

VA ENTERPRISE DESIGN PATTERNS CLOUD COMPUTING SOFTWARE-AS-A-SERVICE



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

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EXECUTIVE SUMMARY

Scope

This Enterprise Design Pattern (EDP) defines a framework for using Software-as-a-Service (SaaS) solutions that address the following: VA definitions of key attributes of SaaS; VA customer needs that drive SaaS requirements; business requirements that drive SaaS decisions; and industry and government SaaS best practices and lessons learned. The primary audiences for this EDP are VA stakeholders, who manage and/or conduct cloud computing activities on behalf of their organization (e.g., office, program). This document is also intended for those in leadership roles who can establish governance mechanisms and policies that are related to cloud services.

Business Need

VA OI&T can support business needs more efficiently through the use of SaaS providers. SaaS implementation can reduce the code base and development time that streamlines and facilitates agile solutions. SaaS has the potential to simplify development and acquisition of IT capabilities for business operations. VA requires greater awareness of the benefits that a fully hosted and managed SaaS can provide the enterprise. Cloud computing brings business value to VA. It contributes to savings on capital equipment, operating expenses, and support, while significantly increasing business agility. By optimizing the use of cloud computing, VA will achieve several critical goals: deliver IT systems via mainstream technologies that are flexible and responsive to demand in order to support VA's mission; encourage and exploit dynamic and responsive supplier marketplaces and support emerging suppliers; achieve economies of scale in IT development and operations, while meeting budgetary and return-on-investment objectives; and allocate IT expenditures to services and users by shifting from a Capital Expenditures (CAPEX) to an Operational Expenditures (OPEX) model.

Approach

This EDP defines a framework for using SaaS solutions addressed in the scope. This EDP formally establishes an architecture standard for evaluating and selecting commercial SaaS solutions to address a wide variety of VA business needs. The target state for VA's IT infra-structure is achieved through a comprehensive approach that includes cloud-based services in the Enterprise Architecture (EA). For SaaS, this approach consists of the following: gathering business needs and defining requirements; and defining the attributes of a SaaS framework.

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.