

VA Implements SolarWinds to Enhance Visibility and Application Performance



VA | U.S. Department
of Veterans Affairs

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- » Ease of use
- » Cost effectiveness
- » Integration with other SolarWinds products already in place

The U.S. Department of Veterans Affairs is the second-largest federal agency, supporting more than 350,000 federal employees and serving more than 20 million veterans. Its vision is to provide veterans with “the world-class benefits and services they have earned—and to do so by adhering to the highest standards of compassion, commitment, excellence, professionalism, integrity, accountability, and stewardship.”

The depth and breadth—and importance—of the VA computing environment requires an equal depth and breadth of visibility and function to help ensure systems are running smoothly and at peak performance.

Yet, this was precisely the crux of the VA’s challenges. The agency lacked visibility into the health of many of its systems and servers, and application and database performance. Different regions within VA were using different, disparate tools that weren’t organized and didn’t “talk” to one another.

HOW THEY DID IT

To solve these challenges, the agency started from a position of strength, as it already had a SolarWinds® software deployment. Bringing in SolarWinds network, systems, application, and server monitoring; security and compliance; database management; and other tools would help the agency:

- » Monitor network performance
- » Troubleshoot network problems or outages

- » Resolve configuration issues
- » Monitor system/server health
- » Monitor application and database health
- » Troubleshoot across the application stack/infrastructure
- » Monitor security incidents and vulnerabilities and improve compliance

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CHALLENGES MET

Today, the VA is using a broad range of SolarWinds tools including Network Performance Monitor (NPM), Network Configuration Manager (NCM), Server & Application Monitor (SAM), Web Performance Monitor (WPM), NetFlow Traffic Analyzer (NTA), User Device Tracker (UDT), VoIP & Network Quality Manager (VNQM), IP Address Manager (IPAM), Database Performance Analyzer (DPA), Enterprise Operations Console (EOC), Network Topology Mapper (NTM), and Engineer's Toolset.

Specifically, the VA has 10 regional SolarWinds instances with NPM, SAM, NTA, NCM, VNQM, and some with IPAM. These instances are monitoring more than 60,000 nodes with over 267,000 interfaces, more than 191,000 volumes across the board, backing up more than 21,000 configurations, monitoring over 5,000 hosts (53,000 component monitors), and 500 unique application monitors. And, to help ensure the environment remains available 24/7, 365 days a year, everything within the VA Network Operations Center (NOC), to include the VA's 4 Trusted Internet Gateways, is redundant in at least two different physical locations.

The combination of tools now provides the critical application and database performance the VA needed. And, to bring everything together, the VA is using EOC to consolidate visibility across its regions.

According to Jamison C. Jennings, SolarWinds architect for Salient CRGT working at the VA, the agency was even able to use SolarWinds to learn what wasn't being monitored through SolarWinds.

"I was getting asked by management quite often, 'What is on the wire that we are not monitoring in SolarWinds,'" Jamison posted on THWACK®, the SolarWinds community of over 150,000 registered members. "Using the NPM Network Discovery function, I was able to take the results of a scheduled discovery and compare the results from what was already in SolarWinds and the

resulting set is the items on the wire that are not being monitored in SolarWinds.”

ADDITIONAL BENEFITS AND BEST PRACTICES

What the VA didn’t necessarily expect was the ability for the additional SolarWinds products to help with Continuity of Operations (COOP) planning. According to Jennings, the agency conducts annual COOP exercises. During its most recent exercise, dubbed “Operation Dark Cloud,” the VA Visibility team was tasked with preventing a zero-day internet virus from infecting the VA environment. “We needed to cut internet access across the VA within 15 minutes,” he said.

Jennings successfully met the challenge by using NCM to identify internet circuits and connections across the agency, then wrote scripts to enable a staffer with the correct credentials and documentation to successfully shut down all internet connectivity—including business partner extranets and gateways—within the 15-minute timeframe.

As a 25-year IT veteran and SolarWinds Certified Professional®, Jennings provided additional advice on how best to manage and monitor your SolarWinds environment.

- » **Conduct after-action reports.** If an agency has an outage or something goes wrong, after-action reports can help identify monitoring gaps and better understand what was missed. Ideally, after-action reports can help minimize or prevent the next outage
- » **Use custom properties—from nodes to interfaces to applications.** If you have multiple instances of SolarWinds, standardize them. If you’re looking at anything within EOC or creating different reports, that standardization will help create far more accurate results.
- » **Be a THWACK user/contributor,** regardless of whether or not you’re a SolarWinds user. And, take advantage of the free training you get as a customer from the SolarWinds Academy.

ABOUT SOLARWINDS

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide from Fortune 500 enterprises to governments including nearly every U.S. civilian agency, DoD branch, and intelligence agency, as well as a large number of state and local government, education, National Health Service, European Parliament, and NATO customers. In all market areas, the SolarWinds approach is consistent—focusing exclusively on IT Pros and striving to eliminate the complexity that they have been forced to accept from traditional enterprise software vendors. SolarWinds delivers on this commitment with unexpected simplicity through products that are easy to find, buy, use and maintain while providing the power to address any IT management problem on any scale. Each solution is rooted in the company's deep connection to their user base, which interacts in an online community, THWACK®, to solve problems, share technology and best practices, and directly participate in the product development process.

SolarWinds provides IT management and monitoring solutions to numerous common public sector IT challenges including continuous monitoring, cybersecurity, network operations, compliance, IT consolidation, data center operations, cloud computing, mobile workforce and devices, DevOps, and scaling to the enterprise. SolarWinds software is available through numerous channel partners and systems integrators worldwide as well as the U.S. General Services Administration (GSA®) Schedule, United Nations Global Marketplace (UNGM), Crown Commercial Service (CCS), and United Nations Atlas.

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