

10 ways to automate Microsoft Windows with Red Hat Ansible Automation Platform

Most organizations use varied IT stacks within their business. You may have a Linux® server farm and use a Microsoft Active Directory cluster to provide identity services. Or you may maintain a cross-platform environment that builds software for multiple targets. Manually managing each of the different components can be tedious and error-prone.

Automate your multivendor environments more easily with Red Hat® Ansible® Automation Platform. Through native Microsoft Windows support, you can now manage your Linux systems like Linux and your Windows systems like Windows, using the same automation tools. This checklist reviews 10 ways you can automate Windows systems using Red Hat Ansible Automation Platform.

1 Windows Remote Management (WinRM)

WinRM is Microsoft's built-in HTTP-based remote management technology. WinRM's non-interactive login makes it difficult to perform some tasks like accessing the data protection application programming interface (API), double-hop authentication, and Windows updates. With Red Hat Ansible Automation Platform, you can codify authentication to automate these remote management tasks in Windows.

2 Powershell

Powershell is the task-based command-line shell and scripting language included with Windows. It is built on .NET and provides access to the Desired State Configuration (DSC) platform for configuring, deploying, and managing systems. Red Hat Ansible Automation Platform allows you to automate brand new Windows systems, including all .NET and DSC functions, without installing another scripting language.

3 Application installation and maintenance

Windows does not include an integrated package management system and uses Microsoft Store for application distribution and maintenance. However, Microsoft Store is not easy to automate. Red Hat Ansible Automation Platform provides a module for automating basic package management in Windows. It also integrates with [Chocolatey software management automation](#) for Windows to provide automated idempotent package management.

4 Tasks that require reboots

Many standard IT functions require or result in reboots in Windows. Reboots can be problematic when automating tasks, as a particular system effectively disappears during a reboot, interrupting the automation tasks. Red Hat Ansible Automation Platform provides a way to manage systems through reboot cycles to ensure that all automation tasks are performed, regardless of how many reboots are required.

Customer success highlight

Siemens, a global technology company, deployed Red Hat Ansible Automation Platform to simplify and better automate its Windows-based public key infrastructure (PKI) environment.

- Optimized Ansible for Windows-based security environment
- Improved IT efficiency by automating management tasks
- Enhanced in-house Ansible expertise with dedicated, expert consulting and training



“We needed more automation, and for this Red Hat Ansible Automation Platform was the perfect choice.”

Rufus Buschart
Head of PKI, Siemens

5 Windows Update

Update management is an ongoing responsibility for all IT teams. Windows Update delivers software updates for Windows systems, and many IT teams use Microsoft System Center Configuration Manager (SCCM) to manage these updates across their systems. However, SCCM can be unreliable for performing automated updates, particularly when reboots are involved, making it more difficult to meet maintenance windows. Red Hat Ansible Automation Platform lets you perform basic synchronous updates using Windows Update, making automated updates more reliable.

6 Internet Information Services (IIS)

IIS is an extensible web server for Windows. Red Hat Ansible Automation Platform provides basic automation modules for IIS, including setting up a website, web applications, application pools, and virtual directories.

7 Windows Registry

Windows Registry stores low-level settings for the Windows operating system and applications. Changing registry values manually can be time-consuming and error-prone. Red Hat Ansible Automation Platform includes built-in capabilities for managing individual key value pairs in an idempotent fashion. You can also create registry templates and automatically apply those templates to groups of Windows systems.

8 Windows Service Control Manager (SCM)

Windows SCM provides management for all Windows services, including WinRM, IIS, and firewalls. Red Hat Ansible Automation Platform includes a module for automating service controls. You can also create and manage Windows services as part of a larger software deployment.

9 Domains

Windows uses domains to manage enterprise identity. All systems in your enterprise environment should be joined to a domain. This can make testing new software, updates, and configurations difficult, as all test systems must be added to a domain. Red Hat Ansible Automation Platform allows you to automate basic domain and domain user management to simplify operations. It also eases testing of new setups using ephemeral machines. You can automatically create throwaway domains, add ephemeral systems, perform your tests, and tear everything down quickly.

10 Access control lists (ACLs)

Security is a constant concern for IT teams. Windows uses ACLs to specify access rights for users, groups, and tasks. Configuring ACLs correctly is critical to protecting your business. Red Hat Ansible Automation Platform makes it easier to configure and understand your ACLs. You can use clear, human-readable code to set up users and groups, assign rights, and define inheritance behaviors.

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