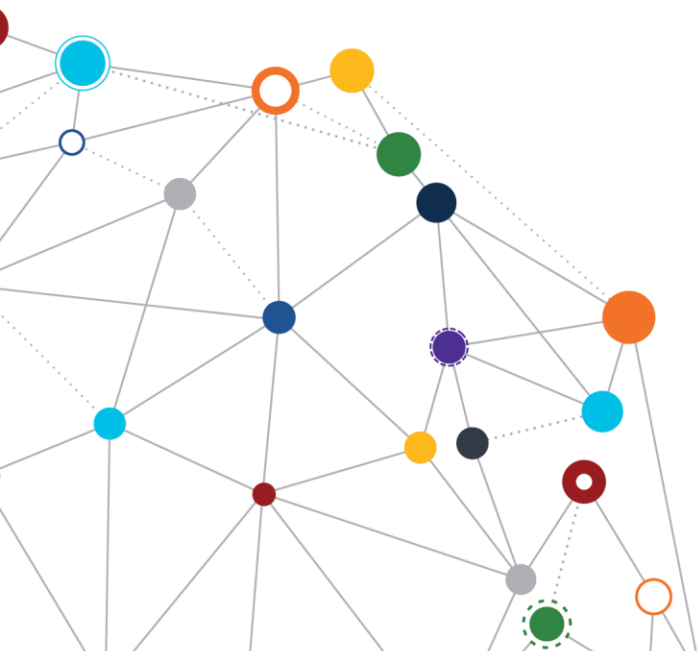OFFICE OF
INFORMATION
AND TECHNOLOGY

Shared Services Definitions

White Paper

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Introduction

A clearly defined and specified nomenclature for technical definitions, within an Enterprise Architecture (EA) metamodel, has been determined to be critical to effective communication at the Department of Veterans Affairs (VA). The shared taxonomy is intended to enable fluid discussions of information technology (IT) services. A shared language is not only expected to benefit IT project managers (PMs), but to be implementable to all IT professionals and VA stakeholders.

Background

The current IT customer solution strategy at VA includes quick delivery of services within limited budgets that are not confined to a specific business unit. As a result, VA is identifying opportunities to reuse business functions and consolidate infrastructure services as shared services. By utilizing shared services across multiple offices, IT project teams can focus their resources on meeting mission needs, rather than managing infrastructure services.

VA's adoption of shared services is consistent with other Federal agencies in achieving strategic objectives. For example, the Department of Defense (DoD) has utilized core enterprise services, such as Defense Collaboration Services (DCS), DoD Enterprise Email (DEE), and DoD Enterprise Portal Services (DEPS) to enable an entire department to follow the Joint Information Environment (JIE). JIE is recognized as the DoD analogue to VA's IT vision, as captured in the VA Enterprise Technology Strategic Plan (ETSP).

An ongoing challenge with shared service adoption has been centered on reaching a consensus among stakeholders on the appropriate use of terminology. Subsequently, the Enterprise Program Management Office (EPMO) Demand Management Division (DMD) initiated an effort to rationalize IT terminology within a broader EA framework. Terms such as *service*, *enterprise shared service* (ESS), *solution*, and *standard* had been used interchangeably across VA. This recognized practice became increasingly prone to misinterpretations and misuse of terms.

The groundwork for creating an effective and efficient integrated approach to the development of language within EPMO DMD serves to reduce ambiguity. It uses EA as its organizing construct to be useful in communication both within EPMO, and beyond, to other OIT functions.

Methodology

The Enterprise Design Pattern (EDP) and Enterprise Services Process Working Group teams collaborated to gain agreement on common terminology. Their purpose was to help drive an

integrated architecture approach to communication, based on a set of common standards, and the identification of new services in the OIT Intake Process. The use of common terminology can help re-baseline the shared services initiative with regard to VA's target application and infrastructure architecture. Shared language can properly integrate relevant architecture artifacts into the VA Enterprise Technical Architecture (ETA) standards, along with corresponding compliance criteria, for the benefit of Veteran-focused Integration Process (VIP) projects.

Research was conducted and definitions were reviewed from the National Institute of Standards and Technology (NIST) and DoD to form the new definitions. NIST does not provide shared services; however, NIST provides guidelines and standards that can be used to inform decisions about the types of shared services needed to support VA's IT strategic goals. NIST functions in accordance with Federal policies, as it is the official government agency that establishes standards and technology frameworks for the purpose of promoting cross-disciplinary collaborations that accelerate research results. For example, the NIST guidance on security provides an abundance of information on cybersecurity that is used to establish security policies for VA's IT environment. Based on NIST guidelines, these policies are used to determine security guidelines, controls, and the types of technologies and investments that are needed for VA information systems.

Enterprise Architecture, EDP, and two divisions within Intake Analysis, Technical Support Service (TSS), and Enterprise Portfolio, met and collaborated weekly during the first quarter of the 2018 fiscal year in Washington, District of Columbia (DC). The definitions were approved by the Enterprise Service Process Working Group on December 11, 2017.

Approved Definitions

1 Service

The definition of service is a "loosely coupled discoverable unit of IT functionality (hardware, software, interfaces, and resource/personnel support) that possesses a standard interface and provides a capability that achieves a desired business outcome."

Services shall be discoverable in a service catalog and located in a common registry or catalog, such as WebSphere Service, Registry, and Repository (WSRR), or Enterprise Service Collaboration Portal (ESCP). Services are reusable solution "building blocks," and the Design, Engineering & Architecture (DE&A) compliance criteria applied to VIP projects must be related to specific solution building blocks. A service may be delivered to a specific business unit (business-specific) or available for consumption, regardless of the business unit (shared). All

approved products that provide infrastructure platform services should be identified in the One-VA Technical Reference Model (TRM). Service layers must be based on current layers used by Demand Management Technical Support Service (TSS). However, infrastructure services require further classification (e.g., messaging, auditing, cloud platforms for Veterans Affairs Enterprise Cloud (VAEC)) with respect to the TRM. All services consumed by IT solutions, including VAEC, follow common guiding principles and technical standards, as reflected in DE&A compliance criteria.

2   Enterprise Shared Services (ESS)

The definition of enterprise shared service is a "centrally provided service with defined service levels, costs, and methods of integration that is designed to be consumed by any part of the organization with a business requirement and business need."

ESS is synonymous with shared services and common services that represent reusable "platform architecture" components on which IT solutions are developed, deployed, and managed. ESS represents a specialization of a generic IT service as a reusable infrastructure platform that aligns to the VA IT Vision and helps improve and evolve information security, advance agile interoperability and data sharing, and reduce the total lifecycle cost of IT services. ESS policy is defined by the EDP Directive 6551. VIP compliance criteria were intended to be based on specifically required ESS, as defined by Directive 6551. Shared services include both internal and external shared services, as well as managed service providers, such as VAEC general support services. Externally managed service providers, such as the United States Department of Agriculture (USDA) Financial Information System, are also integrated into the VA IT environment to support major initiatives such as the Financial Management Business Transformation (FMBT).

3   Solution

The definition of solution is a "product that addresses needs and is validated through alignment to EA standards and compliance criteria."

A solution delivers functionality to business units that is composed of reusable services, as required by the DE&A compliance requirements and reviewed by the Strategic Technology Alignment Team (STAT). A solution's final design is based on enterprise-wide standards for solution architecture and supporting technologies, which are expressed as DE&A compliance requirements and approved technologies and standards in the One VA TRM. VIP defines solutions in the following groups, based on transition target (Transition, Release, and Sustainment [TRS], Information Technology Operations and Services [ITOPS], and Enterprise Program Management Division [EPMD]): software solution, infrastructure product, and

commercial off-the-shelf (COTS) acquisition. Solutions generally align to the following use cases: legacy system modernization, COTS acquisition, new "greenfield," and cloud-native applications.

4   Standard

The definition of standard is an "authoritative source for design guidance and compliance criteria used to constrain multiple instantiations of solutions and services."

There are two levels to a standard - high and low. A high level enterprise architecture standard is EDP operated; it is interpreted. A low level enterprise architecture standard is related to a technology specification that is expected to be used for a certain system or a certain application that is being developed. For example, EDPs act in conjunction with the TRM service as a strategic technology standard that help drive the target technology architecture of VA, and are the authoritative sources that are referenced in many parts of the enterprise architecture process. There is a connection where a high level standard describes the overall approach and technical direction for VA and lower level technical standards are implemented in order to ensure that IT capabilities that are being displayed as part of the authoritative technical standards. Lower level standards must be related to the higher level standards.

Next Steps

Today, IT professionals at VA are aware of the need to develop a shared language that can be utilized across the organization. Simply put, language affects the way we think. Therefore, shared definitions that are created collaboratively by various workstreams can significantly impact the digital environment by avoiding ambiguity when sharing services among various business units. The collaborative development environment provides a segue for this whitepaper to be shared by individuals in different sectors at VA. The four approved definitions -*service, enterprise shared service, solution*, and *standard* - capture the foundation of a start-up language that technical users will be able to use to communicate with their colleagues.

Appendix A. VA Directive 6551

VA Directive
6551.pdf

Appendix B. Acronyms

The following table provides a list of acronyms that are applicable to and used within this document.

Acronym	Description
COTS	Commercial off-the-shelf
DCS	Defense Collaboration Services
DMD	Demand Management Division
DoD	Department of Defense
DE&A	Design, Engineering & Architecture
DEE	DoD Enterprise Email
DEPS	DoD Enterprise Portal Services
EA	Enterprise Architecture
EDP	Enterprise Design Pattern
EPMD	Enterprise Program Management Division
EPMO	Enterprise Program Management Office
ESCP	Enterprise Service Collaboration Portal
ESS	Enterprise Shared Service
ETA	Enterprise Technical Architecture
ETSP	Enterprise Technology Strategic Plan
FMBT	Financial Management Business Transformation
IT	Information Technology
ITOPS	Information Technology Operations and Services
JIE	Joint Information Environment
NIST	National Institute of Standards and Technology
OIT	Office of Information Technology
STAT	Strategic Technology Alignment Team
TRM	Technical Reference Model
TSS	Technical Support Service
TRS	Transition, Release, and Sustainment
USDA	United States Department of Agriculture
VIP	Veteran-focused Integration Process
VA	Department of Veterans Affairs
VAEC	Veterans Affairs Enterprise Cloud
WSRR	WebSphere Service, Registry, and Repository

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