Department of Veterans Affairs
Office of Information & Technology
Enterprise Cloud Solutions Office (ECSO)

Veteran Health Cloud Data Security

TECHNICAL SUMMARY

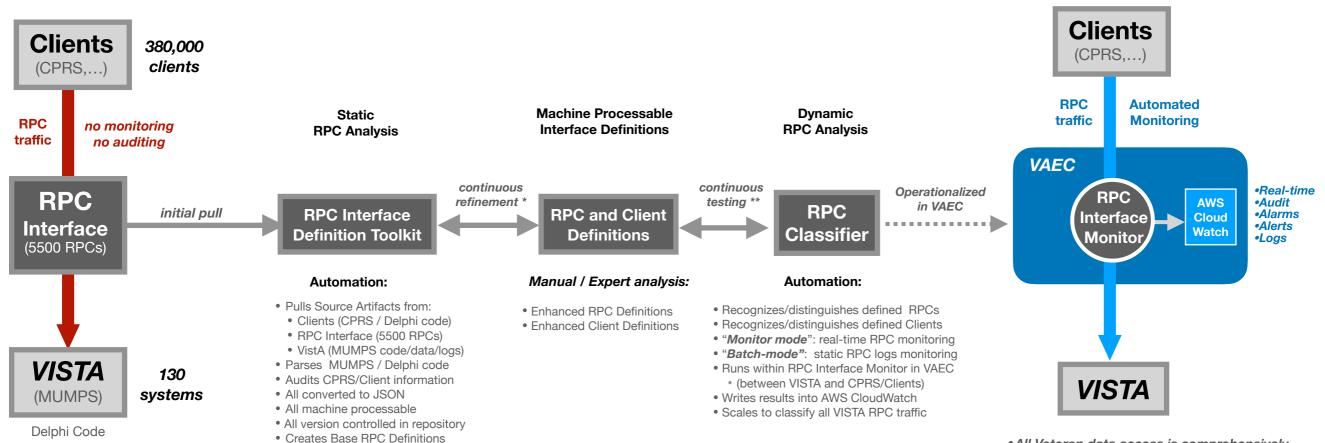
Initial State:

RPC interface with no monitoring no auditing

Summary: All end-user access to the Veterans Health Information Systems (VISTA) is via the remote procedure call (RPC) interface, which supports over 50 million transactions between all 130 VISTA transactional databases and all 380,000 end-user clients at 1250 VA medical centers each day. Real-time monitoring of the VISTA RPC traffic within the VA Enterprise Cloud (VAEC) provides comprehensive cloud-based security for all Veteran health information.

Deployed Solution:

Comprehensive cloud-based RPC interface monitoring in VA Enterprise Cloud



- All Veteran data access is comprehensively audited, monitored and secured for all users, clients, and applications in real-time via Cloud-based monitoring and security.
- All VistA systems, and all its Clients remain unchanged (i.e. non-invasive, immediate, enterprise-wide security upgrade)

* RPC and Client Definitions

MUMPS Code

Metadata

Logs

DATA SCOPE	types, categories, volumes of data accessed: type, parameters, indexes RPC access and changes. VistA: filename, property, package (application)
ACTIONS	READ, WRITE; AUTHENTICATION; UTILITY; PATIENT vs NON-PATIENT; NON-SPECIFIC
SENSITIVITY	Access or index PII (vs non-PII) "Patient RPC" Patient context
CLIENT TYPES and USAGE	Client type and RPC use: WHO, WHAT, WHEN, and PATTERNS OF USE (legitimate user / rogue user)

Creates Base Client Definitions

Auto-Generates Reports

** RPC Interface Test Suite

- Manually creating tests for each of the 5,500 RPCs would be extremely time-consuming. Therefore the strategy relies on automated testing based on inspection of data streams produced by VISTA RPC clients (such as CPRS).
- Machine-readable Client RPC Sequences ("Sequences") of typical RPCs as Clients and RPCs are identified and defined using the RPC Interface Definition Toolkit ("Toolkit").
- These Sequences will be continuously run through the RPC Interface Classifier by an RPC Interface Test Suite to ensure that the Classifier properly interprets definitions as they are created.
- A representative template RPC Sequence will be created for stress and volume testing, in parallel with other development tasks.

Contract: T4NG-0411 VISTA Adaptive Maintenance VA Enterprise Cloud Security TAC: 19-54164

Certification:

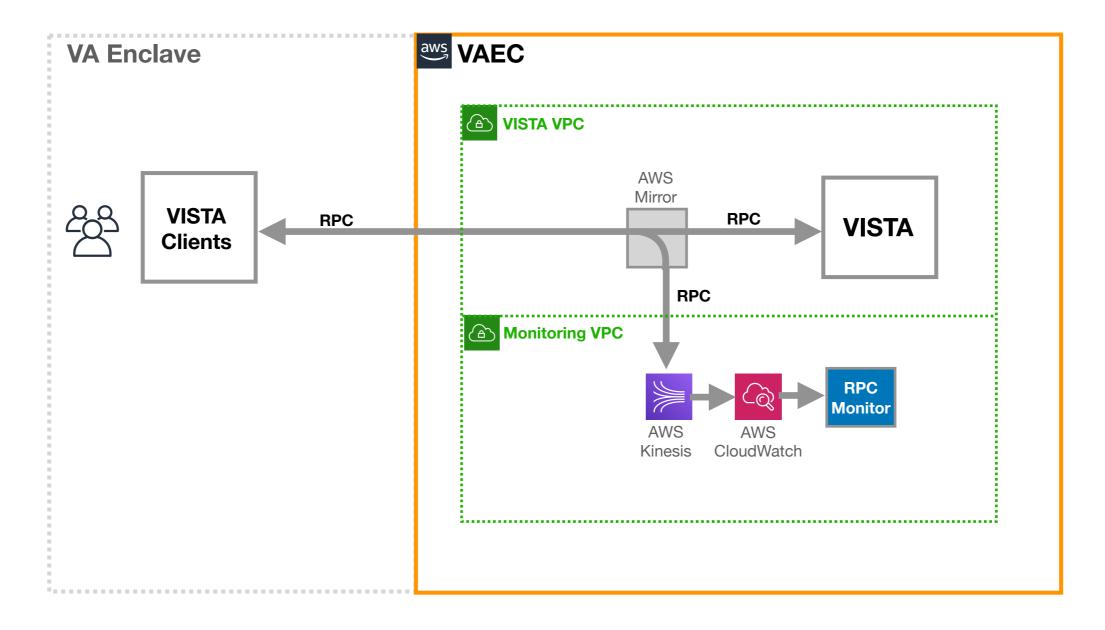
U.S. GovCloud: FedRAMP-HIGH VA: RiskVision (425 controls) DoD: eMASS (1600+ controls) NIST: FISMA-HIGH

NIST: FISMA-HIGH Commercial: HIPAA

Deployment: ATO: 2020-01 IOC: 2020-03 **Updated: 2021-03**

Veteran Health Cloud Data Security

Veteran Health Information Systems Technology Architecture VA Enterprise Cloud Security and Monitoring



VISTA: Veteran Health Information Systems Technology Architecture

VISTA Clients: CPRS, JLV, CAPRI (and 45 others)

RPC: Remote Procedure Call (MUMPS)
VAM: VISTA Adaptive Maintenance

VAEC: VA Enterprise Cloud (U.S. FedRAMP-HIGH)

AWS: Amazon Web Services **VPC**: Virtual Private Cloud

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