



# Configuring Session Manager

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## About Session Manager

Session Manager allows you to implement your configuration changes in batch mode. Session Manager works in the following phases:

- **Configuration session**—Creates a list of commands that you want to implement in session manager mode.
- **Validation**—Provides a basic semantic check on your configuration. Cisco NX-OS returns an error if the semantic check fails on any part of the configuration.
- **Verification**—Verifies the configuration as a whole, based on the existing hardware and software configuration and resources. Cisco NX-OS returns an error if the configuration does not pass this verification phase.
- **Commit**—Cisco NX-OS verifies the complete configuration and implements the changes atomically to the device. If a failure occurs, Cisco NX-OS reverts to the original configuration.
- **Abort**—Discards the configuration changes before implementation.

You can optionally end a configuration session without committing the changes. You can also save a configuration session.

## Guidelines and Limitations for Session Manager

Session Manager has the following configuration guidelines and limitations:

- Session Manager supports only the access control list (ACL) feature.
- You can create up to 32 configuration sessions.
- You can configure a maximum of 20,000 commands across all sessions.

# Configuring Session Manager

## Creating a Session

You can create up to 32 configuration sessions.

### SUMMARY STEPS

1. switch# **configure session** *name*
2. (Optional) switch(config-s)# **show configuration session** [*name*]
3. (Optional) switch(config-s)# **save** *location*

### DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	switch# <b>configure session</b> <i>name</i>	Creates a configuration session and enters session configuration mode. The name can be any alphanumeric string.  Displays the contents of the session.
<b>Step 2</b>	(Optional) switch(config-s)# <b>show configuration session</b> [ <i>name</i> ]	Displays the contents of the session.
<b>Step 3</b>	(Optional) switch(config-s)# <b>save</b> <i>location</i>	Saves the session to a file. The location can be in bootflash or volatile.

## Configuring ACLs in a Session

You can configure ACLs within a configuration session.

### SUMMARY STEPS

1. switch# **configure session** *name*
2. switch(config-s)# **ip access-list** *name*
3. (Optional) switch(config-s-acl)# **permit** *protocol source destination*
4. switch(config-s-acl)# **interface** *interface-type number*
5. switch(config-s-if)# **ip port access-group** *name in*
6. (Optional) switch# **show configuration session** [*name*]

### DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	switch# <b>configure session</b> <i>name</i>	Creates a configuration session and enters session configuration mode. The name can be any alphanumeric string.

	Command or Action	Purpose
<b>Step 2</b>	switch(config-s)# <b>ip access-list</b> <i>name</i>	Creates an ACL.
<b>Step 3</b>	(Optional) switch(config-s-acl)# <b>permit</b> <i>protocol source destination</i>	Adds a permit statement to the ACL.
<b>Step 4</b>	switch(config-s-acl)# <b>interface</b> <i>interface-type number</i>	Enters interface configuration mode.
<b>Step 5</b>	switch(config-s-if)# <b>ip port access-group</b> <i>name in</i>	Adds a port access group to the interface.
<b>Step 6</b>	(Optional) switch# <b>show configuration session</b> [ <i>name</i> ]	Displays the contents of the session.

## Verifying a Session

To verify a session, use the following command in session mode:

Command	Purpose
switch(config-s)# <b>verify</b> [ <b>verbose</b> ]	Verifies the commands in the configuration session.

## Committing a Session

To commit a session, use the following command in session mode:

Command	Purpose
switch(config-s)# <b>commit</b> [ <b>verbose</b> ]	Commits the commands in the configuration session.

## Saving a Session

To save a session, use the following command in session mode:

Command	Purpose
switch(config-s)# <b>save</b> <i>location</i>	(Optional) Saves the session to a file. The location can be in bootflash or volatile.

## Discarding a Session

To discard a session, use the following command in session mode:

Command	Purpose
switch(config-s)# <b>abort</b>	Discards the configuration session without applying the commands.

## Configuration Example for Session Manager

The following example shows how to create a configuration session for ACLs:

```
switch# configure session name test2
switch(config-s)# ip access-list acl2
switch(config-s-acl)# permit tcp any any
switch(config-s-acl)# exit
switch(config-s)# interface Ethernet 1/4
switch(config-s-ip)# ip port access-group acl2 in
switch(config-s-ip)# exit
switch(config-s)# verify
switch(config-s)# exit
switch# show configuration session test2
```

## Verifying the Session Manager Configuration

To verify Session Manager configuration information, perform one of the following tasks:

Command	Purpose
<b>show configuration session</b> [ <i>name</i> ]	Displays the contents of the configuration session.
<b>show configuration session status</b> [ <i>name</i> ]	Displays the status of the configuration session.
<b>show configuration session summary</b>	Displays a summary of all the configuration sessions.