

SONiC Management Community Test in UHD

Release 1.0

User Guide

Notices

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Documentation conventions

The following documentation conventions are used in this guide:

Describing interactions with the UI

You can interact with products by using different input methods: keyboard, mouse, touch, and more. So in most parts of the user documentation, generic verbs have been used that work with any input method. In cases where input-neutral verbs do not work, mouse-specific verbs are used as the first choice, followed by touch-specific verbs as the second choice.

See the following table for examples on how you can interpret the different input methods.

Input-neutral	Mouse	Touch
Select Modify .	Click Modify .	Tap Modify .
Select Accounts > Other accounts > Add an account .	Click Accounts > Other accounts > Add an account .	Tap Accounts > Other accounts > Add an account .
To open the document in Outline view, select View > Outline .	To open the document in Outline view, click View > Outline .	To open the document in Outline view, tap View > Outline .
Select Protocols .	Click the Protocols tab.	Tap Protocols .
-NA-	Double-click the Client wizard.	Double-tap the Client wizard.
Open the Packages context menu.	Right-click Packages to open the shortcut menu.	Long tap Packages to open the shortcut menu.

Deprecated words

The following words have been replaced with new words, considering the audience profile, our modern approach to voice and style, and our emphasis to use input-neutral terms that support all input methods.

Old usage...	New usage...
shortcut menu, right-click menu	context menu
click, right-click	select
drag and drop	drag

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*CHAPTER 1***SONiC-MGMT Community Test in UHD**

Keysight offers you to run the entire SONiC-MGMT testbed in a box with absolutely no change in the scripts. You can run the admin shell operations for SONiC-MGMT Community Test in UHD with the help of ksctl cli. You can view the available ksctl commands by using `ksctl-h`.

For basic operations that can be done using the ksctl cli, see [Manage SONiC-MGMT Community test](#).

Following are the supported HwSkus:

- Force10-S6000
- Force10-S6100
- Force10-Z9100
- DellEMC-Z9332f-M-O16C64
- DellEMC-Z9332f-O32
- Arista-7050-QX32
- Arista-7050-QX-32S
- Arista-7170-64C
- Arista-7170-32CD-C32
- Mellanox-SN2700-D40C8S8
- Mellanox-SN2700-D48C8
- ACS-MSN2700
- Arista-7060CX-32S-D48C8
- Arista-7260CX3-D108C8
- INGRASYS-S9100-C32
- INGRASYS-S8810-32Q
- INGRASYS-S8900-54XC
- INGRASYS-S8900-64XC
- Accton-AS7712-32X
- Accton-AS7726-32X
- montara
- Celestica-DX010-C32
- Seastone-DX010
- Celestica-E1031-T48S4

- Nokia-7215
- newport

*CHAPTER 2***Prerequisites**

License requirement for SONiC-MGMT Community Test

Minimum 1 year subscription for SONiC Management Community Test in UHD is needed to run SONiC community test from sonic-mgmt repository. This license must be installed on the SONiC Management Community Test in UHD hardware to make the community available for running tests.

Following is the command to activate the license:

```
-ksctl license activate <activation code> 1
```

NOTE

This license is needed only for running SONiC-MGMT Community tests on UHD.

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CHAPTER 3

How do I...

The 'How do I' section contains a list of topics that will help you to configure SONiC Management Community Test in UHD by using the SONiC Management Community Test in UHD web UI.

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cEOS Upload

To create the Virtual Machines (VMs) for topologies (T0, T1, T1-LAG), you must download the cEOS image from Arista website and upload the image to the SONiC Management Community Test in UHD by using the following command:

Command

```
- ksctl ceos upload <cEOS image tar file>
```

Create topology

You can deploy the testbed by using `ksctl topo start`. After the deployment is complete, you can check the status of the process by using the `ksctl topo status` command.

Command

```
- ksctl topo start -d <dut ip/mask> -t <topology> -s <hwsku>
- ksctl topo status
```

Execute custom tests

You can create your own test scripts and have the option to run the custom test cases. Also, if you need to execute the new cases from sonic-mgmt repository, you can do so from `/custom_tests`. To execute the custom test cases, do the following:

1. git clone <https://github.com/Azure/sonic-mgmt.git> inside the /custom_tests directory in UHD.
2. Create test scripts under /custom_tests/sonic-mgmt/tests/ directory.
3. Execute the custom test by using `ksctl test run <path of the custom test>`.

Example

```
ksctl test run custom_tests/sonic-mgmt/tests/<test script>
```

Delete topology

To delete the deployed testbed, use the following command:

Command

```
- ksctl topo stop
```

Onboard DUT

List of supporting HwSkus are mentioned in [SONiC-MGMT Community Test in SONiC Management Community Test in UHD](#).

In order to onboard a DUT, whose HwSku is not present in the list of supported HwSkus, do the following:

1. Get the onie_build_platform info of the DUT from /host/machine.conf file from the DUT.
2. Get the HwSku info of the DUT using `#show version`.
3. Navigate to /usr/share/sonic/device/<onie_build_platform>/<HwSku>/ location on the DUT.
4. Copy the port_config.ini file into /home/admin/ path in the UHD setup.
5. After the port_config.ini file is in place, the topology can be created using `ksctl topo start` with -c flag as shown in the following example:

Example

```
ksctl topo start -d <dut ip/mask> -t <topology> -s <hwsku> -c <port_config.ini file>
```

Execute test

You can run the test scripts from sonic-mgmt/tests location by using the `ksctl test run` command. You can run the specific testcases with `':'` followed by the testcase name as shown in the example.

You can also view the list of available scripts from sonic-mgmt by using the `ksctl test list` command.

Command

```
- ksctl test run <testscript>
```

Examples

```
-ksctl test run acl/test_acl.py
-ksctl test run acl/test_acl.py::TestBasicAcl
```

Modify layer1 settings

You can modify the layer1 settings, such as AN and FEC by using the `ksctl layer1` commands.

Command

```
ksctl layer1 an-set <port#> <0->auto,1->enable,2->disable>
ksctl layer1 fec-set <port#> <fec (NONE, FC, RS)>
```

Manage SONiC-MGMT Community test

To manage the SONiC-MGMT Community test, follow the steps mentioned in the sections given below:

Section contents:

View test logs and generate reports

You can view the realtime log of the test execution by using the `ksctl test log` command and generate the report of the run history in json, csv and yaml formats by using the following commands:

Command

```
- ksctl test log <run_id> or
- ksctl test log -follow ( for the running test )
- ksctl test report <run_id> -o csv/yaml/json\
```

View test status

To check the status of the current run or to get the run ID of the previous runs, use the following command:

Command

```
- ksctl test status
```

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