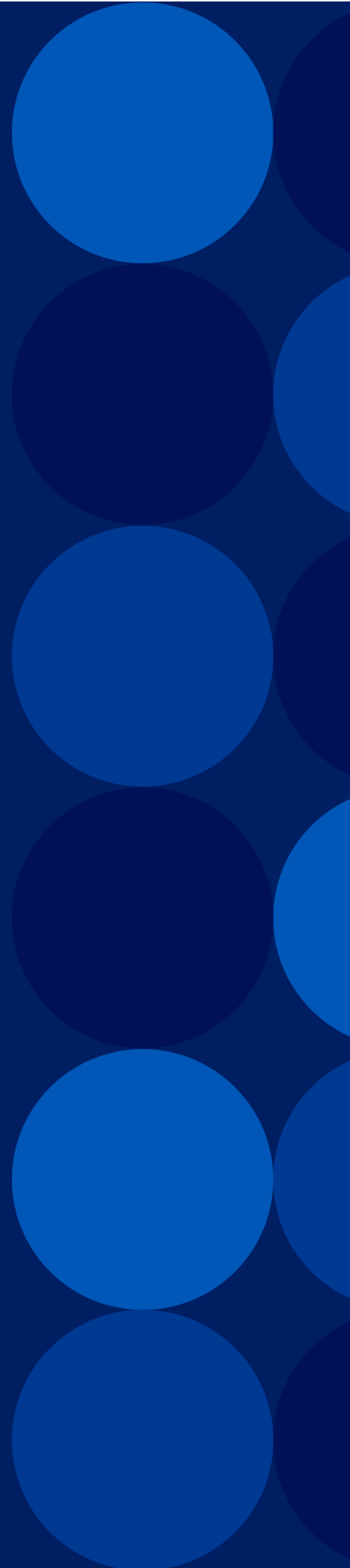


**A10**

# Ansible CLI Reference Guide

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# Introduction

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The A10 Thunder ACOS CLI is a custom plug-in that includes a collection of Ansible CLI Modules. It also contains example playbooks to help you get started with the Thunder ACOS configurations.

Ansible playbooks simplify the application of configuration on Thunder. You can easily add or delete the Thunder configurations.

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**NOTE:** ACOS CLI Modules do not install Thunder but they can only configure Thunder via CLI.

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- For more information on how to configure Thunder using a10-acos-cli, see [Configure Thunder](#).
- For more information on Ansible software, see [Ansible](#).

## Download Links

- Download Thunder ACOS CLI from [Ansible Galaxy](#).
- Download Thunder ACOS CLI from [GitHub](#).

# Configure Thunder

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To configure Thunder using Ansible CLI, perform the following steps:

1. [Install Ansible Software](#) if it is not already installed.  
Ansible is required to download the A10 Thunder ACOS CLI and to apply the Thunder configurations.
2. [Install a10-acos-cli Ansible Modules](#) to apply configurations on A10 Thunder ACOS.
3. [Search for a Thunder Configuration](#) to search the available configurations in the [examples](#) directory.
4. [Apply Thunder Configuration](#) using any of the available methods.
5. [Verify Configuration](#) after logging into Thunder.

## Install a10-acos-cli Ansible Modules

### Install from Galaxy Hub

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1. Download the plugin from the Galaxy site.  
URL: [https://galaxy.ansible.com/ui/repo/published/a10/acos\\_cli/](https://galaxy.ansible.com/ui/repo/published/a10/acos_cli/)
2. Install the plugin by navigating to the directory where it is downloaded. Run the following command:

```
$ ansible-galaxy collection install a10.acos_cli-* -f
```

3. Add the following lines to the `/etc/ansible/ansible.cfg` file to set the plugin path.

```
cliconf_plugins = <collection-dir-path>/a10/acos_cli/plugins/cliconf
terminal_plugins = <collection-dir-path>/a10/acos_cli/plugins/terminal
```

## Install from the GitHub Repository

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To build and use a10-acos-cli modules in the local environment, perform the following steps:

1. Clone the repository and build the a10-acos-cli modules in your local environment using the following command:

```
$ git clone https://github.com/a10networks/a10-acos-cli.git
$ cd a10-acos-cli
$ ansible-galaxy collection build
```

2. Install the a10-acos-cli modules using the following command:

```
$ ansible-galaxy collection install a10.acos_cli-* -f
```

3. Add the following lines to the `/etc/ansible/ansible.cfg` file to set the plugin path using the following command.

```
cliconf_plugins = <collection-dir-path>/a10/acos_cli/plugins/cliconf
terminal_plugins = <collection-dir-path>/a10/acos_cli/plugins/terminal
```

## Search for a Thunder Configuration

To search for a Thunder Configuration in the existing examples, perform the following steps:

1. Identify the desired Thunder configuration.
2. Download the [examples](#) directory.
3. Search the required Ansible configuration playbooks in the downloaded examples directory.

### Example

If you want to apply the configuration on Thunder, open the Ansible playbook from the directory.

### Example

Open `acos_config.yml` playbook.

4. Add, modify, or remove the Thunder configuration parameters and their corresponding values as appropriate.

```
- name: RUN COMMAND FOR CONFIGURE FILE
hosts: vthunder
gather_facts: false
become: True
tasks:
  - name: run lines
    a10.acos_cli.acos_config:
      lines:
        - ip dns primary 10.8.4.35
        - slb template http template12
        - slb server servertest 20.20.15.147
        - port 74 tcp
```

5. Save the changes.

## Apply Thunder Configuration

The Thunder configuration can be applied by executing the Ansible playbooks using the CLI method.

To apply the Thunder Configurations using a10-acos-cli modules, perform the following steps:

1. [Install Ansible Software](#) if it is not already installed.
2. [Install a10-acos-cli ansible modules](#) if they are not already installed.
3. Browse to the required Ansible playbook directory from the command prompt.
4. Run the following command to apply the specified configuration on your Thunder device.

```
Ansible-playbook <playbook_name.yaml>
```

## Verify Configuration

To verify the applied Thunder Configurations, perform the following steps:

1. Open any SSH client and provide the correct credentials to connect to the required Thunder instance.

```
login as: xxxx <---Enter username provided by A10 Networks Support--->
Using keyboard-interactive authentication.
Password: xxxx <---Enter your password>
Last login: Day MM DD HH:MM:SS from a.b.c.d

System is ready now.

[type ? for help]

vThunder> enable <---Execute command--->
Password:<---just press Enter key--->
```

2. Verify the applied Thunder Configurations using the following command:

```
vThunder#show running-config
```



# Appendix

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## Install Ansible Software

To install Ansible software on your machine, perform the following steps:

### On MacOS

To install Ansible on MacOS, perform the following steps:

1. Run the following command to download and install the latest version of Ansible:

```
brew install ansible
```

For more information, see [Ansible Documentation](#).

### On Ubuntu

To install Ansible on Ubuntu, perform the following steps:

1. Run the following command to download and install:

```
apt install ansible
```

2. Run the following command to verify the installation:

```
ansible --version
```

For more information, see [Ansible Documentation](#).

## References

- [https://galaxy.ansible.com/ui/repo/published/a10/acos\\_cli](https://galaxy.ansible.com/ui/repo/published/a10/acos_cli)
- <https://github.com/a10networks/a10-acos-cli>
- <https://documentation.a10networks.com/index.html>

# Troubleshooting

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On executing the `ansible-playbook <playbook_name.yaml> -vvv` command, if you encounter any errors, check the logs for error messages.

To view a full log message on the Thunder device, execute the `show audit` command as shown below:

```
DEMO>show audit Feb 25 2022 16:09:04 [admin] cli: [192.168.98.151:61650]
show audit
Feb 25 2022 16:02:46 [admin] axapi: [75:192.168.92.193:52286] RESP HTTP
status 404 Not Found : Object specified does not exist
Feb 25 2022 16:02:46 [admin] axapi: [75:192.168.92.193:52286] payload
section 1
{"port":{"port-number":80,"protocol":"tcp","template-server-ssl":"no-
such-template"}}
Feb 25 2022 16:02:46 [admin] axapi: [75:192.168.92.193:52286] POST:
/axapi/v3/slb/server/server1/port
```

## Object specified does not exist

When you configure an object that does not exist, the following error message is displayed in the logs:

```
thunder_server.server1: Creating...
thunder_server.server1: Creation complete after 0s [id=server1]
thunder_slb_server_port.svr_port_1: Creating...
|
| Error: axapi failure:CM:err=Object specified does not exist (object:
no-such-template)
|
| with thunder_slb_server_port.svr_port_1,
| on main.tf line 12, in resource "thunder_slb_server_port" "svr_
port_1":
| 12: resource "thunder_slb_server_port" "svr_port_1" {
```

# Disclaimer

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Before applying the Thunder configuration to the production environment, it is strongly recommended to test the configuration thoroughly.

For any issues or queries related to the open-source software included in the product, open a case at A10 Networks Support or reach out to [support@a10networks.com](mailto:support@a10networks.com) and mention "Open-Source Software" in the subject line.

# License

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This product includes software covered by the Apache License

For more information, see [Apache License](#).

# Support

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For any issues or queries related to the a10-acos-cli playbooks, open a case at [A10 Networks Support](#) or reach out to [support@a10networks.com](mailto:support@a10networks.com) and mention "A10-acos-cli" in the subject line.

Additionally, you can raise the [feature requests](#) and report [defects](#) using GitHub.

While reporting defects related to a Ansible playbooks, make sure to include the following:

- Ansible playbooks that gives the error
- Associated command output
- Relevant stack traces

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**NOTE:** While raising a defect or sending feedback, do not include any sensitive information as the **Issues** and **Pull Requests** are publicly viewable.

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