



VistA Application Analytics

*Comprehensive cloud-based streaming
analytics of Vista's point-of-care applications*

Rafael Richards MD MS FAMIA

Data Management and Analytics

Digital Health Office / VHA

Update: October 3, 2024

Summary

- Objective**
- **Comprehensive analytics of the real-world workflows of VistA Applications**
 - *Year One: Intra-facilty workflows*
 - *Year Two: Inter-facilty workflows (including Telehealth, Community care)*

- Background**
- **All VistA systems have been migrated to the VA Enterprise Cloud (VAEC).**
 - *VAEC enables real-time cloud-based streaming traffic capture and analytics of the real-world use of VistA applications (CPRS and 40+ others)*
 - *All user interactions (mouse clicks, menu items, orders, tasks, or sub-tasks) of any Vista Applications can be captured to the millisecond and analyzed*
 - *Analogous to EHRM “Lights on Network”*

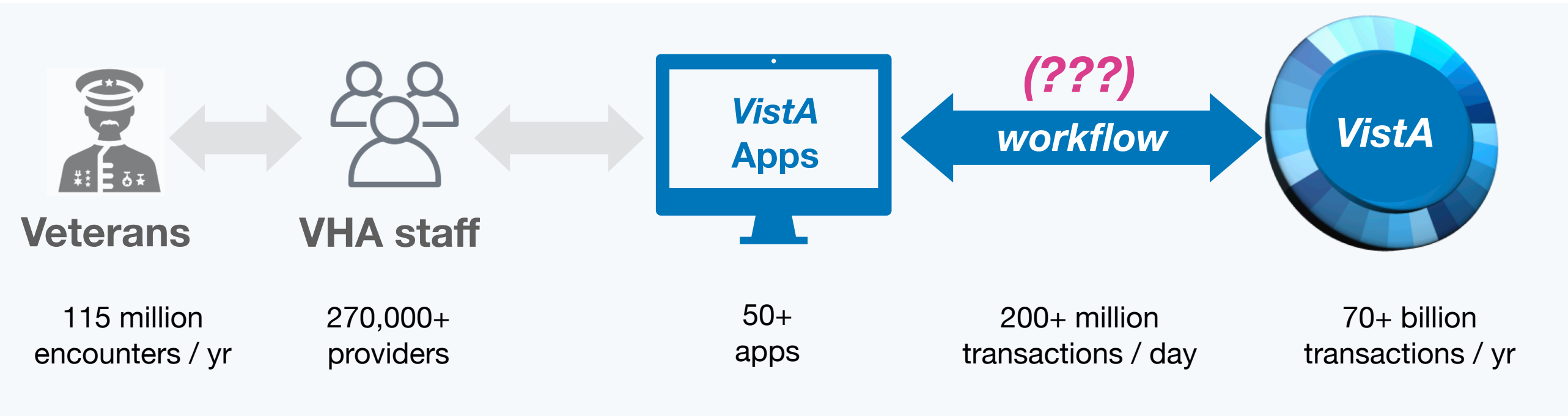
- Benefits**
- **Data-driven approach for clinical workflow analysis and optimization**
 - *Enterprise Standardization of clinical workflow*
 - *Clinical workflow optimization and efficiency*
 - *Benchmark workflows of different systems (VistA-EHRM-Other)*
 - *Strategic, targeted investment in health IT products and services*

Status *Contract awarded 9/5/25; Project kickoff 9/15/24*

Sponsor *VHA Digital Health Office / FY24-25*

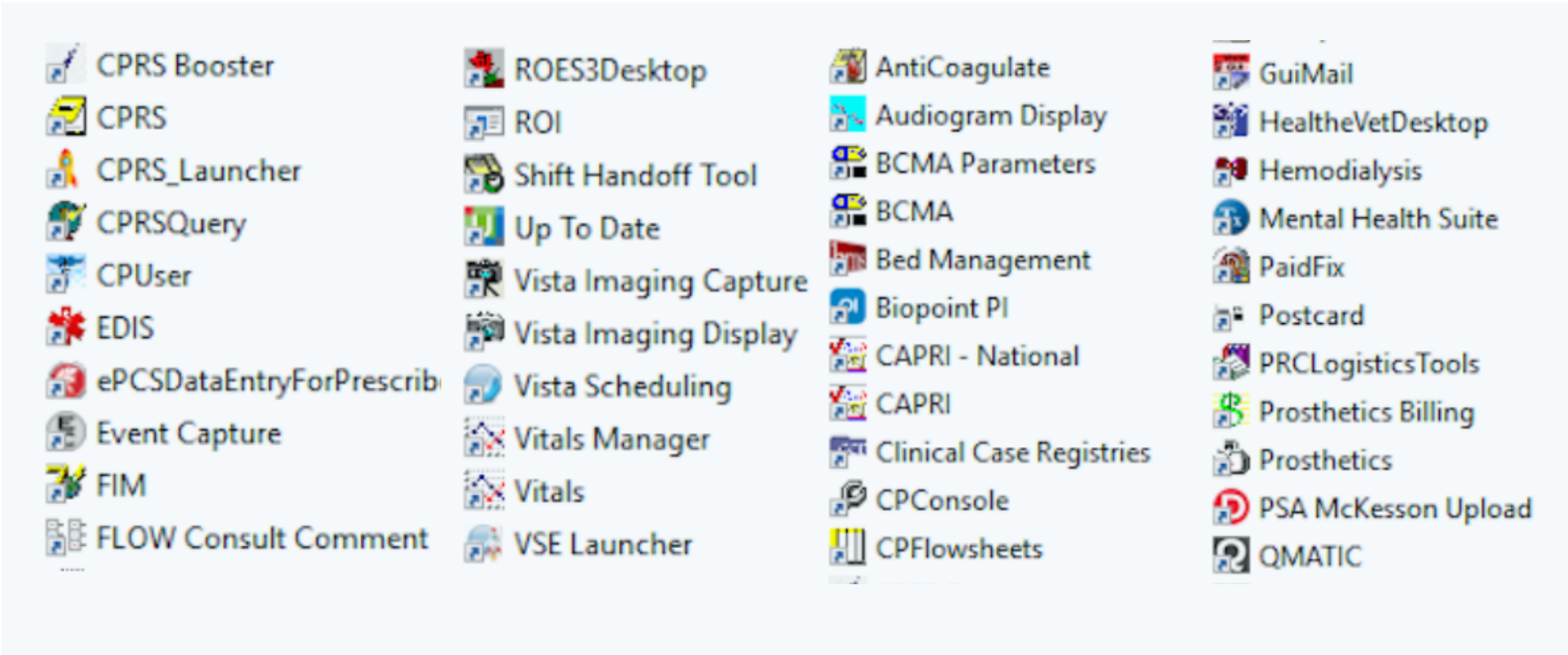
VHA Clinical Workflow Overview

VHA staff provide veteran care using a suite of VistA Applications (“VistA Apps”) including CPRS, Imaging, and over fifty others. Each day in VA, over 270,000 staff at 1250 facilities use VistA Apps to create, store, and process over 4 million new documents, images, lab, pharmacy orders in VISTA. In FY22, VHA provided over 115 million veteran care encounters using VistA Apps.



VistA Server

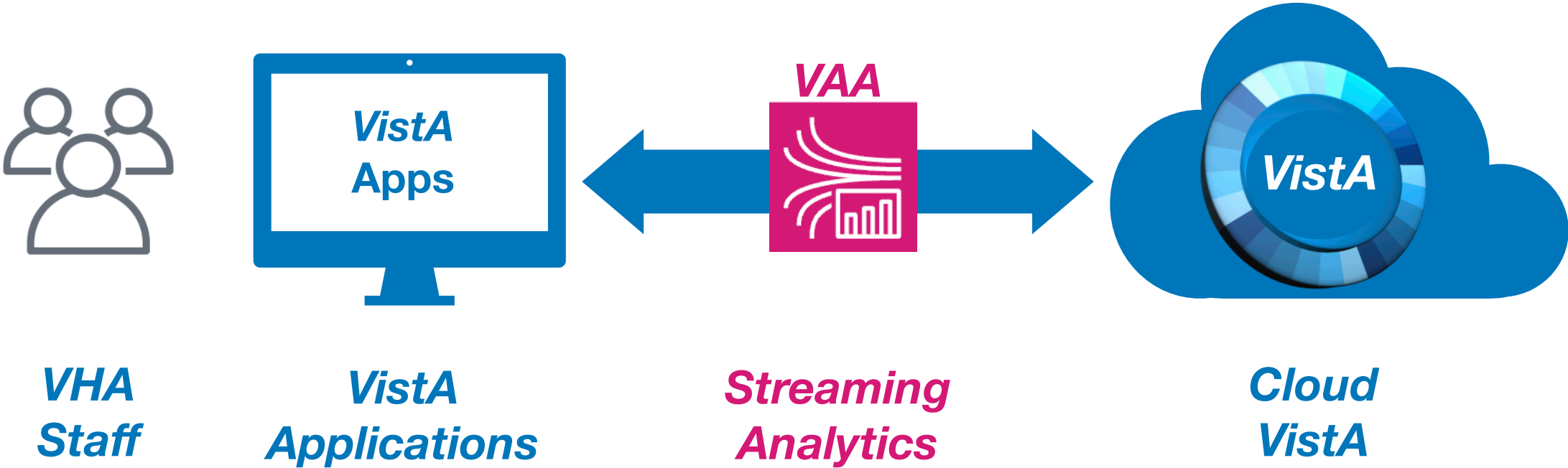
- Contains 500+ million veteran-years of data, knowledge, and workflows.
- Adds 4 million new documents, lab, imaging, and pharmacy orders each day
- Supports 200+ million transactions each day with six sigma reliability.



VistA Apps

- VISTA Apps are a suite of 50+ Windows desktop applications installed on 400,000 computers across all VAMCs
- VISTA Apps use the VISTA database for all transactions and storage
- VISTA Apps include CPRS, Vista Imaging, and BCMA
- **???: workflows of VistA Apps are currently unmonitored and unknown**

VAA Implementation



VA Enterprise Cloud VistA

- All VistA systems have been migrated and modernized in the VA Enterprise Cloud (VAEC), a federally certified commercial cloud managed by Amazon Web Services (AWS).
- VAEC VistA acquires hundreds of new features and capabilities from its new cloud environment, including security, scalability, and streaming traffic capture and analytics.

VistA Application Analytics leverages cloud-based streaming analytics of all traffic of VistA's applications (CPRS and others) to drive data-driven improvement to the workflows and efficiency of VHA clinical staff.

Examples of VistA App Analytics

- **Clinician types and volume of use**
 - Physicians, nurses, administration (100+ other)
- **Time spent on different care tasks**
 - Ordering tests, documentation, reviewing labs
- **Clinical Task analysis**
 - Time spent on care sub-tasks
 - Example: reading a consult; ordering an image; writing a progress note
- **Data used by each clinician type**
 - Document types, Note types, Images
- **Applications use by clinician types**
 - Frequency and type of VistA applications clinicians use
 - CPRS, JLV, Brillians, BCMA (50+ other)
- **Enterprise standardization of workflows**
 - Comparative analysis of applications/workflows between facilities
- **Comparative analysis of systems of care**
 - Example: comparison of workflow timings / efficiency of VistA apps (measured with VAA) and EHRM apps (measured with Lights On)



**PERFORMANCE WORK STATEMENT (PWS)
DEPARTMENT OF VETERANS AFFAIRS**

VistA Application Analytics (VAA)

July 30, 2024
VA-FY-24-00054128
Task Order PWS Version: 1.2

Status

- VHA Digital Health Office approved: 9/30/23
- Contract awarded: 9/5/24
- Project kickoff: 9/15/24

Coming Soon

- Report on baseline VistA application usage
- Quarterly reports thereafter based on VHA input
- Dashboard on Vista application analytics progress

More Information

- Contact: rafael.richards@va.gov