redhat.

SURESCRIPTS SPEEDS DEVOPS PROCESSES WITH RED HAT ANSIBLE AUTOMATION

surescripts®

Surescripts, the leading health information network in the United States, needed to improve its software development infrastructure and datacenter networking to help its DevOps team meet business demands. With Red Hat Ansible Tower, Surescripts can now quickly deploy network appliances and servers, as well as resolve any issues with minimal downtime, speeding the launch of new applications to its customers.

SOFTWARE

Red Hat® Ansible® Tower

Arlington, VA

HEADQUARTERS

HEALTHCARE

500 EMPLOYEES

"*In the past, we had a few outages caused by staff running commands with unexpected results. Now, by routing everything through Red Hat Ansible Tower, we have much higher quality and availability assurance.*"

MICHAEL PERZEL
SENIOR DEVOPS ENGINEER, SURESCRIPTS

BENEFITS

• Streamlined IT management with process and failover automation, reducing downtime from manual errors

• Improved productivity with automation of routine tasks, adoption of reusable code, microservices, and standardizing language for collaborative DevOps work

• Enhanced security of critical systems and data with role-based access, as well as support from Red Hat and the open source community

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STREAMLINING PRESCRIPTION SERVICE CREATION AND MANAGEMENT

Surescripts, the leading health information network in the United States, connects virtually all electronic health records (EHRs) vendors, pharmacy benefit managers, pharmacies and clinicians, plus an increasing number of health plans, long-term and post-acute care organizations and specialty pharmacy organizations. The company transmits nearly 13 billion secure health data transactions annually – including nearly 5 million electronic prescriptions each day.

The company's IT operations department was challenged to quickly deploy and scale network and server infrastructure to support its growing business—including a rapidly increasing number of applications. Surescripts was deploying changes with code developed in-house, increasing the possibility of error.

To ensure its customers can coordinate quickly and effectively to deliver necessary services for healthcare professionals and their patients, Surescripts must also avoid system and service downtime.

The company decided to divide its large legacy code bases into microservices to release new features and services faster and more frequently.

"As we added more developers to our team, it was getting harder to have everyone working within the same repository. We wanted different release schedules. We had to break apart our two code bases into smaller services so we could release independently," said Michael Perzel, senior DevOps engineer at Surescripts.

To support this shift to smaller, more modular microservices-based code with automated management, Surescripts sought an effective, DevOps-ready IT platform

SIMPLIFYING AUTOMATION WITH RED HAT

Surescripts evaluated several potential solutions—including Octopus Deploy and Atlassian Bamboo—before choosing Red Hat Ansible Tower to support its new microservices-based code infrastructure.

Ansible Tower is part of Red Hat Ansible Automation, a simple, agentless IT automation engine that streamlines processes, migrates applications for better optimization, and unifies language for DevOps practices. The Ansible Tower web application provides control, knowledge, and delegation capabilities for enterprise-wide automation.

"We like that Ansible is agentless," said Perzel. "Installing agents and keeping them updated can be a real drain on resources."

Using Ansible Tower's centralized application programming interface (API) and user interface, Surescripts can quickly and safely run Ansible Playbooks across its entire DevOps environment—including F5 BIG-IP load balancers, Red Hat Enterprise Linux®, and Microsoft Windows servers—to efficiently scale IT automation and manage complex deployments. The Ansible Tower dashboard displays all Ansible environment activity, including inventory status, recent job activity, and recent job runs, with auditing of changes that includes author and time information.

"Our favorite Ansible Tower feature is how easy it is to run a job," said Perzel. "One click, then you just watch it run."

SPEEDING DEVELOPMENT TO MEET GROWING BUSINESS NEEDS

SIMPLIFIED, AUTOMATED MANAGEMENT

Previously, Surescripts manually managed its F5 Networks BIG-IP software. Now, its IT operations teams can use Ansible Tower with F5 BIG-IP modules to automatically manage application load balancing—for example, automating failovers between its datacenters.

"Before, it was one engineer's job to manually move traffic between our datacenters. If there was ever an incident, we'd have to call that one engineer, making our mean time to resolution quite slow. In our business, we need downtime resolved in minutes, not hours," said Perzel. "With Ansible, we estimate that we're saving about two hours per service move."

Red Hat Ansible Automation has dramatically cut issue resolution time for the company, reducing downtime and ultimately improving customer satisfaction. The visual dashboard, role-based access control, job scheduling, integrated notifications, and graphical inventory management included in Ansible Tower have helped Surescripts easily centralize its IT infrastructure for greater control. The company's IT team can now manage far more servers and networking devices, with confidence that no mistakes will occur, as they can test changes with the same Ansible Playbooks used in production.

"In the past, we had a few outages caused by staff running commands with unexpected results," said Perzel. "Now, by routing everything through Ansible, we have much higher quality and availability assurance."

IMPROVED PRODUCTIVITY AND EFFICIENCY

By automating and streamlining management with Red Hat, Surescripts can now focus on more valuable, innovative work. Employees who were dedicated to reacting to critical, high-severity issues can now focus on proactive networking design projects.

For example, application developers can focus almost exclusively on writing code, using a library of reusable tools and components. With Ansible, these developers can create an application, define variables, and then quickly launch to downstream environments. If and when developers want to uninstall an application, they can do so either automatically or on a schedule.

"The library folder within Ansible makes it very easy to extend the core open source offering," said Perzel. "Ansible gives us a set of tools that we don't have to recreate for every deployment."

Ansible Playbooks also provide a common language within the company's larger IT operations organization to support collaborative DevOps work between teams—such as network, server, and application groups.

Support for both Linux and Windows servers is also provided by Ansible—a vital feature for Surescripts to ensure its networking resources and automation features extend to its entire IT environment, further improving efficiency and productivity.

As a result of these improvements, Surescripts can complete hundreds of deployments per day, delivering new features to customers faster. "The time between coming up with a new feature and actually delivering it to our customer base has become much shorter," said Perzel.
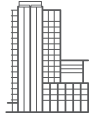
ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

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ROBUST, ENTERPRISE-GRADE SECURITY

Healthcare is the industry most frequently targeted by cyberattacks[1]. As a result, cybersecurity is critical for Surescripts. To ensure it is protected against the latest threats and security vulnerabilities, the company uses Red Hat Ansible Automation for rapid patching on a rolling basis.

In addition, Ansible's role-based access means users can only access permitted systems and playbooks, preventing malicious or unintentional access or changes. Administrators can securely provide non-recoverable access to the credentials needed to manage remote systems and environments.

The enterprise open source technology supporting these capabilities also provides extra security and rapid issue resolution. Whenever Surescripts' IT teams encounter an issue, they can quickly access the open source community for help or work with Red Hat's expert support teams to troubleshoot and solve the issue.

"The strength of open source is that we are not relying on a single development team to protect our data. Instead, we're connected with a community in a collaborative environment, with the ability to freely see the source code when questions arise and solving problems together," said Perzel.

MOVING TO THE CLOUD

After its initial success with Red Hat software, Surescripts is considering moving some of its workloads and development environments to the cloud, supported by seamless integration from Red Hat Ansible Automation.

"The security and performance we get from Red Hat is unrivaled. Working with them has been a tremendously positive experience," said Perzel. "They really understand our needs and have a true stake in our success."

ABOUT SURESCRIPTS

Surescripts serves the nation with the single most trusted and capable health information network, built to increase patient safety, lower costs, and ensure quality care. Since 2001, the Surescripts Network Alliance has led the movement to turn data into actionable intelligence with solutions that enhance prescribing, inform care decisions and advance healthcare. To learn more, visit surescripts.com or twitter.com/surescripts.

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1 Goldman, Jeff. "Heathcare Industry Suffers the Most Cyber Attacks." eSecurity Planet. June 2017. https://www.esecurityplanet.com/network-security/healthcare-industry-hit-most-frequently-by-cyber-attacks.html.