

# VA ENTERPRISE DESIGN PATTERNS INTEROPERABILITY AND DATA SHARING DATA STORAGE



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

Version 1.0  
Date Issued: June 2016

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## EXECUTIVE SUMMARY

### Scope

The Department of Veterans Affairs (VA) is developing standard-ized approaches to deployment and management of reusable data storage capabilities to support data architecture objectives in VA's Enterprise Architecture (EA). VA will provide an array of data storage options to all projects as part of its adoption of Enterprise Shared Services (ESS) in accordance with the Enterprise Technology Strategic Plan (ETSP). This Enterprise Design Pattern (EDP) guides project teams to criteria for selection of new data storage technologies, as well as criteria for re-platforming legacy data to more current technologies.

### Business Need

VA is moving toward more centralized, consistent, enterprise-level management of data stores. VA has instituted the VA Data Inventory (VADI) and Data Architecture Repository (DAR), inventories for data stores and metadata, respectively. VA's regional data centers shape and influence adoption of storage technology within the Department. The Business Intelligence Service Line (BISL) and warehouse governance boards drive technology prioritization and acquisition for analytics. The TRM provides the beginnings of an approach to technology selection for data storage and other purposes. It is a component within the overall EA that establishes a common vocabulary and structure for describing the information technology (IT) used to develop, operate, and maintain enterprise applications. The TRM serves as a technology roadmap and tool for supporting the Office of Information & Technology (OI&T).

## Approach

This contains guidelines and criteria to re-platform data from legacy technologies to new systems using more current technologies. This helps project managers and sponsors articulate their business needs and justifications for making this transition. This will help individual system and data owners make better decisions regarding the type of data storage platform(s) to use for a particular set of requirements, and whether, why, and when to re-platform data from legacy technologies.

Most of this guidance comes from existing VA sources or industry best practices. The guidance is consistent with VA's intent to leverage cloud services per the ETSP, in that it encourages moving data from legacy technologies to platforms that are better suited to virtualized/cloud and service-oriented architectures.

The proposed approach to data storage selection applies to choosing one or more technologies for re-platforming data and to service-oriented data storage. It can also be used to select cloud storage systems or articulate requirements to cloud service providers (e.g., through a service-level agreement). In addition, this design pattern presents consistent, mission-driven approaches for selecting appropriate data storage types for a current or emerging business purpose. The approach is informed by factors such as data temperature, data structure, and security and functional needs (described below). This approach to technology selection will be used whether the business purpose is for a new dataset or an existing dataset being re-platformed. It will also drive any automated policies or business processes for sorting different types of data input into the appropriate storage platform(s).

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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.