

# VA ENTERPRISE DESIGN PATTERNS CLOUD COMPUTING PLATFORM-AS-SERVICE



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## EXECUTIVE SUMMARY

### Scope

The Cloud Computing Platform-as-a-Service (PaaS) Enterprise Design Pattern (EDP) defines a framework for using PaaS solutions, and addresses the following: What requirements do we need to know before we acquire PaaS? What are the user needs that drive these requirements? What are the business requirements that drive PaaS decisions? How does VA automate control and manage its IaaS platforms and those it wants to acquire?

### Business Need

PaaS provides the means for supporting and improving services while simultaneously managing costs, enabling innovation, reaching a wider Veteran community, and securely exchanging information among VA partners. PaaS removes risks of migrating from physical to virtual machines and facilitates DevOps. PaaS, in conjunction with other enterprise IT capabilities, supports establishing an ecosystem for standardized platforms, in accordance with VA's IT strategy. This is sometimes dubbed "Platform-as-an-Ecosystem" (PaaE). These standardized platforms enable agile development in response to rapidly changing business needs. An additional benefit is "better supports multi-party engineering", where different vendors building separate components that must ultimately interoperate have access to PaaS Integrated Development Environments (IDEs), and mitigating integration risks.

### Approach

This EDP defines a framework for using PaaS solutions and addresses the following: what do we need to know to evaluate options for a cloud approach? What are the customer needs that indicate PaaS may be appropriate? What are the business requirements that drive PaaS

decisions? The PaaS approach consists of gathering business needs and defining requirements, determining the purpose of the platform, defining the attributes of a PaaS cloud architecture, and determining infrastructure required, among other steps.

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[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.