

How VA OIT can save millions a year

Consolidate from multiple Linux distros to Red Hat Enterprise Linux

Maintaining multiple Linux operating systems multiplies OIT costs

The Department of Veterans Affairs (VA) Office of Information and Technology (OIT) has been directed to reduce headcount and lower costs by 10%-15%. Consolidating to a single Linux® distribution will help the department support the mission with fewer people.

Today, the VA OIT manages multiple Linux distributions on more than 50,000 servers distributed across the VA Enterprise Cloud (datacenters, AWS, and Azure), and remote clinics. Dozens of full-time Linux engineers and hundreds of contractors spend more than 50% of their time on updates and patches to multiple Linux distributions. Use of multiple distributions also increases the attack surface and the risk of configuration errors that can cause outages or disrupt operations and veteran care.

The OIT has an opportunity to decrease costs and increase efficiency by consolidating from multiple Linux distributions to 1. The question is which Linux distribution best supports the VA mission and the OIT's digital transformation strategy.

Reduce costs and increase efficiency by standardizing on Red Hat Enterprise Linux

Red Hat® Enterprise Linux is an open source distribution that is well suited for the VA because of its security focus and support. Of the OIT's more than 60,000 servers, approximately 10,000 already run Red Hat Enterprise Linux. These include the servers in the VA Informatics and Computing Infrastructure (VINCI) and VA Health Information Systems and Technology Architecture (VistA). By standardizing on Red Hat Enterprise Linux for systems running other Linux distributions, the OIT can increase efficiency in 6 ways not available from alternatives:

- 1. Simplify the OIT portfolio with 1 Linux distribution that runs on any server.** Red Hat Enterprise Linux can run on any server, on-premise or in a public cloud. It is certified with [thousands of software and hardware vendors](#), including Cisco, Dell, HPE, IBM, Nutanix, and VMware. Red Hat Enterprise Linux can even run on compact edge devices in remote clinics and veterans' homes, such as the mobile connected devices that monitor biometric sensors for [sepsis detection](#).
- 2. Deploy at large scale.** Red Hat Enterprise Linux is deployed at scale in every major federal government agency and Fortune 500 company. VistA, the electronic health records (EHR) system holding more than 700,000 veteran records at more than 1,500 sites of care, runs on Red Hat Enterprise Linux.¹ The OIT can simplify management by also using Red Hat Enterprise Linux in its other large environments, including high-performance computing, the Summit Data Platform's data lake, the Corporate Data Warehouse, and the 4 regional data warehouses.

“...interviewed companies [in the IDC survey] validated that [Red Hat Enterprise Linux] served to simplify management while reducing overall system complexity. They also noted that it radically reduced the time required for patching while simplifying kernel modifications and centralizing policy controls...”²

- 3. Acquire all Linux packages and components in the same subscription.** Linux requires multiple packages and components. Separately installing and assessing the security of each component is time consuming. Red Hat invests heavily in the Linux ecosystem, and all components and packages the OIT needs are built into Red Hat Enterprise Linux and fully supported.
 - ▶ Security tools, such as SELinux and OpenSCAP. Red Hat Enterprise Linux can be set to comply with Federal Information Processing Standard (FIPS) 140-2.
 - ▶ Developer tools, such as supported versions of GNU Compiler Collection (GCC), LLVM, debuggers, monitoring tools, integrated development environment (IDE) extensions, and software development kits (SDKs).
 - ▶ Management and automation tools, such as [Cloud Console](#), [Red Hat Insights](#), and custom image builder tools. Red Hat Insights simplifies management by identifying risk, recommending actions, and tracking costs.
 - ▶ Thousands of prebuilt packages for web servers, high performance computing, data management, and edge computing, all fully supported by Red Hat for up to 10 years on the final minor version release.
- 4. Increase service reliability with included support.** One of the OIT’s objectives and key results (OKRs) for digital transformation is to operate IT products and services with high reliability and security.³ Red Hat Enterprise Linux subscription includes access to phone and online support to help the OIT reliably operate the applications that veterans and VA staff rely on, as well as documentation, a [knowledge base](#), and tools to resolve problems quickly. Support is not always included with the Linux versions offered by cloud providers.
- 5. Deliver new capabilities faster than before.** Other OKRs for the OIT include improving the end-user experience for veterans and employees and delivering high-impact solutions to veterans. Consolidating to 1 Linux distribution can accelerate the release of new capabilities by eliminating the need to test each new capability on multiple distributions.
- 6. Simplify the transition to containers.** As directed by the Office of Management and Budget’s Cloud Smart policy, the VA’s newer applications are being deployed as containers on the [award-winning VA Platform One](#). Red Hat Enterprise Linux provides a pathway to container-based application development by including the Podman Desktop package at no extra cost. OIT developers can already use OpenShift® DevSpaces to build, test, and deploy bootable containers on bare metal or virtual machines (VMs) anywhere in the OIT hybrid cloud environment. Containers can later be moved to Red Hat OpenShift from either OpenShift DevSpaces or Podman Desktop, with little or no modification.

Potential cost savings

In July 2024, IDC surveyed large organizations, including healthcare providers, that have standardized on Red Hat Enterprise Linux on at least 50% of their Linux infrastructure.⁴ Cost and efficiency benefits cited by these organizations include:

² IDC. “[The Business Value of Standardizing on Red Hat Enterprise Linux](#).” Sept 2024.

³ U.S. Department of Veterans Affairs, “2024 Year in Review.” Accessed April 14, 2024.

⁴ IDC. “[The Business Value of Standardizing on Red Hat Enterprise Linux](#).” Sept 2024.

"After adoption [of Red Hat Enterprise Linux], interviewed companies saw a 33% productivity increase. To put it differently, teams of 228 developers could now work at the equivalent productivity level of having 76 additional FTEs. This resulted in an annual productivity-based business value of \$7.6 million for each organization."⁵

- ▶ \$373K average annual savings per 100 VMs
- ▶ 32% lower 3-year total cost of ownership
- ▶ 26% lower server infrastructure costs, largely from the ability to host more VMs per physical server
- ▶ 34% higher staff efficiency, allowing the same size team to accomplish more
- ▶ 33% efficiency increase for security teams and developer teams
- ▶ 47% faster response to security incidents
- ▶ 46% faster completion of security updates

Learn more

Read more about [standardizing on Red Hat Enterprise Linux](#).

Learn about other Red Hat initiatives with Veterans Affairs by visiting red.ht/va.



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⁵ IDC. "The Business Value of Standardizing on Red Hat Enterprise Linux." Sept 2024.

About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with [award-winning](#) support, training, and consulting services.

North America
 1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
 00800 7334 2835
europa@redhat.com

Asia Pacific
 +65 6490 4200
apac@redhat.com

Latin America
 +54 11 4329 7300
info-latam@redhat.com