

INFORMATION TECHNOLOGY INFRASTRUCTURE LIBRARY (ITIL)

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OFFICE OF INFORMATION AND TECHNOLOGY (OIT)

INTRODUCTION

In a previous Tech Insight, we discussed the significance of [Information Technology \(IT\) Service Management \(SM\)](#), which refers to “the entirety of activities that are performed by an organization to plan, design, deliver, operate, and control IT services offered to its customers.” This journey of codifying a path forward to a digitally transformed IT infrastructure has been a focus via an [IT Infrastructure Library \(ITIL\)](#) - a set of practices for ITSM that focus on aligning IT services with business needs, to foster integration with the Department of Veterans Affairs’ (VA) overarching IT modernization strategy. In this Tech Insight, we’re diving into ITIL and how it works, its history and use in ITSM, and today’s perspective of its essential integration in VA’s IT strategic planning.

OVERVIEW

ITSM is often implemented through a set of frameworks, including the de facto framework that is most associated with it, the IT Infrastructure Library or ITIL. ITIL defines and documents the best practices, while ITSM employs them to meet unique customer requirements and priorities. This brought forth a comprehensive [roadmap](#) in 2017 for VA IT modernization to improve the Veteran experience.

VA OIT’s goal is to implement ITIL through infrastructure operations including processes, procedures, tasks, and checklists for establishing integration with [VA’s strategy](#) of eliminating material weaknesses, streamlining its core processes, and developing capabilities that drive improved outcomes. ITIL makes sure the same language is spoken by achieving concurrence on the terms used to describe work, like "capacity management" or "portfolio," so that others know exactly what is said to capture the correct meaning.

ITIL [was developed](#) by the British government's Central Computer and Telecommunications Agency (CCTA) during the 1980s. In the beginning, [ITIL](#) consisted of more than 30 books, developed and released over time, that codified best practices in IT accumulated from many sources (including vendors' best practices) around the world. International Business Machines (IBM) has been and continues to be a developer, reviewer, and user of ITIL. In the early 1980s,

IBM documented the original Systems Management concepts in a four-volume series called "A Management System for Information Systems." These widely accepted "[yellow books](#)," along with education and expertise provided by IBM, were key inputs to the original set of ITIL books. Since then, IBM's experience gained during the 1980s - 1990s has contributed to the ongoing development of the ITIL books.

How DOES ITIL WORK?

ITIL is organized around the "[ITIL Service Lifecycle](#)," with five stages: **Service Strategy**, **Design, Transition, Operations**, and **Continual Service Improvement**. Each step in the cycle consists of a set of regular, repeated actions and influences that are used to align IT with the business needs of an organization. More information on ITIL's lifecycle stages can be found in our [Service Strategy](#) Enterprise Design Pattern (EDP), a reusable capability guidance document identifying best practice approaches and resources for achieving VA IT strategic objectives. The ITIL Service Lifecycle and the ITIL processes are modelled upon a well-established management method for continual improvement, known as the "Plan-Do-Check-Act (PDCA) cycle," for example. It became popular by [Edwards Deming](#), who famously said: "If you can't describe what you are doing as a process, you don't know what you're doing."

The PDCA cycle explained the following:

1. Plan –Recognize an opportunity and plan a change.
2. Do –Test the change. Carry out a small-scale study.
3. Check –Review the test, analyze the results and identify what you've learned.
4. Act –Take action based on what you learned in the study step.

Digitalization has created a larger capacity for change in many IT organizations. As [Gartner](#) illustrates, the road to digital transformation runs through IT operations. "It's time to rethink infrastructure and operations or you will end up as custodians of legacy technology," said Dave Russell, Gartner Vice President and Distinguished Analyst. "Enterprises need to ruthlessly seek to retire infrastructure that has no more useful life and to stop deploying systems that create high technical debt."

POPULARITY OF ITIL

ITIL has gone through several revisions in its history. The original 30 ITIL books were first condensed to seven books in 2000, the year [ITIL V2](#) was launched. Each book focused on a facet of IT management: Service Support, Service Delivery, Planning to Implement Service Management, Information and Communication Technology (ICT) Infrastructure Management, Applications Management, Security Management, and The Business Perspective.

Today, ITIL is an ITSM framework owned by [Axelos](#) — a joint venture between the U.K. government and [Capita](#). The framework is the most widely accepted approach used by private and public IT organizations throughout the world to manage IT delivery, drive down costs, and maximize value. Organizations that have successfully implemented ITIL best practices report huge savings. For instance, [Pink Elephant](#), an international knowledge leader in business and innovation, reported in [The Benefits of ITIL](#) that Procter and Gamble ([P&G](#)) saved about \$500 million over four years by reducing help desk calls and improving operating procedures. [Nationwide Insurance](#) achieved a 40 percent reduction in system outages and estimates a \$4.3 million return on investment (ROI) over three years, and [Capital One](#) reduced its "business critical" incidents by 92 percent over two years. On the Federal front, the United States Postal Service (USPS) [realized](#) a 50 percent reduction in incident resolution time and a 30 percent shorter time to achieve new changes through the implementation of ITIL.

UTILIZATION OF ITIL AT VA

Nearly every aspect of the care, benefits, and services VA delivers to Veterans is directly or indirectly supported and enabled by technology. On a daily basis, Veterans interact with web based applications, call centers, and telephone apps to request and schedule services. Additionally, VA's workforce relies on systems, applications, telecommunications, and a secure IT infrastructure to execute and manage the services they deliver. To that end, the VA's IT Enterprise Strategy roadmap established [five new](#) functions to focus on its number one customer (Veterans) to form the "To Be" framework of IT transformation in order to deliver the very best technology VA can provide:

[Enterprise Program Management Office \(EPMO\)](#): OIT's new control tower for IT development provides an enterprise-wide view of all ongoing projects, actively manages cyber risks associated with those projects, and ties project performance to outcomes that directly improve the Veteran experience.

[IT Account Management](#): VA has established three Account Managers who will partner with the National Cemetery Administration (NCA), Veterans Benefits Administration (VBA), and Veterans Health Administration (VHA) to streamline technology for better outcomes.

[Strategic Sourcing](#): OIT now leverages the best of VA staff's expertise as well as the innovation of external partners to deliver the absolute best solutions to Veterans. Strategic sourcing will improve speed to market, ensure compliance with IT acquisition legislation, and foster the most responsible allocation of taxpayer resources.

[Quality, Privacy, and Risk \(QPR\)](#): OIT measures what matters, partners with oversight bodies, and links input to outcomes. QPR leads OIT's performance management, process improvement,

and oversight efforts in the areas of quality, risk management, organization development, and compliance.

[Enterprise Data Management](#): Enterprise data management focuses on the collection, protection, and analysis of VA's wealth of data to predict patient needs, deliver specific outcomes, and share information across VA to improve the Veteran experience.

With ITIL now identified as a key integrator, OIT is working toward the goal of stabilizing and streamlining core processes, eliminating material weaknesses, and continuing to institutionalize new capabilities to fulfill that vision, whereby Veterans will have the technology and support necessary to receive seamless services and information on “any device, anywhere, anytime.”

CONCLUSION

Most Communication Information Officers (CIOs) and IT leaders consider ITIL to be the [de facto](#) best-practice guidance for ITSM. However, few organizations have adopted ITIL fully, but have rather integrated pieces of it with other internal service management processes that function better than what is nominally best practice. ITIL was last updated in 2011 and an update is expected sometime in 2018. The [update](#) is expected to include practical guidance on how ITIL is adopted in conjunction with practices such as [DevOps](#), Agile, and Lean. Research has confirmed that ITIL remains best practice for the ITSM industry and VA's [Comprehensive IT Plan](#) to improve the Veteran experience.

If you would like to read more about other related IT topics, please check out our recent [Tech Insights](#) on [Machine Learning](#) and [Development Operations \(DevOps\)](#).

TECH INSIGHT SERIES

The monthly Tech Insight series aims to help readers make better decisions and be more informed customers of OIT products and services by providing them with high-level overviews of technology issues that impact or will impact VA's IT environment. Tech Insights introduce topics in an easily digestible fashion by presenting background information on the topic, clearly explaining its importance within VA, and providing recommendations for success from OIT. All Tech Insights are available [here](#).

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