

Cloud Security Enterprise Design Pattern

Executive Summary

Office of Technology Strategies (TS)



Scope

A Cloud Security Model sets standards for what systems or information can be handled in a cloud environment, the type of cloud model required based on the sensitivity level and the baseline requirements to ensure VA auditing, security monitoring, privacy/record management, data ownership, and all compliance requirements are met. This Enterprise Design Pattern (EDP) will define an enterprise cloud security model that starts with the use of Federal Risk and Authorization Management Program (FedRAMP) approved providers and addresses the additional requirements beyond FedRAMP. This model will help stakeholders to meet VA requirements when reviewing cloud options for their solution or service.

Business Need

VA mandates using cloud first. A number of projects are lined up for migration to the cloud. Existing cloud projects may be at risk due to architecture designs, hosting FISMA High systems within a boundary that do not meet FedRAMP High or CSP instability. While the ECSB is being established and policy created, VA stakeholders need guidance now to minimize risk.

Approach

This Enterprise Design Pattern (EDP) provides a vendor-agnostic approach to cloud security by reviewing the highest risk areas first, as explained in Appendix A. Comprehensive monitoring through the TIC Gateways, managed encryption of sensitive data, auditing of activity in the cloud, and proper architecture design can reduce the risk of inadequate controls or incidents within a fully compliant boundary. As stakeholders begin the process of cloud adoption, they can use this document to guide decisions around compliance and critical controls.

The logo for VAPULSE, featuring the word "VAPULSE" in a bold, white, sans-serif font. The letter "U" is stylized with a blue pulse line that extends upwards and then downwards, resembling a heartbeat or signal waveform.



The TS office within OI&T's ASD, interacts not only with the Enterprise Architecture pillar offices, but also

with multiple external vendors, stakeholders within OI&T, and with strategic offices across the enterprise. TS works closely with IT and business owners to capture business rules and provide technical guidance as it relates to Data Sharing across the enterprise, specifically for interagency operability.

What are Enterprise Design Patterns?

Reusable templates that guide the enterprise to implement a set of technologies in standard ways

How do Enterprise Design Patterns relate to the Enterprise? Enterprise Design Patterns translate OI&T's strategic goals, as documented in the Enterprise Technology Strategic Plan (ETSP), into "real world" direction to guide system design

How can I learn more about this Enterprise Design Pattern?

Please contact Nicholas Bogden (Nicholas.bogden@va.gov) to learn more

Where can you find a full list of published EDPs?

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