



# **About the different shells for CLI commands (cluster administrators only)**

ONTAP 9

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# About the different shells for CLI commands overview (cluster administrators only)

The cluster has three different shells for CLI commands, the *clustershell*, the *nodeshell*, and the *systemshell*. The shells are for different purposes, and they each have a different command set.

- The *clustershell* is the native shell that is started automatically when you log in to the cluster.

It provides all the commands you need to configure and manage the cluster. The *clustershell* CLI help (triggered by `?` at the *clustershell* prompt) displays available *clustershell* commands. The `man command_name` command in the *clustershell* displays the man page for the specified *clustershell* command.

- The *nodeshell* is a special shell for commands that take effect only at the node level.

The *nodeshell* is accessible through the `system node run` command.

The *nodeshell* CLI help (triggered by `?` or `help` at the *nodeshell* prompt) displays available *nodeshell* commands. The `man command_name` command in the *nodeshell* displays the man page for the specified *nodeshell* command.

Many commonly used *nodeshell* commands and options are tunneled or aliased into the *clustershell* and can be executed also from the *clustershell*.

- The *systemshell* is a low-level shell that is used only for diagnostic and troubleshooting purposes.

The *systemshell* and the associated “diag” account are intended for low-level diagnostic purposes. Their access requires the diagnostic privilege level and is reserved only for technical support to perform troubleshooting tasks.

## Access of nodeshell commands and options in the clustershell

*Nodeshell* commands and options are accessible through the *nodeshell*:

```
system node run -node nodename
```

Many commonly used *nodeshell* commands and options are tunneled or aliased into the *clustershell* and can be executed also from the *clustershell*.

*Nodeshell* options that are supported in the *clustershell* can be accessed by using the `vserver options clustershell` command. To see these options, you can do one of the following:

- Query the *clustershell* CLI with `vserver options -vserver nodename_or_clustername -option-name?`
- Access the `vserver options` man page in the *clustershell* CLI with `man vserver options`

If you enter a *nodeshell* or legacy command or option in the *clustershell*, and the command or option has an equivalent *clustershell* command, ONTAP informs you of the *clustershell* command to use.

If you enter a nodeshell or legacy command or option that is not supported in the clustershell, ONTAP informs you of the “not supported” status for the command or option.

## Display available nodeshell commands

You can obtain a list of available nodeshell commands by using the CLI help from the nodeshell.

### Steps

1. To access the nodeshell, enter the following command at the clustershell’s system prompt:

```
system node run -node {nodename|local}
```

`local` is the node you used to access the cluster.



The `system node run` command has an alias command, `run`.

2. Enter the following command in the nodeshell to see the list of available nodeshell commands:

```
[commandname] help
```

*commandname* is the name of the command whose availability you want to display. If you do not include *commandname*, the CLI displays all available nodeshell commands.

You enter `exit` or type `Ctrl-d` to return to the clustershell CLI.

### Example of displaying available nodeshell commands

The following example accesses the nodeshell of a node named `node2` and displays information for the nodeshell command `environment`:

```
cluster1::> system node run -node node2
Type 'exit' or 'Ctrl-D' to return to the CLI

node2> environment help
Usage: environment status |
      [status] [shelf [<adapter>[.<shelf-number>]]] |
      [status] [shelf_log] |
      [status] [shelf_stats] |
      [status] [shelf_power_status] |
      [status] [chassis [all | list-sensors | Temperature | PSU 1 |
      PSU 2 | Voltage | SYS FAN | NVRAM6-temperature-3 | NVRAM6-battery-3]]
```

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