include unit testing, where the builder evaluates each component versus design specifications, and deployment of the components to system and UAT test environments. Implementation of the business and technological components of the solution are coordinated and directed by the project management team and Technical Architect. Issues and risks are actively managed so that proper corrective or preventative actions can be taken to ensure project objectives are met. Communication channels are tailored to keep project stakeholders and participants appropriately informed of progress, issues, and overall status.***

Verify and Validate: ***CapTech's structured System/Integration Testing process generates high-quality deliverables throughout the SDLC. Please see the Quality Assurance Testing section below.***

Develop System Components *(RFP 5.8.2.2.A)*

RFP 5.8.2.2.A. "Develop system components."

See the section above for a description of the development process used to develop the system.

Perform Structured Demonstrations/Pilots/Walk-throughs *(RFP 5.8.2.2.A)*

RFP 5.8.2.2.B. "Perform structured demonstrations/pilots/walk-throughs of system components to users at various stages this task to ensure the end product is on target. Prior to UAT, users need to see how the system will provide end-to-end support for all their business processes."

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As modules are developed and ready for deployment, CapTech will perform a walkthrough of the module(s) and functionality being deployed. This occurs throughout the project allowing WCS stakeholders to see how the system will support the business processes.

Update Design Specifications and Code (RFP 5.8.2.2.A)

RFP 5.8.2.2.C. "Update design specifications and code based on user feedback. If necessary, re-demonstrate system after making the changes."

Based on feedback, CapTech may update design specification or code and perform another walkthrough if necessary.

Quality Assurance Testing (RFP 5.8.2.2.A)

RFP 5.8.2.2.D. "The vendor will conduct thorough quality assurance testing of system and correct defects prior to delivering it for User Acceptance Testing (UAT) and production. The vendor will also ensure the system meets appropriate performance and throughput requirements."

The Project Manager is responsible for overseeing all aspects of quality for the project. The Business Analysis team serves as testers, with the Lead Business Analyst serving as Test Lead. The Architect is responsible for overseeing the quality of all technical deliverables.

We have saved our clients significant time and money by delivering code that performs the first time and by thoroughly testing it through the entire QA lifecycle to minimize post-production issues. Our testers are not just experienced with QA processes and procedures; they are well-rounded business analysts who have experience in the full lifecycle of software development projects. This allows them to proactively identify potential issues before code is delivered, not waiting until it enters systems testing to be engaged. The figure that follows provides more detail on our testing process, including test planning, test development, and test execution.

During initial stages of the project, CapTech performs Test Planning. CapTech documents a test strategy based on the project's multiple perspectives, e.g., functional, development, infrastructure, and critical customer needs. The test strategy defines the focus of testing, approach to be taken, and the scope of testing throughout the project lifecycle. The test strategy also identifies verification mechanisms to assure how the system realizes/meets the non-functional requirements. From the test strategy, CapTech documents a Master Test Plan, inclusive of System, User Acceptance, Integration, Incremental, and Performance Test Plans.

During Test Development, testers perform requirements reviews from the testability, completeness, correctness, and comprehensiveness perspectives. If the requirement is testable, CapTech derives positive and negative test scenarios through a "virtual testing" process. Next, we design test scenarios, which are statements such as "system should do …" or "system should not do…" The scenarios are derived by virtually imagining the system based on the requirements and what needs to be covered to test and verify it. A test scenario can have one or many test cases. We trace test scenarios and test cases to requirements using the traceability matrix, which helps identify which test cases should be used to test when one or many of the requirements change.

Finally, CapTech performs Test Execution. Based on the test plan and test cases, we build the test data, schedule the tests, set up the test environment, execute the tests per the plan, and note/record/track defects to closure. The testing process generates requirement issues and design issues. While the final test strategy will detail the specific testing tools and methodologies, CapTech has experience using several industry-leading technologies to perform testing (e.g., Mercury, IBM).

Performance Testing: For effective performance testing, CapTech will work with WCS to provide forecasted data on workload and create a model for an effective volume test. CapTech will work with WCS to validate results of the performance test to verify that all business functions are working properly. CapTech will learn about these tests in IT planning meetings and ensure the business is fully

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engaged in performance discussions. CapTech will manage the resources needed to execute the test from WCS' side as part of the test schedule. The other types of testing that will be managed in similar fashion are endurance or stress testing, disaster recover testing, and vulnerability testing.

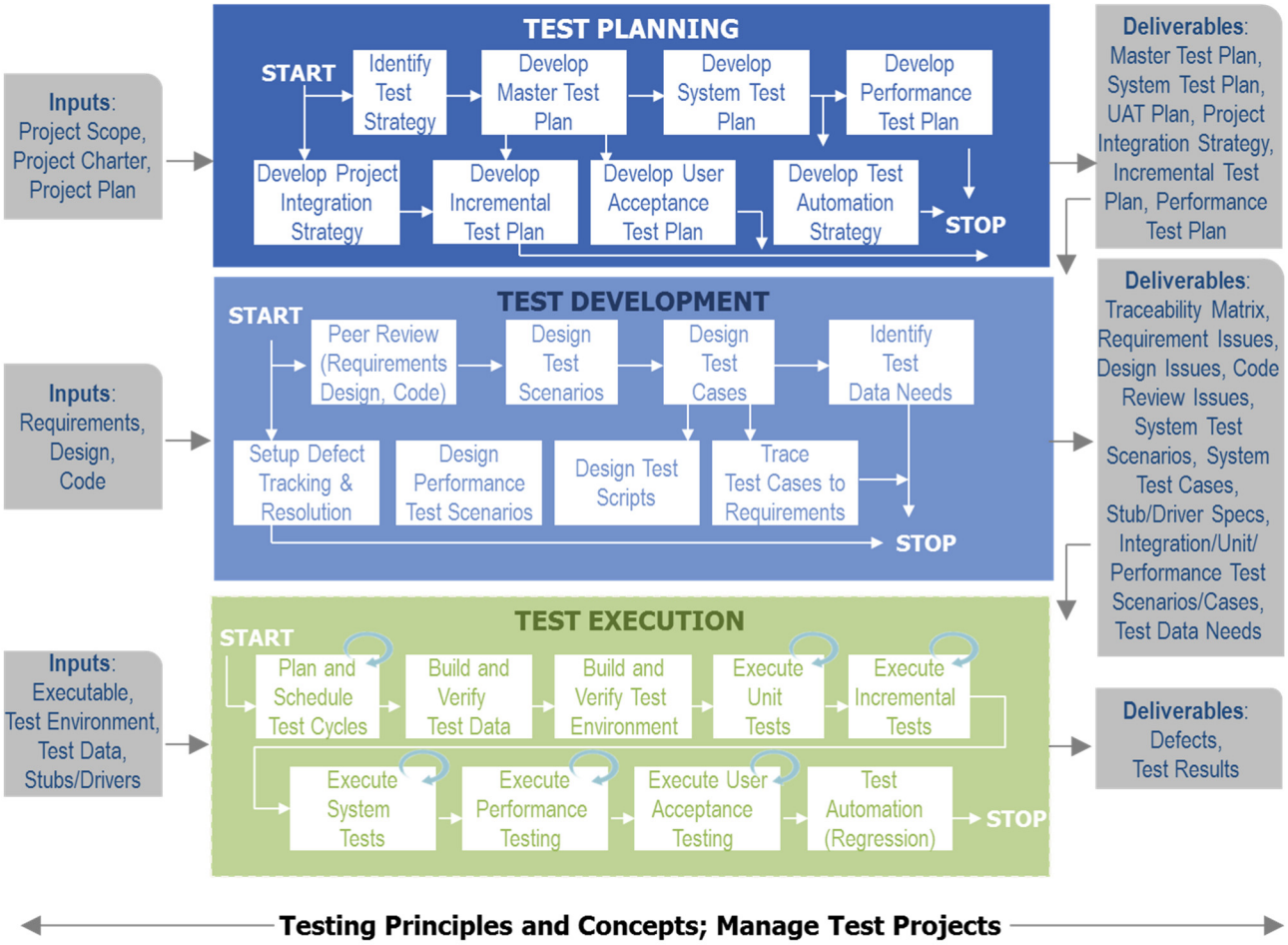

Figure 14. CapTech's Test Process Inputs and Deliverables

Walkthrough of Entire System Prior to UAT (RFP 5.8.2.2.A)

RFP 5.8.2.2.E. "Conduct walkthrough of entire system with users prior to UAT."

Prior to the start of UAT, CapTech will perform a walkthrough of the entire system functionality. The plan for the walkthrough will be developed in advance and provided to WCS for approval. The walkthrough will be planned and performed based on the project schedule.

VII.B.5.2 Deliverables (RFP 5.8.3)

5.8 BUILD AND IMPLEMENT SYSTEM			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.8.3.1	Demonstrations/pilot/walk-throughs of system components.	5.8.2.1	15
5.8.3.2	Deliver fully functional system that the vendor has fully tested.	5.8.2.2 A-C	15
5.8.3.3	Walk-through of entire system prior to UAT.	5.8.2.2 D	5

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VII.B.6. Task 4—Data Migration (RFP 5.9; 5.9.1)

RFP 5.9.1: "Objective: The objective of this task is to migrate historical data from the existing legacy systems to the new system."

CapTech will work with Nevada to define and execute a data migration plan. This plan will ensure all applicable data from VERSA and the Claims Indexing System is included in the newly proposed solution. Ideally, this migration will occur as a one-time activity at which point all future data will be collected and ingested through the new solution.

VII.B.6.1 Activities (RFP 5.9.2)

VII.B.6.1.1 Comprehensive Data Migration Plan (RFP 5.9.2.1)

RFP 5.9.2.1: "The vendor shall work with DIR to develop a comprehensive data migration plan. The legacy systems will include the Versa/Iron Data system (Oracle), the Claims Indexing System (Oracle), and various Access databases. The plan must include at a minimum:"

CapTech will work with Nevada to create a data migration plan. This plan will define all source and destination data elements, a timeline for the migration and any other technical challenges associated with extracting data from source systems. CapTech will apply the following components to the data migration plan:

- ***Ensure the migration takes place during periods of downtime (for Nevada's business operations)***
- ***Involve all business and IT stakeholders to ensure that all data migration requirements are captured and prioritized***
- ***Conduct statistical analysis on all data migration components to fully-validate all migrated data***
- ***Creating and managing to a definitive timeline to ensure that all downstream reporting and analytical activities are not delayed.***

Map Legacy Data to New System (RFP 5.9.2.1.A)

RFP 5.9.2.1.A. "Map legacy data to the new system. DIR will provide staff knowledgeable of the existing systems."

CapTech will work with Nevada to map all existing data elements across VERSA and the Claims Indexing System to the new data platform. While many data elements can be mapped 1-for-1, there may be other data elements that may need to be "split" or duplicated so that they can propagate properly into the new data structure. This will not impact reporting or create systematic redundancies but rather ensure that all future data is more-structured and readily available for analysis.

Document Business Rules and Program Specifications (RFP 5.9.2.1.B)

RFP 5.9.2.1.B. "Document business rules and program specifications for extracting legacy data, performing data cleansing, and loading it to the new system and validating it."

The data migration process will require a variety of business rules and program specifications to ensure that all source data are accurately reflected in the new system. These rules will ensure that the migrated data is clean, error free, and usable within the new environment. CapTech will, where applicable, develop automated test cases so that Nevada can test the entire destination data sets. A set of test cases includes:

Test Case	Description
Claim record comparison	Compare the details of each claim record in the source and destination system

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Test Case	Description
Deduplication	Evaluate source and destination systems and ensure that no duplicate data is transferred to the destination system
Null or missing values	Ensure that no destination data is suppressed, zeroed or nulled-out. Rules will also be used to determine/flag if any values are missing which should not be missing.
Content validity	Ensure that all variable types (e.g., strings, integers) are transferred correctly into the destination data set.
Claim Indexing	Because old and new data will exist for specific entities and claims, CapTech will create unique indices for each entity to ensure that newly entered data does not potentially override existing, imported data.

VII.B.6.1.2 Define Test Cases for Validating Migrated Data (RFP 5.9.2.2)

RFP 5.9.2.2: "The vendor will work with DIR to define test cases for validating the migrated data."

CapTech will work with Nevada to outline a variety of test cases including, but not limited to, the cases defined in the table above.

VII.B.6.1.3 Migrate Legacy Data to Test Environment for Demonstrations and UAT (RFP 5.9.2.3)

RFP 5.9.2.3: "Migrate legacy data to the test environment for demonstrations and UAT."

CapTech will create a temporary test environment on Nevada's servers to test the data migration process before the final migration takes place. CapTech will leverage a team of testers to iteratively validate each test case on all underlying data. They will develop automated processes to save testing time, where applicable and cost-efficient.

VII.B.6.1.4 Migrate Legacy Data to Production Environment Prior to Go-Live (RFP 5.9.2.4)

RFP 5.9.2.4: "Migrate legacy data to the production environment prior to go-live."

Once testing is complete in the test environment, CapTech will begin the final migration into the new production system.

VII.B.6.2 Deliverables (RFP 5.9.3)

5.9 DATA MIGRATION			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.9.3.1	Detailed data migration plan.	5.9.2.1	15
5.9.3.2	Test cases for validating converted data (ensure accuracy of data migration).	5.9.2.2 5.9.2.3	10
5.9.3.3	Migrate data to test and production environments.	5.9.2.4	15

VII.B.7. Task 5—User Acceptance Testing (RFP 5.10; 5.10.1)

RFP 5.10.1: "Objective: The objective of this task is to ensure the system meets WCS' functional requirements. DIR, with the assistance of the vendor will develop a User Acceptance Test (UAT) Plan and test cases. The vendor will need to provide a fully functional system for UAT."

The "realize" phase of CapTech's Project Management Methodology (see Section VII.B.5) will include development Sprints to build the system. At the end of each Sprint and again at the end of the phase, we will perform System/Integration Testing to determine the quality of our code. CapTech emphasizes the quality of our first time code, allowing us to build systems on time with minimized rework. CapTech's customers have come to see the difference in systems delivered or enhanced by CapTech consultants versus many of our competitors or staff augmentation vendors.

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We deliver code for end-to-end user acceptance testing that has been thoroughly unit, system, and integration tested, which results in fewer costly changes during these later testing phases.

VII.B.7.1 Activities (RFP 5.10.2)

VII.B.7.1.1 Fully Functional Test Environment and System (RFP 5.10.2.1)

RFP 5.10.2.1: "The vendor will provide a fully functional test environment and system prior to the start of UAT. This includes ensuring the database tables are properly populated to support all test cases, including daily, weekly, monthly, quarterly and annual processes."

CapTech's testing process consists of three different phases: test planning, test development, and test execution. During the test execution phase, we build the proper test data to support all possible test cases, schedule the tests, and set up a fully functional test environment before executing the tests per the plan. The testing environment will support all forms of testing activity, including user acceptance testing (UAT). The entire application, with all its supporting modules, will be hosted in this environment. The testing environment will contain a set of application servers to host the different system components. CapTech will work closely with WCS to ensure that all WCS business processes are covered in test cases, and that data from these processes (case data, claims data, audit data, etc.) are included in the test environment so that the system can be properly tested.

VII.B.7.1.2 Training to WCS UAT Team (RFP 5.10.2.2)

RFP 5.10.2.2: "The vendor will provide training to the WCS UAT team that so that they understand how to use the system prior to testing."

As described in Section VII.B.9.1, CapTech develops and executes a training plan to ensure that all stakeholders understand the system. This training will be available to the WCS UAT team before UAT testing to adequately prepare the team for testing.

VII.B.7.1.3 UAT Plan and Test Cases (RFP 5.10.2.3)

RFP 5.10.2.3: "The vendor will review WCS' UAT plan and test cases and provide constructive feedback on the approach and testing coverage."

Part of our testing process will include reviewing WCS' User Acceptance Test Plan and Test Cases. Because of our past experience in these areas, we can provide informative and constructive feedback to WCS that will allow it to identify the appropriate business scenarios to test the system's functionality. The User Acceptance Test Plan and Test Cases should be developed by WCS with input from every functional unit to allow the system to be tested for the typical business scenarios. The Test Cases should include entry and exit criteria for tests and precise steps to be taken to execute the test properly. Any defects should be logged, tracked and corrected.

VII.B.7.1.4 Technical Support Throughout UAT (RFP 5.10.2.4)

RFP 5.10.2.4: "Vendor will provide technical support throughout the UAT task and correct software defects, data issues, and other system issues in an expedient manner to keep testing on schedule."

During test execution, we note/record/track defects and other issues to closure in an efficient manner. This allows for testing to stay on schedule while also ensuring the system's complete functionality. Please refer to Section VIII.K (Peer Review Management) for details on how CapTech remediates defects, data, and system issues during testing.

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VII.B.7.2 Deliverables (RFP 5.10.3)

5.10 USER ACCEPTANCE TESTING			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.10.3.1	Test environment and fully functioning system, including test data (vendor to have performed comprehensive system testing).	5.10.2.1	10
5.10.3.2	Vendor training of UAT team so that they understand the system to a level necessary to complete UAT.	5.10.2.2	10
5.10.3.3	Review of WCS' UAT plan and cases.	5.10.2.3	10
5.10.3.4	Technical support and timely remediation of defects, data and system issues throughout the UAT.	5.10.2.4	15

VII.B.8. Task 6—Documentation (RFP 5.11; 5.11.1)

RFP 5.11.1: "Objective: The objective of this task is to develop user and system documentation that will allow WCS to effectively utilize, operate and maintain the system."

CapTech will deliver hard copy and online materials to support WCS in its effort to utilize, operate, and maintain the system. CapTech anticipates that all training deliverables will be available for use and modification by WCS staff at the conclusion of the project. Electronic and hard copy files will be stored in a common repository accessible by WCS staff.

VII.B.8.1 Activities (RFP 5.11.2)

VII.B.8.1.1 User Manual for System Users (RFP 5.11.2.1)

RFP 5.11.2.1: "Vendor will develop user manual for system users, tailored to WCS' terminology and business processes."

As stated in Section VII.B.9.1.2, we provide comprehensive training materials, including:

- ***Job Aids and Quick Reference Guides***
- ***Technical Manuals for Project and Support teams***

VII.B.8.1.2 Online User Help (RFP 5.11.2.2)

RFP 5.11.2.2: "Vendor will provide online user help that ties to the context of the specific area of the system (or function) that is in use."

As stated in Section VII.B.9.1.2, we provide comprehensive training materials, including:

- ***Searchable/Categorized PDFs of relevant user guides accessible by end users online from WCS websites and system help***

VII.B.8.1.3 System Administration/Operations Guide (RFP 5.11.2.3)

RFP 5.11.2.3: "Vendor will develop system administration/operations guide for DIR and state technical staff to operate and maintain the system. The includes, but not limited to: maintenance of user accounts and roles, configuring system parameters and business rules, security features, running of jobs, backup and recovery, building and running reports, setup of letter templates, etc."

As stated in Section VII.B.9.1.2, we provide comprehensive training materials that thoroughly cover system administration/operations, including:

- ***Job Aids and Quick Reference Guides***

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- ***Technical Manuals for Project and Support teams***

VII.B.8.1.4 Technical System Design Report (RFP 5.11.2.4)

RFP 5.11.2.4: "Vendor will develop a technical system design report that details the architecture and design of the system."

CapTech will develop architecture, design, development, and deployment documentation for WCS staff throughout the different phases of the project and will be verified during the Deployment phase. This documentation will be developed by the Technical Architect with the help of the Technical BSA. We will submit all documentation for review to WCS prior to acceptance so the final documentation will include coverage of all areas that WCS would like documented. These are standard deliverables for all CapTech projects with associated templates and guidelines to ensure quality documentation. Elements of the Technical System Design Report include screens and forms, reports, tables and data elements, system interfaces, security and access permissions, and workflow diagrams.

VII.B.8.2 Deliverables (RFP 5.11.3)

5.11 DOCUMENTATION			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.11.3.1	User manual.	5.11.2.1	15
5.11.3.2	Online help functionality and content.	5.11.2.2	10
5.11.3.3	System administration/operations guide.	5.11.2.3	10
5.11.3.4	Technical system design report.	5.11.2.4	10

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VII.B.9. Task 7—Training (RFP 5.12; 5.12.1)

RFP 5.12.1: "Objective: Develop and execute training for users, trainers and technical staff. Training will need to cover all key aspects of the system and presented in the context of how WCS staff performs their business processes."

CapTech has wide ranging experience developing and delivering training solutions for corporate and government clients. CapTech's state government experience with Kentucky, Missouri, and the Commonwealth of Virginia each included a stakeholder readiness/system training work stream as part of the process and technical implementations. CapTech has a well-established internal Train-the Trainer program dedicated specifically to ensuring we provide clients with quality facilitators.

CapTech's capabilities directly align with WCS' training need for orientation to, and rapid adoption of a new, customized workers' compensation regulatory system. CapTech's change readiness/training capabilities are comprehensive and scalable, employing a wide range of training solutions for both internal and external stakeholders, including:

- ***eLearning modules covering system navigation and basic functions***
- ***Detailed instructor-led classroom training, by role in a train-the-trainer format***
- ***Webinars for external or dispersed stakeholders***
- ***System and process demonstrations in a conference-style setting***
- ***Comprehensive user manuals and job aids/process guides, distributed as hard copies and on internal websites***
- ***One-on-one, On the Job training, provided to technical team members and super users***
- ***Post Go Live 'Floor Walker' support provided by trainers and subject matter experts***

CapTech employs the industry standard 'ADDIE' model to define and manage toward a Skills Transfer and Training Plan. ADDIE consists of five phases:

- ***Analysis: determine learning needs and impacted audiences***
- ***Design: define overall training strategy and delivery methods; quantify learning objectives***
- ***Development: create all training materials, execute logistics plan, and prepare facilitators***
- ***Implement: execute the training plan***
- ***Evaluate: seek feedback during development, and formally assess the impact of training***

VII.B.9.1 Activities (RFP 5.12.2)

VII.B.9.1.1 Develop a Training Plan (RFP 5.12.2.1)

RFP 5.12.2.1: "The vendor and DIR will work together to develop a training plan that describes the objectives, content and duration for each topic/module, as well as the delivery approach."

During the Analysis and Design phases of the ADDIE model for developing training, we determine learning needs and impacted audiences. Then, we quantify learning objectives and define the overall training plan and delivery methods that suit the client properly. A detailed description of these phases is below:

Training Analysis: Assessing Learning Needs for Impacted Audiences: This step begins with interviews with WCS SMEs to identify and validate all impacted roles and user groups, culminating in a clear list of learning requirements. A matrix is generated that shows:

4. ***Skill gaps based on new business processes and technology for each impacted role.***
5. ***Specific numbers of users requiring training by role and location.***
6. ***The current technical skill level/proficiency of the target audience.***

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This information is used to identify the training scope and guide the selection of delivery methods and mix of content, and will ultimately lead to the development of a comprehensive training strategy and curriculum plan.

Training Design: Once WCS SMEs have approved outputs from Learning Needs Assessment activities, Training Design can begin. Activities in this phase include validating "to be" process information, building and validating content outlines, clarifying delivery and evaluation methods, and documenting the Post-Go Live training support strategy. CapTech will pay particular attention in this phase to assessing prerequisite skills needs. This will significantly enhance the environment for learning by laying the proper skills foundation users will need to be successful in the full rollout. The culminating deliverable from this phase is a curriculum plan that details:

- *All learning objectives mapped to audience profiles*
- *An overall curriculum map*
- *The role and content matrix*
- *The length and title of each module*
- *All delivery methods and any prerequisites*
- *Requirements for training infrastructure and the post Go Live support approach*

Build and Test Training Plan/Schedule by User Group: While the Analysis phase will fully quantify the training needs of each impacted audience, general needs are already understood. We will develop a curriculum plan during the Design phase that illustrates the grouping of content in the Skills Transfer Plan.

In addition, one of the key outputs of the training Design phase is a comprehensive content matrix mapped to every role impacted by this project.

VII.B.9.1.2 Develop Training Materials and Scenarios (RFP 5.12.2.2)

RFP 5.12.2.2: "The vendor, working with DIR will develop training materials and scenarios."

During the Development phase of the ADDIE model for creating a training curriculum, we create all training materials and scenarios, execute a logistics plan, and prepare training facilitators. A list of all training materials is below:

- *Classroom Materials, to include Participant Manuals, Course slides and handouts, Classroom activities and other supporting materials, and All other training-related design documents*
- *Job Aids and Quick Reference Guides*
- *Technical Manuals for Project and Support teams*
- *Searchable/Categorized PDFs of relevant user guides accessible by end users (from WCS websites and system help)*
- *Documentation used during webinar delivery*

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Below is table of the different types of training scenarios that we can offer.

Training Method / Deliverable	Description
Overview modules*	Provide awareness-level "big picture" content as a prerequisite to role-specific sessions.
Role-specific modules*	Contain role-specific skills and knowledge designed for actual practitioners.
Work Instructions	Detail step-by-step instructions for executing system transactions and other associated tasks (integrated with online help system).
Job Aids & Quick Reference Guides	Document key steps and critical transactions that may not have been fully internalized during formal training.

****These channels may be delivered as instructor-led sessions, eLearning modules, or as live or recorded webinar sessions, and may also serve as prerequisites to the formal training program. CapTech proposes using Adobe Captivate for eLearning development. The output can be viewed using non-proprietary software (Flash), and can either be hosted on an internal Learning Management System, or on internal and external websites.***

VII.B.9.1.3 Provide Training Environment (RFP 5.12.2.3)

RFP 5.12.2.3: "The vendor will provide a training environment with a fully functional system that is populated with data necessary to cover the subject matter described in the training plan and materials."

Contained within the overview and role-specific modules are "Simulations & Scenarios". To provide an authentic real-world situation, we first ensure that the system is fully functional thanks to our testing process. We then populate the system with the necessary data to provide the trainee with as authentic of a simulation as possible.

VII.B.9.1.4 Conduct Training (RFP 5.12.2.4)

RFP 5.12.2.4: "The vendor will conduct training which is tailored to WCS' business processes. DIR currently is open to the train-the-trainer approach."

During the Implement phase of the ADDIE model for developing training, we execute the training plan. We put a heavy emphasis on constantly evaluating how well the training plan is performing against its expectations.

Training Evaluation during Development: It is important for stakeholders to have a channel for regular input during training development. This promotes building quality into the training materials at all stages, and includes:

- ***Regular input from key stakeholders, both through their participation in content walkthroughs, and their review and approval of key deliverables at the end of each phase (such as the curriculum map and the role/content matrix)***
- ***Conference room pilots to 'road test' specific training modules to see if the learning objectives are met, that the timing of each of the modules is appropriate, and that topics are delivered at the right level for the audience***

Training Evaluation upon Course Completion: It is not sufficient simply to evaluate training during its development. The effectiveness of training should be monitored throughout implementation as well. This not only validates the training design, it also confirms that any training requirements that are not being met are identified and steps are taken to build in appropriate content into subsequent course delivery.

Traditionally, this type of training evaluation often consists only of end-of-session surveys and anecdotal feedback. CapTech plans to take a much more formal and deliberate approach to 'summative' training evaluation, using the industry standard Kirkpatrick 4-Level Evaluation model:

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- *Level 1: Reaction (Satisfaction)*
- *Level 2: Learning (Transfer of new Skills & Knowledge)*
- *Level 3: Behavior (Application of Learning Back On the Job)*
- *Level 4: Results (Impact to Business Metrics)*

Post Go Live Support & Reinforcement Strategy: ***In many ways, planning for and providing support once the system is live is just as important as building and executing the formal skills transfer and training plan. CapTech's experience in multiple technical implementations suggests that formal training is critical because it sets the proper foundation for user success. However, support and reinforcement after Go Live is really what makes the formal learning 'stick.' As part of the training strategy and cutover plan, CapTech will ensure project SMEs and WCS technical staff are prepared to play the role of 'floor walker' (both virtually and physically) to support end users after Go Live. We have employed this approach successfully with a number of CapTech's state clients.***

VII.B.9.2 Deliverables (RFP 5.12.3)

5.12 TRAINING			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.12.3.1	Training plan.	5.12.2.1	10
5.12.3.2	Training materials and scenarios.	5.12.2.2	10
5.12.3.3	Fully functional training environment with data.	5.12.2.3	5
5.12.3.4	Training.	5.12.2.4	10

VII.B.10. Task 8—Transition to Production (RFP 5.13; 5.13.1)

RFP 5.13.1: "Objective: The objective of this task is to migrate to the new production system and ensure a smooth transition for WCS operations."

CapTech understands the critical nature of migrating from legacy systems to a new, modern and most importantly integrated application set. As part of up front project planning, CapTech will detail the steps required to prepare the State of Nevada for a smooth, low-risk production release. CapTech is a seasoned consulting firm as had in-depth knowledge of developing and most importantly cutover plans the drive results. CapTech works on behalf of a host of large governmental as well as Fortune 500 companies' developing minute by minute production releases for mission critical applications.

Further, CapTech's methodology is to deliver in an agile fashion therefore creating multiple production ready releases throughout the development lifecycle. Activities (RFP 5.13.2)

VII.B.10.1 Activities (RFP 5.13.2)

VII.B.10.1.1 Transition Plan (RFP 5.13.2.1)

RFP 5.13.2.1: "The vendor and DIR will work together to develop a transition plan that will insure system availability to all users and minimize the impact to WCS operations."

CapTech will provide a high level transition plan during the upfront project initiation activities which will include an overview of the activities required to provide the highest levels of system availability and minimal impact to internal and external stakeholders. As CapTech is working on the final development sprint, we will develop a more detailed Transition Plan to work through the detailed steps for the transition to allow for a well-orchestrated transition and to minimize the WCS impacts.

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VII.B.10.1.2 Final Conversion from Legacy Systems (RFP 5.13.2.2)

RFP 5.13.2.2: "The vendor performs a final conversion from the legacy systems just prior to go live. The final data conversion will be scheduled to minimize the impact to WCS operations."

CapTech will convert legacy system into the new system. It may be necessary to change or clean legacy data prior to conversation. CapTech assumes that the State of Nevada DBAs will be responsible for preparing the data for conversion, including any data cleansing. CapTech will identify the data that will be converted at the completion of the Business Processes Reengineering phase.

VII.B.10.1.3 Immediate Technical Support (RFP 5.13.2.3)

RFP 5.13.2.3: "The vendor will provide immediate technical support at least the first two weeks of production to address any critical issues that may arise. Vendor will have staff available to monitor system and communicate with DIR staff."

CapTech will provide immediate technical support during the first two weeks of go-live. A mutually agreeable plan for communication will be delivered as part of our detailed transition plan documentation. In the past, we have followed a large system implementation with a two-week onsite support model with additional assistance from the remainder of the team through an open conference line. We expect that we will develop a similar model during the transition into support mode that will allow for a mutually agreeable level of assistance.

VII.B.10.2 Deliverables (RFP 5.13.3)

5.13 TRANSITION TO PRODUCTION			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.13.3.1	Production transition plan.	5.13.2.1	10
5.13.3.2	Final conversion of legacy data to new system.	5.13.2.2	10
5.13.3.3	Technical support after go-live for at least two weeks.	5.13.2.3	10
5.13.3.1	Production transition plan.	5.13.2.1	10

VII.B.11. Task 9—Post Implementation Review (RFP 5.14; 5.14.1)

RFP 5.14.1: "Objective: The objective of this task is to evaluate the new system from a functional and performance perspective approximately eight to ten weeks after completion of the production rollout."

After the CapTech team implements the application into Production, we will transition into a Post Implementation Review phase where we will work with WCS to confirm the application's adherence to the expected functional, technical, and performance requirements. Earlier in the project, we will conduct a joint planning session to identify the metrics to measure and targets to verify after the application is put into Production.

VII.B.11.1 Activities (RFP 5.14.2)

VII.B.11.1.1 Post Implementation Review Plan (PIRP) (RFP 5.14.2.1)

RFP 5.14.2.1: "The vendor and DIR will work together to develop a comprehensive Post Implementation Review Plan (PIRP)."

As part of CapTech delivery methodology we conduct a detailed post implementation review to confirm that the application meets the agreed upon scope. As we start to wind down the development and get into final testing, we will put together the plan to document what the final

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review should cover. This will be planned jointly with WCS to allow us to gather the correct input and be ready to validate the appropriate items post implementation.

VII.B.11.1.2 Execute the PIRP (RFP 5.14.2.2)

RFP 5.14.2.2: "DIR, working closely with the vendor, will execute the PIRP to validate that the production system meets WCS' requirements and that the vendor is meeting their service level requirements."

After putting the application into Production, CapTech will work with WCS to execute the PIRP, which will identify if project goals are met, indicate the stability of the application, document the lessons learned as well as develop a prioritized list of enhancements that were not included in scope but would add value to the organization if implemented. Each of the items of the plan will identify any next steps, such as addressing or fixing any scope questions, adjusting the configuration for the infrastructure, or planning for any enhancement releases to include additional scope.

VII.B.11.1.3 Resolve Reported Deficiencies (RFP 5.14.2.3)

RFP 5.14.2.3: "The vendor will resolve reported deficiencies in a timely manner."

As we develop a plan to address the gaps identified in the PIRP, we will review the timing with WCS and track the progress on a weekly basis to confirm that we are meeting our agreed-upon goals.

VII.B.11.2 Deliverables (RFP 5.14.3)

5.14 POST IMPLEMENTATION REVIEW			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.14.3.1	Post Implementation Review Plan.	5.14.2.1	10
5.14.3.2	Execute Plan.	5.14.2.2	N/A
5.14.3.3	Resolution of system and vendor operational issues.	5.14.2.3	TBD

VII.B.12. Task 10—Warranty & Corrective Maintenance (RFP 5.15; 5.15.1)

RFP 5.15.1: "Objective: The objective of this task to ensure the system is working properly in production and provide appropriate warranty service as needed."

Amendment 1, Question 50: "SCOPE OF WORK & TECHNICAL QUESTIONS: RFP 5.15 ("Task 10 – Warranty and Corrective Maintenance): please clarify the minimum warranty period required for this work." Answer: "COTS software – Software defects will be corrected for the entire period WCS is maintaining a maintenance contract with the vendor. Custom software – Software defects will be corrected for at least one year after go-live."

CapTech will agree to the warranty period and will have a team allocated to address defects for the entire period of warranty. The warranty will be invalidated if the State of Nevada or its delegates make changes to the application or supporting infrastructure without the express written approval from CapTech.

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VII.B.12.1 Activities (RFP 5.15.2)

VII.B.12.1.1 Corrective Action for System Defects (RFP 5.15.2.1)

RFP 5.15.2.1: "The vendor will provide immediate corrective action for any system defects."

Following the successful deployment to Production, the project will enter a one-year support period during which time production defects will be triaged, researched, and resolved according to the procedures detailed in the Transition Plan. The first two weeks following the deployment, the CapTech team will provide on-site support to stabilize the application and follow that with remote support available during business hours.

We will develop a Post-Production support plan that identifies how defects are logged, how fixes are tested and implemented, the level of communication between WCS and CapTech, and the responsibilities of CapTech and WCS in the support process. We will expect that WCS will triage any identified issues to confirm that they are not due to data problems or user training prior to submitting them to CapTech for a fix. We expect to log issues according to the following classification:

- ***Classification 1: Critical Issue—this would be considered an issue that results in the entire application being down or unusable for any reason, impacting all potential users. In this situation, once WCS makes CapTech aware of the issue, CapTech would acknowledge the issue and provide an initial response within 2 business hours. The goal for any issue like this would be to address it and have it ready for retest within the same business day or before the next business day begins. If that is not possible, CapTech will indicate what has been completed and what the plan is to remedy the situation.***
- ***Classification 2: Medium Issue—this would be considered an issue that may impact performance of the system (but is still usable) affecting all users or possibly a more severe issue that is localized and only impacting a small portion of the user base. For these types of issues, CapTech would acknowledge the support request from WCS within 4 business hours and have an initial response back with a targeted delivery date/time for the fix before the end of the following business day. In most cases, CapTech would expect to resolve these issues and have them ready for retest within 3-4 business days or sooner.***
- ***Classification 3: Minor Issue—these issues would cover support requests for things like report updates or modifications and would essentially be minor enhancements that cannot wait for the next full enhancement release. For these types of issues, CapTech would acknowledge the support request from DWC within 1 business day and have an initial response back with a targeted delivery date/time for the fix before the end of the 2nd business day. In most cases, CapTech would aim to resolve these issues within 10 business days or less.***

VII.B.12.1.2 User Support During Normal Business Hours (RFP 5.15.2.2)

RFP 5.15.2.2: "The vendor will provide user support during normal business hours."

CapTech will provide user support during normal business hours for the duration of the warranty period. Normal business hours are expected to be 8:00AM-4:30PM Pacific Time.

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VII.B.12.1.3 Clear Release Notes for System Upgrades, Patches, and Fixes (RFP 5.15.2.3)

RFP 5.15.2.3: "The vendor will provide clear release notes for all system upgrades, patches and fixes."

For the warranty releases, CapTech will provide clear information for WCS to understand what has been addressed. For each bug fix, CapTech will list each defect number and a brief description of what was changed in the code. This will allow WCS to maintain a history of the fixes as a reference over time.

VII.B.12.2 Deliverables (RFP 5.15.3)

5.15 WARRANTY AND CORRECTIVE MAINTENANCE DELIVERABLES			
DELIVERABLE NUMBER	DESCRIPTION OF DELIVERABLE	ACTIVITY	STATE'S ESTIMATED REVIEW TIME (WORKING DAYS)
5.15.3.1	Timely corrective action on all system defects.	5.15.2.1	N/A
5.15.3.2	User support.	5.15.2.2	N/A
5.15.3.3	Release notes.	5.15.2.3	5

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VIII. Tab VIII—Section 6: Company Background and References

(RFP 11.2.3.8 and 6)

RFP 11.2.3.8: "Vendors must place their written response(s) in bold/italics immediately following the applicable RFP question, statement and/or section. This section must also include the requested information in Section 6.2, Subcontractor Information, if applicable."

VIII.A. Vendor Information *(RFP 6.1)*

VIII.A.1. Company Profile *(RFP 6.1.1)*

RFP 6.1.1: "Vendors must provide a company profile in the table format below."

Question	Response
Company name:	***CapTech Ventures, Inc.***
Ownership (sole proprietor, partnership, etc.):	***Corporation***
State of incorporation:	***Virginia***
Date of incorporation:	***April 1997***
# of years in business:	***18 years***
List of top officers:	***Sandy Williamson, Chairman of the Board*** ***Slaughter Fitz-Hugh, Board Member/Chief Financial Officer*** ***Kevin McQueen, Chief Executive Officer*** ***Steve Holdych, Chief Operating Officer*** ***Vinnie Schoenfelder, Chief Technology Officer*** ***Joanna Bergeron, Chief Talent Officer***
Location of company headquarters:	***7100 Forest Avenue, Second Floor*** ***Richmond, Virginia 23266***
Location(s) of the company offices:	• ***Richmond, VA*** • ***Reston, VA (Washington, DC metro)*** • ***Charlotte, NC*** • ***Wayne, PA (Philadelphia, PA metro)*** • ***Atlanta, GA*** • ***Columbus, OH*** • ***National traveling consultant-base***
Location(s) of the office that will provide the services described in this RFP:	***Account Management: Richmond, VA*** ***Project Staff: all offices + national traveling consultant-base***
Number of employees locally with the expertise to support the requirements identified in this RFP:	***0 (we do not have an office in Nevada)***
Number of employees nationally with the expertise to support the requirements in this RFP:	***560+***
Location(s) from which employees will be assigned for this project:	***Account Management: Richmond, VA*** ***Project Staff: all offices + national traveling consultant-base***

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VIII.A.2. Registration with State of Nevada (RFP 6.1.2)

RFP 6.1.2: "Please be advised, pursuant to NRS 80.010, a corporation organized pursuant to the laws of another state must register with the State of Nevada, Secretary of State's Office as a foreign corporation before a contract can be executed between the State of Nevada and the awarded vendor, unless specifically exempted by NRS 80.015."

CapTech is incorporated in the Commonwealth of Virginia. Per responses to questions in Amendment 1, CapTech is prepared to register with the State of Nevada, Secretary of State's Office as a foreign corporation after award and prior to contract execution.

VIII.A.3. License in State of Nevada (RFP 6.1.3–6.1.4)

RFP 6.1.3: "The selected vendor, prior to doing business in the State of Nevada, must be appropriately licensed by the State of Nevada, Secretary of State's Office pursuant to NRS76. Information regarding the Nevada Business License can be located at http://sos.state.nv.us."

RFP 6.1.4: "Vendors are cautioned that some services may contain licensing requirement(s). Vendors shall be proactive in verification of these requirements prior to proposal submittal. Proposals that do not contain the requisite licensure may be deemed non-responsive."

Question	Response
Nevada Business License Number:	***Per responses to questions in Amendment 1, CapTech is prepared to register with the State of Nevada and receive appropriate licensing after award and prior to contract execution.***
Legal Entity Name:	***CapTech Ventures, Inc.***

Is "Legal Entity Name" the same name as vendor is doing business as?

Yes		No	***X***

If "No", provide explanation.

Our legal name is CapTech Ventures, Inc. We also do business as "CapTech Consulting" (our website is www.captechconsulting.com).

VIII.A.4. Contracts with State of Nevada (RFP 6.1.5)

RFP 6.1.5: "Has the vendor ever been engaged under contract by any State of Nevada agency?"

Yes	***X***	No	

If "Yes", complete the following table for each State agency for whom the work was performed. Table can be duplicated for each contract being identified.

Question	Response
Name of State agency:	***Department of Education***
State agency contact name:	***N/A: CapTech was a subcontractor to CIT, although we provided 100% of the work.***
Dates when services were performed:	***May 15, 2014–June 30, 2015***
Type of duties performed:	***We provided an SSRS Architect and Data Integration Lead to support the development, installation, and configuration of CRM, an Ad Hoc Query Tool (DRT), and a reporting solution (SSRS).***
Total dollar value of the contract:	***$278,100***

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VIII.A.5. Employees of State of Nevada (RFP 6.1.6)

RFP 6.1.6: "Are you now or have you been within the last two (2) years an employee of the State of Nevada, or any of its agencies, departments, or divisions?"

Yes		No	X

VIII.A.6. Prior or Ongoing Contract Failures (RFP 6.1.7; 12.3)

RFP 6.1.7: "Disclosure of any significant prior or ongoing contract failures, contract breaches, civil or criminal litigation in which the vendor has been alleged to be liable or held liable in a matter involving a contract with the State of Nevada or any other governmental entity. Any pending claim or litigation occurring within the past six (6) years which may adversely affect the vendor's ability to perform or fulfill its obligations if a contract is awarded as a result of this RFP must also be disclosed.

Does any of the above apply to your company?"

Yes		No	X

VIII.A.7. Insurance Requirements (RFP 6.1.8)

RFP 6.1.8: "Vendors must review the insurance requirements specified in Attachment E, Insurance Schedule for RFP 3212. Does your organization currently have or will your organization be able to provide the insurance requirements as specified in Attachment E.

Any exceptions and/or assumptions to the insurance requirements must be identified on Attachment B, Technical Proposal Certification of Compliance with Terms and Conditions of RFP. Exceptions and/or assumptions will be taken into consideration as part of the evaluation process; however, vendors must be specific. If vendors do not specify any exceptions and/or assumptions at time of proposal submission, the State will not consider any additional exceptions and/or assumptions during negotiations.

Upon contract award, the successful vendor must provide the Certificate of Insurance identifying the coverages as specified in Attachment E, Insurance Schedule for RFP 3212."

Yes	X	No	

VIII.A.8. Company Background/History and Qualifications (RFP 6.1.9)

RFP 6.1.9: "Company background/history and why vendor is qualified to provide the services described in this RFP. Limit response to no more than five (5) pages."

VIII.A.8.1 History of CapTech

CapTech was founded in March 1997 by Sandy Williamson and Slaughter Fitz-Hugh. The company has been successful from the very beginning, growing from $380,000 in revenue the first year to a 2015-projected revenue of $100M and more than 560 employees today. Through partnerships with clients and by providing exceptional service, CapTech has continued to grow and build on its successes. CapTech is now a national technology-consulting firm offering services across the entire System Development Lifecycle (SDLC), including management consulting, systems integration, and data management.

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CapTech performs services for a diverse and growing client base that includes several States and Commonwealths (e.g., Virginia, Kentucky, Georgia, Ohio, Washington, Nevada, Missouri, and others). We specialize in workers' compensation programs, providing services in this space for 10 years. We have more than 50 CapTech consultants with direct workers' compensation subject matter expertise that continually support our quality delivery. For example, CapTech's Managing of Government Solutions recently served as the Chairman of the EDI Claims Committee, which has jurisdiction over the International Association of Injury Accident Boards and Commissions (IAIABC) EDI standard as well as the jurisdictional and trading partner (Insurers, TPAs) training programs.

A.1.1.1. Workers' Compensation Qualifications

WCS will benefit from minimized ramp-up time by selecting CapTech—as recognized workers' compensation experts, CapTech brings institutional knowledge to more efficiently develop and implement the system with less risk and improved success. CapTech's overall value to WCS is our deep experience successfully delivering mission-critical platforms across a wide variety of industries, including the workers' compensation and legal domains. We specifically bring 18 years of experience providing application development services to several dozen clients, ranging from government entities to healthcare companies. These fully modernized platforms have supported our clients to transform the way they execute their organizational mission with a focus on decreasing operational costs, greatly enhancing customer service, and most importantly, improving outcomes.

> ***10 years' workers' compensation experience across various states, including Kentucky, Georgia, Virginia, and Missouri***

More specifically, CapTech has 10 years' experience supporting state workers' compensation jurisdictions' efforts to successfully define, design, develop, and deploy efficient and modernized workers' compensation systems and processes. CapTech is an active participant in the IAIABC, the Southern Association of Workers' Compensation Administrators (SAWCA), and most importantly, other workers' compensation jurisdictions. This is due in large part to our successful and forward thinking leadership on several IAIABC technical and standards based working committees, consultants with workers' compensation expertise, and previous State workers' compensation system deployments.

CapTech's Managing Director of Government Solutions recently served as the Chairman of the EDI Claims Committee, which has jurisdiction over the IAIABC EDI standard as well as the jurisdictional and trading partner (Insurers, TPAs, etc.) training programs. We have more than 50 CapTech consultants with direct workers' compensation subject matter expertise that continually support our quality delivery.

As an example, CapTech is almost finished developing a Litigation Management System (LMS) for the Kentucky Department of Workers' Claims (DWC). CapTech built more than 30 web forms for data collection from external users that DWC previously processed on paper. We

> *"The integrated claims management system built for Virginia Workers' Compensation Commission is the direction that the Kansas Division of Workers' Compensation is trying to move its information systems towards. Virginia's integrated claims management system is simply the best system I have seen, and I have seen quite a few."*
>
> ***David Sprick***
> ***Administrator, State of Kansas***
> ***Technology and Statistics***
> ***Department of Labor***

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automated the internal DWC processes to make the data available online for both external and internal DWC users. The application has many dashboards and reports, allowing users to see claim status and overall progress information easily.

CapTech also supported the Virginia Workers' Compensation Commission's (VWC) efforts to identify gaps in its current state, design the future state roadmap, and develop a comprehensive set of applications and processes that support the organization's mission critical functions. To date, more than 2.2 million claims have been reported to VWC through the new data-driven system. Thousands of injured workers have accessed their claims online, with major claim administrators also using this capability.

Furthermore, CapTech worked with the Missouri Department of Labor and Industrial Relations Division of Workers' Compensation to conduct a comprehensive design of their future workers' compensation environment. We conducted a full business process review, executed process reengineering efforts, aligned and built consensus from both internal and external stakeholders, and provided a comprehensive financial justification for proceeding with a full modernization effort.

As a result of this engagement, the audit and collection platform has reduced bottom line costs by $800K annually, while increasing the number of audits conducted annually with the same or fewer amount of auditors. Further, CapTech integrated a robust business analytics capability, which allows Missouri to analyze data to target audits at entities that are both out of tax compliance and have the capacity to pay the debt—as a result, Missouri is also seeing increased tax collection and overall compliance rate.

Finally, For the Virginia Department of Human Resource Management—Division of Workers' Compensation, CapTech performed a comprehensive review of all workers' compensation processes and activities. We identified a comprehensive list of 8 major processes with 43 key controls, tested all key controls to identify weaknesses and exceptions, created a fully integrated view of transactions across vendors and systems, and identified data integration points and controls.

We have further examples working for other workers' compensation jurisictions, including Georgia, Iowa, and a large Northeast state.

A.1.1.2. Technical Qualifications

In addition to our extensive workers' compensation experience, CapTech provides WCS award-winning system development skills and expertise to maximize WCS' system design and usability impact for your users and stakeholders. For example:

Two-time Nielson Norman Group awardee for usable, functional, and reliable system design

- *Nielson Norman Group has recognized CapTech twice with a "10 Best Intranets" award for developing usable, functional, and reliable systems for a Fortune 500 national soup manufacturer and a multi-billion dollar medical research institute.*
- *Based on rigorous experience standards, we are a Microsoft Gold Partner for Application Development.*
- *CapTech earned the distinction of being named Sitecore's 2012 "Government Site of the Year" for designing a highly-usable and functional .Net website for the Commonwealth of Virginia—representing similar user experience, development languages, and requirements techniques as we propose for WCS' System.*

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CapTech provides WCS with seamless integration into your existing technical environment based on our extensive Microsoft experience. We have developed dozens of web-based applications and systems using Microsoft technologies. For example, we recently designed and implemented an ASP.NET MVC custom web-application handling more than 100,000 users; we also architected and implemented one of the largest SQL Server data warehouses in the country, mining 14 billion healthcare claims daily. We have two Microsoft MVPs (Most Valuable Professionals) on staff, both of whom focus on SharePoint and .NET application development.

We are also a top-tier, Gold-certified Microsoft partner—we have earned Microsoft gold competencies in Application Development, Business Intelligence, and Collaboration and Content, putting us in an elite group of less than one percent of Microsoft partners who have earned multiple gold competencies. We have subject matter experts in .NET, SharePoint, BizTalk, Commerce Server, SQL Server, and Dynamics CRM. CapTech has also earned a competency in .NET application development for demonstrated expertise implementing custom .NET solutions.

> *Our web-applications consistently maintain an average 49% reduction in time to complete a task by users and 94% user task success rate*

Finally, CapTech excels at creating web-based applications with beautiful designs that catch the eye and instill credibility and trust in the sophisticated modern-day user. However, aesthetics alone are not enough to maximize the usability of a site. A system cannot be successful if its users are not, and users cannot be successful if content is not available in an easy to navigate and intuitive way. A site must anticipate and account for how the typical visitor will use a system and design an architecture to match. Knowledge of user preferences must be based on quantifiable research and data-driven user analytics, not just assumptions or intuitions about how a user will behave. To that end, we use quantifiable metrics to ensure the highest levels of system usability and our user-centered approach to design ensures that user needs and goals are the drivers for design.

VIII.A.9. Length of Time Providing Services (RFP 6.1.10)

RFP 6.1.10: "Length of time vendor has been providing services described in this RFP to the public and/or private sector. Please provide a brief description."

Per Section VIII.A.8, CapTech has provided services described in this RFP for the workers' compensation industry for 10 years and for all industries for 18 years.

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VIII.B. Subcontractor Information *(RFP 6.2; 6.2.1)*

RFP 6.2.1: "Does this proposal include the use of subcontractors?"

Yes		No	X

VIII.C. Business References *(RFP 6.3; 6.3.1–6.3.7)*

RFP 6.3.1: "Vendors should provide a minimum of five (5) business references from similar projects performed for private, state and/or large local government clients within the last five (5) years."

RFP 6.3.2: "Business references must show a proven ability of:"

RFP 6.3.2.1:" Developing, designing, implementing and/or transferring a large scale application with public and/or private sectors;"

RFP 6.3.2.2: "Delivering worker compensation system solutions that support business processes similar to WCS."

RFP 6.3.2.3: "Designing and developing secure data interfaces between government agencies and external stakeholders."

RFP 6.3.2.4: "Business process re-engineering ("as is" and "to-be")."

RFP 6.3.2.5: "Developing detailed information system requirements;"

RFP 6.3.2.5.A "Knowledge of workers compensation industry standards for example: IAIABC EDI"

RFP 6.3.2.6: "Developing and executing a comprehensive application test plan;"

RFP 6.3.2.7: "Developing and implementing a comprehensive training plan;"

RFP 6.3.2.8: "Experience with comprehensive project management;"

RFP 6.3.2.9: "Experience with cultural change management;"

RFP 6.3.2.10: "Experience with managing subcontractors; and"

RFP 6.3.2.11: "Development and execution of a comprehensive project management plan."

RFP 6.3.2.12: "Implement systems that integrate document management and workflow."

RFP 6.3.3: "Vendors must provide the following information for every business reference provided by the vendor and/or subcontractor:

The "Company Name" must be the name of the proposing vendor or the vendor's proposed subcontractor."

The sections that follow contain five references from highly similar projects, each of whom have submitted the required Attachment F (Reference Questionnaire) on or before the deadline. All of our references include proven ability to deliver similar applications to WCS, per RFP requirements 6.3.2.2–6.3.2.12. These five references include:

- ***Reference 1: Virginia Workers' Compensation Commission (VWC)—this past performance represents a similar scope of work to WCS' requirements for another State Agency. We created what most jurisdictions consider a best in class enterprise workers' compensation solution. This included replacing all of their aging business-critical software applications with a mix of commercial software packages and custom-developed Java-based web portal applications.***
- ***Reference 2: Commonwealth of Kentucky Litigation Management System (LMS)—we developed a Litigation Management System (LMS) that had many similarities to the WCS' desired scope. CapTech built over 30 web forms for data collection from external users that DWC previously processed on paper. Through Business Process Re-engineering, we automated DWC's internal***

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processes and made the data available online for both external and internal DWC users. The application has many dashboards and reports, allowing users to see claim status and overall progress information. In addition, data was migrated from the existing FileNet system into SharePoint to provide a more cost effective and easier way to access the images of the paper forms.

- *Reference 3: State of Missouri Workers' Compensation Gap Analysis—CapTech completed a comprehensive business process assessment for the Division of Workers' Compensation (DWC). In an effort to modernize its technology and business processes, DWC's began the Workers' Compensation Modernization project (WCMOD). CapTech provided recommendations and a roadmap for WCMOD and a cost/benefit analysis of the future recommendations.*
- *Reference 4: Verisk Health Chart Navigator Application—we implemented an integrated, enterprise-wide application development using Microsoft .NET architecture.*
- *Reference 5: Virginia Department of Behavioral Health (DBHDS) Data Warehouse—this project included designing and developing secure data interfaces between government agencies and external stakeholders, as well as data analysis and data design to integrate many of the core DBHDS source systems.*

VIII.C.1. Reference 1: Virginia Workers' Compensation Commission

Reference #:	*1*		
Company Name:	*Virginia Workers' Compensation Commission (VWC)*		
Identify role company will have for this RFP project (Check appropriate role below):			
CapTech (Prime)	*VENDOR*		*SUBCONTRACTOR*
Project Name:	*Enterprise Workers' Compensation Solution*		
Primary Contact Information			
Name:	*Paul Baitinger, Assistant CIO / Application Development*		
Street Address:	*1000 DMV Drive*		
City, State, Zip:	*Richmond, VA 23220*		
Phone, including area code:	*Work: 804-205-3936* *Mobile: 804-467-8721*		
Facsimile, including area code:	*N/A*		
Email address:	*paul.baitinger@workcomp.virginia.gov*		
Alternate Contact Information			
Name:	*N/A*		
Street Address:	*N/A*		
City, State, Zip:	*N/A*		
Phone, including area code:	*N/A*		
Facsimile, including area code:	*N/A*		
Email address:	*N/A*		
Project Information			
Brief description of the project/contract and description of services performed:	*To begin this effort, CapTech successfully completed the delivery of a comprehensive, modernized set of applications and efficient business processes.* *CapTech conducted a comprehensive review of VWC's existing business processes and recommended opportunities for technological and business process improvement aimed at transforming agency operations into a more effective and efficient workforce. This phase of our engagement included high-level documentation of all existing data inputs and outputs to each major operational process. During the course of this engagement, CapTech conducted research into nationwide Workers' Compensation knowledge sets and best*		

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	practices, including establishing relationships with the IAIABC and SAWCA, as well as discussing previous or in-progress IT modernization efforts conducted by other jurisdictions.
	
	In the course of our business process efforts, the VWC extended CapTech's engagement to include an assessment of the capabilities, organizational structure, and processes of their Information Systems department. Ultimately, as part of these two parallel engagements, CapTech delivered a comprehensive set of recommendations covering future state business processes, IT hardware infrastructure and software platforms, and line-of-business IT systems.
	
	Based on the strength of these initial recommendations, the VWC retained CapTech for a two-year, multi-million dollar Technology Alignment Program (TAP). CapTech assisted VWC in replacing all of their aging business-critical software applications with a mix of commercial software packages and custom-developed Java-based web portal applications. As part of this engagement, CapTech also managed the day-to-day operations of the agency's internal Information Systems department including help desk, engineering, and software development operations.
	
	The system harnesses the IAIABC EDI R3 standard for first and subsequent reports of injury and NCCI's POC EDI standard for integrating compliance and other coverage based information. Further, we believe that VWC is currently working on integration with other Commonwealth of Virginia entities to support fraud and other state compliance-related analysis.
	
	RESULTS: As a result of this work, CapTech defined a set of best practices that led to the creation of the only completely data-driven, integrated application set for a jurisdiction.
	
	To date, more than 2.2 million claims have been reported to VWC through the new data driven EDI system. Thousands of injured workers have accessed their claims online, with major claim administrators also taking advantage of this capability. Realized business benefits include:
	
	• *Consistent method of handling claims based on the rules and regulations of VWC*
	• *Increased self-service functionality and instant access to the complete claim record for injured workers, claim administrators and attorneys*
	• *Multi-user access to the same record at the same time*
	• *Reliable and measurable metrics on work performed across tasks and individuals via Management Reporting functionality*
	• *Successful elimination of the following:*
	  ○ *Manual data entry for claims filed with the commission*
	  ○ *"Partial record" risk through a centralized in-bound/out-bound correspondence facility*
	  ○ *Paper forms for Proof of Coverage processes*
	• *Technical Results include:*
	  ○ *Modern technology infrastructure replacing a fragmented, unsupportable situation*
	  ○ *Improved data integrity and reporting capabilities*

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	○ *Integrated technologies and solutions allowing for consistent views into the system of record* *VWC is viewed as a leader within the IAIABC community based on its proactive adoption of a pragmatic approach to EDI implementation, its ability to meet published deadlines successfully and through proven demonstrations of the claims management system to other jurisdictions. As requested, CapTech continues to work with VWC to ensure the internal organization is able to leverage the new processes and technologies that are now available to them.*
Original Project/Contract Start Date:	*October 2007*
Original Project/Contract End Date:	*January 2010 (Original Application)* *April 2011 (Enhancements to Application)*
Original Project/Contract Value:	*$11M*
Final Project/Contract Date:	*January 2010 (Original Application)* *April 2011 (Enhancements to Application)*
Was project/contract completed in time originally allotted, and if not, why not?	*Yes*
Was project/contract completed within or under the original budget / cost proposal, and if not, why not?	*Yes*

VIII.C.2. Reference 2: Commonwealth of Kentucky

Reference #:	*2*		
Company Name:	*Commonwealth of Kentucky*		
Identify role company will have for this RFP project (Check appropriate role below):			
CapTech (Prime)	*VENDOR*		*SUBCONTRACTOR*
Project Name:	*Litigation Management System (LMS)*		
Primary Contact Information			
Name:	*Fran Davis, Director*		
Street Address:	*Department of Workers' Claims* *657 Chamberlin Avenue*		
City, State, Zip:	*Frankfort, KY 40601*		
Phone, including area code:	*502-782-4578*		
Facsimile, including area code:	*N/A*		
Email address:	*FrancesA.Davis@ky.gov*		
Alternate Contact Information			
Name:	*Dwight T. Lovan, Commissioner*		
Street Address:	*Department of Workers' Claims* *657 Chamberlin Avenue*		
City, State, Zip:	*Frankfort, KY 40601*		
Phone, including area code:	*502-782-4439*		
Facsimile, including area code:	*N/A*		
Email address:	*Dwight.lovan@ky.gov*		
Project Information			
Brief description of the project/contract and description of services performed:	*DWC's existing system consisted primarily of manual processes with back-end systems that were not suitable for use in the connected world. Access to critical information and documentation for claim parties was expensive and cumbersome. There was limited ability for judicial stakeholders to efficiently exchange information, manage cases, and*		

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	maintain hearing logistics. It was challenging to maintain, store, and retrieve records and documentation because of a 3rd party vendor (FileNet) licensing fee structure that was incompatible with DWC's vision. As a result, DWC engaged CapTech to develop a web-based application that easily administered key workflows and processes such that users could readily initiate and administer claims, run reports/dashboards, and manage cases. The new system helped advance DWC from paper-based to online processes and structured data. *CapTech provided a collaborative environment where the team worked with DWC to develop the solution in multiple phases.* *Phase 1: In the initial phase, CapTech business analysts met with the DWC Subject Matter Experts (SME) to envision how the application fit into the overall strategic and tactical plans for DWC. Through several weeks of interviews with DWC, reviews of State regulations and external user research, CapTech elicited and documented comprehensive business and technical requirements. These requirements were turned into user stories that led directly into the iterative development effort. In addition, the user experience analyst and designer developed a series of initial screens and layouts to help DWC envision the resulting system. CapTech followed its user experience best practices to create a user interface and design that was intuitive and easy to navigate.* *During the initial phase, the CapTech architect developed a system design and technical architecture that included actionable plans and a roadmap for developing the application. In addition, the architect and development team set up the environments to allow application development to get started in the next phase.* *Phase 2: In the second phase, CapTech used an iterative approach to build the application. In each iteration, CapTech business analysts worked with the DWC SMEs to define the details of each screen and report, including the specific business rules for every input field. The development team used the detailed rules and requirements to design and build the application. After each iteration, CapTech conducted a structured system test and subsequently handed off the application to DWC for a UAT effort. This process allowed DWC to see results of the application and provide clarifying input along the way.* *During this phase, the technical team began the migration of data from FileNet into SharePoint and developed services to access the data. CapTech migrated almost 35 million images into SharePoint to provide an easier platform for documents to be managed and retrieved. For new filing or claim information submitted through LMS's new web forms, LMS generates a PDF version of the data and form and stores it into SharePoint for easy retrieval for review during a case.* *Phase 3: In the final phase, CapTech handed off the full application to DWC for a final UAT and integration testing. In addition to verifying the code met the requirements, DWC followed the new processes to confirm they aligned with the LMS functionality to manage the entire claims process fully. We will push the final application into production in the next few weeks, after which CapTech will deliver training to internal DWC users and external stakeholders. CapTech developed detailed designs and operations guides and will deliver on-site training for the*

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	DWC technical support team to allow them to take over the operational responsibility of the application.
Original Project/Contract Start Date:	***October 2014***
Original Project/Contract End Date:	***November 2015***
Original Project/Contract Value:	***$3M***
Final Project/Contract Date:	***November 2015***
Was project/contract completed in time originally allotted, and if not, why not?	***Yes***
Was project/contract completed within or under the original budget / cost proposal, and if not, why not?	***Yes***

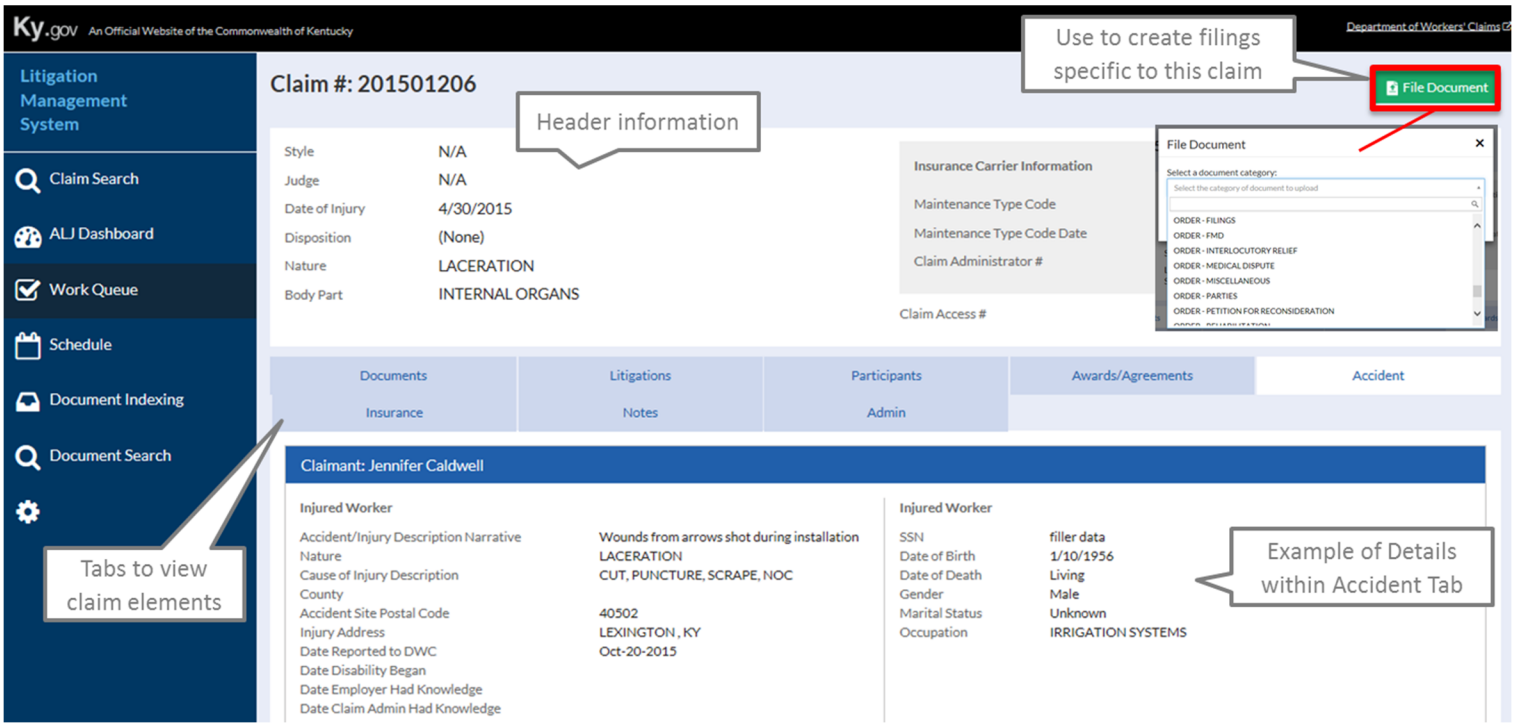

Figure 15. Screenshot of DWC's new LMS system

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VIII.C.3. Reference 3: State of Missouri

Reference #:	*3*		
Company Name:	*State of Missouri, Division of Workers' Compensation (DWC)*		
Identify role company will have for this RFP project (Check appropriate role below):			
Rose International	*VENDOR*	*CapTech (Prime)—providing 100% of the work*	*SUBCONTRACTOR*
Project Name:	*Workers' Compensation Modernization (WCMOD) Assessment*		
Primary Contact Information			
Name:	*Paul A. Rockers, Special Projects Manager*		
Street Address:	*P.O. Box 58*		
City, State, Zip:	*Jefferson City, MO 65102-0058*		
Phone, including area code:	*573.526.7035*		
Facsimile, including area code:	*N/A*		
Email address:	*paul.rockers@labor.mo.gov*		
Alternate Contact Information			
Name:	*N/A*		
Street Address:	*N/A*		
City, State, Zip:	*N/A*		
Phone, including area code:	*N/A*		
Facsimile, including area code:	*N/A*		
Email address:	*N/A*		
Project Information			
Brief description of the project/contract and description of services performed:	*CapTech completed a comprehensive business process assessment for the Division of Workers' Compensation (DWC). In an effort to modernize its technology and business processes, DWC's began the Workers' Compensation Modernization project (WCMOD). CapTech provided recommendations and a roadmap for WCMOD and a cost/benefit analysis of the future recommendations.* *The project team analyzed the DWC business and technical needs, completed research, presented options, mad recommendations, and provided a high-level plan to implement the recommendations for the WCMOD build phase. The final project deliverables contained an accurate representation of the DWC's current state, provided a vision for the future based on Missouri's specific goals and needs, and delivered an actionable set of right-sized recommendations tailored for the DWC environment.*		
Original Project/Contract Start Date:	*December 2013*		
Original Project/Contract End Date:	*February 2014*		
Original Project/Contract Value:	*$258,200*		
Final Project/Contract Date:	*February 2014*		
Was project/contract completed in time originally allotted, and if not, why not?	*Yes*		
Was project/contract completed within or under the original budget / cost proposal, and if not, why not?	*Yes*		

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VIII.C.4. Reference 4: Verisk Health

Reference #:	*4*		
Company Name:	*Verisk Health*		
Identify role company will have for this RFP project (Check appropriate role below):			
CapTech (Prime)	*VENDOR*		*SUBCONTRACTOR*
Project Name:	*Chart Navigator Application*		
Primary Contact Information			
Name:	*Ethan Edwards, Vice President, Project Management Office*		
Street Address:	*6802 Paragon Place, Suite 500*		
City, State, Zip:	*Richmond, VA, 23230*		
Phone, including area code:	*804.915.4895*		
Facsimile, including area code:	*N/A*		
Email address:	*Ethan.Edwards@VeriskHealth.com*		
Alternate Contact Information			
Name:	*N/A*		
Street Address:	*N/A*		
City, State, Zip:	*N/A*		
Phone, including area code:	*N/A*		
Facsimile, including area code:	*N/A*		
Email address:	*N/A*		
Project Information			
Brief description of the project/contract and description of services performed:	*This application development project represents a highly similar scope as WCS' project, including full requirements development, testing, design, technical architecture, development, and implementation. The project represents highly similar size and duration. Additionally, programmers used .NET to develop the site.* *Verisk developed a successful business model around supporting the clinical medical record coding efforts for Healthcare providers across the country. This support centered on several manual processes to request and retrieve medical records and an internally developed stand-alone coding application to accurately code the records. On the business side, Verisk was expanding their client-service approach to allow clients to leverage the coding solution directly in an ASP model. To support this new business approach and to continue addressing their existing clients' growing businesses, Verisk embarked on an effort to develop an integrated, enterprise solution for all phases of the clinical coding business.* *CapTech delivered a robust and integrated technology solution using Microsoft's .NET architecture. CapTech applied a structured project management approach centered on an iterative software development process. The solution automated many of the previously manual processes and integrated the end-to-end clinical coding process from list identification through medical record coding. CapTech worked with the client to design and implement robust workflow, security, and controls for the application. Data integrity and confidentiality were core requirements for the solution. CapTech implemented multi-tenant data architecture to avoid cross-pollination of data across the different Verisk clients. This application is an industry leader and provides a fully integrated, end-to-end solution for clinical coding needs.*		

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	The successful completion of this application resulted in robust productivity gains across the business lifecycle. This project provided Verisk with the platform they required to release this product to their clients and begin the training process on the new technology in support of their coding needs. A roadmap for continued improvement was developed to ensure ongoing support and enhancements for additional client requests. The business realized key results, including: • ***60% increase in coding productivity*** • ***Automation of more than 80% of the remaining core functions*** • ***Onboarding of key clients as a result of the new Software-as-a-Service model*** • ***On-line resource and work management enabled by workflow and task prioritization capabilities***
Original Project/Contract Start Date:	***September 2010***
Original Project/Contract End Date:	***July 2011***
Original Project/Contract Value:	***$1.84M***
Final Project/Contract Date:	***July 2011***
Was project/contract completed in time originally allotted, and if not, why not?	***Yes***
Was project/contract completed within or under the original budget / cost proposal, and if not, why not?	***Yes***

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VIII.C.5. Reference 5: Virginia DBHDS

Reference #:	5		
Company Name:	*Commonwealth of Virginia, Department of Behavioral Health and Developmental Services (DBHDS)*		
Identify role company will have for this RFP project (Check appropriate role below):			
CAI (Prime, Performed 0% of the work)	*VENDOR*	*CapTech (Performed 100% of the Work)*	*SUBCONTRACTOR*
Project Name:	*Data Warehouse Development (Phases 1 and 2)*		
Primary Contact Information			
Name:	*Russ Sarbora*		
Street Address:	*1220 Bank Street*		
City, State, Zip:	*Richmond, VA 23219*		
Phone, including area code:	*804.786.1640*		
Facsimile, including area code:	*N/A*		
Email address:	*Russell.Sarbora@dbhds.virginia.gov*		
Alternate Contact Information			
Name:	*N/A*		
Street Address:	*N/A*		
City, State, Zip:	*N/A*		
Phone, including area code:	*N/A*		
Facsimile, including area code:	*N/A*		
Email address:	*N/A*		
Project Information			
Brief description of the project/contract and description of services performed:	*CapTech designed and developed a data warehouse prototype with the purpose of establishing:* • *A data integration framework and reporting architecture. The data integration framework is used to manage and standardize configurations, logging, and reporting of data movement across the organization. Similarly, a reporting architecture will provide a standard approach to develop, deploy, and access all reports in DBHDS* • *A master data management system that includes underlying technology and will import/map multiple different sources together* • *A data warehouse and self-service reporting prototype. This includes the staging and data warehouse structures for a limited number of sources and data elements, self-service business intelligence reporting, and a limited set of initial reports.* • *An addition of two new data sources* • *A broad DBHDS user community for the data warehouse* *CapTech also developed documentation with implementation details for DBHDS internal staff. The documentation includes source system mappings to the DBHDS Person Hub solution and all business rules used in matching person data across systems. This documentation will be used by DBHDS staff for future Commonwealth projects that may require DBHDS to expose person data to other state agencies. We also created a reporting tool gap analysis selection document that lists any reporting requirements that cannot be met by the Microsoft reporting tools (SSRS, SSAS) and that recommends Business Intelligence/Reporting software that can satisfy the unmet requirements.* *As a result of this work, DBHDS realized the following results of this project:*		

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	• *The data integration framework and reporting architecture decreases development/maintenance efforts and provide a consistent standard for all future data warehouse initiatives.* • *The master data management system links individuals from different source systems together.* • *The data warehouse includes self-service intelligence reporting.* • *The additional data sources ensure a functional process for ongoing additions of new data sources, as well as that internal DBHDS staff are trained and proficient at adding new data sources.*
Original Project/Contract Start Date:	***October 2013***
Original Project/Contract End Date:	***July 2015***
Original Project/Contract Value:	***$1.6M***
Final Project/Contract Date:	***July 2015***
Was project/contract completed in time originally allotted, and if not, why not?	***Yes***
Was project/contract completed within or under the original budget / cost proposal, and if not, why not?	***Yes***

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VIII.D. Vendor Staff Resumes *(RFP 6.5)*

RFP 6.5: "A resume must be completed for each proposed individual on the State format provided in Attachment I, Proposed Staff Resume, including identification of key personnel per Section 14.3.19, Key Personnel."

Amendment 1, Question 46: "RFP 13.3.19 provides guidance on key personnel, but does not state who (which roles) are considered key. Please clarify which positions are considered key." Answer: "Project Manager, workers compensation subject matter expert, and lead technical staff."

CapTech's proposed staff provides WCS with experienced, trained, and qualified personnel. CapTech's project organizational structure (Figure 16) provides the following benefits:

- ***Institutional knowledge of workers' compensation applications and processes, developed from highly similar implementations in Kentucky, Virginia, Missouri, Georgia, and other states.***
- ***A proven leadership team, led by a certified Project Manager with 25 years' experience who successfully led the development of a multiple workers' compensation systems.***
- ***Streamlined and cost-effective leadership—avoiding redundant management layers by assigning a single leader who adds more than just oversight (contributing to testing, deliverables, and requirements gathering)***
- ***Average 10+ years of system development expertise among proposed personnel***
- ***.NET trained and certified personnel with experience across all of the required tools and technologies***
- ***100% on-shore team—allowing for more effective communication, in-person meetings, and faster response times***

The figure that follows depicts our proposed org chart, with the Key Personnel indicated.

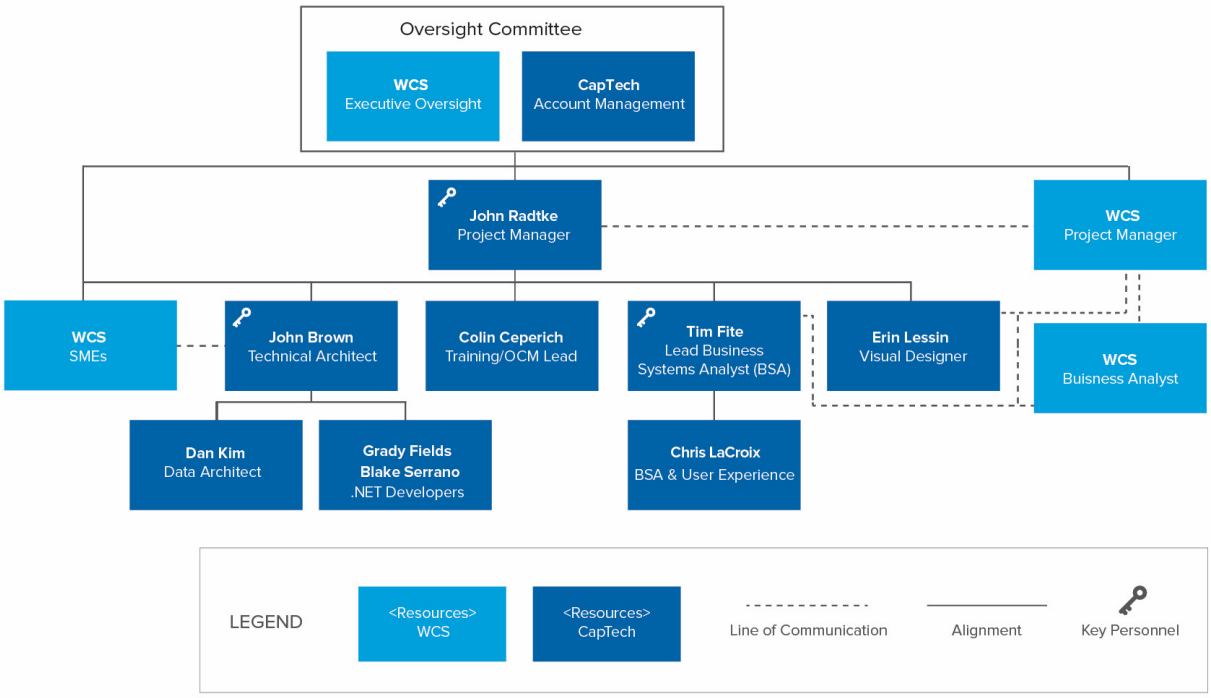

Figure 16. Project Team Org Structure. We facilitate clear lines of communication for project success.

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The table below explains the responsibilities of each role. CapTech can staff the project with these resources upon contract award without delay. All personnel will be full-time (100% of their time) during their applicable tasks, although not all roles are required for the entirety of the project. For resumes of key personnel, please see Appendix 1: Key Personnel Resumes.

CapTech Role	Task Assignments
Project Manager ** Key Personnel*	• Overall responsibility for the success of the project • Document and present weekly project status • Manage project backlog, burn down, and schedule • Perform quality reviews on all deliverables • Ensure all training and transition activities are complete • Ensure requirements traceability, validation, and verification • Define and execute a Risk and Issue Management Plan • Define and manage a Change Control process
Technical Architect (Technical Lead & Implementation Lead) ** Key Personnel*	• Oversee migration of data; develop services to access the data • Review code to confirm quality and adherence to both CapTech and WCS coding standards • Develop and communicate a system design that meets the required functional and non-functional requirements and maintains as much flexibility for future changes as possible • Manage various environments to confirm they are up and available to the team • Deploy code between environments • Manage all required tickets • Develop/implement technical part of Knowledge Transfer Plan deliverable
Business Systems Analyst (BSA)/User Experience (UX)/Tester	• Work with SMEs and technical team to elicit functional and technical requirements • Develop user stories, acceptance criteria, and associated business rules • Support testing • Design customer interface that meets user expectations and improves system usability • Conduct stakeholder and user interviews; develop user personas • Validate user interface • Participate in user acceptance testing • Design graphical elements of wireframes, design templates, style guide, visual design, and template design • Develop Test Plan and test scripts • Conduct testing and report all issues
.NET Developers	• Develop application code and modules for business and technical requirements • Unit test all code • Support Technical Architect in completing Knowledge Transfer Plan • Coordinate and support the technical staff and operations • Analyze and resolve software errors
Data Architect	• Understand requirements, processes, and system functionality to develop the data design and maintain the source of data • Develop the data strategy and design specifications • Develop new data model and map data from the source systems to new system • Develop, test, and execute data migration processes • Develop reports • Data mapping • Scan existing paper file data and load into database • Support data migration processes

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CapTech Role	Task Assignments
Visual Designer	• Develop style guide and visual standards • Design all graphical elements of the User Interface
Training/Organizational Change Management (OCM) Lead	• Establish training environment • Develop Training Plan and training materials • Provide continuing effective training program for the system for the WCS staff • Conduct on-site system administration training • Develop online/electronic modules • Create System Manual containing a narrative and graphical descriptions of the various technical components of the solution • Prepare detailed designs and operations guides for each of the components' integration into the proposed solution • Oversee Organizational Change Management initiative • Deliver training, as required

Please see Tab IX for completed Attachment 1 (Proposed Staff Resumes) for resumes of each of the personnel described above. All personnel far exceed the minimum requirements outlined in RFP Section 6.4.

VIII.E. Preliminary Project Plan *(RFP 6.6)*

RFP 6.6: "Preliminary Project Plan"

Please see Section VII.A of this proposal.

VIII.F. Project Management *(RFP 6.7)*

RFP 6.7: "Vendors must describe the project management methodology and processes utilized for:"

For an overview of our Project Management methodology, please see Section VII.B.1.

VIII.F.1. Project Integration *(RFP 6.7.1)*

RFP 6.7.1: "Project integration to ensure that the various elements of the project are properly coordinated;"

Please see Section VII.B.1.2.1.

VIII.F.2. Project Scope *(RFP 6.7.2)*

RFP 6.7.2: "Project scope to ensure that the project includes all the work required and only the work required to complete the project successfully;"

CapTech will develop a Scope Management Plan template to identify how to manage project scope so the project goals are met. This Plan will consist of the following deliverables:

- ***Define and document formal processes for scope approval and manage changes in scope***
- ***Establish the processes the project leadership team will use to monitor/control scope and scope changes***
- ***Track and communicate the detail of the impacted business processes and functional areas***

CapTech will establish a regular scope change meeting to evaluate new scope requests, identify impacts to time and budget, apply prioritization, and determine how to move forward.

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CapTech understands that the scope outlined within the RFP is flexible to accommodate firm program delivery timeline and budget constraints.

VIII.F.3. Time Management (RFP 6.7.3)

RFP 6.7.3: "Time management to ensure timely completion of the project. Include defining activities, estimating activity duration, developing and controlling the project schedule;"

CapTech will start with the project schedule defined in this proposal and develop a more detailed project schedule over the first two weeks of the project. The Project Manager will work with the other CapTech team members and the key WCS team members to break down the higher level tasks into a more granular level. In addition, the WCS team will provide input to identify key assumptions, constraints and risks to incorporate those into the schedule. Some of the key processes to help manage the project schedule will include the following

- *Regular project status meeting cadences with project team members and external stakeholders to address dependencies and risk and issues within project schedules. Key dependent tasks must be monitored closely to allow continually verify that the project schedules align.*
- *Development of a detailed project schedule and high level roadmap to facilitate discussions within the team and with other stakeholders to show how well key project tasks and resource align together and to confirm assumptions and dependency statuses*
- *Expanded change control process to monitor and audit the project schedules*
- *Regular review and management of project schedules with the project team and project leadership*

It will be critical to monitor the schedule and track progress in order to make adjustments where necessary and to identify any schedule risks and issues that need resolution. Our intent will be to manage the schedule closely enough that we will be able to identify risks early in the process that they can be addressed prior to becoming issues and requiring the schedule to be delayed.

VIII.F.4. Management of Issues & Resolution (RFP 6.7.4)

RFP 6.7.4: "Management of contractor and/or subcontractor issues and resolution process;"

CapTech will develop the appropriate processes for a standardized Issue Management and Tracking Plan to bring visibility to issues and accountability as to how they are acted upon, and to bring them to a timely resolution. Recording and reviewing issues will prevent the project team from overlooking issues that could adversely impact the project. Some of the key tasks will include the following:

- *Provide an Issue Log Template and Issue Management Plan template document that standardizes the following:*
  - *Issue Identification and Description*
  - *Issue Review and Mitigation Planning*
  - *Issue Resolution Status and Tracking*
  - *Issue Close Out*
- *Develop the escalation path and appropriate visibility to the CapTech and WCS decision makers for the higher impact project issues*

We expect that issues will be logged weekly, at a minimum, and reviewed through the project status meeting and status report. For CapTech-specific issues, we will review them in our daily morning team meetings and as necessary with the CapTech leadership to provide a timely

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resolution. CapTech will have formal project reviews with company leadership on a monthly basis for the Project Manager and project team to review overall status and delivery risks. Where appropriate, the CapTech leadership will provide assistance and guidance to address any of the CapTech-specific issues.

VIII.F.5. Requested Changes (RFP 6.7.5)

RFP 6.7.5: "Responding to and covering requested changes in the project time frames;"

Please see Section VII.B.1.2.2.

VIII.F.6. Responding to State Generated Issues (RFP 6.7.6)

RFP 6.7.6: "Responding to State generated issues;"

State generated issues will follow a project issue management process described above in Section VIII.F.4.

VIII.F.7. Cost Management (RFP 6.7.7)

RFP 6.7.7: "Cost management to ensure that the project is completed within the approved budget. Include resource planning, cost estimating, cost budgeting and cost control;"

Because this project is fixed price, cost management will be simpler. The costs will be managed through the change control process where additional scope or project delays due to WCS or dependent tasks will cause an increased cost change request. In the absence of any change requests, each deliverable cost will align with the agreed-upon pricing when it is delivered and approved by WCS.

For clarity, we understand that WCS plans on prioritizing functional scope in order for the cost of the system to remain fixed. Scope elements may be reduced to accommodate this constraint.

VIII.F.8. Resource Management (RFP 6.7.8)

RFP 6.7.8: "Resource management to ensure the most effective use of people involved in the project including subcontractors;"

The initial resource plan will start from the Project Plan defined in this proposal and refined at the beginning of the project. CapTech does not plan to use subcontractors to do the work, so the only vendor resources will be under CapTech's control. We will review the team size and mix of skills each week to confirm that we have the proper resources on board. Given that the development of the application will be at CapTech's Richmond Delivery Center, we will have easier access to address any necessary staffing changes with available resources.

The initial project plan will also indicate the amount of WCS work that will be required. We will validate that with WCS at the beginning of the project to confirm that the right expectations are set at the beginning of the project and begin to get meetings on the calendar to accommodate scheduling issues. This initial project plan will have a major revision at the conclusion of the Business Process Re-engineering phase of the project. This revision will be considered the formal document through which subsequent delivery efforts are managed. We will review resource scheduling on a weekly basis with the WCS leadership to confirm that the appropriate resources will be made available for the upcoming weeks' of work.

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VIII.F.9. Communications Management (RFP 6.7.9)

RFP 6.7.9: "Communications management to ensure effective information generation, documentation, storage, transmission and disposal of project information; and"

Communications Management is a critical component of a successful project because it provides a consistent message for everyone to hear and it can make it easier to know what the action items are. Early in the project, CapTech will interview key WCS team members to identify the important stakeholders and stakeholder groups and define the expected impacts the application will have on them. Based on the results of these interviews, we may have additional interviews with individual stakeholders to better understand their roles and communication needs. The output of these interviews will be a part of a Stakeholder Management Plan which will document the following information –

- ***Name and Title (if a stakeholder group, list the head of that group)***
- ***Location***
- ***Current role and responsibilities***
- ***Additional roles or accountabilities for within WCS***
- ***Assessment of the stakeholder's influence (H,M,L) and degree to which he/she is impacted by the new system***
- ***Recommended action steps to address the output of the analysis***

The team will begin acting on the plan in regards to early communications to the stakeholders, which will be followed by a Training Plan later in the project that will identify the specific training required for all users.

VIII.F.10. Risk Management (RFP 6.7.10)

RFP 6.7.10: "Risk management to ensure that risks are identified, planned for, analyzed, communicated and acted upon effectively."

The Risk Management process will mirror the Issue Management process in that we will solicit risks from the CapTech and WCS teams, review them weekly in the status meeting (or separate meeting if warranted), develop mitigation strategies for each, and involve the right stakeholders to address each issue. The goal of risk management is to address the items early enough that they can be resolved prior to expanding into issues. CapTech plans to work closely with WCS to manage the project risks throughout the project.

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VIII.G. Quality Assurance (RFP 6.8)

RFP 6.8: "Vendors must describe the quality assurance methodology and processes utilized to ensure that the project will satisfy State requirements as outlined in Section 5, Scope of Work of this RFP."

WCS is ultimately interested in receiving a working application that adheres to the requirements, works properly, and adds value to its insurers, employers, and administrators. CapTech incorporates our rigorous quality approach into every phase of our project management methodology and SDLC, and we do not consider a job complete until defined quality standards are met.

CapTech manages three key aspects of quality on every project: quality of project execution, quality of project deliverables, and quality of project personnel. We describe our quality approach to each aspect in the sections below.

Case Study: Delivering Testing Quality

A financial services client had previously engaged a third party vendor to customize a package software application. This other vendor encountered significant cost overruns, program delivery delays, and major system quality issues. The client asked CapTech to step in to provide a cost-effective method of significantly improving the quality of the system while meeting aggressive timelines. Using our quality assurance discipline, CapTech led the effort to establish a robust, integrated test process that simultaneously lowered QA cost while improving the quality of the system.

Results:

- *Dramatic increase in system delivery quality through improved defect identification*
- *Aggressive timelines for system delivery met through agile testing approach*

VIII.G.1. Maintaining Quality of the Project Execution

To maintain quality at every level of this WCS engagement, CapTech will incorporate several activities to ensure the project is planned and implemented successfully. Risk Reviews at the beginning of each Phase help ensure that the project is planned and estimated appropriately and that any potential risks incorporate appropriate risk mitigation. Executive Oversight meetings and checkpoints throughout the engagement help ensure the project is on schedule, WCS' needs are met, and the project is being executed appropriately. Architectural Reviews prior to and throughout development help ensure that an appropriate architecture and designs are used and that technical decisions are made with an understanding of future implications relative to the requirements. Retrospectives following each Sprint help improve the execution of future sprints.

VIII.G.2. Measuring and Maintaining Quality of Project Deliverables

For this project, quality project deliverables result in a tested and properly functioning final System. CapTech measures and maintains quality at every phase of our SDLC (Figure 17), allowing us to identify issues early and to continuously align our deliverables to the system requirements.

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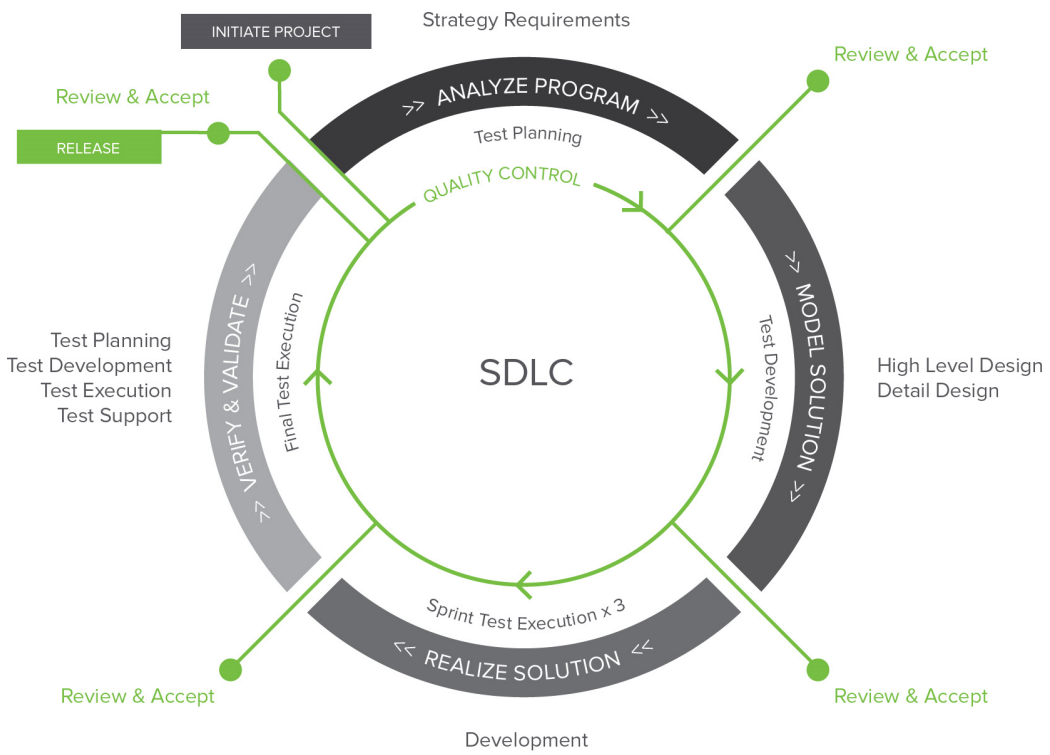

Figure 17. Quality Approach. Quality overlaps each phase of our SDLC, allowing us to identify and resolve problems early.

We include a "Review and Accept" task at the end of each SDLC phase, which is an opportunity to validate the deliverables of that phase with WCS stakeholders:

- ***After the analyze problem phase, we will develop and validate detailed requirements to ensure they meet each of the WCS' objectives and end-user needs. We will also develop a detailed test plan.***
- ***After the model solution phase, we will validate the detailed design to ensure it aligns with the requirements documentation and is technically feasible within the WCS environment.***
- ***Next, the realize solution phase will include development Sprints to build the system. At the end of each Sprint and again at the end of the phase, we will perform System/Integration Testing to determine the quality of our code. CapTech emphasizes the quality of our first time code, allowing us to build systems on time with minimized rework. CapTech's customers have come to see the difference in systems delivered or enhanced by CapTech consultants versus many of our competitors or staff augmentation vendors. We deliver code for end-to-end user acceptance testing that has been thoroughly unit, system, and integration tested, which results in fewer costly changes during these later testing phases.***
- ***Finally, during the verify and validate phase, we perform final System/Integration Testing to ensure a smooth handoff of the final system to the WCS.***

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VIII.G.3. Measuring and Maintaining Quality of Staff/Project Personnel

CapTech maintains rigorous quality standards for each of our consultants; these standards are applied both during the hiring process and during our day-to-day management of personnel during client engagements. We begin by hiring only those consultants who demonstrate exceptional capabilities in both technical competency and customer service.

Once consultants are on-board, we continuously measure their performance against CapTech's six Core Competencies (see Figure 18). The Project Manager is responsible for providing frequent feedback to each project team member on their achievement of each core competency. Our number one goal is to provide consultants who are committed to and capable of achieving the WCS' project goals. We further emphasize these competencies via an annual performance review, which is a rigorous evaluation process that provides formal feedback to each employee to help them strive for higher-quality consulting skills.

Figure 18. CapTech's Core Competencies are Standard Expectations

VIII.H. Metrics Management *(RFP 6.9)*

RFP 6.9: "Vendors must describe the metrics management methodology and processes utilized to satisfy State requirements as outlined in Section 5, Scope of Work of this RFP. The methodology must include the metrics captured and how they are tracked and measured."

CapTech will follow standard industry standard best practices to allow the team to manage the delivery of the scope defined in Section 5 of the RFP. CapTech will measure certain metrics to monitor the progress of the project and identify areas that may need more attention. Some of the metrics that will be collected and measured include the following—

- ***Deliverable Submission and Review:*** ***to keep the project moving at the proper pace, it will be critical for the submission and review process to be on time. The Project Manager will track the number of days for WCS review and CapTech response to allow the project team to move to the next step in the process.***
- ***Testing:*** ***during the project, the CapTech Project Manager will track the number of open defects and the aging of those defects to prevent them from staying unresolved.***

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- *Change Requests:* ***the Project Manager will keep a record of the number of change requests, and the amount of change that has been approved by them (schedule changes—# of days; budget changes—$; scope changes—# of new requirements).***
- *Risks and Issues:* ***the Project Manager will closely manage risks and issues throughout the project. As a part of that process, we will track the number of open risks and issues, which ones transition from Risks into issues, and how long they have been open.***
- *Schedule vs. baseline:* ***the Project Manager will measure the baselined date of deliverables against their projected delivery date.***

As the project progresses, there may be other metrics used by the Project Manager to better aid in managing the project and communicating the overall project health.

VIII.I. Design and Development Processes (RFP 6.10)

RFP 6.10: "Vendors must describe the methodology, processes and tools utilized for:"

VIII.I.1. Analyzing Potential Solutions (RFP 6.10.1)

RFP 6.10.1: "Analyzing potential solutions, including identifying alternatives for evaluation in addition to those suggested by the State;"

As part of the Model Solution phase described in Section VII.B.5.1.2, the team creates appropriate foundations of the technical architecture, evaluates alternative approaches in detail, and with WCS selects the one that best meets requirements.

VIII.I.2. Detailed Operational Concept (RFP 6.10.2)

RFP 6.10.2: "Developing a detailed operational concept of the interaction of the system, the user and the environment that satisfies the operational need;

The system design developed according to the approach described in Section VII.B.4 includes a detailed operational concept of the system through the system architecture, the user interface (UI) through the UI design and wireframes, and the environment through the API and external interfaces design.

VIII.I.3. Identifying Key Design Issues (RFP 6.10.3)

RFP 6.10.3: "Identifying the key design issues that must be resolved to support successful development of the system; and

UI design grounded in user research to create a measurably more usable application

CapTech provides WCS with extensive experience designing web applications that are both usable and engaging. Our designs are grounded in user research and content analysis as well as industry best practices and established principles of cognitive psychology. Working with our talented in-house user experience staff, we will define the UI components comprising each module so that they meet the specified requirements. Next, we will review those components that carry through the pages of each module and across the application system to identify common elements and design patterns. Based on this analysis, we will derive a set of standard UI objects and patterns, which we will then recast into a set of design templates to guide the application developers in creating a coherent, appealing, and user-friendly experience across all the modules in the system.

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In this phase, the BSAs will develop screen mock-ups of the key components identified during the requirements analysis. In addition, CapTech will use existing User Experience assets, such as the screens from our other Workers Compensation projects, to kick-start the process. Next, CapTech will begin work on the information architecture and navigation design. The navigation design hinges directly on the site hierarchy, and the layout of the site depends heavily on the navigation itself. The underlying information architecture of the application requires a coordinated design approach.

Next, CapTech will develop prototypes or low-fidelity comps. The comps include just enough to communicate the intent of each design. Users will then test the comps to determine the design effectiveness. The results will indicate where improvements to the design can be made. This leads to the development of the Conceptual Design.

High-fidelity wireframes build upon the low-fidelity designs and describe the behavior of all interactive aspects of the site through enhanced detail and full annotations. Think of these detailed wireframes as the blueprint for the application: the instructions the developers need to build the system. Construction of the high-fidelity wireframes continues into the development Sprints.

VIII.I.4. Integrating with Disciplines *(RFP 6.10.4)*

RFP 6.10.4: "Integrating the disciplines that are essential to system functional requirements definition."

Our Business and System Analysis discipline includes a number of structured processes that we have used on other larger fixed price projects to help us document the functional and non-functional requirements. An overview of some of those processes is given below.

VIII.I.4.1 Requirement Elicitation Techniques

Depending on the environment, organization culture, and type of solution being sought the best elicitation technique to use will vary. However, it is always best to use more than one technique when gathering requirements for the initial phase of the project. Below is a list of elicitation techniques that we expect to choose from for the development of WCS' requirements.

1. *Document Analysis: Document Analysis is the process of identifying, collecting, and evaluating the information within current existing documentation that an organization can offer about the current state of practices and system flows. The analysis of these documents will provide information about what functionality or methods are currently being used. Document analysis may include analysis of business plans, market studies, contracts, requests for proposal, statements of work, memos, existing guidelines, procedures, training guides, competing product literature, published comparative product reviews, problem reports, customer suggestion logs, and existing system specifications, among others. Identifying and consulting all likely sources of requirements will result in improved requirements coverage, assuming the documentation is up to date. While the needs of the future state may not come from document analysis, it is important to read as much documentation as possible so you will understand the business and technical environments and can intelligently speak with stakeholders when eliciting future state requirements.*
2. *Documenting Requirements: Whatever technique is used, the resulting requirements should have the following characteristics to ensure they can be given to the technical team to evaluate.*
    - *Cohesive – relates to only one thing*
    - *Complete – self-contained without any missing information*
    - *Consistent – cannot contradict another requirement*
    - *Correct – incorrect requirements will lead to errors*

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- *Feasible – must be able to be satisfied within the existing infrastructure, time, & budget*
- *Modifiable – easily changed along with any affected requirements*
- *Unambiguous – must NOT allow for multiple interpretations*
- *Testable – a test to prove the requirement has been fulfilled*

Each requirement should be peer reviewed before going to the stakeholders for final review to verify that it meets the criteria above.

3. *Non-Functional Requirements: Non-functional requirements (NFRs) do not directly relate to the behavior or functionality if the solution. They describe qualities of the system and are a strong influence on the system's acceptance by users. It is critical that NFRs are documented and verified by stakeholders in the initial phase of the projects because technology choices and overall system design can be influenced by these requirements. There are several categories of NFRs:*
    - *Reliability – ability to recover from errors*
    - *Performance – time taken to perform activities*
    - *Operability – ease of learning & usability of the system*
    - *Security – ensure confidentiality & integrity of information in the system*
    - *Compatibility – ability to co-exist and interact with other applications*
    - *Maintainability – ease of making changes without causing failures*

VIII.I.4.2 Project Documentation

Our Business and System Analysis discipline prescribes a number of interim documents that our team uses to help identify key components of the future state and to help in the brainstorming for the final solution. We expect that our analysis team will use many of these tools to help in the development of the functional requirements and functional design.

- *The Scope Document is used to get stakeholders to think through things at a high level and to get everyone on board before requirements elicitation begins. This is the analyst's best friend during requirements, especially since the real decision makers are typically involved early on during scoping. This document defines the scope of the entire project, not just the business analysis phase.*
- *The Business Analysis Plan describes how the analysis effort for the project will be undertaken. Before beginning any requirements elicitation, documentation or design work the approach should be developed and signed off on. The exact details of the Business Analysis Plan will depend on the type of solution being produced, but each approach document should contain the following:*
    - *The scope of the analysis effort*
    - *What deliverables will be produced*
    - *Who will be included in the process (in RACI format)*
    - *A schedule for interviews/meetings*
    - *Who will be approving deliverables and their expected turnaround team*

  Any person who will be included in the process should be informed of their role and what is expected of them

- *The Conceptual Object Model gives stakeholders the ability to see a holistic view of the system structure and the relationships between entities within the system. It does not only show the system structure, but the relationships from a business perspective. For instance, a university has professors and classes. The object model can show that there is a relationship between these two*

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objects and that a professor can have more than one class, but a class can have only one professor. Conceptual Object Models can be create using formal notation such as UML Class Diagrams or Entity Relationship Diagrams. However, a simple object model created in Visio or PowerPoint may be enough to capture the objects and their relationships. The Conceptual Object Model should be reviewed by both business and technical stakeholders to make sure it has been documented correctly. The object model provides insight into how the separate components/use cases of the system would interact. The object model also helps define the scope of the project and answers the question of whether or not everything has been accounted for in the analysis.

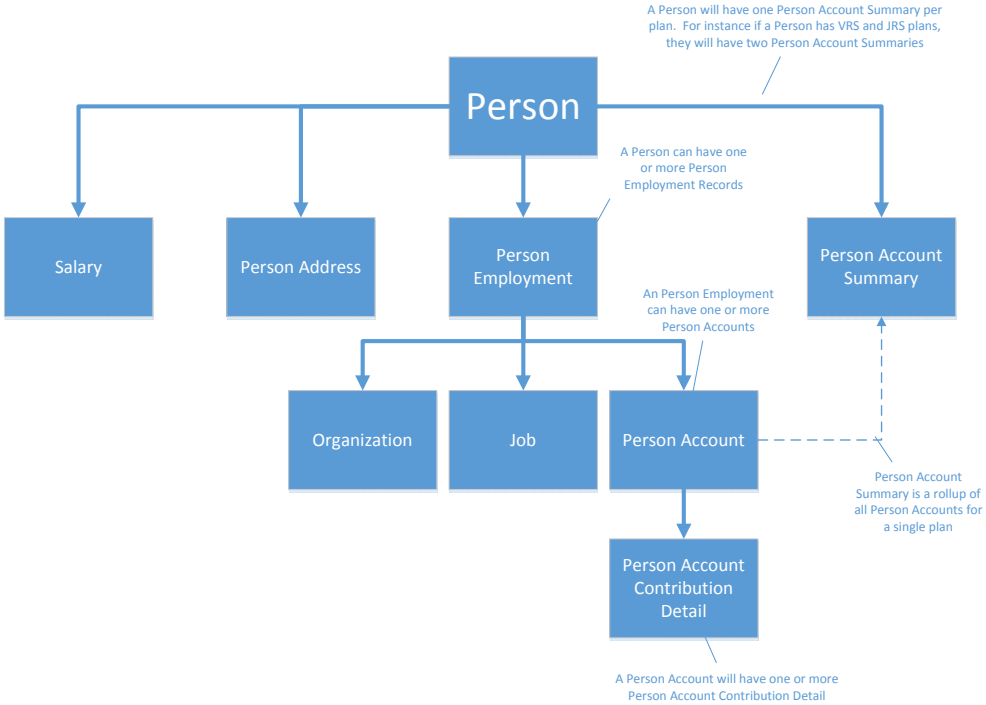

Figure 19. Conceptual Object Model

- *Business Rules are what governs the business on a day-to-day basis. "A business rule is a statement that defines or constrains some aspect of the business. It is intended to assert business structure or to control or influence the behavior of the business. " These are typically processes and procedures that must be followed by the business. One way to document them is using a Business Rules Matrix. Many of the requirements you gather will map to one or more business rules. It is important to document any business rules that you come across that may impact the final solution and have them verified by business SMEs. The text of a business rule should NOT state how that rule will be enforced. Business rules are not the same as business requirements. Complex business rules can be shown in table or decision tree format rather than complete sentences.*
- *Requirements Prioritization and Organization are decision processes to determine the relative importance of requirements based on a variety of criteria including value, risk, difficulty of implementation, etc. Once prioritized, requirements are then organized into a set of views to facilitate understanding the business or IT solution from the perspective of all stakeholders and to understand the true complexity in the inter-relationships between multiple requirements. MoSCoW is one method to prioritize requirements, but others can be used to apply quantifiable data to prioritize items.*

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- *MoSCoW Prioritization is an effective tool when working with stakeholders to identify which features and requirements are critical to a solution and which are nice to have. MoSCoW stands for Must, Should, Could and Won't. MoSCoW can be used in many different ways. Once all business requirements have been documented they can be put into one of the four buckets for easy prioritization. Rather than ranking requirements 1 to 100, they can be put into the Must, Should, Could and Won't buckets. Another way to use this tool is when scope needs to be reduced for a release. Business stakeholders can identify which requirements are still critical and must remain in the final solution. MoSCow can be used to rank features, user stories or requirements.*
- *The Requirements Specification Document is the key deliverable of the analysis phase for waterfall projects. It contains all of the business, functional, system and non-functional requirements for the project. In addition to the requirements, the document contains the scope of the project, list of stakeholders, and key acronyms and terms. The document also shows traceability between high-level business requirements and detailed functional and system requirements. One of the key types of requirements to consider that are often overlooked until the last minute are transition requirements. These are temporary requirements that deal with how the organization and technology will move from the current state to the future system. Requirements related to data conversion, user transition from current to future systems and decommissioning of systems are examples of the types of transition requirements you would expect to capture.*
- *Use Cases describe how the actor(s) will interact with the system. Use cases describe multiple outcomes for user. For a user there is a basic flow or "happy path" that describes how the user will mostly interact with the solution. However, there are cases when the user cannot or does not want to take the happy path. In those instances, alternative flows are described. In addition to the basic and alternative flows, there should be preconditions that must be met for the use case, triggers that begin the use case and post conditions that will exist once the use case is complete. Use Cases can capture many of the requirements for a solution, but it may not be able to capture all requirements for a solution. For instance, requirements that describe the interaction between two systems will not fit within the use case framework.*

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VIII.J. Configuration Management (RFP 6.11)

RFP 6.11: "Vendors must describe the methodology, processes and tools utilized for:"

VIII.J.1. Control of Changes to Requirements, Design, and Code (RFP 6.11.1)

RFP 6.11.1: "Control of changes to requirements, design and code;"

Requirements management will be the responsibility of the CapTech analyst team. The detailed functional and system requirements will be baselined and put under change control upon approval from WCS. At that point, any requested requirements changes will go through a change control process to estimate the impacts of the changes (to budget and schedule) and determine whether to proceed with the change.

Likewise, the design will be under change control when it is approved by WCS. Any changes to the design will undergo the same change control process as the requirements.

Code changes will be managed by a version control system as described in VII.J.4. When the application is put into Production, the only code changes will be to address defects or to include enhancements that have been signed off by WCS. Any code changes should be system tested and undergo UAT prior to being put into Production.

VIII.J.2. Control of Interface Changes (RFP 6.11.2)

RFP 6.11.2: "Control of interface changes"

According to Amendment 1 of the RFP, there are no 3rd party systems that require integration, but there may be data feeds that submit data into the application. CapTech assumes that no more than one data feed will be required. Each data feed should have a corresponding WCS owner who will notify CapTech the project team if there are any changes to the data feed. These changes will be managed through the change control process to determine the impacts to the schedule and budget.

VIII.J.3. Traceability of Requirements, Design, and Code (RFP 6.11.3)

RFP 6.11.3: "Traceability of requirements, design and code"

The CapTech analyst team will manage the requirements traceability matrix through design and code and keep it updated through each of the development sprints.

VIII.J.4. Tools to Help Control Versions and Builds (RFP 6.11.4)

RFP 6.11.4: "Tools to help control versions and builds"

CapTech proposes using Visual Studio Online (VSO) for version control and builds. In addition to version control, VSO offers agile application lifecycle functionality including Sprint and Kanban dashboards, reporting and ad hoc querying, continuous integration, work item/agile story and defect tracking, and cloud-based performance testing capabilities.

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VIII.J.5. Parameters for Regression Testing (RFP 6.11.5)

RFP 6.11.5: "Parameters established for regression testing"

CapTech will work with WCS to determine the appropriate use cases and test cases to include in the core regression testing as new builds are put into system testing. Each test case, regardless whether it is a part of the regression testing suite, will have documented test parameter and input data as well as the expected results to be confirmed when the test case is executed. Regression test cases will be flagged in the test case inventory and will refer to the test case documentation to confirm the input data and expected results.

VIII.J.6. Baselines Established for Tools/Change Logs/Modules (RFP 6.11.6)

RFP 6.11.6: "Baselines established for tools, change log and modules"

Baselines of deliverables will be created upon approval by WCS. Software baselines will be managed through the version control system and all other baselines will be managed through the Nevada project documentation repository (e.g., SharePoint).

VIII.J.7. Documentation of Change Request Process (RFP 6.11.7)

RFP 6.11.7: "Documentation of the change request process including check in/out, review and regular testing"

Each Change Control Board meeting will review impacts defined for the newly submitted change controls to make a determination on the acceptance or denial of the change. The notes and decisions of the Change Control Board meeting will be documented by the CapTech PM and disseminated to the appropriate project stakeholders.

VIII.J.8. Documentation of Change Control Board (RFP 6.11.8)

RFP 6.11.8: "Documentation of the change control board and change proposal process"

Each Change Control Board meeting will review impacts defined for the newly submitted change controls to make a determination on the acceptance or denial of the change. The notes and decisions of the Change Control Board meeting will be documented by the CapTech PM and disseminated to the appropriate project stakeholders.

VIII.J.9. Change Log (RFP 6.11.9)

RFP 6.11.9: "Change log that tracks open/closed change requests"

The change requests will reside in the project documentation repository, but the CapTech PM will track the list of change requests and their current status to allow any project team member to view the current status of any change requests at any time.

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VIII.K. Peer Review Management *(RFP 6.12; 6.12.1–6.12.5)*

RFP 6.12: "Vendors must describe the methodology, processes and tools utilized for:"
RFP 6.12.1: "Peer reviews conducted for design, code and test cases;"
RFP 6.12.2: "Number of types of people normally involved in peer reviews;"
RFP 6.12.3: "Types of procedures and checklists utilized;"
RFP 6.12.4: "Types of statistics compiled on the type, severity and location of errors; and"
RFP 6.12.5: "How errors are tracked to closure."

Test Scenarios and Test Cases Peer Review

Test scenario and test case iterative peer reviews will be performed by the BSAs, testing leads, and functional area leads throughout the test design phase. The core objectives for all peer reviews are to identify gaps within the test scenarios and test cases and to ensure accurate and full test coverage will be achieved. Test case development "Check Points" will be scheduled and performed to help identify slippage in test design tasks, to help address questions and/or concerns, and to revisit test case planning and execution estimates on a regular basis.

A test scenario/test cases tracker sheet will be utilized to:

- ***track and monitor the review process of test scenarios and test cases***
- ***to ensure all test scenarios and test cases have been reviewed***
- ***to ensure all test cases have the required approvals***

Error Management

Error Review Board(s) will be established to prioritize error fixes and monitor error trends on a regular basis. Error management will be accomplished by using appropriate quality assurance software and will be actively worked and reviewed at Error Review Board meetings scheduled during System, System Integration Testing, Business Process Testing and Operational Readiness Testing. At a minimum, representatives from Development, Business, IT, and Testing teams should be present at the ERBs. During each testing phase, the Test Lead will coordinate and facilitate all ERB meetings.

Errors will be managed by the following high-level process flow outlined below:

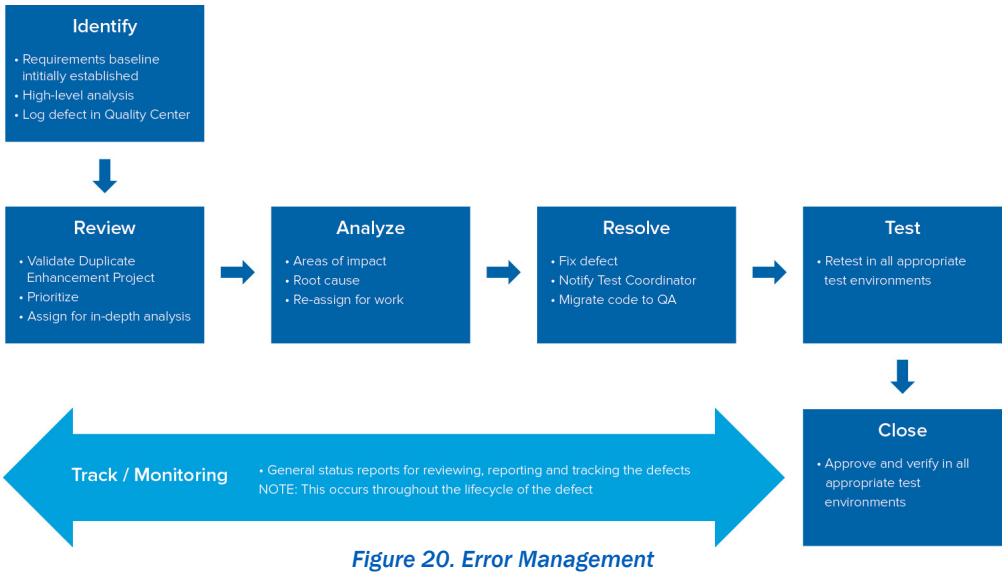

Figure 20. Error Management

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In addition, the SLA's for error repair turnarounds will be defined in a separate detailed error management document.

System/System Integration Error Management: As errors are found during SIT by system testers, the tester will identify the issue and create the error in the quality assurance software error module preferably by failing the test case where it happened so the execution can start from there once the issue is resolved. The error will be reviewed in the error review board (ERB) and assigned to a developer.

BPT Error Management: As errors are found during BPT by functional area testers, the tester will identify the issue, complete the error form and submit the completed form to the testing lead immediately after discovering the potential error. The testing will log the error into the quality assurance software and then with the Business Analyst SME, review the potential error and if valid, assign to a developer.

For bugs discovered by the BPT test team, the tester will identify the issue and directly log the error into the quality assurance software. Then the testing lead, with the assistance of the Business Analyst SME, will review the potential error and if valid, assign to a developer.

As errors are logged and once an error is deemed a valid error, one of the following error severity grades will be assigned (applicable to all testing phases):

The following statuses are used to classify defects according to severity and potential impacts to program:

Critical	• The issue stops all testing from occurring in the application or this defect corresponds to a Severity 1 Production Incident • This classification should rarely be used and only when test execution cannot proceed • Must be corrected prior to Production Implementation • Will cause major customer and/or significant financial impact, or impacts the overall quality of testing
High	• The issue blocks the individual test but the majority of testing in the application can proceed or this defect corresponds to a Severity 2 Production Incident • There is no work-around available • Must be corrected prior to Production implementation
Medium	• Test can proceed but a work-around must be used to complete the test steps or this defect corresponds to a Severity 3 or 4 Production Incident • The issue does not cause significant application downtime • Needs to be corrected prior to Production Implementation
Low	• Cosmetic / non-functional change; the execution of the test does not indicate a lack of, or deviation from, required functionality but a cosmetic change is requested • This may correspond to a Severity 4 Production Incident

Figure 21. Explanation of Defect Statuses

The error severity statuses explain the impacts to test execution and how an issue could potentially block forward progress.

In addition to assigning an error severity grade, it will be required to select a value to define the business criticality of the error. The chart below lists the business priority values.

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The following statuses are used to classify defects according to severity and potential impacts to program:

High	• The quality of the product would be greatly impacted and prohibit end-users from performing daily operational activities • There is no work-around available • Must be corrected prior to Production Implementation
Medium	• The quality of the product would be impacted, but the Business would be able to proceed with a work-around • Work-around available • Must be corrected prior to Production Implementation
Low	• Zero to minimal impact to the quality of the end project • Zero to minimal impact to end-users • Dies not need to be fixed prior to Production Implementation based on business criticality

Figure 22. Explanation of Business Criticality Statuses

By assigning both the error severity and business criticality to an error, it will more accurately illustrate the importance of resolving the error based on testing and business impacts.

To minimize the negative impacts of blocking errors, the testing leads will be responsible for ensuring all test cases are prioritized, and then with the participation from the various functional areas, proactively identifying potential test cases whose failure could lead to a blocking error. By performing this exercise, the test leads can develop contingency plans to help mitigate the risk and impact to the overall testing phase. This approach will apply to BPT, System Testing and System Integration Testing.

The BPT test lead will conduct daily error review boards to discuss and prioritize defects, and to assign resolution target dates. In addition, the BPT test lead will work with the TCC to ensure the daily error report is distributed to all required Business stakeholders. The BPT command center will be responsible for managing the error resolution process and working and coordinating with the various functional groups, developers, system testing and tech leads to ensure that errors are being resolved at an acceptance pace.

A separate, detailed error management plan will be created and utilized during BPT test execution phase.

The following table displays the statistics on errors that will be compiled during testing.

Format	Description	Method of Report	Audience	Measure of
Coverage Metrics				
%	Requirements covered by Test Cases. Target = 100% {Reported by Project}	Test Completion Report	Stakeholders	Test team Quality
#	Test Cases that cannot be executed due to environmental limitations/issues.	Test Completion Report	Stakeholders	Environment Quality
Progress Metrics				
# and %	Test Cases Executed vs. Test Cases Planned Target = based on length of test window	Weekly Progress Report	PM, RT Manager	Test team Efficiency
#	Errors found vs. Test Cases Executed {Reported by Error Severity Category}	Weekly Progress Report	PM, RT Manager	Development Quality
Average	Error fix time (Date fixed vs. Date opened) {Reported by Error Severity Category}	Test Completion Report	Stakeholders	Development Efficiency

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Format	Description	Method of Report	Audience	Measure of
Trend	Errors found over time Target = downward trend over time	Test Completion Report	Stakeholders	Test team Efficiency
Quality Metrics				
# and %	Percentage of total errors found by Release or module	Test Completion Report	Stakeholders	Development Quality
%	Number of 'Fixed' errors FAILED vs. Total number of errors presented as 'Fixed	Test Completion Report	Stakeholders	Development Quality
#	Number of code-fix patches compared with the number of new errors introduced	Test Completion Report	Stakeholders	Development Quality
# and %	Errors found by Test team vs. number of (non-duplicated) errors reported in production. (typically 30 day tracking time in production) Initial Target = xx% of errors found	Post Production Analysis	Stakeholders	Test team Quality
# and Impact	IMPACT of Errors found by test team vs. impact of (non-duplicated) errors reported in production. (typically 30 day tracking time in production) Initial Target = No high-impact errors released to production	Post Production Analysis	Stakeholders	Test team Quality
#	Regression Errors found (i.e. existing functionality 'broken' by the new code)	Test Management Report	TM, PM, RT Manager	Development Quality
Error Distribution & Aging Metrics				
# and %	Total errors by state (open, closed, fixed, invalid, etc.)	Error Reports	Stakeholders	Development Quality
# and %	Total errors by Severity and/or Priority	Error Reports	Stakeholders	Development Quality
# and %	Total errors assigned to a particular group	Error Reports	Stakeholders	General Efficiency
Ave	Time errors have been open or in a particular state	Error Reports	Stakeholders	General Efficiency
Ave	Time a error spends in a particular state	Error Reports	Stakeholders	General Efficiency
# and %	Distribution of Root Cause among Errors	Error Reports	Stakeholders	General Quality
Planning & Efficiency Metrics				
# and %	Number of Hours spent in Gathering Project information, documentation, and Business Requirements	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Number of Hours spent in Test Preparation Phase (Writing Test Plans & Cases, identifying and requesting Test Data)	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Number of Hours spent on Environment and Test Setup	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Number of Hours spent on Test Execution	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Number of Hours spent on Test Analysis and preparation of Test Reports	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency

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Format	Description	Method of Report	Audience	Measure of
Formula	Effort estimate formula: Compares the Hours captured above vs. the number and complexity of the Release/Project to help determine a rough formula to estimate the effort needed for subsequent projects	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Automated Test cases vs. total test cases	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency
# and %	Errors found with automation vs. total errors found	Test Management Report	TM, PM, RT Manager	Test team Effort & Efficiency

VIII.L. Project Software Tools *(RFP 6.13)*

VIII.L.1. Software and Equipment Resources *(RFP 6.13.1 and 3.4)*

RFP 6.13.1: "Vendors must describe any software tools and equipment resources to be utilized during the course of the project including minimum hardware requirements and compatibility with existing computing resources as described in Section 3.4, Current Computing Environment."

Software	Version	Edition (if applicable)
Microsoft Windows Server 2012 R2	2012 R2	Standard (web), Enterprise (database)
Internet Information Services	8	Not applicable
Microsoft .NET	4.5	Not applicable
ASP.NET MVC	5	Not applicable
ASP.NET Web API	2	Not applicable
Entity Framework	6	Not applicable
SQL Server	2014	Enterprise
SQL Server Reporting Services	2014	Not applicable
SQL Server Integration Services	2014	Not applicable
SQL Server Analysis Services	2014	Not applicable

CapTech will use the most updated version of the above software with the same major version number (the first number before any decimal points). Newer or older versions may be used if both CapTech and WCS agree.

VIII.L.2. Cost and Training: Software Tools *(RFP 6.13.2)*

RFP 6.13.3: "Costs and training associated with the project software tools identified must be included in Attachment J, Project Costs."

Please refer to the separate proposal document, Part II—Cost Proposal.

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IX. Tab IX—Attachment I: Proposed Staff Resumes (RFP 11.2.3.9; 6.5)

RFP 11.2.3.9: "Vendors must include all proposed staff resumes per Section 6.5, Vendor Staff Resumes in this section. This section should also include any subcontractor proposed staff resumes, if applicable."

RFP 6.5: "A resume must be completed for each proposed individual on the State format provided in Attachment I, Proposed Staff Resume, including identification of key personnel per Section 14.3.19, Key Personnel."

The pages below contain proposed staff resumes using the State format provided in Attachment I; we do not have any subcontractors.

PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***John Radtke***		✓ **Key Personnel**
Classification:	***Project Manager***	**# of Years in Classification:**	***25 years***
Brief Summary of Experience:	***Mr. Radtke has more than 25 years of technology and management consulting experience. He has extensive experience managing large programs, developing implementation strategies and managing all phases of the application development lifecycle for complex projects. Mr. Radtke has experience in a number of industries with a focus on financial services and governmental agencies. Mr. Radtke is currently a Managing Director at CapTech and is responsible for managing delivery risk across CapTech's portfolio of projects.*** ***Mr. Radtke is an effective communicator to both senior executives and technical team members. He has managed successful implementations of complex applications for several Fortune 500 clients. Mr. Radtke's focus has been managing and implementing desktop management and infrastructure solutions, as well as mobile, data warehouse, and eCommerce applications. He has worked with clients in the private and public sectors to create strategies for building and implementing new enterprise-wide solutions.***		
# of Years with Firm:	***11 years***		
RELEVANT PROFESSIONAL EXPERIENCE			

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Required Information: ***5/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke was responsible for the overall project management and delivery of a web-based application that allows DWC to eliminate paper forms for the administration and litigation of workers' claims. The application implemented key workflows and processes to initiate and administer workers' claims, run reports and manage claims. Mr. Radtke managed the delivery schedule; oversaw the dependency, risk and issue management; and was in charge of the client interactions and executive communications through all phases of the project.***
Required Information: ***01/2014 to 12/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Labor*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke was responsible for the overall project management and delivery of an automated audit and collections mobile (iPad) solution for the state Department of Labor and Industrial Relations (DOLIR). Mr. Radtke provided oversight for the functional design, managed the integration with the back end systems, and guided the system testing and UAT efforts. In addition, Mr. Radtke was responsible for managing the overall project schedule, resolving project risks and issues, and rolling out the final solution to the auditors.***
Required Information: ***11/2013 to 04/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led a variety of teams in the Program Management Office to convert a credit card portfolio onto the client's technology platform. Mr. Radtke was involved in all aspects of Program Management with a focus on leading the development and management of the implementation roadmap for different work streams and the overall program, establishing and managing the program change control process, and developing the Command Center process for managing the conversion go-live event.***

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Required Information: ***06/2013 to 09/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: State DMV*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led the team to identify the requirements and design for a central authentication service that will be available for all state agencies to verify citizens and businesses that work with the state across the Internet. Mr. Radtke was responsible for developing the original plan, leading strategy sessions with senior executives from multiple state agencies, and providing oversight for the team to develop the requirements and design.***
Required Information: ***04/2013 to 10/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke managed multiple projects within a multi-year program to allow the client to migrate different regions across their merged banks into a consolidated Active Directory environment. Mr. Radtke was responsible for planning and managing multiple work threads across the consolidation effort, including the management of the desktop environment and the installation and configuration of over 1000 servers in branches and data centers. This required managing the interdependencies within the program and across the banking operations and IT support functions. In addition, Mr. Radtke managed the planning and rollouts of the desktop and infrastructure changes across bank branches.***
Required Information: ***03/2008 to 04/2008*** ***Vendor Name: CapTech Consulting*** ***Client Name: Title Insurance Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led a team to develop the implementation strategy for consolidating the client's customer- and agent-facing web portal and expanding the functionality offered. In this role, Mr. Radtke led the team through an analysis and review of the current portal capabilities and technical environment, the definition of the future functional and technical requirements, and the creation of the phased Implementation Plan and Strategic Roadmap for releasing the new portal capabilities.***

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Required Information: ***12/2007 to 03/2008*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke managed the remediation of the core processing and fulfillment systems and operations groups for the US CARD line of business in regards to a corporate legal entity optimization effort. The effort included management of the changes in over 30 operational and IT areas including fulfillment, creative, and Credit Bureau vendors. Mr. Radtke also led the Day 1 conversion effort that insured the timely entity switch over of impacted systems and mitigated regulatory risk due to date and entity mismatch on customer facing communications.***
Required Information: ***09/2007 to 12/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Public Government-Sponsored Mortgage Loan Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Mentor Program Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke managed the team that mentored application development teams in the adoption of a new system development methodology. Mr. Radtke managed the definition of the project goals and objectives based on senior management input, created the schedule, and mentored project teams in adopting the new methodology.***
Required Information: ***07/2007 to 08/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Public Government-Sponsored Mortgage Loan Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Metrics Strategy Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led a team to develop a framework for capturing project delivery and process-based metrics that would seamlessly tie together with the client's recently deployed software development lifecycle methodology. Through stakeholder interviews and a data readiness pilot, the team performed a gap analysis of the current state environment and future state requirements. The team collected the results from this analysis to develop an implementation roadmap, considering client constraints such as time and resources. The team's end solution was an implementation roadmap that provided the client with the objectives, high-level tasks, and resources estimates necessary for rapidly implementing a metrics program.***

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Required Information: ***05/2007 to 06/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: National Health and Disease Management Corporation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Strategy Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led a team to develop a comprehensive strategy to support the development, implementation, and management of the client web presence. Under Mr. Radtke's direction, the team collected and documented the high level functional and technical requirements, recommended the hardware and software platform to best fit the functionality, and created an Implementation Plan to highlight the phasing, scheduling, costs, and staffing for rolling out the new web capabilities.***
Required Information: ***06/2004 to 05/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Radtke led a Teradata data warehouse project to move marketing, application and account management data from multiple internal systems to an analytical data warehouse. This project was a 3-year effort with a team size of up to 30 people. Mr. Radtke managed all aspects of the project including planning, budgeting, financial reporting, resource management, and issue resolution.***

EDUCATION

Institution Name:	***Anderson Graduate School of Management, University of California – Los Angeles***
City:	***Los Angeles***
State:	***California***
Degree/Achievement:	***Master of Business Administration (MBA)***
Certifications:	
Institution Name:	***Stanford University***
City:	***Stanford***
State:	***California***
Degree/Achievement:	***Bachelor of Science, Mathematical Sciences***
Certifications:	

HARDWARE/SOFTWARE SUMMARY (Be Specific)

	Description	***# of Year's Experience***
Environments:	***N/A***	***N/A***

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Hardware:	***N/A***	***N/A***
Software:	***N/A***	***N/A***
Tools:	***N/A***	***N/A***
Databases:	***N/A***	***N/A***

REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Fran Davis*** ***Director of Information & Research*** ***Kentucky Department of Workers' Claims*** ***502-782-4578 (phone)*** ***502-564-5732 (fax)*** ***francesa.davis@ky.gov*** ***Ashish Govil*** ***Director*** ***Capital One*** ***804-263-4650 (phone)*** ***ashish.govil@capitalone.com*** ***Padraic Baxter*** ***Senior Director*** ***Capital One*** ***804-284-5059*** ***padraic.baxter@capitalone.com***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Jonathan Brown***	✓ **Key Personnel**	
Classification:	***Technical Architect***	**# of Years in Classification:**	***14 years***
Brief Summary of Experience:	***Mr. Brown has over 14 years of industry experience encompassing analysis, design, development and implementation of enterprise solutions. He has extensive systems design and development experience gained by utilizing recognized software methodologies and best practices.*** ***Mr. Brown has experience leading teams of developers, mentoring junior staff, and being the technical point of contact for project status and issue resolution. Through effective communication to both clients and technical teams, Mr. Brown has managed successful implementations of complex solutions.*** ***Mr. Brown is a Microsoft Certified Professional Developer, and has experience in development technologies such as C#, ASP.NET MVC, ASP.NET Web API, JavaScript, jQuery, and Angular. He has experience in analysis, design, and development of web, portal, distributed, and enterprise software solutions.***		
# of Years with Firm:	***9 years***		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***05/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***ASP.NET*** ***SharePoint***	***Mr. Brown was the lead architect on a large-scale project that involved multiple work streams collaborating to upgrade existing systems as well as built a new litigation management system that would become the system of record for workers' compensation claims in a U.S. state.*** ***Mr. Brown designed and managed the implementation of a multi-tier system that consisted of a new organizational API and several new ASP.NET web applications. He also designed and managed multiple parallel work streams, including the migration of millions of documents from FileNet to SharePoint, the implementation of a data mart for real-time reporting and analytics, and the migration and cleansing of data from legacy systems to the Litigation Management System.***

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Required Information: ***01/2013 to 12/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Environmental Quality*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect/Technical Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***ASP.NET*** ***BackboneJS*** ***Marionette***	***Mr. Brown led an effort to modernize a State Government Department of Environmental Quality's primary line of business system. The project involved replacing an existing Oracle Forms application with a new platform that used innovative web design principles. He led a team of developers that built a framework to support all of the operations of the existing system.*** ***The framework consisted of an ASP.NET Web API that could be consumed by various modules representing organizational units within DEQ. Each module was a single-page application built using BackboneJS and Marionette. The framework that Mr. Brown and his team designed enabled multiple teams to begin simultaneously building all of the modules to support DEQ's critical business processes.***
Required Information: ***04/2012 to 04/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government State Corporation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect/Technical Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***ASP.NET***	***Mr. Brown led an effort to modernize and enhance the State Corporation Commission's public-facing ecommerce application, eFile. He led a team of developers responsible for the implementation of large-scale system improvements to the existing ASP.NET MVC web application. He also designed and implemented a public-facing API built with ASP.NET Web API, which allows the SCC's high-volume customers to submit filings programmatically, greatly reducing the amount of manual paper processing required by the Commission's staff.*** ***As the technical lead, Mr. Brown led a year-long training effort to enable the SCC's technical staff to modernize their development skills and support the production system. He designed a curriculum, led presentations, created assignments, and provided guidance to the SCC's development team. At the conclusion of this training, the team was better equipped to not only support the existing system, but begin working on other internal initiatives using similar technology.***

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Required Information: ***11/2010 to 04/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Car Retailer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect/Technical Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***ASP.NET*** ***JavaScript*** ***AJAX***	***Mr. Brown served as an architect and lead developer on a team responsible for delivering a system that guides the client's buyers in the acquisition of vehicles. He participated in the solicitation of requirements through frequent JAD sessions with business stakeholders; he led the design of the system; and he managed the implementation of the web application, which is currently used by hundreds of buyers every day.*** ***As the team-lead on one of the first client projects that utilized ASP.NET MVC, Mr. Brown helped introduce the development staff to recognized patterns and best practices for implementation of the framework in other areas of the organization. He also made heavy use of JavaScript, AJAX, and single-page application (SPA) design to create a unique and rich user experience.***
Required Information: ***10/2010 to 04/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: Mid-Atlantic Wine and Spirits Wholesaler*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***Microsoft Project, Microsoft Office Suite***	***Mr. Brown led an effort to design large-scale changes to an existing order management system, for the purpose of accommodating future business growth. He worked closely with business executives and systems users to document existing procedures, gather requirements, and, in many cases, assist with re-engineering existing business processes.*** ***Mr. Brown was also responsible for generating a system design and creating a development plan based on the requirements. Finally, he helped oversee the development efforts and successful implementation of his design.***

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Required Information: ***01/2010 to 09/2010*** ***Vendor Name: CapTech Consulting*** ***Client Name: Financial Holding Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Integration Architect/Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***BizTalk Server 2009*** ***SQL Server 2008*** ***WCF*** ***.NET 3.5***	***Mr. Brown was responsible for the design and implementation of a large-scale middleware solution that integrated a variety of disparate line-of-business systems. He worked closely with technical teams and business stakeholders to refine requirements and design solutions for the organization. By utilizing a technology stack that includes BizTalk Server 2009, SQL Server 2008, WCF, and .NET 3.5, he was able to successfully implement a catalog of reusable services that integrated legacy and future-state systems.*** ***In addition, Mr. Brown assisted with refining the Architecture and Integration Team's internal design and development process, as well as the team's realization of industry standards and best practices for service-oriented architecture. He also helped lead the process of establishing and documenting architectural and development standards, which helped streamline the build and deployment process.***
Required Information: ***05/2009 to 05/2010*** ***Vendor Name: CapTech Consulting*** ***Client Name: U.S. State Department of Motor Vehicles*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect/Business Rules Management SME*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***Microsoft Project, Microsoft Office Suite***	***Mr. Brown participated in the detailed design phase of the DMV's enterprise system redesign initiative. He was responsible for the evaluation of architectural decisions and proposed system components to be included in the DMV's future state architecture.*** ***By providing valuable expertise in the area of business rules management, Mr. Brown was able to effect organizational change in the way legislative changes are handled by the enterprise. By consolidating a collection of complex business rules into a single repository, rather than dozens of disparate system, the DMV will be able to save time and resources that would otherwise be dedicated to reacting to changes.***

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Required Information: ***11/2008 to 12/2009*** ***Vendor Name: CapTech Consulting*** ***Client Name: Healthcare Information Technology Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Architect/Lead Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***BizTalk Server 2006 R2*** ***BizTalk's Accelerator for HL7*** ***WCF services*** ***ASP.NET***	***Mr. Brown was responsible for the design and development of an HL7 message integration broker used to mediate, track, and administer the exchange of HL7 messages between medical practices and medical record keeping organizations. By utilizing a combination of BizTalk Server 2006 R2, BizTalk's Accelerator for HL7, WCF services, and ASP.NET web applications, he was able to develop the integration engine and supporting administrative solution.*** ***Mr. Brown participated in the full development lifecycle from requirements gathering through development, testing, and implementation. Mr. Brown's efforts led to the successful deployment of the first iteration of the HL7 integration broker, which is currently exchanging medical records for over fifty medical practices.***
Required Information: ***05/2006 to 08/2008*** ***Vendor Name: CapTech Consulting*** ***Client Name: Consumer Electronics Corporation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Team Lead/Senior Consultant*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***SOAP and WCF web services*** ***ASP.NET*** ***WinForms administration tools*** ***Windows Mobile***	***Mr. Brown assisted in the design and development of a tablet PC, smart client application, based on the Microsoft .NET 3.5 framework, and used by associates as an assisted selling tool in client retail stores around the country. By employing formal architectural standards, he was able to create a suite of supporting applications including SOAP and WCF web services, ASP.NET web applications, and WinForms administration tools.*** ***In addition, Mr. Brown helped lead an effort to design, build, and implement a scaled-down version of the application, which is hosted on handheld scanning devices running Windows Mobile.*** ***Mr. Brown also utilized Agile development methodologies, while leading the tablet PC development team and maintaining client communication. Mr. Brown's efforts have allowed the client to deploy the tablet PC application to hundreds of tablets in over 60 stores around the country.***

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Required Information: ***03/2006 to 11/2006*** ***Vendor Name: CapTech Consulting*** ***Client Name: National Electronics Retailer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Consultant*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***C#, ASP.NET 2.0, JavaScript***	***Mr. Brown was responsible for the development of a web-based tool that allows end users in client marketing department to streamline the creation process of their weekly marketing email newsletters. The solution allows the users to create newsletters in a matter of hours instead of several days and freed up resources for the client marketing department to focus their efforts towards other initiatives to increase their market share. The solution was developed using C#, ASP.NET 2.0 and JavaScript.***

EDUCATION	
Institution Name:	***University of Richmond***
City:	***Richmond***
State:	***Virginia***
Degree/Achievement:	***Bachelor of Science in Information Systems***

Certifications:	• ***Microsoft Certified Professional Developer (MCPD)***
	  ○ ***Web Developer 4***
	  ○ ***ASP.NET Developer 3.5***
	  ○ ***Enterprise Application Developer***
	• ***Microsoft Certified Technology Specialist (MCTS)***
	  ○ ***.NET Framework 4, Data Access***
	  ○ ***.NET Framework 4, Service Communication***
	  ○ ***.NET Framework 4, Web Applications***
	  ○ ***BizTalk Server 2006, Custom Applications***
	• ***Microsoft Certified Solution Developer (MCSD)***
	• ***Microsoft Certified Application Developer (MCAD)***
	• ***Microsoft Certified Professional***

HARDWARE/SOFTWARE SUMMARY (Be Specific)	
Description	***# of Year's Experience***

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Environments:	*System Environments* *• Windows Azure – Web Sites, Mobile Services, Cloud Services, BizTalk Services, Virtual Machines, Networks* *• Windows Mobile 7/8.1/10* *• Windows Server* *• BizTalk Server 2006/2009/2010* *Development Methods/Environments/Tools* *• .NET Framework, Visual Studio, Git, Team Foundation Server, Visual Studio Online* *• SQL Server Reporting Services, SQL Server Integration Services, SQL Server Analysis Services, Crystal Reports* *Application Programming/Scripting Languages* *• C#, VB.NET, Java, XML, ASP, C++, VB6* *• Javascript, jQuery, Angular, Backbone, Knockout, TypeScript* *• HTML5, CSS3, Bootstrap,* *• ASP.NET Web Forms, ASP.NET MVC, Windows Phone 8.1, & 10, Windows 8.1 & 10 Store Apps, Windows Presentation Foundation (WPF), XAML* *• ASP.NET Web API, Windows Communication Foundation (WCF), SOAP, REST*	• *14*
Hardware:		
Software:		
Tools:		
Databases:	*SQL Server 2005/2008/2012/2014, Windows Azure SQL, mySQL, Oracle*	• *14*

REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Frances Davis*** ***Kentucky Department of Workers' Claims*** ***FrancesA.Davis@ky.gov*** ***Yvonne Creech*** ***Kentucky Department of Workers' Claims*** ***YvonneK.Creech@ky.gov*** ***John Colston*** ***Kentucky Department of Workers' Claims*** ***john.colston@ky.gov***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Tim Fite***		☐ **Key Personnel**
Classification:	***Lead Analyst/Tester/Workers' Comp SME***	**# of Years in Classification:**	***13 years***
Brief Summary of Experience:	***Mr. Fite is a Senior Manager with 19 years of experience in a broad mix of industries. He is well-versed in many facets of project management, business analysis, data analysis and presentation, budgeting, cost control, risk management, and resource management. He provides strategic leadership and analysis that maximizes project value.*** ***Mr. Fite is a Certified Project Management Professional (PMP) and Certified Scrum Master (CSM). Previously a CPA for 12 years, his background provides exceptional strategic, communication, and presentation skills along with his demonstrated analytical and management abilities.***		
# of Years with Firm:	***5 years***		
RELEVANT PROFESSIONAL EXPERIENCE			

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Required Information: ***09/2014 to Present*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Business Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite was lead analyst for the design and delivery of an online Litigation Management System. The system allows parties, attorneys, judges, and state personnel to manage Workers' Compensation litigation throughout the lifecycle of a dispute. The system collaborates with an underlying client database, maintaining significant extant data requirements, triggering outbound mailings, and providing access to external data sources.*** ***Mr. Fite worked with CapTech UX consultants to help the client design dashboards and more than 30 interactive web forms to make the legal process paperless and higher-quality. He also defined the business rules that control the flow of a case through relevant dispositions toward successful closure. Mr. Fite performed testing. Mr. Fite was the liaison between development and client personnel and ran communications through functional system testing and user acceptance testing.*** ***Upon full implementation of support legal regulations, the system will automate essentially all paper filings and facilitate decision-making and scheduling for the Department of Workers' Claims.***
Required Information: ***07/2014 to 08/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Information Technologies Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Process Engineering/Business Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite documented and re-engineered business processes within a government agency, providing narratives, swim lane diagrams and step-by-step user guidance for a poorly understood instance of Microsoft Dynamics CRM. When several processes were found to underutilize CRM, Mr. Fite built and implemented a data import tool to eliminate over 12,000 manual entries per year. He also designed and delivered extensive new reporting, combining reliable onboard CRM tools with easy to manipulate Excel charting. He and his colleague produced the business plan for adoption of a paperless process which will eliminate over 18,000 paper files per year. He also coached the management team on techniques for paperless management. This process documentation engagement resulted in significant efficiencies and improvement in job satisfaction and timeliness.***

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Required Information: ***05/2014 to 07/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Freight Transportation Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Process Engineering/Business Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite prepared a Quality Assurance Strategy roadmap for a company working to mature its QA approach. Through interviews and document reviews, Mr. Fite developed an assessment of the current state, including technical infrastructure, processes and personnel. Additional research and interviews established a list of constraints and requirements. The resulting Quality Assurance Strategy Roadmap provided a program of nine projects, with chartering language and estimated investments, along with detailed recommendations for each. Mr. Fite avoided adoption of off-the-shelf or buy-something-first approaches to front-load corporate value as measured by the client, and to provide escape routes with minimum lost value.***
Required Information: ***12/2013 to 04/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Deployment Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite managed the effort of 14 teams to build and manage an integrated minute-by-minute conversion schedule. He then executed the 3,000-line schedule, serving as the lead Schedule Manager during the conversion event.*** ***Mr. Fite provided appropriately scaled assistance to both technical and non-technical teams to ensure that the resulting 14 schedules would integrate successfully into a complete, program-level view. After conversion, Mr. Fite summarized the processes used, produced recommendations for future efforts and prepared templates for future use.***

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Required Information: ***09/2012 to 12/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite was the Operations Project Manager for an integration program in the compliance department. Projects ranged from a large and highly technical implementation of a real time credit card origination service, to non-IT projects for the updating of compliance processes. Mr. Fite worked concurrently with non-technical teams assessing and redesigning processes and systems and with development teams delivering two new real time web services and associated system integration for a high-profile function. At peak rate, Mr. Fite was serving as PM or consultant to more than six concurrent efforts. His capacity for detailed analysis and ability to generate meaningful statistical reporting increased confidence in the new system while highlighting areas for remedial work and defect resolution. He also applied softer skills to unite disparate teams over the deployment effort.***
Required Information: ***06/2012 to 09/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Products Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Project Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite joined a struggling project team to ensure successful delivery during a remedial phase two. The project was a migration to a new Email Service Provider for complex outbound promotional emails. Phase 2 arose from incomplete phase one requirements. Mr. Fite focused his time on requirements review, risk management, communications and removal of impediments. Mr. Fite identified an incomplete environments plan, missing work components, and a potential disruption to promotions by executing against a risk management and requirements review plan. He reduced the total time dedicated to infrastructure meetings, while increasing total content reviewed across teams. The project completed successfully two weeks ahead of schedule and on budget.***

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Required Information: ***01/2012 to 06/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Products Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Consultant*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite worked with internal and external stakeholders, functional and executive stakeholders, to design a comprehensive change control process. The implemented process covers receipt, tracking and approval of proposed changes or enhancements to the database system. The new process requires clearer, more objective documentation of the business value being supplied, and for the first time ensures that relative costs are considered systematically, while reducing the net administrative burden of the system. The implemented system has significantly reduced the flow of approved requests without relying upon rejection of change. Teams are more attuned to the full cost and value of potential changes, and are showing greater respect for the net value delivered to the network, when proposing change. The result is fewer requests made, and all requests of higher net value.*** ***In phase two, Mr. Fite has established a process for queue prioritization and hygiene, protecting the queue and the development teams from low value work. Again, the prioritization system was designed to build behaviors consistent with respect for net value delivery across the network. It includes incentives for business teams to break requests into Agile-sized components, which facilitates delivery. It also encourages greater truth telling by standardizing assessments of value and cost in objective, easy to administer formats.***

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Required Information: ***01/2011 to 01/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Products Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Deployment Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite ensured the successful delivery of the latest phase of a new data warehouse, including significant impacts on ongoing marketing promotions throughout the deployment period. Deployment included successful data migration, capturing of incremental data, and stable business processes throughout the extended, 4-week deployment period. The deployment included numerous third party vendors and updated websites. Numerous marketing programs were active across the deployment period, as were the consumer-facing websites and call center.*** ***During the deployment, Mr. Fite executed concise reporting plans, relying upon templates he created to provide clear, graphical feedback of status against the deployment critical path, to highlight clearly the status of multiple partners and to track the condition of the database for all stakeholders. Mr. Fite provided leadership and process analysis through multiple project delivery phases. He provided deployment communications to ensure common understanding by the parties, and identified opportunities for additional training or design review prior to go-live. He managed the design and development of multiple pathways for the capturing and application of incremental data from the extended deployment period.***

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Required Information: ***07/2010 to 12/2010*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Products Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Deployment Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Fite ensured the successful delivery of a new data warehouse, with associated data marts and real time database, integrating the consumer database for multiple operating companies. The deployment included deployments of code and processes by numerous third party vendors, and a website redesign and replatforming, all of which was integrated and delivered simultaneously. Numerous marketing programs were active across the deployment period, as were the consumer-facing websites and call center. Mr. Fite supported test reporting with a highly automated test results analysis workbook which quickly populated a thorough daily test management presentation, allowing the test management team to focus on business results, rather than on data and chart manipulation.*** ***Mr. Fite provided leadership and process analysis through multiple project delivery phases. He provided deployment communications to ensure common understanding by the parties, and identified opportunities for additional training or design review prior to go-live. He managed the design and development of multiple pathways for the capturing and application of incremental data from the extended deployment period.***

EDUCATION	
Institution Name:	***University of Georgia***
City:	***Athens***
State:	***Georgia***
Degree/Achievement:	***Bachelor of Business (BA) in Accounting, Bachelor of Arts (BA) in English***
Certifications:	• ***CSM – Certified Scrum Master*** • ***PMP – Project Management Professional*** • ***CTFL – ISTQB Certified Tester, Foundation Level*** • ***CPA (March 98 – December 2009)***

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:		
Hardware:		
Software:		
Tools:	• ***Microsoft Office Suite (Word, Access, PowerPoint, Project)*** • ***Microsoft Office Power User (Excel)***	• ***20***

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Databases:	• ***Cognos data warehouse*** • ***SERFF*** • ***EDGAR and similar online data filing applications***	• ***2***
REFERENCES		
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Lenny Harris*** ***Manager, Mobile Services & New Technology*** ***Altria*** ***Phone: 804.512.2583*** ***lenny.L.harris@altria.com*** ***Virgil Willis*** ***Director, Project Management*** ***Capital One*** ***Phone: 804.347.8546*** ***John Kissel*** ***Director*** ***Virginia Information Technology Agency*** ***john.kissel@vita.virginia.gov*** ***804-248-0977***	

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Colin Ceperich***		☐ **Key Personnel**
Classification:	***OCM Lead/Trainer***	**# of Years in Classification:**	***9 years***
Brief Summary of Experience:	***Mr. Ceperich has experience in major business implementations as both a project manager and change management lead. He has managed broad-based communications for major organizational change and technology projects, developed training strategies and related materials for a wide range of new business systems and facilitated a variety of project planning and business readiness activities. His projects have included leading an organizational change management team as part of a multi-billion-dollar IT infrastructure transformation project as well as leading the analysis and design of the organizational change management plan in support of introducing self-service kiosks throughout a U.S. government hospital system. Mr. Ceperich's most recent experience included design, planning and implementation of training and communications related to introducing new paperless systems for state government and large commercial clients.*** ***Mr. Ceperich served as a naval officer after graduating from Northwestern University with a Bachelor's Degree in Industrial Engineering. In addition, he obtained his Masters Degree in Mass Communication from Arizona State University and holds a certification in organizational change management from Georgetown University's McDonough School of Business.***		
# of Years with Firm:	3 years		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***05/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers Compensation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led training strategy development and delivery in support of introducing a litigation management system that replaced paper-based processes. He designed and delivered train-the-trainer presentations and guides, user manuals, support desk scripts and video tutorials. Those efforts resulted in a fully engaged and ready set of stakeholders, and a successful roll-out of the system***

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Required Information: ***05/2014 to 09/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Packaged Goods Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led integrated change management activities for the enterprise-wide roll-out of Microsoft Lync at a Fortune 500 Consumer Packaged Goods manufacturer. He designed and delivered promotions, outreach, and workshops that resulted in widespread use of the various Lync components. His project management, training and creative skills enabled Lync's rapid roll-out and adoption, using a combination of demonstrations, giveaways, tutorials, web pages, trainings and targeted communications.***
Required Information: ***01/2014 to 06/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Consumer Packaged Goods Manufacturer*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led integrated change management activities for an enterprise-wide workstation upgrade at a Fortune 500 Consumer Packaged Goods manufacturer. The project included removing and replacing outdated hardware with newer equipment, updating the workstation image to Windows 7, updating/upgrading impacted applications, and providing communication to the project board, stakeholders, and impacted areas. As the functional lead for the effort, he developed the initial basis of estimate for managing the change along with the change impact analysis. He designed the eight-month project communication and training plans. Additionally, he developed and delivered tools and resources including websites, posters, leave-behinds and email messages for enterprise and targeted communications, as well as user training and project team support.***

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Required Information: ***01/2010 to 11/2012*** ***Vendor Name: Booz Allen Hamilton*** ***Client Name: U.S. Government Department*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Associate*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led the organizational change management support task for the national implementation of self-service kiosks across a US government health network. He developed approaches and tools to facilitate the rapid and widespread adoption of the interactive kiosks by medical center staff and patients. Mr. Ceperich's tasks involved developing a change management framework, assessing gaps in current implementation strategies and developing stakeholder outreach and engagement tools designed to prepare the organization for changes necessary to achieve the intended business case and associated value propositions.*** ***Mr. Ceperich directed the communications support project to enhance internal health IT communications. He coordinated a team of seven communication consultants, web developers and graphic artists in expanding the organization's communications capabilities. He led the development and delivery of workshops, the implementation of SharePoint 2010 and associated social networking tools, and strategies to address leadership communications and organizational changes.*** ***Mr. Ceperich led the change management and communications tasks to establish a common approach for acquisitions and logistics across the client's enterprise, which consisted of $24B of annual purchasing. He supported leadership in articulating the case for transforming supply chain practices, he developed the plan for transformation of those practices, including the concept of operations and transformation roadmap, and he supported specific healthcare strategic sourcing projects with change management and communication plans and tools.***

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Required Information: ***05/2009 to 09/2009:*** ***Vendor Name: Booz Allen Hamilton*** ***Client Name: Financial Services IT Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Associate*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led the change management tasks for a financial services IT agency office to assess program management office operations and make recommendations for improving investment and portfolio management capabilities across the entire set of client projects. Recommendations focused on how to maximize Clarity use and increase visibility across all portfolios.***
Required Information: ***01/2006 to 12/2009:*** ***Vendor Name: Booz Allen Hamilton*** ***Client Name: State Government IT Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Associate*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Ceperich led the change management and communications tasks for the IT infrastructure partnership between Northrop Grumman and a State Government IT Agency. He oversaw the assessment, planning and execution of change management activities across technology initiatives including helpdesk consolidation, desktop standardization, datacenter standup and ITIL implementation. In addition, he supported executive communications in support of workforce, customer service, and process improvement transformations.***

EDUCATION	
Institution Name:	***Arizona State University***
City:	***Phoenix***
State:	***Arizona***
Degree/Achievement:	***Master of Mass Communication***
Certifications:	
Institution Name:	***Northwestern University***
City:	***Evanston***
State:	***Illinois***
Degree/Achievement:	***Bachelor of Science in Industrial Engineering and Management Science***
Certifications:	• ***Project Management Professional (PMP)*** • ***Change Management Advanced Practitioner (CMAP)***

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:		
Hardware:		

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Software:	• ***MS Publisher*** • ***Adobe Captivate*** • ***Microsoft Office Suite***	• ***10+*** • ***2*** • ***10+***
Tools:		
Databases:		

REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Fran Davis*** ***Division Director*** ***Kentucky Department of Workers' Claims*** ***502-226-0036; 502-564-5732 (fax)*** ***FrancisA.Davis@ky.gov*** ***Dan Cornell*** ***VP & CIO, ALCS Information Services*** ***Altria*** ***804-274-1101; 804-274-7050 (fax)*** ***Dan.C.Cornell@Altria.com*** ***Vince Pontani*** ***Director of Logistics Policy and Supply Chain*** ***Department of Veterans Affairs*** ***202-461-6927; 703-803-1509 (fax)*** ***Vince_Pontani@SRA.com***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Grady Fields***		☐ **Key Personnel**
Classification:	***.NET Developer***	**# of Years in Classification:**	***3 years***
Brief Summary of Experience:	***Mr. Fields work over the last year has involved web development on a Microsoft platform. He built interactive javascript forms with complex client and server validation using Dynamics CRM as a data store. Additionally, Mr. Fields was involved in helping to migrate web applications running on UNIX to a new GNU/Linux host.*** ***Mr. Fields graduated from Virginia Commonwealth University with a Bachelor of Science in Computer Engineering.***		
# of Years with Firm:	***3 years***		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***05/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Three tier Microsoft architecture (MVC frontend, SQL Server database, Web API); AngularJS, C#***	***Developed a new public facing website to augment and upgrade the existing legacy DWC systems. LMS consists of a three tier Microsoft architecture with an MVC frontend, SQL Server database, and a Web API in the middle. . The Web API tier handled access to the LMS database, authentication, and the DWC's legacy systems. This left the MVC frontend free of the complications from a split data store. Instead, the MVC concentrated on feature rich forms built in AngularJS with a modular, extensible C# endpoints.***

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Required Information: ***04/2014 to 12/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Information Technologies Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Dynamics CRM, .NET, Javascript, C#, jQuery***	***During this modernization of a State Government's Secretary's office, Mr. Fields built or contributed to five Javascript and C# MVC .NET web applications using Dynamics CRM as a preexisting backend. Many of these modernization efforts created electronic processes to replace or reduce reliance on older paper processes. Mr. Fields and business analysts at the client met with the Secretary's office staff to elicit requirements and feedback used to iteratively build the applications. Most of the applications centered on a jQuery plugin that provided a wizard like data entry process.***
Required Information: ***09/2013 to 03/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Information Technologies Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: ASP .NET***	***Mr. Fields helped develop and plan the PayConnect web service with ASP .NET Web API. PayConnect allows the state agencies to integrate secure online payment by e-check or credit card with minimal effort. Mr. Fields worked with the first websites to use PayConnect to test the completeness and correctness of its monitoring, debugging and implementation.***
Required Information: ***03/2013 to 08/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Information Technologies Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Developer/Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Perl, PHP, C#; GNU/Linux***	***Mr. Fields was part of a team that reviewed the source code and databases of 300 applications in various languages (Perl, PHP, and C#) from the old host. He helped the operations team with the configuration of the new GNU/Linux environments. Mr. Fields then moved part of the Perl and PHP web applications and their databases to the GNU/Linux host.***

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Required Information: ***08/2012 to 02/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Information Technologies Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: ASP.NET***	***The client inherited a legacy ASP .net Web Forms application which Mr. Fields maintained and upgraded for the state government Department of Social Services (DSS) child support payment system. Mr. Fields helped keep this application running smoothly until it could be replaced by DSS.***

EDUCATION	
Institution Name:	***Virginia Commonwealth University***
City:	***Richmond***
State:	***Virginia***
Degree/Achievement:	***Bachelor of Science, Computer Engineering***
Certifications:	• ***Microsoft Certified Professional*** • ***Microsoft Programming in HTML5 with JavaScript and CSS3 Specialist***

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:	• ***Windows*** • ***Windows Server*** • ***GNU/Linux (Ubuntu and Red Hat)*** • ***Languages:*** • ***ASP.NET, C#, Go, CSS, HTML, Javascript, XML, SQL***	• ***3 years for everything except Go (6 months)***
Hardware:		
Software:		
Tools:	***IDE*** • ***Visual Studio 2010/2012*** ***Source Control:*** • ***Git*** • ***TFS*** • ***Mercurial*** ***Build Systems:*** • ***MSBuild*** ***General Tools:*** • ***Microsoft Office Suite (Word, Excel, PowerPoint, Outlook, Project, Visio)***	• ***3***
Databases:	• ***MySQL/MariaDB*** • ***Microsoft SQL Server***	• ***3***

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REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Mike Perzanowski*** ***Manager, CapTech*** ***mperzanowski@captechconsulting.com*** ***(804) 512-4484*** ***James Baca*** ***Senior Manager, CapTech*** ***jbaca@captechconsulting.com*** ***(804) 651-4061*** ***Jon Brown*** ***Director, CapTech*** ***jlbrown@captechconsulting.com*** ***(804) 386-7204***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Blake Serrano***		☐ **Key Personnel**
Classification:	***.NET Developer***	**# of Years in Classification:**	***4 years***
Brief Summary of Experience:	***Mr. Serrano has four years of IT experience, working in a variety of roles to include consulting, software engineering, customer support and content editing. His experience extends across multiple programming languages, including C#, .NET, and ASP.NET. Mr. Serrano is well versed in supporting technologies, such as MS SQL, HTML/CSS and JavaScript. He is able to set up, maintain and deploy applications and updates to development and production servers. Additionally, he has worked in both agile and waterfall development environments and has done proposal writing, created training documentation, database management, and network administration.***		
# of Years with Firm:	***5 months***		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***05/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***C#, .NET, AngularJS, WebAPI***	***Mr. Serrano served as a developer working with C#.NET, AngularJS, and WebAPI. His primary tasks included the development of sophisticated web forms that captured detailed information for a claim submission. He facilitated the use of a single-page application (SPA) to eliminate the need for multiple postbacks and performed operations in a single transaction. Mr. Serrano provided defect resolution support, and worked with the business analyst to clarify and refine complex requirements.***

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Required Information: ***12/2014 to 04/2015*** ***Vendor Name: TCSC*** ***Client Name: State University Payroll System*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: .Net MVC, MVC WebAPI, AngularJS, JQuery, Bootstrap, SQL Server, SSRS***	***While working as a Developer on the client payroll system, Mr. Serrano was responsible for working with managers at the client to plan, design and implement the payroll system that is used daily. The technology used for the system is .Net MVC, MVC WebAPI, AngularJS, JQuery, Bootstrap, SQLServer and entity framework code first. Mr. Serrano also worked closely with another co-worker to provide assistance with planning and implementing reports using SSRS.***
Required Information: ***08/2014 to 11/2014*** ***Vendor Name: TCSC*** ***Client Name: Industrial Water Treatment Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SharePoint 2007/2013***	***For this SharePoint migration project Mr. Serrano worked closely with managers in every department at the client to plan the migration and update of moving and upgrading over 50 custom applications from a SharePoint 2007 to a new SharePoint 2013 environment. After several weeks of meetings and planning Mr. Serrano converted and upgraded the custom applications to be compatible with SharePoint 2013, this included converting 2007 smart parts to visual web parts. Mr. Serrano was also responsible for setting up a testing environment as well as creating an estimate for the project.***
Required Information: ***04/2014 to 07/2014*** ***Vendor Name: TCSC*** ***Client Name: Local NonProfit Healthcare System*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: .NET MVC, SQL, IIS***	***Mr. Serrano worked with the project manager at the client to work out details for two different web applications. One application was a web form consisting of several different pages that allow users to check if they're meeting would be a conflict of interest. The second form was a form also consisting of several pages that allowed employees to record their expenses. The Non-monetary web application also allowed managers to login and approve expenses entered by employees. The technology used for this application is .Net MVC using Razor, entity framework database first and SQL Server. I also set up the site using IIS.***

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Required Information: ***01/2014 to 03/2014*** ***Vendor Name: TCSC*** ***Client Name: Federal Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SharePoint, Oauth 2.0, .NET, C#***	***For this project Mr. Serrano worked with another developer to create a custom login page for a SharePoint site that allowed users to use a Google enterprise username and password to access the SharePoint site. For this project the developers used Oauth 2.0 and .Net to send a request to the Google API to receive a user token which then used some custom C# to match the user token with the claims in SharePoint.***
Required Information: ***01/2013 to 12/2013*** ***Vendor Name: PatientNow*** ***Client Name: Internal Projects*** ***Client Contact Name: Internal Projects*** ***Client Address, Phone Number, Email: Internal Projects*** ***Role in Project: Software Engineer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: C#, .NET, AngularJS, WebAPI, HTML***	***In his role as a Software Engineer at PatientNow, Mr. Serrano was in charge of several projects including the integration of a marketing suite with the PatientNow application. As part of the master suite Mr. Serrano created a web page that allowed users to use a rich text box to create html web pages and deploy to the site. He also created a portal that interacted with the PatientNow software through custom web services that he produced. Mr. Serrano worked on several projects independently but was also required to work with project managers to plan future projects. He interacted with the testing group in order to regression test the PatientNow application to ensure a quality product.***
Required Information: ***01/2012 to 12/2012*** ***Vendor Name: Celerity*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed*** ***Role in Project: Content Editor*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: HTML/CSS***	***Mr. Serrano was responsible for creating and maintaining content displayed on the client website, specifically the client homepage. This included updating the website whenever the site was experiences technical difficulties and during natural disasters. During Hurricane Sandy Mr. Serrano worked with inspectors and client employees to ensure the web site was updated with the latest information on bank closings. Working in an agile environment with both teammates and customers, he helped ensure all promotions, rates, and dates met client standards.***

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Required Information: ***01/2011 to 12/2011*** ***Vendor Name: Gyrus Systems*** ***Client Name: Internal Projects*** ***Client Contact Name: Internal Projects*** ***Client Address, Phone Number, Email: Internal Projects*** ***Role in Project: IT Operations and Support*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: VB, ASP.NET, C#, T-SQL, MS SQL Server, SSRS, IIS***	***While at Gyrus Systems, Mr. Serrano was responsible for customer support, maintaining inter-office databases and servers, as well as customer LMS databases and servers which included daily backups, daily scripts, and procedures. He assisted in debugging various applications written in VB, ASP.NET, C#, and T-SQL as well as created and edited stored procedures, views, triggers and reports using MS SQL server and SSRS. Mr. Serrano performed many system and networking administration tasks during his time at Gyrus including Active Directory administration, standing up virtual server infrastructures, setting up web applications on IIS and providing upgrades and patches of the software to customers. He was responsible for creating training documentation and traveling to client sites in order to provide training based off of that documentation.***

EDUCATION	
Institution Name:	***ECPI University***
City:	***Virginia Beach***
State:	***Virginia***
Degree/Achievement:	***Bachelor of Science, CIS Database Programming***
Certifications:	

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:	***System Environments*** • ***Windows*** ***Application Programming/Scripting Languages:*** • ***C#*** • ***ASP.Net*** • ***Web Services*** • ***HTML/CSS*** • ***JavaScript***	• ***4*** • ***6*** • ***6*** • ***4*** • ***15*** • ***6***
Hardware:		
Software:	• ***Photoshop*** • ***Flash***	• ***4***
Tools:	• ***Microsoft Visual Studio*** • ***Team Foundation Server*** • ***Microsoft SQL Server*** • ***Waterfall, Agile, Scrum*** • ***Microsoft Office Suite, Sharepoint***	• ***4***
Databases:	• ***MS SQL*** • ***MySQL*** • ***Oracle***	• ***6*** • ***2*** • ***2***

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REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Robert Wilchek*** ***Developer*** ***ScanSolutions*** ***Cell 719-331-6434*** ***rwilchek@gmail.com*** ***Brenda Wilson*** ***Developer Manager*** ***Centra Health*** ***Office 434.200.6019*** ***Dave Willis*** ***SharePoint Consultant*** ***Microsoft*** ***Cell 804-366-1653***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Daniel Kim***		☐ **Key Personnel**
Classification:	***Data Architect***	**# of Years in Classification:**	***10 years***
Brief Summary of Experience:	***Mr. Kim is a technical leader with over 15 years' experience in the integration of complex systems and business processes. He is skilled in architecting business-grounded technical solutions, managing projects, facilitating discovery of business and system requirements, tracking and reporting project status, preparing and executing tests, and resolving issues. Whether designing BI reports, building complex ETL processes, analyzing and architecting data models, or building infrastructure to support the data layer, Mr. Kim has the knowledge and experience to lead organizations seeking to improve their data management practices.*** ***Mr. Kim has a strong record as a developer and architect, especially in the area of database/data warehouse and report development, and is experienced in both high – and low-level design. Mr. Kim is experienced in technology evaluation. He is adept at reviewing technical feasibility and limitations of various new technologies, and their applicability to business and system requirements.***		
# of Years with Firm:	***10 years***		
RELEVANT PROFESSIONAL EXPERIENCE			

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Required Information: ***05/2015 to 10/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Department of Workers' Claims*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***Microsoft SQL Server 2012 stack*** ***Visual Studio*** ***Team Foundation Server (TFS)*** ***Sharepoint***	***Mr. Kim served as the data architect on the Litigation Management System (LMS) project for the Department of Workers Claims (DWC) in a U.S. state. The entire Microsoft SQL Server 2012 stack was used to provide the database, ETL, and reporting infrastructure for LMS.*** ***Mr. Kim was responsible for architecting and implementing the data model for the LMS application. Erwin was used to create the data model, and the scripts to generate all the tables, views, stored procedure, and functions were created in Visual Studio and stored in Team Foundation Server (TFS) to ensure proper source control for database objects. Mr. Kim created a build process in TFS to automate the database builds to the various environments.*** ***Due to architectural limitations, there was a need for data integration between the existing claims management system and LMS. Mr. Kim created stored procedures and SQL Server Integrations Services 2012 packages to provide the data integration between the systems.*** ***Mr. Kim was also responsible for architecting, creating, and loading a data mart for a reporting solution for the DWC. The data mart stores a mix of claims management and LMS data. Due to the nature of the data, a snowflaked dimensional model was created for the data mart. Mr. Kim used SQL Server Integration Services 2012 to load the data from the source systems into the data mart. The SSIS packages were designed to flow data errors into error tables to prevent an error from causing the data loads to fail. The data load process was designed to be restartable with minimal effort to minimize down time. SQL Server Reporting Services 2012 reports were created to provide canned reports on the data mart. The reports were deployed to SharePoint 2013. PowerPivot and Excel Services within SharePoint 2013 was used to provide adhoc reporting capability.***

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Required Information: ***09/2009 to 04/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Workers' Compensation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***SQL Server***	***Mr. Kim was responsible for gathering and analyzing data requirements, designing, implementing, and performance tuning the transactional data model (physical and logical) for the Insurance Compliance application. The database was designed to handle the daily transactional load of the Insurance Compliance and Claims departments and the daily EDI load from the NCCI. Mr. Kim was also responsible for assisting in placing master data management principles around the data.***
Required Information: ***05/2009 to 07/2009*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Workers' Compensation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement:*** ***SQL Server Reporting Services***	***Mr. Kim was responsible for analyzing data requirements, designing, implementing, and performance tuning the transactional data models (physical and logical) for the Judicial Case Management application. The database was designed to handle the daily transactional load, while also serving as the repository for operational reporting. Mr. Kim utilized SQL Server Reporting Services to create the operational reports.***

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Required Information: ***09/2009 to 04/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Workers' Compensation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft SQL Server 2005 and 2008***	***Mr. Kim was responsible for gathering data requirements, designing, implementing, and performance tuning the transactional data models (physical and logical) for the Claims management application. The database was designed to handle the daily transactional load, while also serving as the repository for operational reporting. Mr. Kim utilized SQL Server Integration Services to load complex EDI source data into a staging environment, and SQL Server Reporting Services was utilized to create the operational reports.*** ***Mr. Kim performed data analysis and gathered requirements to perform a one time and on demand data load from the legacy system to the new system. SQL Server Integration Services was utilized to perform the ETL from the legacy system to the new system. As business requirements changed, numerous revisions were performed on the SSIS packages while ensuring data quality goals were met.*** ***Mr. Kim was responsible for gathering and analyzing data requirements, designing, implementing, and performance tuning the transactional data models (physical and logical) for the External Web File application. The database was designed to handle the daily transactional load.*** ***Mr. Kim was responsible for gathering and analyzing data requirements, designing, implementing, and performance tuning the transactional data model (physical and logical) for the Criminal Injury Compensation Fund application. The database was designed to handle the daily transactional load, while also serving as the repository for operational reporting. Mr. Kim SQL Server Reporting Services to create the operational reports.*** ***Mr. Kim served as the DBA for the commission for all databases that were running on SQL Server 2005 (and later 2008). Due to memory pressure, it was determined to upgrade the server from a 32-bit OS to a 64-bit OS, and upgrade the database engine from 2005 to 2008 at the same time. Mr. Kim was responsible for migrating the database, SSIS, and SSRS applications and reports from SQL Server 2005 to SQL Server 2008. He was also responsible for ensuring all the third party commission applications were configured and were able to function correctly after the database migration.***

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Required Information: ***07/2014 to 03/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: U.S. Credit Union*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Erwin, SQL Server Integration Services***	***Mr. Kim assisted in reviewing and generating the data model for the Portfolio data mart. Mr. Kim provided architectural review of the already completed data model and utilized Erwin to help generate additional subject areas.*** ***Mr. Kim also created a SSIS 2012 ETL framework to load the data into the data mart.***
Required Information: ***04/2011 to 12/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Department of Labor and Industrial Relations*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: DB2 database, SQL Server Reporting Services***	***Mr. Kim was responsible for designing and implementing the DB2 mainframe database, evaluating ETL solutions (SSIS, KETTLE, Talend, COBOL) to load data from mainframe VSAM files into the DB2 database. SSRS was used to deliver audit reports. The database was tuned to ensure peak performance for the end users.***
Required Information: ***08/2010 to 04/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Criminal Injury Compensation Fund*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: SSRS Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SSRS***	***Mr. Kim was responsible for developing over twenty SSRS reports. These reports enabled the users to analyze employee performance, simplify data anomaly checks, and simplify data retrieval.***

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Required Information: ***10/2010 to 03/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Department of Transportation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Business Intelligence Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SSRS, Business Intelligence Development Studio, Report Builder 3.0, Crystal Reports, Cognos, SharePoint 2010***	***Mr. Kim was responsible for delivering three training sessions covering developing an SSRS report with the Business Intelligence Development Studio and Report Builder 3.0, and utilizing the Report Model builder. Mr. Kim was also responsible for examining the current state of the data warehouse and business processes, and deliver a strategy document on BI project best practices, and when and how to implement SSRS, Crystal Reports, Cognos, and SharePoint 2010 together. Mr. Kim also worked with the IT division to develop prototype reports.***
Required Information: ***01/2014 to 08/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Healthcare Information Technology Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Senior ETL Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SSIS 2008 R2, SQL Server 2008 R2, TFS 2010***	***Mr. Kim utilized SSIS 2008 R2, SQL Server 2008 R2, and TFS 2010 to design and develop a new operation data store that merged, staged, and stored the current state of the data from source systems for consumption into a new data warehouse. Mr. Kim was also responsible for developing and assisting in the design of the data warehouse.***
Required Information: ***12/2012 to 06/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: Health Insurance Agency*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Developer*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: SSIS, SQL Server 2008 R2***	***Mr. Kim was responsible for designing and implementing a rules engine in SSIS. An external vendor provided a file with member health information. After the data was loaded, configurable rules were used to determine the status of the member. The results of the rules engine were stored in a SQL Server 2008 R2 database.*** ***Mr. Kim provided guidance on the client's SQL Server 2005 to 2008 upgrade. Mr. Kim also provided guidance and support in performance tuning the client's SQL Server environment and SSIS performance by utilizing the SQL Server Profiler and execution plans, and helping the client better utilize those tools.*** ***Using a combination of SSIS and stored procedures, Mr. Kim rewrote the Healthcare Management***

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	System's archive process that utilized an overly complex row-by-row approach to a set/batch based approach. Performance was increased by a factor of 100,000. The process was designed to be automatically tunable and adjustable to avoid impacting the performance of the production systems during business hours.
Required Information: ***01/2010 to 10/2010*** ***Vendor Name: CapTech Consulting*** ***Client Name: Financial Holding Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Data Integration Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, SQL Server***	***Mr. Kim was responsible for designing the architecture for application integrations based on ETL. Mr. Kim participated in JAD sessions and worked with the business analysts and S.M.E.s to ensure the architecture met the needs of the reinsurance integration.*** ***Mr. Kim was responsible for designing the architecture to publish from ClaimCenter and Camilion to the data warehouse.***
Required Information: ***07/2007 to 12/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Energy and Railway Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Development Lead*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Informatica, Oracle, Microsoft Access, Excel***	***Mr. Kim consolidated user data from four different data sources, each with its own set of keys, data elements, and data consistency errors, into a single data repository. Mr. Kim took initial data analysis performed by a previous CapTech team and assisted the CapTech business analyst with data analysis. He created the data model for the database, the matching logic for the data sources, the Informatica maps to perform the ETL, the design documentation necessary for hand off, and started the initial testing. Mr. Kim utilized Informatica as the ETL tool, Oracle as the data repository, and Access and Excel for the data analysis.***
Required Information: ***11/2005 to 12/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Consumer Electronics Corporation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Project Lead*** ***Details and Duration of Project: See right for details, see above for duration.***	***Mr. Kim conceived, architected, developed, implemented, documented, and guided the construction and the reuse of the application. The generic data verification application was an application that was designed to be lightweight and reusable across every subject area of the enterprise data warehouse, whether the subject area was one in existence, or a new one in development.*** ***Mr. Kim profiled the data of two large subject areas and the EDW support manager was consulted in order to ensure the architecture of the application would be reusable across the entire EDW. After the initial implementation, Mr. Kim was responsible for ensuring the framework created would be reusable by the other subject areas. The developers using***

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Software/hardware used in engagement: ***ASP.NET*** ***SQL Server 2000*** ***Informatica PowerCenter 7.12***	***the framework work were mentored and the documentation created was tested to ensure future subject areas could be added to the application by using the documentation as the sole reference point. One of the implemented subject areas crossed multiple data sources. Results from various data sources were compared in order to ensure data quality was maintained from the initial source to the final target.*** ***Mr. Kim built a complex report with many permutations and calculations. The report was created as an ASP & ASP.net front end with the calculations being performed in the backend via a SQL Server 2000 stored procedure. Mr. Kim wrote and performed test cases to ensure the report met all requirements as described in the report requirements specification.*** ***Mr. Kim designed, developed, and managed a small Informatica development team in order to get an external vendors' traffic data loaded into the EDW. Mr. Kim was responsible for designing the loading process and all the supporting components. He designed and implemented Korn shell scripts to track which files need to be downloaded and to manage the FTP process over a VPN tunnel. Mr. Kim also wrote and performed the test plan for the project.*** ***Mr. Kim took business requirements from the Business System Analysts and created the design documentation for the ETL maps. Utilizing Informatica PowerCenter 7.12, he performed the implementation on a key area of the MFP project. He also wrote and performed the test plan and test cases for his portion of the project. During the development process, Mr. Kim put checks in place in order to ensure data quality.*** ***On the Advertising effectiveness project, Mr. Kim took the business requirements and design documentation and implemented the ETL maps in Informatica PowerCenter tweaking the design where it was necessary. He also wrote and performed the test plan and test cases for his portion of the project.***

EDUCATION	
Institution Name:	***Virginia Polytechnic Institute & State University***
City:	***Blacksburg***
State:	***Virginia***
Degree/Achievement:	***Bachelor of Science, Management Science and Information Systems***

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Certifications:	• ***Microsoft Certified Professional – Designing and Implementing Databases with Microsoft SQL Server 7 (exam 70-029)*** • ***Microsoft Certified Technology Specialist - Implementing and Maintaining Microsoft SQL Server 2005*** • ***Teradata Basics V2R5*** • ***DAMA – Certified Data Management Professional (CDMP)*** • ***TDWI – Certified Business Intelligence Professional (CBIP)*** • ***Scrum Alliance – Certified Scrum Master (CSM)***

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:	***System Environments:*** • ***Windows NT4, Win 95/98, Win XP, Windows 2000, 2003, 2008 (including server administration)*** ***Application Programming /Scripting Languages:*** • ***T-SQL, PL/SQL, C#, VB.NET, VB6, ASP.NET, ASP, MDX, JavaScript, KSH scripting***	• ***5*** . • ***15***
Hardware:		
Software:		
Tools:	***Development Methods/Environments/Tools:*** • ***Microsoft Visual Studio .NET 2003 & 2008, 2010, 2014, .NET, and 6*** • ***Crystal Reports 7-9*** • ***SQL Server Reporting Services 2000, 2005, 2008, & 2008 R2, & 2012*** • ***Informatica PowerCenter 7 & 8*** • ***SQL Server Integration Services 2005, 2008, & 2008 R2 & 2012***	• ***10*** • ***5*** • ***11*** . • ***3*** • ***11***
Databases:	• ***Microsoft SQL Server 7.0, 000, 2005, 2008, 2008 R2, 2012*** • ***Microsoft Analysis Services*** • ***Oracle 8i – 9i*** • ***DB2 v8 LUW, DB2 v8 OS/390*** • ***Microsoft PerformancePoint Server 2007***	• ***15*** • ***5*** • ***8*** • ***4*** • ***1***
REFERENCES		

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Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Fran Davis – Kentucky Department of Workers' Claims – Director of Information and Research*** ***502-782-4578*** ***FrancesA.Davis@ky.gov*** ***Yvonne Creech – Kentucky Department of Workers' Claims – Information Systems Supervisor*** ***502-782-4479*** ***YvonneK.Creech@ky.gov*** ***Jacklyn Barners – Cigna – Core Clinical IT Project Manager*** ***804-363-4090*** ***JacklyndBarnes@gmail.com***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Chris Lacroix***		☐ **Key Personnel**
Classification:	***BSA/UX Analyst***	**# of Years in Classification:**	***9 years***
Brief Summary of Experience:	***Mr. Lacroix is currently leading CapTech's User Experience practice and is a skilled User Experience Architect with nearly a decade of experience in user research, interaction design, prototyping, and information architecture. Mr. Lacroix is also knowledgeable in Accessibility strategy and auditing, having performed audits for both the state and federal government, as well as fortune 500 companies.*** ***Mr. Lacroix partners with the client to derive and refine all deliverables, identify issues, and deliver high quality solutions. He has led teams, mentored peers, and trained clients.***		
# of Years with Firm:	***8 years***		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***02/2015 to 07/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Power and Energy Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect, Accessibility Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: FireEyes, WAVE, Photoshop, Illustrator, OmniGraffle***	***The client partnered with CapTech to redesign their current unauthenticated web experience. This included all activities from user research, to producing the final design comps and accompanying style guides for implementation.*** ***As the user experience architect for the website redesign, Mr. Lacroix successfully led multiple rounds of open, closed, and tree card sorting activities to greatly simplify the information architecture over the baseline experience. This simplified information architecture increased the ability to locate content by over 20%.*** ***Mr. Lacroix also produced a working and responsive prototype of the site to test the future state design on both web and mobile platforms. Respectively, the success rate increased by 13%, while the average time on task decreased by 50%.*** ***Lastly, Mr. Lacroix produced a series of user journey maps that would demonstrate how each of the users enter the site, and the key activities they conduct while visiting the site.***

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Required Information: ***09/2014 to 02/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: Office within U.S. Congress*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect, Accessibility Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: FireEyes, WAVE, Photoshop, Illustrator, OmniGraffle***	***The client was considering redesigning one of their tools and was seeking assistance in assessing the current state of accessibility conformance and how a future state design could be surfaced.*** ***Mr. Lacroix worked with the Office to audit and document recommendations to achieve WCAG 2.0 AA / Section 508 compliance on their current site. Mr. Lacroix worked with the Office to review the requirements for the website redesign and to produce a working prototype of the future state. This future state design introduced new design patterns that increased success from 86% to 92% while also introducing a number of new features over the existing design.***
Required Information: ***06/2014 to 10/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Office within U.S. Congress*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Business Analyst, User Experience Analyst, Accessibility Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: FireEyes, WAVE, Balsamiq, OmniGraffle***	***Mr. Lacroix worked with the client to define all future state requirements for the client's website. Mr. Lacroix performed an accessibility audit to demonstrate gaps in meeting Section 508 and WCAG 2.0 compliance, and created a strategy for meeting these standards. Lastly, Mr. Lacroix worked with the client to conceptualize what the future state requirements could be designed as by providing several wireframes for web and mobile experiences.***
Required Information: ***01/2012 to 02/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Insurance Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: FireEyes, WAVE***	***Mr. Lacroix was responsible for establishing design patterns and improving the overall user experience of an aging agent facing system. Ongoing activities include usability testing, card sorting, prototyping, and accessibility testing.***

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Required Information: ***11/2013 to 01/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Eastern U.S. State Government*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, WAVE, FireEyes***	***Mr. Lacroix led all User Experience activities for a redesign of one of the client's websites. He designed activities including wireframe development, Card sorting, and accessibility testing. Additionally, Mr. Lacroix was the project manager responsible for leading a team of developers, designers, and analysts to ensure the project was completed on budget.***
Required Information: ***10/2013 to 03/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Eastern U.S. State Government*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Morae, goMockingBird, Balsamiq***	***Mr. Lacroix led all User Experience activities for a redesign of one of the client's websites. The Website was a collection of approximately 9,000 content artifacts including over 500 documents. Mr. Lacroix conducted two rounds of card sorting and two rounds of usability activities to improve on the existing design and information architecture.***
Required Information: ***06/2013 to 09/2013*** ***Vendor Name: CapTech Consulting*** ***Client Name: Eastern U.S. State Government*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: User Experience Architect*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Xenu, Axure, Optimal Workshop tools***	***Mr. Lacroix conducted a full set of User Experience activities for the redesign of the state's new website. Mr. Lacroix completed a comprehensive Information Architecture analysis of the new site, involving content inventories, web analytics, and card sorting. Mr. Lacroix also conducted one round of usability testing on the desktop and mobile versions of the site resulting in an average success rate of 95%.***

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Required Information: ***08/2012 to 12/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Technical Analyst/Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: FireEyes, WAVE***	***Mr. Lacroix led a team of analysts in the creation of an online card activation process to be used as the preferred activation method for all client cards. This included cross team coordination, accessibility testing, usability recommendations, and leading fellow team members.***
Required Information: ***05/2012 to 11/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Eastern U.S. State Government*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Technical Analyst/User Experience Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle, FireEyes, WAVE, goMockingBird***	***As the Lead Technical Analyst, Mr. Lacroix worked closely with the client to define and document all business and system level requirements. Additionally, primary uses cases, UML diagrams supporting the development effort, and content strategy documentation were created.*** ***As the Usability Analyst, Mr. Lacroix supported the execution of content inventory collection and analysis, as well as the subsequent card sorting exercises. Mr. Lacroix worked closely with a team member to execute and analyze the usability testing sessions, and develop several key video artifacts for the client. Mr. Lacroix contributed to the site design process, and design improvement sessions that followed each usability test session. Lastly, Mr. Lacroix's knowledge of Mobile usability testing and our proprietary testing hardware were leveraged for the mobile optimized version of the client website.***

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Required Information: ***08/2011 to 04/2012*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Provider*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Lead Technical Analyst/Manager*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Visio, OmniGraffle***	***Mr. Lacroix led the analyst team on an effort to document and establish an enterprise framework. The enterprise framework will ultimately serve as the platform for all products and services to leverage capabilities from, reducing time to market and associated development costs when upgrading existing and deploying new systems. Mr. Lacroix lead the team and assisted in the elicitation of requirements, creation of use cases and resulting wireframes, establishment of a governance model, and all associated computer based training for use of the framework. Additionally, Mr. Lacroix provided several tutorial sessions on taxonomy, and information architecture best practices.***
Required Information: ***02/2011 to 06/2011*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Department of Labor and Industry*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Subject Matter Expert/Senior Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Visio***	***Mr. Lacroix acted as the subject matter expert for workers' compensation claims processing in a partnership with Deloitte Consulting. He assisted in the creation of system process flows for all to-be system process flows and the creation of user stories and use cases for the system. While Mr. Lacroix's main focus was a Systems Analyst, his technical knowledge of the chosen Electronic Data Interchange format also provided key insight to Deloitte team members.***

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Required Information: ***08/2009 to 07/2010*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Workers Compensation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Project Manager/Senior Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***Mr. Lacroix assisted in the creation of a new production support model to accompany the release of the state's Workers Compensation's newest claim management tool. This model included defining teams to accurately address issues, template generation for all aspects of the support process, and working with the user community to adopt the new model. Additionally, he was the lead analyst on the support role assisting in defining requirements for new enhancements, clarifying existing requirements, and acting as a liaison between the development team, and business community.*** ***Additionally, Mr. Lacroix was the Senior Analyst and subject matter expert for claims and awards processing. Working closely with the claims and awards team leads, he was able to identify business rule corrections, enhancements, and modifications to business processes which ultimately allowed for a measurable increase in claims and awards processing.***
Required Information: ***12/2008 to 04/2009*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Workers Compensation Commission*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Change Management Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***With the introduction of the state's Workers Compensation's newest claim management tool, client staff required department specific training developed. Mr. Lacroix worked with each department to determine their specific needs, develop user guides and deliver tailored training sessions to each user to improve the overall productivity of each department. In addition to providing the training, Mr. Lacroix streamlined several departmental processes and identified key hardware configuration issues to further boost efficiency.***

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Required Information: ***12/2007 to 10/2008*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Power and Energy Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Business Systems Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Visio, Photoshop, Microsoft Office Suite***	***Mr. Lacroix was responsible for the re-engineering of a billing application labeled Joint Use Attachment Billing (JUAB). Mr. Lacroix determined all business and system requirements for the re-engineering, the design of the User Interface, all associated Unified Modeling Language documentation, the data cleansing strategy and execution, and system testing of the application. He worked closely with the identified existing project Subject Matter Experts and developers to recreate the existing functionality of the application while correcting the key issues with the user interface and underlying processes for data entry and bill processing.***
Required Information: ***01/2007 to 11/2007*** ***Vendor Name: CapTech Consulting*** ***Client Name: Consumer Electronics Corporation*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Business Systems Analyst*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Microsoft Project, Microsoft Office Suite***	***The Merchandise Systems Transformation project was developed to replace the Oracle Retail Management legacy system. Mr. Lacroix was responsible for managing the project, systems analysis and testing of the Store Clustering, Item Planning and Assortment rationalization (SIA) module. He worked closely with the development team, data modelers and business users to assist in the requirement gathering of the reports for the SIA module. Mr. Lacroix owned the project schedule, held all meetings with the Cognos, report, and ETL developers and was the point of contact for the business on the SIA project. Mr. Lacroix played a key role in the system testing of the ETL's and autosys jobs. He delivered the database objects and reports on schedule, ready for utilization by the client.***

EDUCATION	
Institution Name:	***Virginia Commonwealth University***
City:	***Richmond***
State:	***Virginia***
Degree/Achievement:	***Bachelor of Science, Information Systems***
Certifications:	

HARDWARE/SOFTWARE SUMMARY (Be Specific)		
	Description	***# of Year's Experience***
Environments:	• ***Windows, Linux, Macintosh OS X*** • ***Languages: SQL***	• ***10***
Hardware:		
Software:		

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Tools:	***Design/Graphic Applications:*** • ***Adobe Photoshop*** • ***Illustrator*** • ***Lightroom*** • ***Final Cut*** ***Modeling Applications:*** • ***Visio*** • ***OmniGraffle*** ***Testing Software:*** • ***Mercury Test Director*** • ***Spira Test*** • ***HP Quality Center*** ***Accessibility Applications:*** • ***FireEyes*** • ***WAVE*** • ***Chrome Developer Tools – Accessibility Audit*** • ***University of Illinois Accessibility Extension (FAE 2.0)*** ***Usability Applications:*** • ***Morae*** • ***goMockingBird*** • ***Balsamiq*** • ***Axure*** • ***Xenu*** • ***Optimal Workshop tools*** • ***Usability Hub*** • ***CINT***	• ***10***
Databases:	• ***Microsoft SQL Server 2005*** • ***Oracle 9i***	• ***10***

REFERENCES	
Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Paige T Nunn*** ***Dominion*** ***Paige.t.nunn@dom.com*** ***Susan Miller*** ***Genworth*** ***Susan.Miller3@genworth.com*** ***Bill Rattner*** ***RealPage, INC*** ***billrattner@gmail.com***

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PROPOSED STAFF RESUME

A resume must be completed for all proposed contractor staff and proposed subcontractor staff.

COMPANY NAME:	***CapTech Consulting***		
✓ **Contractor**		☐ **Subcontractor**	
Name:	***Erin Lessin***		☐ **Key Personnel**
Classification:	***Visual Designer***	**# of Years in Classification:**	***15 years***
Brief Summary of Experience:	***Ms. Lessin is a creative professional with 15 years of experience in visual design, art direction, project management, and creative strategy. Starting off as an Experience Design intern during the "dot com" days, she learned the ropes on big-budget web and print projects in a variety of industries. She then spent some time at the helm of entertainment-focused website projects for movies, music, and fashion.*** ***Many award-winning years of innovative projects later, Ms. Lessin continues to bring her insight, artistic talent and creative ideas to interactive ventures. Her expertise lies in planning, creating, and implementing visually pleasing clean designs based on user advocacy and usability. Erin specializes in interactive design for web and mobile, icon and logo design, illustration, experience design, copywriting, WordPress integration, and project management.***		
# of Years with Firm:	***2 years***		

RELEVANT PROFESSIONAL EXPERIENCE	
Required Information: ***07/2015 to Present:*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Financial Services Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Senior Art Director/Manager – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***Ms. Lessin is currently creating the Visual Design for the client IRT Mobile and Desktop experiences.***

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Required Information: ***02/2015 to 07/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Power and Energy Company*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Senior Art Director/Manager – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***Ms. Lessin was responsible for redesigning the User Interface for the new client website (set to launch by Q1 2016).***
Required Information: ***11/2014 to 02/2015*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Retirement System*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***Ms. Lessin was responsible for redesigning the user experience and user interface for the state retirement portal, servicing millions of state employees.***
Required Information: ***10/2014 to 11/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Fortune 500 Client*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***Ms. Lessin was responsible for the IT services intranet redesign for a Fortune 500 Client, including logo design and interface design. She participated in brainstorming sessions for brand naming development, followed by many iterations of logo design.***

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Required Information: ***08/2014 to 10/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Community Service Board*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle, WordPress***	***Designed the wireframes and website interface for the State Community Services Board. The interface consisted of 16 template types that were designed with Wordpress integration in mind.***
Required Information: ***10/2014 to 11/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Food Products Supplier*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***Ms. Lessin was responsible for the Android redesign for an existing iOS mobile application. The design was updated to the flat Android look-and-feel and complied with the Android design standards.***
Required Information: ***01/2014 to 07/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: Theme Park Resort*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle***	***For the Theme Park Resort Mobile Application, Ms. Lessin was responsible for creating production-ready interface assets for the iOS and Android development teams, and photo editing for the Wayfinding app feature, consisting of thousands of images.***

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Required Information: ***12/2013 to 01/2014*** ***Vendor Name: CapTech Consulting*** ***Client Name: State Government Office of Telework Promotion and Broadband Assistance*** ***Client Contact Name: Client has requested that their name not be disclosed.*** ***Client Address, Phone Number, Email: Client has requested that their name not be disclosed.*** ***Role in Project: Art Director – Visual Interaction Design*** ***Details and Duration of Project: See right for details, see above for duration.*** ***Software/hardware used in engagement: Photoshop, Illustrator, OmniGraffle, Wordpress***	***Ms. Lessin created the User Interface Design and Branding for a State Office of Telework Promotion and Broadband Assistance. She also worked on Wordpress integration and CSS customization, producing and leading WordPress client training initiatives, content auditing and transfer, and more.***

EDUCATION

Institution Name:	***University of Southern California***
City:	***Los Angeles***
State:	***California***
Degree/Achievement:	***Bachelor of Arts in Fine Arts and Interactive Multimedia***
Certifications:	

HARDWARE/SOFTWARE SUMMARY (Be Specific)

	Description	***# of Year's Experience***
	Development Methods/Mediums: • ***User Interface (UI) and User Experience (UX) Design*** • ***Art Direction***	• ***15 years***
	Development Tools: • ***Photoshop CC 2015*** • ***Illustrator CC 2015*** • ***InDesign CC 2015*** • ***Axure***	• ***20 years*** • ***15 years*** • ***15 years*** • ***2 years***
Environments:	***Application Programming/Scripting Languages:*** • ***HTML5, CSS3***	
Hardware:		
Software:	***Applications:*** • ***Photoshop, Illustrator, InDesign, OmniGraffle, WordPress, Axure***	
Tools:		
Databases:		

REFERENCES

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Minimum of three (3) required, including name, title, organization, phone number, fax number and email address	***Suzanne Jara-Almonte*** ***Web Usability Specialist*** ***Digital Communications*** ***Dominion*** ***(804) 317-8642*** ***suzanne.jara-almonte@dom.com*** ***Paige Nunn*** ***Manager, Communications Planning and New Media*** ***Dominion*** ***804-921-3179*** ***paige.t.nunn@dom.com*** ***Martha Maltais*** ***Senior Director, Adult Developmental Services*** ***Region Ten Community Services Board*** ***(434) 970-2131 (phone)*** ***martha.maltais@regionten.org***

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X. Tab X—Preliminary Project Plan *(RFP 11.2.3.10; 6.6)*

RFP 11.2.3.10: "Vendors must include the preliminary project plan in this section."

RFP 6.6.1: "Vendors must submit a preliminary project plan as part of the proposal, including, but not limited to:"

Please see Section VII.A.

X.A. Project Timeline & Milestones *(RFP 6.6.1.1; 6.6.1.3–6)*

RFP 6.6.1.1: "Gantt charts that show all proposed project activities;"

RFP 6.6.1.3: "Milestones;"

RFP 6.6.1.4: "Task conflicts and/or interdependencies;"

RFP 6.6.1.5: "Estimated time frame for each task identified in Section 5, Scope of Work; and"

RFP 6.6.1.6: "Overall estimated time frame from project start to completion for both Contractor and State activities, including strategies to avoid schedule slippage."

RFP 6.6.3: "The preliminary project plan will be incorporated into the contract."

RFP 6.6.4: "The first project deliverable is the finalized detailed project plan that must include fixed deliverable due dates for all subsequent project tasks as defined in Section 5, Scope of Work. The contract will be amended to include the State approved detailed project plan."

Amendment 1, Question 79: "What is the implementation timeline? When does this system need to be live?" Answer: *"Ideally before June 30, 2017."*

Please see Section VII.A.

X.B. Planning Methodologies *(RFP 6.6.1.2)*

RFP 6.6.1.2: "Planning methodologies;"

To develop the schedule and resource plans within this proposal, CapTech has relied on both our prior experience in building Workers' Compensation applications plus our understanding of WCS' business requirements. We have taken the business requirements and conducted both a top down analysis of the level of effort, resources, and tasks and a bottom up analysis where we have broken down the requirements into developer-level tasks and compiled them into a schedule. The combination of these different methods allowed us to come up with a schedule and a set of assumptions that define the plan to build the application.

During the project, once the new "to-be" business processes are determined and documented and we have worked with WCS to update and refine the requirements of the new system, we will revisit the proposed development plan to confirm the development estimates or adjust where necessary. We expect that as the requirements are updated or refined and the assumptions are validated or need to be refreshed, the project schedule may change as well. CapTech will define a new "blueprint" for the new solution and work with WCS to prioritize the tasks and determine which tasks are the most important to complete within WCS' budget.

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X.C. Roles & Responsibilities and Communication *(RFP 6.6.2)*

RFP 6.6. 2: "Vendors must provide a written plan addressing the roles and responsibilities and method of communication between the contractor and any subcontractor(s)"

Not applicable: CapTech is not proposing any subcontractors to perform this work.

X.D. Risks & Mitigation Strategies *(RFP 6.6.5)*

RFP 6.6.5: "Vendors must identify all potential risks associated with the project, their proposed plan to mitigate the potential risks and include recommended strategies for managing those risks."

As with all IT projects there are a host of risk associated with software development. Based on CapTech's experience successfully delivering in excess of 1000 Information Technology platforms, CapTech has found the following to be the most detrimental to a project success. Please keep in mind, CapTech has never had a failed IT project. We stand by our work and always strive to make our clients successful.

Project Risks	CapTech's Risk Mitigation Strategy
The Application does not meet WCS needs, expectations, or desires	CapTech employs an agile/iterative development methodology. Iterative design and development provides WCS with a continuous feedback mechanism that ensures that the platform meets intended use cases and exceeds overall expectations. Further, CapTech will provide written requirements, accompanied with clickable prototypes that will allow WCS staff and subject matter experts to navigate the system prior to CapTech writing any code. WCS must share in the success of mitigating this risk. Taken as a whole, the features described in the RFP may not be feasible within the defined budget of the program. Expectations that a modern system delivering on truly mission critical features are appropriate, with an understanding that all automation and sophisticated business processes may not be accomplished within the timeline of this engagement.
The platform is hosted in an unstable technical environment	CapTech has designed an application and infrastructure architecture with fault tolerance across all tiers of the system, including the internet connection, networking components, server infrastructure, and application design. The system will be hosted in a world-class datacenter with N+1 redundancy for both cooling and power systems, strong physical security measures, and ability to withstand a Class 5 hurricane.
The project deviates from the planned schedule	CapTech's project plan is based on our proven delivery methodology and analysis of similar engagements. CapTech has deep knowledge of workers' compensation, particularly second injury fund processes, and has created a plan we know is achievable. Further, we have incorporated time for unplanned deviations in project schedule.
Technology/application is too complicated to manage and creates difficulty for WCS to enhance or maintain	CapTech will develop the system using common development frameworks and repeatable, proven design patterns. Further, we will develop the platform in the ASP.Net language where it is easy to find development talent to support the applications. Building the system in a modular fashion, we will separate concerns such as business logic, input validation, integration, etc. to make the system more maintainable by WCS if the organization ever intends to switch hosting and maintenance relationships.

It should be noted, that the largest risk to Information Technology projects is that signed-off requirements do not meet the needs. As such, CapTech will implement this project using a hybrid agile development framework that will allow NV to view the system in action throughout our delivery. Typically, with government, a full requirements gathering effort is followed by a long drawn

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out development period. CapTech believes that software should be developed iteratively so the system can evolve over the entire project duration increasing the success of the project and the value derived by the client.

We will work with WCS to identify additional risks throughout the project.

X.E. On-Site Staff (RFP 6.6.6; 13.3.4.6; 13.3.10)

RFP 6.6.6: "Vendors must provide information on the staff that will be located on-site in Henderson, NV. If staff will be located at remote locations, vendors must include specific information on plans to accommodate the exchange of information and transfer of technical and procedural knowledge. The State encourages alternate methods of communication other than in person meetings, such as transmission of documents via email and teleconferencing, as appropriate."

RFP 13.3.4.6: "The State will provide space for six (6) contractor personnel. If additional space is required, the space selected by the contractor must be mutually agreed upon by the State."

RFP 13.3.10: "Travel Requirements: Most design, development and testing activities will occur in Henderson, NV (except those activities mutually agreed to be performed at the contractor's facility)."

With the goal to provide WCS the highest quality and most skilled consultants at competitive rates, CapTech recommends staffing a hybrid team of resources, working both on-site and off-site from our Delivery Center. We will make up to 75 trips to Henderson, NV for critical meetings, deliverable reviews, and presentations. We will perform the remainder of the work from our Delivery Center in Richmond, VA.

Executing projects in CapTech's 100% on-shore Delivery Center provides project delivery tailored to client needs and has been an effective option to increase performance and lower costs for our clients. Housing project teams within the collaborative environment of CapTech's Delivery Center eliminates the time and costs associated with team on-boarding, workspace, and travel to support projects. The Delivery Center model allows us to provide a mix of on-site and off-site resources to maintain strong communication with business and technology partners while leveraging a shared development pool.

We can leverage video conferencing, WebEx (teleconferences), online document repositories, instant messaging, email, and other communication channels to transmit documents and stay in contact.

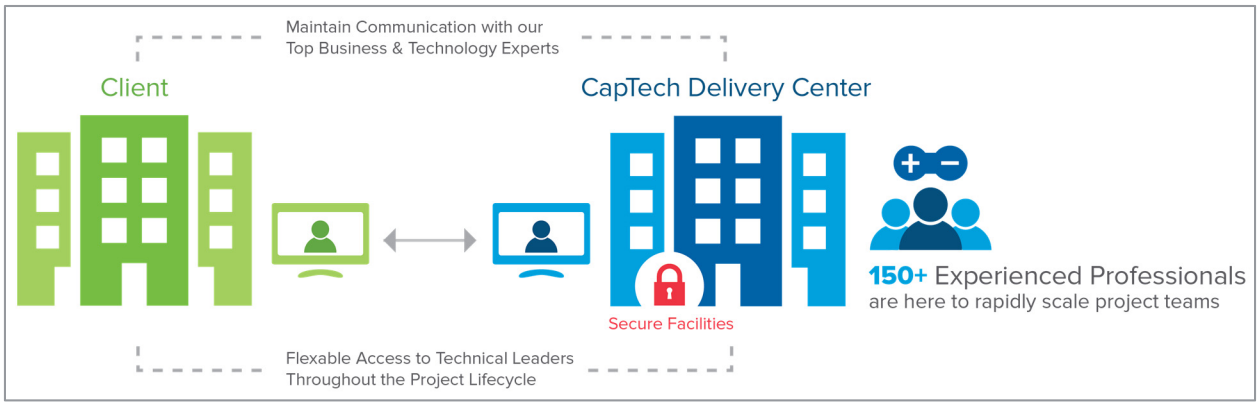

Figure 23. CapTech's Delivery Center Methodology

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The confidentiality of your products is our top priority. CapTech consultants, including those performing in the Delivery Center, are responsible for complying with WCS-mandated security requirements, as well as CapTech policies and procedures. The Delivery Center provides a secure and safe environment that allows WCS to deliver and receive quality products and services, while protecting against threats to confidentiality, integrity, and availability of information systems.

As a full-service information technology consultancy, CapTech knows the importance of delivering informed solutions on a timely basis, while leveraging existing resources and infrastructure. Our Delivery Center model allows us to utilize our existing resources and our established infrastructure to deliver quality solutions quickly. Upon request, CapTech can provide case studies and examples of successful client delivery within the Financial Services market utilizing our Delivery Center.

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XI. Tab XI—Requirements Matrix *(RFP 11.2.3.11; Attachment L)*

RFP 11.2.3.11: "Vendors must include their completed requirements matrix (refer to Attachment L, Requirements Matrix) in this section."

Please see the pages that follow for a completed Requirements Matrix (Attachment L).

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FUNCTIONAL AREA: 1.0 - GENERAL ENTERPRISE REQUIREMENTS

(A) The General Enterprise Requirements apply to all functional areas and business processes across the NV Workers Compensation Sections.
(B) The state is looking to the vendor to make sound recommendations on how to effectively utilize enabling technologies and modifying business processes to maximize efficiency.
(C) The state is looking for a solution that is modern, flexible, scalable, and extendable.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
1.1	The system shall include worker compensation industry standard data elements, edits, and data collection/distribution methods. (Note: the state understands that the standards may need to be implemented in phases. The vendor should be knowledgably about IAIABC EDI-standards).		M	C – Custom Desig	See Proposal Part IA Section VI.C.1.1
1.2	The system shall make maximum use of various industry standards for transmitting and receiving data electronically. The system shall have the appropriate electronic interfaces for "customer" data submission.			C – Custom Desig	See Proposal Part IA Section VI.C.1.2
1.3	The system shall be compliant with all State of Nevada security policies, statutes and standards.			C – Custom Desig	See Proposal Part IA Section VI.C.1.3
1.4	The system shall provide for the secure transmission and reception of data. This includes encrypting data when appropriate.			C – Custom Desig	See Proposal Part IA Section VI.C.1.4
1.5	The system shall significantly reduce the amount of manual data entry (from the operation as it is today) required to capture data by effectively utilizing currently available enabling technology.			C – Custom Desig	See Proposal Part IA Section VI.C.1.5

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
1.6	The system shall provide the capability to automate correspondence. This can include, but not limited to: - Allow users to create/modify/setup letter templates - Automatic generation of form letters (populated from the database) - Mail merge, automatic generation of mail labels - Automatic generation of letters and emails (based on WCS business rules)			C – Custom Desig	See Proposal Part IA Section VI.C.1.6
1.7	The system shall provide all necessary standard reports required to manage day-to-day operations across all WCS business functions, meet statutory reporting requirements, and ad hoc inquiries. These reports shall be easy for end users to run. The system shall allow a trained staff member, familiar with WCS's data, to make modifications to the reports as requirement may change over time.	Examples: Attachment #1		C – Custom Desig	See Proposal Part IA Section VI.C.1.7 The system will contain various reporting features which will enable WCS and other Nevada users the ability to rapidly access data, develop on demand reports and address ad hoc inquiries. The system will contain a directory structure that enables users to navigate to existing, standardized reports. The system will also contain a flexible user interface (similar to Excel) that enables users to develop custom reports and visualizations based on the proposed, underlying data structure and associated metrics, measures and attributes. Refer to section VI.C.10 for an overview of the standard reports that CapTech proposes for inclusion in the initial system. Refer to section VI.C.1.7 for details on how each WCS user type will leverage standard reports. Refer to section VI.C.1.8 for details on the user interface functions that will initially be available to each WCS user. Refer to section V1.C.1.10 and V1.C.1.11 for a general overview of the user interface functionality and navigation.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
1.9	The system shall provide reporting/query tools that allow end users to create and run reports (users can define data, selection, filter, sort criteria, and basic mathematical formulas). Capabilities shall include, but not limited to: - Ad hoc report generation - Complex data searches - Generation of statistical reports - Trend analysis reports - Ability to download results into documents and spreadsheets (including transferring queries to Microsoft Office products) - Printing reports	Also see: 11.0 Reporting & Business Intelligence		C – Custom Desig	See Proposal Part IA Section VI.C.1.8 The reporting interface will provide various WCS users the ability to interact with source data. Refer to section VI.C.1.7 for an overview of the WCS user functions that will be included in the reporting system.
1.10	The system shall allow authorized users to search by any data field. (All data entered into the system should be searchable)			C – Custom Desig	See Proposal Part IA Section VI.C.1.9
1.11	The system shall have an intuitive user interface.			C – Custom Desig	See Proposal Part IA Section VI.C.1.10
1.12	The system shall have streamlined navigation, where there is a minimal amount of screens and clicks to accomplish a task.			C – Custom Desig	See Proposal Part IA Section VI.C.1.11
1.13	The system shall provide document management capabilities where documents are integrated into tasks that are performed by WCS staff.			C – Custom Desig	See Proposal Part IA Section VI.C.1.12
1.14	The system shall have the capability of referencing hard-copy paper files that are stored off-site. The system shall allow the capture of reference numbers assigned to the off-site records.			C – Custom Desig	See Proposal Part IA Section VI.C.1.13
1.15	The system shall, where feasible, eliminate or reduce paper forms (Potential exceptions in cases where "wet" signatures or notary is required).			C – Custom Desig	See Proposal Part IA Section VI.C.1.14
1.16	The system shall provide the ability for a trained system administrator (with minimal technical background) to modify system lookup values.			C – Custom Desig	See Proposal Part IA Section VI.C.1.15
1.17	The system shall provide the ability for a trained system administrator (with minimal technical background) to setup and modify letter templates.			C – Custom Desig	See Proposal Part IA Section VI.C.1.16

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
1.18	The system shall provide streamlined workflow type functionality.			C – Custom Desig	See Proposal Part IA Section VI.C.1.17
1.19	The system shall allow authorized users to configure "alerts" based on dates, timeframes, task dependencies, etc.			C – Custom Desig	See Proposal Part IA Section VI.C.1.18
1.20	The system shall be developed using an architecture that is scalable and flexible, and can adapt to future requirements.			C – Custom Desig	See Proposal Part IA Section VI.C.1.19
1.21	The system shall have reasonable response-time/performance for both "Back office" users (state staff) and external customers (accessing services over the Internet). Note: The state understands the vendor is not responsible for those items outside it's control, such as the State's network or the Internet. This requirement is to ensure the vendor's solution is properly designed for performance and efficiency.			C – Custom Desig	See Proposal Part IA Section VI.C.1.20
1.22	The system shall have a comprehensive, reliable backup and recovery capability along with a recovery plan and instructions.			O – Other Softwa	See Proposal Part IA Section VI.C.1.21
1.23	The system shall allow users to easily download query results into Microsoft Office products (e.g. Excel).			O – Other Softwa	See Proposal Part IA Section VI.C.1.22 Refer to section VI.C.1.7 for a description of the reporting tool download capabilities. The reporting tool will enable users to output data in either Excel or comma-delimited files – each of which can be easily integrated into Microsoft Office products, such as Excel and Access.
1.24	The system shall provide role based security and access controls.			C – Custom Desig	See Proposal Part IA Section VI.C.1.23
1.25	The system shall provide the capability to effectively manage and retrieve contact records (people, organizations, etc.).			C – Custom Desig	See Proposal Part IA Section VI.C.1.24

FUNCTIONAL AREA: 2.0 - Integrated Case Management

(A) The various business units within WCS are involved with performing audits, investigations and assess fines/penalties, and the issuance of notices/order plans of corrections.
(B) A "case" can be touched by multiple business units within WCS.
(C) The requirements in this section focus on general "case management" functionality. Each of the business units have there specific "roles" related to a case and have additional requirements related to those roles.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
2.1	The system shall support the creation of case records and maintenance of the information through the lifecycle of the case (both audits and investigations) including, but not limited to the following: - Initiate a case (triggered by an event, e.g. audit, complaint, C-4) - Categorize case - Assign unique ID to complaint - Assign case (to investigator/auditor/etc.) - Track (log) of all activities/events related to case (e.g. correspondence, filings, inspections, etc.) - Log key dates and times (e.g. received, assigned, etc.) - Record violations (with reference to laws and policy) - Record findings and recommendations - Record actions taken (e.g. fines, penalties, notice of correction) - Track case status		M	C – Custom Desigr	The application will initiate case creation based on certain triggers. The application will track the fields identified in this requirement and allow users to enter and edit the data where appropriate. For more information about Case Management, see Proposal Part IA Section VI.C.2 (Case Management).
2.2	The system shall allow authorized users, with administrative rights, to setup lookup values (e.g. drop-down lists) and categories relevant to WCS. E.g. case categories, violations			C – Custom Desigr	The application will allow authorized users to define lookup values for dropdown lists related to cases.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
2.3	The system shall provide the ability to assign cases to individuals or business unit and have the cases "routed" to them using workflow and work queue features.			C – Custom Design	New audit cases will be assigned to individual WCS staff members or business units to allow the cases to be worked. The business rules for Case Assignment can take into account attributes such as geographic location and claim history to properly assign the case. Throughout the life of an audit, the case can be transferred to a different WCS staff member or business unit to accommodate a change in priorities or schedules. We will work with WCS during the initial analysis phase of the project to define the workflow rules for case assignment and transfers.
2.4	The system shall allow the tracking of multiple parties to the case, (e.g.: employers, employees, medical providers, insurance carriers, TPAs, attorneys, etc.) Also, the system shall allow users to define party relationships to a case.		M	C – Custom Design	In the Litigation Management System built for Kentucky's Department of Workers' Claims (DWC), the functionality was built in to differentiate between the different parties in the case, including all of the parties mentioned in the requirement. For WCS, we will bring that same experience with us to the requirements and Functional Design meetings to allow us to design the appropriate Party functionality into the application. In addition, we will design the application to allow users with the appropriate authority to define the party relationships to a case.
2.5	The system shall allow multiple WCS business units to work on a chase, where by the system supports the individual needs of each unit. (The case is maintained in the system as one record)		M	C – Custom Design	The application will allow the business units to manage cases according to the business rules defined during the initial analysis phase of the project. Multiple businesses will be allowed to work on a case and have unique business rules applied for each unit.
2.6	The system shall have automated alerts/reminders/ticklers for users based on key dates, events or timeframes.		M	C – Custom Design	The Case Management functionality will utilize the alert/reminder/tickler functionality described in Proposal Part IA Section VI.C.1.18. Case Management; alerts can be configured to be triggered based on key dates, events or timeframes.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
2.7	The system shall have the ability to track cases with definable case categories.		M	C – Custom Design	Cases can be tracked against definable criteria. CapTech will work with WCS during the initial analysis and requirements phase of the project to define the case categories. The historical case information will need to have this data already available in order for those cases to be tracked in these categories. For new cases, we will work with WCS to define the best way to collect the data to track cases.
2.8	The system shall have the ability to limit access to certain confidential data on a case.		M	C – Custom Design	The Case Management functionality will use roles to limit the access to confidential data. CapTech will work with WCS during the initial analysis and requirements phase of the project to define the case categories.
2.9	The system shall have the ability to attach "contact" records to a case if they already exist in the system. (To avoid creating duplicate contact records in the system)		M	C – Custom Design	The application will allow users to manually look-up contact records to match it to a case. If the data matches, the user will be able to record that against the case to eliminate adding duplicates contact records in the system.
2.10	The system shall have the capability to capture and track complaint information and allow an authorized user to generate a case from the complaint.		M	C – Custom Design	Complaints can be defined as one of the case types to be managed by the case management functionality. We will work with WCS to define the requirements and workflow for complaint cases that were explicitly identified within the RFP requirements.
2.11	The system shall allow users to attach and manage documents related to a case. User shall be able to label and categorize documents.			C – Custom Design	The application will allow users to upload documents and relate them to a case in order that they can be retrieved later. Users will be able to enter relevant information about the document into the application.
2.12	The system shall allow multiple contact addresses and phone #s for the parties related to a case. (For example an insurance company may have a corporate headquarters office out of state that is related to that particular case)			C – Custom Design	The application will allow parties to have multiple contact addresses. CapTech will work with WCS during the initial analysis and requirements phase of the proposal to define the address requirements and business rules for parties.
2.13	The system shall allow users to apply penalties/fines/corrective actions to one or more parties in a case. Fines and penalties assigned in a case will be integrated with the accounts receivable functionality referenced in 10.0 Financial Management.		M	C – Custom Design	Users can enter information related to a penalty, fine or corrective action against a case and the application will calculate the resulting total based on the financial calculation rules defined by WSC. The fines and penalties will be forwarded to Advantage for processing.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
2.14	The system shall allow the capability to link two or more cases together that have some commonality that is of interest to the users.		M	C – Custom Desig	Users will be able to indicate a similar case (or cases) by entering a predefined identifier information into the case. CapTech will work with WSC during the initial analysis and requirements phase of the project to define the rules for linking cases together.
2.15	The system shall allow users to search and look up cases based on any party (s) associated with a case: e.g. Claimant (injured worker), employer, insurer/TPA, medical provider, attorney, etc.) The system shall allow authorized users to easily navigate and view information on a case, including but not limited to: - contact information (all parties connected to the case and their relationship) - activities/correspondence - complaints - violations - fines and penalties (including write-downs, adjustments, etc.) - actions taken - payment history		M	C – Custom Desig	Users will have the ability to search cases across different criteria, including the party. In addition, the application will be able to display all of the information listed in this requirement.
2.16	The system shall allow authorized users to view the complete history of a case. Including who worked on it and the associated dates of activities and events.		M	C – Custom Desig	The case history will be available for authorized users to view.
2.17	The system shall track and report case related metrics. Examples including, but not limited to: - Timeframes between key dates or events -- Avg. timeframe from case open to closed, by case type -- Avg. timeframe to complete certain tasks -- Aging reports showing cases that are taking excessive time - Cases by type, opened/closed in a user defined time period - Cases assigned to a specific investigator/auditor		M	C – Custom Desig	The system will include a variety of different metrics and measures. Refer to Proposal Part IA Section VI.C.10 for details on these metrics. Note that this section includes all components of requirement 2.17. Given the proposed data model (described in Proposal Part IA Section VI.C.1.9), CapTech can also apply similar metrics to other reporting attributes. Additionally, the metrics articulated in requirement 2.17 can also be segmented based on other attributes within the data model, e.g., average case open timeframe by region, violation type, diagnosis type, etc.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
2.18	The system shall provide the ability to generate case related statistics and metrics to manage workload and measure performance.		M	C – Custom Desigr	The system will include a variety of case related statistics and metrics to manage workload and measure performance. Refer to Proposal Part IA Section VI.C.1.7 for an overview of the metrics pertaining to "performance and monitoring" and "workflow and admin." Refer to Section VI.C.10 for a detailed description of these reports. Refer to Section VI.C.10.4 for an overview of other statistical data that the system will generate.

FUNCTIONAL AREA: 3.0 - EMPLOYER COMPLIANCE

(A) The unit enforces workers compensation laws in relation to employer compliance.

(B) The unit takes measures to ensure that employers carry appropriate worker comp insurance for their employees. The unit will conduct investigations/audits if it appears an employer does not maintain proper coverage. Various methods are used to identify possible violators, including: (1) review of NCCI insurance cancelation listings - to determine coverage; (2) complaints; (3) referrals; (4) uninsured claims; or (5) other methods. Note: WCS is open to consideration of other methods/information sources to determine insurance coverage.

(C) The unit will investigate uninsured workers compensation claims (C-4 from Medical Unit) to determine if there was a employer-employee relationship at the time of the injury. The claimant can be referred to receive treatment paid through the Uninsured Employers' Claim Account (managed by the Uninsured Employers Claims Coordinator). The claimant's case would be forwarded to the WCS contract TPA who will make the determination and schedule treatment as appropriate.

(D) The unit issues fines and premium penalties against employers that fail to maintain proper workers compensation insurance for their employees. They also have the authority to investigate potentially uninsured employers and order cessation of business for non-compliance. The unit can refer cases to the State Attorney General.

(E) The unit also registers and regulates Professional Employer Organizations (PEOs) aka employee leasing companies. On an annual basis, the PEOs must complete and submit the application package (includes proof of NV workers comp insurance) and pay a registration fee. If requirements are met the unit issues an Employee Leasing Certificate.

(F) The unit issues "extra territorial" certificates to companies that are insured by state worker compensation funds from other states, and have employees working temporarily in NV. The certificates are typically valid for 180 days.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
3.1	The system shall support investigation/audit activities of the unit. This includes allowing users to setup cases or receive a case from another unit. The system shall allow users to manage cases through their lifecycle. This includes, but not limited to: assigning investigator/auditor, tracking all case activities, record violations, recording finding/recommendations, attach relevant documents electronically, assign and route cases to appropriate user, generate correspondence, update case status, resolution, etc.		M	C – Custom Desig	The application will allow audit cases to be setup by users and worked or transferred to other users. The application will manage the audits through their lifecycle as defined by the audit requirements identified during the initial analysis and requirements phase of the project. The audit functionality will encompass the scope defined in this requirement (assuming that the data has been entered in by the WCS staff).
3.2	The system shall allow users easily to pull information on all employer records related to workers compensation. This includes: - Previous violations (including type, related statutes/regulations) - Previous complaints - Previous enforcement actions taken, including fines, penalties, orders of cessation of business operations, etc. - Details of cases related to the employer, including parties involved, key event dates, and documentation.		M	C – Custom Desig	The application will allow users to review historical information for an individual employer. The data listed in this requirement will be available for review provided that information is available and has been entered by the WCS staff.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
3.3	The system shall provide an effective means for identifying employer gaps in insurance coverage. The system shall eliminate (or at least minimize) the need for investigators/auditors to manually manipulate data or create "side applications" (e.g. in Microsoft Access, Excel) to make insurance coverage assessments. (**NOTE:** WCS currently receives a data feed from NCCI which contains insurance cancelations and reinstatements. WCS staff must perform additional manipulation of the data to derive usable information.)		M	C – Custom Desig	The application will process the NCCI file which contains insurance cancelations and reinstatements. If possible, the additional manipulation performed by WCS staff will be automated to reduce the amount of time spent on maintenance activities. In addition, we will work with WCS during the initial analysis and design phase of the project to identify business rules that can be automated to identify employer gaps in insurance coverage. By importing this data and automating the business rules, it will be possible for the application to identify gaps in insurance coverage.
3.4	The system shall allow authorized users to issue fines and premium penalties. This includes, but not limited to: - Amounts ($) - Violations and relevant statutes and regulations - Track multiple violations/fines/penalties The system shall allow authorized users to modify fines and penalties based on appeals/negotiations. The system shall track the his history of those changes (amounts, reasons, etc.).		M	C – Custom Desig	The application will allow users to enter fines and penalties that will be added to an amount due for the employer. The history of violations, fines and penalties entered by the user will be visible within the application.
3.5	The system shall allow authorized users to issue compliance orders, such as cessation of business, including dates and timeframes. The system shall track the orders and provide reminders to WCS staff to follow-up for verification. The system shall track all activities related to the orders.		M	C – Custom Desig	The application will allow users to enter compliance orders. The application will maintain a history of the orders and send a reminder notice in the application based on the timeframe defined by WCS. The application will track activities related to orders according to business rules or when users associate the activities to orders.
3.6	The system shall track case referrals to the Attorney General (AG) and all interactions with the AG on a case.		M	C – Custom Desig	The application will allow users to indicate that a case is referred to the Attorney General and the user can enter any notes or history about the interaction. The application will not have an interface into the AG system.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
3.7	The system shall allow users to create and maintain Employer Contact records which can be associated with a complaint, investigation, audit, etc. The purpose is to: - Minimize the possibility of duplicate contract records; and - Make it easier to lookup an employer an view all activity associated with them (e.g. complaints, violations, fines, etc.) When setting up a case record, the system shall allow the user to search for the employer in the database before creating a new employer contact record.			C – Custom Desig	The application will allow users to indicate all contacts made with an employer to allow this information to be referenced at a later time. This information will be searchable to assist in reviewing the history with an employer when a case is created.
3.8	The system shall support the registration and regulation of Professional Employer Organizations (PEOs). System functionality shall include, but not limited to the following: - Capture relevant contact information for PEOs - Allow multiple contact records for different purposes, e.g. physical address, certificate renewal mailing address, etc. - Generate employee leasing certificates - Schedule and generate renewal notices (both email and letters) - Generate follow-up reminders for delinquent renewals - Track all correspondence and interaction between DIR and PEOs - Allow attachment of documents to PEO records		M	C – Custom Desig	The application will allow WCS users to enter and update information regarding PEO. The application will have the following functionality for PEO management - * Record multiple contact information * Generate employee leasing certificates and letters for printing * Send out emails * Generate follow-up reminders to WCS staff for delinquent renewals * Allow WCS staff to include notes about interacts * Allow documents to be uploaded to PEO records.
3.9	The system shall support the administration of Extra Territorial Certifications. System functionality shall include, but not limited to the following: - Capture relevant contact information for companies - Allow multiple contact records for different purposes, e.g. physical address, certificate renewal mailing address, etc. - Generate Extra Territorial Certification letters - Schedule and generate expiration notices (both email and letters); note: currently certificates valid for 180 days - Track all correspondence and interaction between DIR and Extra Territorial companies - Allow attachment of documents to PEO records - Track violations and enforcement actions		D	C – Custom Desig	The application will support the administration of Extra Territorial Certifications by allowing WCS users to enter contact information for companies (including multiple contact records), scheduling information, information about interactions and violations and enforcement actions. In addition, the application will generate letters and emails based on business rules defined by WCS and allow documents to be uploaded and attached to PEO records.

FUNCTIONAL AREA: 4.0 - Insurer/TPA Compliance Unit

(A) The unit audits workers comp insurers & TPAs at least every 5 years. The audits are to ensure that insurers, TPAs, employers, and healthcare providers are in compliance with NV statutes & regulations which govern workers compensation. In preparation for audits, the auditors need to gather information on previous violations, fines, penalties, etc. Auditors will also, request that that insurers provide worker comp claim information for the last period, typically one year of data.

(B) The unit also investigates complaints brought by injured workers or their representatives and renders determinations on the complaints.

(C) The unit can issue notices of correction, order plans of corrective action, levy administrative fines & issue benefit penalties (related to complaints & audit cases).

(D) A claimant who wants to contest some aspect of their claim (e.g. compensability, award, stipulations, etc.) can appeal to the Department of Administration, Hearings Division. DIR Legal Counsel handles WCS cases presented at the Hearing Division. This unit also reviews worker comp related Orders & Stipulations that come out of the Hearings Division and follow up to verify that insurers and TPAs comply.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)mandatory (D)desired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
4.1	The system shall have the capability of scheduling audits. This includes, but not limited to: - Scheduling 5 year audits based on previous audit dates - Scheduling audits based on complaints - Scheduling follow-up audits The system shall track audit staff assignments.		M	C – Custom Desig	The application will create new audits based on timeframe (e.g., every 5 years based on previous audit dates) or a WCS user manually initiating an audit. WCS managers will record manual audit assignments into the application for a record of who is working the audit.
4.2	The system shall allow users easily to pull information on all insurers, TPAs, and employers, to include, but not limited to: - Division of Insurance Certificate # - Previous violations (including type & statutes, regs) - Previous fines, penalties - Notices of corrections & order plans of corrective action - Complaints - key event dates - Results of previous audits and investigations The system shall allow users to also pull all claim case information (parties involved, complaint/claim details, etc.) related to the above items (so they can have the complete picture of a violation).		M	C – Custom Desig	WCS users will be able to retrieve information on insurers, TPAs and employers from the application. While the case information will be available in the database, we will work with WCS during the initial analysis and requirement phase of the project to identify which data should be available directly through the application's user interface.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)mandatory (D)desired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
4.3	The system shall allow users to easily pull worker compensation claim records for a specific insurer/TPA for a user specified time period. NOTE: This capability will be dependent on what claims data WCS collects from the insurers and TPA.		M	C – Custom Design	The application will allow users to view relevant Worker's Compensation claim information that has been entered into the application either by a party to the claim or directly by WCS staff. Note that the information that is visible will be directly dependent on what claims data WCS collects.
4.4	The system shall support audit activities throughout the life of the audit. This includes, but not limited to: - Issuing letters and reports - Recording audit findings and rating - Updating the records of the insurer/TPA based on information discovered during audit (e.g. contacts, location, etc.) - Schedule follow-up activities (e.g. follow-up on corrective actions) - Attach relevant audit artifacts (documents) to the audit file		M	C – Custom Design	The application will support the execution of audit cases by allowing WCS users to issue and print letters and reports, record audit findings, update the record of the insurer or TPA and attach relevant audit artifacts. The application's business rules will move the audit to the next step or allow the user to manually move the audit to a next step.
4.5	The system shall support investigation activities of the unit. This includes allowing users to setup cases or receive a case from another unit. The system shall allow users to manage cases through their lifecycle. This includes tracking all case activities, record violations, recording finding/recommendations, attach relevant documents electronically, assign and route cases to appropriate user, generate correspondence, update case status, etc.		M	C – Custom Design	The application will allow users to initiate cases or transfer cases to another person or unit. In addition, the user will be allowed to manage the case through the activities described in this requirement.
4.6	The system shall allow authorized users to issue notices of correction, order plans of corrective action, assess fines and penalties. The system shall allow authorized users to modify fines and penalties based on appeals/negotiations. The system shall track the his history of those changes (amounts, reasons, etc.). The system shall also allow users to schedule follow up tasks to verify compliance (where the system will send a reminder to the auditor/investigator).		M	C – Custom Design	The application will allow the user to issue notices of correction by filling out a notice template with the correct case data and allow the user to print it out and manually mail it. The user can also indicate a fine or penalty and modify it at a later date. The application will keep a history of the changes to the fines and penalties. The system will automatically schedule the next steps in the audit or allow the users to manually enter approved follow-up tasks that can send out reminders.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)mandatory (D)desired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
4.7	The system shall support the needs of DIR Legal Counsel staff. This includes, but not limited to: - Receiving, via workflow, case assignments - Access to all case information relative to their role - Ability to generate case files and information that they can take with them to hearings to present their cases		M	C – Custom Design	Case assignments can be manually transferred or automatically assigned to the DIR Legal Counsel staff via workflow. DIR Legal Counsel will have access to the appropriate data depending on the roles and access rules defined during the initial analysis and requirements phase of the project. The DIR Legal Counsel will be able to print the case information that they have access to relative to their role. CapTech's support will be limited to 15 roles, although users can have more than 1 role.
4.8	The system shall provide functionality to allow audit staff to track their time to an audit down to the task/activity level. The system shall provide the ability to track expenses and mileage related to the audit.		D	C – Custom Design	The application will allow users to track time at the task level and expenses and mileage for the audit. However, the application will not forward the time to the payroll system nor the expenses to the accounting system for employee reimbursement.

FUNCTIONAL AREA: 5.0 - MEDICAL UNIT

(A) The Medical Unit oversees the Panel of Rating Physicians and Panel of Treating Physicians.
(B) The Medical Unit assigns Rating Physicians using an unbiased "rotation" methodology based on various parameters, including specialty, geographic, location, etc.
(C) The Medical Unit performs investigations related to C-4s from healthcare providers (cannot find insurance for claim), billing/payment determinations, compliance with laws and Regulations.
(D) The Medical Unit issues fines & penalties, disciplinary actions, corrective measures, etc. The Unit also does outreach and training.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
5.1	The system must track and maintain information on Rating Physicians & Treating Physicians, including but not limited to: - Contact information (name, address, phone, email, etc.) - Specialties they are qualified for - Track timeframes (effective dates) Rating Physicians are active - Track continuing education for Rating Physicians - Track reason why they are no longer active		M	C – Custom Desigr	The application will allow the WCS staff to enter and edit information on the Rating Physicians & Treating Physicians, including the information listed in this requirement.
5.2	The system shall have the ability to track Rating Physician's Continuing Education (CE) timeframes and automatically notify them when they are due. The system shall also provide a mechanism for Rating Physicians to electronically submit proof of CE completion.		M	C – Custom Desigr	For those Rating Physicians who have an email address defined, the application will send automated notifications when their Continuing Education is due. There will also be a web page that allows physicians to submit proof of CE completion. Since the application will not be able to authenticate the physicians as they submit the proof, a WCS staff member will be required to review the submission and validate which physician completed the submission.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
5.3	The system shall have the ability to support rating cases through all steps in the case lifecycle. This includes, but not limited to: - Submission of **D-35 forms** (including the capture of all relevant data) - Track Rating Physician assignment - Track all relevant dates - Diagnosis codes - Body parts - Etc. - Record Rating Physician PPD report results - Record audit/review notes (e.g. errors) of PPD report (confidential - requires additional security level) - Generate correspondence back to Rating Physician.		M	C – Custom Desigr	The application will create web forms to allow external users to submit D-35 information. WCS staff will manually assign Rating Physicians and enter the relevant dates for the case and PPD report results, and generate correspondence from templates to Rating Physicians that can be manually printed and mailed. In addition, the audit/review notes of PPD report will be available for users in the appropriate roles to enter and review. We assume external authentication will be used for this task.
5.4	The system shall track situations where rating physicians and chiropractors are “assigned” by mutual agreement or court order. The system shall also track situations where the Medical Unit over-rides the agreements (which occur infrequently).			C – Custom Desigr	The application will allow WCS staff to manually indicate where Rating Physicians and Chiropractors are "assigned" by mutual agreement or court order. In addition, the system will allow the Medical Unit to override the agreements.
5.5	The system shall provide an option to automate the capture of D-35 data. This may include, but not limited to: - OCR data capture - Online secure web form/user interfaced		M	C – Custom Desigr	The application will allow users to enter D-35 data via a web form. OCR data capture can be explored as optional functionality during the initial analysis and requirements phase of the project.
5.6	The system shall provide an automated solution to the Form D-35 process, where insurers/TPA’s could submit the D-35 forms online and have the system automatically assign the next appropriate physician/chiropractor on the list.	Relates to Functional Area: 13.0 - Industry Requirements		C – Custom Desigr	Insurers/TPAs will be able to login to the application to submit D-35 forms. Physicians/chiropractors will be assigned based on the business rules defined in the initial analysis and requirements phase of the project.
5.7	The system shall allow the Medical Unit to seamlessly "forward" a case to another unit within the section so that section can perform their specific tasks related to the case. Example: The Medical Unit has a case that turns out to be an uninsured claim. They would then need to forward it to Employer Compliance to investigate.		M	C – Custom Desigr	The Medical Unit will be able to transfer cases to other units within WCS.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
5.8	The system shall provide automated support for Physician rotation assignments. This includes, but not limited to: - Assign physicians to cases based on DIR-WCS's algorithm using parameters, such as: specialties, geographic location, etc. - Provide option to override option - Track all physician assignments		M	C – Custom Design	The application will be able to assign Physicians based on parameters and business rules defined during the initial analysis and requirements phase of the project. The Physician assignment will be limited to 4 parameters and 5 workflows.
5.9	The system shall post Rating and Treating Physician panels to the WC website. The website shall be intuitive for the public to lookup physicians based on user selected search parameters.		M	C – Custom Design	The Rating and Treating Physician panels will be available for the public to search based on selected search parameters. The search will be limited to 5 parameters. The public will search the panels anonymously (i.e., without logging in).
5.1	The system shall allow staff to easily search and look up any records based on a variety of search fields such as physician name, patient name, specialty, dates, diagnosis codes, locations, etc.		M	C – Custom Design	The WCS staff will be able to search records based on the defined search fields of physician name, patient name, specialty, dates, diagnosis codes and locations.
5.11	The system shall allow staff to easily create (used defined parameters) and run reports management, operational and statistical reports.		M	C – Custom Design	The system will allow WCS users to define a variety of reporting parameters and run reports pertaining to management, operations and statistics. Refer to Proposal Part IA Section VI.C.1.7 for an overview of the types of reports that the system will generate. Refer to Section VI.C.10 for a detailed overview of the initial reports that the system will generate. Please note the following mappings: Management reports —> “performance and monitoring” and “workflow and admin” Operations reports —> “workflow and admin” Statistics —> “performance and monitoring,” “research” and “workflow and admin”
5.12	The system shall provide the ability to assess fines, penalties and corrective actions to parties affiliated with a case. The system must provide the ability to track compliance dates and trigger follow-up actions as needed.		M	C – Custom Design	WCS staff will be able to assess a fine, penalty, or corrective action and modify it at a later date. The application will keep a history of the changes to the fines and penalties. The system will automatically schedule the next steps in the case or allow the users to manually enter approved follow-up tasks that can send out reminders.

FUNCTIONAL AREA: 6.0 - Education, Research & Analysis Unit

(A) The unit consists of two sections: (1) Education Section - performs education and training of insurers, TPAs, employers, employees, healthcare providers, and others; and (2) Research & Analysis Section (R&A) - conducts research, special projects, collects data from external stakeholders, collects data on WCS operations, performs analysis on internal

(B) The Education Section, in addition to developing courses and conducting training, they also performs outreach to stakeholders. One method of outreach is through email notifications. Stakeholders can subscribe to through WCS's website and select the categories they are interested in.

(C) R&A collects & compiles internal data related to WCS's overall operation, performs analysis, and generates reports related to that data. Key reports include: Monthly WCS Activities & Achievements (operational metrics, including fines & penalties) , Performance Measures, and various reports required by statute.

(D) R&A collects & compiles data from external entities, primarily insurers and TPAs. Insurer and TPA contact and relationship information is used to support investigations and audits (across all units), and to perform data calls (requests for specific reporting requirements).

(E) R&A manages the fines and penalty records, including the generation and mailing of determination/fine/penalty letters. Posting of payments is performed by the Business & Industry Fiscal unit (separation of duties). R&A is also responsible for management reporting related to fines/penalties and accounts receivable. Uncollectable accounts are referred to the State Controller for collections.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
6.1	The system shall provide the capability to capture and report key internal WCS operational data (across all WCS units) related to their activities and performance measures. This includes, but not limited to the following: - Allow authorized users to select data and parameters for reporting - Automatically rollup/total data (so users do not need to manually compile - Automatically generate standard activity and performance measurement reports - Provide the capability to do ad hoc queries and reports on operational data (Note: Reports are generated for internal management use, Legislature (per statute), Governors Office and other stakeholders)	See Attachment Sheet #1	M	C – Custom Desig	The system will allow Nevada to report on a variety of operational data. Refer to section VI.C.1.7 for an overview of the operational types of reports that CapTech proposes (note that operational reports are included under the “performance and monitoring” and “workflow and admin” categories). Refer to section VI.C.10 for a detailed overview of these reports. Refer to section VI.C.1.8 for details on the user interface functions that will initially be available to each WCS user. This section includes details about automatically rolling up data and generating standard activity and performance measurement reports.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
6.2	The system shall provide the capability to capture and maintain data on insurers and TPAs. This includes, but not limited to: - Contact information - DOI license number and license status - Relationships between insurers and TPAs (including the history of the relationships and relationship effective dates) (Note: In general, this information comes from DOI and R&A outreach to insurers/TPAs.)		M	C – Custom Desig	The application will allow WCS staff to enter and maintain data regarding insurers and TPAs. The information that can be entered includes contact information, DOI license number and status and the relationships between insurers and TPAs.
6.3	The system shall allow the various WCS business units (e.g. Employer Compliance, Insurer/TPA Compliance, Medical Unit) access the insurer/TPA data and link to their case files (investigations & audits) to the insurer/TPA contact record.		M	C – Custom Desig	WCS staff will be able to manually link insurer/TPA cases (investigations & audits) to the insurer/TPA contact record.
6.4	The system shall support the processing, tracking, and maintenance of fines/penalties. This includes, but not limited to: - Generate determination/fine/penalty letters - Generate follow-up letters for delinquencies - Processing of Payments and updating of case files (indicate payment made against debt) - Accounts receivable aging reports The system shall allow and authorized user to lookup a fine/penalty record and easily navigate to the case record (e.g. view case information, parties involved, violations, etc.). In addition, the system shall allow an authorized users to view adjustments, write-downs, and write-offs that were made on an account.		M	C – Custom Desig	The application will allow WCS staff to levy fines and penalties by entering the amount against the offending party. The fines and penalties can trigger letters that can be printed and manually mailed to the offending party. WCS staff can record payments against a case and the remaining amount due (if appropriate) can be calculated. The application will be able to generate an aging report of the amounts due by dates based on the manually entered data regarding fines/penalties and payments. The application will record and display information about adjustments, write-downs and write-offs that are manually entered y authorized users.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
6.5	The system shall support the administration of "Data Calls" to insurers and TPAs. (Note: Data Calls are where R&A requests specific reports/information from insurers/TPA. R&A sends out email reminders identifying reporting requirement and deadlines). The system shall include, but not limited to: - Track which entities were sent Data Call notifications and the date. - Track responses back, including date received - Track and report past due responses and trigger follow-up reminders - Track rejections, where R&A requests insurers/TPAs to resubmit the report (because it was incomplete/inaccurate); including dates rejected - Track submission history and allow user to easily retrieve and view	WCS Website: http://dirweb.state.nv.us/WCS/insurer.htm	M	C – Custom Desig	The application will allow WCS staff to administer "Data Calls" to insurers and TPAs through manually entering data regarding their interactions. The data that can be recorded includes the information indicated within this requirement. Authorized WCS users will be able to view the history of these interactions.
6.6	The system shall support, and streamline the collection of information from insurers and TPAs. (See website for examples of information that is collected from insurers and TPAs.)	WCS Website: http://dirweb.state.nv.us/WCS/insurer.htm	M	C – Custom Desig	The application will allow for the streamlined collection of information from insurers and TPAs. The application will convert up to 2 paper forms into web forms to accept information required of TPAs and insurers.
6.7	The system shall support, and streamline the collection of information from insurers and TPAs. (See website for examples of information that is collected from insurers and TPAs.)	See Attachment Sheet #1	M	C – Custom Desig	The application will allow for the streamlined collection of information from insurers and TPAs. The application will convert up to 2 paper forms into web forms to accept information required of TPAs and insurers.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
6.8	The system shall provide a streamlined method to allow stakeholders to subscribe to WCS publications. Functionality includes: - Stakeholder registers on website and receives a confirmation email - System captures key information, including name, email, location, stakeholder category, topics of interest - Emails will automatically be generated (Note: WCS currently has this capability, however, it is fairly cumbersome and requires manual tasks. WCS uses the State's listserv server for the email blasts. The vendor solution cannot risk WCS being put on an email blacklist)		D	O – Other Softwar	CapTech proposes using MailChimp or a similar email newsletter service to maintain and send email newsletters. MailChimp and similar services provide easy methods of stakeholder signup, group categorization, and the ability to send email, track bounce rates, and more. The tool offers an easy-to-use WYSIWYG designer for emails.

FUNCTIONAL AREA: 7.0 - Subsequent Injury Coordinator

(A) The Subsequent Injury Unit provides a financial incentive for employers to hire workers with a permanent physical impairment. The costs of subsequent injuries are paid from the subsequent injury accounts (there are 3 accounts), and reimbursements are made to insurers - private carriers, self-insurers, and associations. The unit ensures the following: (1) validity of claims, (2) monies are not improperly released in cases of errors, (3) payments are in accordance with the approved medical fee schedule, and (4) safeguard against fraud.

(B) Claims are submitted to WCS, using the Form D-37 (with associated case documentation), by an insurer, association, TPA, or insurer's designated agent. The subsequent Injury Coordinator reviews the case: (1) verifies the D-37 is properly completed, (2) verifies medical bills, (3) verify claim calculations, (4) verify all appropriate documents are in the claim file, and (5) complete the Itemized Subsequent Injury Checklist. In some situations the case is referred to the Medical Unit for review. The Subsequent Claims Coordinator provides Recommendations of approval or denial to the Subsequent Injury Boards and DIR Administrator.

(C) The Self Insured Employers Account and the Associations of Self-insured Public or Private Employers Account have their own review boards. The Division of Industrial Relations Administrator administers the account for private carriers. Determinations are processed as follow: (1) for self-insured employer or associations of self-insured employers the DIR Administrator will submit to the appropriate board his acceptance or denial recommendation (within 45 days), and the boards will render a determination (within 120 days total); and (2) for a private carrier, the DIR Administrator will render a determination (within 120 days).

(D) There is an appeals process in the event that there is a disagreement with the determination (e.g. denial of claim or related expenses). Self-insured employer or associations of self-insured employers cases can request an appeal hearing with their respective boards. Private carriers can request an appeals hearing with the Appeal Officer at the Department of Administration. If the claimant disagrees with the decision from the appeals process, the next step is to file an appeal with the District Court.

(E) For approved reimbursements for claims, the Subsequent Injury Coordinator will submit a request to the Department of Business & Industry Fiscal Unit, who in turn request the State Controller to make the payment to the claimant.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)

7.1	The system shall support the Subsequent Injury process through the complete lifecycle of a claim. This includes, but not limited to:
	- Establishing a subsequent claim record (including **form D-37** data)
	- Attach relevant claim documentation to the record
	- Associate the various parties to the record (e.g. employer, insurer/TPA, medical provider, etc.)
	- Track key due dates and generate reminders to ensure deadlines are met
	- Generate letters
	- Track all activities, including, but not limited to:
	  - Determinations of DIR Administrator
	  - Determinations of the Boards
	  - Appeals
	  - Adjustments in the claim amounts
			M	C – Custom Desig	The application will be able to support the Subsequent Injury process by allowing insurers, associations, TPAs, or the insurer's designated agent to submit the D-37 information via a web form. The WCS staff will review the information prior to acting on it to validate that it is a legitimate claim. The WCS staff will be able to enter and maintain information about the process and print letters from pre-defined templates. The type of data that will be captured includes the data listed in this requirement. Documents will be able to be uploaded and attached to a claim by WCS staff.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
7.2	The system shall support the reimbursement process and update the claim record once a payment has been submitted.			C – Custom Desig	Once a Subsequent Injury payment has been made, the WCS staff can enter the payment amount within the claim for historical purposes.
7.3	The system shall allow users to generate management information related to subsequent injury claims.			C – Custom Desig	The system will allow subsequent injury coordinators to generate management information pertaining to subsequent injury claims. For example, a subsequent injury coordinator will be able to load up and view a claim record and view all linked entities within the data environment. The subsequent injury coordinator will then, upon conducting any applicable research, use the system to: (1) confirm/flag/annotate completion of D-37 information, (2) confirm/flag/annotate relevant medical bills, (3) confirm/flag/annotate claims amounts, (4) confirm/flag claim documentation status and (5) update the itemized subsequent injury checklist.
7.4	The system shall allow insurers/associations to submit subsequent injury claims and associated documents (i.e. case files) electronically.			C – Custom Desig	The application will allow insurers/associations to upload documents against a claim. CapTech's current estimate includes the functionality for the documents to be uploaded and manually associated with a claim by WCS staff. However, as an optional component, WCS can choose to expand the scope to allow insurers/associations to be associated with a case such that they will be able to login and associate the document to the proper case on their own.

FUNCTIONAL AREA: 8.0 Uninsured Employers Claims Coordinator

(A) The Uninsured Employer's Claims Coordinator (UECC) oversees the claims administration to ensure appropriate benefits are provided and gives prior authorization. Uninsured claims are typically referred to the UECC by the Employer Compliance Unit (Form C-4 process). The DIR legal counsel also reviews the claim.

(B) WCS contracts with a TPA to administer claims. The TPA makes the determination on claims. WCS staff has access to the contract TPAs system and can lookup information related to claims. The TPA sends WCS monthly bills, and reports containing: list of claims, counts, expenditures per claim and total amounts ($). The TPA has 30 days to accept or deny a claim.

(C) The appeals process involves the Department of Administration Hearings Division.

(E) The contract TPA invoices are forwarded to the Dept. of Business & Industry Fiscal Unit, which requests payment from the State Controller's Office.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
8.1	The system shall allow Uninsured Employer Claims to be forwarded to the UECC. (typically this would be from the Employer Compliance Unit).		M	C – Custom Desig	Users will either be able to manually forward uninsured employer claims to the UECC, or CapTech could define a rule that allows uninsured employer claims to be automatically routed to the UECC when a user flags a claim as relating to uninsured employers.
8.2	The system shall support the requirements of the UECC, to include, but not limited to: - Ability to lookup the claim and associated documents - Record the UECC's findings and recommendations - Generate claims file to sent to the contract TPA - Track contract TPAs determinations - Track any appeals activities - Track any modifications to the claim scope or amounts ($)		M	C – Custom Desig	The application will allow WCS staff to record and lookup information regarding an Uninsured Employer claim. The type of information that can be recorded includes UECC's findings and recommendations, contract TPA's determinations, appeals activities and modifications to the claim scope or amounts. In addition, the application will generate an output claim file that can be manually sent to the contract TPA.
8.3	The system shall allow authorized fiscal staff to update payment information related to the claim.		M	C – Custom Desig	Authorized fiscal staff will be able to update payment information related to an Uninsured Employer claim.

FUNCTIONAL AREA: 9.0 Benefit Penalty Investigations Unit

(A) Benefit penalty investigations are investigations of insurers, TPAs, employers, and medical providers, which may result in a benefit penalty payment to the injured worker. If a violation is found, a penalty is awarded to the injured employee - $3,000 to $50,000 - and an administrative fine - $1500 for the initial violation or $15,000 for a second or subsequent violation - is imposed against the offending party (e.g. insurer, TPA, etc.). There is another type of penalty - the "Three-Times Penalty", where an Insurer or TPA has unreasonably refused to pay a claim within 30 days of receipt of the C-4 Form. The WCS can award the injured employee an amount equal to three-times the amount that was refused or unreasonable delayed.

(B) Complaint forms are received by WCS (majority are filed by the injured employee's attorney). The unit investigates the complaint. Based on the results they prepare the "Findings of Fact Draft Determination". The determination is reviewed by - the District Manager, DIR legal counsel, and WCS Chief Administrative Officer.

(C) Appeals go to the Department of Administration, Appeals Division. The Appeals Division can affirm, deny or order an adjustment to the case.

(D) If approved the unit will issue a "Determination Award Penalty". A letter will be sent to all parties involved. The respondent has 10 days to pay or 30 days to appeal. If not payment is made then it goes into collections.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
9.1	The system shall support the requirements of the Benefit Penalty Investigation Unit, to include, but not limited to: - Ability to setup a benefit penalty complaint files (including associated documents) - Ability to track all investigative activities related to the complaint - Record the unit's findings and recommendations - Track the review steps and results (determinations) - Track any appeals activity and results and award penalty amounts - Track any modifications to the claim scope or amounts ($) - Track non-payment complaints from claimant (should the respondent not pay)		M	C – Custom Desig	The application will allow an external user to submit a benefit penalty complaint and associated documents through the WCS web site. The Benefit Penalty Investigation Unit will review the complaint to confirm it is legitimate before acting on it. The application will allow the Benefit Penalty Investigation Unit to enter information about the complaint including investigative activities, findings, recommendations, review steps, results (determinations), appeals and results, award penalty amounts, modifications to the claim scope or amounts and non-payment complaints.
9.2	The system shall allow authorized users to lookup historical records of previous complaints, fines, penalties, actions, that were taken against a respondent.		M	C – Custom Desig	Authorized users will be allowed to lookup historical records of previous complaints, fines, penalties and actions against a respondent.
9.3	The system shall provide the ability to create an accounts receivable transaction in the event the respondent does not pay the award penalty. The system shall have a the ability to generate delinquency notices.		M	C – Custom Desig	Manually enter amount, we will generate letter that they can print. Need to figure out how to avoid an interface with Advantage.

FUNCTIONAL AREA: 10.0 - Financial Management

(A) The primary financial functions that WCS performs involves accounts receivables/payment processing related to the collection of fines and penalties.
(B) The State of Nevada has a statewide accounting system (Advantage). WCS works with the Department of Business & Industry (B&I), Fiscal Unit on payment processing and deposits.
The pos Advantage
(C) Note: The scope of the new system does not include an automated interface to Advantage. However, the system should have flexibility to accommodate an interface in the future.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
10.1	The system shall provide a secure online payment portal for fines and penalties, with the ability to accepts credit cards, debit cards and eChecks.			C – Custom Desig	See Proposal Part IA Section VI.C.9.1.1
10.2	The online payment portal shall integrate with the States merchant services and payment processing platform (Wells Fargo is the current contractor and provides industry standard integration methods).			C – Custom Desig	See Proposal Part IA Section VI.C.9.1.2

10.3	The system shall provide the capability to effectively manage accounts receivables, primarily related to fines and penalties. The system shall include, but not limited to the following:
	- Generate aging accounts receivable reports
	  - Show account details
	  - Show summary record counts
	- Automatic generation of reminders and delinquency notices
	- Track adjustments to balances (tracking all history), e.g.:
	  - Reductions in amounts (with reason)
	  - Write-offs
	- Support payment plans
	- Support posting partial payments
				C – Custom Desig	See Proposal Part IA Section VI.C.9.1.3

10.4	The system shall, when a payment is made on a receivable, automatically update the related "case record" to show that the fine or penalty was paid.			C – Custom Desig	See Proposal Part IA Section VI.C.9.1.3
10.5	Allow users (authorized) in various units to lookup records for an insurer/TPA or employers to see payment history. (To avoid the situation where one unit needs to call another unit to get information)			C – Custom Desig	See Proposal Part IA Section VI.C.9.2

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
10.6	The system shall capture financial related transactions in the system in a manor consistent with the State's general ledger accounting code structure. The system shall allow users to "roll-up" transactions into totals for reconciliation purposes and for posting the state financial system (Advantage).			C – Custom Desig	See Proposal Part IA Section VI.C.9.3
10.7	The system shall provide the capability to properly implement separation of duties.			C – Custom Desig	See Proposal Part IA Section VI.C.9.4

FUNCTIONAL AREA: 11.0 Reporting & Business Intelligence

(A) The ability to easily access and report information is critical for WCS. The following are the types of reporting that is required: (1) Standard management & operational reports, (2) reports mandated by statute (e.g. reports to the Legislature), (3) special request, examples include requests by attorneys, stakeholders, etc., (4) request from WCS investigators in relationship to a case/claim, and (4) research and special projects.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
11.1	The system shall provide comprehensive reporting capabilities, that include: - Standard reports (that are executed on a routine basis) - Ad-hoc reports that users can build using an intuitive user-interface and specify selection, sort, criteria - Users can build reports without requiring knowledge of complex database structures (i.e. data elements are presented in terms understandable by a WCS user)		M	C – Custom Design	See Proposal Part IA Section VI.C.10.2 The system will provide a variety of reporting functionality to all WCS users. These users will be able to create and run standard reports which can be saved and stored within the system (for reuse, automation and/or alerts). Users can also create ad hoc reports and reporting attributes based on the data model described in section VI.C.1.9. Users can also create reports (for single or one-time use) using interfaces similar to that of Microsoft Excel or other Business Intelligence systems. Refer to section VI.C.10.2 for details on standard, ad hoc and other report creation functionality.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
11.2	The system shall allow users to link together and report data from various tables in the database, for example: - Workers comp claims - Complaints - Cases (investigations/audits) - Employers - Insurers - TPAs - Medical providers - Violations/fines/penalties/actions			C – Custom Design	See Proposal Part IA Section VI.C.10.3 The system will contain a robust data architecture that enables the linking and joining of various entities. For example, the data model will enable the linking of entities (e.g., employers, medical providers, TPAs, etc.) to audit data, case data, claim data, other entity details, etc. Further, case data will be linked to payment history, case actions and violations. Refer to section VI.C.10.3 for details on the relationships between entities.
11.3	The system shall allow generating statistical data from the system, e.g. record counts, summations, averages, etc.			C – Custom Design	See Proposal Part IA Section VI.C.10.4 The system will enable WCS users to generate statistical data and define statistical parameters for analysis, e.g., average case open time, count of complaints, claims, etc. Refer to section VI.C.10.4 for details on the statistical reporting capabilities of the system.
11.4	The system shall provide the ability to report on historical trends based on user defined criteria.			C – Custom Design	See Proposal Part IA Section VI.C.10.5 The system will enable WCS users to report and conduct upon historical trends within the data, e.g., measure audit, claim or violation volume over time. Further, the proposed data model will enable historical trends to be segmented based on various other reporting attributes, e.g., audit volume over time based on complain types. Refer to section VI.C.10.5 for further details and example on the system's historical trend reporting capabilities.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
11.5	The system shall provide the ability to publish reports so that other individuals can view them.			C – Custom Design	See Proposal Part IA Section VI.C.10.6 The system will enable WCS users to publish reports that are viewable to others. These reports can be viewable by specific types of users on the proposed public website and reporting interface. Refer to section VI.C.10.6 for further details on report publishing capabilities.

FUNCTIONAL AREA: 12.0 - Claims Data Collection

(A) WCS currently collects claims data in the Claims Indexing System. Entities that send in data – Only Nevada private insurance carriers are required to submit information. Self Insured & Self Insured Associations are exempt. Some of them do submit but it is voluntary. Information is submitted on a D-38 Form (some send copies of the forms and some upload batch files to a secure FTP site). TheD-38 is a form which uses elements (including SSNs) from requirements put forth in NRS 616B.018. WCS has been collecting Indexing information for approximately 12 years, however, the database includes the entire database of SIIS/Employers efforts before WCS took over the program.

(B) NOTE: As part of the scope of this project, WCS will be working with the industry to re-define and expand what data is to be collected and how. The project will include developing a phased approach to implement the new data collection methods which will minimize risk and impact to the WCS and industry stakeholders.

(C) The solution for collecting claims data will need to take into consideration industry standards and best practices, such as the IAIABC EDI Standards.

(D) The Claims Data Collection requirements are closely tied to Functional Area 13.0 - Industry Requirements (in the next tab).

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
12.1	The system shall support the data collection and reporting statutory requirements of the WCS. This includes, but is not limited to the requirements of NRS 616B - Indexing Claims (which facilitated the development of the current Claims Indexing System).			C – Custom Desigr	The system shall adhere to the requirements of NRS 616B - Indexing Claims and any other data collection and reporting statutory requirements of the WCS. CapTech workers' compensation SMEs will work closely with WCS to ensure these requirements are adhered to.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
12.2	The system shall support WCS's internal requirements where claims data is needed for core business processes. This includes, but not limited to: - Support of audits - Allow WCS auditors to access claims data from the system to perform audits (case sampling). This approach could be in lieu of requesting claims history from Insurers/TPAs when performing 5 year audits. - Support investigations - Allow WCS investigators to access claims data directly from the system when performing investigations. - Support research/analysis projects - Allow WCS staff to perform search and reporting of data from the system to support research/analysis projects, and respond to information requests.			C – Custom Desigr	The application will allow WCS staff to review, search, and report on claim data.
12.3	The system shall support the NV Department of Employment, Training & Rehabilitation's (DETR's) data requirements for checking for overlaps in unemployment benefits and workers compensation benefits. The system shall capture, but not limited to the following data: - SSN - Last name - First name - Date of birth - Date of injury - Claim type - Start date of benefit payments - End date of benefit payments - Indicator if permanent or temporary disability DETR's Information Technology unit has a web-services interface that can be extended to retrieve the data from WCS's system.			C – Custom Desigr	The application will collect the data listed in the requirement - - SSN - Last name - First name - Date of birth - Date of injury - Claim type - Start date of benefit payments - End date of benefit payments - Indicator if permanent or temporary disability DETR will be able to access the data in the application's database from DETR's web-services interface. CapTech will not be responsible for extending the DETR's web-services interface.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
12.4	The system shall support the regulated community's requirements in terms of: - Streamlining the method of reporting claims data (**D-38 Form**) to WCS - Capture data that supports the regulatory community's needs for industry comparisons and trend analysis	Relates to Functional Area: 13.0 - Industry Requirements		C – Custom Design	To fulfill this requirement, CapTech will build a web form to capture the claims data found on the D-38 form. However, since WCS is working with the industry to redefine and expand what data is to be collected and how, we may jointly determine that it doesn't make sense to implement the D-38 web form. If so, we will work with WCS to determine a phased approach for implementing new data collection methods and identify what can be completed as a part of the scope of this project.
12.5	The system shall provide reporting and business intelligence tools that will allow WCS staff to extract meaningful information from the claims database.	Relates to Functional Area: 11.0 Reporting & Business Intelligence		C – Custom Design	The system will provide WCS users with the reporting and business intelligence tools through the proposed architecture described in section 4. The reporting system will link to the proposed data model, described in section VI.C.1.9. The data model is structured such that it contains existing reporting attributes, dimensions, metrics and measures which can be used across any third party business intelligence tool. Thus, the data model can be easily reused/migrated to any other business intelligence system (e.g., Microstrategy) given Nevada's future-state needs.

FUNCTIONAL AREA: 13.0 - Industry Requirements

(A) The workers compensation industry includes private insurers, self-insured and TPAs.

(B) The primary focus for Industry requirements are to: (1) Streamline how the industry and WCS interact, and (2) ensure WCS and the industry stakeholders exchange appropriate information on a timely basis.

(C) Interfaces where the industry reports information to WCS must be secure, follow industry standards, and (reasonably) minimize the impact on the industry. A strategy will likely be needed to be developed to phase-in industry reporting requirements.

(D) Referenced below are D-35 and D-38 forms. The forms can be viewed on the website: **http://dirweb.state.nv.us/wcs/wcsform.htm**

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
13.1	The system shall provide an automated solution to the **Form D-35** process, where insurers/TPA's could submit the D-35 forms online and have the system automatically assign the next appropriate physician/chiropractor on the list. The system shall also accept D-35 forms for claims where the rating chiropractor or physician has been selected by mutual agreement.	Relates to Functional Area: 5.0 - Medical Unit		C – Custom Desigr	See Proposal Part IA Section VI.C.12.2 The D-35 web form within the application will allow the user to indicate whether the chiropractor or physician has been selected by mutual agreement. If so, the application will allow the selection to remain. If not, the application can select the chiropractor or physician based on business rules defined during the initial requirements and analysis phase.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
13.2	The system shall provide an efficient method for insurers and TPAs to electronically submit claims data to WCS (Currently the **Form D-38** is used). The system shall provide several options for data submission, including, but not limited to: - Electronic Data Interchange (using standard industry data formats) - Web user interface where claim data can be keyed in by insurer/TPA staff (typically for smaller entities that do not have the resources and infrastructure to use EDI) The system shall provide: - Effective data validation/error checking - Generate a response which lists any matching claims for that particular injured worker - User interface for insurers to lookup their data that previously submitted - Security for data submission (e.g. encrypted data transmission, secure login and user management)	Relates to Functional Area: 12.0 Claims Data Collection		C – Custom Desigr	See Proposal Part IA Section VI.C.12.3 and VI.C.12.4
13.3	The system shall provide an efficient, secure method for the regulated community to electronically submit annual reports. (Note: The Division of Insurance (DOI) also has annual reporting requirements for the regulated community that overlap WCS's requirements. WCS will work with DOI to determine the feasibility of creating reporting specifications that meet both agencies' needs.)			C – Custom Desigr	The regulated community will be able to login and upload an annual report. A small amount of metadata (e.g., 5 fields or less) can be uploaded with this report). This annual report must be less than maximum file size allowed by WCS to be uploaded through their web site.

Require-ment ID	Requirements	Reference to Other WCS Items	Project Priority (M)andatory (D)esired	Vendor Response	Vendor Response Explanation and Comments (Vendor can x-reference other materials if appropriate)
13.4	The system shall provide WCS reporting and data analysis tools so they can provide the regulated community comparative data in a secure manner which protects the confidentiality of that information. This will allow insurers/TPAs to compare themselves to the industry. Examples include summary information such as claims denial rates and average cost per claims.	Relates to Functional Area: 11.0 Reporting & Business Intelligence		C – Custom Design	The system will provide WCS users the with reporting and analysis tools through the proposed architecture described in Sections VI.C.1.7 and VI.C.1.8. The reporting system will provide WCS users the ability to rapidly view standard/pre-existing reports, create new, ad-hoc reports on the fly, and conduct statistical analysis on reporting data (e.g., average cost per claim). Further, the reporting tool's connection to the proposed data model, described in section VI.C.1.9, will enable WCS users to define reports based on a unified data structure. This will minimize the amount of custom development required within the reporting backend and provide WCS users with a streamlined (non-changing) set of reporting attributes, metrics and measures to use on an ongoing basis.

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XII. Tab XII—Other Informational Material (RFP 11.2.3.12)

RFP 11.2.3.12: "Vendors must include any other applicable reference material in this section clearly cross referenced with the proposal."

Not applicable. We believe that this proposal is comprehensive and thoroughly explains our value proposition and solution.

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