SSM - Change management - Maintenance Windows

## Service Overview

AWS Systems Manager Maintenance Windows let you define a schedule for when to perform potentially disruptive actions on your instances such as patching an operating system, updating drivers, or installing software or patches. Maintenance Windows also lets you schedule actions on numerous other AWS resource types, such as Amazon Simple Storage Service (Amazon S3) buckets, Amazon Simple Queue Service (Amazon SQS) queues, AWS Key Management Service (AWS KMS) keys, and many more. For a full list of supported resource types that you can include in a maintenance window target, see [Supported Resources for AWS Resource Groups](https://docs.aws.amazon.com/ARG/latest/userguide/supported-resources.html#supported-resources-console) in the AWS Resource Groups User Guide.

Each maintenance window has a schedule, a maximum duration, a set of registered targets (the instances or other AWS resources that are acted upon), and a set of registered tasks. You can add tags to your maintenance windows when you create or update them. (Tags are keys that help identify and sort your resources within your organization.) You can also specify dates that a maintenance window should not run before or after, and you can specify the international time zone on which to base the maintenance window schedule.

## Use cases / Considerations

Supported task types:

* Systems Manager Run Command commands
* Systems Manager Automation workflows
* AWS Lambda functions
* AWS Step Functions tasks

Use cases where Maintenance Windows can be useful:

* Install or update applications.
* Apply patches.
* Install or update SSM Agent.
* Run PowerShell commands and Linux shell scripts by using a Systems Manager Run Command task.
* Build Amazon Machine Images (AMIs), boot-strap software, and configure instances by using a Systems Manager Automation task.
* Run AWS Lambda functions that trigger additional actions, such as scanning your instances for patch updates.
* Run AWS Step Functions state machines to perform tasks such as removing an instance from an Elastic Load Balancing environment, patching the instance, and then adding the instance back to the Elastic Load Balancing environment.
* Target instances that are offline by specifying an AWS resource group as the target.

## Governance

Maintenance Windows is supported as an *event* type in Amazon EventBridge (EventBridge) rules. For information, see [Monitoring Systems Manager events with Amazon EventBridge](https://docs.aws.amazon.com/systems-manager/latest/userguide/monitoring-eventbridge-events.html) and [Reference: Amazon EventBridge event patterns and types for Systems Manager](https://docs.aws.amazon.com/systems-manager/latest/userguide/reference-eventbridge-events.html).

## Cautions

none

## Pricing considerations

No additional charges

## More details

* [Setting up Maintenance Windows](https://docs.aws.amazon.com/systems-manager/latest/userguide/sysman-maintenance-permissions.html)
* [Working with maintenance windows (console)](https://docs.aws.amazon.com/systems-manager/latest/userguide/sysman-maintenance-working.html)
* [Systems Manager Maintenance Windows tutorials (AWS CLI)](https://docs.aws.amazon.com/systems-manager/latest/userguide/maintenance-windows-tutorials.html)
* [Maintenance window walkthroughs](https://docs.aws.amazon.com/systems-manager/latest/userguide/maintenance-window-walkthroughs.html)
* [Maintenance window scheduling and active period options](https://docs.aws.amazon.com/systems-manager/latest/userguide/maintenance-windows-schedule-options.html)
* [Registering maintenance window tasks without targets](https://docs.aws.amazon.com/systems-manager/latest/userguide/maintenance-windows-targetless-tasks.html)
* [Troubleshooting maintenance windows](https://docs.aws.amazon.com/systems-manager/latest/userguide/troubleshooting-maintenance-windows.html)