SSM - Node Management - Session Manager

## Service Overview

Session Manager is a fully managed AWS Systems Manager capability that lets you manage your Amazon Elastic Compute Cloud (Amazon EC2) instances, on-premises instances, and virtual machines (VMs) through an interactive one-click browser-based shell or through the AWS Command Line Interface (AWS CLI). Session Manager provides secure and auditable instance management without the need to open inbound ports, maintain bastion hosts, or manage SSH keys. Session Manager also makes it easy to comply with corporate policies that require controlled access to instances, strict security practices, and fully auditable logs with instance access details, while still providing end users with simple one-click cross-platform access to your managed instances.

## Use cases / Considerations

Session Manager [benefits](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager.html#session-manager-benefits):

* Centralized access control to instances using IAM policies
* No open inbound ports and no need to manage bastion hosts or SSH keys
* One-click access to instances from the console and CLI
* Port forwarding
* Cross-platform support for Windows, Linux, and macOS
* Logging and auditing session activity

Session Manager [features](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager.html#session-manager-features):

* Support for Windows Server, Linux and macOS instances
* Console, CLI, and SDK access to Session Manager capabilities
* IAM access control
* Logging and auditing capability support
* Configurable shell profiles
* Customer key data encryption support
* AWS PrivateLink support for instances without public IP addresses
* Tunneling
* Interactive commands

## Governance

Logging and auditing capabilities are provided through integration with the following AWS services:

* AWS CloudTrail
* Amazon Simple Storage Service
* Amazon CloudWatch Logs
* Amazon EventBridge and Amazon Simple Notification Service

## Cautions

None

## Pricing considerations

[Session Manager pricing](https://aws.amazon.com/systems-manager/pricing/#Session_Manager)

## More details

* [Session Manager](https://docs.aws.amazon.com/systems-manager/latest/userguide/execute-remote-commands.html)
* [Setting up Session Manager](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-getting-started.html)
* [Working with Session Manager](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-working-with.html)
* [Auditing session activity](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-auditing.html)
* [Logging session activity](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-logging.html)
* [Session document schema](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-schema.html)
* [Troubleshooting Session Manager](https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-troubleshooting.html)
* [AWS Basics - SSM - Connect to EC2 Instances with Session Manager (video)](https://www.youtube.com/watch?v=jrYwS0yF3uc)
* [AWS Sessions Manager Overview (video)](https://www.youtube.com/watch?v=cUEFGKaZOyU)
* [Still using SSH on AWS? Check out Session Manager instead! (video)](https://www.youtube.com/watch?v=TiaxgThfTRc)
* [Securely Access Windows Instances Using RDP and AWS Systems Manager Session Manager (video)](https://www.youtube.com/watch?v=nt6NTWQ-h6o)
* [Controlling User Session Access to Instances in AWS System Manager Session Manager (video)](https://www.youtube.com/watch?v=nzjTIjFLiow)