

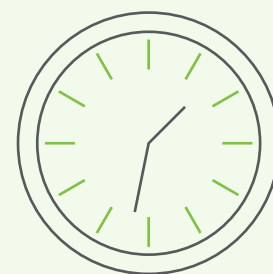


Save administrator time and effort by activating Red Hat Insights to automate monitoring

In five common use cases, activating Red Hat Insights saved time compared to a scripted workflow in Red Hat Enterprise Linux environments

Detecting configuration or compliance flaws in sprawling infrastructures of Red Hat® Enterprise Linux® systems can consume significant time and energy from administrators. While most administrators create their own “home-grown” workflows with some amount of scripting through ssh, awk, and more, maintaining those scripts is an added hassle. Red Hat includes Insights, a SaaS monitoring and management tool used both on-premises or in the cloud, as part of the Red Hat Enterprise Linux subscription to proactively identify risks and save administrator time and effort.

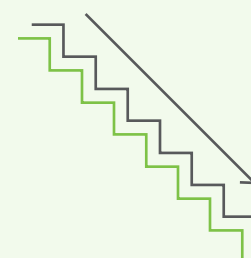
In the Principled Technologies (PT) data center, we compared first-time setup of two approaches to detecting deployment flaws: 1) a typical home-grown workflow (though every admin’s scripted approach will differ) and 2) activating Red Hat Insights automation. By default, Red Hat Insights runs automatically, so it provides greater savings over time than we discuss here. Across the five use cases selected from services Insights provides—Advisor, Vulnerability, Drift, Patch, and Policy—we found that using Insights saved significant administrator time and steps in our 100-VM environment comprising both locally hosted VMs and cloud VMs on AWS™ and Microsoft Azure. By activating Red Hat Insights, administrators could abandon maintaining scripts for routine tasks and focus more time and effort on completing other business initiatives.



Reduce time to detect Advisor issues*

by up to

96%



Reduce administrator steps to detect Advisor issues*

by up to

26%

*detecting Advisor issues on 100 systems with Red Hat Insights versus a manual approach with scripted workflows

Red Hat Insights saved administrator time and steps

For the manual scripted workflow test, we determined the time and steps required to define detection on a single host, write automation to scale detection to 100 hosts, review the results, and prepare remediation steps. For the Red Hat Insights test, we determined the time and steps required to set up Insights for detection on 100 hosts, review the results, and prepare remediation steps. The manual test results omit the time and steps we took to run the automation and the Red Hat Insights test results omit time and steps we took to run insights-client. In a typical production environment, administrators would schedule both these tasks to run without user input.

The PT administrator completing these tests was Linux-savvy with heavy scripting/automation skills, but had little exposure to Red Hat Insights prior to testing. Time and steps vary with the Linux/automation experience or your particular team.

Use case 1: Red Hat Insights Advisor

Among other findings about system configuration state, Red Hat Insights Advisor gives app-specific tunings for configurations, including Microsoft SQL Server on Red Hat Enterprise Linux, to improve performance, availability, and stability of the environment. Using Red Hat Insights to recommend remediation steps for a Microsoft SQL Advisory configuration across 100 VMs took just 1 minute 19 seconds and 19 steps. That's 96.0 percent less time and 26.9 percent fewer steps than the manual scripted workflow, which took over 33 minutes and 26 steps to complete the same task. The Red Hat Insights times and steps reflect initial setup time; in typical use cases, after these initial setup steps, Red Hat Insights automatically runs insights-client daily, so Advisor runs automatically and reports issues at intervals of admins' choosing. This means that Red Hat Insights would save even more time and effort for admins monitoring their SQL environment.

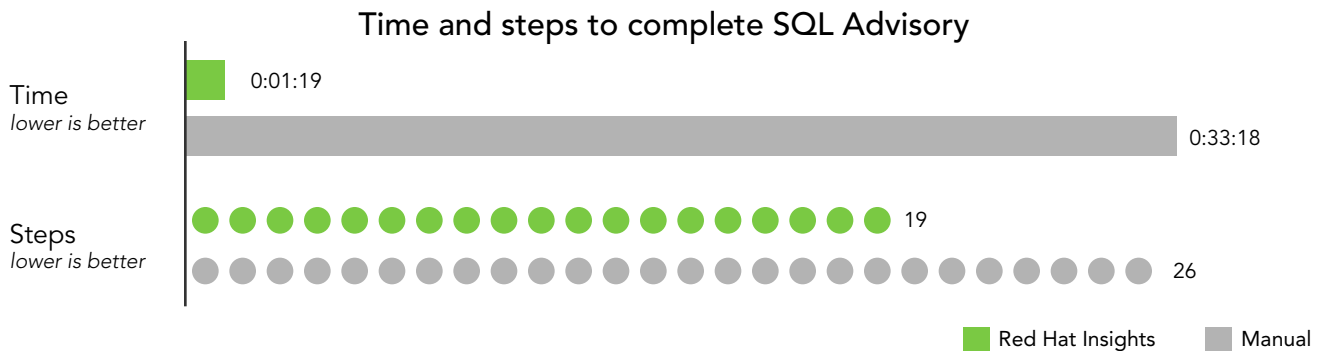


Figure 1: Time in h:mm:ss and number of steps to complete the SQL Advisory use case using Red Hat Insights versus a manual, scripted workflow. Lower numbers are better. Source: Principled Technologies.

Use case 2: Red Hat Insights Vulnerability

Red Hat Insights Vulnerability service evaluates the impact of Red Hat Security Advisories and allows admins to discover Common Vulnerabilities and Exposures® (CVEs) in Red Hat Enterprise Linux environments while recommending steps to mitigate them. In the vulnerability use case we tested, using Red Hat Insights to discover vulnerabilities in our 100-VM environment took just 1 minute 24 seconds and 10 steps, compared to over 15 minutes and 23 steps for the manual scripted workflow approach. In this manual approach, once the admin realizes there is a new CVE, the admin has to learn about it, create a script to detect the CVE, test the script, and then run the script on each machine. This means that addressing the vulnerability issue with Red Hat Insights reduced task completion time by 91.1 percent and administrator steps by 56.5 percent. Again, after these initial setup steps, Vulnerability service runs automatically. Every time there is a new CVE, Insights has a list of exposed systems ready daily with no further administrator effort required.

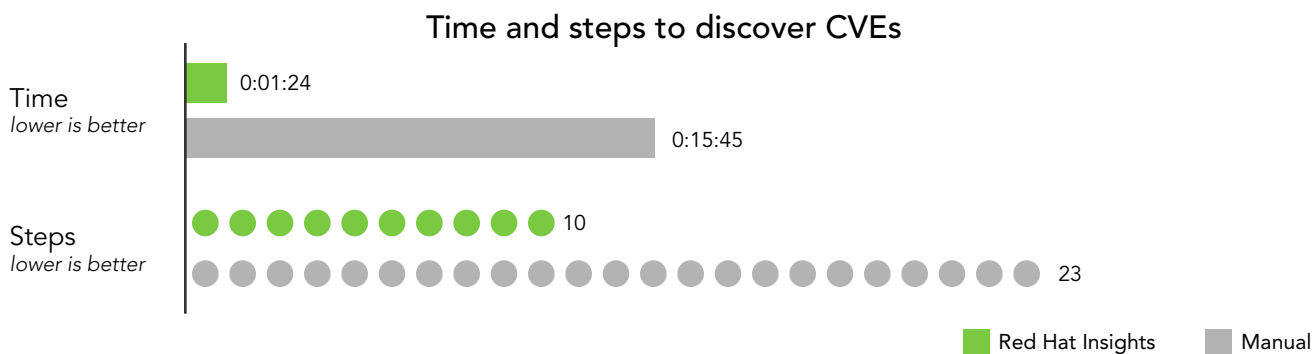


Figure 2: Time in h:mm:ss and number of steps to complete the Vulnerability use case using Red Hat Insights versus a manual, scripted workflow. Lower numbers are better. Source: Principled Technologies.

Use case 3: Red Hat Insights Drift

Monitoring configuration drift ensures that systems line up with a desired baseline configuration to ensure consistent service. In our test, using Red Hat Insights to detect drift in an 80-VM cloud environment (20 remaining VMs stayed in the local base system configuration for comparison) reduced time from over 32 minutes with the manual scripted workflow to just 3 minutes 21 seconds, a time savings of 89.6 percent. Using Red Hat Insights also reduced administrator effort in this use case, reducing steps from 31 to only 19, a savings of 38.7 percent. Because Red Hat Insights automatically runs insights-client daily after initial setup, administrators need to be able to see quickly and easily how configurations have drifted. Another benefit of using Red Hat Insights is the clear presentation of the configuration comparison, which is nicely formatted and easy to read. Using a manual scripted workflow approach results in a set of text files that admins must dig through to find the information they need, which takes additional time.

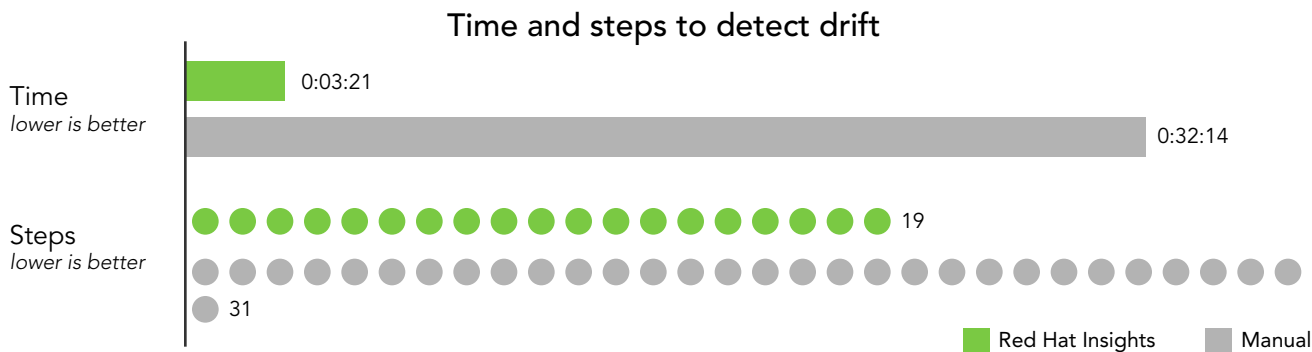


Figure 3: Time in h:mm:ss and number of steps to complete the Drift use case using Red Hat Insights versus a manual, scripted workflow. Lower numbers are better. Source: Principled Technologies.

Use case 4: Red Hat Insights Patch

Administrators must also keep track of patching status for all systems in an environment, and we found that Red Hat Insights could help administrators do so with less time and effort. Investigating whether a Red Hat Bugfix Advisory applied to our 100 VMs and recommending appropriate patches to remedy the situation took just 2 minutes and 11 seconds using Red Hat Insights Patch, 88.9 percent less time than using a manual scripted workflow, which took 19 minutes 47 seconds. Using Red Hat Insights Patch also took 15.0 percent fewer administrator steps for this use case, reducing steps from 20 to just 17. As in the other use cases, the times for Red Hat Insights reflect initial setup across the VMs. After initial setup, Red Hat Insights takes care of monitoring patching status automatically and does not require these steps, while the manual/scripted workflow requires time to run the scripts and access the information after the scripts have run. As new patches become available, Red Hat Insights automatically checks for them; the manual scripted workflow approach requires administrators to find new patches and update scripts accordingly.

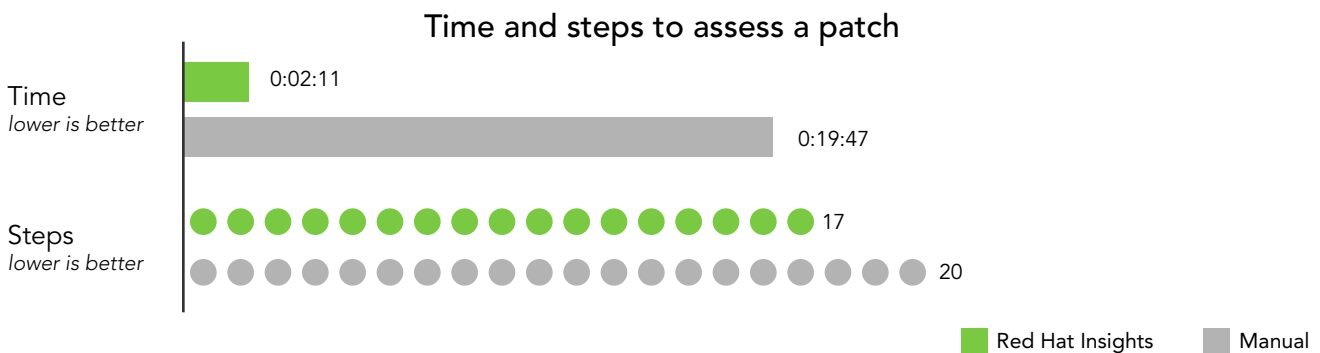


Figure 4: Time in h:mm:ss and number of steps to complete the Patches use case using Red Hat Insights versus a manual, scripted workflow. Lower numbers are better. Source: Principled Technologies.

Use case 5: Red Hat Insights Policy

Different environments require different management, so Red Hat Insights allows administrators to create their own policies to act on system configurations with the Policy service. Creating a policy using Red Hat Insights took only 3 minutes 37 seconds and 23 steps compared to using the manual scripted workflow, which took 12 minutes and 15 steps to complete for a savings of 69.8 percent for initial setup. After setting a policy in Red Hat Insights, it runs automatically each day and sends notifications to administrators, costing zero time and effort to administrators. Conversely, with a scripted workflow, administrators would need to log in each day or schedule a script to run with cron, taking more time and effort than using Insights.

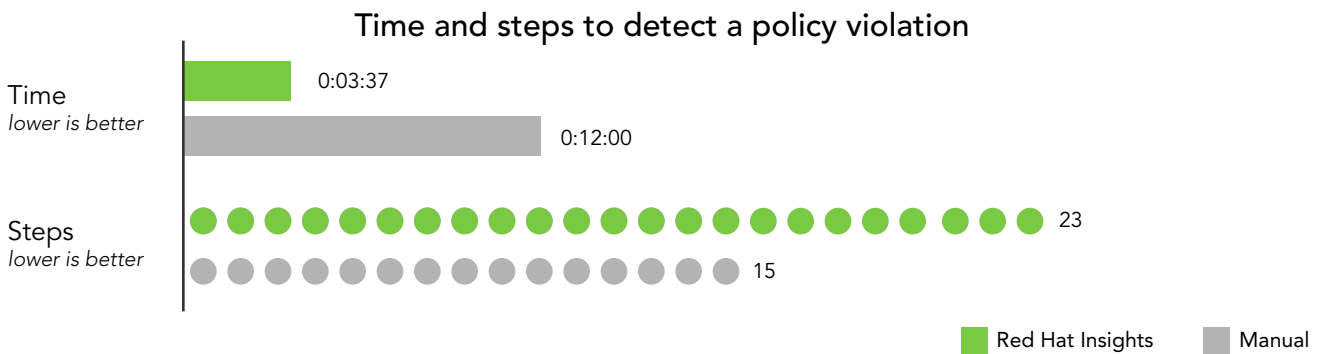


Figure 5: Time in h:mm:ss and number of steps to complete the Policy use case using Red Hat Insights versus a manual, scripted workflow. Lower numbers are better. Source: Principled Technologies.



Activate Red Hat Insights to save time in patching and maintenance scenarios

Routine monitoring and maintenance is part of keeping a Red Hat Enterprise Linux environment up to date and compliant, but even using scripted workflows can take significant time and hassle to maintain them. Red Hat Enterprise Linux includes Red Hat Insights, which monitors, assesses, and recommends actions to bolster the performance and reliability of your environment, whether on premise or in the cloud. In our tests, setting up the Red Hat Insights Advisor service to monitor 100 VMs took 96.0 percent less time and saved 26.9 percent hands-on administrator steps to detect SQL configuration advisories compared to a manual, scripted approach. After initial setup, Red Hat Insights runs automatically on the systems in the environment each day, sending reports to administrators based on the needs of the environment. With a scripted approach, administrators would have to manually run scripts on the systems repeatedly to get the same data. By leveraging Red Hat Insights features such as Advisor, Vulnerability, Drift, Patch, and Policy, your organization can reduce the hands-on administrator time and hassle of using and maintaining scripts for routine tasks.

Read the science behind this report at <http://facts.pt/dXtnf6W> ►



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