7 ways to automate Windows with Red Hat automation

It is not uncommon for organizations to have a combination of technology configurations within their enterprise, with different applications running on different operating systems or a multitier application where the front end runs on Linux® while the back end runs on Microsoft Windows. Using different tools to automate each system and application can be inefficient and lead to solution sprawl and/or potential workflow bottlenecks.

With Red Hat® Ansible® Automation Platform, IT organizations can automate their systems, including both Microsoft Windows and Linux distributions, such as Red Hat Enterprise Linux. Using Ansible Content Collections for Microsoft Windows and Microsoft Active Directory (AD), IT teams can automate the entire application lifecycle through a single, reliable platform. This checklist outlines 7 ways you can use these collections to automate your Windows systems.

1 Use PowerShell scripts

Ansible Automation Platform allows you to capitalize on your existing investment in PowerShell scripts by orchestrating them as part of a broader automation process. Additionally, Ansible Automation Platform:

- VManages almost any technology with PowerShell modules, which is possible due to its extensible nature.
- Allows you to automate new Windows systems, including all .NET and Desired State Configuration (DSC) functions, without installing another scripting language.

2 Maintain Microsoft AD

With Ansible Automation Platform, you can automate domain and domain-user management to simplify operations. With this benefit, you can:

- Look up host information for debugging Lightweight Directory Access Protocol (LDAP) connections, checking for the existence of a Windows domain, and manage AD group objects, users, and domains.
- Create temporary domains automatically, add test systems, perform tests, and tear everything down in less time.

3 Install and maintain apps

Windows relies on the Microsoft Store for application distribution and maintenance, but it lacks an integrated package-management system for automation.

- Ansible Automation Platform includes a module that enables package management automation on Windows.
- Ansible integrates with Chocolatey to provide automated, idempotent package management for Windows environments.

4 Apply Windows updates

Managing updates is a continuous task that can divert attention from strategic initiatives. Such as:

- Microsoft Endpoint Configuration Manager (MECM) is widely used but can be unreliable for automated updates, especially when reboots are required.
- Using Ansible Automation Platform to update all your servers at the same time, which helps them stay consistent and reliable.

5 Configure Internet Information Services

Internet Information Services (IIS) is a flexible web server built for Windows environments. Ansible Automation Platform offers:

- AComprehensive modules to automate IIS configuration.
- Supported tasks that include setting up websites, web applications, application pools, and virtual directories.

6 Customize the Windows registry

Editing Windows registry values manually is slow and prone to errors. Instead, consider:

- Ansible Automation Platform allows idempotent management of individual registry key-value pairs.
- Registry templates can be created and automatically applied across multiple Windows systems for greater efficiency.

7 Automate certificate management

Ansible Automation Platform automates the full lifecycle of Secure Sockets Layer and Transport Layer Security (SSL/TLS) certificates on Windows servers to enhance security and reduce service disruptions. As a result:

- Administrators can use simple, idempotent playbooks to import, verify, and remove certificates across designated stores.
- This Infrastructure as Code (IaC) approach streamlines certificate management across multiple servers without manual intervention.

Learn more

Read the case study[1] to learn about how Siemens, a global technology company, simplified and improved its Windows-based public key infrastructure environment successfully using Red Hat Ansible Automation.

Teams can save money by consolidating disparate solutions, eliminating static operations, and aligning teams around a versatile solution without an advanced Linux skillset. Read more about Red Hat Ansible Automation Platform managing Microsoft Windows and Active Directory.

1 *Red Hat case study. "Siemens enhances communication security with Red Hat Ansible Automation." October 2022.*

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