

Application Programming Interface (API)

Enterprise Design Pattern (EDP) Executive Summary

Office of Information and Technology (OIT)

Scope

The Department of Veterans Affairs (VA) enables business agility through utilizing application programming interfaces (APIs) to define a standard set of communication protocols between applications that expose software functionality, and other software applications that act as consumers. VA implements numerous information technology (IT) projects with APIs that expose underlying services. This enterprise design pattern (EDP) provides recommendations to VA IT project teams for applying standard approaches to API documentation, release, management, and security.

Business Need

The need for API documentation includes maintaining API descriptions to support an understanding of API business contexts for both non-technical users, and for the VA development community, including definitive guidance for coding. The API release guidance delivers best practices for API implementation, development, testing, inventorying, and publishing across the enterprise, providing the ability to efficiently enhance valuable IT functionality that is used to improve services to our Nation's Veterans. API management guidance spans discovery, configuration, data management, gateway services, and analytics, promoting greater use and reuse of APIs and services that add benefits that include lower costs, economies of scale, faster development time when reusing capabilities, and less maintenance for fewer software components. The actionable steps and planning recommendations also help resolve security concerns when documenting APIs.

Approach

The API EDP delivers information about VA APIs and relevant external APIs, addressing challenges in the adoption and use of APIs at VA. It provides business rules for API documentation, API gateway selection, and management tools, defining a framework for using API solutions at VA. Since security requirements differ according to the use of an API, the steps for planning to process sensitive information, open data, and backend services are provided to help determine and influence security documentation.

View all current Enterprise Design Pattern Segments on the [OIT Website](#). EDPs are developed by AES in coordination with internal and external subject matter experts (SME) and stakeholders. An EDP is a capability guidance document that helps guide the design of information technology (IT) systems and services, and define solutions to reoccurring technical problems. For questions or comments, please contact the EDP team at vaenterprisedesignpatterns@va.gov.



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