# infoblox.

DEPLOYMENT GUIDE

# **BloxOne™** Threat Defense Data Connector

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# Overview

The Infoblox cloud managed Data Connector (DC) is a utility designed to collect DNS query and response data and security logs and transfer the data to defined destinations such as the BloxOne Threat Defense Cloud, Infoblox NIOS reporting server, and syslog servers such as a SIEM (Security Information and Event Manager).

The Data Connector's filtered source data is based on user criteria (thus reducing data quantity) and converts the data to a format that can be securely transferred and easily consumed by supported destinations. The Data Connector acts as a central point for data collection across your devices, which reduces the impact of data exchange and improves your Grid performance If NIOS Grid is configured as a source.

The following illustration describes the basic concept of the data collection process, which includes collecting supported data from NIOS or BloxOne Threat Defense Cloud, filtering and storing the data, and sending the data to the supported destinations.



# Prerequisites

## **BloxOne Host**

The Data Connector requires a BloxOne host to be tethered with. Prior to following steps in this guide you will need to deploy a host that meets minimum requirements, including a 750 GB disk. For details on requirements and deployment options, refer to <u>BloxOne documentation</u>.

### Licensing

One of the following licenses/subscriptions is required to use Data Connector:

- BloxOne Threat Defense Advanced
- BloxOne Threat Defense Business Cloud
- BloxOne Threat Defense Business On Premise
- Security Ecosystem Business

### System Requirements and Port Usage

BloxOne host with necessary ports opened for inbound and outbound access depending on services used as well as minimum system requirements (<u>here</u>).

### **Syslog Requirements**

Ensure that the following are configured for a secure transport for forwarding data to a syslog destination:

You may configure a syslog tool to secure TCP communication using TLS. This is mandatory for encrypted communication.

Configure server certificates so that the Data Connector can forward DNS queries and responses to the configured syslog tool. Note that the server certificates must be self-signed or signed by CA authorities. You can retrieve these from your syslog tools. For more information, refer to the respective syslog tool documentation.

### Generate and install a self-signed certificate

A self-signed certificate is not the only option available however it will be useful for quickly getting started. This self signed certificate will be used further in NIOS Grid Manager and while configuring the Source in Data Connector in the cloud services portal. The pem file will be used in Data Connector **Source Configuration** for RPZ logs. In order to generate and install a self-signed certificate perform the following:

1. Create CA certificates by performing the following command:

```
openssl req - ×509 sha256 - days 365 nodes newkey rsa:2048
subj "/C=IN/ST=KA/L=Bglr/0=Infoblox/OU=Cloud/CN=*"
keyout rootCA.key -out rootA.crt
```

2. Create a key and a certificate signing request:

```
openssl reg batch -new -newkey rsa: 2048 nodes -kevout server.key
out rpz.csr -subj " /C=IN/ST=KA/L=Bglr /0=Infoblox /OU=SAAS /CN=*"
```

3. Create a server certificate by signing it with the CA:

```
openssl x509 -req -in rpz.csr -CA rootCA.crt -CAkey rootCA.key -CAcreateserial -out server.crt
```

4. Create a new .pem file by copying the server.crt and server.key file contents. Use this new .pem file as a certificate for RPZ logs in the GUI.

cat server.crt server.key > rpz.pem

5. Use the **rootCA.cert** in the **NIOS** to configure **Secure TCP** and the **rpz.pem** in the source for **Traffic Flow** configuration under Data Connector.

### **Known Limitations**

• You can only assign one destination for every traffic flow you create (see sections "Adding Traffic Flows" and "Adding destinations" for more information on traffic flows and destinations).

# **Best Practices**

For the successful deployment of a Data Connector consider the following best practices:

- If you need to change the IP address of the host after the configuration, you must restart the system for the change to take effect.
- For the Data Connector service to function properly in OVA deployments on ESXi servers, ensure that you specify the NTP server during deployment. If you do not specify the NTP server, ensure that you open the UDP 123 port for time synchronization with the Ubuntu NTP servers.
- If you need to re-deploy a Data Connector service as a container on the same host, you must manually clean up the /Infoblox directory on the host before re-deploying Data Connector.
- Infoblox recommends that customers should use the list of publicly used IP's found on the Data Connector Admin guide to determine the needed access to the internet.
- Before you deploy the Data Connector, ensure that the host that you intend to attach the Data Connector service to meets the minimum system requirements, and has access to the appropriate ports and IPs as specified in the prerequisites section of this guide.
- If the Data Connector is transferring IPAM data from NIOS, to,, enable the NIOS Object Change Tracking feature to reduce the quantity of data transferred. When you enable this feature, the appliance tracks the changes that are made to NIOS objects and periodically synchronizes changed objects.
- The Data Connector VM has two hard disk drives. Hard Disk 2 is used for data storage, and you may substitute it for a larger drive to expand the data storage space

## Workflow

- 1. Deploy BloxOne host (not covered in this guide).
- 2. Navigate to CSP and enable the Data Connector service.
- 3. Configure Data Connector **Sources**.
- 4. Configure Data Connector **Destinations**.
- 5. Configure Data Connector **ETL** (Extract, Transform, Load) filters.
- 6. Configure Data Connector Traffic Flows.

## **Enable Data Connector Services**

This allows the data connector to work on the host. **Do note that the DNS Forwarding Proxy and the Cloud Connector at the same time**.

1. Log in to the Cloud Services Portal.

2. Under Services tab, click Create Service and select Data Connector.

infoblox.	¢	Hosts	Join Tokens	Services	Monitoring	Locations	Templates
🐵 Dashboard							
🖽 Manage		Create	e Service 👻	Edit	Service Actions	•	
IPAM/DHCP		Access	Authentication	1			
DNS		Anycas	st				
Keys		BGP R	outing Protocol	Openst	ackMicrostack-	testing	Online Started
<ul> <li>Infrastructure</li> </ul>		Data C	onnector				

- 3. On the Create Data Connector Services enter the following:
  - Name: Name for the Data Connector service
  - (Optional) Description: If required, input a description.
  - $\circ~$  Service State: Toggle the switch to enable/disable the service state.
  - **Host**: Select the Host on which the Data Connector service should be running and associated with.

Create Data Connector Se	*Name	Data_Connector_service
	Description	Data Competer conject
> General Info	Description	Data Connector services
O Interface Binding	Com in Chata	Chandrad
O Summary	Service State	Started
	*Host	Select Host
		Select Host
		Selection
Cancel Help		Finish Next

4. Click **Finish** and click **Save & Close**.

# **Configuring Sources**

For Data Connector to collect corresponding data and security logs and for traffic flows to function properly, you must set up your sources correctly. Do note that the BloxOne Cloud source is created by default and can't be modified or deleted.

### Adding NIOS as a Source

To add NIOS sources for the Data Connector traffic flows, perform the following steps:

- 1. Log in to the Cloud Services Portal.
- 2. Click Manage  $\rightarrow$  Data Connector.

înfoblox. 🧳	Traffic Flow Configuration Source Configuration	Destination Configuration	ETL Configuration
<ul> <li>Dashboard</li> <li>Manage</li> </ul>	Create Edit Remove Refresh		
IPAM/DHCP DNS	NAME ^ DESCRIPTION	SOURCE	DESTINATION
Keys Infrastructure	📄 📃 ashabir-NIOS-B1	ashabir-CDC-new	BloxOne Cloud
NTP Anycast			
Routing External Networks			
Endpoints			
Data Connector			

infoblox, 🧳	Traffic Flow Configuration Source Configuration	Destination Configuration
🐵 Dashboard		
🞛 Manage	Create - Edit Remove	
IPAM/DHCP DNS	NIOS	SOURCE TYPE
Keys Infrastructure	📄 📃 BloxOne Cloud Source	BloxOne Cloud
NTP Anycast	My-EMAIL-NIOS-Source	NIOS

- 3. Select the **Source Configuration** tab, and then click **Create** and from the Create drop-down list select **NIOS**.
- 4. In the Create NIOS Source Configuration wizard, complete the following:
  - **Name**: Enter the name of the source. Select a name that best describes the source, so that you can distinguish this from other sources.
  - **Description**: Enter the description of the source. The field length is 256 characters.
  - **State**: Use the slider to enable or disable the source configuration. Note that the source configuration is in effect only when you enable it. If you disable the source configuration, you will not be able to select this source when you create a traffic flow.

*Name	Threat Defense Source	
Description	Optional config description (256 character maximum)	
State	Enabled	

- **Expand** the Source Data Type section and select the source data you want the Data Connector to collect from this source.
- In the CREDENTIALS FOR GRID MASTER CONFIGURATION section, complete the following:
  - FQDN/IP: Enter the FQDN or the IP address of the source.
  - User Name: Enter the user name for the source credentials. The Data Connector uses this entry to access the source appliance.
  - Password: Enter the password for the source credentials. The Data Connector uses this entry to access the source appliance.
  - Insecure Mode: This is selected by default if you do not upload a CA certificate. When this checkbox is selected, Data Connector uses basic authentication using the user name and password you entered. However, if you do not upload a CA certificate, your certificate will not be validated.
- 5. **CA Certificate**: Click Select file to upload the CA-signed certificate for the NIOS appliance. When you upload a valid CA certificate, Data Connector uses the basic authentication using the credentials, plus the certificate you uploaded to secure the connection.

CREDENTIALS FOR GRID MASTER CONFIGURATION								
*FQDN/IP	10.61.10.2							
*User Name	admin							
*Password	••••••							
Validate NIOS certificate	✓							
CA Certificate	Select file							

- To allow query and response log data transfer, you must allow access for the Data Connector to collect this data through SCP. In the SCP CREDENTIALS FOR DNS QUERY LOGS TRANSFER section, complete the following:
  - User Name: Enter the user name used to access the SCP server. The Data Connector uses SCP to communicate with the source.
  - **Password**: Enter the password for the SCP server.
- 6. If you select RPZ Logs as the source data type, you must upload the security certificate for the Data Connector to access the RPZ logs. In the CERTIFICATE FOR RPZ LOGS section, complete the following:
  - **Certificate** for RPZ Logs: Click **Select** file and navigate to the RPZ certificate to upload. This is the self signed certificate (.pem file) that we created <u>earlier</u>.

SCP CREDENTIALS FOR DNS QUERY LOGS TRANSFER										
User Name	admin									
Password	••••••									
CERTIFICATE FOR RPZ L	CERTIFICATE FOR RPZ LOGS									
Certificate for RPZ Logs	Select file									

### **Configuring NIOS to communicate with Data Connector**

Before capturing DNS query and response data from the Infoblox Grid, the Infoblox Grid must be configured to allow the Data Connector to collect DNS data from the respective Grid members. Additionally, the Data Connector must be configured to send the data to designated destinations. This section walks you through these procedures:

#### **DNS Firewall (RPZ) logs**

- 1. Log in to the Grid Master.
- 2. Navigate to Grid  $\rightarrow$  Grid Manager  $\rightarrow$  Members  $\rightarrow$  Expand the Toolbar  $\rightarrow$  Grid Properties  $\rightarrow$  Edit.

1	nfoblox :	\$		Dashboards	Data Mana	gement	Smart Fold	ers Reportin	ig Grid	Administration	Q Search	admin	
				Grid Manager	Upgrade	Licens	es HSM (	Group Micros	oft Servers	Device Support	Ecosystem		
1	Infoblo	x 🔳 🧪	R			_					Toolbar	>>>	0
11	DHCP	DNS	TFTP	HTTP (File Dist)	FTP	NTP	bloxTools	Captive Portal	Reporting	Discovery	Grid Properties	-	CH.
	Threat P	rotection	Subsc	riber Collection	Threat Analy	tics TA	XII				Edit Setup Wizard	•  •  •	
	Members	Serv	ices								Configure		

3. In the **Grid Properties** editor select **Monitoring**. Under the **Basic** tab select the Log to External Syslog Servers check box, click the **Add** icon.

Infoblox (Grid Propert	ies Editor)								E
C Toggle Basic Mode	Basic Ad	fvanced							1
General Security	SYSLOG								
Password Proxy Settings	*Syslog Size (MB)	300		Once the syslog file opens a new one.	reaches this siz	e, the syslog ser	ver rotates the file	and	
DNS Resolver Monitoring Syslog Backup	Log to External Sys Servers							1-11	
SNMP Threshold	ADDRESS	TRANSPORT INTERFA	CE SOURCE	NODE ID	PORT	SEVERITY	CATEGORY	Add	i.
Notification     Email     LOM     Oustamer Improvement	No data								
NAT Groups									

- 4. When adding the External Syslog Server endpoint make sure to specify the **IP address** of the Host that the Data Connector is associated with, and select Secure TCP or TCP as the Transport option. When selecting Secure TCP, upload the **server.crt** certificate file created earlier.
- 5. **Restart** services if requested.

#### DNS Query/Response logs

- 1. Edit Grid DNS Properties.
- 2. Navigate to Grid  $\rightarrow$  Grid Manager  $\rightarrow$  DNS  $\rightarrow$  Expand the Toolbar  $\rightarrow$  Edit  $\rightarrow$  Grid DNS Properties.
- 3. Navigate to Data Management  $\rightarrow$  DNS  $\rightarrow$  Members  $\rightarrow$  Toolbar  $\rightarrow$  Grid DNS Properties.
- In the Grid DNS Properties or Member DNS Properties editor, click Toggle Advanced Mode and select Logging → Advanced tab.

Infoblox			Dashboards	Data Mana	gement	Smart Folders	Reporting	g Grid	Administration	Q Search	admin	•
			Grid Manager	Upgrade	License	s HSM Grou	ip Microso	oft Servers	Device Support	Ecosystem		
🗮 Infoblo	x 🔳 🧪	A								Toolbar	>>>	0
DHCP	DNS	TFTP	HTTP (File Dist)	FTP	NTP	bloxTools Ca	ptive Portal	Reporting	Discovery	+ Add	•	"
			-							C Restart Services	_	
Member:	otection Serv	Subsci	iber Collection	Threat Analy	tics TAX	(II)				Grid DNS Properties		]

- 5. Under Data Connection for all DNS Queries/Responses to a Domain, complete the following:
  - Select the **Capture DNS Queries** check box to start capturing DNS queries. This enables the feature set for configuration. When you enable this option at the member level, the appliance captures DNS queries for the selected members only.
  - Select the **Capture DNS Responses** check box to start capturing DNS responses. This enables the feature set for configuration. When you enable this option at the member level, the appliance captures DNS responses for the selected members only.

Note: Make sure that only the Query or Response is selected. If needing both the query and the response data then the response should be selected as it contains both the query and the response.

- Select **Capture queries/responses for all domains** to capture queries and responses to all domains and zones.
- Select Limit capture to these domains to capture DNS queries and responses to domains and zones one at a time.
- Specify **domains** for DNS capture operations in the Domain table by clicking the **Add** icon and choosing **Add Domain or Bulk Add Domains** from the menu.
- Retain captured queries on the local disk: **Select** this check box to save the DNS queries on the appliance.
- Export to: From the drop-down list, select SCP to back up the DNS queries on the Data Connector and None to save queries only on the appliance. To save the captured DNS queries on both the appliance and the Data Connector, select the Retain captured queries on the local disk check box and SCP from the Export to drop-down list. To define the destination for capture files, perform the following:

When you select **SCP** from the **Export to** drop-down list, complete the following:

- In the **Directory Path** field, enter the directory to which the capture file will be saved on the server.Use the ~ symbol for the Data Connector.
- In the Server Address field, enter the IP address of the BloxOne host that the Data Connector is associated with.
- Enter the **Username** and **Password** values that were input in the CSP when creating the NIOS source.
- Limit query data collected per file to minutes or 100MB (whichever comes first).

Note, this option limits the collection of query data per capture file. A capture file for logging DNS queries and responses is rolled over based on the configured time limit or when the file reaches 100 MB in size, whichever is sooner. The default time limit is 10 minutes. You can enter a value from 1 to 10.

C Toggle Basic Mode	Basic Advanc	d	
General Forwarders Updates Queries	Data connector for all DM	S Queries/Responses to a Domain Capture DNS Responses	
Zone Transfers Root Name Servers		rresponses for all domains	+• =
Blackhole	No data		
Host Naming GSS-TSIG			
DNSSEC Blacklist	EXCLUDE THE	OLLOWING DOMAINS	+-  @
DNS64 RRset Order Restart Security	No data		
DNS Scavenging			
	Retain captured Export to	SCP +	
	TCP port *Directory Path	~	
	*Server Address	10.60.31.180	
	*Username *Password	admin	
	*Limit query data co	lected per file to 1 minutes or 100MB (whichever comes fi	rst).

- 6. Save the configuration.
- 7. **Restart** services if requested.
- 8. Navigate to Grid  $\rightarrow$  Grid Manager  $\rightarrow$  Members and click Data Connector from the Toolbar.

	Grid Manager	Upgrade Li	censes HSM Grou	p Microsoft Serve	ers Device Support	Ecosystem	
Infoblox 🗕 🖋 📮						Toolbar	>>>
DHCP DNS TFTF	HTTP (File Dis	t) FTP NTF	bloxTools Ca	ptive Portal Report	rting Discovery	Syslog	
Members Services	Criber Collection	Threat Analytics	TAAT			Manage GSS-TSIG Keys F BFD Templates	

9. In the **Data Connector** editor, you can view the details of the registered Data Connector VM in the Data Connector Cluster tab.

	Basic					
ta Connector Cluster sabled Clusters	Data Connector ID Name Registration Time Last Connection Time Comment	95 onprem 2019-08-1 2019-08-1	5 13:59:54 PDT 5 13:59:54 PDT			
	Data Connectors		IP ADDRESS 10.60.31.180	NAT ENABLED	NAT IP ADDRESS	NAT GROUP
	Disable Cluster	0				
	Enable Registration	2				

10. The appliance displays the following information in the Data Connector VMs editor:

- **Cluster Unique ID**: The unique ID of the Data Connector VM.
- $\circ\,$  Name: The name of the Data Connector VM
- **Registration Time**: The timestamp when the Data Connector VM was initially registered with the Infoblox Grid.
- Last Activation Time: The timestamp when the Data Connector last contacted the Infoblox Grid.
- **Comment**: Displays additional information about the Data Connector.
- $\circ~$  VMs in Cluster: Displays the following information:
- $\circ~$  VM IP Address: Displays the IP address of the Data Connector VM.
- NAT Enabled: Not supported in this release.
- $\circ~$  NAT IP Address: Not supported in this release.
- $\circ\,$  NAT Group: Not supported in this release.
- **Disable Cluster**: Indicates whether this Data Connector VM should be deleted and moved to the list of deleted clusters so you can allow another Data Connector VM to register with the Grid.

#### **IPAM** Meta data pooling

- 1. Navigate to Grid  $\rightarrow$  Grid Manager  $\rightarrow$  Members  $\rightarrow$  Toolbar  $\rightarrow$  Grid Properties  $\rightarrow$  Edit.
- 2. Check the **Enable Object Change Tracking** and set the appropriate Maximum time to track deleted objects and the Maximum number of deleted objects that will be tracked according to your needed requirements

# **Adding Destinations**

To add destination for the Data Connector traffic flows, perform the following steps:

- 1. Log in to the Cloud Services Portal.
- 2. Click Manage  $\rightarrow$  Data Connector  $\rightarrow$  Destination Configuration tab and click Create.

infoblox, 🤤	Traffic Flow Configuration	Source Configuration	Destination Configuration
🐵 Dashboard			
🖽 Manage	Create 👻 Edit R	emove	
IPAM/DHCP	NIOS Reporting		1
DNS	Splunk	<u> </u>	DESTINATION TYPE
Keys	Splunk Cloud		
Infrastructure	Syslog		
NTP			
Anycast			
External Networks			
Routing			
Endpoints			
Internal Domains			
Data Connector			

- 3. From the Create drop-down list, select one of the following:
  - NIOS Reporting: To set the NIOS Reporting server as the destination.
  - **Splunk:** To set Splunk as the destination.
  - **Syslog:** To select one of the supported syslog file types to the destination.
- 4. Depending on your selection, complete the following steps in the Create Source Configuration wizard:

#### **NIOS** Reporting

- **Name**: Enter the name of the destination. Select a name that best describes the destination and helps you distinguish this from other destinations.
- **Description**: Enter the description of the destination. The field length is 256 characters.
- **State**: Use the slider to enable or disable the destination configuration. Note that the destination configuration is in effect only when you enable it. If you disable the destination configuration, you will not be able to select this destination when you create a traffic flow.
- In the NIOS GRID MASTER DETAILS section, complete the following:
  - **FQDN/IP**: Enter the FQDN or the IP address of the Grid Master.
  - **Reporting Appliance Address**: The IP address of the NIOS Reporting server.
  - **User Name**: Enter the user name for the Grid Master. The Data Connector uses this entry to access the appliance.
  - **Password**: Enter the password for the Grid Master. The Data Connector uses this entry to access the appliance.

#### Splunk

- Name: Enter the name of the destination. Select a name that best describes the destination and helps you distinguish this from other destinations.
- Description: Enter the description of the destination. The field length is 256 characters.
- **State**: Use the slider to enable or disable the destination configuration. Note that the destination configuration is in effect only when you enable it. If you disable the destination configuration, you will not be able to select this destination when you create a traffic flow.
- In the SPLUNK DETAILS section, complete the following:
  - **FQDN/IP**: Enter the FQDN or the IP address of the Splunk indexer to which you want the Data Connector to send data.
  - Port: Enter the port number (between 1 and 65536) to reach the Splunk indexer.
  - Indexer Name: The name of the Splunk index.
  - Insecure Mode: Selected by default to use a secure transport (TLS) for the data. Otherwise, complete the following sections to upload certificates for secure transport
  - In the SPLUNK FORWARDING CERTIFICATE section, complete the following:
    - Forwarder Certificate: Click Select file to upload the forwarder certificate on the Splunk forwarder. You need to first generate a certificate request in ".PEM" format. This certificate request must be signed by the third-party Certification Authority for you to get a forwarder certificate.
    - Certificate Key Passphrase: Enter the key passphrase for the certificate.

• In the SPLUNK CA CERTIFICATE section, complete the following:

Create Splunk Des	tination Configuration	Expand All Sections Sections •
"Name	Splunk Destination	
Description	Guide For Splunk Destination	
State	Enabled	
SPLUNK DETAILS		
*FQDN/IP	100.100.100	
Port	9997	
Indexer Name	Indexer_Demo	
Insecure Mode	×	
SPLUNK FORWARDER CER	TIFICATE	
Forwarder Certificate	Select file	
Certificate Key Passphrase	No file selected	
SPLUNK CA CERTIFICATE		
CA Certificate	Enliet Bis No file selected	0
Cancel		Save & Close

• CA Certificate: Click Select file to upload the CA signed certificate on the Splunk indexer.

#### Syslog

- **Name**: Enter the name of the destination. Select a name that best describes the destination and helps you distinguish this from other destinations.
- Description: Enter the description of the destination. The field length is 256 characters.
- **State**: Use the slider to enable or disable the destination configuration. Note that the destination configuration is in effect only when you enable it. If you disable the destination configuration, you will not be able to select this destination when you create a traffic flow.
- **Format**: From the drop-down list, select the Syslog format type you want to configure as the destination.
- In the SYSLOG DETAILS section, complete the following:
  - **FQDN/IP**: Enter the FQDN or the IP address of the syslog tool to which you want the Data Connector to send data.
  - **Port**: Enter the port number (between 1 and 65536) to reach the syslog tool.
  - **Insecure Mode**: Selected by default to use a secure transport (TLS) for the data. Otherwise, complete the following sections to upload certificates for secure transport.
- In the SYSLOG CA CERTIFICATE section, complete the following:
  - **CA Certificate**: Click Select file to locate the CA certificate from the syslog tool and upload it.

Create Syslog D	estination Configuration	(	Expand All Sections
Name	SIEM Destination		
Description	Guide For SIEM Destination		
State	Enabled		
Format	CEF •	]	
	CEF	·	
SYSLOG DETAILS	LEEF		
FQDN/IP	100.100.100		
Port	514		
Insecure Mode	×.		
SYSLOG CA CERTIFICA	TE		
CA Certificate	Select file		
	No file selected		
Cancel			

#### **BloxOne Cloud Destination**

• By default, BloxOne Cloud Destination is pre-configured as the destination. No configuration is required on your part.

# **ETL Filters**

ETL (Extract, Transform, Load) filters are used to exclude specific information, and the unfiltered data will be transferred to the configured destinations. Organizations can set up ETL configurations using regex for Grid member names as well as IP/Network, or FQDN's which will apply the ETL configurations to the traffic flow configurations.

### **Adding ETL Configuration**

To create data filters for your source data, perform the following steps:

- Navigate to  $Manage \rightarrow Data Connector \rightarrow ETL Configuration$  tab and click Create.
- From the **Create** drop-down list, select the filtering criterion for the ETL configuration. You can select one of the following:
  - NIOS HOST
  - IP/Network
  - FQDN
  - DNS Record type
  - OPHID

#### • ON-PREM-HOST

• Threat Class/Property

infoblox. 🧳	Traffic Flow Configuration	Source Configuration	Destination Configuration	ETL Configuration
🐵 Dashboard				
🖽 Manage	Create 👻 Edit R	emove		
IPAM/DHCP	NIOS HOST			
DNS	IP/Network	^	DATA TYPE	DESC
Keys	FQDN			
Infrastructure	DNS Record Type			
NTP	OPHID			
Anycast	ON-PREM HOST			
External Networks	Threat Class/Property			
Routing				
Endpoints				
Internal Domains				
Data Connector				

- Depending on your selection, complete the following steps in the Create ETL Filter wizard and then click **Save & Close**:
  - Name: Enter the name of the ETL configuration. Select a name that best describes the filter.
  - **Description**: Enter the description of the ETL configuration. The field length is 256 characters.
  - **State**: Use the slider to enable or disable the ETL configuration. Note that the ETL configuration is in effect only when you enable it. If you disable the configuration, the ETL filter is not in effect even if you have applied the ETL configuration to a traffic flow configuration.
  - Expand the NIOS HOST, IP/Network, or FQDN section, then click Add to the applicable parameters.

Create ETL Filter b	y ON-PREM HOST
*Name	
Description	ETL filter for demo cdc
State	Enabled
▼ ON-PREM HOST	
Add Remove	
ON-PREM HOS	г

- IP/Network: The IP/Network filter applies to DNS query/response events, IP metadata, and RPZ events. You can specify the query source IP address when the event is a query and the destination IP address when the event is a response. You can specify the client\_ip filter in the following format in CIDR block e.g. 10.10.0.1/15, 2001:cdba:9abc:5678::/64, etc.
- FQDN: The FQDN filter applies to DNS query/response events and RPZ events. A query filter is a combination of valid FQDN and wildcards.

Note the following about wildcards:

- You can specify a wildcard either on the left or on the right side of the domain name.
- A rule can have either 0, 1, or 2 wildcards.
- If a rule has 2 wildcards, they have to be on the opposite ends of the FQDN.
- A wildcard on the left side must be followed by a dot (.), except for the '?' wildcard.
- A wildcard on the right side must be preceded by a dot (.) except for the '?' wildcard.

#### List of supported wildcards

Wildcard	Description	Example
*	Applicable for zero or more domain name labels. It can be specified only on the left side of the domain name.	*.foo.com
#	Applicable for one or more domain name labels. It can be specified only on the left side of the domain name.	#.foo.com
?	For exactly one domain name label. It can be specified either on the left or right side of the domain name.	?.foo.com ? ?. corp.?.

### **Viewing ETL Configuration**

To view all the ETL configurations, perform the following step:

- Navigate to Manage → Data Connector → ETL Configuration tab and the Cloud Services Portal displays the following for all the ETL configurations:
  - Name: The name of the ETL configuration.
  - **Data Type**: The filter criterion for the ETL process.

- **Description**: The information about the ETL configuration.
- State: Describes whether the configuration is Enabled or Disabled.

### **Deleting ETL Configurations**

To remove an ETL configuration, complete the perform following steps:

2. Navigate to Manage  $\rightarrow$  Data Connector  $\rightarrow$  ETL Configuration tab and select the ETL configuration you want to remove, and then click Remove.

Create	- Edit Remove			
=		DATA TYPE	DESCRIPTION	STATE =
☑ =	FQDN_Filter	FQDN	Demo Filter	Disabled
	IP/Network Filter	IP/Network	Demo Filter	Disabled
□ ≡	Regex	Regex	Demo Filter	Disabled

# **Configuring Traffic Flows**

A traffic flow must be configured for the Data Connector to send and receive data. The Data Connector collects data from the defined source and sends that data to the selected destination in the format chosen.

### **Adding Traffic Flows**

To add a new traffic flow for the Data Connector, perform the following steps:

1. Navigate to Manage  $\rightarrow$  Data Connector  $\rightarrow$  Traffic Flow Configuration tab and click Create.



- 2. In the Create Traffic Flow Configuration wizard, complete the following:
  - Name: Enter a name for this traffic flow configuration.

- **Description**: Enter a description for this configuration to distinguish this Data Connector from other hosts. The maximum length is 256 characters
- **State**: Use the slider to enable or disable this configuration. When the configuration is disabled, no traffic flow happens based on the configuration. You can enable the configuration when you want the Data Connector to start the traffic flow.
- Service Instance: Expand this section and select the Data Connector from the BloxOne host list. You must first set up and configure Data Connectors before they appear in this list.

Create Traffic Flo	ow Configuration
*Name	Demo Traffic Flow
Description	Traffic Flow configuration for Demo
State	Enabled
✓ Service Instance	
Service Instance	Select Service Instance

- 3. Under **SELECT CONFIGURATION**, expand the Source Configuration section, and complete the following:
  - **Source Configuration**: Select the source from which the Data Connector collects. Ensure that you select the correct source for this traffic flow, depending on the source type that you select below.

<ul> <li>Source Configuration</li> </ul>				
Source			•	]
NEW CO	NFIGURATION			
LOG TYPE				
IPAM Metadata/DHCP	Lease Information			
RPZ Logs		<b>~</b>		

 Log Type: Select the type of data you want the Data Connector to collect/receive from the source and pass to a destination. Depending on the source that you have selected and the destination for this traffic flow, the source type varies. For information about the source data type that the Data Connector supports for NIOS and BloxOne Threat Defense Cloud, see the Supported Traffic Flow table in this topic. • **Destination Configuration**: Select the corresponding destination that you want the Data Connector to send the source data to. Note that you can send certain data to specific destinations, depending on the supported traffic flow. If you select a different source type or destination, the traffic flow becomes invalid.

▼ Destination Configuration				
Destination	BloxOne Cloud Destination			

 ETL Configuration: In the Filter Expressions field, you can enter one or more ETL configurations. If using more than one configuration, use operators to build the expression. Click the circled i icon to open up a panel describing all permitted build expressions along with a list of query examples. For more information, see <u>Performing Filter Search Queries</u>.

Specify ETL Configurations Type the names of ETL Configurations followed by Operators.		
You can use the following to Build Expression:           • The AND, the NOT and the OR operators. The Operators are case sensitive.           • Single and double quotes to enter values with spaces or special characters.           • Parentheses to group search parts.           • You can use the TAB key to autocomplete a search with the first available suggestion.           • ETL Field Names are: threat_level, threat_confidence, policy_action and threat_feed_name.           Search values are case sensitive.	Examples of queries: • etl_filter_name AND other_filtername • etl_filter_name • etl_filter_name = value; example threat_confidence = Medium • NOT etl_field_name = value • etl_filter_name AND policy_action != Redirect • (etl_filter_name AND other_filtername) AND (threat_level > Low AND threat_level < High)	×
NIOS-HOST-CDC	⊗ #	

4. Click Save & Close.

# **Supported Traffic Flows**

The traffic flows, their data types and the destinations supported can be found here.

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Infoblox unites networking and security to deliver unmatched performance and protection. Trusted by Fortune 100 companies and emerging innovators, we provide real-time visibility and control over who and what connects to your network, so your organization runs faster and stops threats earlier.

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