Protected Health Information and
Personally Identifiable Information

Veteran's Affairs VistA PHI/PII Instance Hosting Proposal

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Executive Summary

The Pacific Joint Information Technology Center (Pacific JITC) Integrated Test and Evaluation Center (ITEC) provides a hosting platform for research, development, test, and evaluation (RDT&E) for the Department of Defense and Veteran's Health Affairs. In addition to providing hosted compute resources for this work, the lab also hosts de-identified, synthetic data, and PHI/PII data instances of legacy systems found within the DoD military health informatics space. Examples of systems hosted at the Pacific JITC ITEC include AHLTA (CDR, CHCS, LCS, & FEPs), DMHRSi, MSAT/TMDS, TC2, SOA-ESB, and more. By hosting these systems, projects within the lab can perform development and test efforts on systems completely disconnected and separate from production in order to maintain the production system's data fidelity.

The Pacific JITC ITEC is presenting the following proposal to internally host and maintain a PHI/PII snapshot image of the VA's Veteran's Health Information Systems and Technology Architecture (VistA) in order to support currently pending and future VA and joint DoD/VA RDT&E efforts at the Pacific JITC ITEC. This document outlines how the Pacific JITC ITEC intends to host, secure, and provide access controls to the instance of VistA.

Background

The Pacific JITC ITEC, located in Kihei, Hawaii, is designed to provide a hosting platform for development and test efforts for both the DoD Defense Health Administration (DHA) and Veteran's Affairs (VA) healthcare informatics systems. By providing a facility, secure compute infrastructure, and a platform to facilitate rapid, relevant software and systems development and testing, the Pacific JITC ITEC has been able to reduce the time to market products and systems by up to 50%. As well, by hosting production-like legacy systems in a Research, Development, Test, and Evaluation (RDT&E) environment, projects are able to develop products that are more likely to interface with production systems with the least amount of effort.

One premise of the Pacific JITC ITEC is to provide a highly secure RDT&E environment while not placing an undue burden on the development projects for gaining access and performing their work. This document will at a high-level address security concerns as well as refer to supporting documentation that is to be provided with this document. By providing services on its .com commercial and its .mil NIPRNet circuits, the Pacific JITC ITEC can provide many methodologies for a project to immediately start work while progressing to a fully STIG compliant environment without introducing latency to the project while NIPRNet access is sought and granted.

Currently the Pacific JITC ITEC successfully hosts instances of many of the DHA legacy applications while constantly working to obtain and support more and more systems with the ultimate goal being one location with every DoD and VA legacy system hosted and available for RDT&E efforts including DoD/VA Joint interoperability and development projects. At this time, the Pacific JITC ITEC hosts de-identified instances of:

- AHLTA (Clinical Data Repository – CDR, Local Cache Server – LCS, Composite Health Care System – CHCS)
- AHLTA-Mobile
- AHLTA-Theater

- DCAM – DMLSS Customer Assistance Module
- DMHRSi – Defense Medical Human Resources System internet
- IDES – Integrated Disability Evaluation System
- JLV – Joint Legacy Viewer (JANUS)
- MedWeb
- Micromedix
- MSAT – Medical Situational Awareness in Theater
- PMITS – Patient Movement Items Tracking System
- SOA-ESB – Service Oriented Architecture-Enterprise Service Bus
- TC2 – TMIP Composite Health Care System Cache
- TEWLS – Theater Enterprise Wide Logistics System
- TMDS – Theater Medical Data Store
- VistA FOIA – Veteran's Health Information Systems and Technology Architecture

The Pacific JITC is continuing work on obtaining access to or a local installation of more than 45 other legacy systems.

Past Performance

In addition to projects for DHA, the Pacific JITC hosts or has hosted projects for the VA such as JLV(Janus), iEHR Presentation Layer DoD/VA Enterprise Portal IV&V, Mobile Application for Improved Sleep, Self-Powered Biosensors, Disposable Coagulation Profiler, Veteran's Health Administration Enterprise Service Bus, Virtual Lifetime Electronic Record, and more. In all current and previous projects, the Pacific JITC has been able to support and enable rapid development, prototyping, and piloting of projects for both the DoD and the VA.

Proposal

The Pacific JITC is proposing to host a snapshot of a live VistA instance at the Pacific JITC ITEC lab in Kihei, Hawaii, to support development and testing efforts for VHA and joint DoD/VA projects. The Pacific JITC proposes to host the instance of VistA in a secure enclave accessible only by authorized projects and users that have a need to access the system.

Below is an explanation of how the Pacific JITC ITEC plans to execute hosting this instance of VistA, the security measures that are in place, and how the Pacific JITC ITEC plans to manage the support and maintenance of this instance.

Execution

The Pacific JITC ITEC plans to execute the hosting and management of the VistA much like it is hosting the DoD instance of AHLTA. The following provides further details on the hosting, security, and support and maintenance plans for the VistA instance.

Hosting

The Pacific JITC ITEC plans to dedicate compute and storage resources specific to the instance of VistA which will be virtualized and segmented into our protected Enterprise Application enclave. These

resources are specifically protected to ensure that only legacy Enterprise Applications have access and use of these resources.

Customers will access the Pacific JITC ITEC via a VPN connection into their specific project virtualized enclave. All work, connections to Enterprise Application interfaces, etc. occurs within the customer's project enclave.

Security

Access control to the instance of VistA will be provided through VPN-only access to the customer's project enclave and at no time directly into the instance of VistA. Customers that require access to VistA will only connect via approved Internet Protocol security (IPsec) tunnels to their distinct interfaces.

The only persons that will have access to the VistA enclave will be Pacific JITC ITEC Support Engineers and designated VA Tier III support personnel. Access will be secured via the Pacific JITC ITEC Active Directory and the VistA enclave's internal Active Directory providing VPN and desktop access federation.

Local application access controls will be provided by the local application's internal security and user management. Users will be provided only the level of access needed to perform their required development and test efforts.

Support/Maintenance

The Pacific JITC anticipates providing Tier I and most Tier II support and will only escalate any Tier III support requests to the VA help desk or regional VA VistA Subject Matter Experts (SMEs) only after all other possible diagnostic and repair options have been exhausted. The Pacific JITC will make all support, operation, and maintenance documents available to internal support Engineers to ensure all Engineers have access to and can utilize the documentation to provide Tier I and Tier II support.

The Pacific JITC will also take on the effort of applying patches, hotfixes, and updates as they are released from the VA Configuration Management (CM) team. The Pacific JITC assumes that access to patches, hotfixes, and updates are available from the VA CM team either by CD distribution or via the Internet.