

VA computing origins consist of legacy systems which functioned in a largely autonomous manner. VA healthcare IT automation now known as “VistA”, began with a collection of decentralized systems capable of serving the needs of a single medical center. In the course of IT application modernization; architectural revisions for achieving Service Oriented Architecture (SOA) implementation; integration of external systems, diverse technologies, COTS products, etc. it has become necessary to identify a new design approach for providing SOA compliant integration between VistA applications and external systems.

Implementing SOA design in the VA has presented the challenge of bridging the technical gap between the mainframe, procedural language environment of legacy VistA and disparate (often object oriented) technologies of COTS products and external systems. In addition to the need for identifying a technical solution, past efforts to implement SOA in the VA have illuminated an organizational gap as well, wherein software development staff involved with VistA generally lacked the technical skills necessary to integrate VistA directly with other systems.

The scope of VSA is also in two parts. First major scope element is to create the functionality necessary to automate the creation of VistA SOA services and provide the infrastructure components necessary to support and operate those services. This set of utilities is envisioned to include the VistA Service Assembler Wizard and assorted components which support the storage of service descriptors, web service interaction with the traditional M computing environment, adaption/translation of payloads and federation of queries and responses across VistA systems.

As a “Research & Development” effort, the second part of VSA project scope is to identify and produce multiple sample VistA SOA business services as a “reference implementation” to confirm the VSA proof of concept. The specific business services to be produced will be identified based on a consideration of organizational initiatives which have a need for VistA SOA services in the near future. This approach ensures that services produced as a part of the ‘reference implementation’ are both critically tested and of immediate value to the organization.

The VSA design pattern has been identified as the preferred architectural design for SOA based systems going forward. The intent is to eventually replace interim connectivity designs such as MDWS, VSA, CDS, etc. As such, VSA will need to satisfy the consumer needs currently supplied by those approaches, as well as significantly enhancing VistA security, system performance and sustainability.