A10 Control Integration Guide

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Getting Started

This manual describes step-by-step information on how to integrate ACOS with A10 Control

A10 Control is a centralized device management system for A10 data plane hardware appliances and virtual instances that streamline administration by enabling IT teams to group devices and apply common templates, simplifying large-scale management.

NOTE:

In this release:

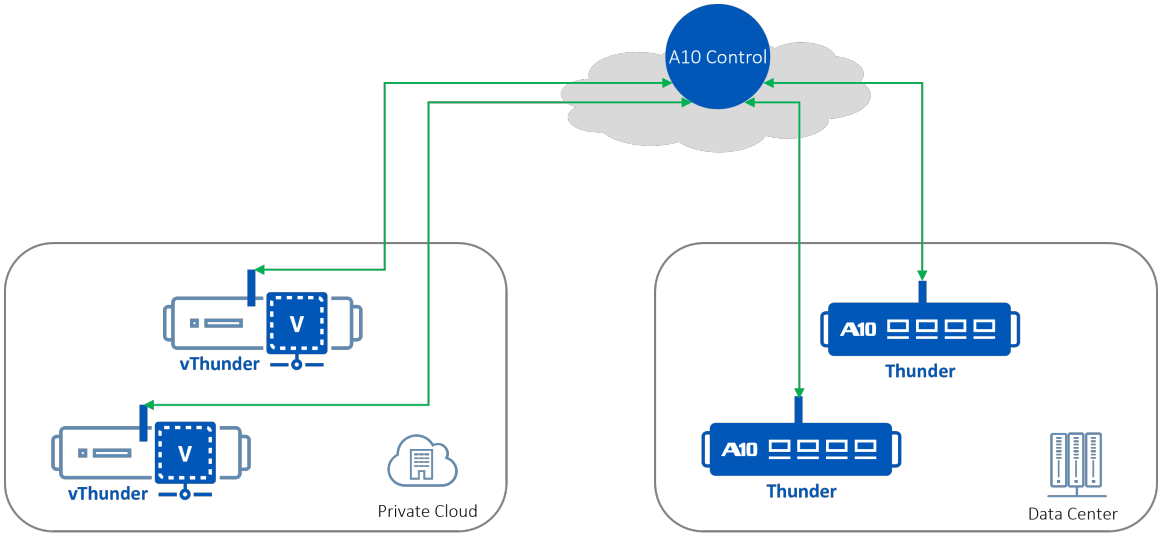
- Only the A10 Defend Orchestrator, ADC, and CGN Apps are supported. In future releases, Gi-FW, GTP-FW, and SSLi Apps will be supported.
- SaaS is not supported. In the future releases, SaaS will be supported.

Key Features

Integrating the ACOS device to A10 Control allows you to:

- Simplify operations and increase the agility of the operations teams.
- Centrally manage infrastructure configuration and application policies for the Thunder Series devices and application services.
- Push the ACOS device changes through the CLI configuration snippets or aFleX templates from the central location by selecting a group of clusters or devices.
- Collect metrics, correlate them, and provide meaningful and actionable insights or analytics on A10 Control portal.

Figure 1 : Integrate ACOS with A10 Control Example

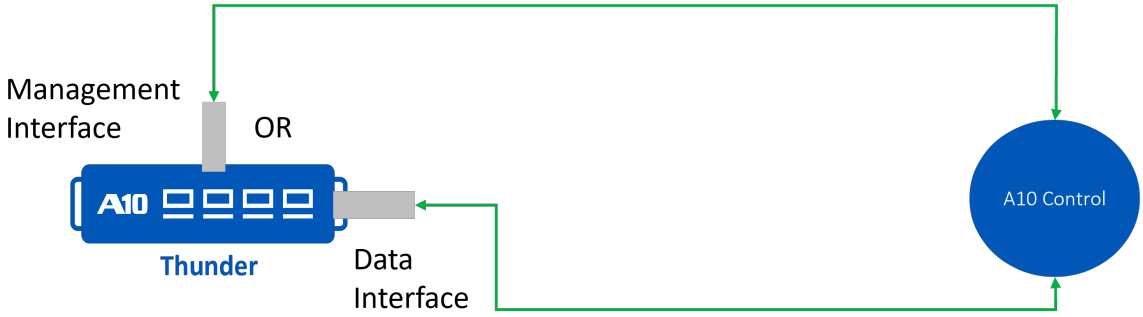


Connection Interface

ACOS can be connected to A10 Control using either the:

- **Management interface** - It is used for device management communication between Thunder and controller. Management interface is also used to export analytics data from Thunder when a dedicated data interface is not configured to export analytics data.
- **Data interface** - It is primarily used for exporting analytics data from Thunder to controller. In this case device management communication between Thunder and controller is assumed to be through management interface. In some cases, data interface can also be used for device communication between Thunder and controller when configured to do so.

Figure 2 : Connection Interface for A10 Control Example



Integration with A10 Control

This section describes various steps to configure ACOS and integrate with A10 Control.

For more information on A10 Control features, see A10 Control.

The following topics are covered:

- Connect ACOS Device to A10 Control
- A10 Control Integration CLI Commands

Connect ACOS Device to A10 Control

The ACOS devices can be connected to A10 Control platform for visibility, rich analytics, and graphical view of the traffic flowing through it. Similarly, you can also connect TPS devices to A10 Control and provision the A10 Defend Orchestrator application services for intelligent and automated DDoS protection.

Additionally, A10 Control provides the capabilities such as central management, configuration of Organizations and Org-units or the self-service through Organization-Org-unit model, device-clusters, or VM instances.

The following topics are covered:

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Configure A10 Control Telemetry 15

Prerequisites

To allow Thunder series devices to connect to A10 Control, you must ensure that the networking-related pre-requisites are met.

- Check and open the Network Ports.
- Check the ACOS Device Compatibility .
- Upgrade the ACOS Device to 6.0.6 version.

Register ACOS Device with A10 Control

This section explains the first step on how to configure A10 Control profile in the ACOS device using CLI.

CLI Configuration

1. Log in to Thunder or vThunder devices using your credentials.
2. Enter **enable** and then **configure** to enter configuration mode:

```
ACOS>enable
Password:
ACOS#configure
ACOS(config)#
```

3. Enter A10 Control profile mode.

```
ACOS(config)#controller profile
```

4. Configure A10 Control host name or IPv4/IPv6 address and the port details.

```
ACOS(config-profile)#host test.a10control.a10networks.com port 443
```

The hostname is part of A10 Control login URL, which is included in the activation email sent to the first Provider Admin(organization). For example, see the highlighted host name in the login URL, test.a10control.a10networks.com/login/provider-abc-5HJ9.

If you want to use management interface for communicating with A10 Control instead of data interface, then configure use-mgmt-port.

```
ACOS(config-profile)#host test.a10control.a10networks.com port 443
use-mgmt-port
```

5. Configure the management IPv4 or IPv6 address in A10 Control profile.

```
ACOS(config-profile)# thunder-mgmt-ip 10.10.10.1
```

6. Enter the Organization name, included in the email you received on purchasing the license.

```
ACOS(config-profile)# organization provider-abc
```

7. Enter the authentication method that will be used to register the device with A10 Control.

   You can choose either API key or username and password of the organization, which is included in the email that the organization has received after subscribing.

   To use API authentication, use the following command:

```
ACOS(config-profile)# api-key ca1949bbf0ea4c2193b5d3a1b213984d
```

   To use username and password authentication, use the following command:

```
ACOS(config-profile)# user-name provider-abc
ACOS(config-profile)# password password_abc
```

8. *(Optional)* Specify the country or region and city or zone of the ACOS device.

```
ACOS(config-profile)# region United State of America
ACOS(config-profile)# availability-zone Sacramento
```

   NOTE: The list of supported regions and availability-zones is accessible from the ACOS GUI, so it is recommended that you update the **region** and **availability-zone** fields in the ACOS GUI. These locations can be mapped to the GEO map.

9. *(Optional)* Add cluster ID (UUID) and the name of the cluster to which this device must be added.

   If you do not configure the cluster details, the device is added to a single cluster in ACOS:

```
ACOS(config-profile)#cluster-id
ACOS(config-profile)#cluster-name
```

   NOTE: This information should be available in A10 Control. For more information, see Manage Cluster.

10. Register the device on A10 Control.

```
ACOS(config-profile)# register
```

The registration process will begin. While device registration is in progress, do not make other configuration changes.

11. Verify the registration status.

    The **overall status** indicates that the registration is partially completed. You must map the device partitions with Org-Units in ACOS to complete the registration:

```
ACOS(config-profile)#show controller status

overall-status : Registration with Controller is partially completed.
To complete the registration, please go to Infrastructure page of A10
Control Portal and map Device Partitions into Tenants
heartbeat-status : ACTIVE
service-registry : ACTIVE
registration-status : PASS
registration-status-code : 200
schema-registry-status : Registration of schemas with SR passed
broker_info : 129.146.247.182:9093
kafka-broker-state : Down
Number-of-tenant-mapped-partitions : 0
Number-of-tenant-unmapped-partitions : 3
tunnel-status : ACTIVE
```

    The partitions must be mapped to the organization in A10 Control. Application services running on the partitions are managed in Org-unit. Additionally, multiple partitions from one or more devices can be mapped to the same Org-unit. Analytics is not generated and displayed until an Org-unit is mapped to the appropriate logical partition.

12. Log in to A10 Control and provision a cluster to the organization. For information, see Provision a Cluster.

13. After mapping the Org-Units in A10 Control, return to the ACOS CLI interface and run the same show command again to check the registration status.

```
ACOS(config-profile)#show controller status

overall-status : Registration with A10 Control completed
heartbeat-status : ACTIVE
```

```
service-registry : ACTIVE
registration-status : PASS
registration-status-code : 200
schema-registry-status : Registration of schemas with SR passed
broker_info : 129.146.247.182:9093
kafka-broker-state : Up
Number-of-tenant-mapped-partitions : 3
Number-of-tenant-unmapped-partitions : 0
tunnel-status : ACTIVE
```

The device registration is completed successfully.

GUI Configuration

1. Log in to the Thunder or vThunder device using your credentials.
2. Go to **System** > **Admin** > **Controller**.
3. On the **A10 Control Settings** page, enter the following details:

Field	Description
Host	Enter the Fully Qualified Domain Name (FQDN) of A10 Control. The domain name is part of the login URL, which is included in the activation email. For example, see the highlighted domain name in the login URL test.a10control.a10networks.com/login/provider-abc-5HJ9.
Port	Enter the management port number 443.
Use Management Port	Turn on the toggle to use management interface on the ACOS device for communication. If this is not enabled, then the data interface is used for communicating.
Use SaaS Tunnel	Turn the toggle on to enable SaaS tunnel.
Provider Name	Enter the name of the Provider account. For example, provider-abc.
Username	Enter the username. For example, if you have logged in with a provider-admin username, enter the same username here.

Field	Description
Password	Enter the password that you have used while logged into.
IP To Access Thunder From A10 Control	Enter a device management IP or data interface IP.
Thunder Location: Region	Enter the region or country where the device is located.
Thunder Location Zone	Enter the zone or city where the device is located.

4. Click **Register Device**. The **Status** field shows **PARTIALLY REGISTERED** status because the device partitions are not mapped to Tenants. Click **More Info…** to see device registration status.
5. Log in to A10 Control and provision a cluster to the org-unit (tenant).
6. Return to the ACOS GUI and click **Update**.

   The **Status** field shows **REGISTERED** status after successful registration.

Configure A10 Control Telemetry

You can configure the A10 Control telemetry mode to collect ACOS firewall statistics.

CLI Configuration

1. Log in to Thunder or vThunder devices using your credentials.
2. Enter **`enable`** and then **`configure`** to enter configuration mode:

```
ACOS>enable
Password:
ACOS#configure
ACOS(config)#
```

3. Enter to A10 Control telemetry mode.

```
ACOS(config)#controller telemetry
```

4. Configure the log rate for A10 Control, which means to maximum number of session logs sent by the partition per second.

```
ACOS(config-profile)# log-rate 1000
```

A10 Control Integration CLI Commands

This section describes the available commands in the A10 Control configuration mode.

A10 Control can be configured using the ACOS CLI commands from the configuration mode. Similarly, you can view various A10 Control profile statistics using the show commands.

For common CLI commands, see *Command Line Interface Reference*.

controller profile

Description Configure the A10 Control profile. This command is only applicable in the shared partition.

Syntax

```
[no] controller profile
```

Parameters	Description
`[no]`	Disable the A10 Control profile
`profile`	Define the A10 Control profile

Default Not applicable

Mode Global Configuration Mode

Usage It enables the A10 Control profile configuration mode.

NOTE: This command enters A10 Control profile configuration mode. All the commands that are available under Harmony Controller profile mode.

Example The following example shows how to start the A10 Control profile configuration mode:

```
ACOS(config)# controller profile
ACOS(config-profile)#
```

analytics

Description Configure the analytics feature.

Syntax

```
analytics {all | system | disable}
```

Parameter	Description

all	Exports all analytics data, including all the metrics and logs of the ACOS device to A10 Control.
	
	The ACOS system running-configuration does not reflect this setting.
	
	Example:
	
	`ACOS(config-profile)#analytics all`
	`ACOS(config-profile)#show context harmony-controller profile`

system	Exports only system-level policy information of the ACOS device to A10 Control. This includes the device metrics and log data but excludes service metrics and log data. If enabled, ACOS exports the following metrics to A10 Control. • THUNDER_METRICS_SYSTEM_TELEMETRY_LOG_DEVICE_STATUS_OPER • THUNDER_METRICS_SYSTEM_TELEMETRY_LOG_ENVIRONMENT_OPER • THUNDER_METRICS_SYSTEM_TELEMETRY_LOG_PARTITION_METRICS_OPER • THUNDER_METRICS_SYSTEM_FPGA_DROP_STATS • THUNDER_METRICS_SYSTEM_DPDK_STATS_STATS

Parameter	Description

	• THUNDER_METRICS_EVENT_NOTIFICATION_ KAFKA_SERVER_STATS
	• THUNDER_LOG_SYSTEM_LOGS
	• THUNDER_AUDIT_LOGS
	The ACOS system running-configuration displays this setting.
	Example:
	`ACOS(config-profile)#analytics system`
	`ACOS(config-profile)#show context`
	`harmony-controller profile`
	`  analytics system`

disable	Disables the exporting analytics information from ACOS device to A10 Control.
	The ACOS system running-configuration displays this setting.
	Example:
	`ACOS(config-profile)#analytics disable`
	`ACOS(config-profile)#show context`
	`harmony-controller profile`
	`  analytics disable`

Default By default, analytics exports all device data to HC.

Mode A10 Control profile configuration mode

Usage This command provides option for users to export metrics and log data from ACOS to A10 Control.

Example The following example shows the configuration of the analytics command for A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# analytics system
```

api-key

Description Configure the API key for A10 Control profile.

Syntax

```
api-key {name}
```

Replace `name` with a required api-key.

Mode A10 Control profile configuration mode

Usage You can choose to register the device with A10 Control using either api-key or username and password. However, both these authentication is mutually exclusive.

Example The following example shows the configuration of the api-key command:

```
ACOS(config)# controller profile
ACOS(config-profile)# api-key ca1949bbf0ea4c2193b5d3a1b213984d
```

auto-analytics-bus-restart

Description Restarts analytics bus automatically if it is detected as down.

Syntax

```
auto-analytics-bus-restart {enable | disable | interval}
```

Parameter	Description
enable	Enables the auto analytics bus to restart. This is the default option. Example: `ACOS(config-profile)#auto-analytics-bus-restart enable`
disable	Disables the auto analytics bus restart. Example: `ACOS(config-profile)#auto-analytics-bus-restart disable`
interval	Enables the auto analytics bus to restart

Parameter	Description
	according to the configured time interval in minutes. The default time interval is set to 3 minutes. Example: `ACOS(config-profile)#auto-analytics-bus-restart interval 3`

Default By default, restarts analytics bus automatically.

Mode A10 Control profile configuration mode.

Usage This command provides options for users to restart analytics bus automatically.

Example The following example shows the configuration of the auto-analytics-bus-restart command:

```
ACOS(config)# controller profile
ACOS(config-profile)# auto-analytics-bus-restart interval 3
```

availability-zone

Description Configure the geographical availability zone of the ACOS device.

Syntax

```
[no] availability-zone <zone_name>
```

Parameters	Description
no	Disable the availability zone of the ACOS device.
zone_name	Specify the name of the availability zone. The character length is 1-128.

Default No default value

Mode A10 Control profile configuration mode

Usage This command is used to specify the location of the Thunder managed devices. The command is similar to the region command, because both commands are used to specify the location of the managed Thunder devices.

However, the region is typically used to specify a city name, the availability-zone is used to provide more granular information about the location of a managed device, such as the building name or rack ID within a data center.

Example The following example shows how to enter Harmony Controller configuration mode and create an availability-zone called "**NEW-ZONE123**":

```
ACOS(config)# harmony-controller profile
ACOS(config-profile)# availability-zone NEW-ZONE123
```

Example The following example shows how to enter A10 Control configuration mode and create an availability-zone called "**NEW-ZONE123**":

```
ACOS(config)# controller profile
ACOS(config-profile)# availability-zone NEW-ZONE123
```

cluster-id

Description Assign an ID for the cluster in A10 Control or Harmony Controller, typically a Universally Unique Identifier (UUID).

Syntax `cluster-id num`

Replace num with a UUID for the device.

Default NA

Mode A10 Control profile configuration mode.

Example The following example shows how to assign a UUID 567 in A10 Control:

```
ACOS(config)#controller profile
ACOS(config-profile)#cluster-id 567
```

cluster-name

Description Assign a name to a cluster in A10 Control that the logged in device is a member.

Syntax

```
cluster-name name
```

Replace `name` with a required name for the cluster.

Default NA.

Mode A10 Control profile configuration mode.

Example The following example shows how to assign a cluster name in A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# cluster-name vThunderTPS
```

host | host-ipv6

Description Enter the IPv4 or IPv6 address or Fully Qualified Domain Name (FQDN) associated with the A10 Control.

Syntax

```
[no] host | host-ipv6 host-name
[port port-num]
[use-mgmt-port]
```

Parameter	Description
[no] host | host-ipv6 *host-name*	Enter the IPv4 or IPv6 address or fully-qualified domain name (FQDN) of the A10 Control. The *host-name* can be an alphanumeric value with 1 to 128 characters or an IPv4 address.
port *port-num*	Specify the port number used on the remote A10 Control. The *port-num* can be a numeric value from 1 to 32767. The default value is 8443.
use-mgmt-	Use the ACOS device's management port as the

Parameter	Description
`port`	source interface. Else, a data interface is used.

Default No default

Mode A10 Control profile configuration mode

Usage This command allows the ACOS device to find A10 Control on the network during the registration process.

Example The following example shows how to enter the host IPv4 address of 1.2.3.4, which is the IP of A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# host 1.2.3.4 port 8445
```

organization

Description Configure the organization for A10 Control profile.

Syntax

```
organization {name}
```

Replace `name` with a name of the organization.

Mode A10 Control profile configuration mode

Usage After creating the organization, you can choose to register the device with A10 Control using either api-key or username and password. However, both these authentication is mutually exclusive.

Example The following example shows the configuration of the organization command:

```
ACOS(config)# controller profile
ACOS(config-profile)# organization root
```

Related Commands:

- api-key
- user-name
- password

password

Description Configure the password for configured username.

Syntax

```
password {string | encrypted string}
```

Parameters	Description
string	Specify the password for the user of length maximum 128 characters.
encrypted string	Encrypt the password. The encrypted password string of length range, 1 to 512 characters. Do not use this option manually.

Default No default value

Mode A10 Control profile configuration mode

Usage The ACOS device uses the credentials during the registration process to access the org-unit account on the A10 Control.

Example The following example shows how to enter the authentication method for A10 Control.

```
ACOS(config)# controller profile
ACOS(config-profile)# username username1
ACOS(config-profile)# password PASSWORD123
```

re-sync

Description Re-sync analytics bus connections and the schema registry.

Syntax

```
re-sync {analytics-bus | schema-registry}
```

Parameter	Description
analytics-bus	Enter the re-sync for analytics bus connections. Example: `ACOS(config-profile)# re-sync analytics-bus`
schema-	Enter the re-sync for schema registry.

Parameter	Description
registry	Example: `ACOS(config-profile)# re-sync schema-registry`

Default No default

Mode A10 Control profile configuration mode

Example The following example shows how to re-sync information with A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# re-sync analytics-bus
```

region

Description Configure the region of the ACOS device network.

Syntax

```
[no] region region_name
```

Parameters	Description
no	Remove the configured region.
region_name	Specify the name of the region of ACOS device network.

Default No default value

Mode A10 Control profile configuration mode

Usage The command is similar to the availability-zone command, in that both are used to specify the location of the managed ACOS devices. However, the region is typically used to specify a city name, the availability-zone could be used to provide more granular information about the location of a managed device, such as the building name or rack ID within a data center.

Example The following example shows how to create a new region called "**REG-BLR-123**":

```
ACOS(config)#controller profile
ACOS(config-profile)# region REG-BLR-123
```

Related Commands:

- availability-zone

thunder-mgmt-ip

Description Enter the IP address for the ACOS device.

Syntax

```
[no] thunder-mgmt-ip ip-address
```

Parameter	Description
thunder-mgmt-ip *ip-address*	The *ip-address* can be a standard IPv4 address.

Default No default value

Mode A10 Control profile configuration mode

Usage ACOS device uses this IP address to send the required information and to communicate back, for on-box UI and TDM communications purpose with the A10 Control during registration.
If the CLI option **thunder-mgmt-ip** is configured or set after the registration, then the On-box UI functionality picks this updated IP on the process (there is no re-registration required). However, for TDM listing, re-registration is required.

Example The following example shows how to enter a thunder-mgmt-ip “1.2.3.4” for the ACOS managed device, to be used during registration with A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# thunder-mgmt-ip 1.2.3.4
```

tunnel

Description Enables or disables the tunnelling feature.

Syntax

```
tunnel {enable | disable}
```

Default Disabled

Mode A10 Control profile configuration mode

Usage A (SaaS) tunnel is created between A10 Control and the ACOS device to securely push the configuration from A10 Control to ACOS. Configuring the tunnel provides the following benefits:

- Facilitates a secure (SSL) communication and configuration push from the A10 Control, which acts as the tunnel server to the ACOS device, which is the tunnel client.
- No need to open new ports for the incoming traffic from A10 Control.

NOTE: In this release, this command is not supported for A10 Control. The support will be enabled in future releases.

Example The following example shows the tunnel configuration:

```
ACOS(config)# controller profile
ACOS(config-profile)# tunnel enable
```

user-name

Description Configure the authentication method for the org-unit in the A10 Control .

Syntax

```
[no]user-name <name>
```

Parameters	Description
[no]	Remove configured user name.
name	Specify the name of the user.

Default No default value

Mode A10 Control profile configuration mode

Usage The ACOS device uses these credentials to log into the A10 Control.

NOTE: For A10 Control, you can choose to register the device with A10 Control using either api-key or username and password. However, both these authentications are mutually exclusive.

Example The following example shows how to enter the user-name:

```
ACOS(config)# controller profile
ACOS(config-profile)# user-name USERNAME123
```

Related Commands:

- password
- api-key

password

Description Configure the password for configured username.

Syntax

```
password {string | encrypted string}
```

Parameters	Description
string	Specify the password for the user of length maximum 128 characters.
encrypted string	Encrypt the password. The encrypted password string of length range, 1 to 512 characters. Do not use this option manually.

Default No default value

Mode A10 Control profile configuration mode

Usage The ACOS device uses the credentials during the registration process to access the org-unit account on the A10 Control.

Example The following example shows how to enter the authentication method for A10 Control.

```
ACOS(config)# controller profile
ACOS(config-profile)# username username1
ACOS(config-profile)# password PASSWORD123
```

register

Description Register the ACOS device with A10 Control .

Syntax

```
[no] register
```

Default Disabled

Mode A10 Control profile configuration mode

Usage This command registers the ACOS device with A10 Control by initiating the registration process from ACOS device. Once the registration is complete, the ACOS device can start sending logs or analytics.

Example The following example shows how to register the ACOS device with A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# register
```

deregister

Description De-register the ACOS device with A10 Control.

Syntax

```
[no] deregister
```

Default Disabled

Mode A10 Control profile configuration mode

Usage This command de-registers the ACOS device with A10 Control by initiating the de-registration process. Once the ACOS device is de-registered, A10 Control stops receiving the logs and the analytics data from the ACOS device.

Example The following example shows how to de-register the ACOS device from A10 Control:

```
ACOS(config)# controller profile
ACOS(config-profile)# deregister
```

controller telemetry

Description Configure the A10 Control telemetry mode to collect ACOS firewall statistics.

Syntax

```
[no] controller telemetry
```

Parameters	Description
[no]	Disable telemetry mode for the A10 Control.
telemetry	Enter to the telemetry mode.

Default No default value

Mode Global Configuration mode

Usage This is applicable to the statistics of the following:

- Application firewall
- Gi firewall
- Data-centre firewall

Example The following example shows how to configure the A10 Control telemetry mode to collect the ACOS firewall statistics:

```
ACOS(config)# controller telemetry
ACOS(config-telemetry)#
```

log-rate

Description Configure the maximum number of logs per second sent by the ACOS device to A10 Control.

Syntax

```
log-rate <log_rate_value>
```

Parameters	Description
log_rate_value	Maximum number of logs of range (0 to 10000) sent by the partitions per second.

Default The default value is 10

Mode A10 Control Telemetry configuration mode

Usage This option sets the sampling rate of traffic logs sent from the ACOS device.

Example The following example shows how to specify a **log-rate** maximum value of 10,000 traffic logs to A10 Control:

```
ACOS(config)# controller telemetry
ACOS(config-profile)# log-rate 10000
```

controller config-replace

Description Configures the A10 Control config-replace mode.

Syntax

```
controller config-replace {enable | disable}
```

Mode A10 Control Configuration Mode

Usage This command enables or disables the A10 Control config-replace mode.

Example The following example shows how to enable the A10 Control config-replace mode:

```
ACOS(config)#controller config-replace enable
```

show running-config controller

Description Displays the running configuration of A10 Control.

Syntax

```
show running-config controller
```

Default No default value

Mode Configuration mode

Usage This parameter is used to check the existing running configuration for A10 Control. This includes the A10 Control config-replace settings, A10 Control profile config with details on host, port, provider, account details, tunnel, analytics settings, telemetry settings, and so on.

Example The following is an example of the show output:

```
ACOS(config)#show running-config controller
```

```
!Section configuration: 489 bytes
!
controller profile
 host 10.12.13.55 port 443 use-mgmt-port
 organization root
 cluster-name single
 api-key ca1949bbf0ea4c2193b5d3a1b213984d
 region ag
 analytics system
 availability-zone "Saint Johns, Saint John"
 tunnel enable
 register
 thunder-mgmt-ip 10.23.19.74
!
controller telemetry
 log-rate 1257
!
controller config-replace enable
!
ACOS(config)#
```

show controller partition-tenant-info

Description Displays the partition tenant information of the A10 Control profile.

Syntax

```
show controller partition-tenant-info
```

Default No default value

Mode Configuration mode

Example The following is an example of the show output:

```
ACOS(config-profile)# controller partition-tenant-info
partition-name : part1
tenant-name : Dev109_119_All
tenant-id : daa21128-887f-4369-857f-e581f1c550be
cluster-name : cluster1.part1
cluster-id : 1fc77a68-035c-11e9-82df-001fa00d46f0
log-rate-per-sec : 30
```

show controller stats

Description Displays the statistics of the A10 Control profile.

Syntax

```
show controller stats
```

Default No default value

Mode Configuration mode

Usage This parameter is used to check the statistics of the A10 Control.

Example The following is an example of the show output:

```
ACOS(config-profile)# show controller stats
-------------------------------------------------------
Counter                                          Value
-------------------------------------------------------
```

```
L7 PR logs sent                                    0
Device Status Metrics sent                         150
Partition Metrics sent                             100
Generic Metrics sent                               0
L7 PR dropped,enq error on acos queues             0
L7 PR dropped,enq error analytics queues           0
Generic Metrics dropped,encoding error             0
Generic Metrics dropped,sending failure            0
Device Status dropped,enq error on acos queues     0
Device Status dropped,enq error analytics queues   0
Part metrics dropped,enq error on acos queues      0
Part metrics dropped,enq error analytics queues    0
Unknown type dropped,enq error analytics queues    0
Messages dropped,analytics down                    2
Messages dropped,acos analytics queue full         0
L7 PR dropped,log throttling                       0
L7 PR dropped, not allowed to be sent              0
L7 PR back-end ttfb is negative                    0
L7 PR back-end ttlb is negative                    0
L7 PR on latency threshold exceeded                0
L7 PR out latency threshold exceeded               0
L7 PR out latency negative                         0
L7 PR on latency negative                          0
Module not supported by analytics                  0
L4 PC logs dropped,encoding error                  0
L4 PC logs sent                                    0
L4 PC logs dropped,enq error analytics queues      0
CGN PC logs sent                                   0
CGN PC logs dropped,enq error analytics queues     0
CGN PE logs sent                                   0
CGN PE logs dropped,enq error analytics queues     0
FW PC logs sent                                    0
FW PC logs dropped,enq error analytics queues      0
FW DENY PC logs sent                               0
FW DENY PC logs dropped,enq error analytics queues 0
FW RST PC logs sent                                0
FW RST PC logs dropped,enq error analytics queues  0
CGN PE logs sent                                   0
```

```
CGN PE logs dropped,enq error analytics queues    0
AppFW metrics sent                                0
AppFW metrics dropped,enq error analytics queues  0
SSL metrics sent                                  0
SSL metrics dropped,enq error analytics queues    0
Client SSL metrics sent                           0
Cilent SSL metrics dropped,enq error analytics qs 0
Server SSL metrics sent                           0
Server SSL metrics dropped,enq error analytics qs 0
L4 PC logs dropped,throttling                     0
Metrics dropped,missing partition tenant mapping  141
SSLi PC topic counter from acos to a10 control    0
SSLi PC topic to a10 control dequeue error        0
SSLi PE topic counter from acos to a10 control    0
SSLi PE topic to a10 controldequeue error         0
Analytics bus restart count                       0
WAF learn topic counter                           0
WAF learn metrics dropped,enq error analytics qs  0
WAF events topic counter                          0
WAF events metrics dropped,enq error analytics qs 0
Visibility TopN sent                              0
Visibility TopN metrics dropped,enq error analytics qs0
HC logs sent to master                            0
HC logs received from blade                       0
HC oper to master                                 0
HC oper received from blade                       0
HC counters sent to master                        0
HC counters received from blade                   0
HC counters dropped from blade (uuid or size mismatch)0
L7 PE logs sent                                   0
L7 PE dropped,enq error on acos queues            0
L7 PE dropped,enq error analytics queues          0
IPSec SA metrics sent                             0
IPSec SA metrics dropped,enq error analytics qs   0
IKE gateway metrics sent                          0
IKE gateway metrics dropped,enq error analytics qs0
VPN STATS metrics sent                            0
VPN STATS metrics dropped,enq error analytics qs  0
```

```
CGN Port Usage Histogram HC Export                  0
CGN Port Usage Histogram HC Export Failed           0
System environment sent                             0
System Environmet dropped,enq error analytics queues0
Cert-pinning candidate list sent                    0
Cert-pinning candidate list dropped,enq error analytics
queues0
NGWAF HC PE export                                  0
NGWAF HC PE export failed                           0
NGWAF HC metrics export                             0
NGWAF HC metrics export failed                      0
```

show controller status

Description Displays the status of the A10 Control profile.

Syntax

```
show controller status
```

Default No default value

Mode Configuration mode

Usage This parameter is used to check the status of the A10 Control .

Example The following is an example of the show output:

```
ACOS(config-profile)# show controller status
overall-status : Registration with Controller is partially
completed.
To complete the registration, please go to Infrastructure page
of HC Portal and map Device Partitions into Tenants
heartbeat-status : ACTIVE
service-registry : ACTIVE
registration-status : PASS
registration-status-code : 200
schema-registry-status : Registration of schemas with SR
passed
broker_info : 10.6.34.53:9093
kafka-broker-state : Up
Number-of-tenant-mapped-partitions : 99
```

```
Number-of-tenant-unmapped-partitions : 1
```

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