

# VA ENTERPRISE DESIGN PATTERNS MOBILITY IMPACT OF INTERNET OF THINGS



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## EXECUTIVE SUMMARY

### Scope

Emerging Internet of Things (IoT) technologies offer organizations opportunities to enhance their analytics and service delivery capabilities. IoT technologies pose security and asset management risks and challenges. This Enterprise Design Pattern (EDP) describes capabilities for mitigating the risks and maximizing the benefits of IoT technologies. Topics include technology selection and approval criteria for non-medical IoT devices; baseline requirements for DIAs; IoT endpoint asset management; roles and responsibilities for IoT solutions; and enterprise IoT help desk to facilitate IoT support and information sharing.

### Business Need

VA requires an enterprise approach to IoT that will mitigate or avoid common IoT endpoint risks to both the devices themselves and the networks to which they are connected; track and maintain IoT hardware assets that may be mobile, difficult to access, or in the hands of external end users beyond the organizational boundary; articulate responsibilities and establish lines of communication between different roles involved in an IoT solution, including vendors, service providers, and end users; and establish processes for evaluating new IoT technologies and sharing data from existing deployed IoT solutions.

### Approach

This EDP describes a set of interrelated capabilities for a VA enterprise program to deploy and manage non-medical IoT solutions. The proposed capabilities consist of IoT device security and risk management controls; comprehensive asset management for IoT endpoints, using an enterprise-wide IoT asset management system; established responsibilities and lines of

communication for roles involved in IoT solutions; and Enterprise IoT help desk to assist projects in selecting new devices or using data from existing devices. The proposed framework is sufficiently flexible to support a wide variety of IoT use cases and allow VA to adapt to the rapidly evolving field of IoT technologies.

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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.