

VA ENTERPRISE DESIGN PATTERNS CLOUD COMPUTING ENTERPRISE CLOUD SERVICES BROKER



Office of Technology Strategies (TS)
Office of Information and Technology (OI&T)

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EXECUTIVE SUMMARY

Scope

This document establishes the requirement for an Enterprise Cloud Services Broker (ECSB) based on the National Institute of Standards and Technology (NIST) Cloud Computing Reference Architecture, and aligns to all VA governance, policy documents, and mandated federal requirements. The document focuses on the ECSB required to provide a cloud-based hosting environment for applications. It defines the ECSB program for LOBs to leverage cloud services, and outlines the standards and capabilities for an ECSB to act as a liaison between VA (Cloud Consumer) and Cloud Providers.

Business Need

VA has invested in numerous enterprise-wide cloud capabilities to facilitate developing and supporting new applications for each VA LOB. These capabilities include the Enterprise Development Environment at the Austin Information Technology Center, which provides a hosting environment that has virtualization capabilities associated with Infrastructure-as-a-Service. VA also uses an outsourced private hosting environment provided by Terremark for key services including Veterans Relationship Management, Customer Relationship Management, Identity and Access Management, and VA Mobile Framework. These hosting environments have satisfied functional requirements for many projects in the past, but they do not completely provide the rapid elasticity and on-demand self-service found in commercial Cloud Service Providers (CSP).

Approach

VA needs to establish an ECSB with both technical and business functions to manage the use, performance, and synchronized delivery of cloud service offerings within VA, from other federal providers, and from commercial providers to sustain an integrated and controlled multi-cloud provider environment. The ECSB enables VA to tailor the availability and delivery of cloud services based on technical and business requirements. The ECSB also provides the single point for integrating this information from each of the CSPs, making it available to various VA and Government stakeholders – eliminating the need for each Administration to monitor CSP performance and security controls.

[Enterprise Design Patterns](#) (EDPs) are developed by TS in coordination with internal and external subject matter experts and stakeholders. An EDP is a reusable capability guidance document that identifies best practice approaches and resources for achieving VA IT strategic objectives. The EDP Team uses industry trends and innovations; enterprise architectural standards; and guiding principles for capabilities and constraints to improve efficiency and effectiveness and define solutions to reoccurring technical problems. The EDP helps guide the design of IT systems and services by VA project teams.