



# Ports

## Set up and administration

NetApp

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# Ports

## Security group rules in AWS

The AWS security group for the Connector requires both inbound and outbound rules.

### Inbound rules

Protocol	Port	Purpose
SSH	22	Provides SSH access to the Connector host
HTTP	80	Provides HTTP access from client web browsers to the local user interface
HTTPS	443	Provides HTTPS access from client web browsers to the local user interface, and connections from the Cloud Data Sense instance
TCP	3128	Provides Cloud Volumes ONTAP with internet access to send AutoSupport messages to NetApp Support. You must manually open this port after deployment. <a href="#">Learn more about the Connector's proxy server.</a>
TCP	9060	Provides the ability to enable and use Cloud Data Sense and Cloud Backup in Government Cloud deployments. This port is also required for Cloud Backup if you disable the SaaS interface in your BlueXP account.

### Outbound rules

The predefined security group for the Connector opens all outbound traffic. If that is acceptable, follow the basic outbound rules. If you need more rigid rules, use the advanced outbound rules.

#### Basic outbound rules

The predefined security group for the Connector includes the following outbound rules.

Protocol	Port	Purpose
All TCP	All	All outbound traffic
All UDP	All	All outbound traffic

#### Advanced outbound rules

If you need rigid rules for outbound traffic, you can use the following information to open only those ports that are required for outbound communication by the Connector.



The source IP address is the Connector host.

Service	Protocol	Port	Destination	Purpose
API calls and AutoSupport	HTTPS	443	Outbound internet and ONTAP cluster management LIF	API calls to AWS and ONTAP, to Cloud Data Sense, to the Ransomware service, and sending AutoSupport messages to NetApp

Service	Protocol	Port	Destination	Purpose
API calls	TCP	3000	ONTAP HA mediator	Communication with the ONTAP HA mediator
	TCP	8088	Backup to S3	API calls to Backup to S3
DNS	UDP	53	DNS	Used for DNS resolve by BlueXP

## Security group rules in Azure

The Azure security group for the Connector requires both inbound and outbound rules.

### Inbound rules

Protocol	Port	Purpose
SSH	22	Provides SSH access to the Connector host
HTTP	80	Provides HTTP access from client web browsers to the local user interface
HTTPS	443	Provides HTTPS access from client web browsers to the local user interface, and connections from the Cloud Data Sense instance
TCP	3128	Provides Cloud Volumes ONTAP with internet access to send AutoSupport messages to NetApp Support. You must manually open this port after deployment. <a href="#">Learn more about the Connector's proxy server.</a>
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### Outbound rules

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The source IP address is the Connector host.

Service	Protocol	Port	Destination	Purpose
API calls and AutoSupport	HTTPS	443	Outbound internet and ONTAP cluster management LIF	API calls to Azure and ONTAP, to Cloud Data Sense, to the Ransomware service, and sending AutoSupport messages to NetApp
DNS	UDP	53	DNS	Used for DNS resolve by BlueXP

## Firewall rules in Google Cloud

The Google Cloud firewall rules for the Connector requires both inbound and outbound rules.

### Inbound rules

Protocol	Port	Purpose
SSH	22	Provides SSH access to the Connector host
HTTP	80	Provides HTTP access from client web browsers to the local user interface
HTTPS	443	Provides HTTPS access from client web browsers to the local user interface
TCP	3128	Provides Cloud Volumes ONTAP with internet access to send AutoSupport messages to NetApp Support. You must manually open this port after deployment. <a href="#">Learn more about the Connector's proxy server.</a>

### Outbound rules

The predefined firewall rules for the Connector opens all outbound traffic. If that is acceptable, follow the basic outbound rules. If you need more rigid rules, use the advanced outbound rules.

#### Basic outbound rules

The predefined firewall rules for the Connector includes the following outbound rules.

Protocol	Port	Purpose
All TCP	All	All outbound traffic
All UDP	All	All outbound traffic

#### Advanced outbound rules

If you need rigid rules for outbound traffic, you can use the following information to open only those ports that are required for outbound communication by the Connector.



The source IP address is the Connector host.

Service	Protocol	Port	Destination	Purpose
API calls and AutoSupport	HTTPS	443	Outbound internet and ONTAP cluster management LIF	API calls to GCP and ONTAP, to Cloud Data Sense, to the Ransomware service, and sending AutoSupport messages to NetApp
DNS	UDP	53	DNS	Used for DNS resolve by BlueXP

## Ports for the on-prem Connector

The Connector uses the following *inbound* ports when installed manually on an on-premises Linux host.

These inbound rules apply to both deployment models for the on-prem Connector: installed with internet access or without internet access.

Protocol	Port	Purpose
HTTP	80	Provides HTTP access from client web browsers to the local user interface
HTTPS	443	Provides HTTPS access from client web browsers to the local user interface

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