



What are Design Patterns?

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

How do Design Patterns relate to the 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?

To learn more about Mobile Design Patterns, contact Joseph Brooks (Joseph.Brooks2@va.gov)

To read the full document, see the TS website:
www.techstrategies.oit.va.gov

To ask questions about Design Patterns in general, reach out to AskTS@va.gov

Enterprise Design Patterns: Enterprise Service-oriented Architecture (SOA)

- **Design Pattern Scope:** Simplifies enterprise IT by standardizing how systems communicate and by breaking larger, monolithic systems into a set of reusable business services. SOA provides a uniform means to offer, discover, interact with, and use capabilities to produce desired effects consistent with measurable preconditions and expectations.
- **Current State:** Substantial VA IT investments have focused on consolidating IT infrastructure and exposing legacy resources as reusable SOA services to enhance interoperability, improve security, and reduce operational costs. This document establishes an official enterprise direction for VA's migration to a SOA environment using ESS and common IT infrastructure platforms.
- **Design Pattern Solution:** ESS will help VA achieve advance organizational interoperability and agility through the reuse, interoperability, and governance of services across internal and external organizational and program boundaries, and promote the standardization, reuse, interoperability, and composition of the best available capabilities developed under the auspices of any system to meet business and mission requirements. Projects deploying solutions that use ESS will help VA resolve recurring challenges to improving and evolving information security, advancing agile interoperability and information sharing, and reducing the total lifecycle cost of IT per the VA Enterprise Technology Strategic Plan (ETSP) and the Enterprise Design Patterns Directive (VA Directive 6551).

The Enterprise SOA Design Pattern aligns with VA's overall IT strategy for supporting "any device, anywhere, anytime" for VA patients, customers, staff and partners through enterprise services.

This document provides an overarching guideline for the ESS Strategy and Roadmap maintained by ASD Product Engineering, and it supports an enterprise-wide directive for ESS integration. The future state for enterprise SOA consists of the following aspects addressing the roadmap approach, which include continual improvement to account for lessons learned and changing business needs:

- A standard set of governance processes for ESS across all lines of business (Phase 1)
- Completed service design guidelines for ESS architecture, development, and support (Phase 2)
- Fully operational SOA infrastructure capabilities to support current and projected ESS, with a roadmap for SOA infrastructure evolution (Phase 3)
- Registry of ESS in accordance with VA business needs intake and analysis, and alignment of business needs to strategic goals (Phase 3)

VA's adoption of ESS to achieve an enterprise SOA is still a work in progress.

The ESS CoE will continue to work with stakeholders across VA to achieve a shared vision for ESS and a migration to an enterprise SOA environment. "Local" SOA is still prevalent in many parts of VA, and the ESS CoE will provide the official SOA governance structure and advisory board to standardize SOA capability implementation. The current SOA infrastructure for ESS was based on a decision to reuse existing IT investments from the Integrated Electronic Health Record initiative, and future activities will look at the evolution of this infrastructure to accommodate emerging technologies captured in the ETSP.

Alignment to Technical Reference Model (TRM)

All projects require approved technologies and standards located in the VA TRM to comply with the guidance provided in this document. The Enterprise SOA Design Pattern serves as a gateway to other Enterprise Design Patterns that refer to applicable ESS. Each Enterprise Design Pattern contains a reference to applicable TRM categories. This information will help projects guide their technology selection and plan for future technologies. All projects leveraging enterprise SOA capabilities to achieve interoperability objectives will:

