



Traumatic Brain Injury Mobile Application Development *for*

State of Washington
Washington Department of Veterans Affairs (WDVA)

RFP NO. 2016 - 08

Submitted To

DAVID THATCHER, RFP COORDINATOR

(360) 725-9844 • davidth@dva.wa.gov

PO Box 4150 • Olympia, WA 98504-1150

Submitted By

NEIL LAMPTON, VICE PRESIDENT

(703) 437-7878 • nlampton@tiag.net

11911 Freedom Dr. Ste. 1180 • Reston, VA 20190



Table of Contents

1 Letter of Submittal (M – RFP 3.3)	1
1.1 Company Information (RFP 3.3.1)	1
1.2 Principals (RFP 3.3.2)	2
1.3 Legal Status (RFP 3.3.3)	2
1.4 Tax Identifier (RFP 3.3.4)	2
1.5 Vendor Location (RFP 3.3.5)	2
1.6 State and Former State Employees as Board Members (RFP 3.3.6)	2
1.7 Minimum Qualifications (RFP 3.3.7)	2
1.7.1 Vendors must be licensed to do business in the state of Washington within 30- business days upon notification of contract award	2
1.7.2 Vendor must have at least three (3) years of demonstrated experience creating new mobile applications	2
1.8 Authorized Representative (RFP 3.3.8)	2
1.9 Statewide Vendor Status (M – RFP 3.4)	3
1.10 Contract and General Terms and Conditions – Exhibit D: Exceptions to the Sample Contract (M – RFP 3.6)	3
1.11 Certifications and Assurances (Exhibit A)	4
2 Financial and Vendor Business Requirements (M)	6
2.1 Vendor Financial Information (M – RFP 4.2)	6
2.1.1 Financial Statements (M – RFP 4.2.1)	6
2.1.2 Alternatives for Non-public Corporations (M – RFP 4.2.2)	6
2.1.3 Federal Employee Tax Identification Number (TIN) (M – RFP 4.2.3)	7
2.1.4 Washington Uniform Business Identification (UBI) Number (M – RFP 4.2.4)	7
2.2 Business Description and Organization (M – RFP 4.3)	8
2.2.1 Business Identification (M – RFP 4.3.1)	8
2.2.2 Company Officers (M – RFP 4.3.2)	9
2.2.3 Legal Status (M – RFP 4.3.3)	9
2.2.4 Previous State Contracts (M – RFP 4.3.4)	9
2.2.5 Former Employee Status (M – RFP 4.3.5)	10
2.2.6 Sub-contracting (M – RFP 4.3.6)	10
2.2.7 Contract Terminations (M – RFP 4.3.7)	10
2.2.8 Insurance (M – RFP 4.3.8)	10
2.3 (O) OMWBE Certification (RFP 4.4)	11
2.4 (O) Veteran Owned Business (RFP 4.5)	11
3 Business References (RFP 5.1)	13
3.1 National Center for Telehealth and Technology Program and Project Management Support	13
3.2 National Center for Telehealth and Technology Usability Lab	15
3.3 DoD Uniformed Services University of the Health Sciences (USUHS) IT Support Services	17



3.4 US Army Warrior Transition Command (WTC) Army Warrior Care & Transition System (AWCTS) Development and Maintenance Support 19

4 Management Proposal..... 22

4.1 Project Management (M/S – RFP 7.1)..... 22
4.1.1 *Proposing Vendor’s Project Organization Chart (M/S – RFP 7.1.1)*..... 22
4.1.2 *Proposing Vendor’s Responsibilities and Qualifications (M/S – RFP 7.1.2)*..... 24
4.2 Project Plan (M – RFP 7.2)..... 24
4.3 Detailed Implementation Plan (M – RFP 7.3)..... 25
4.4 Change Management (M/S – RFP 7.4)..... 25
4.5 Project Status Reports (M/S – RFP 7.5)..... 27
4.6 Issue Resolution (M/S – RFP 7.6)..... 27
4.7 Risk Identification and Management (M/S – RFP 7.7)..... 29
4.7.1 *Risk Identification and Mapping*..... 30
4.8 Escalation Plan (M/S – RFP 7.8) 30

5 Technical Requirements..... 33

5.1 Solution Requirements (M/S – RFP 8.1) 33
5.1.1 *Resources Required (RFP 8.1.1)*..... 33
5.1.2 *Mock Application (RFP 8.1.2)* 33
5.1.3 *Maintenance and Support Requirements (RFP 8.1.3)* 34
5.1.4 *Training Requirements*..... 35
5.1.5 *Scalability and Capacity Requirements (RFP 8.1.5)* 36
5.1.6 *Implementation Requirements (RFP 8.1.6)*..... 37
5.1.7 *Interface Requirements (RFP 8.1.7)* 37
5.1.8 *Recent Experience Implementing a Mobile App (M/S – RFP 5.1.8)*..... 38
5.1.9 *Recent Experience Other Veterans Organizations (M/S – RFP 8.1.9)* 39
5.1.10 *Other Relevant Experience (M/S – RFP 8.1.10)* 40
5.1.11 *List of Contracts (M/S – RFP 8.1.11)*..... 41
5.2 Project Approach/ Methodology (M/S – RFP 8.2) 42
5.3 Work Plan (M/S – RFP 8.3)..... 45
5.3.1 *Initiation Phase* 45
5.3.2 *Design and Discovery* 45
5.3.3 *Development*..... 46
5.3.4 *Deployment*..... 46
5.3.5 *Sustainment* 47
5.4 Project Schedule (M/S – RFP 8.4) 47
5.5 Outcomes and Performance Measurement (M/S – RFP 8.5) 48
5.5.1 *Mobile Application Usage*..... 48
5.5.2 *Mobile Application Referrals*..... 49
5.5.3 *Analytics*..... 49
5.6 Risks (M/S – RFP 8.6) 49
5.7 Deliverables (M/S – RFP 8.7)..... 51

6 Proposed Solution Costs..... 54



6.1 Identification of Costs (M/S – RFP 9.3) 54

6.1.1 *Additional Required Identification of Cost (M – RFP 9.3.1)* 54

6.1.2 *Subcontractor Identification of Cost (M – RFP 9.3.2)*..... 54

6.2 Optional Identification of Costs (M – RFP 9.4)..... 54

6.3 Rates (M – RFP 9.5)..... 54

6.4 Award No Based on Price Alone (M – RFP 9.6)..... 54

6.5 State Sales Tax (M – RFP 9.7)..... 54

6.6 OMWBE Costs (M – RFP 9.8) 54

6.7 Veteran Owned Business Costs (M – RFP 9.9) 54

6.8 Travel, Hotel Per Diem Costs (M – RFP 9.10)..... 54

7 Best Value to WDVA 56

7.1 Best Value (M/S – RFP 10.1)..... 56

Appendix A. Sample Project Status Report Template A-1

Appendix B. Exhibit F – IT Security Proposal..... B-1



List of Exhibits

Exhibit 1: <i>tiag's</i> Contracts with the State of WA during the Past 24 Months.....	9
Exhibit 2: <i>tiag's</i> Organizational Chart.....	23
Exhibit 3: Roles and Responsibilities	24
Exhibit 4: Roles and Responsibilities of Additional Staff.....	24
Exhibit 5: Agile Change Management Process	25
Exhibit 6: Sample Product Backlog.....	26
Exhibit 7: Sample Sprint Scrum Board.....	27
Exhibit 8: Issue Resolution Workflow.....	28
Exhibit 9: <i>tiag</i> Risk Management Approach	29
Exhibit 10: Risk Exposure and Mapping	30
Exhibit 11: Escalation Plan.....	31
Exhibit 12: Mock Application Screens.....	33
Exhibit 13: <i>tiag's</i> Approach to Mobile Application Development	42
Exhibit 14: Work Plan: Initiation Phase	45
Exhibit 15: Work Plan: Design and Discovery.....	45
Exhibit 16: Work Plan: Development.....	46
Exhibit 17: Work Plan: Deployment.....	46
Exhibit 18: Work Plan: Sustainment.....	47
Exhibit 19: Project Schedule.....	47
Exhibit 20: Potential Risks and Suggested Mitigations.....	50
Exhibit 21: Project Deliverables	52



1 LETTER OF SUBMITTAL (M – RFP 3.3)

20 July 2016

David Thatcher, RFP Coordinator
davidth@dva.wa.gov

Dear Mr. Thatcher:

The Informatics Applications Group, Inc. (*tiag*) is pleased to submit our bid for “**Traumatic Brain Injury Mobile Application Development**” for Washington Department of Veterans Affairs (WDVA), RFP 2016-08.

tiag is a woman-owned, U.S. Small Business Administration (SBA)-certified firm with a leading reputation in providing superior, transformational business results throughout State and Federal Government agencies. Along with our extensive track record of providing innovative technology solutions throughout the Department of Defense (DoD) and other federal entities, *tiag* has also established a local reputation of success in Washington State through our engagements at:

- Bellevue College (Bellevue, WA)
- Edmonds Community College (Edmonds, WA)
- Seattle Department of Transportation (Seattle, WA)
- The National Center for Telehealth & Technology (Tacoma, WA)
- Washington State Department of Ecology (Lacey, WA)
- University of Washington Medicine (Seattle, WA)

tiag's more than 35 Information Technology (IT) professionals in the greater Olympia area are connected to a larger network of more than 225 IT professionals with exceptional qualifications in IT and healthcare related mobile application development. This extensive network of experts provides WDVA with the depth and breadth of experience to deliver innovative solutions to meet WDVA's requirements and improve the support that Veterans in the state of Washington receive.

Our organization's information and authorized bidder representative is as follows:

1.1 COMPANY INFORMATION (RFP 3.3.1)

Legal Entity Contract Would be Written With:

The Informatics Applications Group, Inc. (DBA *tiag*)

11911 Freedom Drive, Suite 1180

Reston, VA 20190

703.437.7878 phone

703.435.3113 fax

Legal Status: Corporation

Number of Business Locations: 2

Year of Establishment: 1999

Principal Place of Business: 11911 Freedom Drive, Suite 1180, Reston, VA



1.2 PRINCIPALS (RFP 3.3.2)

Dalita Harmon, President/CEO
Fred Goeringer, Managing Principle
Jeffrey Goldberg, Chief Operating Officer
Neil Lampton, Vice President

Address: 11911 Freedom Drive, Suite 1180
Reston, VA 20190

Phone: 703.437.7878

Email: 

1.3 LEGAL STATUS (RFP 3.3.3)

Corporation

1.4 TAX IDENTIFIER (RFP 3.3.4)

352190095

1.5 VENDOR LOCATION (RFP 3.3.5)

11911 Freedom Drive, Suite 1180 Reston, VA 20190

1.6 STATE AND FORMER STATE EMPLOYEES AS BOARD MEMBERS (RFP 3.3.6)

N/A – *tiag* does not employ or have on our governing board any current or former State employees.

1.7 MINIMUM QUALIFICATIONS (RFP 3.3.7)

1.7.1 VENDORS MUST BE LICENSED TO DO BUSINESS IN THE STATE OF WASHINGTON WITHIN 30-BUSINESS DAYS UPON NOTIFICATION OF CONTRACT AWARD.

tiag is licensed to do business in the State of Washington as evidenced by our current WA State UBI: 602940860

1.7.2 VENDOR MUST HAVE AT LEAST THREE (3) YEARS OF DEMONSTRATED EXPERIENCE CREATING NEW MOBILE APPLICATIONS

Since 2011, *tiag* has been supporting the Department of Defense's National Center for Telehealth & Technology (T2) by the creation of mobile applications and websites to support Veterans and active duty Service Members suffering from symptoms of TBI and PTSD. Afterdeployment.org and the mobile applications found in the Android and iOS marketplaces with a publisher of "T2" are evidence of the specialized focus *tiag* has in this area.

1.8 AUTHORIZED REPRESENTATIVE (RFP 3.3.8)

Neil Lampton, Vice President
The Informatics Applications Group, Inc. (DBA *tiag*)
11911 Freedom Drive, Suite 1180
Reston, VA 20190





Kate Beltran (*Alternate Authorized Representative*)
The Informatics Applications Group, Inc. (DBA *tiag*)
11911 Freedom Drive, Suite 1180
Reston, VA 20190



1.9 STATEWIDE VENDOR STATUS (M – RFP 3.4)

tiag is currently registered with the Washington State Department of Enterprise Services (DES) as a statewide vendor, evidenced by our current **SWV: SWV0191615**

1.10 CONTRACT AND GENERAL TERMS AND CONDITIONS – EXHIBIT D: EXCEPTIONS TO THE SAMPLE CONTRACT (M – RFP 3.6)

tiag has no exceptions currently to the sample contract and its general terms and conditions in Exhibit A. *tiag* accepts the terms of 2016-08 Traumatic Brain Injury Mobile Applications' sample contract.



1.11 CERTIFICATIONS AND ASSURANCES (EXHIBIT A)

REQUEST FOR PROPOSAL RFP 2016-08

EXHIBIT A. STATE CERTIFICATIONS AND ASSURANCES

I/we make the following certifications and assurances as a required element of the Proposal to which it is attached, understanding that the truthfulness of the facts affirmed here and the continuing compliance with these requirements are conditions precedent to the award or continuation of the related Contract(s):

The prices and/or data have been determined independently, without consultation, communication, or Contract with others for restricting competition, as to any matter relating to such prices with any other Vendor. However, I/we may freely join with other persons or organizations for presenting a single Proposal.

The attached Proposal is a firm offer for a period of one-hundred and twenty (120) days following receipt, and it may be accepted by Washington State Department of Veteran Affairs (WDVA) without further negotiation at any time within the one-hundred and twenty (120) day period. In the case of protest, the protester's Proposal remains valid until the protest is resolved or the one-hundred and twenty (120) day offer period expires, whichever is later.

In preparing this Proposal, I/we have not been assisted by any current or former employee of the state of Washington whose duties relate (or did relate) to this RFP or prospective Contract, and who was assisting in other than his or her official, public capacity. Neither does such a person nor any member of his or her immediate family have any financial interest in the outcome of this Proposal. (Any exceptions to these assurances are described in full detail on a separate page and attached to this document.)

I/we understand that the WDVA will not reimburse me/us for any costs incurred in the preparation of this Proposal. All Proposals become the property of the WDVA, and I/we claim no proprietary right to the ideas, writings, items, or samples. Submission of the attached Response constitutes Contract to abide by the procedures described in the RFP document.

No attempt has been made or will be made by the Vendor to induce any other person or Vendor to submit or not to submit a Proposal for the purpose of restricting competition.

Neil Lampton Vice President

Signature/Title

Neil Lampton

Printed Name

The Informatics Applications Group Inc.

Vendor Name

20 July 2016

Date

Additionally, please note that *tiag* acknowledge Amendment #1, which was released on 13 July, 2016.

Sincerely,

Neil Lampton

Neil Lampton
Vice President

--This page left intentionally blank--



2 FINANCIAL AND VENDOR BUSINESS REQUIREMENTS (M)

2.1 VENDOR FINANCIAL INFORMATION (M – RFP 4.2)

2.1.1 FINANCIAL STATEMENTS (M – RFP 4.2.1)

N/A – *tiag* is not a publicly held corporation.

2.1.2 ALTERNATIVES FOR NON-PUBLIC CORPORATIONS (M – RFP 4.2.2)

2.1.2.1 Business Description (M – RFP 4.2.2.1)

tiag is a woman-owned, U.S. Small Business Administration (SBA)-certified, business that has provided over \$250M of highly successful Information Management and Information Technology (IM/IT) support throughout State and Federal Government agencies since its founding in 1999, yielding an average revenue of \$27M over the last 3 years. *tiag*, during its 16+ year history, has led large scale, enterprise-wide IM/IT programs and projects in the Department of Defense (DoD) and civilian governmental agencies with great success. *tiag* brings true commitment and innovative solutions that leverage technology to deliver quality and productivity. Our exceptional engineers, architects, analysts, and an array of subject matter experts provide the specialized and customized support required to achieve the high-end assistance our customers deserve.

Over the last three years, *tiag* has successfully performed over \$81M worth of Information Management/Information Technology (IM/IT) services projects across large federal government enterprises, academic institutes, and smaller public sector organizations. Our professionals have worked side-by-side with these agencies to tackle some of their most challenging and mission critical IM/IT requirements to deliver tangible results, on-time and under-budget. *tiag* has a remarkable, long-standing, perpetual record of achieving success on behalf of our customers, not just over the last three years but over the entire history of our existence. Moreover, *tiag* has demonstrated such success by leveraging our core competencies for enduring, exceptional, and committed customer support that has led to sustainable corporate growth of 165 to 235 full-time *tiag* IT professionals over this period.

2.1.2.2 Banking Reference (M – RFP 4.2.2.2)

tiag's current bank and reference contract is as follows:

United Bank



Chief Financial Officer (CFO)

Kate Martin, CPA
The Informatics Applications Group, Inc.
11911 Freedom Drive, Suite 1180
Reston, VA 20190



Beginning in 1999, The Informatics Applications Group, Inc. (*tiag*) established a strong financial position by maintaining stability in financial operations, controlling growth, managing costs, and limiting debt. *tiag* has the financial strength and capacity, working capital, and other resources to deliver this contract without assistance from any outside source. *tiag*'s co-founders currently serve in top executive roles and continue to be involved in its financial operations. *tiag*'s Chief Financial



Officer previously served as the company's outside CPA since its inception. This consistency in financial operations personnel has provided stability to the company's overall financial condition.

tiag has consistently shown growth in personnel and top-line revenue on a year-to-year basis. The company currently employs 225 people and has had a gross revenue average over the past three years of \$27M per year. In managing this growth, the company has made sure that procedures are in place to ensure that revenue growth does not come at the expense of making sound and appropriate financial decisions. The company is proactive in the areas of budgeting, forecasting, and cost management to make certain that it maintains a stable financial condition and a strong balance sheet, identifying potential issues before they occur and providing for continuity of operations.

The company uses Deltek GCS Premier accounting software, an integrated timekeeping, invoicing, and accounting software package developed for government contracting companies. By utilizing an integrated system for all facets of accounting and financial management, the company ensures accurate and complete financial information. *tiag* has a strong accounting staff in place and maintains robust internal controls in its financial operations. *tiag*'s accounting system and practices have been audited and approved by the Defense Contract Audit Agency (DCAA) and Defense Contract Management Agency (DCMA). In addition, the company retains an outside CPA firm to prepare annual financial statements and review financial data and controls.

The company's major liabilities are current accounts payable. While the company has a line of credit in place, it does not rely on outside sources of funding for its operations. *tiag* anticipates continuing this conservative approach to financial management, seeking growth in a planned and organized manner, while maintaining sound business practices.

Desirable Financial Ratios:

- ✓ Due to our high asset values and few liabilities, *tiag* has *high Current Ratios* (Total Current Assets/Total Current Liabilities).
- ✓ Further, a great proportion of our Current Assets are liquid (cash); therefore, our *Cash Ratios are very high*, which highlights our ability to perform the contract without financial assistance from any outside source.
- ✓ Due to our low level of corporate debt, *tiag* has *low Debt Ratios*, which reinforce the long term solvency and stability of our company.
- ✓ Finally, our high gross profit margins and returns on assets highlight the continual profitability of our firm.

The attached credit rating report, titled "TIAG RFP 2016-08 - D&B Credit Report.pdf," is provided by government-specialized rating service, Dun & Bradstreet (D&B).

2.1.3 FEDERAL EMPLOYEE TAX IDENTIFICATION NUMBER (TIN) (M – RFP 4.2.3)

TIN: 352190095

2.1.4 WASHINGTON UNIFORM BUSINESS IDENTIFICATION (UBI) NUMBER (M – RFP 4.2.4)

UBI: 602940860



2.2 BUSINESS DESCRIPTION AND ORGANIZATION (M – RFP 4.3)

2.2.1 BUSINESS IDENTIFICATION (M – RFP 4.3.1)

2.2.1.1 Vendor’s Identification (M – RFP 4.3.1.1)

The Informatics Applications Group, Inc. (tiag)
11911 Freedom Drive, Suite 1180
Reston, VA 20190

2.2.1.2 Location (M – RFP 4.3.1.2)

This contract will be managed out of our corporate office in Reston, VA with local resources in Olympia, WA area providing the services, coordination, and day-to-day support necessary to achieve success. The Operations Director responsible for managing this effort will be available at

2.2.1.3 Start-up Date (M – RFP 4.3.1.3)

tiag was founded in 1999 and has been providing mobile application development services to Veterans since 2011.

2.2.1.4 Vendor’s Expertise, Skills, Clients, and Services (M – RFP 4.3.1.4)

tiag specializes in improving health care delivery within the federal government and has been a pioneer within Health IT, mobile application development, and human factor design. tiag has significant experience and expertise refined from directly supporting significant programs that include: The National Center for Telehealth and Technology (T2) Program Management and Usability Lab, VA Open Source Electronic Health Record Alliance (OSHERA), and the Uniformed Services University of the Health Sciences (USUHS).

tiag has numerous contracts supporting DoD Medical Services, Defense Health Agency (DHA), and Veterans Affairs (VA) development, integration, and management programs and can provide numerous examples that characterize our team’s past performances and qualifications. Our experience providing support spans organizations with complex requirements such as:

-
- | | |
|--|---|
| ✓ Army OTSG/CIO/CMIO & MEDCOM ACSIM | ✓ Defense Health Agency (DHA); |
| ✓ Defense Center of Excellence - National Center for Telehealth and Technology (T2); | ✓ US Army Medical Information Technology Center (USAMITC); |
| ✓ Defense Center of Excellence HQ; | ✓ San Antonio Military Medical Center (SAMMC); |
| ✓ Force Health Protection & Readiness (FHP&R) | ✓ Uniformed Services University of the Health Sciences (USUHS); |
| ✓ Defense Health Clinical System (DHCS); | ✓ Veterans Affairs (VA); |
| ✓ Medical Research and Material Command (MRMC); | ✓ Northern Regional Medical Command (NRMC); |
-

This comprehensive experience base in supporting the Federal Government health care communities, coupled with our clinical program management and mobile health application design and development experience, is second-to-none for true subject matter expertise. Our corporate capability will be invaluable, with an **unmatched "experience reservoir"** utilized in delivering success to the WDVA TBI Mobile Applications effort resulting in improved delivery of care to Veterans in the State of Washington.



2.2.2 COMPANY OFFICERS (M – RFP 4.3.2)

Dalita Harmon, President/CEO
Fred Goeringer, Managing Principle
Jeffrey Goldberg, Chief Operating Officer
Neil Lampton, Vice President

Address: 11911 Freedom Drive, Suite 1180
Reston, VA 20190

Phone: 703.437.7878

Email: [Redacted]

Operations Director, **Kate Beltran** [Redacted]

[Redacted] will have the primary responsibility for the project resulting from this RFP. Other individuals who will be providing support in execution of this contract are Matthew Higgins – Mobile Application Development Project Manager, Shawn Condra – Mobile Application Developer, Jenn June – Usability Design Expert, and others as required.

2.2.3 LEGAL STATUS (M – RFP 4.3.3)

Corporation

2.2.4 PREVIOUS STATE CONTRACTS (M – RFP 4.3.4)

The following exhibit delineates *tiag*'s contracts with the State of Washington during the past 24 months:

Exhibit 1: *tiag*'s Contracts with the State of WA during the Past 24 Months

Contract Number	Project Title	Project Description
201405571	Bellevue College – Electronic Medical Record System Management and Support	<i>tiag</i> provided software development support for the “Open Vista” EMR and maintained the technical infrastructure to deliver “Open Vista” and “Open EMR” to students and academic staff. Our ITIL certified help desk team provided Tier 1-3 customer support.
201405558	Bellevue Community College – Veterans Affairs Coordination	<i>tiag</i> 's consulting team of military transition experts advised the College on strategies for best engaging a wide range of stakeholders to educate them on the technical skills veterans bring to a work force.
UW-14-0091	University of Washington UW Medicine, IT Analysis and Development Services	<i>tiag</i> provides experts in technical, business and informatics consulting services. Our clients benefit from the comprehensive, full range of integrated specializations, spanning concept development through efficacy testing, implementation, and resultant business process transformations to ensure maximized benefit and adoption.

<p>C1500113</p>	<p>Washington State Department of Enterprise Services (DES)/ Information Technology Professional Services (ITPS) Program – Department of Ecology IT Analysis and Planning for Regional Office Move</p>	<p><i>tiag</i> provides IT infrastructure planning to support the relocation of a regional office supporting ~150 staff. Our role has increased to include support for the Ecology Project Management Office in assisting with developing comprehensive project schedules and tasks.</p>
<p>TN14033</p>	<p>Edmonds Community College (EdCC) – Computer Network Consultant</p>	<p><i>tiag</i> provides reviews and consultant services and makes recommendations on the current computer network infrastructure and other information technology projects, assist with development of any competitive and other solicitations as requested, and provides project management and other requested services.</p>
<p>K1852</p>	<p>Washington State Health Care Authority – Convenience Contracts for Health Consulting Services</p>	<p><i>tiag</i> provides pre-qualified health care consultants specializing in Strategic Planning, Partnerships/Coalitions, Health Care Information Technology, and Project Management to assist HCA in moving more quickly and efficiently to meet emerging operational needs.</p>

2.2.5 FORMER EMPLOYEE STATUS (M – RFP 4.3.5)

No member of *tiag*'s staff is currently or has been an employee of the State of Washington during the past 24 months.

2.2.6 SUB-CONTRACTING (M – RFP 4.3.6)

tiag possesses all the required functional and technical expertise to deliver on WDVA's TBI Mobile Application requirements, and as such, *tiag* does not intend to subcontract any required support functions.

2.2.7 CONTRACT TERMINATIONS (M – RFP 4.3.7)

tiag has not had any contracts terminated for default in the last five years.

2.2.8 INSURANCE (M – RFP 4.3.8)

2.2.8.1 Proof of Insurance (M – RFP 4.3.8.1)

tiag certifies that within 15 days of receipt of notice of award, *tiag* will obtain a Certificate of Insurance outlining the extent of *tiag*'s liability coverage that will meet or exceed all of WDVA's requirements.

2.2.8.2 Liability Insurance (M – RFP 4.3.8.2)

At all times during the term of the contract, *tiag* will carry and maintain insurance that meets or exceeds the limits set forth in the sample contract. Coverage will be obtained within 14 days of contract execution.

2.2.8.3 Additional Provisions (M – RFP 4.3.8.3)

2.2.8.3.1 Additional Insured (RFP 4.3.8.3.1)

tiag will name the State of Washington and all authorized contract users as additional insured on all policies obtained as required by the WDVA contract.



2.2.8.3.2 Material Changes (RFP 4.3.8.3.2)

tiag will provide at least a 45-day written notice to the State prior to termination of any material change to the insurance policies covering our support of WDVA. A thirty (30) calendar day written notice will be given for surplus line insurance cancellation for nonpayment of premiums.

2.2.8.3.3 Identification (RFP 4.3.8.3.3)

tiag's insurance policy will reference the State's contract number and name WDVA specifically.

2.2.8.3.4 Insurance Carrier Rating (RFP 4.3.8.3.4)

tiag's insurance is currently and will remain with an insurance carrier authorized to do business in the state of Washington and has a Best's rating of A- or higher.

2.2.8.3.5 Excess Coverage (RFP 4.3.8.3.5)

The limits of all insurance obtained in support of WDVA will be no less than the minimum amounts required; however, *tiag* understands that the minimum limits do not relieve *tiag* from liability in excess of such limits.

2.3 (O) OMWBE CERTIFICATION (RFP 4.4)

N/A – *tiag* is not an OMWBE within the State of Washington.

2.4 (O) VETERAN OWNED BUSINESS (RFP 4.5)

N/A – *tiag* is not a Veteran Owned Business within the State of Washington.

--This page left intentionally blank--



3 BUSINESS REFERENCES (RFP 5.1)

3.1 NATIONAL CENTER FOR TELEHEALTH AND TECHNOLOGY PROGRAM AND PROJECT MANAGEMENT SUPPORT

Vendor	The Informatics Applications Group, Inc. (tiag)	
Reference Name	National Center for Telehealth and Technology Program and Project Management Support	
Contact Person 1	[REDACTED]	
Contact 1 Phone Fax Numbers		
Contact 1 Email address		
Contact Person 2		
Contact 2 Phone Fax Numbers		
Contact 2 Email Address		
Type of Business		Federal Government (Department of Defense)
Original Amount of Contract		[REDACTED]
Number of claims and or disputes by either party	0	
Identify any subcontractors performing 20% or more of contracted work	None	
Project Date	9/27/2011 - Present	
Application Software Supplied/Services Provided		
<p><i>tiag</i> provides program management support and application development services to support the National Center for Telehealth and Technology (T2), a component of the Defense Centers of Excellence (DCoE) for Psychological Health (PH) and Traumatic Brain Injury (TBI). T2's mission is to lead the innovation of health technology solutions for PH and TBI and deliver tested, valued health solutions that improve the lives of our nation's warriors, veterans, and their families. Using the latest technology, T2 seeks to identify, treat, and minimize or eliminate the short- and long-term adverse effects of war. T2 facilitates telehealth and Web-based care for PH/TBI and develops mobile applications to support 24/7 access to behavioral health tools and critical support systems. The task breadth and scope of this work spans cross-platform and modality use to include desktop, web, and mobile hand-held device applications. <i>tiag's</i> services to T2 include managing adherence to DCoE/T2's lifecycle development process, liaising with other offices to coordinate processes from the concept phase through deployment and sustainment, business process re-engineering, clinical subject matter expertise and technical software engineering and architecture consulting. These applications developed for T2 support the intended use of either psychological provider-led encounters working with military personnel or personally used applications facilitating self-identification of PTSD related symptoms and sources of counseling services available within the Department of Defense Healthcare system.</p> <p>DCoE/T2 awarded <i>tiag</i> this contract to provide program/project management support to all T2 Divisions. Support includes a full spectrum of general business planning and strategy support, psychological health subject matter expertise, leadership consultation, research and analysis, public affairs/marketing, quality controls, task resource management, and other activities in support of T2's mission to deploy health tools for PH and TBI. Our experienced and dedicated team of Program/Project Managers, Subject Matter Experts, and Analysts are dispersed across the organization to provide expertise in a variety of functional areas supporting the execution of T2's strategic programs. At the outset of this contract, <i>tiag</i> delivered a Program Management Plan that outlined our methodology to execute our work. The plan included an Integrated Master Management Plan relating <i>tiag's</i> overall management approach. It also provided detailed information about our governance, team structure, and programmatic processes. The plan included a Work Breakdown Structure and a baseline schedule depicting milestones, tasks, and subtasks. As a living-document, the Program Management Plan has been routinely updated since the initial delivery to ensure it reflects the current state.</p> <p>In addition to facilitating weekly meetings with T2 to provide status updates, <i>tiag</i> assembles and submits Monthly Progress Reports that include a description of all contract activities broken down by PWS Task and any issues experienced for the reporting period. The report also documents any observed risks along with suggestions for risk mitigation. Any anticipated changes to the baseline scope, schedule, or cost for projects is indicated. We additionally submit a Cost Report that illustrates labor costs per person (for CPFF) and burn rate graphs. Our team</p>		



is complemented by Project Management Professional (PMP) and Organizational Project Management Maturity Model (OPM3) certified PMs that support the T2 project processes, providing transparency into projects for leadership and reporting project data to optimize decision making. Our PMs augment the Project Management Office, assisting in the development of consistent policies and repeatable processes that ensure standardization for all T2 projects, effective inter-division communications and adherence to T2's lifecycle development processes. We utilize MS Project and SharePoint-based tools to conduct strategic portfolio administration, track team progress, and produce executive briefings on project/program status.

Through research and analysis, including investigation of alternatives, *tiag* software engineers develop mobile application architectures that are in compliance with DoD enterprise standards for interoperability, security, accessibility, and reliability. We participate in sprint demonstrations and code reviews, providing all artifacts required for documentation and in support of lifecycle processes (e.g. phase approvals, change control, test, and deployment). *tiag* provides software and application development services to T2 in adherence with DoD standards. The software and application development resources and tools utilized by the *tiag* development staff includes, but are not limited to, Adobe Flash, HTML, HTML5, Drupal, Microsoft .Net, Java, Ruby, Python and C#. The platforms supported include the full range such as Microsoft Windows, Macintosh, iOS, iPhone, iPad, Android, Windows Mobile, and Blackberry RIM. Our engineers provide analysis throughout the development process, looking for opportunities to improve the framework.

In conjunction with the VA, *tiag* assisted T2 in the project management, design, development, and testing of Virtual Hope Box (VHB). VHB helps patients increase their coping and emotion regulation skills and decrease their experience of distress. As an alternative to the often-used practice of creating a physical "hope box", *tiag* supported VHB mobile features to enhance the treatment strategy and provide a rich multimedia experience. Furthermore, these devices are already a common repository for user-generated and user-preferred media, which allows for a highly personalized VHB that is easily portable and consistently available to a user in distress. This application has been under evaluation at the Portland VA facility, sponsored by the Military Suicide Research Consortium, and has received compelling feedback in positively effecting the patient population. *tiag* also provides ongoing project/program management support to the DoD Suicide Event Report (DoDSER) program, which standardizes suicide surveillance efforts across the Services. In addition to technical project management of the DoDSER website, our team coordinates between the Services' Program Managers the agreements, relationships, meetings and research required to maintain the program and publish the DoDSER Annual Report.

tiag psychologists are assigned to T2 projects as Subject Matter Experts, responsible for the concept development of tools (e.g. mobile, web) that are valued in clinical work flow as well as for self-care. Our SME's contribute to the development of functional requirements for applications and participate in sprint demonstrations providing feedback and guidance to the development team. They additionally support user acceptance testing to make certain the application supports the defined requirements. Our SME's write, edit, and revise content for T2 software products, research articles, white papers, newsletters, social media updates, and print products. Our psychologists provide key content to the soldier and family-oriented AfterDeployment.org, and the kid-friendly, award-winning MilitaryKidsConnect.org websites. *tiag* also supports T2's efforts in behavioral health education programs. Our *tiag* Subject Matter Experts work with T2 Program Directors and the newly formed Education and Training Program to develop training materials and provide training and training support to providers integrating T2's web and mobile based tools into their clinical practice.

By signing this form, Vendor acknowledges and gives the WDVA permission to contact the Reference listed above at the WDVA's convenience.

Signature

20 July 2016

Date

Neil Lampton

Vice President

Printed Name

Title



3.2 NATIONAL CENTER FOR TELEHEALTH AND TECHNOLOGY USABILITY LAB

Vendor	The Informatics Applications Group, Inc. (tiag)
Reference Name	National Center for Telehealth and Technology Usability Lab Support
Contact Person 1	
Contact 1 Phone Fax Numbers	
Contact 1 Email address	
Contact Person 2	
Contact 2 Phone Fax Numbers	
Contact 2 Email Address	
Type of Business	Federal Government (Department of Defense)
Original Amount of Contract	
Number of claims and or disputes by either party	0
Identify any subcontractors performing 20% or more of contracted work	None
Project Date	9/30/2012 - Present
Application Software Supplied/Services Provided	
<p><i>tiag</i> manages the T2 Technology Enhancement Center (TEC) lab space, equipment, and the personnel needed to conduct usability analysis services, including formal evaluation of Human-Computer Interaction, Human Factors evaluation and post-deployment product evaluation. This support directly correlates to the requirements specified in this RFI. UX/UI design and testing are incorporated into all of the software projects, from concept to production. QA testing protocols are developed for each product and rigorously applied to all software builds. This support also requires extensive knowledge and understanding of the software development lifecycle and HIT standards. <i>tiag's</i> support to the T2's Usability Lab demonstrates our ability to provide Program Management services that sustain T2's mission to lead the development of telehealth and technology solutions for PH and TBI that improve the lives of the nation's warriors, veterans, and their families.</p> <p>T2 awarded <i>tiag</i> this contract to provide functional validation and verification, human factor design, and administrative support of the T2 usability program. <i>tiag</i> manages the T2 Technology Enhancement Center (TEC) lab space, equipment, and the personnel needed to conduct usability analysis services, including formal evaluation of Human-Computer Interaction, Human Factors evaluation and post-deployment product evaluation. <i>tiag</i> responsibilities also include outreach and participant recruitment in support of TEC activities. <i>tiag</i> utilizes the TEC to structurally develop user-centered product requirements, ensure their implementation meets the established Requirements Traceability Matrix (RTM), and evaluate their performance post-deployment. The TEC provides integrated and systemic services to Product Owners to inform the product vision, utilizing human-computer interaction methods to investigate and design for the needs of Service Members and the military community.</p> <p><i>tiag's</i> specific responsibilities include comprehensive program management support services for the TEC, including the development of usability lab practices, standard operating procedures, workflow patterns, and the continuous improvement of lab supporting documentation. <i>tiag</i> is also responsible for TEC training materials. <i>tiag</i> subject matter experts developed and presented training workshops that included hands-on training to engage participants and build their enthusiasm for incorporating the TEC services in to their projects.</p> <p><i>tiag</i> also designs formalized test plans that identify participants in test activities, roles and responsibilities of each participant, and shall include specific test procedures. Our test procedures identify each discrete event/step to be accomplished in the test activity and tie directly to the Requirements Traceability Matrix (RTM), ensuring that each element of the RTM is covered by specific test procedures. Our team defines events sequence to ensure verification of requirements. For each discrete event, our experts identify who is responsible for executing the event, exactly what actions/processes are involved, how the event will be documented, and the required outcome. <i>tiag</i> is responsible for system test plans, beginning at the unit and module level, progressing through full systems integration testing, user acceptance testing, prototype testing, verification testing to assure requirement configuration compliance, test case specifications, and the required output to ensure test acceptance.</p> <p><i>tiag</i> is responsible for all participant recruitment procedures, the activities required to maintain continual participant flow, as well as the safety and satisfaction of each test participant. <i>tiag</i> is able to target specific populations utilizing our participant recruitment strategy, which includes the establishment of Memorandums of Understanding (MOU)</p>	



with DoD agencies, maintenance of a referral recruitment and participant database, social media, as well as relationship development with other local entities through events and outreach. We greet all participants upon their arrival at the lab, obtain their consent, and explain the test procedures prior to testing. After testing, each participant is given an evaluation so that we capture their feedback and continuously improve our procedures.

In consultation with Product Owners, our specialists deliver best practices in human-centered design and obtain unbiased product feedback. The TEC's participant pool consists of Service Members, Family Members, Veterans, and Providers, populated through T2's I-Corps initiative and targeted recruitment. Research with these representative users allows *tiag* to understand the needs of the intended audience and capture their reactions to deployed products. When a service request is submitted by a Product Owner to the TEC, *tiag* evaluates the request to determine the best approach to satisfy the Product Owner's needs. Options include but are not limited to: surveys, usability testing, expert reviews, card sorting, focus groups, interviews, eye tracking, usability design consultation services, and ergonomic evaluations. To elicit, illustrate, and communicate requirements to Product Stakeholders, our experts use a variety of methods including wireframes, infographics, video highlights, and eye gaze heat maps.

In support of AfterDeployment.org, a website targeting warriors returning home in need of psychological support, *tiag* conducted a range of usability studies to improve access, reduce errors, and enhance user satisfaction. *tiag* was also instrumental in the development of Virtual Hope Box, a mobile app that translates a traditional suicide-reduction technique into a digital tool. Working closely with psychologists and developers, *tiag* professionals designed and tested the core interactions leading to product launch. For MilitaryKidsConnect.org, a web platform for children of military families to cope with military life and support each other, our team performed usability testing, survey research, and focus group data analysis that produced actionable design recommendations leading directly to beneficial changes in site functionality.

To support Positive Activity Jackpot, a mobile application to improve users' mental health by recommending psychologically validated activities, *tiag* professionals incorporated User-Centered Design in an end-to-end development process, beginning with designing the structure and flow of the application, through testing during implementation, and finally benchmarking the user experience after product launch. Working with onsite domain experts and developers, *tiag* fully incorporated User-Centered Design and Functional Independent Verification and Validation into product development at the National Center for Telehealth and Technology, implementing a comprehensive user-experience program impacting dozens of products and testing more than 2700+ participants. The lab runs formal evaluation of Human-Computer Interaction, Human Factors evaluation and post-deployment product evaluation. *tiag* incorporates UX/UI design and testing into all of its software projects, from concept to production, ensuring that users will understand, interact with, and benefit from the technology

By signing this form, Vendor acknowledges and gives the WDVA permission to contact the Reference listed above at the WDVA's convenience.

Signature

20 July 2016

Date

Neil Lampton

Printed Name

Vice President

Title



3.3 DOD UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS) IT SUPPORT SERVICES

Vendor	The Informatics Applications Group, Inc. (<i>tiag</i>)	
Reference Name	DoD Uniformed Services University of the Health Sciences (USUHS) IT Support Services	
Contact Person 1	[REDACTED]	
Contact 1 Phone Fax Numbers		
Contact 1 Email address		
Contact Person 2		
Contact 2 Phone Fax Numbers		
Contact 2 Email Address		
Type of Business		Federal Government (Department of Defense)
Original Amount of Contract		[REDACTED]
Number of claims and or disputes by either party	0	
Identify any subcontractors performing 20% or more of contracted work	None	
Project Date	9/24/2012 - Present	
Application Software Supplied/Services Provided		
<p>The USUHS is a worldwide center of excellence for military and public health professions' education and research. USUHS's mission is to train, educate and prepare uniformed services health professionals, officers, and leaders to directly support the Military Health System, the National Security and National Defense Strategies of the United States and the readiness of our Armed Forces. <i>tiag</i> is a proven collaborator with the USUHS providing support with DIACAP compliance, business analysis, knowledge management, network migration, database administration, storage and system administration, software development, and all tiers of IM/IT customer support.</p> <p><i>tiag</i> provides the full portfolio of Technology Services to USUHS to include system administration for windows and non-windows (UNIX) systems, virtualization support, SAN and NAS management, tape backup facilitation, asset management tracking, database administration, data analysis and modeling, and active directory management and support. A few of our recent successes include the complete remediation of the USUHS IM/IT environment, which culminated in USUHS receiving their DIACAP accreditation and authority to operate. The implementation of an end-to-end client management solution utilizing CA ITCM to supplement the SCCM environment and provide patch management services to non-Windows devices and the .EDU network allows us to provide complete asset visibility, including a holistic picture of USUHS' hardware and software inventory. Through <i>tiag</i>'s custom solutions, USUHS is now able to provide full visibility, management, and vulnerability coverage of their non-homogeneous environment and divergent networks.</p> <p><i>tiag</i> expanded its mobile application development experience within the health community to include the Uniformed Services University of the Health Sciences (USUHS). For USUHS we developed a Mobile version of the First-responders Radiological Assessment Triage tool that has been published under the name "Mobile FRAT" in both Android and iOS marketplaces. The First-responders Radiological Assessment Triage (FRAT) software enables radiological and nuclear emergency response professionals to triage suspected casualties according to recognized assessment and treatment principles. Mobile FRAT, which can be loaded onto mobile devices running iOS or Android, collects, records, and assesses data regarding radiation dose exposure.</p> <p><i>tiag</i> designed Mobile FRAT to accept exposure signs and symptoms, blood lymphocyte counts, and dosimetry data with minimal text entry. It can assess the multiparameter triage dose or the probability of exposure without an assigned dose, and it can indicate when there is no evidence of overexposure. In addition, it generates dose-specific messages addressing reliability and diagnostic information, hospitalization estimations, and mortality projections</p>		



By signing this form, Vendor acknowledges and gives the WDVA permission to contact the Reference listed above at the WDVA's convenience.

Neil Lampton

Signature

20 July 2016

Date

Neil Lampton

Printed Name

Vice President

Title



3.4 US ARMY WARRIOR TRANSITION COMMAND (WTC) ARMY WARRIOR CARE & TRANSITION SYSTEM (AWCTS) DEVELOPMENT AND MAINTENANCE SUPPORT

Vendor	The Informatics Applications Group, Inc. (tiag)	
Reference Name	US Army Warrior Transition Command (WTC) Army Warrior Care & Transition System (AWCTS) Development and Maintenance Support	
Contact Person 1		
Contact 1 Phone Fax Numbers		
Contact 1 Email address		
Contact Person 2		
Contact 2 Phone Fax Numbers		
Contact 2 Email Address		
Type of Business		Federal Government (Department of Defense)
Original Amount of Contract		
Number of claims and or disputes by either party		0
Identify any subcontractors performing 20% or more of contracted work		None
Project Date	9/27/2013 - Present	

Application Software Supplied/Services Provided

In support of the US Army Warrior Transition Command (WTC) Army Warrior Care & Transition System (AWCTS), *tiag* provides a full suite of development and support services directly related to the requirements outlined in this solicitation. AWCTS is a web-based IM/IT system comprised of multiple application modules aligned with disparate but related functional business processes that share a common underlying database. The proponent for AWCTS is the US Army Warrior Transition Command (WTC), a subordinate command under the US Army Medical Commanded (MEDCOM). The WTC was activated in 2009 to provide a single Command for supporting the Army's Wounded, Ill, and Injured Soldiers and their Families. The AWCTS system was first released into production in 2011, with the goal of automating key WTC-prescribed business processes, along with processes from the Army Wounded Warrior Program (AW2) and the MEDCOM Medical Assistances Group (MMAG).

AWCTS interfaces with a number of systems, some under the control of the WTC and still others controlled by external DoD and Federal agencies. *tiag* is responsible for or party to all aspects of the AWCTS software development lifecycle (SDLC), and the entire support operation is managed via a systematic approach to project and program management. *tiag* is responsible for the life cycle management of AWCTS to include the following: maintaining current system operations; establishing and maintaining an AWCTS service desk; performing appropriate technology refresh work; making significant enhancements to include modernization initiatives; providing overall project management and integration support services, system configuration management, technical management of requirements; and performing other routine requirements.

tiag is committed to deploying high-quality, low-defect releases. We utilize an agile delivery approach that emphasizes incremental delivery and regular stakeholder involvement. As part of the AWCTS development lifecycle, our team performs continuous quality assurance testing across multiple environments. Our development team utilizes a test-driven development (TDD) approach to enforce code simplicity and provide confidence through incremental improvement. An internal test team, in conjunction with the developers, performs unit testing on a contractor-owned, external facing "integration" environment, which doubles as a customer "first-look" site. Once a release has been internally verified, a formal UAT, to include a suite of regression tests, is performed in a pre-production environment managed by the same DoD hosting provider that hosts the production system. Our testing approach also includes Section 508 compliance testing, in which third-party tools are leveraged to ensure newly introduced capabilities and features do not unduly affect the 508 compliance posture of the system.

AWCTS is built on .NET 4.0 platform utilizing C# and ASP.NET. Architecturally, *tiag* employs IIS coupled with SQL Server 2008 R2. Atlassian JIRA is utilized to track tickets as well as manage sprints. *tiag* uses TFS for source control management and Team City to manage continuous integration and deployment. *tiag* engineers are responsible for the design and performance of the system architecture, and we approach this responsibility with the customer's financial interests always at the forefront of our minds. All design decisions are supported with appropriate documentation, to include a comprehensive system design document (SDD), interface control



documents (ICDs), system interface agreements (SIAs), memorandums of understanding and agreement (MOAs/MOUs), concept of operations (CONOPS), and other assorted artifacts.

tiag also produces a variety of end user and customer-facing documentation artifacts. The AWCTS system features an embedded, context-sensitive "Help" feature that provides screen-by-screen instruction at the click of a button. A slightly modified version of this same help documentation is available as a user's guide in a downloadable PDF format. While the documentation is created and maintained on a unified platform, separate documents are maintained for each AWCTS application module so as to be able to provide the end user with only the information that is relevant to applications he or she utilizes. The AWCTS team also produces detailed release notes as a by-product of every system release. We employ a dynamic release management cycle dependent on the nature of what is to be developed and deployed, and our associated documentation is sized accordingly. In the event that we deploy a particularly important or otherwise noteworthy change or feature, our team will create standalone documentation to highlight the specific release item. Often in the form of one page "cheat sheets," these standalone artifacts promote end user education in a format that is less overwhelming than full release notes or a comprehensive user manual.

The team's project management cell is responsible for all aspects of the project coordination and management, to include short-term and long-range scheduling, risk management and mitigation, and change management as facilitators of the AWCTS Change Advisory Board (CAB). AWCTS support team has successfully delivered a well-tested, deployment-ready release package for every scheduled deployment window since contract inception. This serves as a testament to the project management and quality control practices in place at the forefront of our support operation.

By signing this form, Vendor acknowledges and gives the WDVA permission to contact the Reference listed above at the WDVA's convenience.

Signature

20 July 2016

Date

Neil Lampton

Vice President

Printed Name

Title



--This page left intentionally blank--



4 MANAGEMENT PROPOSAL

4.1 PROJECT MANAGEMENT (M/S – RFP 7.1)

4.1.1 PROPOSING VENDOR'S PROJECT ORGANIZATION CHART (M/S – RFP 7.1.1)

tiag has assembled and organized an experienced team to achieve the successful design, development, and publication of a TBI Mobile Application for WDVA. Our task organization establishes clear lines of communication and authority, and our team is led by executive management with a proven record of successful support for complex information technology projects across state and federal programs. In order to effectively support WDVA contract requirements, there must be a robust management infrastructure in place that facilitates coordination and communication within *tiag* and between *tiag* and WDVA.

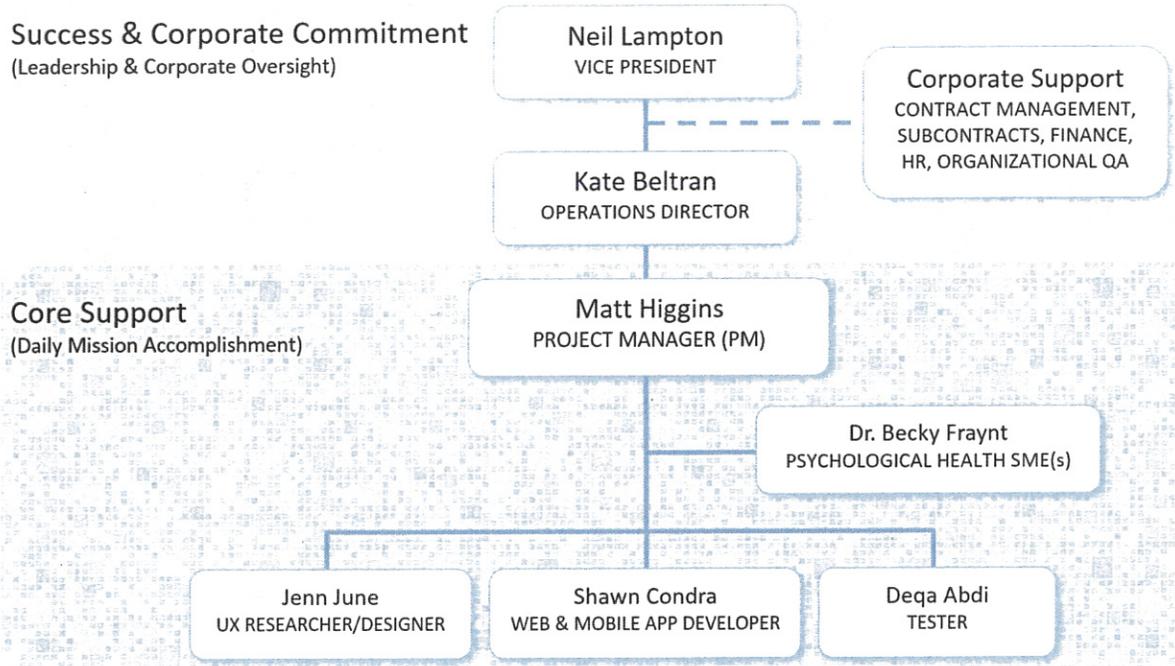
Principal members of our delivery team include the Director of Operations (Director), Project Manager, and Senior Leadership Team. The Project Manager is the customer's primary point of contact and *tiag's* focal point for the WDVA TBI Mobile App contract. The Director assists the Project Manager and has total corporate responsibility for contract execution and decisions and has the resources necessary to successfully complete contract-related activities. The delivery team ensures project decisions are based on a systematic, integrated approach regarding cost, schedule, technical, and risk factors and responds to contract modifications, pricing and estimating requests, security requirements, personnel issues, invoicing, resource identification, and task allocation.

The Project Manager, supported by the Director, ensures that daily tactical tasks are performed to standard and on time. The Director and the Project Manager have direct access to corporate reach-back support for all administrative, project support, and technical support requirements that may arise. The Director and Project Manager -- when applicable -- complete the following activities:

-
- | | |
|---|--|
| ✓ Prepare project organization charts that show the reporting relationships | ✓ Prepare for and participate in monthly IPRs |
| ✓ Develop a project schedule and work plan | ✓ Perform regular internal performance assessments to provide high-quality service consistently to HCA |
| ✓ Follow quality control plan | ✓ Address project performance concerns |
| ✓ Conduct weekly status meetings and submit monthly progress reports | ✓ Implement processes to identify and resolve issues |
-

We have organized our team to provide flexibility in delivery of WDVA's TBI Mobile Application. For every contract, we assign a senior management team to provide executive oversight to the client. For the WDVA effort, Mr. Neil Lampton and Ms. Kate Beltran provide executive oversight of daily operations. We understand that WDVA needs quick and easy access to Corporate Management and the Operations Director, particularly to address customer inquiries, billing, issues related to the contract, and newly identified requirements. *tiag* controls, coordinates, and directs personnel performance through time-tested, straightforward management techniques and methods. Kate Beltran, our northwest Operations Director, provides day-to-day management support, as illustrated in Exhibit 2, and is empowered with full corporate support to respond immediately to requests or concerns with our WDVA TBI Mobile Application support.

Exhibit 2: *tiag's* Organizational Chart



- ◆ **Mr. Neil Lampton** is the Vice President for *tiag's* Enterprise Services group. He serves as *tiag's* managing executive for this initiative to ensure full corporate commitment and mission success for the WDVA effort. Mr. Lampton has more than a decade of experience advancing mission-critical projects, accomplishing complex implementation and management of enterprise level programs and technology. He was a fulcrum of the Walter Reed Army Medical Center's datacenter migration project that successfully moved the Army's largest treatment facility to the first DoD hospitals in the national capital region.
- ◆ **Ms. Kate Beltran** serves as the Operations Director and single point of contact to coordinate team member participation and provide rapid response to requirements. With certifications in project management (PMP), IT service management (ITIL), and contract management (CPCM), Ms. Beltran will manage scope, oversight, and contract compliance in cooperation with the WDVA team.
- ◆ **Mr. Matthew Higgins**, is a Senior IT Project Manager with 28+ years of practical field experience managing cradle-to-grave, life-cycle implementations. He holds an exceptional record of superb communication with diverse stakeholders on high visibility and time-sensitive projects. He is an accomplished practitioner of the Project Management discipline, known for his thorough analysis, preparation, and development of technical project plans and is sought out for his expertise in risk analysis modeling and cost management. Mr. Higgins spent 5 years managing mobile applications developed in conjunction with the Mobile Health Programs Directorate, National Center for Telehealth & Technology (T2). He is a Project Management Professional certified by the Project Management Institute.

Ms. Beltran has total responsibility for program execution and decisions and has the resources necessary to successfully complete program-related activities. She has direct access to the support



leads and provides the necessary leadership to transform any group of individuals working on the program into a team that works interdependently to attain program objectives.

4.1.2 PROPOSING VENDOR'S RESPONSIBILITIES AND QUALIFICATIONS (M/S – RFP 7.1.2)

Exhibit 3 below outlines the roles, responsibilities and the estimated time commitment for both *tiag* and WDVA staff providing direct support to the project.

Exhibit 3: Roles and Responsibilities

Role	Name	Responsibilities	Affiliation	Time Commitment*
Project Manager	Matt Higgins	<ul style="list-style-type: none"> Manages day to day project delivery through all development phases 	<i>tiag</i>	154 hours
Web & Mobile App Developer	Shawn Condra	<ul style="list-style-type: none"> Participates in project discovery Provides technical consultation Writes application code Performs testing Bug fixes 	<i>tiag</i>	328 hours
UX Researcher / Designer	Jenn June	<ul style="list-style-type: none"> Participates in project discovery Elicits requirements Produces wireframes Conducts testing with end-users 	<i>tiag</i>	128 hours
Psychological Health SME(s)	Dr. Becky Fraynt	<ul style="list-style-type: none"> Provides subject matter consultation 	<i>tiag</i>	124 hours
Tester(s)	Deqa Abdi	<ul style="list-style-type: none"> Delivers test planning Executes testing Maintains bug logging 	<i>tiag</i>	66 hours
WDVA Product Owner	TBD	<ul style="list-style-type: none"> Participates in project discovery Conveys project vision Prioritizes product features Attends sprint demos 	WDVA	70 hours
WDVA Technical Liaison	TBD	<ul style="list-style-type: none"> Provides consultation and guidance about WDVA IT environment 	WDVA	24 hours

Note: Hours include Development, Deployment, and Maintenance

Exhibit 4 below outlines the roles and responsibilities of additional *tiag* staff providing oversight and reachback support to the project.

Exhibit 4: Roles and Responsibilities of Additional Staff

Role	Name	Responsibilities	Affiliation
Vice President	Neil Lampton	<ul style="list-style-type: none"> Corporate oversight Technical consultation 	<i>tiag</i>
Operations Director	Kate Beltran	<ul style="list-style-type: none"> Contract compliance Quality oversight 	<i>tiag</i>

4.2 PROJECT PLAN (M – RFP 7.2)

Please see **Section 6.2.** for *tiag*'s project plan.

4.3 DETAILED IMPLEMENTATION PLAN (M – RFP 7.3)

Please see **Sections 6.3 and 6.4** for components of *tiag*'s detailed implementation plan. The full implementation plan will be provided within 15 days of contract award.

4.4 CHANGE MANAGEMENT (M/S – RFP 7.4)

Within an Agile development environment, change to requirements is embraced by the development team and necessary to drive iterative improvements. Developing requirements in an agile process is a focused process to add ever increasing detail and design to the requirements as they are elevated in priority in the Backlog. For this project effort, much of the early design and requirements documentation will already be accomplished for the Minimum Viable Product during the Design and Discovery phase. Though well-defined when development starts, the very iterative nature of Agile that results in highly focused and functional products, means that no requirement is truly locked-in until it's complete and accepted by the product owner.

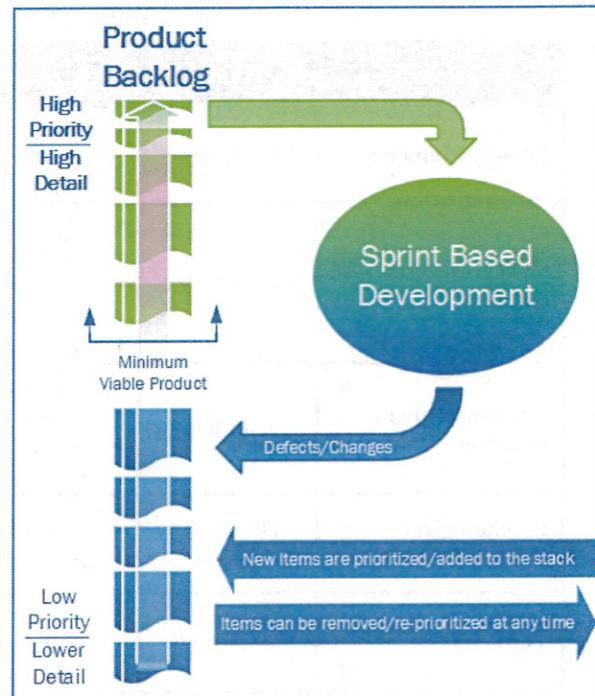
To facilitate this change and iterative process, *tiag* will work with the WDVA product owner, as identified by the WDVA PM and Executive Sponsor, to maintain a groomed product backlog. This is a continuous process that allows new ideas and creativity to be injected into the product backlog, and prioritized by the WDVA Product Owner and development team according to potential project benefits and impacts.

As each sprint is about to begin, the team will conduct a quick planning session to determine how many of the highest priority Backlog items can be accomplished in the next sprint. For clarity, these requirements are locked in during the sprint, but are only finalized when demonstrated to the Product Owner and accepted. Any noted defects or needed changes are added and prioritized in the Backlog. During this iterative process, lower prioritized items are continuously evolved for specificity and design, allowing adjustment of priority, or removal from the Backlog if deemed no longer necessary.

This iterative process is continued until the Backlog has been completed, or the project timeline, budgetary restraints, other scope restricting elements have been reached. When these milestones are reached, any remaining Backlog items will be transitioned to the Sustainment Backlog for future maintenance release consideration.

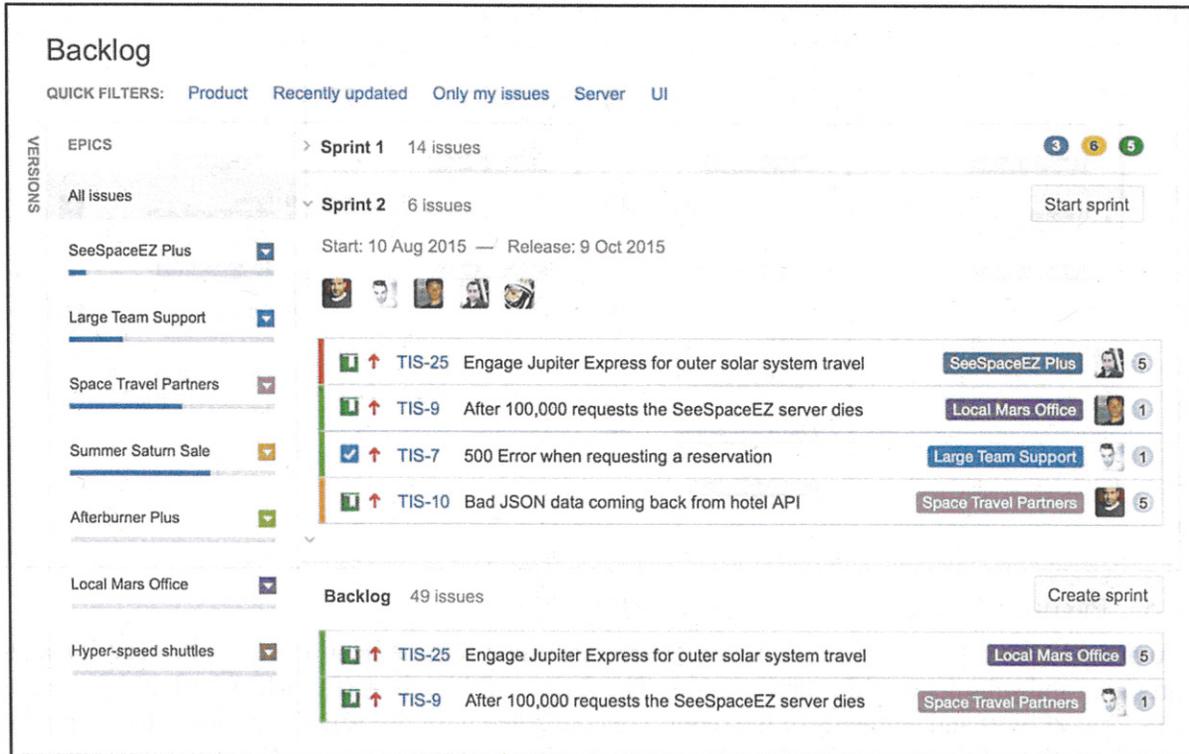
This highly adaptive and focused change management process results in a product that evolves and matures as it's developed, providing a direct feedback conduit for the WDVA during the development process. It results in a product that is far more mature and functionally focused upon initial release than other development methods. Finally, this agile process provides the development team with far greater speed and flexibility to make changes as needed during development than other more rigid, time consuming change control management processes.

Exhibit 5: Agile Change Management Process



In order to provide a collaborative and interactive project environment, JIRA will be used to manage the Backlog and Sprint activity for the project development. This will allow instant updates for current project status during development, and provide a robust collaboration environment. Exhibit 6 is an example of a Product Backlog maintained in JIRA, while Exhibit 7 shows an example sprint scrum board which is used to manage development in sprints.

Exhibit 6: Sample Product Backlog



Backlog

QUICK FILTERS: Product Recently updated Only my issues Server UI

VERSIONS

- EPICS
- All issues
- SeeSpaceEZ Plus
- Large Team Support
- Space Travel Partners
- Summer Saturn Sale
- Afterburner Plus
- Local Mars Office
- Hyper-speed shuttles

Sprint 1 14 issues 3 6 5

Sprint 2 6 issues Start sprint

Start: 10 Aug 2015 — Release: 9 Oct 2015

TIS-25 Engage Jupiter Express for outer solar system travel SeeSpaceEZ Plus 5

TIS-9 After 100,000 requests the SeeSpaceEZ server dies Local Mars Office 1

TIS-7 500 Error when requesting a reservation Large Team Support 1

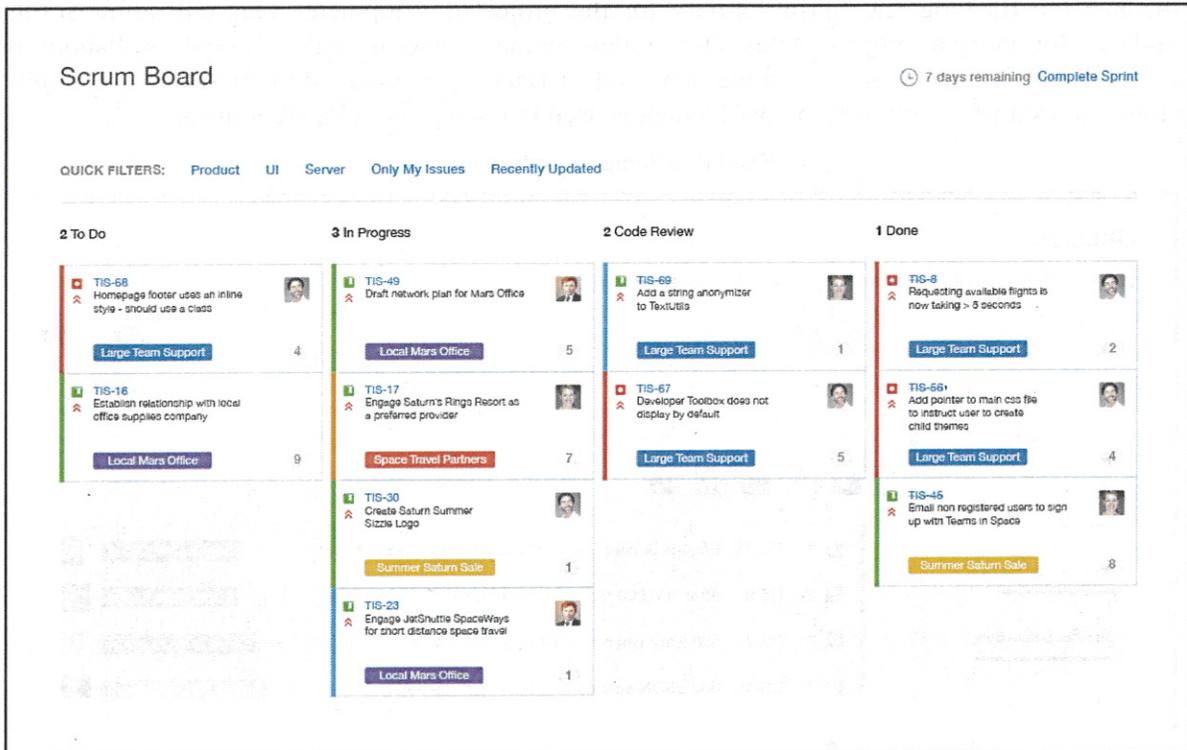
TIS-10 Bad JSON data coming back from hotel API Space Travel Partners 5

Backlog 49 issues Create sprint

TIS-25 Engage Jupiter Express for outer solar system travel Local Mars Office 5

TIS-9 After 100,000 requests the SeeSpaceEZ server dies Space Travel Partners 1

Exhibit 7: Sample Sprint Scrum Board



4.5 PROJECT STATUS REPORTS (M/S – RFP 7.5)

To provide transparency of work in progress and facilitate communication, *tiag*'s Project Manager prepares and submits weekly status reports. The format of the report (e.g. MS Word, MS Excel, or MS PowerPoint) and elements of the report are confirmed with the WDVA Project Manager prior to finalization of the report template. Common elements include:

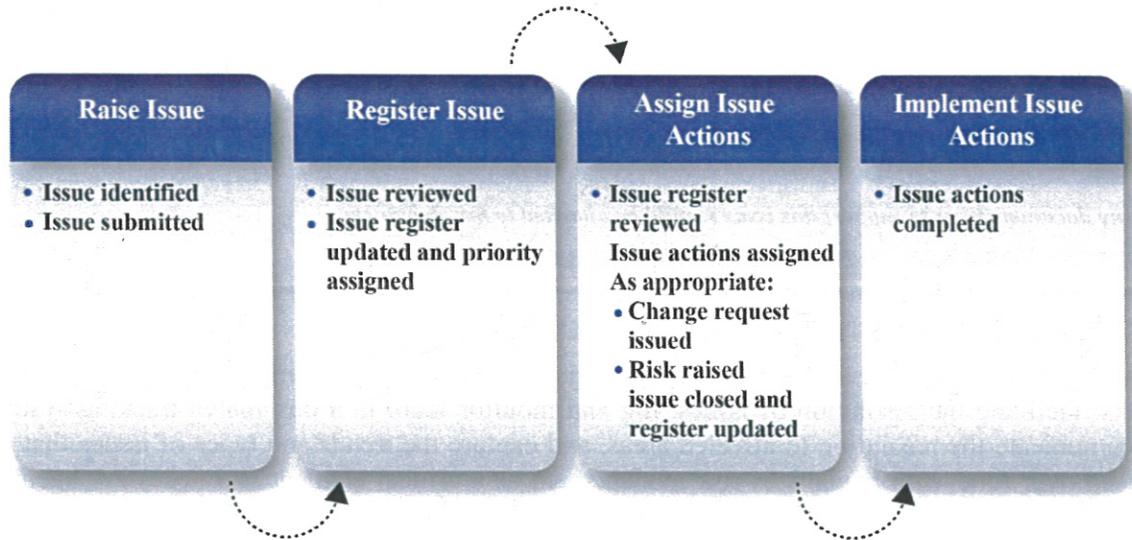
- ✓ High-level schedule / milestones
- ✓ Project phase
- ✓ Sprint goals
- ✓ Sprint status
- ✓ Burn down chart
- ✓ Accomplishments
- ✓ Planned accomplishments
- ✓ Variance explanations
- ✓ New issues and issue status
- ✓ Risks and mitigation strategies

In addition to the weekly status report, project costs will be tracked and submitted monthly. With WDVA approval, status reports may change to a monthly pace during the sustainment phase. Please see [Appendix A](#) for *tiag*'s Sample Project Status Report template.

4.6 ISSUE RESOLUTION (M/S – RFP 7.6)

Without effective issue management, including identification, assignment and resolution, issues disrupt project plans and can derail a project. *tiag*'s process for issue resolution ensures that any event that adversely affects the project's ability to produce the required deliverables is appropriately managed. Exhibit 8 below describes the workflow *tiag* employs to formally identify, log, prioritize, determine issue resolution actions, monitor and control issue resolution actions, and close project issues. This process will be integrated into WDVA's issue resolution process through collaboration between the *tiag* and WDVA Project Managers.

Exhibit 8: Issue Resolution Workflow



Issues can be raised by any member of the project team, to include WDVA project stakeholders. Issues are funneled to the Project Manager who reviews the issue to confirm that it is applicable to the project. The issue is documented in the “Project Issue Form” below and then added to the Issue Register which is used to manage Issue Tracking and Resolution.

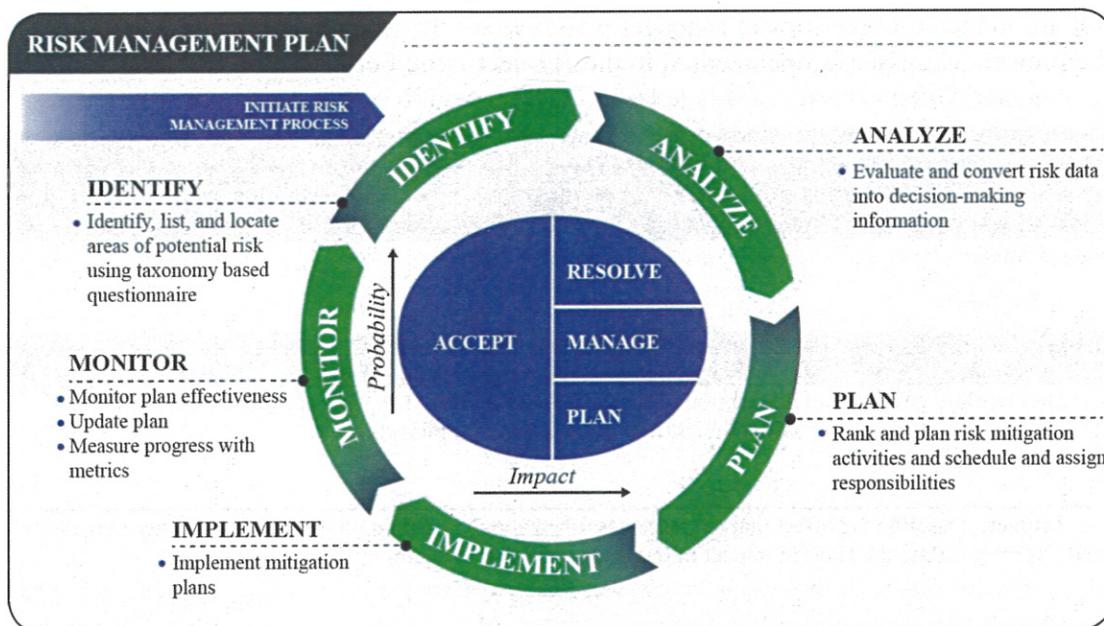
WDVA TBI Mobile App Issue Report Form	
PRODUCT DETAILS	
Product Name:	
Project Manager:	
ISSUE DETAILS	
Issue Description: Add a brief description of the issue identified and the aspect of the project currently impacted (e.g. scope, resources, deliverables, time schedule and/or budgets)	
Issue Impact: Describe the effect that the issue described above is having on the project’s ability to meet its stated objectives. Rate the level of impact of the issue (i.e. Low, Medium or High).	
ISSUE RESOLUTION	
Recommended Actions: Add a brief description of all actions to be taken to resolve the issue identified.	
APPROVAL DETAILS	
Supporting Documentation: Attach addition information as required.	

Submitted by:	Approved by:
Name: _____	Name: _____
Signature _____	Signature _____
Date _____	Date _____
<i>Any documentation to support this issue should be attached to this document</i>	
PLEASE FORWARD THIS FORM TO THE PROJECT MANAGER	

4.7 RISK IDENTIFICATION AND MANAGEMENT (M/S – RFP 7.7)

The objective of risk identification and management is to anticipate and mitigate potential negative risks, facilitate the resolution of issues, log and monitor them in a designated tracking system, communicate the resolution to affected areas, and capture the trends and types of issues that are raised over time. *tiag* recognizes risk management as a critical element and necessary agent of WDVA TBI Mobile Application development project success.

Exhibit 9: *tiag* Risk Management Approach



Our project managers have implemented Risk Management Plans and utilized the Risk Register concept on other state and federal government efforts. *tiag's* risk management approach provides for early identification, assessment, and addressing of potential risks. *tiag* conducts risk management in accordance with the contract, FISMA guidelines, PMBoK, and our standard risk management approach. Risk management consists of planning, risk identification and assessment, response planning, and monitoring, controlling, and reporting. By applying a disciplined process of identifying, analyzing, and managing risks, the probability of negative events are minimized, and the probability of positive events are maximized. Exhibit 9 above depicts the overall concept and process flow of our risk management process.

Our Operation Director and project manager will lead risk management activities and work with

WDVA and the functional teams to identify and mitigate risks. They review each identified risk for validity and categorization according to their primary area of impact (e.g., Scope, Schedule, Cost, Quality, Product, Resources, or Technical). Each risk is recorded in the Risk Register. We then mitigate and manage risks on a daily basis and keep WDVA informed of status. If our team cannot resolve the risk, they use our escalation process to ensure the right people are engaged quickly to minimize the impact. Each risk is tracked and included in the register as well as in status reports until resolved to WDVA's satisfaction.

Schedule risks may mean addressing processes or techniques to reduce the possibility of schedule delay due to slow reviews through periodic review planning sessions/presentations with WDVA management. For mitigating **cost risks**, managing delays is paramount. During project execution, *tiag* will review the **technical risks** at periodic (weekly, monthly, and as-needed) status meetings as a standard part of the agenda (cost, schedule, and performance).

4.7.1 RISK IDENTIFICATION AND MAPPING

tiag analyzes the identified risks to derive estimates on the probability that they will become a problem and the impact on the project if the risk does occur. Probability is measured as a percentage from zero to 100, and impact is measured on a scale of one through five – with one being the lowest impact and five the highest. *tiag* designates a risk level of high, medium, or low using the risk exposure classes according to the following risk mapping in Exhibit 10. Our team then determines risk exposure by multiplying probability and impact. For example, if the probability is 10% and the impact is two, the risk exposure equals 0.2. Risk exposure is determined as a means to help rank risks relative to one another. Based on experience, our team has assigned the following quantitative estimates of impact on cost, schedule, or performance:

- High = >25% deviation in cost, schedule, or performance
- Medium = 10% - 25% deviation in cost, schedule, or performance
- Low = <10% deviation in cost, schedule, or performance

Exhibit 10: Risk Exposure and Mapping

		Risk Level (Risk Exposure)				
Probability	90%	Medium (0.9)	Medium (1.8)	High (2.7)	High (3.6)	High (4.5)
	70%	Low (0.7)	Medium (1.4)	Medium (2.1)	High (2.8)	High (3.5)
	50%	Low (0.5)	Medium (1.0)	Medium (1.5)	Medium (2.0)	High (2.5)
	30%	Low (0.3)	Low (0.6)	Medium (0.9)	Medium (1.2)	Medium (1.5)
	10%	Low (0.1)	Low (0.2)	Low (0.3)	Low (0.4)	Low (0.5)
			1	2	3	4
		Impact				

4.8 ESCALATION PLAN (M/S – RFP 7.8)

Knowing when and how to escalate problems is critical to project success so that issues are resolved swiftly and any negative impact to the project can be minimized. With WDVA approval of our escalation plan, *tiag* will take the following steps to ensure problems receive the appropriate level of attention and the requisite resources to resolve issues in a timely manner. We first seek to escalate out (not up) and use the team's expertise to resolve issues. When corrective action cannot be identified, agreed upon, or when the issue effects multiple projects, problems are escalated up to the appropriate authority level that can resolve the issue. Problems are not escalated without prior notification to the WDVA Project Manager.

Exhibit 11: Escalation Plan

1.	Problem identified	tiag Project Manager	Matt Higgins [Redacted]	Day 0
2.	Corrective action that can be performed by a project team member is sought	tiag Project Manager	Matt Higgins [Redacted]	Day 1
3.	If the project team does not have the capability to execute an action plan to resolve the problem and/or higher visibility is called for, escalation is triggered	WDVA Project Manager	TBD – WDVA Resource	Day 3 (or sooner)
		tiag Project Manager	Matt Higgins [Redacted]	
5.	The problem is passed on to WDVA and/or tiag leadership for identification of an action plan that will lead to resolution	WDVA Project Sponsor	TBD – WDVA Resource	Day 4 (or sooner)
		tiag Operations Director	Kate Beltran [Redacted]	
6.	If WDVA and/or tiag leadership does not have the capability to execute an action plan to resolve the problem and/or higher visibility is called for, escalation is triggered	WDVA Project Sponsor	TBD – WDVA Resource	Day 6 (or sooner)
		tiag Operations Director	Kate Beltran [Redacted]	
7.	The problem is passed on to WDVA and/or tiag executive management for identification of an action plan that will lead to resolution	WDVA Senior Leadership	TBD – WDVA Resource	Day 7 (or sooner)
		tiag Vice President	Neil Lampton [Redacted]	

--This page left intentionally blank--

5 TECHNICAL REQUIREMENTS

5.1 SOLUTION REQUIREMENTS (M/S – RFP 8.1)

The following solution requirements are considered to be minimal in nature, and designed to capture the immediate needs for this project effort. As the Design and Discovery phase progresses, additional needs may be identified and evaluated for potential inclusion in the project plan.

5.1.1 RESOURCES REQUIRED (RFP 8.1.1)

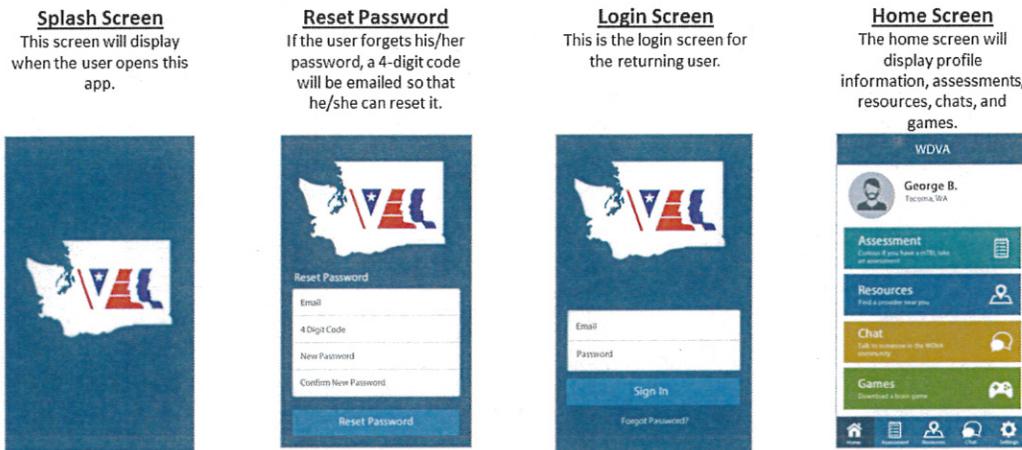
As described in further detail in Section 5.1.2, the following resources are required for solution development:

- ◆ Project Manager
- ◆ UX Researcher/Designer
- ◆ Application Developer(s)
- ◆ Psychological Health SME(s)
- ◆ Tester(s)
- ◆ Product Owner (WDVA Personnel)
- ◆ Technical Liaison (WDVA Personnel)

5.1.2 MOCK APPLICATION (RFP 8.1.2)

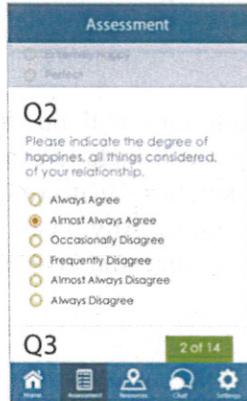
The mock application screens, below, represent a high level solution for some of the features described in the RFP. The mock screens and content within them are meant to demonstrate the design capabilities by the *tiag* design team and are not meant to represent the final designs of the WDVA application. If selected for this project, *tiag* staff will work closely with designated WDVA staff and veteran representatives to ensure flow, usability, ease of use, and overall visual appeal are aligned with the vision of this application.

Exhibit 12: Mock Application Screens



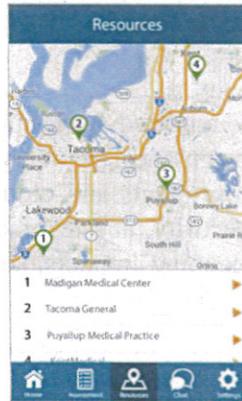
Assessment

When the user selects an answer, the question will auto scroll up and the next question will display. The user has the ability to manually scroll up and down to view all the questions.



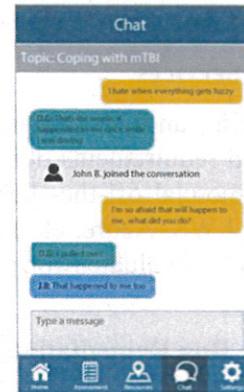
Resources

A map and list view will display resources near the user. He/she can click on a resource for more information



Chat

The user can message with other people in the WDVA community to chat about TBI.



5.1.3 MAINTENANCE AND SUPPORT REQUIREMENTS (RFP 8.1.3)

The following focus areas define maintenance and support requirements that can reasonably be assumed for this application development.

Developer Licenses

At a minimum, developer accounts for Android, iOS and potentially Windows market places will need to be established. These can be established for WDVA, with WDVA branding and release approval, and managed by *tiag* developers to facilitate the initial release and subsequent maintenance actions.

Code Repository

Software development will be routinely checked into a repository (GIT, Github, etc.) for version control and backup. This will facilitate a safe repository for the WDVA owned codebase and allow project developers to collaborate on the application development. WDVA will possess access to the latest code release at all times.

Defect/Testing Tracking

Our development staff will utilize a *tiag* provided, free Bugzilla based defect tracking system to monitor and resolve any improvements or defects that require attention prior to the initial release of the application. After release, this system will be used to track reported defects and product enhancements and added features as required. Testing will be accomplished and accommodated by a Bugzilla integrated, free Testopia suite. Testopia will be used to create test cases, track all testing to the application both prior to initial release and for every new maintenance release scheduled, post initial release date.



Defect Reporting

Defect reporting will be accommodated through multiple methods, including establishing a defect reporting tool within the application itself and a WDVA email account for defect reporting, as well as feature requests. Additional monitoring of the application market comments will be conducted by the *tiag* developers for potential feature requests and any defect reports.

Evaluation of analytic products will be conducted to determine the best available fit for the application. This analysis will be conducted during the Design and Discovery phase and will facilitate the development of feature improvements, as well as the potential for providing additional defect tracking and information.

Hosting Services

The hosting and maintenance of any required back-end server solutions will be matched to developed requirements during the Design and Discovery phase. This will include evaluation of any commercial off-the-shelf (COTS) products and cloud hosting solutions that could be used (forums, AWS, Azure, etc.) for cost, security, and technical specifications. Any hosting solution will be fully evaluated for potential manning impacts, security compliance and cost during this phase.

Defect & Bug Remediation.

Throughout the 2-year sustainment phase, defects and potential feature improvements or additions will be tracked and briefed to the WDVA on a quarterly basis. This will allow the WDVA to target improvements that will have the largest impact on the user base and make the most efficient use of the sustainment funds provided during this phase. Defects and feature requests will continue to be tracked through Bugzilla during this phase, with full access to that list provided to WDVA. At the end of the 2-year sustainment phase, if the sustainment is no longer needed or transferred to another entity, all source code will be transferred to the WDVA and archived securely.

Focus Groups & Interviews

Part of the *tiag* process for designing software is gaining a better understanding of the target demographic. This is a focus on features and usability that provides for a highly focused and functional application for the user. To accomplish this, focus groups and/or interviews are conducted with target users to gain deeper insight into how they use applications, resources, and other pertinent information that will assist with better design and usability. *tiag* will work with WDVA to identify potential focus group members and facilitate this critical design component. *tiag* will also tap into the large number of veterans employed within the company to receive additional feedback and further refine the evolution of the WDVA TBI Mobile App.

Washington Technology Services Usability Lab

Finally, we plan to incorporate the State's Usability Lab. This state of the art facility contains all the resources necessary to support focus groups and user testing. We will save costs by making use of a resource to which DVA already has no-cost access. At the appropriate time, our team will coordinate with DVA to submit an access request to WaTech for use of the facility

5.1.4 TRAINING REQUIREMENTS

Because of our expertise and focus on applying leading edge UX and usability principles into the design of the TBI Mobile App, the app will be intuitive to use, and WA's veteran population will



not require any additional training to begin immediately leveraging the features and functions embedded with the application. Face-to-face training on the overall flow and features of the mobile application will be provided to designated WDVA staff, to provide additional insight into the design intent and psychological focus of the app features and function. Additional training will be provided in the use and operation of the Web Portal. Training will include a clear and brief manual (2-5 pages) for the mobile app and backend website. Also included is a corresponding PowerPoint presentation for both mobile app and website so staff can use it for future trainings and presentations about the mobile application.

5.1.5 SCALABILITY AND CAPACITY REQUIREMENTS (RFP 8.1.5)

Future Growth

Because of our expertise and focus on applying leading edge UX and usability principles into the design of the TBI Mobile App, the app will be intuitive to use, and WA's veteran population will not require any additional training to begin immediately leveraging the features and functions embedded within the application. Face-to-face training on the overall flow and features of the mobile application will be provided to designated WDVA staff to provide additional insight into the design intent and psychological focus of the app features and function. Additional training will be provided in the use and operation of the Web Portal. Training will include a clear and brief manual (2-5 pages) for the mobile app and backend website. Also included is a corresponding PowerPoint presentation for both mobile app and website, so staff can use it for future trainings and presentations about the mobile application.

SASS EVCMS API Integration

An API (Application Programming Interface) enables an application to make a predefined set of calls to a separate system in an effort to utilize certain functionality or pass data across systems. For this application the API made available by EVCMS, if one exists, can be used within the application to push/pull specified information.

Capacity/Growth Limitations

Number of users

Considering the expectation that this application is to be used on mobile devices, there really is no limitation associated with the number of users who can use it. A part of defining the requirements will define the anticipated number of users for the application. Based on those requirements, a plan can be put in place to accommodate those users, as well as, an over/under approach if the expectation is off. We can ensure that there will be the ability to accommodate a minimum of 500 user accounts for those users who self-identify as a veteran.

Storage Space

Storage space consideration for this application will be categorized by user device, database server, and potentially file and web server.

Throughout mobile development, consideration of limitations with storage on the user's device remains a priority. With many different types of devices and storage available on those devices, we recognize that it is important to keep the application size to a minimum.

A database can be used to store any type of information associated with the application. There are many types of database systems and structures that can be put in place to accommodate the



requirements of the application. If there is a requirement to utilize a database server, there are many options available to enable growth in increments as necessary.

File and web server space may become a necessity if there will be a web presence. This could consist of files for the web application or any Web APIs created for data interaction with a mobile and/or web application. Similar to a database server, options are available to enable growth in increments.

Cloud Solutions such as AWS (Amazon Web Services) offer an alternative to utilizing physical server space for database, file, and web. Cloud solutions “access servers, storage, databases and a broad set of application services over the Internet” rather than from a dedicated server. Cost is based on use, resulting in long term cost savings as well as in the initial phase of development. All information is maintained on a network-connected system and is accessed through the application. This type of solution offers a centralized environment for all content, making it easy to maintain without too much overhead and potentially cutting costs.

Database Volume

As specified above, there are many options available to enable growth in increments as an increase in database storage is deemed necessary.

5.1.6 IMPLEMENTATION REQUIREMENTS (RFP 8.1.6)

tiag applies a user centric design approach to developing mobile applications. The two critical components required to implement this strategy is access to demographic users for focus groups and usability testing, as well as direct WDVA stakeholder involvement to ensure the user stories and use cases are fully defined and accurate. This information directly drives UX and UI designs for both the mobile application and the web portal for use by WDVA staff. Engaging in an iterative, agile based methodology, this continuous design and feedback process leads to highly user focused products that are both successful and effective. Section 6.2 has further details on this development process.

During the Design and Discovery phase, a full evaluation of WDVA IT Security Checklist will be conducted to determine what and when these security requirements will be incorporated into the application and Web Portal. Additionally, this evaluation will result in the defining and inclusion of appropriate security & access roles, as defined in collaboration with the WDVA.

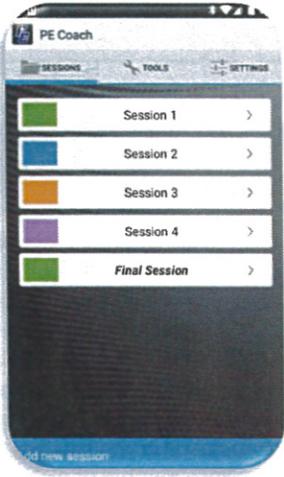
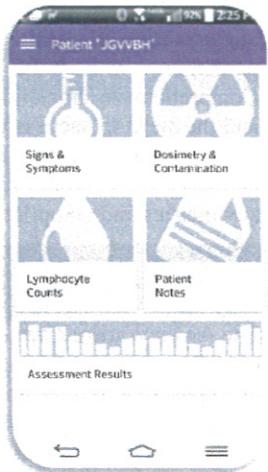
5.1.7 INTERFACE REQUIREMENTS (RFP 8.1.7)

The interface requirements for this application may be broken out over a mixture of native/hybrid and responsive web. The primary application itself could be native or hybrid based on finalized requirements. The administrative website should be developed as a responsive web so users can access the site from a desktop and/or mobile device, receiving the same exceptional user experience.

Once the EVCMS is up and running, the mobile application and/or administrative website can be setup to interface with that system. Typically, this would happen through the use of an API made available by EVCMS. The API would be used to make a predefined set of calls to the EVCMS system in an effort to utilize certain functionality or pass data across systems. There may be alternatives to using an API which could consist of having access to the database server being used for EVCMS. Proper security measures would need to be in place if that was the required method of interfacing with the system.



5.1.8 RECENT EXPERIENCE IMPLEMENTING A MOBILE APP (M/S – RFP 5.1.8)

Name of Organization:	National Center for Telehealth and Technology (T2)
Period of Performance:	09/2011 – 09/2017
<p><i>tiag</i> provides program management support and application development services to support the National Center for Telehealth and Technology (T2), a component of the Defense Centers of Excellence (DCoE) for Psychological Health (PH) and Traumatic Brain Injury (TBI). T2’s mission is to lead the innovation of health technology solutions for PH and TBI and deliver tested, valued health solutions that improve the lives of our nation’s warriors, veterans, and their families. Using the latest technology, T2 seeks to identify, treat, and minimize or eliminate the short- and long-term adverse effects of war. T2 facilitates telehealth and Web-based care for PH/TBI and develops mobile applications to support 24/7 access to behavioral health tools and critical support systems. These applications developed for T2 support the intended use of either psychological provider-led encounters with military personnel being treated for PTSD related issues or personally used applications facilitating self-identification of PTSD related symptoms and sources of counseling services available within the Department of Defense Healthcare system. The task breadth and scope of this work spans cross-platform and modality use to include desktop, web, and mobile hand-held device applications. <i>tiag</i>’s services to T2 include managing adherence to DCoE/T2’s lifecycle development process, liaising with other offices to coordinate processes from the concept phase through deployment and sustainment, business process re-engineering, clinical subject matter expertise and technical software engineering and architecture consulting. This work in support of mobile applications is directly relevant to the requirements of this RFP.</p> <p>Team <i>tiag</i> has demonstrated outstanding success in this effort by bringing a unique set of diverse skill sets together, working in unison to produce truly extraordinary, innovative applications to the DoD user base. Team <i>tiag</i> provides the full range of staff to include, but not limited to, software and application developers, clinical psychologists, project managers, business analysts, 3-D graphic designers, and system engineers. It is this seamless embedding of psychologists into the development Teams which ensures the finished applications elicit the proper responses from patients seeking Tele-Behavioral healthcare to focus on specific issues. Our Team has been a critical component to the successful execution of T2’s mission.</p> <p>Some of the mobile applications we support at T2 include: Breathe2Relax, T2 Mood Tracker, Virtual Hope Box, Dream EZ, LifeArmor, Provider Resilience and PE Coach.</p>	
	
Name of Organization:	Uniformed Services University of the Health Sciences (USUHS)
Period of Performance:	09/2012 – 09/2017
<p><i>tiag</i> expanded its usability design and lab management experience within the health community to include the Uniformed Services University of the Health Sciences (USUHS)’s Armed Forces Radiobiology Research Institute (AFFRI). AFFRI’s mission is to preserve and protect the health and performance of U.S. military personnel through research and training that advance understanding of the effects of ionizing radiation. This mission includes basic and applied research to identify and perform early development of measures to prevent, assess, and treat radiation injury. We designed and developed a Mobile version of the First-responders Radiological Assessment Triage tool. The Mobile First-responders Radiological Assessment Triage (mFRAT) software enables radiological and nuclear emergency response professionals to triage suspected casualties according to recognized assessment and treatment principles using iOS or Android devices. Our team performed the UX research, designed the wireframes, and performed the usability testing as part of the fielding for this application. As part of our overall USUHS support, our team is responsible for management of the USU research vLAN as well as all the medical research equipment, including a linear-accelerator.</p>	
	



Name of Organization:	Telemedicine and Advanced Technology Research Center (TATRC)
Period of Performance:	09/2015 – 09/2020
<p>TATRC’s mission is to bring innovative telehealth solutions to the Warfighter and the Military Health System through medical research focused on advanced medical technologies. <i>tiag</i>’s team of experts support TATRC’s Mobile Health Care Environment (MHCE) with usability research, human factor design, and mobile applications development. The MHCE provides a construct for mobile health care in the U.S. Army Medical Department, supporting four specific areas of communication: (1) patient to provide mobile interactions, (2) patient to system mobile interactions, (3) provider to provider mobile interactions, and (4) provider to system mobile interactions. Through this work, our team is currently developing a mobile clinical research application for diabetes targeted at preventing early readmissions of diagnosed service members and veterans.</p>	
	

5.1.9 RECENT EXPERIENCE OTHER VETERANS ORGANIZATIONS (M/S – RFP 8.1.9)

Name of Organization:	National Center for Telehealth and Technology
Period of Performance:	09/2011 – 09/2017
<p>The mission of the National Center for Telehealth and Technology (T2) is to lead the innovation of health technology solutions for psychological health and traumatic brain injury, and deliver tested, valued health solutions that improve the lives of our nation’s warriors, veterans, and their families. <i>tiag</i> support includes a full spectrum of general business planning and strategy support, schedule development, quality control, standards, documentation review, development/integration, contractor oversight, subject matter expertise, leadership consultation, research and analysis, and other activities to ensure success for T2 projects. Our experienced and dedicated team of Program/Project Managers, Subject Matter Experts and Analysts are dispersed across the organization to support the execution of T2’s strategic programs and projects, integrating telehealth and technology solutions into the delivery of PH/TBI care. This work includes partnership with the Veterans Administration to develop a number of websites and mobile applications including, Moving Forward, Parenting for Service Members and Veterans, CBT-I Coach, Concussion Coach, and PTSD Coach.</p>	

Name of Organization:	Warrior Transition Command – Program Management
Period of Performance:	7/2012 - 5/2017
<p>The U.S. Army Warrior Transition Command’s (WTC) mission is to develop, coordinate, and integrate the Army’s Warrior Care and Transition Program (WCTP) for wounded, ill, and injured Soldiers, Veterans, and their Families or Caregivers to promote success in the force or civilian life. <i>tiag</i> team members support the WTC as an augmentation of the limited uniform and government personnel available to support the overall mission. In partnership with WTC stakeholders, <i>tiag</i> has made significant contributions to the development of the Comprehensive Transition Plan (CTP), a dynamic, multi-domain plan of action that focuses on a Soldier’s future and the steps to successful transition. <i>tiag</i> team members play a crucial role in the development of self and risk-based assessment tools that are utilized to gauge a Soldier’s holistic clinical and non-clinical health, with a particular focus on utilizing automation to enable easier capture of assessment data and to facilitate reporting of key metrics and compliance indicators.</p>	

Name of Organization:	Warrior Transition Command – Army Warrior Care & Transition System
Period of Performance:	9/2013 – 9/2017
<p>The Army Warrior Care & Transition System (AWCTS) is a web-based system comprised of multiple application modules aligned that automates key WTC prescribed business processes. The system manages the myriad of processes required for Soldiers who remain in the Army (e.g. Return to Duty, Administrative Retention) as well as those transitioning from the Army (e.g. Medical Separation, Non-Medical Separation). AWCTS modules include Soldier Self-Assessment, Goal Setting, Action Item and Tasks Tracking, and Risk Assessment. AWCTS interfaces with a number of systems, including some controlled by external DoD and Federal agencies. <i>tiag</i> is responsible for</p>	



the life cycle management of AWCTS to include the following: maintaining current system operations, establishing and maintaining an AWCTS service desk, performing appropriate technology refresh work, making significant enhancements to include modernization initiatives, providing overall project management and integration support services, system configuration management, technical management of requirements, and performing other routine requirements.

5.1.10 OTHER RELEVANT EXPERIENCE (M/S – RFP 8.1.10)

Name of Organization:	National Center for Telehealth and Technology – Usability Lab
Period of Performance:	09/2012 – 09/2016

tiag manages the T2 Technology Enhancement Center (TEC) lab space, equipment, and the personnel needed to conduct usability analysis services, including formal evaluation of Human-Computer Interaction, Human Factors evaluation, and post-deployment product evaluation. This support directly correlates to the requirements specified in this RFP. User Experience (UX) design and testing are incorporated into all of the software projects, from concept to production. This support requires extensive knowledge and understanding of the software development lifecycle and HIT standards. *tiag's* support to T2's Usability Lab demonstrates our capability to provide program management and usability design services that sustain WDVA's mission to provide high quality, effective and efficient mobile applications in support of Veterans' care.

The mission of the TEC is to ensure that T2 developed products (e.g. mobile, web, print material) are not only effective but also easy, intuitive, and satisfying to use. *tiag* provides usability services throughout the product lifecycle to maximize the utility and desirability of T2 products, minimize the need for future rework and revision, remove barriers to use, and heighten the product's chance of success.

In the concept phase of product development, *tiag* UX Researchers and Designers provide expert consultations to Product Owners to inform the product vision, support idea validation and develop a user-driven needs assessment. As needed *tiag* conducts heuristic evaluations, focus groups, surveys, and high and low fidelity usability testing. *tiag* additionally conducts competitive analysis of competitor products. Information learned in this phase provides key guidance for improvements and refinement of the product concept. In some instances, it can lead to project close-out if concept assumptions are invalidated. The benefits of early discovery include costs saved by determining changes prior to coding and not pursuing unsupportable solutions.

In the planning and requirements development phase, *tiag* UX Designers build on their prior research to develop conceptual designs for each product. They work in collaboration with *tiag's* UX Researchers to develop a test plan, test wireframes with end users and iteratively refine the designs. In addition to high fidelity wireframes and human interface design documents, we provide product teams with user scenarios, user stories, user profiles, and user flows as needed in support of each product's Business Requirements Document. While a product is being developed, we can additionally test iterations with end users, enabling user feedback to be incorporated throughout development.

tiag is responsible for all participant recruitment procedures, the activities required to maintain continual participant flow, as well as the safety and satisfaction of each test participant. *tiag* is able to target specific populations, utilizing our participant recruitment strategy that includes the establishment of Memorandums of Understanding (MOU) with DoD agencies, maintenance of a referral recruitment and participant database, social media, as well as relationship development with other local entities through events and outreach. We have successfully recruited service members, veterans, DoD dependents and providers to participate in user research. We greet all participants upon their arrival at the lab, obtain their consent, and explain the test procedures prior to testing. After testing, each participant is given an evaluation so that we capture their feedback and continuously improve our procedures.

In addition to activities performed during product development, *tiag's* UX subject matter experts produce a number of reports and artifacts that enhance T2's understanding of the needs of their users and the performance of their products. These documents include product benchmarking reports, reports on the needs of service members and clinicians, technology usage infographics, surveys, product reviews and personas.

In support of AfterDeployment.org, a website targeting warriors returning home in need of psychological support, *tiag* conducted a range of usability studies to improve access, reduce errors, and enhance user satisfaction. *tiag* was also instrumental in the development of Virtual Hope Box, a mobile app that translates a traditional suicide-



reduction technique into a digital tool. Working closely with psychologists and developers, *tiag* professionals designed and tested the core interactions leading to product launch. For MilitaryKidsConnect.org, a web platform for children of military families to cope with military life and support each other, our team performed usability testing, survey research, and focus group data analysis that produced actionable design recommendations leading directly to beneficial changes in site functionality.

Name of Organization: Warrior Transition Command – Army Warrior Care & Transition System

Period of Performance: 9/2013 – 9/2017

Through our work supporting the Army Warrior Care & Transition System (AWCTS), *tiag* has gained significant experience in developing applications that support Veterans and Soldiers in navigating access to care. AWCTS is a web-based system comprised of multiple application modules aligned that automates key WTC prescribed business processes. The system manages the myriad of processes required for Soldiers who are remaining in the Army (e.g. Return to Duty, Administrative Retention) as well as transitioning from the Army (e.g. Medical Separation, Non-Medical Separation). AWCTS modules include Soldier Self-Assessment, Goal Setting, Action Item and Tasks Tracking, and Risk Assessment. AWCTS interfaces with a number of systems, including some controlled by external DoD and Federal agencies. *tiag* is responsible for the life cycle management of AWCTS to include the following: maintaining current system operations, establishing and maintaining an AWCTS service desk, performing appropriate technology refresh work, making significant enhancements to include modernization initiatives, providing overall project management and integration support services, system configuration management, technical management of requirements, and performing other routine requirements.

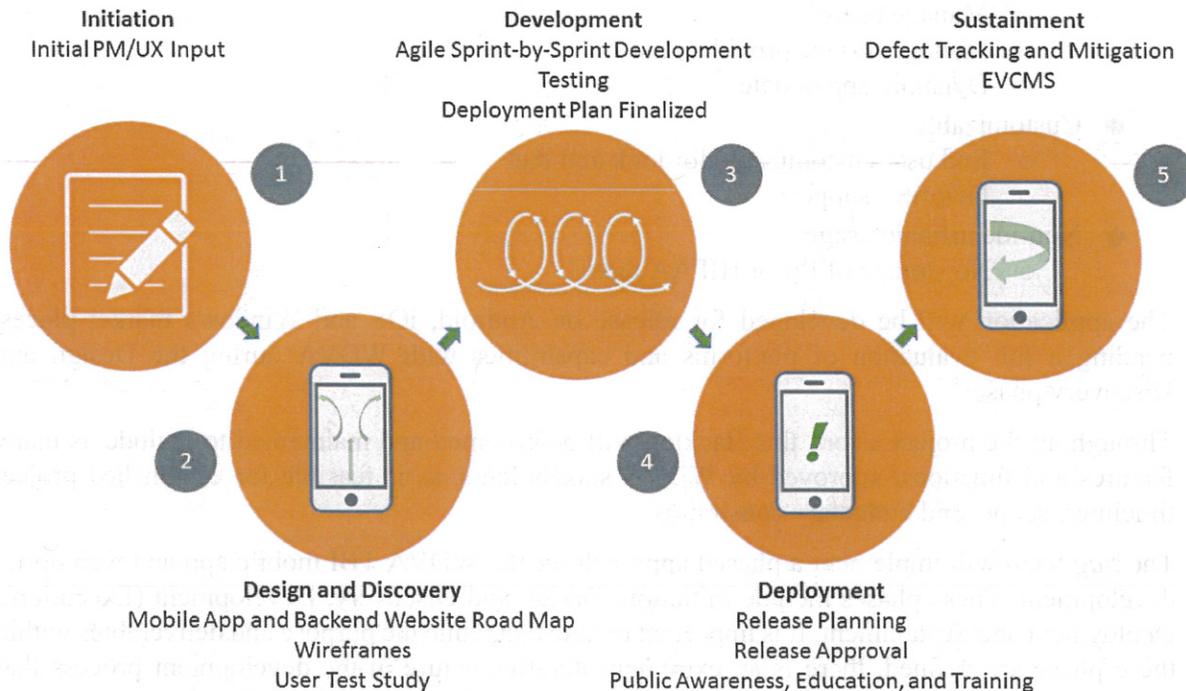
5.1.11 LIST OF CONTRACTS (M/S – RFP 8.1.11)

Relevant *tiag* held contracts in the last five years include:

Contract	Contract Number	Contact Name	Telephone
National Center for Telehealth & Technology Program Management	W81XWH-08-D-0044 Task Order 0004 & 0007	[REDACTED]	[REDACTED]
Relevance: Full mobile application development life cycle experience, developing a variety of native and hybrid applications from concept realization, through development and sustainment.			
National Center for Telehealth & Technology Usability Lab	W81XWH-08-D-0044 Task Order 0006	[REDACTED]	[REDACTED]
Relevance: User centered design experience supporting product owners with refining mobile application requirements through iterative design and conducting formal testing with end users to ensure the deployed applications are useful, useable and desirable.			
Uniformed Services University of Health Sciences	GS06F0854Z Task Order HT940412F0153	[REDACTED]	[REDACTED]
Relevance: Full mobile application development life cycle experience, developing the Mobile First-responders Radiological Assessment Triage (mFRAT) application for both iOS and Android platforms.			
Warrior Transition Command	W91QV1-15-F-0043	[REDACTED]	[REDACTED]
Relevance: Experience providing all manner of support for a web-based case management system, the Army Warrior Care & Transition System (AWCTS). Support includes maintaining current system operations, making significant enhancements, test and evaluation, documentation and training.			

5.2 PROJECT APPROACH/ METHODOLOGY (M/S – RFP 8.2)

Exhibit 13: *tiag's* Approach to Mobile Application Development



Our team uses an agile based methodology to iteratively design and develop applications, in conjunction with the WDVA stakeholders, and to define and further refine the product, essentially molding the final product as we move through the phases in the project. Requirements defined during this project effort will be maintained in a Backlog. A Minimum Viable Product (MVP) will be defined by the project team and stakeholders, which will establish the basic level components and capabilities the application will require to be successful upon release. At a minimum, the Backlog will include the following features and functions as part of the baseline application:

- ◆ User Accounts
 - Create user account and basic profile creation
 - Open registration
 - Login
 - Forgot password support
- ◆ Self-Assessment tool
 - Dynamically (push without app updates) updated questionnaire
 - Scored results
 - Results output to user, with no storage (local or cloud)
- ◆ Location based support locator
 - GPS based
 - Provides list of providers based on treatment needs
 - List of providers hosted on Web Portal
- ◆ Brain stimulating games
 - List of games in applicable app stores
 - May include in-app game options



- ◆ Back-end Database
- ◆ Administrative website
 - Manage users
 - Manage service providers list
 - Dynamic app updates
- ◆ Customizable
 - End user customizable for look and feel
 - Favorites support
- ◆ Non-identifiable usage
 - No storage of PII or HIPAA data

The application will be developed for release on Android, iOS and Windows market places, pending a full evaluation of platforms and capabilities with WDVA during the Design and Discovery phase.

Throughout the project effort, this Backlog will be groomed and maintained to include as many features and functions, approved by WDVA stakeholders, as is feasible for established project timelines, scope, and budgetary constraints.

The *tiag* team will implement a phased approach for the WDVA TBI mobile app and web portal development. These phases include Initiation, Design and Discovery, Development (Execution), Deployment and Sustainment. It is important to note that while the purpose and deliverables within these phase are defined, there is an extremely iterative nature in the development process that sometimes blurs the line between Design, Requirements, Development, and Testing.

Initiation

This phase will provide initial PM/UX input on project scope, provide competitive analysis, rough scoping and result in any initiation documents that may be needed or required by the WDVA PM. This phase uses the information provided in the RFP is treated as originating documentation, and is used as the basis for the beginning actions in this phase. This phase is routinely very short, and provides the focus of the project for the project team throughout the entirety of the development and sustainment efforts.

Design and Discovery

This phase encompasses a user-centered design approach to ensuring a shared vision between the *tiag* mobile app team, WDVA stakeholders and the target population (i.e. military veterans). We will start with conducting the kick-off meeting with the WDVA staff to discuss scope, expectations and needs for the mobile application and backend website. From there, we will conduct initial user research to insights from the veteran population (4-5 veterans) via interviews or focus group. Gaining insights about veteran's wants and needs for the mobile app will be instrumental understanding context of use and veteran needs that will be incorporated into the design process.

After we gather veteran insights, we will conduct an on-site workshop with key WDVA staff. This workshop will help develop a road map of the mobile application and backend website by collaborating together on creating user stories and user story mapping. These methods, when used in collaboration with the mobile app team and the WDVA staff, will give greater depth and step-by-step understanding how veterans will utilize the app. This workshop will lay the groundwork to creating a shared understanding of what the application and backend website will entail.



Once the road map is created, the *tiag* mobile app team will develop the user and technical requirements for both the app and website. These requirements will be translated into wireframes. Once the wireframes are created, we will present them to the WDVA stakeholders for review and any course correction. After review and approval, user testing will be conducted to ensure the flow and content of the wireframes are understandable, usable, and relatable. This test will allow us to make any last minute changes to the wireframes prior to final asset creation and development.

Development

This phase of the project encompasses the development of both the mobile application, and the web portal with any necessary back-end database development. Using agile methodology, the development team will apply a sprint by sprint focus on WDVA prioritized Backlog features. This will not only ensure that the MVP for the product is realized, but that the project team is able to maximize all integration and testing for the mobile application and web portal, while including as much approved features and functions as the project schedule, cost and scope allow.

As development progresses, each sprint will include full testing of included backlog items, as well as a product demo to identified stakeholders. Using this method will streamline the release process as well as provide an immediate, iterative feedback mechanism for WDVA stakeholders during the entire development process.

As the development phase comes to a close, the deployment plan will be finalized. This component requires a detailed focus on how the applications will be fielded or released, and any public affairs activities that should be paired with the deployment of the apps.

Deployment

Executing the deployment plan to successfully release the application is the primary goal of this project phase. To accomplish this, the *tiag* team will work directly with the WDVA to establish the timing and method of release, to include public awareness campaigns, release approval, and education and training efforts required for the WDVA staff.

Sustainment

Often an overlooked phase in the development of applications, sustainment is a critical phase that keeps software defect free and also keeps users engaged by making improvements and adding features. With an active community around software use comes an active demand for an improved and tailored product, which is achieved through an active sustainment process.

tiag will continue to use Bugzilla to track reported defects, as well as any requests for new features or improvements. These defects and requests will be facilitated through a Change Management process detailed in section 5.4. Typical implementation of these requests can be accomplished via organizational email boxes, or help desk functions. On a quarterly basis, *tiag's* development team will provide the WDVA PM with a list of validated defects and improvement requests for approval and prioritization. The approved list will be maintained in the product backlog for implementation. Based on WDVA provided timelines, and budgetary constraints, the maintenance release will include as many of the Backlog items as possible. This process will continue in an iterative cycle throughout the two-year sustainment phase.

During this phase, the EVCMS is expected to come online, providing integration potentials. This product and capabilities will be fully evaluated as they emerge and evolve to determine any integration possibilities and to determine the best path moving forward. As this is built out, these



will be framed in the form of additional features and functions that will be approved and prioritized by WDVA in the product backlog and included as part of the quarterly sustainment releases.

5.3 WORK PLAN (M/S – RFP 8.3)

5.3.1 INITIATION PHASE

Exhibit 14: Work Plan: Initiation Phase

Task	Skills	Purpose	Deliverable
Competitive Analysis	UX	Evaluate competitive applications, providing a feature and comparative analysis. These are used as guidance for current mobile app project on best practices and current design standards.	Competitive Analysis Report
Initial Scoping	PM/UX	Establish rough estimate for project size.	
WaTech Usability Lab	PM	Initiate request through DVA for access to Usability Lab.	

5.3.2 DESIGN AND DISCOVERY

Exhibit 15: Work Plan: Design and Discovery

Task	Skills	Purpose	Deliverable
Conduct Kick-off Meeting	Mobile app team/WDV A team	Introduce <i>tiag</i> mobile app team and WDVA stakeholders.	Project Kick-Off meeting
Recruitment	UX/PM	Recruit target demographic professionals to interview and for usability testing.	
Veteran Interviews or Focus Group	UX	Create questions and conduct interviews or focus group with TBD number of veterans, according to project needs.	
Stakeholder Workshop	UX/WDVA	Conduct workshop/ with WDVA stakeholder to further explore and refine user requirements through user stories/user story mapping exercises for both the mobile app and backend website.	User Stories Reviewed for Completeness
Assessment Validation	Psychologist	Research and assess established TBI assessments. Ensure they are intuitive, brief and can provide accurate results. Evaluate if author permissions requirements need to be granted prior to use.	
Analysis	UX	Compiled analysis of data is collected, to include recommendations for application/backend website feature set.	
Requirements	PM/UX/Dev	Assemble final list of feature sets to be included in application and website. Also include any functional and technical requirements required.	Fully Defined and Approved Product Backlog
Wireframe/ Mock-up	UX/Dev	Develop functional medium fidelity prototype of mobile app and backend website. The section includes an iterative approach with user testing to ensure designs are validated with the	Final UX screens developed for the admin website and mobile app

		target population. Also, this section includes technical checkpoints with development team to ensure feasibility of technical requirements.	
Graphic assessments/UI	Graphics	Develop graphic assessments for mobile app and backend website (e.g. style guide, icons, color palette, etc).	Final UI for admin website and mobile app
User Testing	UX	Conduct usability testing (with 4-5 veterans) with functional mock-up. Conduct usability testing with designated WDVA staff for backend mock-ups.	
User Testing Results Reporting	UX	Results provided to design and development team.	User Testing Report
Evaluate/Select analytics	Team	Establish analytics requirements and evaluate products for suitability.	
Finalize Security Architecture	Team/WaTech	In coordination with WaTech Mobile SME, identify and finalize any security architecture requirements for the project.	
Development Estimates	PM	Release final development estimates based on agreed upon features and timelines.	Final Development Cost Estimate

5.3.3 DEVELOPMENT

Exhibit 16: Work Plan: Development

Task	Skills	Purpose	Deliverable
Mobile Development (in tandem with UX)	UX/Dev	Define development based on wireframes, and iterative sprint process.	Functional, tested mobile applications for Android and iOS, TBD on Windows
Web Portal Development (in tandem with UX)	UX/Dev	Define development based on wireframes, and iterative sprint process.	Functional, tested web portal
Develop Training Materials	PM/Dev	Develop any training materials and information to train WDVA staff on the application functions, and use of the web portal.	Training Materials
Finalize Deployment Plan	PM/WDVA PM	Develop and finalize the deployment plan for the products, incorporating any public engagement factors as deemed necessary by the WDVA.	Deployment Plan
Conduct Training	PM/Dev	Conduct any training sessions, as needed, to fully prepare identified WDVA staff for the use of the portal, and functions of the application.	

5.3.4 DEPLOYMENT

Exhibit 17: Work Plan: Deployment

Task	Skills	Purpose	Deliverable
Deploy Mobile Apps	Dev	Deploy the mobile applications to identified store fronts.	Published Applications

Open portal access to WDVA Staff	Dev	Unlock restricted permission from the WDVA TBI portal to appointed staff.	Active Portal
Public Awareness	PM	Participate or assist in public awareness campaigns, as deemed necessary by WDVA.	
Finalize Sustainment Plan	PM/ WDVA PM	Finalize any planning actions necessary to move into direct sustainment of the applications and portal.	Sustainment Plan

5.3.5 SUSTAINMENT

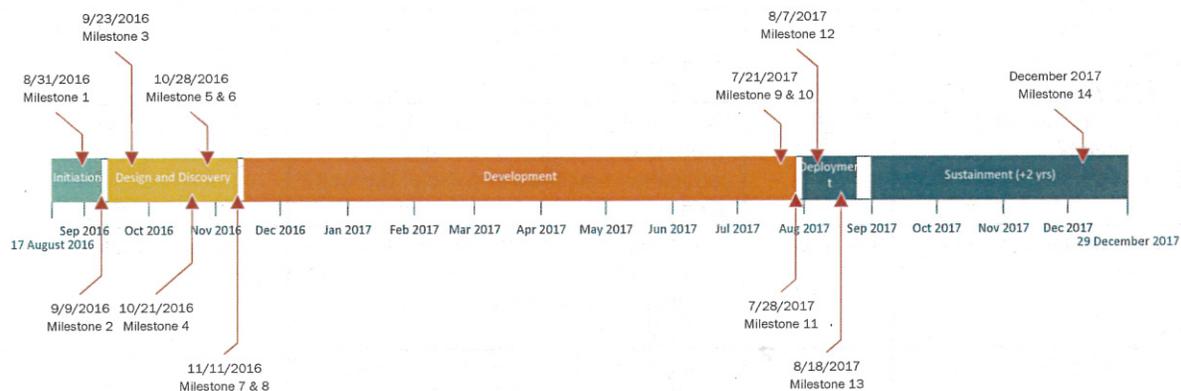
Exhibit 18: Work Plan: Sustainment

Task	Skills	Purpose	Deliverable
Track Defects/Improvements	Dev/PM	Track incoming defect reports, as well as requests for product features and improvements.	Product Backlog
Maintenance Release	Dev/PM/UX	Plan for and release the quarterly maintenance release from the approved backlog.	Quarterly maintenance release
EVCMS	Team	Full evaluation of EVCMS capabilities, with a focus on possible integration and feature updates.	Maintenance release for integration

5.4 PROJECT SCHEDULE (M/S – RFP 8.4)

This schedule takes into account primary milestones for the project, largely based on deliverables to be addressed throughout the entirety of the project. A detailed implementation work plan will be delivered within 15 days of contract award.

Exhibit 19: Project Schedule





Initiation		
Milestone 1	Competitive Analysis Complete	8/31/2016

Design and Discovery		
Milestone 2	Project Kick-Off	9/9/2016
Milestone 3	Stakeholder Workshop	9/23/2016
Milestone 4	Requirements Complete	10/21/2016
Milestone 5	Final UX Screens Ready	10/28/2016
Milestone 6	Final UI Ready	10/28/2016
Milestone 7	User Testing Complete	11/11/2016
Milestone 8	Final Cost Estimates	11/11/2016

Development		
Milestone 9	Mobile Development Complete	7/21/2017
Milestone 10	Web Portal Development Complete	7/21/2017
Milestone 11	Training Complete	7/28/2017

Deployment		
Milestone 12	Web Portal Active	8/7/2017
Milestone 13	Mobile Apps deployed	8/18/2017

Sustainment		
Milestone 14	EVCMS Support Release	Dec 17
Milestone 15	End of Sustainment	9/1/2019

5.5 OUTCOMES AND PERFORMANCE MEASUREMENT (M/S – RFP 8.5)

Performance of the mobile app will be assessed through monitoring application usage and by tracking referrals generated by the app through the website.

5.5.1 MOBILE APPLICATION USAGE

Because there is no requirement for a user to prove their status as a veteran and because there is no PII stored on the application, it is extremely difficult to validate that users are in fact military veterans. To capture some sense of user demographics at the time a profile is created, the user will be asked for specific information. In order to reduce the barriers to care, this information is not mandatory to complete the profile. The mobile app will contain a feature that will periodically ask the user if they would like to provide the following information after a predetermined usage interval:

- ◆ Veteran
- ◆ Age
- ◆ Race/Ethnicity



- ◆ Sex
- ◆ Branch of military service (Air Force, Army, Marines, Navy, Coast Guard)
- ◆ Period of military service era (Vietnam, Korea, Desert Storm, Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF))
- ◆ Residence zip code
- ◆ Type of discharge (honorable, dishonorable, general, other than honorable)
- ◆ Whether they have experienced a head injury with a loss of consciousness

Based on this self-reported data, we will strive during the first year of deployment to achieve the following Performance Measures:

- ◆ Creation of 500 profiles by users who self-identify as a veteran
- ◆ Collect 4,000 self-disclosed demographic data elements

5.5.2 MOBILE APPLICATION REFERRALS

The ultimate goal of the mobile application is to facilitate referrals to DVA Case Managers so that veterans with a TBI can receive essential services. Referrals will be tracked using the Admin Website. During the first year of deployment our goal is to achieve referrals at the following rates:

- ◆ 400 veterans will receive referrals for TBI programs and resources in their communities
- ◆ 200 veterans will be provided with direct client services

5.5.3 ANALYTICS

We will integrate an industry standard analytics package in the mobile app to track basic user data such as downloads, usage rates, most popular screens/tools, etc. This data will be provided to DVA monthly.

5.6 RISKS (M/S – RFP 8.6)

No new development effort is without risk. With *tiag*, WDVA has a partner that has performed similar efforts for federal agencies and has the success record to prove it. We have distilled our lessons learned and identified uncertainties and risks that we need to track and mitigate carefully as we move through the TBI Mobile Application development project. Our team continuously monitors risk priority throughout the project lifecycle and will make adjustments based on team input during weekly status meetings and WDVA input during project reviews. *tiag* understands the importance of managing risks to mitigate disruption of schedule, increased cost, poor performance, the need for increased WDVA oversight, and/or the likelihood of unsuccessful project performance. Accordingly, Exhibit 20 captures the top project risks, for which prioritization and proactive risk mitigation steps are already identified.



Exhibit 20: Potential Risks and Suggested Mitigations

Risk	Category						Mitigation
	Costs	Schedule	Tech. Perf.	Prob %	Impact	Risk Level	
Key Staff not available at contract award		X	X	10% Low	4 High	0.4 Low	<ul style="list-style-type: none"> tiag has already identified a project manager to support WDVA project on Day 1 of contract performance. tiag has a dedicated PMP certified Operations Director local to WDVA and dedicated to ensuring successful performance from Day 1.
Inability to adequately staff with qualified and properly-cleared/trained personnel		X	X	10% Low	4 High	0.4 Low	<ul style="list-style-type: none"> tiag has a staff of over 35 IT project management and technical resources in the local area with reachback to over 225 professionals with experience supporting enterprise projects throughout state and federal government. tiag leverages repeatable recruiting processes to develop a bench of qualified employees
Requirement instability drives unplanned changes to project baselines and introduces risk to achieving schedule milestones	X	X	X	10% Low	5 High	0.5 Low	<ul style="list-style-type: none"> tiag leverages project management approach to increase communication between WDVA business and technology stakeholders and provide several opportunities early in the process to recommend changes without affecting cost and schedule
Customers are dissatisfied with new application enhancements			X	10% Low	2 Medium	0.2 Low	<ul style="list-style-type: none"> tiag establish customer liaison program to facilitate communications and outreach tiag applies change management techniques to involve stakeholders in the decision process tiag implements a communications plan to make users part of the change process With the stakeholders, tiag conducts periodic reviews of transition progress and continued alignment with organizational goals

<p>Inadequate focus on change management results in lack of stakeholder engagement and buy in.</p>		<p>X</p>	<p>X</p>	<p>10% Low</p>	<p>3 Medium</p>	<p>0.3 Low</p>	<ul style="list-style-type: none"> • <i>tiag</i> applies formal structured organizational change management process into the overall transformation to ensure stakeholders engagement, solicit continuous feedback and ensure all parties are informed, prepared, and educated for the modernization.
<p>Dependencies on external interdependent programs result in project schedule delays.</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>10% Low</p>	<p>4 High</p>	<p>0.4 Low</p>	<ul style="list-style-type: none"> • Early focus on identifying and documenting all external dependencies ensures all are accounted for in plans, activities, and schedule. • Targeted outreach and communications initiatives ensure external stakeholders understand the case for change, the implementation plan and schedule and their roles and responsibilities in project success.
<p>New state and federal laws and regulations may impact requirements and implementation timelines.</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>10% Low</p>	<p>5 High</p>	<p>0.5 Low</p>	<ul style="list-style-type: none"> • Configurable rules-based workflows can be quickly changed to address new requirements. • Evolutionary, agile project management processes provide the flexibility for rapid response to new or changed requirements.

Given these challenges, we have carefully built a project approach based on superior technical leadership, rigorous process improvement, and a commitment to a shared risk/reward approach working in a trusted, collaborative partnership. *tiag* will partner with WDVA by providing a cooperative environment among users and key stakeholders, establishing a framework that fosters collaborative planning and joint decision-making and developing a flexible, responsive organization to meet the challenges of a dynamic environment.

5.7 DELIVERABLES (M/S – RFP 8.7)

The deliverables in the following table are provided per the directed deliverables in the RFP, as well as other project milestones that will affect and shape the outcome of this project. This list will likely grow as requirements are further defined in partnership with the WDVA. Deliverables are listed by project phase, as they will be expected artifacts required before the project is able to progress to the next phase.



Exhibit 21: Project Deliverables

Deliverable	Description	Phase Due
1	Competitive Analysis Report	Initiation
2	Project Kick-Off Meeting	Design & Discovery
3	User Stories Reviewed	Design & Discovery
4	Fully Defined and Approved Backlog	Design & Discovery
5	UX Screens for Mobile Phones	Design & Discovery
6	UI Design for Mobile Phones	Design & Discovery
7	UX Screens for Admin Portal	Design & Discovery
8	UI Design for Admin Portal	Design & Discovery
9	User Testing Results	Design & Discovery
10	Final Development Cost Estimate	Design & Discovery
11	Mobile Apps for defined platforms	Development
12	Web Portal for Administration	Development
13	Training Materials	Development
14	Deployment Plan	Development
15	Published Mobile Apps	Deployment
16	Web Portal Active	Deployment
17	Sustainment Plan	Deployment
18	Product Backlog for Sustainment	Sustainment
19	Maintenance Release	Quarterly
20	EVCMS Integration	Sustainment
21	Monthly Progress Report	All



--This page left intentionally blank--



6 PROPOSED SOLUTION COSTS

6.1 IDENTIFICATION OF COSTS (M/S – RFP 9.3)

The fully detailed pricing proposal can be found in the included Exhibit E, titled: “**TIAG RFP 2016-008 Exhibit E Solution Cost Proposal-FINAL.xlsx**.”

6.1.1 ADDITIONAL REQUIRED IDENTIFICATION OF COST (M – RFP 9.3.1)

tiag has no additional required costs to identify in support of the WDVA TBI Mobile Application.

6.1.2 SUBCONTRACTOR IDENTIFICATION OF COST (M – RFP 9.3.2)

tiag is not using any subcontractor labor, services, or products in support of the WDVA TBI Mobile Application.

6.2 OPTIONAL IDENTIFICATION OF COSTS (M – RFP 9.4)

tiag has no optional costs to identify in support of the WDVA TBI Mobile Application.

6.3 RATES (M – RFP 9.5)

Labor rates and hours expected to be used by *tiag* during contract performance have been identified on the “Budget Costs” tab of the “**TIAG RFP 2016-008 Exhibit E Solution Cost Proposal-FINAL.xlsx**” pricing document.

6.4 AWARD NO BASED ON PRICE ALONE (M – RFP 9.6)

tiag understands that award is to be based on the proposal that best meets the requirements of this RFP.

6.5 STATE SALES TAX (M – RFP 9.7)

tiag will collect and pay all required Washington State sales tax.

6.6 OMWBE COSTS (M – RFP 9.8)

N/A – *tiag* has no OMWBE costs associated with our proposal.

6.7 VETERAN OWNED BUSINESS COSTS (M – RFP 9.9)

N/A – *tiag* has no Veteran Owned Business costs associated with our proposal.

6.8 TRAVEL, HOTEL PER DIEM COSTS (M – RFP 9.10)

All travel, hotel, and per diem costs are included on the “Expenses” tab of the “**TIAG RFP 2016-008 Exhibit E Solution Cost Proposal-FINAL.xlsx**” pricing document.

tiag



--This page left intentionally blank--



7 BEST VALUE TO WDVA

7.1 BEST VALUE (M/S – RFP 10.1)

The Informatics Applications Group (*tiag*), founded on supporting the Veteran and Active Duty community, is committed to the importance of the Washington State Department of Veterans Affairs (WDVA). We are confident that *tiag* provides the best value solution of proven experience and in-depth knowledge, as well as unparalleled situational awareness across the mobile mental health application spectrum, to implement and enhance WDVA's TBI Mobile Application and its impact on Veterans and their families in the State of Washington. *tiag* understands this TBI Mobile Application solicitation signals a necessary step on the path to furthering access and support to mental health resources to the Veteran population of Washington.

The Informatics Applications Group, Inc. (*tiag*) specializes in improving access to mental health resources and tools in a mobile form-factor within the state and federal government. As a pioneer within Federal Health IT, mobile application development, and human factor design, *tiag* has significant experience and expertise refined from directly supporting significant programs that include: The National Center for Telehealth and Technology (T2) Technology Program Management and Usability Lab, VA Open Source Electronic Health Record Alliance (OSHERA), and the Uniformed Services University of the Health Sciences (USUHS). *tiag*'s innovation has resulted in several major "state-changing" initiatives in the Federal, DoD, and VA listed below:

- ✓ Developing PTSD coach, a mobile app that features state-of-the-science cognitive behavioral techniques to promote self-management of Post-Traumatic Stress Disorder (PTSD) symptoms. PTSD coach was awarded the Federal Communication Commission Chairman's AAA award (2011), the American Telemedicine Association President's Award for Innovation and named the best federal government app by NextGov.com.
- ✓ Development and sustainment of the US Army Warrior Transition Command (WTC) Army Warrior Care & Transition System (AWCTS), a modular web-based application that tracks the care and progress of Wounded, Ill, and Injured Soldiers as they prepare to return to duty or transition to civilian life, significantly reducing the number of individuals who fall through the cracks.
- ✓ Establishment of OSEHRA, the central governing body of an open source community designed to unleash innovation in electronic health record software. OSEHRA's mission is to facilitate, using of the best practices in open source software development, the improvement and maintenance of EHR information systems.
- ✓ Leadership and expertise in the development of the Defense Health Agency (DHA) Joint Medical Architecture, a project that took three years and involved both DHA, VA, and multiple contractors working for DHA and the military services.

Leveraging this experience, our approach to addressing WDVA's TBI Mobile App requirements is to integrate a cross-functional team of psychological health SMEs, mobile and web developers, and UX/human factor design specialists to work in partnership with WDVA to refine the design and deployment of the WDVA TBI Mobile App. Our team utilizes the agile-based methodology, refined over the last 5 years developing TBI apps for T2, to iterative design, develop, and test WDVA's TBI Mobile App. Throughout the process, our team will interject standards and industry best practices into each phase of the development process. Specifically, we will:



- ✓ Deliver the technical expertise and innovative approaches around mobile application program & project management, development, and human-factors design proven at the National Center for Telehealth and Technology (T2) to streamline and standardize WDVA TBI Mobile App development and maintenance support.
- ✓ Integrate proven industry best-practices from current operations of a DoD TBI and PTSD Health Usability Lab.
- ✓ Leverage our considerable expertise and situational awareness from over 5 years' architecture and sustainment support of health related mobile applications to ensure increased adoption and usage throughout Washington State.
- ✓ Utilize our knowledge of the EVCMS, through of Project Management Support, to ensure seamlessly integration between the TBI Mobile Applications and EVCMS.

Our Project Approach/Methodology reflects a clear understanding of the technical engineering and clinical expertise to drive requirements analysis, usability design, development, and fielding of the TBI Mobile App. The results of this approach are outcomes focused on iteratively delivering additional functionality with integrated testing throughout the process to streamline the development lifecycle, increasing WDVA's return on investment and ensuring delivered functionality aligns with WDVA TBI Mobile App requirements. Our collaborative project management approach, directly relevant corporate experience, proven staff, and directly relevant Past Performance showcase *tiag's* ability to meet and exceed the objectives of the RFP.

tiag offers the following specific advantages to ensure WDVA's TBI Mobile Application Development future success and reduce development and implementation risks –

- ✓ Our demonstrated experience delivering end-to-end TBI-related mobile applications in support of the National Center for Telehealth and Technology provides WDVA with unparalleled access to years of experience and connections to provide strategic insights to design, develop, and implement a TBI Mobile Application focused on Washington State Veterans.
- ✓ *tiag* has successfully integrated human-factors engineering and usability research into mobile application development to deliver and standardize processes throughout the mobile application lifecycle, reducing development risks and increasing rapid user adoption.

tiag's approach is innovative and the low risk and best value option for WDVA. *tiag* will leverage our collective knowledge and skills of applying proven mobile development methodologies, coupled with our applied knowledge of human-factor design and psychological health processes to deliver quality and value, taking WDVA to the next level of support for our Veterans and their families.



Appendix A. SAMPLE PROJECT STATUS REPORT TEMPLATE



WDVA TBI Mobile App

Contract No.

WEEKLY STATUS REPORT

--This page left intentionally blank--

Date

Prepared for
Washington State Department of Veterans Affairs
1107 Quince Street Southeast
Olympia, WA 98504

Prepared by
Weg, Inc.
11911 Rockwood Drive, Suite 1100
Reston, VA 20190

Appendix A. SAMPLE PROJECT STATUS REPORT
TEMPLATE



WDVA TBI Mobile App

Contract No.

WEEKLY STATUS REPORT

Date

Prepared for:

Washington State Department of Veterans Affairs

1102 Quince Street Southeast

Olympia, WA 98504

Prepared by:

tiag, Inc.

11911 Freedom Drive, Suite 1180

Reston, VA 20190



TABLE OF CONTENTS

1.0	Status	3
1.1	<i>Work in Progress (Last 30 Days)</i>	3
1.1.1	General Activities	3
1.1.2	Product Development Activities (Sprint Status)	3
1.1.3	Current Reporting Period Deliverables	3
1.2	<i>Activities/Plans for Next Week</i>	3
1.2.1	General Activities	3
1.2.2	Product Development Activities (Sprint Goals)	3
2.0	Issues Encountered (During the Reporting Period) and Suggested Solutions	3
3.0	Risks Discovered (During the Reporting Period) and Suggested Mitigation Strategy	3
4.0	High-Level Schedule/Milestones	3
5.0	Burn Down Chart (Development Phase)	3
6.0	Ticket Report (Sustainment Phase)	3



1.0 STATUS

1.1 WORK IN PROGRESS (LAST 30 DAYS)

1.1.1 GENERAL ACTIVITIES

1.1.2 PRODUCT DEVELOPMENT ACTIVITIES (SPRINT STATUS)

1.1.3 CURRENT REPORTING PERIOD DELIVERABLES

Del #	Deliverable Title

1.2 ACTIVITIES/PLANS FOR NEXT WEEK

1.2.1 GENERAL ACTIVITIES

1.2.2 PRODUCT DEVELOPMENT ACTIVITIES (SPRINT GOALS)

2.0 ISSUES ENCOUNTERED (DURING THE REPORTING PERIOD) AND SUGGESTED SOLUTIONS

- Includes link to Issue Register

3.0 RISKS DISCOVERED (DURING THE REPORTING PERIOD) AND SUGGESTED MITIGATION STRATEGY

- Includes link to Risk Register

4.0 HIGH-LEVEL SCHEDULE/MILESTONES

5.0 BURN DOWN CHART (DEVELOPMENT PHASE)

6.0 TICKET REPORT (SUSTAINMENT PHASE)



Appendix B EXHIBIT F – IT SECURITY PROPOSAL

You are included the completed IT Security Proposal using Exhibit F as a separate document attached to this proposal titled "ITAC RFP 2016-08 EXHIBIT F IT Security Checklist- FINAL.xlsx"

--This page left intentionally blank--



Appendix B. EXHIBIT F – IT SECURITY PROPOSAL

tiag has included the completed IT Security Proposal using Exhibit F as a separate document attached to this proposal titled: “**TIAG RFP 2016-008 Exhibit F IT Security Checklist-FINAL.xlsx.**”

Exhibit F - IT Security Checklist

Introduction

To protect IT assets and data in an effective manner, the WDVA must identify necessary security controls in the planning phase of new development and maintenance efforts. These security controls must be accounted for in project budgets and schedules. This is accomplished by planning early for the type and sensitivity of data involved, the profiles of allowed users, and the architecture of the application and IT infrastructure.

Purpose

This IT Security Checklist provides a structured and uniform method to help the WDVA business and technical leaders:

1. Understand the vendors architecture needed to comply with the IT security standards based on the system's data, users and architecture.
2. Finalize the cost, resource, and schedule estimates of the security controls for inclusion in agency budgets and schedules.
3. Anticipate the user's experience to obtain security credentials and access the system.
4. Conduct a management discussion on the above to optimize system value, cost, security, and the user experience.
5. A simple "Yes" and "No" answer is not an appropriate response. Must explain why it is a Yes, No, or N/A.

Using the IT Security Checklist

The IT Security Checklist is to be completed by Vendor's technical groups to assist the WDVA IT security staff. Vendors are required to answer the following questions by certifying that they meet the requirements or provide detailed information so the WDVA can ascertain the Vendors security abilities as it relates to the state of Washington requirements.

Personnel Security

These Personnel Security controls are designed to reduce risks of human error, theft, fraud, or misuse of facilities. They help agencies ensure that users are aware of information security threats and are equipped to support the OCIO security policy in the course of their normal work.

Yes/No/N/A/Explain Answers

Provide IT security orientation and supervision of employees and monitor contractors who have access to agency IT Assets.

Yes - All tiag personnel undergo IT Security Awareness Training as part of their onboarding process. Our team will also complete any WDVA specific training required.

Ensure that appropriate staff conduct is achieved and maintained related to security matters.

Yes - All tiag personnel undergo IT Security Awareness Training as part of their onboarding process. Our team will maintain appropriate security compliance throughout their support of WDVA..

Conduct reference checks and background investigations as required by the agency IT security program and authorized by the agency.

Yes - All tiag personnel receive a background check/investigation before being hired. Many of our resources also possess DoD Security Clearances.

Require employees to receive appropriate awareness training and regular updates on agency and OCIO IT Security Policies and standards as described in Section 1.4.

Yes - tiag will complete all required awareness training to complement existing training already received.

Provide opportunities for IT Security support staff to obtain technical training.

Yes - tiag has a Professional Development Program to allow existing employees to obtain additional technical training.

Impose appropriate sanctions for security violations.

Yes - tiag takes security violations extremely serious and has a handbook policy to handle sanctions in the event of a violation.

Establish processes for the timely removal of system access for employees and contractors when duties change or when separating from service.

Yes - tiag maintains a documented process for out-processing personnel when leaving a contract or the company.

Include appropriate language in vendor contracts to require compliance with OCIO and agency security policies, standards, and requirements.

Yes - tiag agrees to all OCIO and WDVA security policies, standards, and requirements.

Require employees and contractors to comply with these IT security standards and agency IT policies and procedures. Each user should be made clearly aware of this responsibility.

Yes - Each tiag project member will be educated on the OCIO and WDVA security policies, standards, and requirements applicable to this contract.

Identify, document, and implement rules for the acceptable use of IT assets consistent with rules provided by the Washington State Executive Ethics Board.

Yes - tiag will adopt WDVA rules on acceptable use of IT assets in support of this effort.

Physical and Environmental Protection

Are there Controls related to physical access to systems as well as safeguards against threats to the environment in which the system operates? If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.

Yes/No/N/A/Explain Answers

Location and layout of the facility.

Yes - The server-side solution will be hosted in an accredited/certified commercial cloud provided. Specific cloud service is TBD based on contract award and final agreed upon design solution.

Physical security attributes for computer or telecommunications rooms.

TBD based on contract award and final agreed upon design solution.

Design and enforcement of physical protection and guidelines for working in secure areas.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

Facility access control.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

Physical data storage and telecommunications controls.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

Off-site media storage.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

Physical security controls for mobile devices.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

TBD based on contract award and final agreed upon design solution. tiag will adopt the attributes in place and certified by the commercial cloud provider.

As it relates to Vendor Facilities

Are the requirements in this section currently satisfied for this project?

TBD based on contract award and final agreed upon design solution. tiag will not be directing hosting any services and will utilize commercial services.

If not, describe additional controls and estimates.

Data Security

Are there controls related to the inherent value of the type data handled by a system, and its potential for harm if compromised. If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.

Yes/No/N/A/Explain Answers

N/A - No PHI, PII or other protected data will be stored in the system. Administrative access will be controlled via account and access controls established by WDVA, for selected/approved WDVA users.

Category 4 – Confidential with special handling; Confidential information requiring special handling is information that is specifically protected from disclosure by law and for which:

a. Especially strict handling requirements are dictated, such as by statutes, regulations, or agreements.

N/A - No category 4 data will be stored within the system.

b. Serious consequences could arise from unauthorized disclosure, such as threats to health and safety, or legal sanctions.

N/A - No category 4 data will be stored within the system.

Are the requirements in this section currently satisfied for this project? Please describe how.

N/A - No category 4 data will be stored within the system.

If not, describe additional controls and estimates.

As it relates to Data Sharing

Agencies must ensure that sharing data with the public at large complies with the OCIO Public Records Privacy Protection Policy and other applicable statutes or regulations. Do your data sharing agreements include the following information:

The data that will be shared.

Yes - In accordance with WDVA policy and approval.

The specific authority for sharing the data.

TBD based on contract award and final agreed upon design solution.

The classification of the data shared.

TBD based on contract award and final agreed upon design solution.

Access methods for the shared data.

TBD based on contract award and final agreed upon design solution.

Authorized users and operations permitted.

Yes - Access to administrative users will be via web portal with username and password.

Protection of the data in transport and at rest.

TBD based on contract award and final agreed upon design solution.

Storage and disposal of data no longer required.

TBD based on contract award and final agreed upon design solution.

Backup requirements for the data if applicable.

TBD based on contract award and final agreed upon design solution.

Other applicable data handling requirements.

TBD based on contract award and final agreed upon design solution.

As it relates to Secure Management and Encryption of Data

Are the requirements in this section currently satisfied for this project? Please describe how.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it Relates to Secure Data Transfer

Agencies must appropriately protect information transmitted electronically. The transmission of Category 3 and above information outside of the SGN requires encryption such that:

All manipulations or transmissions of data during the exchange are secure.

If intercepted during transmission the data cannot be deciphered.

When necessary, confirmation is received when the intended recipient receives the data.

Agencies must use industry standard algorithms, or cryptographic modules validated by the National Institute of Standards and Technology (NIST).

For agencies not on the SGN, this standard applies when transmitting Category 3 and above information outside of the agency's secure network.

N/A - The system will not contain any Category 3 data.

N/A - The system will not contain any Category 3 data.

N/A - The system will not contain any Category 3 data.

N/A - The system will not contain any Category 3 data.

N/A - The system will not contain any Category 3 data.

N/A - The system will not contain any Category 3 data.

Are the requirements in this section currently satisfied for this project? Please describe how.

If not, describe additional controls and estimates.

Network Security

Are there controls related to the system/applications specific connection to the network. If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.

Yes/No/N/A/Explain Answers

TBD based on contract award and final agreed upon design solution. tiag will inherit the network security controls of the cloud provider and will meet WDVA network security policies to enable any network connections required, such as integration with EVCMS.

As it relates to Secure Segmentation

Define and implement logical boundaries to segment networks as determined by system risk and data classification.

TBD based on contract award and final agreed upon design solution.

Enforce controls to protect segments and individual assets within each segment.

TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project? Please describe how.

Yes - Pending contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it relates to Network Devices

Securely segment Internet-available systems from internal networks.

N/A - No network devices will be added to the WDVA internal network.

Disable unnecessary functionality such as scripts, drivers, features, subsystems, file systems and services.

N/A - No network devices will be added to the WDVA internal network.

Harden devices based on industry best practice such as NIST, SANS, and vendor configuration standards.	N/A - No network devices will be added to the WDVA internal network.
Change default or initial passwords upon installation.	N/A - No network devices will be added to the WDVA internal network.
Display banner text conveying appropriate use at system entry points and at access points where initial user logon occurs.	N/A - No network devices will be added to the WDVA internal network.
Disable remote communications where no business need exists.	N/A - No network devices will be added to the WDVA internal network.
Standardize and document the device configurations deployed.	N/A - No network devices will be added to the WDVA internal network.
Document deviations from device configuration standards along with the approval.	N/A - No network devices will be added to the WDVA internal network.
Mask internal addresses from exposure on the Internet as necessitated by the risk and complexity of the system.	N/A - No network devices will be added to the WDVA internal network.
Implement controls to prevent unauthorized computer connections and information flows through methods such as:	
a. Authentication of routing protocols.	
b. Ingress filtering at network edge locations.	
c. Internal route filtering.	
d. Routing protocols are enabled only on necessary interfaces.	N/A - No network devices will be added to the WDVA internal network.
e. Restrict routing updates on access ports.	
f. Secure or disable physical network connections in public areas.	
Are the requirements in this section currently satisfied for this project? Please describe how.	
If not, describe additional controls and estimates.	
<i>As it relates to Firewalls</i>	
Securely segment DMZ interfaces, where utilized, from interfaces connected directly to the internal network.	TBD based on contract award and final agreed upon design solution.
Configure network firewalls protecting production systems to:	
a. Allow system administration only through secure encrypted protocols.	
b. Prevent access by unauthorized source IP addresses or subnets.	
c. Block ingress of internal addresses from an external interface into the DMZ or internal interface.	
d. Block services, protocols, and ports not specifically allowed.	
e. Allow only necessary egress communications from the internal network to the DMZ, Internet, wireless networks and SGN.	TBD based on contract award and final agreed upon design solution.
f. Allow only necessary ingress communications to the internal network from the DMZ, Internet, wireless networks and SGN.	
g. Maintain comprehensive audit trails.	
h. Fail in a closed state if failure occurs.	
i. Operate boundary/perimeter firewalls on a platform specifically dedicated to firewalls.	
Document services, ports and protocols allowed through firewalls, with supporting business purposes, in the agency IT security program.	TBD based on contract award and final agreed upon design solution.
Review configurations annually.	TBD based on contract award and final agreed upon design solution.
Are the requirements in this section currently satisfied for this project? Please describe how.	Yes - Pending contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Device Administration</i>	
Use authentication processes and mechanisms commensurate with the level of risk associated with the network segment or device.	Yes - Usernames and password works will be required for administrative access to the server-side component of the application.
Encrypt non-console administrative access using technologies such as Secure Shell (SSH), Virtual Private Network (VPN), or Secure Sockets Layer (SSL)/ Transport Layer Security (TLS) for Web-based management and other non-console administrative access.	Yes - All administrative access will be conducted through SSL/TLS for web-based management.
Are the requirements in this section currently satisfied for this project? Please describe how.	Yes - Pending contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Restricted Services</i>	
Dial-in and dial-out workstation modems.	N/A - Modems not applicable to the solution.
Peer-to-peer sharing applications.	N/A - Peer-to-peer sharing not used as part of the solution.
Tunneling software designed to bypass firewalls and security controls.	TBD based on contract award and final agreed upon design solution.
Auto-launching applications such as U3 that execute from a mobile device and do not require installation on a host system.	N/A - No auto-launch required.
Publicly managed e-mail, chat services, and video.	TBD based on contract award and final agreed upon design solution.
Products that provide remote control of IT assets.	N/A - Remote control of IT assets no part of the solution.
Information systems audit tools.	TBD based on contract award and final agreed upon design solution.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to External Connections</i>	
Prohibit direct public access between external networks and internal systems.	Yes - Server-side application will be host in a commercial cloud provider.
Connect agency networks to the SGN through a CTS-managed security layer.	N/A - Based on current requirements, connection to agency network and/or SGN is not required.
Connect internal networks to external networks through a CTS-managed or CTS-approved security layer. The CTS-managed security layer is defined as firewalls, proxy servers and security gateways.	N/A - Based on current requirements, internal networks to external networks connections is not required.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it relates to Wireless Connections

The agency IT Security Program addresses the use of wireless technologies including but not limited to:

a. 802.11

b. Bluetooth

Wireless devices that extend their Local Area Networks (LANs):

a. Securely segment wireless access point connections from the agency network and the SGN.

b. Use WPA or its successor for authentication and encryption. Use WPA2 Enterprise on all new equipment purchased and existing equipment that supports the protocol.

c. Change wireless vendor defaults including but not limited to pre-shared keys and passwords.

d. Disable Simple Network Management Protocol (SNMP) unless there is a clear business need. If enabled, change the vendor defaults.

e. Follow wireless access security practices developed within the agency.

f. Continuously monitor for rogue wireless devices.

Wireless devices that do not extend the agency's local area network or connect to the SGN:

a. Securely segment wireless access point connections from the Internet.

b. Use authentication and encryption appropriate for the environment.

c. Change wireless vendor defaults including but not limited to pre-shared keys and passwords.

d. Disable Simple Network Management Protocol (SNMP) unless there is a clear business need. If enabled, change the vendor defaults.

e. Follow wireless access security practices developed within the agency.

f. Monitor for rogue wireless devices as defined in the agency security program.

Open or public access wireless environments do not share assets or traverse infrastructure components that connect to the agency network or SGN unless wireless traffic is securely segmented, encapsulated or tunneled over shared infrastructure.

Are the requirements in this section currently satisfied for this project? Please describe how.

N/A - tiag's solution will not impact or modify WDVA's wireless technologies.

N/A - tiag's solution will not impact or modify WDVA's wireless technologies.

N/A - tiag's solution will not impact or modify WDVA's wireless technologies.

N/A - tiag's solution will not impact or modify WDVA's wireless technologies.

N/A - tiag's solution will not impact or modify WDVA's wireless technologies.

If not, describe additional controls and estimates.

As it relates to Security Patch Management

Identification of the responsibilities required for patch management.

Identification of the authorized software and information systems deployed in the production environment.

Timely notification of patch availability.

A method of categorizing the criticality of patches in route or on delivery.

Testing procedures, when required, before deployment into production environments.

Time-specific criteria for deploying patches as soon as reasonably possible after notification, including criteria for zero-day patches.

Regular verification that available patches are managed according to the agency patch management process.

A requirement for current patches on agency or non-agency remotely attached devices.

A requirement for current patches on agency or non-agency devices attached to agency networks, whether on agency local area networks or wireless networks.

Restrict access from devices that do not conform to the agency patch management policy.

Are the requirements in this section currently satisfied for this project? Please describe how.

Yes - tiag will provide active patching support the server-side and mobile application.

Yes - tiag will provide a complete inventory of all utilized software in support of this effort.

Yes - tiag will notify WDVA within 24 hours of patch availability.

Yes - tiag will utilize the Federal Government's classification of patches to prioritize and track patches in route or on delivery.

Yes - tiag has provided a change management process which will control the testing and approval of patches before deployment into production.

TBD - An agreed upon schedule and process with WDVA will be provided after contract award.

Yes - As part of our maintenance and change management processes, tiag will regularly verify available patches.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it relates to System Vulnerabilities

Establish a process to identify newly discovered security vulnerabilities such as subscribing to alert services freely available on the Internet.

Use processes that manage the installation and modification of system configuration settings.

Harden systems before deployment using hardening standards that meet or exceed current best practices and manufacturer recommendations at the time of system deployment and throughout the lifecycle.

Are the requirements in this section currently satisfied for this project? Please describe how.

Yes - tiag is subscribed to Federal and DoD alerts of vulnerabilities.

Yes - tiag has an established configuration and change management process that will be used to manage the installation and modification of system configuration settings.

Yes - tiag will utilize the FDCC and/or WaTech gold image as a hardened baseline for all deployed applications (server and mobile apps).

Yes - Processes in place to handle all system vulnerability requirements.

If not, describe additional controls and estimates.

As it relates to Malicious Software Protection

Use anti-malware protection.

Address malware prevention, detection, and removal.

Keep malware protection current when connecting devices to the agency network or the SGN.

Ensure that file transfers, e-mail, and Web browser-based traffic are examined for known viruses.

Implement detection, prevention, and recovery controls to protect against malicious code.

Integrate malicious software detection reporting with the Washington Computer Incident Response Center (WACIRC) incident reporting processes.

Are the requirements in this section currently satisfied for this project? Please describe how.

Yes - The server-side applications will run a Malicious Software Protection in test/dev and production.

Yes - tiag has a documented process to respond and address detected malware.

Yes - Malware protection will be updated daily.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

<p><i>As it relates to Mobile Computing</i></p> <p>Approve and document the use of category 3 data or above on mobile devices.</p>	N/A - No category 3 or above data will be stored on the mobile devices.
<p>Encrypt Category 3 data or above on mobile devices using industry standard algorithms or cryptographic modules validated by the National Institute of Standards and Technology (NIST).</p>	N/A - No category 3 or above data will be stored on the mobile devices.
<p>Implement policies and procedures that address the use of portable data storage devices.</p>	N/A - No category 3 or above data will be stored on the mobile devices.
<p>Are the requirements in this section currently satisfied for this project? Please describe how.</p>	N/A - No category 3 or above data will be stored on the mobile devices.
<p>If not, describe additional controls and estimates.</p>	
<p>Access Security</p> <p>Are there controls related to user account management and logical access controls. If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.</p>	<p>Yes/No/N/A/Explain Answers</p> <p>Yes - Usernames and passwords will be utilized to control access to the administrative web portal.</p>
<p><i>As it relates to Access Management</i></p> <p><i>As it relates to Policies</i></p> <p>To ensure proper access controls that conform to the principle of least privilege agencies must:</p> <p>Implement policies and procedures that address access security controls for mainframe, client/server, wireless LANs, and stand-alone workstation-based systems that are consistent with the agency's classification of the data processed.</p> <p>Restrict access to data, application, and system functions by users and support personnel in accordance with the agency defined access control policy.</p> <p>Authentication and authorization controls must be appropriately robust for the risk of the application or systems to prevent unauthorized access to IT assets.</p> <p>Manage and group systems, data, and users into security domains and establish appropriate access requirements within and between each security domain.</p> <p>Implement appropriate technological controls to meet access requirements consistently.</p>	<p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p> <p>Yes - TBD pending contract award and final agreed upon design solution.</p>
<p>Restrict the use of programs or utilities capable of overriding system and application controls.</p>	Yes - TBD pending contract award and final agreed upon design solution.
<p>Implement policies and procedures for identity proofing individuals.</p>	Yes - TBD pending contract award and final agreed upon design solution.
<p>Are the requirements in this section currently satisfied for this project? Please describe how.</p>	TBD based on contract award and final agreed upon design solution.
<p>If not, describe additional controls and estimates.</p>	
<p><i>As it relates to Accounts</i></p> <p>Establish a formal procedure for issuance, management and maintenance of UserIDs and passwords.</p>	<p>Yes - Administrative Account access process will conform to internal WDVA admin account request process.</p> <p>Yes - Granting and revoking access will conform to the existing WDVA account registration and de-registration process.</p> <p>Yes - tiag will design the system to only allow unique users based on username and email address.</p> <p>Yes - Each account will be assigned a role, as agreed upon with WDVA, limiting their access to only the appropriate level of data.</p> <p>Yes - As part of the existing "out-processing" procedures at WDVA, access rights will be removed upon suspected compromise, termination, or change in status.</p> <p>Yes - Server side application will be designed to control the addition, deletion and modification of user IDs and credentials.</p> <p>N/A - Only WDVA administrators will have access to the server-side administrative components.</p> <p>Yes - Existing of username will be validated before performing self-service password resets.</p> <p>Yes - 1-time use passwords will be provided upon password resets and/or creation of a new account.</p>
<p>Establish formal user registration and de-registration procedures for granting and revoking access to information systems and services.</p>	Yes - Granting and revoking access will conform to the existing WDVA account registration and de-registration process.
<p>Identify users with a unique identifier, for their individual use only, before allowing them to access components, systems, networks, or data.</p>	Yes - tiag will design the system to only allow unique users based on username and email address.
<p>Ensure that accounts are assigned access only to the services that they have been specifically authorized to use.</p>	Yes - Each account will be assigned a role, as agreed upon with WDVA, limiting their access to only the appropriate level of data.
<p>Ensure the access rights of users to information and information processing facilities are removed upon suspected compromise, termination of their employment or contract, or are adjusted upon change in status.</p>	Yes - As part of the existing "out-processing" procedures at WDVA, access rights will be removed upon suspected compromise, termination, or change in status.
<p>Control the addition, deletion, and modification of user IDs, credentials, and other identifier objects.</p>	Yes - Server side application will be designed to control the addition, deletion and modification of user IDs and credentials.
<p>Implement mechanisms to restrict and control the use of privileges.</p>	N/A - Only WDVA administrators will have access to the server-side administrative components.
<p>Verify user identity before performing password resets.</p>	Yes - Existing of username will be validated before performing self-service password resets.
<p>Set first-time passwords to a unique value per user that must be changed immediately after first use.</p>	Yes - 1-time use passwords will be provided upon password resets and/or creation of a new account.
<p>Use time of day, and day of week restrictions as appropriate.</p>	TBD based on contract award and final agreed upon design solution.
<p>Enable accounts used by vendors for remote maintenance only during the time needed.</p>	TBD based on contract award and final agreed upon design solution.
<p>Prohibit the use of group, shared, or generic UserIDs/passwords.</p>	Yes - Every account will be required to be registered and validated to a single user and email address.
<p>Establish a maximum of five incorrect login attempts and lock the account for a minimum of 15 minutes or until reset by an administrator.</p>	Yes - Accounts will lockout after 5 attempts at which point a password reset will be required.
<p>Are the requirements in this section currently satisfied for this project? Please describe how.</p>	TBD based on contract award and final agreed upon design solution.
<p>If not, describe additional controls and estimates.</p>	
<p><i>As it relates to Password Requirements</i></p> <p>Administration of password rules must be technically or procedurally enforced.</p>	<p>Yes - tiag will design and implement the system to meet OCIO and WDVA password rules.</p> <p>N/A - WDVA TBI App will not contain Category 3 data.</p> <p>Yes - tiag will design and implement the system to meet OCIO and WDVA password rules.</p>
<p>UserID/password combinations are Category 3 data and must be protected.</p>	N/A - WDVA TBI App will not contain Category 3 data.
<p>Individuals are prohibited from submitting a new password that is the same as any of the last four passwords used by the individual.</p>	Yes - tiag will design and implement the system to meet OCIO and WDVA password rules.
<p>Passwords used for External Authentication Types outlined under section 6.3.1 must:</p>	
<p>a. Be a minimum of 10 characters long and contain at least three of the following character classes: uppercase letters, lowercase letters, numerals, special characters.</p>	
<p>b. Not contain the user's name, UserID or any form of their full name.</p>	
<p>c. Not consist of a single complete dictionary word, but can include a passphrase.</p>	
<p>d. Be significantly different from the previous four passwords. Passwords that increment (Password1, Password2, Password3 ...) are not considered significantly different.</p>	Yes - tiag will design and implement the system to meet OCIO and WDVA password rules.

Passwords used for Internal Authentication Types outlined under section 6.3.2 must:

- a. Be a minimum of 8 characters long and contain at least three of the following character classes: uppercase letters, lowercase letters, numerals, special characters.
- b. Not contain the user's name, UserID or any form of their full name.
- c. Not consist of a single complete dictionary word, but can include a passphrase.
- d. Be significantly different from the previous four passwords. Passwords that increment (Password1, Password2, Password3 ...) are not considered significantly different.

Yes - tiag will design and implement the system to meet OCIO and WDVA password rules.

PIN codes used in multi-factor authentication schemes must:

- a. Be a minimum of five digits in length.
- b. Not be comprised of all the same digit. PINs consisting of 11111, 22222 are not acceptable.
- c. Not contain more than a three consecutive digit run. PINs consisting of 12347, 98761 are not acceptable.

TBD based on contract award and final agreed upon design solution.

Pass codes used to secure mobile devices must:

- a. Be a minimum of six alpha numeric characters.
- b. Contain at least three unique character classes. Pass codes consisting of 11111a, aaaa4, are not acceptable.
- c. Not contain more than a three consecutive character run. Pass codes consisting of 12345a, abcde1 are not acceptable.
- d. Render the device unusable after 10 failed login attempts.

TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project? Please describe how.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it relates to Authentication

Describe the level of authentication required, the anticipated user experience and the impact on customer convenience, and system users.

The administrative web portal will utilize usernames and passwords for authentication. The authentication requirements on the public mobile app, if any, are TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project?

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

Declare the Authentication Type(s) used by answering below

Yes/No/N/A/Comments

Type 4 - External

Access to category 4 information requires multi-factor authentication via the Secure Access® Washington or Transact™ Washington infrastructure (OCIO Identity Management User Authentication Standards 7/10/2008) with the following controls:

N/A - The WDVA TBI System will not have Category 4 data in it.

As it relates to Remote Access

Implement policies and procedures for remote access that mitigate the threat or risk posed by users or devices authorized to connect remotely to the agency network or the SGN including but not limited to:

- a. Monitoring practices for remote access sessions.
 - b. Requirements for remote access devices.
 - c. Remote access session controls that conform to the principle of least privilege.
- Ensure mitigation is not susceptible to end-user modification.

N/A - Access to the WDVA network and/or SGN is not required at this time.

Prohibit the use of dial-up unless there is no other way to satisfy a business need. Dial-up access, if used, must be approved by management and documented in the Agency IT Security Program.

N/A - Access to the WDVA network and/or SGN is not required at this time.

Use industry standard protocols for remote access solutions.

N/A - Access to the WDVA network and/or SGN is not required at this time.

Use the state's common remote access services such as IPSec or SSL VPN when remotely accessing agency resources and services on the SGN. Ensure remote access solutions prompt for re-authentication or perform automated session termination after 30 minutes of inactivity.

Yes - tiag will leverage secure RDP or other industry standard protocol for remote access to the development, test, and production servers.

Ensure that agency operated remote access solutions, not connected to the agency network or the SGN, use equivalent technologies that require multi-factor authentication and include documentation of the configuration in the agency IT Security Program.

N/A - Access to the WDVA network and/or SGN is not required at this time.

Are the requirements in this section currently satisfied for this project?

Yes - Termination of inactive sessions will be enabled.

N/A - Access to the WDVA network and/or SGN is not required at this time.

If not, describe additional controls and estimates.

TBD based on contract award and final agreed upon design solution.

Requires two-factor authentication using hardware or software tokens or digital certificates.

TBD based on contract award and final agreed upon design solution.

Requires that the individual prove through a secure, encrypted authentication protocol that the individual controls the token by first unlocking the token with a password, PIN or biometric and in a secure authentication protocol to establish two factors of authentication using a hardware or software token or digital certificate.

TBD based on contract award and final agreed upon design solution.

Application Security

Yes/No/N/A/Explain Answers

Are there controls related to the design, development, deployment, and ongoing maintenance of applications. If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.

TBD based on contract award and final agreed upon design solution.

As it relates to Planning and Analysis

Ensure applications provide for data input validation to ensure the data is correct and appropriate and cannot be used to compromise security of the application, IT infrastructure, or data.

Yes - Data validation will be built into the server and mobile application.

Procedures are in place to manage the installation of software on operational systems including but not limited to servers and workstations.

Yes - All servers are controlled by our Configuration Change Management process.

Access to program source code is restricted to only those individuals whose job requires such access.

Yes - All source code will be stored in GIT repository accessible to only required resources.

Include specific requirements in contracts for outsourced software development to protect the integrity and confidentiality of application source code.

N/A - No software development will be outsourced outside of tiag.

Implementation of changes will be managed by the use of formal change management procedures.	Yes - Formal Change Management process documented and will be agreed upon with WDVA.
Appropriate access and security controls; audit trails; and logs for data entry and data processing.	Yes - tiag will leverage the WaTech and NIST baselines for a secure/compliance server configuration.
Requirements for appropriate data protection.	TBD based on contract award and final agreed upon design solution.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Application Development</i>	
Separate development, test, and production environments.	Yes - tiag will maintain a separate development, test, and production environment within a commercial cloud provider.
Implement separation of duties or other security controls between development, test and production environments. The controls must reduce the risk of unauthorized activity or changes to production systems or data including but not limited to the data accessible by a single individual.	Yes - tiag has an organizational structure that separates these duties.
Production data used for development testing must not compromise privacy or confidentiality. Prohibit the use of Category 3 data or higher in development environments unless specifically authorized by the IT security program. Production data in any environment must meet or exceed the level of protection required by its data classification.	N/A - No category 3 or higher will be in the production in environment.
Removal of test data and accounts before production systems become live.	Yes - Part of our standard "promotion" process.
Removal of custom application accounts, usernames, and passwords from production environments before applications become active or are released to customers.	Yes - Part of the deployment/fielding process.
Review of custom code prior to release to production or customers to identify potential coding vulnerabilities as described in Section 7.4 Vulnerability Prevention.	Yes - All code will be scanned by automated vulnerability scanning tools to identify any known vulnerabilities.
Appropriate placement of data and applications in the IT infrastructure based on the risk and complexity of the system.	Yes - The system will be designed with each "tier" (e.g. Web Server, Database Server, etc.) on a separate virtual server.
Use of appropriate authentication levels.	Yes - tiag will meet WaTech/WDVA authentication level requirements for the category of data being stored.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Application Maintenance</i>	
Review and test system changes to ensure there are no adverse impacts on agency operations or security.	Yes - System changes will go through testing in the segmented environment before promotion to production. Back-out plans will accompany any release promotion to production.
Obtain timely information about technical vulnerabilities of information systems being used, evaluate the agency's exposure to such vulnerabilities, and take appropriate measures to address the associated risk.	Yes - tiag receives vulnerability notifications from federal government sources with recommended measures to address the vulnerabilities.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Vulnerability Prevention</i>	
Develop software and applications based on secure coding guidelines. An example is the Open Web Application Security Project guidelines. See www.owasp.org - "The Ten Most Critical Web Application Security Vulnerabilities" which include:	
a. Un-validated input.	
b. Weak or broken access control such as malicious use of UserIDs.	
c. Broken authentication/session management such as use of account credentials and session cookies.	
d. Cross-site scripting (XSS) attacks.	
e. Buffer overflows.	
f. Injection flaws such as SQL injection.	
g. Improper error handling that creates other conditions, divulges system architecture or configuration information.	
h. Insecure storage.	
i. Denial of service.	
j. Insecure configuration management.	
Review code to detect and mitigate code vulnerabilities that may have security implications when significant changes have been made to the application.	Yes - All code will go through a manual and automated review for code vulnerabilities.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
<i>As it relates to Application Service Providers</i>	
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
Operations Management	Yes/No/N/A/Explain Answers
Are there controls related to IT functions and processes that affect the ongoing operations and maintenance of your system. If so, please describe. If not, please describe any additional controls and cost estimates to effect this change.	TBD based on contract award and final agreed upon design solution.
<i>As it relates to Change Management</i>	
Ensures that duties and areas of responsibility are segregated to reduce opportunities for unauthorized or unintentional modification or misuse of the agency's IT assets.	Yes - Detailed change management process provided in proposal response.
Ensures computing environments are segmented to reduce the risks of unauthorized access or changes to the operational system.	Yes - There are multiple environments (development, test, and production) as well as segmentation of application tiers onto separate virtual servers.
Includes acceptance criteria for new information systems, upgrades, and new versions and ensure that suitable tests of the system(s) are carried out during development and prior to acceptance.	Yes - Test cases will be developed and integrated into the review and acceptance process.

Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
As it relates to Asset Management	
Clearly identify and maintain an inventory of major components in the IT environment.	Yes - TBD based on contract award and final agreed upon design solution.
Ensure that information and assets associated with information processing be assigned to or 'owned' by designated parts of the agency. The term 'owner' identifies an individual or entity that has management responsibility for authorizing the collection, use, modification, protection and disposal of the information and asset(s).	TBD based on contract award and final agreed upon design solution.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
As it relates to Media Handling and Disposal	
Ensure that media be disposed of securely and safely when no longer required, using formal documented procedures.	N/A - There will be no physical media.
Sanitize equipment containing storage media prior to disposal (reference best practices such as NIST SP 800-88 Guidelines for Media Sanitation or equipment disposal procedures documented in the IT security program) and: a. Destroy, securely overwrite, or make unavailable agency identifiable data. b. Destroy, securely overwrite, or make unavailable software consistent with the software licensing agreement.	N/A - There will be no physical equipment within tiag's or WDVA's ownership to sanitize.
Ensure the safe and secure disposal of sensitive media.	N/A - The system will not house any sensitive media.
Ensure that system documentation is protected against unauthorized access.	Yes - tiag will provide secured documentation to WDVA to store within the WDVA control knowledge system.
Ensure Media containing information is protected against unauthorized access, misuse, or corruption during transportation beyond an agency's physical boundaries.	N/A - There will be no physical media.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
As it relates to Data and Program Backup	
Satisfy data archival and rotational requirements for backup media based on the results of an IT Security Risk Assessment.	Yes - tiag will meet data archival and backup requirements. TBD based on contract award and final agreed upon design solution.
Implement procedures for periodic tests to restore agency data from backup media.	TBD based on contract award and final agreed upon design solution.
Test recovery procedures for critical systems at the frequency documented in the agency IT Security Program.	Yes - tiag will perform tests at the frequency aligned with WDVA IT Security Program.
Establish methods to secure their backup media.	TBD based on contract award and final agreed upon design solution.
Store media back-ups in a secure location such as a designated temporary staging area, an off-site facility, or a commercial storage facility.	TBD based on contract award and final agreed upon design solution.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
Electronic Commerce	Yes/No/N/A/Explain Answers
Prepare and incorporate plans for Internet-based transactional applications, including but not limited to e-commerce, into the agency's portfolio.	N/A - No transactions and/or commerce planned for web or mobile application.
Protect information involved in electronic commerce passing over public networks from fraudulent activity, contract dispute, and unauthorized disclosure and modifications required by these IT security standards.	N/A - No transactions and/or commerce planned for web or mobile application.
Protect information involved in on-line transactions in order to prevent incomplete transmission, misrouting, unauthorized message alteration, unauthorized disclosure, unauthorized message duplication, or replay.	N/A - No transactions and/or commerce planned for web or mobile application.
Protect IT infrastructure supporting electronic commerce services from unauthorized access and use according to these IT security standards.	N/A - No transactions and/or commerce planned for web or mobile application.
Are there controls related to the risk of using the Internet and other electronic transactions to conduct transactions for state business with other public entities, citizens, and businesses.	N/A - No transactions and/or commerce planned for web or mobile application.
Are the requirements in this section currently satisfied for this project? Please describe how.	N/A - No transactions and/or commerce planned for web or mobile application.
If not, describe additional controls and estimates.	
Security Monitoring and Logging	Yes/No/N/A/Explain Answers
As it relates to Logging Policies:	
The log records including events, exceptions and user activities necessary to reconstruct unauthorized activities defined by the strategy.	Yes - All system and user activity related to the web portal will be logged appropriately.
Procedures for periodic review and analysis of recorded logs as set forth in the agency IT Security Program.	Yes - tiag will periodic review and analyze recorded logs as set forth in the WDVA IT Security Program.
Retention periods for logs.	Yes - tiag will configuration the system to meet WDVA requirements.
Are the requirements in this section currently satisfied for this project? Please describe how.	TBD based on contract award and final agreed upon design solution.
If not, describe additional controls and estimates.	
As it relates to Logging Systems	
Protect the logging facilities and log information against tampering and unauthorized access.	Yes - Logs will be maintained on the server and provided to additional WDVA or OCIO system as required.
Synchronize with an agency approved accurate time source.	Yes - NTP will be set to required WDVA/OCIO source.

Provide automated recording to allow for reconstruction of the following events:

- a. Actions taken by individuals with root or administrative privileges.
- b. Invalid logical access attempts.
- c. Initialization of the logging process.
- d. Creation and deletion of system objects.

TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project? Please describe how.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

As it relates to Intrusion Detection and Prevention

CTS will monitor state networks with Intrusion Detection and Prevention systems at critical junctures. Agencies that deploy Intrusion Detection and Prevention systems must ensure the systems are configured to log information continuously and the logs are reviewed periodically as set forth in the agency IT Security Program.

TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project? Please describe how.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

Incident Response

Ensure timely and effective handling of IT security incidents.

Yes/No/N/A/Explain Answers

Yes - tiag has a documented security incident response process leveraged on Federal and DoD contracts currently.

Establish, document, and distribute an incident response plan to be used in the event of system compromise. At a minimum, the plan must address specific incident response procedures, recovery and continuity procedures, data backup processes, roles and responsibilities, and communication and contact strategies in addition to the following:

- a. Escalation procedures.
- b. Designate specific personnel to respond to alerts.
- c. Be prepared to implement the incident response plan and to respond immediately to a system breach.
- d. Provide appropriate training to staff with security breach response responsibilities.
- e. Have a process to modify and evolve the incident response plan according to lessons learned and to incorporate industry developments.
- f. Incorporate the incident response plan in the agency IT Security Program.

Yes - Referenced plan contains all required elements and will be reviewed and approved by WDVA.

Test the incident response plan at least annually.

Yes - tiag will comply with an annual incident response exercise.

Leverage the statewide incident response capabilities such as the WACIRC and the CTS Computer Security Incident Response Team to satisfy these response standards. Agencies are also encouraged to participate in appropriate security alert response organizations at the state and regional levels.

TBD based on contract award and final agreed upon design solution.

Develop and maintain a managed process for system availability throughout the agency that addresses the information security requirements needed for the agency's business operations.

TBD based on contract award and final agreed upon design solution.

Are the requirements in this section currently satisfied for this project? Please describe how.

TBD based on contract award and final agreed upon design solution.

If not, describe additional controls and estimates.

Exhibit E. (M/S) Cost Proposal - Identify services to fulfill deliverables not to exceed \$80,000.00. The services can be broken down into sub categories

INITIAL DEVELOPMENT AND DEPLOYMENT

	Hours	Rate	One Time Costs/Other	Total Costs
Phase I: Initiation	40	Various	\$ -	\$ 4,145.00
Phase II: Design and Discovery	180	Various	\$ -	\$ 18,900.00
Phase III: Development & Testing	330	Various	\$ -	\$ 31,997.50
Phase IV: Deployment/Fielding	50	Various	\$ -	\$ 4,912.50
Phase V: Other Costs	0	---	\$ -	\$ -
Total Project Costs	600		\$ -	\$ 59,955.00

FOLLOW-ON DEVELOPMENT AND MAINTENANCE

	Hours	Rate	One Time Cost: Total Costs
Phase I: Initiation	15	Various	\$ 1,587.50
Phase II: Design and Discovery	55	Various	\$ 5,736.00
Phase III: Development & Testing	110	Various	\$ 10,640.00
Phase IV: Deployment/Fielding	20	Various	\$ 2,027.50
Phase V: Other Costs	0	---	\$ -
Total Project Costs	200		\$ 19,991.00

Exhibit E. (M/S) Cost Proposal

Instructions: Provide an Expense Summary for each and every expense by event or trip, etc. Once this is completed, then provide a summary of expenses. Identify the event below.

INITIAL DEVELOPMENT AND DEPLOYMENT							FOLLOW-ON DEVELOPMENT AND MAINTENANCE										
Phase I	Amount	Per	Qty	Unit	Total Cost	Phase I	Amount	Per	Qty	Unit	Total Cost	Phase II	Amount	Per	Qty	Unit	Total Cost
Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-
Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-
Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-
Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-
Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-
Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-
Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-
Phase II	Amount	Per	Qty	Unit	Total Cost	Phase II	Amount	Per	Qty	Unit	Total Cost	Phase II	Amount	Per	Qty	Unit	Total Cost
Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-
Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-
Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-
Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-
Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-
Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-
Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-
Phase III	Amount	Per	Qty	Unit	Total Cost	Phase III	Amount	Per	Qty	Unit	Total Cost	Phase III	Amount	Per	Qty	Unit	Total Cost
Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-
Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-
Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-
Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-
Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-
Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-
Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-
Phase IV	Amount	Per	Qty	Unit	Total Cost	Phase IV	Amount	Per	Qty	Unit	Total Cost	Phase IV	Amount	Per	Qty	Unit	Total Cost
Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-
Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-
Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-
Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-	Airport Parking	\$ -	\$ -	0	\$	-
Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-	Meals (Per diem rates)	\$ -	\$ -	0	\$	-
Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-	Mileage	\$ -	\$ -	0	\$	-
Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-	Car fuel	\$ -	\$ -	0	\$	-
Phase V	Amount	Per	Qty	Unit	Total Cost	Phase V	Amount	Per	Qty	Unit	Total Cost	Phase V	Amount	Per	Qty	Unit	Total Cost
Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-	Airfare	\$ -	\$ -	0	\$	-
Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-	Rental Car (Inc tax and fees)	\$ -	\$ -	0	\$	-
Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-	Lodging	\$ -	\$ -	0	\$	-

Airport Parking	\$	-	\$	-	\$	-	Airport Parking	\$	-	\$	-
Meals (Per diem rates)	\$	-	\$	-	\$	-	Meals (Per diem rates)	\$	-	\$	-
Mileage	\$	-	\$	-	\$	-	Mileage	\$	-	\$	-
Car fuel	\$	-	\$	-	\$	-	Car fuel	\$	-	\$	-
Expense Summary							Expense Summary				
Airfare	\$	-	\$	-	\$	-	Airfare	\$	-	\$	-
Rental Car (Inc tax and fees)	\$	-	\$	-	\$	-	Rental Car (Inc tax and fees)	\$	-	\$	-
Lodging	\$	-	\$	-	\$	-	Lodging	\$	-	\$	-
Airport Parking	\$	-	\$	-	\$	-	Airport Parking	\$	-	\$	-
Meals (Per diem rates)	\$	-	\$	-	\$	-	Meals (Per diem rates)	\$	-	\$	-
Mileage	\$	-	\$	-	\$	-	Mileage	\$	-	\$	-
Car fuel	\$	-	\$	-	\$	-	Car fuel	\$	-	\$	-
Total Expenses	\$	-	\$	-	\$	-	Total Expenses	\$	-	\$	-

STATE OF CALIFORNIA
 DEPARTMENT OF REVENUE
 OFFICE OF THE ASSISTANT ATTORNEY GENERAL
 1500 MARKET STREET, SUITE 1400
 SAN FRANCISCO, CALIFORNIA 94102
 TEL: (415) 774-3300
 FAX: (415) 774-3301
 WWW: WWW.DOR.CA.GOV