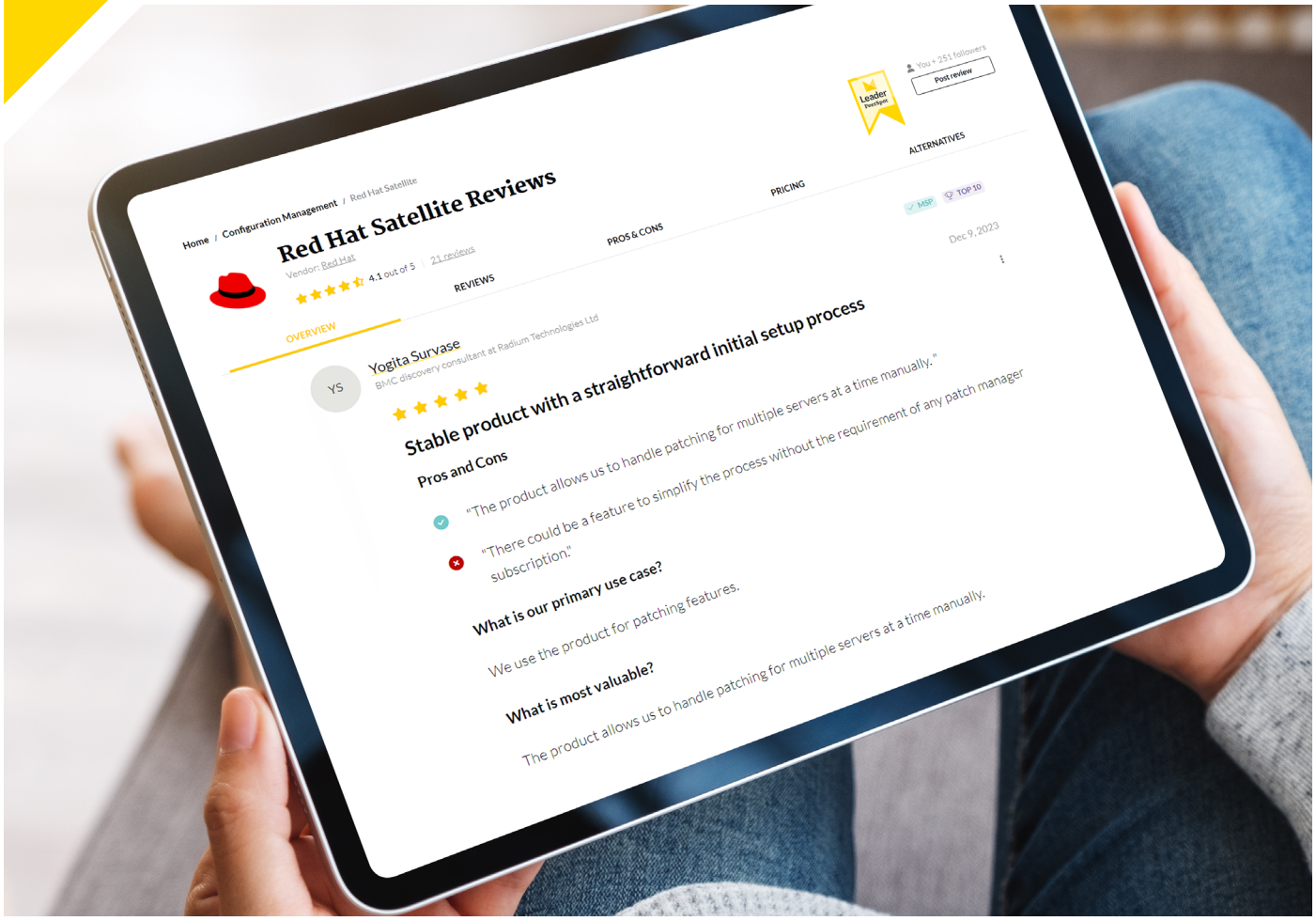
PeerPaper™ Report 2024

Based on Real User Experiences with Red Hat Satellite

7 Ways Red Hat Satellite Can Improve Security and Infrastructure Management Efficiency



PeerSpot

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Introduction

Even the best IT departments believe there is room for improvement in the way they do things. A good process can be made great. An efficient infrastructure management team can become more efficient, especially if they have the right tools. For organizations that use Red Hat® Enterprise Linux, the Red Hat Satellite systems management solution is such a tool. Satellite has proven itself in streamlining infrastructure management and bolstering security posture.

Satellite is designed to provision and maintain any Red Hat Enterprise Linux infrastructure. It works across physical, virtual, and cloud infrastructure. In this paper, Satellite users discuss seven ways the solution improves infrastructure management and security. These range from simplifying hybrid cloud management to making patching less challenging and automating many other operational tasks that can increase efficiency. Taken together, they contribute to better security and management outcomes.

Red Hat Satellite, an Overview

Satellite simplifies system management on an end-to-end basis. It also enables infrastructure managers to be efficient in deploying Standard Operating Environments. When integrated with Red Hat Lightspeed (formerly known as Insights), the proactive, AI-powered management and advanced security capabilities woven into Red Hat Enterprise Linux, Satellite offers users extended visibility into infrastructure behavior and security risks.

The combination of Satellite and Red Hat streamlines vulnerability updates, patch remediation, and implementation of compliance requirements. The result is a reduction in manual errors and gains in operational efficiency—coupled with improved system security and availability.

Senior System Engineer
at a university with 5,001-10,000 employees

"Our Red Hat Satellite server is helpful in terms of meeting compliance requirements."

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7 Ways Red Hat Satellite Can Improve Security and Infrastructure Management Efficiency

PeerSpot members have found that Satellite makes infrastructure management more efficient. The solution also enables infrastructure management team members to become more productive, which drove cost savings. The work of supporting security became simpler and faster with Satellite, as well.

#1 – Simplifying Hybrid Cloud

Hybrid clouds are increasingly common, with the majority of enterprises embracing the architecture. Atea AS, a tech services company with over 1,000 employees, offers an example. According to their Senior Consultant, they deploy SAP systems on-premises and in the cloud. He said, "We have customers on the cloud server platform where we run their network, and we manage through Satellite. We also have it on-premises." Figure 1 offers a simple depiction of how this works.

Senior Linux System Administrator
at Torch Technology

"Satellite Server and OpenShift stood out because of their ease of administration."

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Managing a hybrid cloud, however, can be challenging, especially if systems have to move from the data center to the cloud, or between cloud platforms. Satellite addresses these issues, as a Senior System Engineer at a university with more than 5,000 employees explained. With Satellite and Red Hat Enterprise Linux, his team has been able to centralize development in their hybrid cloud environment.

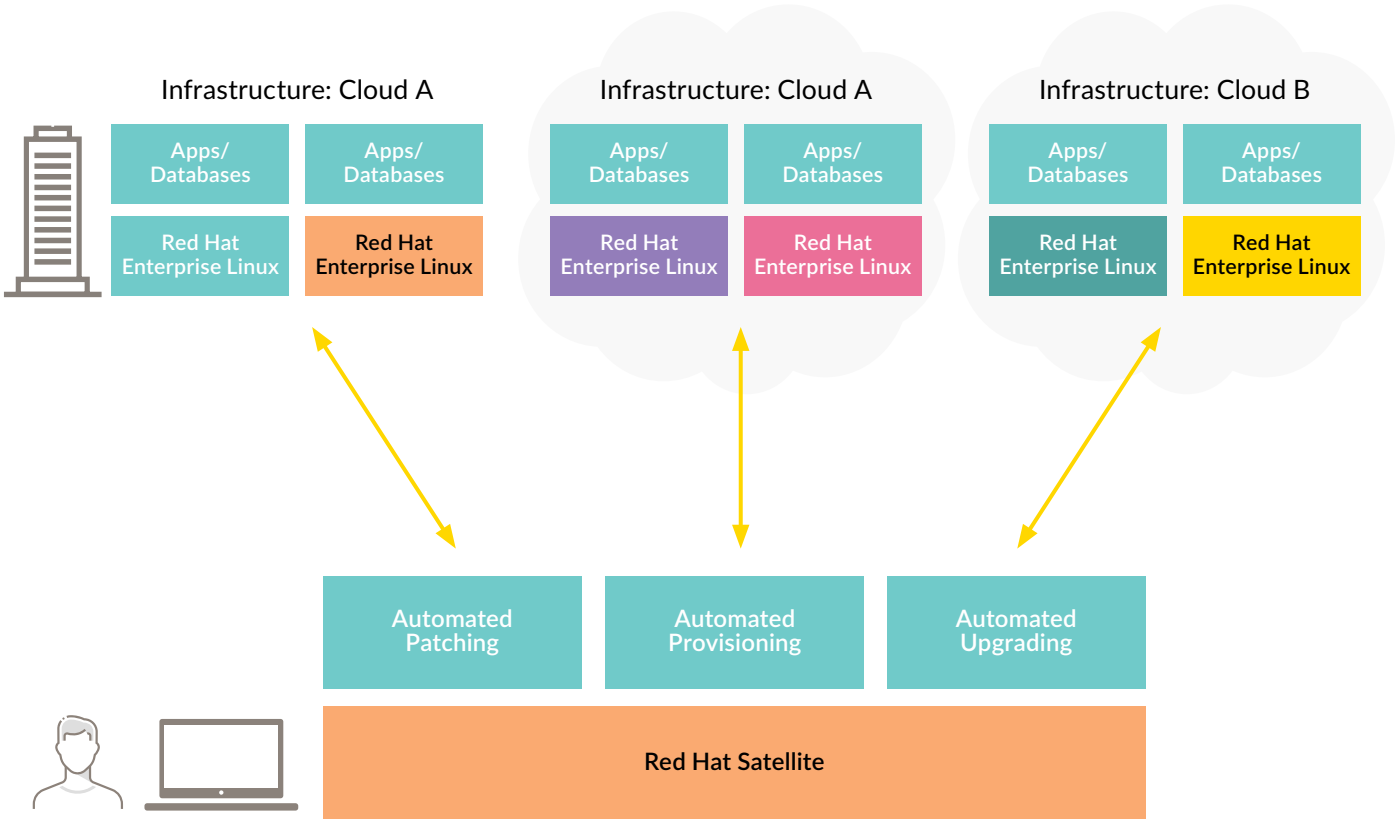

Figure 1 - Red Hat Satellite and hybrid cloud management. Satellite enables infrastructure managers to streamline patching, provisioning, upgrading, and other workloads across on-premises infrastructure and multiple cloud platforms.

#2 – Streamlining Infrastructure Management

Infrastructure management tasks that are overly reliant on manual processes invariably slow down the work and drive up costs. They're also prone to errors, which can lead to further resource drains and security problems. By automating system management tasks at scale, Satellite offers a path to improving the efficiency and accuracy of infrastructure management workloads.

A Principal Systems Engineer at Greenway Health, a tech services company with over 1,000 employees, provided an example. His team uses Red Hat Enterprise Linux to run multiple versions of the same application or database. Using Satellite and Red Hat Lightspeed makes "management of multiple versions of an application server much simpler."

Improves Efficiency

Linux System Administrator
at a manufacturing company
with 501-1,000 employees

"We can collect all the necessary updates on a connected system and then transfer them to a disconnected system. Each client thinks it's connected to an external satellite infrastructure, making management very easy."

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A Linux System Administrator at a manufacturing company with more than 500 employees concurred, revealing that he found Satellite the "most valuable" feature in his Red Hat environment. He said Satellite "allows us to manage disconnected workstations, keeping their patching, software updates, and bug fixes up to date." He added, "We can collect all the necessary updates on a connected system and then transfer them to a disconnected system. Each client thinks it's connected to an external satellite infrastructure, making management very easy."

Satellite enables a comms service provider with over 10,000 employees to do automated "kickstart deployments" of Red Hat Enterprise Linux. According to their Cloud and Infrastructure Architecture, "Satellite has a lot of control, giving you the ability to control content promotion, content YUM [Red Hat package manager] updates, caching, et cetera. You can have as much or as little overhead in compliance control as you want."

"Satellite Server and OpenShift stood out because of their ease of administration," said a Senior Linux System Administrator at Torch Technology, a small software company. "I do system administration. When my customers need something, assisting them with these products is easier than giving a long configuration of YAML [data serialization language]."

#3 – Improving Team Productivity

As part of the quest for more efficiency, infrastructure managers are always looking for ways to make their team members more productive. Satellite helps them achieve this goal. According to a Senior Enterprise Engineer at a transportation company with over 10,000 employees, for example, "Satellite 6.10 and RHEL integrate with each other perfectly. This integrated approach enables me to be a single person managing my images since it does a lot of the manual labor that I used to do, such as building patches, doing system maintenance, and keeping systems consistent. It does all that stuff for me." By "offloading" these tasks, he said, Satellite is "giving me more work-life balance."

"We have one admin who manages all the images," this user further commented. For him, this represented return on investment (ROI). He added, "The company hasn't had to hire a second admin (FTE) to keep things running."

A Senior SRE at Linux Plus, a small tech services company, took a broader view, explaining how the Red Hat ecosystem enables the "seamless integration of our products such as Ansible, Red Hat Virtualization, Red Hat Satellite, and OpenShift platform to fulfill tasks, thereby enhancing the efficiency of our organization." In all of these cases, Satellite is driving improved outcomes in infrastructure management efficiency.

Increases Productivity

Saves Time

#4 – Saving Money Through Process Automation

Financial outcomes matter when it comes to gauging improvements in infrastructure management efficiency and security. As with any area of IT operations, resources are finite, and savings are always appreciated—assuming they do not create tradeoffs in terms of quality or security. Torch Technology's Senior Linux Administrator spoke to this issue when he said, "We have seen a return on investment with Red Hat Enterprise Linux concerning the ability to develop what we need, what we do, and our scenarios. The solution saves us man-hours, and man-hours equals money."

Simplifies Provisioning

#5 – Reducing the Work of Provisioning

Provisioning servers is one of those basic, frequent tasks that tends to tax infrastructure management teams. Satellite helps teams that feel overstretched by the provisioning workload, as an IT Systems Engineer explained. His team uses Satellite as their dynamic inventory. They can now provision servers "without having to do something manually or maintain an inventory file." A Senior System Engineer at a small tech services company similarly noted that it was now "easier to create, view, and update pools." He added, "We spin up a new one when necessary. We can quickly bring one down and move the traffic over, and it's a lot simpler to keep, update, and manage our application."

#6 – Boosting Infrastructure Security and Compliance

Security, compliance, and infrastructure management are closely related, partly because certain infrastructure management tasks, like patching, affect security posture and regulatory compliance. Improving infrastructure management efficiency can thus have a positive impact on security outcomes. Conversely, delays in patching increase risk exposure. Configuration and provisioning errors introduced by manual processes further weaken the state of security and compliance. And, security work itself can be labor intensive. Satellite helps resolve these problems. With Satellite, security teams have fewer manual tasks to perform.

A Cloud Architect at a government with more than 200 employees acknowledged this capability when he shared that Satellite, in combination with Red Hat Enterprise Linux, "was able to help improve our security posture." For emphasis, he added, "We run a very tight ship." An IT Manager at a financial services firm with more than 500 employees affirmed the value of automating security configurations, which enables his organization to achieve security standards certifications.

Senior Linux System Administrator
at Torch Technology

"The solution saves us man-hours, and man-hours equals money."

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"We don't have a problem with compliance," said the university's Senior System Engineer. "Our Red Hat Satellite server is helpful in terms of meeting compliance requirements." Further to the subject of compliance, the manufacturing company's Linux System Administrator remarked, "I think it's good for maintaining compliance... especially with Red Hat Satellite. It makes it easy for us to access package and vulnerability information, allowing us to identify and resolve any issues. Overall, it works quite well."

Faster System Patching

#7 – Making Patching Less Challenging

System patching is an essential security workload. Indeed, many large-scale data breaches have occurred after infrastructure managers were unable to apply routine security patches to target systems quickly enough. For this reason, solutions like Satellite, which simplify and speed up patching, help keep systems more secure.

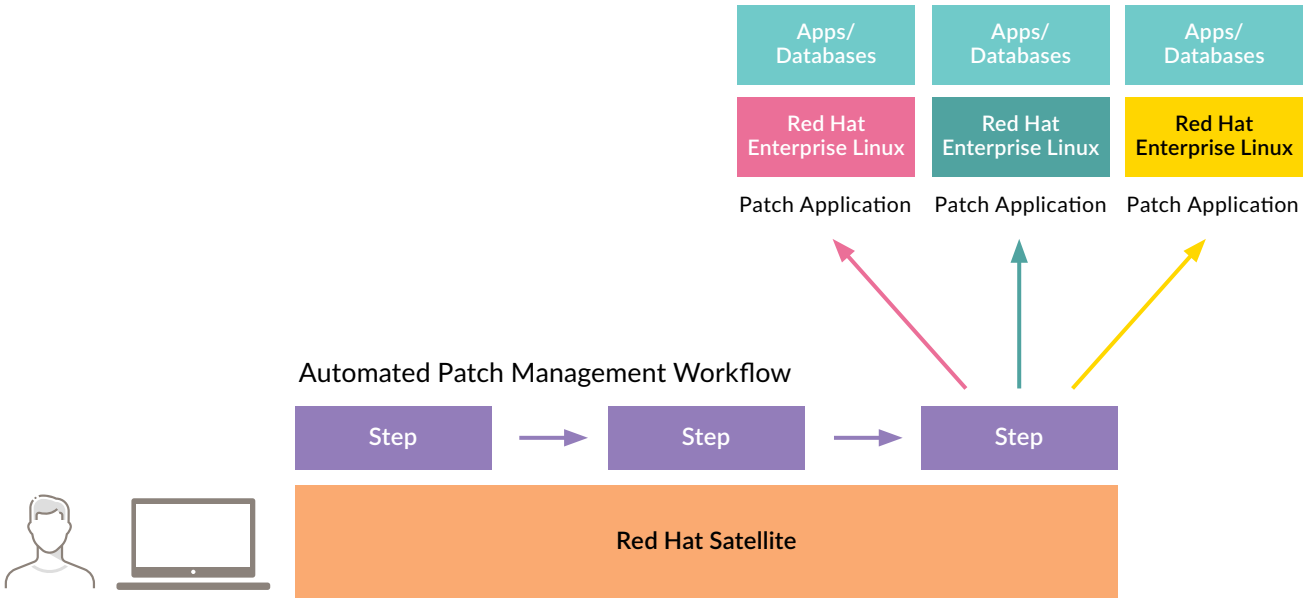

Figure 2 – Red Hat Satellite helps speed up the patching process by automating the workflow steps required for effective patch management.

Integrating Satellite with Red Hat Enterprise Linux benefits patch management, according to an IT Systems Engineer. He said, "That integration has helped to improve things compared to how they were when I got here. For example, we have a more automated process for patching." His team continues to develop the integration with the hope that their patching process will become "more of a pipeline and a lot easier and faster, compared to how it was done before." Figure 2 depicts this automation.

A pharma/biotech company with over 1,000 employees uses Red Hat Satellite as part of their patching and deployment, both from on-premises infrastructure and Amazon Web Services (AWS). Their Director said, "That's been really helpful since it is one product that can be used in a hybrid environment. It's just one place to manage everything. It's good since you don't have two different products or places to manage, especially if you have a multi-datacenter and not a multi-cloud but a multi-location environment."

Linux System Administrator
at a manufacturing company
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"[Satellite] makes it easy for us to access package and vulnerability information, allowing us to identify and resolve any issues."

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Cloud Architect
at a government with
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"We use Satellite to do patch management and limited repository so that we don't have folks going out to the internet to get the repos."

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A small tech vendor, working for the demanding US Department of Defense (DoD), hosts Java-based applications, services, and backend databases on top of Red Hat Enterprise Linux around the world. Their Director of Security Engineering shared, "We run Satellite on a lot of these, so having a central repository that we can use for patch management and remote execution is huge. That's something that is very difficult in a Windows environment."

This user elaborated, saying, "We're very compliance driven, so to have that built into Red Hat is easy. We don't need an agent or anything like that to get a lot of work done, so Satellite and centralized automation are the most valuable features for us."

Other notable comments about Satellite's benefits for patch management included:

- "We use Satellite to do patch management and limited repository so that we don't have folks going out to the internet to get the repos. You have to get the repos through our Satellite system. We also do patches through that." - Cloud Architect at a government agency with more than 200 employees
- "The most valuable feature is Satellite. Its consistency in patch upgradation is great. For the ten-year lifecycle, we have been able to rely on it and not worry if the patch will break. We do not need additional patching features since it covers everything." - Lead System Engineer at a tech services company with over 10,000 employees

- "The primary function we use Satellite for is patching. Having something that's built to manage application environments and make sure that everything is patched correctly to use Ansible, plugs into everything else, including Satellite. You can use it to manage RHEL, Satellite, and other things, such as Windows and networking equipment. The tightest integration is with Red Hat." - Principal Systems Engineer at Greenway Health

- "They provide satellites as an account management solution to deliver fixes. It helps us figure out where there are security gaps in our system. They offer good compliance out of the box." - IT Manager at a financial services firm with more than 500 employees

As these remarks show, Satellite proves its worth as a system for better, faster, and more consistent patching. Satellite users rely on the solution to keep up with security patches—helping to mitigate the risk of data breaches in the process.

John L.
Principal Systems Engineer
at Greenway Health

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Conclusion

Manually managing infrastructure and security can lead to less-than-optimal outcomes. From high costs to overburdened teams and errors that affect security, hands-on infrastructure management is a problematic proposition. Red Hat Satellite offers a solution. As Satellite users explained in their PeerSpot reviews, this infrastructure management solution automates common system tasks, increasing efficiency and team productivity in the process. Satellite also improves security by streamlining processes like provisioning and patch management. As these factors come together, users find themselves making progress toward increased operational efficiency and security posture.

About PeerSpot

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