

ThreatQuotient



ThreatQ Data Exchange User Guide

Version 1.0.0

October 19, 2023

ThreatQuotient

20130 Lakeview Center Plaza Suite 400
Ashburn, VA 20147

Support

Email: support@threatq.com

Web: support.threatq.com

Phone: 703.574.9893

Contents

Warning and Disclaimer.....	4
About ThreatQ Data Exchange.....	5
How it Works	6
Instance Types	6
Connection Bundles.....	7
Data Feeds	7
Managing Connections	10
Requirements.....	11
Components	13
Topology View	21
Icons	21
Tips and Tricks	22
Instance Naming	22
Getting Started - First Connections	24
Confirm Requirements.....	24
Publisher - Creating a Connection Bundle	24
Subscriber - Connecting to a Publisher	29
Publisher - Creating a Data Feed	33
Publisher Instances	38
About Publisher Instances.....	38
Creating a Client Connection Bundle	40
Creating an Initial Client Bundle.....	40
Creating Additional Client Bundles	44
Viewing Connection Details	47
Viewing Your Outgoing and Incoming Data.....	47
Viewing Data Transport Details	49
Viewing Subscriber Details	51
Updating the Name of a Node	53
Deleting a Client Connection Bundle	54
Subscriber Instances	57
About Subscriber Instances.....	57
Connecting to a Publisher	59
Viewing Connection Details	61
View Data Transport Details	62
Deleting the Data Transport.....	65
Data Feeds	66
About Data Feeds.....	66
Creating a Data Feed	67
Editing a Data Feed	70
Data Feed Sharing Options.....	71
Sharing a Data Feed	71
Unsharing a Data Feed from the Data Feed details Page.....	71

Unsharing a Data Feed from the Connections Node View.....	72
Data Feed Subscriptions	74
Subscribing/Unsubscribing to a Feed from the Connections Node View	74
Subscribing/Unsubscribing to a Feed from the Feed Ingestion Settings Page.....	74
Editing Object Default Statuses	76
Deleting a Data Feed	78
Deleting a Data Feed from the Data Feeds Page	78
Deleting a Data Feed from the Edit Feed Page.	78
FAQs.....	80
Change Log	81

Warning and Disclaimer

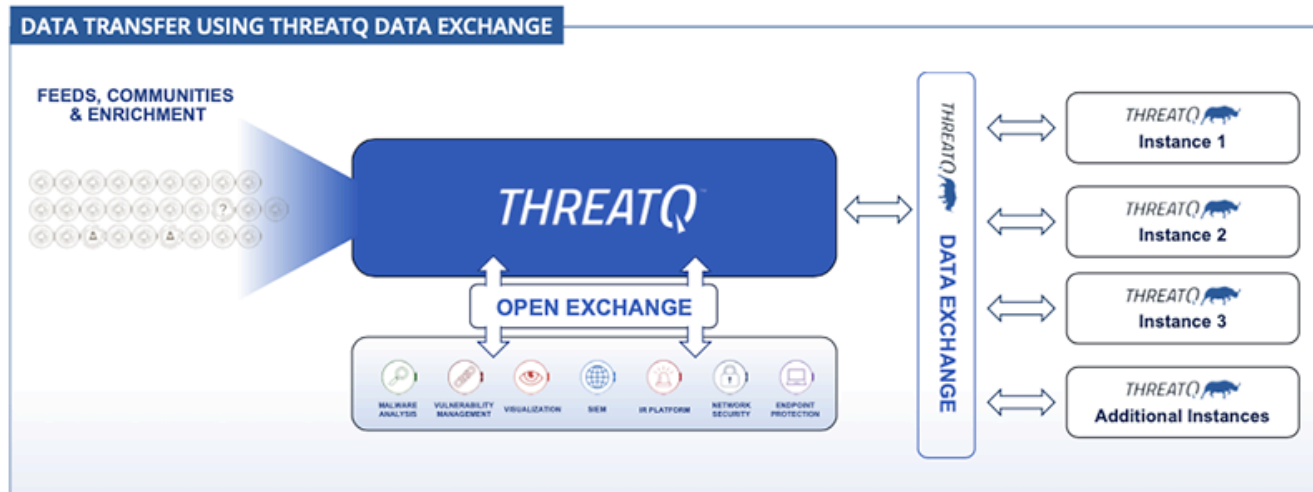
ThreatQuotient, Inc. provides this document “as is”, without representation or warranty of any kind, express or implied, including without limitation any warranty concerning the accuracy, adequacy, or completeness of such information contained herein. ThreatQuotient, Inc. does not assume responsibility for the use or inability to use the software product as a result of providing this information.

Copyright © 2023 ThreatQuotient, Inc.

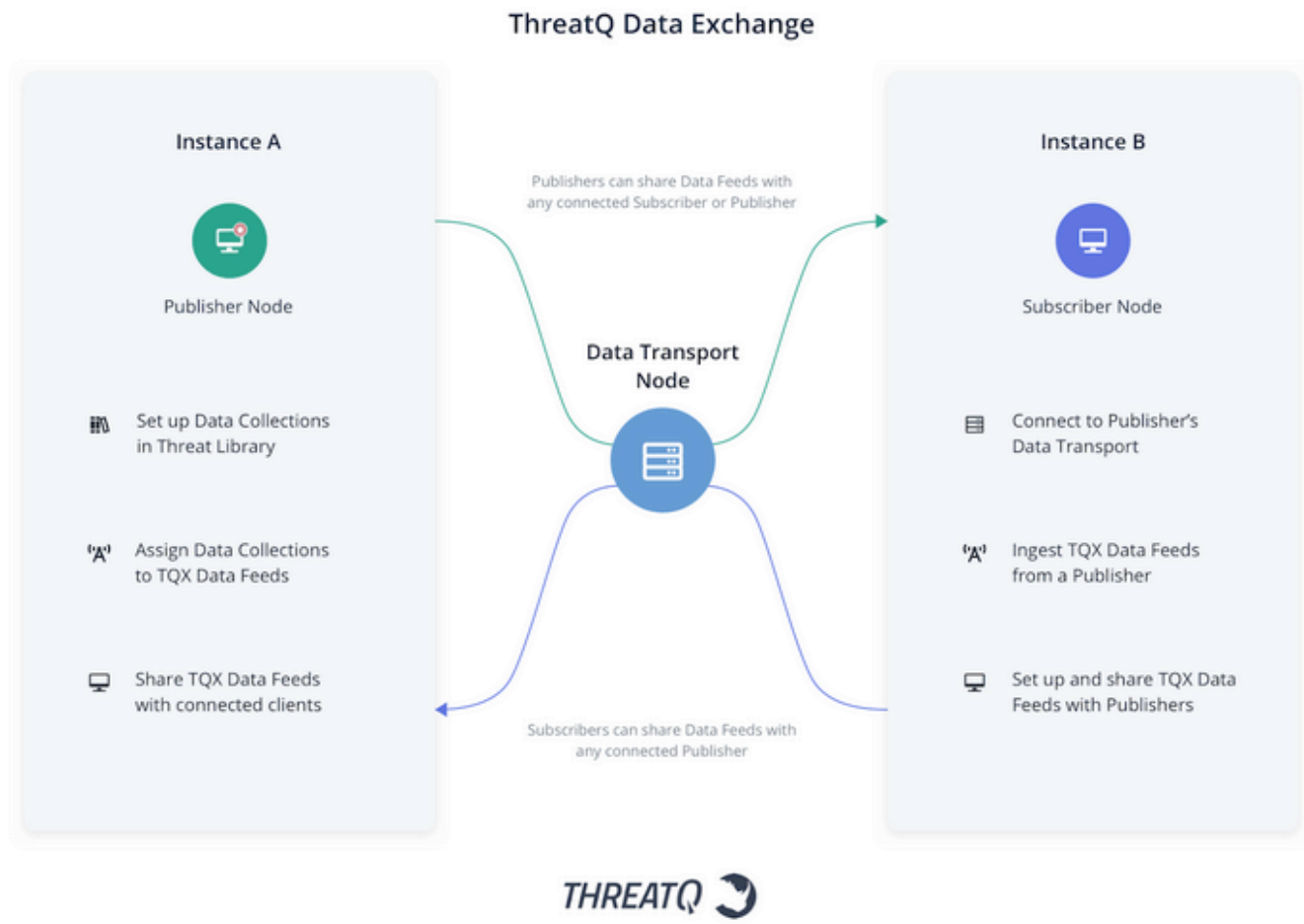
All rights reserved. This document and the software product it describes are licensed for use under a software license agreement. Reproduction or printing of this document is permitted in accordance with the license agreement.

About ThreatQ Data Exchange

The ThreatQ Data Exchange (TQX) allows the bi-directional sharing of threat intelligence across multiple ThreatQ instances. This allows your organization to build a centralized threat repository, referred to as a Publisher, that can transmit specific intel to various departments within your organization, known as Subscriber s. These Subscribers can analyze the data they ingest and provide feedback to the Publisher via a new Data Feed.



How it Works



Instance Types

There are two different types of TQX instances available: Subscriber and Publisher.

Upgrading an instance to a Publisher license allows you to create Data Connection Bundles, which are used to create Data Connections with Subscribers. Once connected to a Subscriber, you can send and receive system objects in the form of Data Feeds. See the [Publisher](#) section for further information.

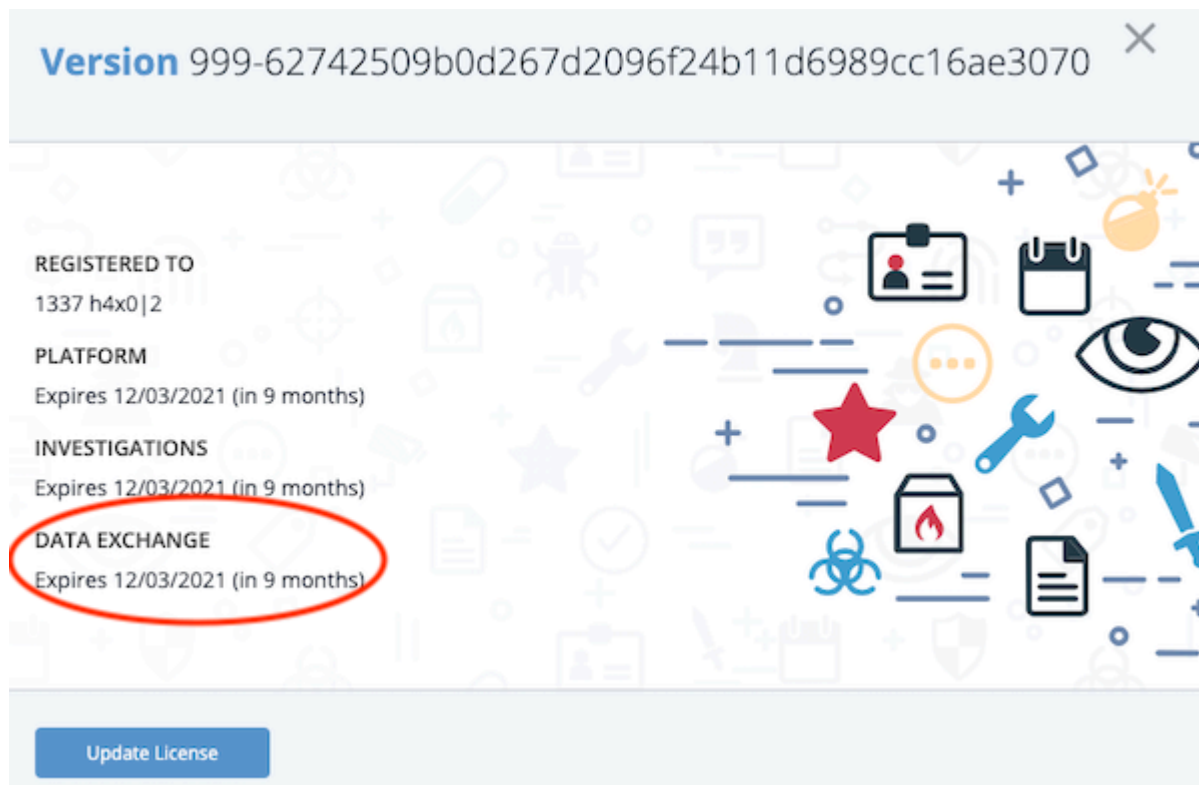


You will need at least one Publisher instance in order to utilize TQX.

Upon upgrading to ThreatQ version 4.49+, your ThreatQ instance will have Subscriber permissions by default. As a Subscriber, you can connect to the data transport using the connection bundle sent to you by the Publisher and select the Data Feeds you want to receive as well as create Data Feeds and share them with the Publisher. See the [Subscriber](#) section for further information.



To check your license status, click the gear icon in the upper right corner and select About. If your license window displays a ThreatQ Data Exchange (TQX) license, you are a Publisher. If not, you are a Subscriber.



Connection Bundles

Publishers can create connection bundles that allow Subscribers to connect via a data transport. This connection is a bi-directional connection between the Publisher and Subscriber and allows the sharing of data collections in the form of Data Feeds.

Publishers and Subscribers use a multi-step wizard to create their first connections. Additional connections are managed through your Topology View.

See the [Getting Started - First Connections](#) topic, and the [Publisher](#) and [Subscriber](#) sections for further information.

Data Feeds

Users can create and edit Data Feeds that they wish to obtain specific data from in order to send information to others through the ThreatQ Data Exchange.

A Publisher can use a saved Data Collection from the ThreatQ Threat Library to create a Data Feed. That Data Feed can be offered to one or more recipients, which can be Subscribers or Publishers, for subscription. Once a recipient subscribes to the Data Feed, he receives data from it at a user-defined frequency.

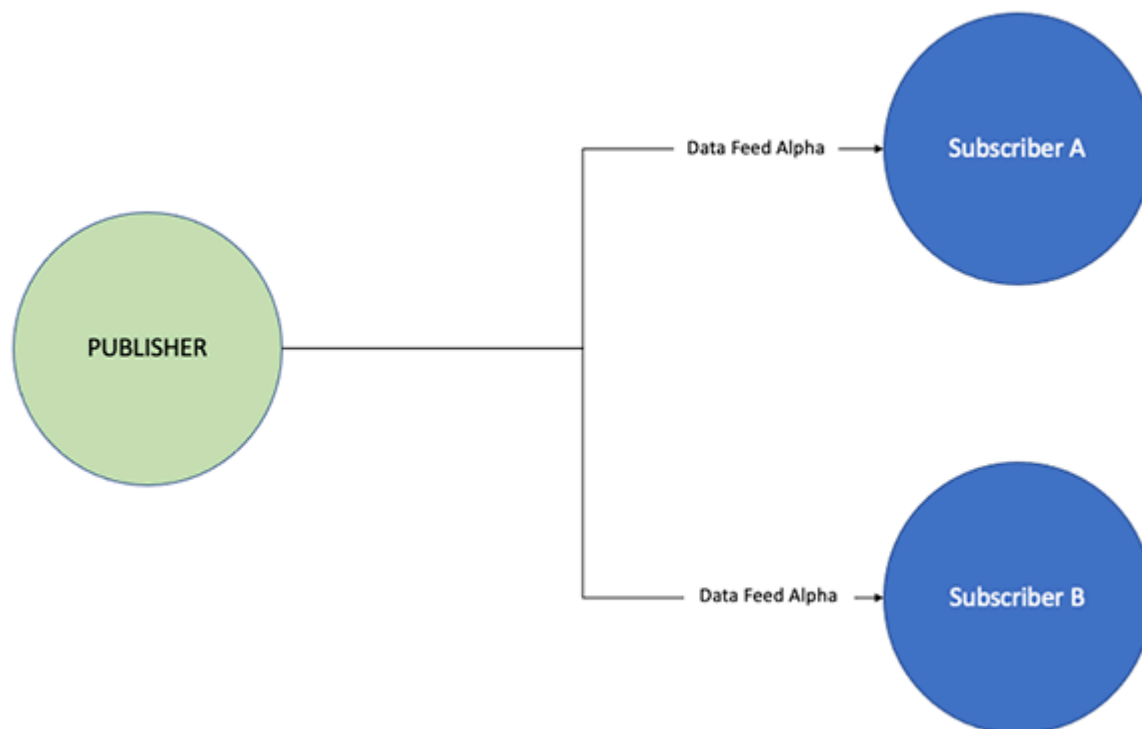


A Publisher can send and receive Data Feeds to/from a Subscriber. A Subscriber can send and receive Data Feeds to/from a Publisher. A Subscriber cannot send Data Feeds to another Subscriber. Subscribers are **not** be able to see another Subscriber in their Topology View.

See the [Data Feeds](#) section for further details.

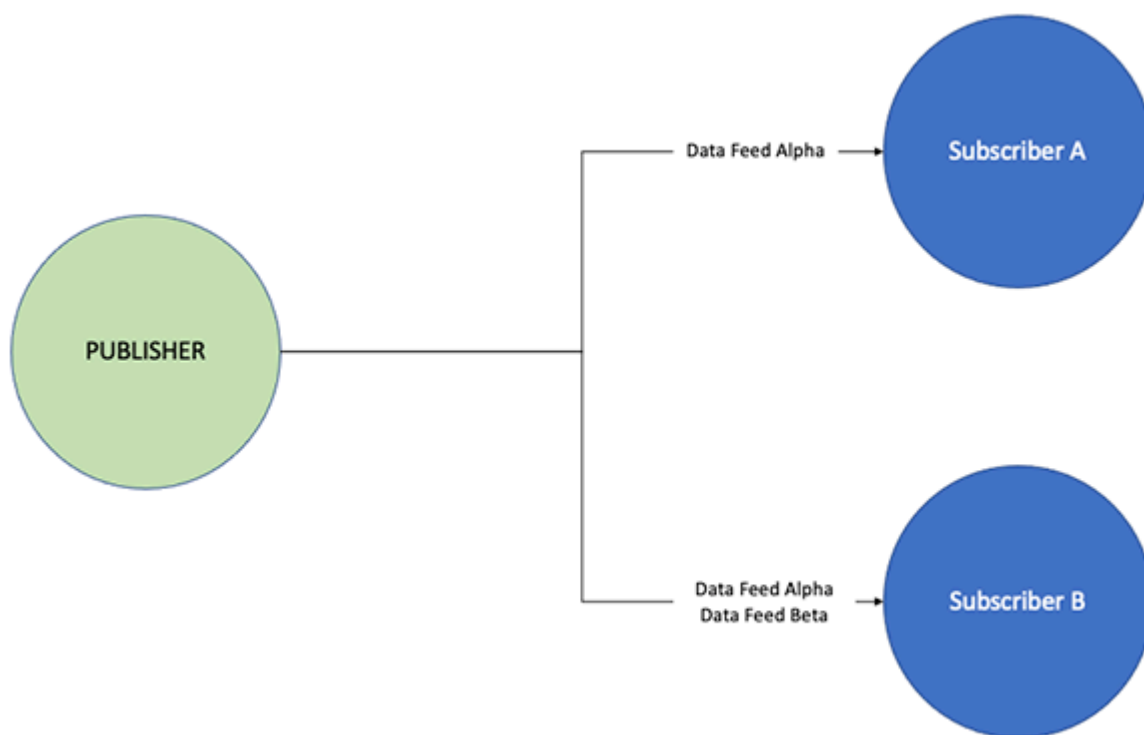
Example - One Publisher, Two Subscribers

A Publisher creates a Data Feed, named Alpha, and assigns it to two connected Subscribers with a publish frequency set to hourly. When they subscribe to the Data Feed, both Subscribers will receive Data Feed Alpha's information every hour.



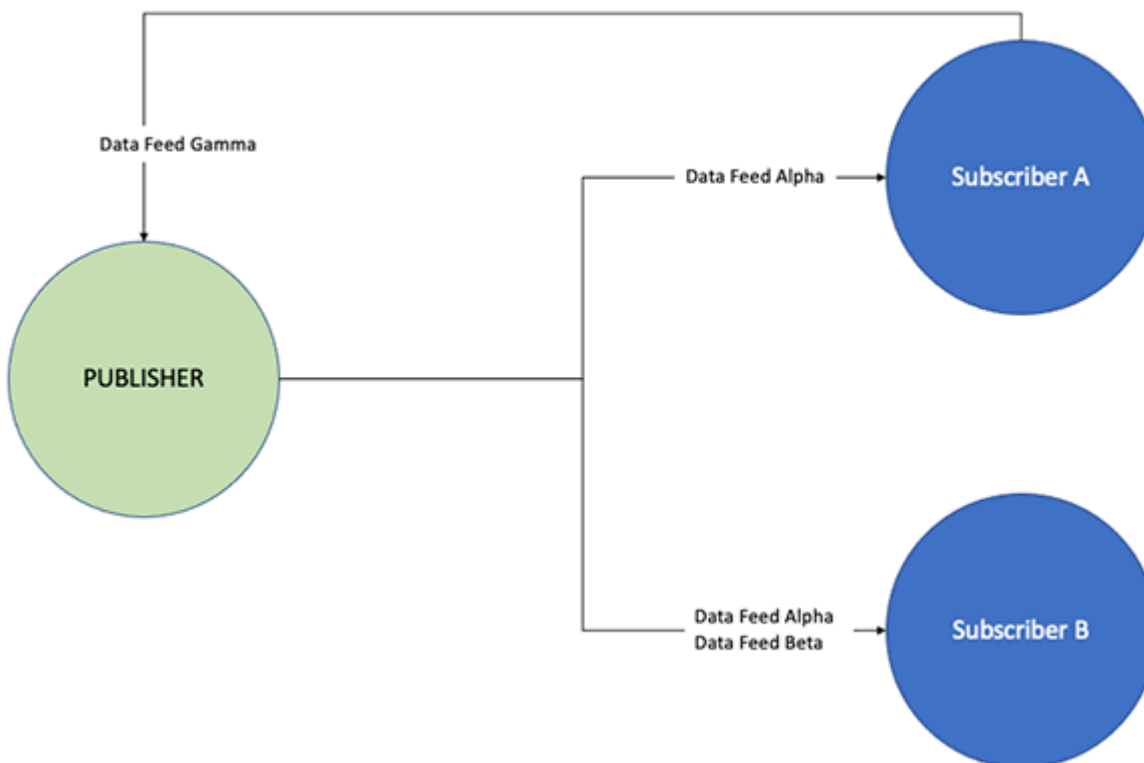
Example - One Publisher, Two Subscribers with Different Data Feeds

In this example, the Publisher is offering Data Feeds to two Subscribers. The Publisher selects one feed to be offered to Subscriber A and two feeds to be offered to Subscriber B. In this scenario, Subscriber A and B can subscribe to Data Feed Alpha. Additionally, Subscriber B also has the option to subscribe to a second Data Feed, Beta, from the Publisher.



Example - One Publisher, Two Subscribers with a Subscriber Sending a Feed to the Publisher

In this example, in addition to subscribing a Data Feed from a Publisher, Subscriber A is also offering its own Data Feed back to the Publisher for subscription.

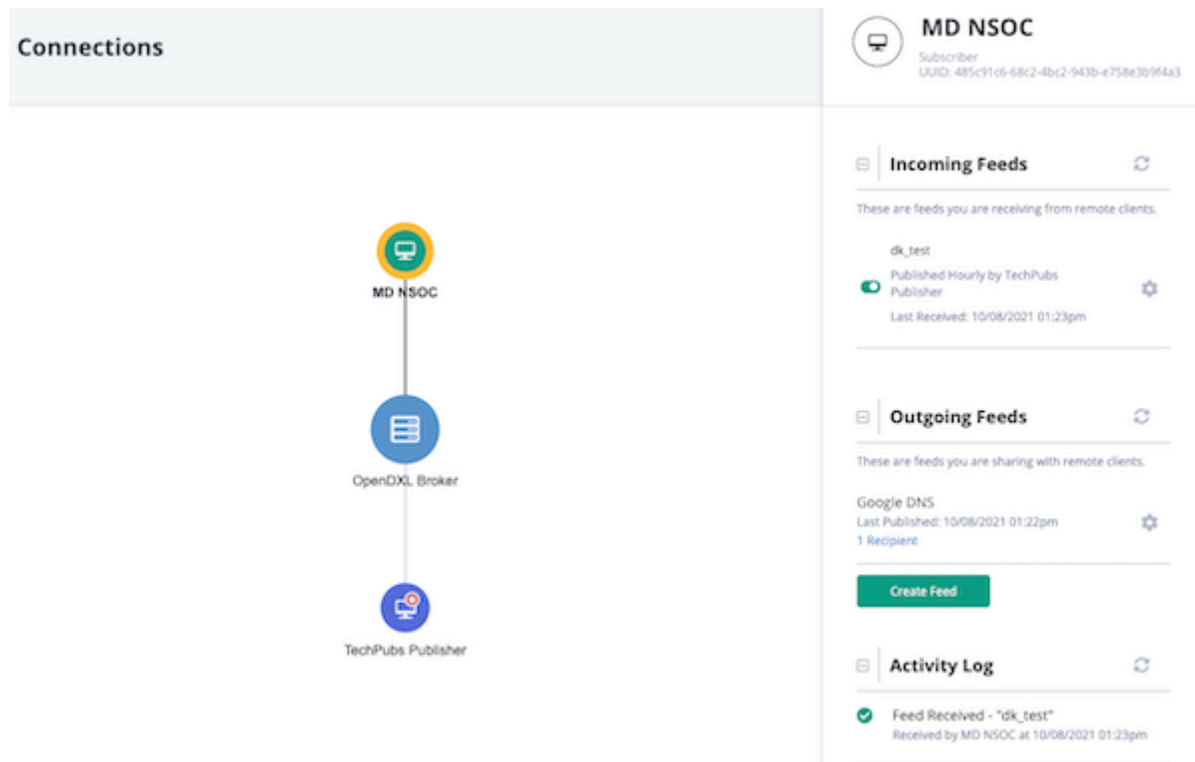


Managing Connections

Publishers and Subscribers can view connections, instance details, and activity logs via a node-based interface referred to as the Topology View.




Publishers can see all Subscribers that they are connected to in the Topology View. Subscribers only see their instance node and the Publisher(s) they are connected to in the view. Subscribers cannot see or submit/receive data from other Subscribers.




The view and available actions differ based on your instance type (Publisher, Subscriber). See the [Publisher](#) and [Subscriber](#) sections for more details.

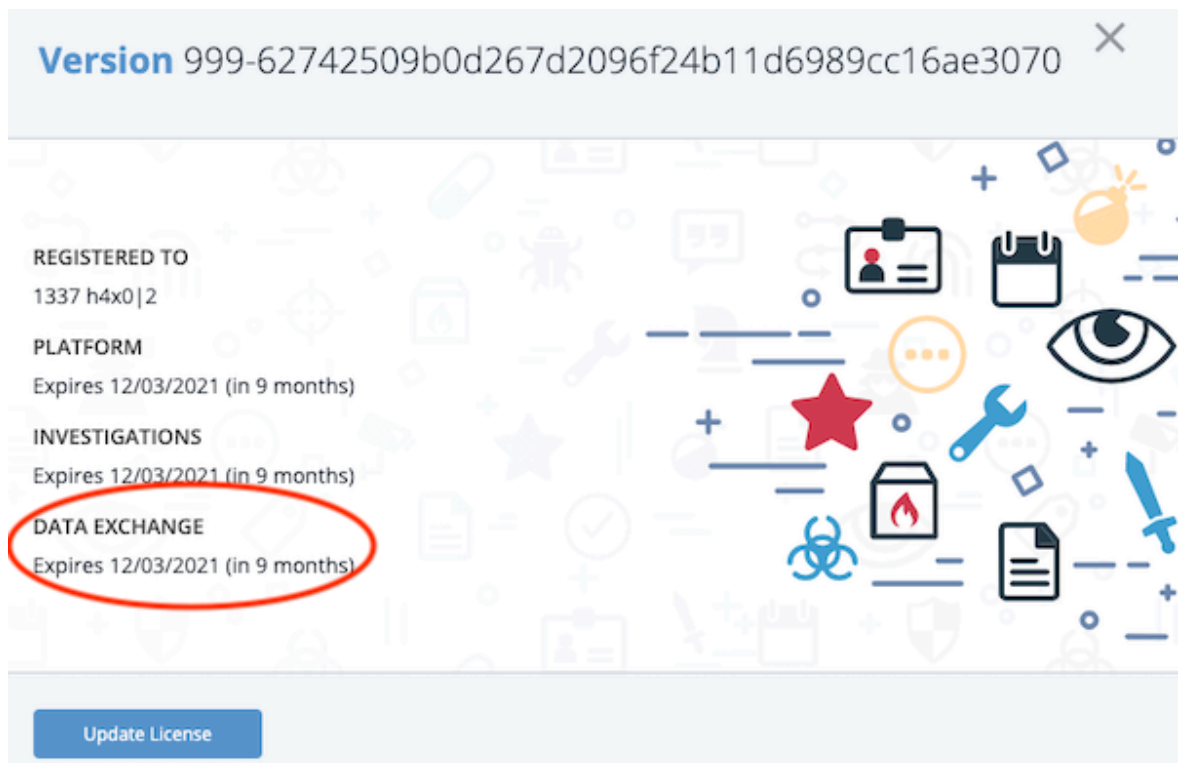
Requirements

 After you implement TQX, you cannot change your system's timezone from UTC to another timezone. Doing so will cause TQX to stop functioning.

The following is a list of the minimum requirements for the ThreatQ Data Exchange:

- Two ThreatQ instances running ThreatQ version 4.49+
 - One instance must have a Publisher license

Publisher instances see the Data Exchange license information in their about window. This can be accessed by clicking on the settings  and selecting **About** from the dropdown.



- One instance with the standard ThreatQ platform license



All ThreatQ instances on version 4.49+ will have Subscriber permissions. Subscribers will not see the Data Exchange license on their About window.

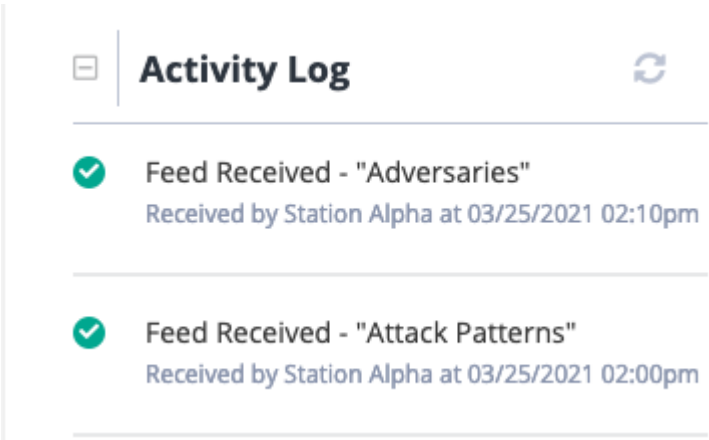
- One Data Collection saved.
- Network access for both instances.



TQX requires a communications connection from Subscriber to Publisher. Users that are utilizing forwarding rules must ensure that the 8883/tcp port is open on the Publisher instance (the instance with the TQX license and running the broker service).

Components

The following table contains key components, terms, and definitions regarding the ThreatQ Data Exchange service.

COMPONENT/ TERM	DEFINITION
Activity Log	<p>The Activity Log, located on the bottom-right of the Topology View, provides an audit trail for TQX activity such as when a new node has been added to your connection and when you submitted or received information from a Data Feed.</p> 
Client	<p>The term Client is used to refer to other platform instances when creating a Connection Bundle.</p>
Client Discovery Pane	<p>The Client Discovery pane is accessible by clicking on the transport node in your Topology View. Users can view the instances they are connected with and which data feeds they are submitting to those instances.</p>

COMPONENT/ TERM

DEFINITION

Client Discovery

Refresh to discover available clients to connect with.

Techpubs Publisher

Active IPs

Published Daily

Last Received: 03/24/2021 08:27pm

Share Feed

Connection Bundle

The connection bundle is a zip file containing connection information for the Data Transport. A connection bundle is created by a Publisher when creating a new connection, such as adding a new Subscriber. The connection bundle zip must be uploaded by the Subscriber when connecting to a Publisher.

Client Name

Create Credentials

Station Alpha

[Download Connection Bundle](#)

Station Beta

[Download Connection Bundle](#)

Back

Finish Setup

Credential Management

The Credential Management pane is accessible after clicking on the transport node in the Topology View and is only accessible by Publishers. Publishers can use this pane to create new connection bundles, download existing connection bundles, and delete connection bundles.

COMPONENT/ TERM

DEFINITION

Credential Management



Manage credentials for clients on your transport.


Station Alpha	↓ Connection Bundle	
Station Beta	↓ Connection Bundle	


Create Credentials

Data Collection

A data collection is a saved ThreatQ Threat Library query that can be used to create a Data Feed.

Mitre Adversaries Load Data Collection ▾  Save  Clear Filters ^

Filter Set 1 ☐ NOT Filters ▾  ▾

SOURCE MITRE Enterprise ATT&CK x Add Source ▾ 

+ Add Another Filter Set

Data Feeds

Data Feeds transmit selected Data Collections to user-selected instances (Publishers, Subscribers). You can select which data collection to use, whether or not to include associated attributes, and also rename the source for the feed so that the receiver can easily identify system objects ingested from the data feed. See the [Data Feeds](#) section for more details.

By default, a data feed includes the object types associated with its data

COMPONENT/ TERM

DEFINITION

collection with the exception of tasks and files. In addition, you can use the the checkboxes in the Supported Context and Relational Data sections to include additional information.

Create Feed

Feed Status

Disabled ☒ Enabled

Basic Info

Feed Name

Publish Frequency

Transport

OpenDXL Broker

Description

Add description...

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

This feed has no recipients.

+ Add

Dataset

Select a data collection below that will define the data being exported in this feed.

Select a data collection

[Create a new data collection.](#)

Output Criteria

You can use the section below to determine what supporting context should or should not be part of the output of this feed.

Supporting Context

Select options below to choose what supporting context should be included.

- ☐ Attributes
- ☐ Contact Information
- ☐ Description
- ☐ Event Date
- ☐ File Information
- ☐ First Seen
- ☐ Last Seen
- ☐ Objective
- ☐ Published At
- ☐ Source Code
- ☐ Spearphish Details
- ☐ Tags

Relational Data

Feeds have the ability to include related objects and their context.

- ☐ Adversaries
- ☐ Attack Pattern
- ☐ Campaign
- ☐ Course Of Action
- ☐ Events
- ☐ Exploit Target
- ☐ Identity
- ☐ Incident
- ☐ Indicators
- ☐ Intrusion Set
- ☐ Malware
- ☐ Report
- ☐ Signatures
- ☐ Tool
- ☐ Ttp
- ☐ Vulnerability

Data Modifications

☐ Overwrite Source

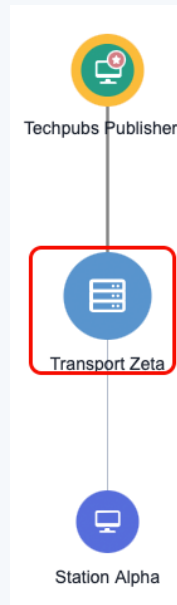
The source provided below will replace all sources in the output of this collection.

Data Transport

The Data Transport is how data is shared between TQX nodes, using OpenDXL by default. Currently, you can only use the TQX default transport included with a Publisher license. Additional transport options, including the ability to use your own, will be introduced in future releases.

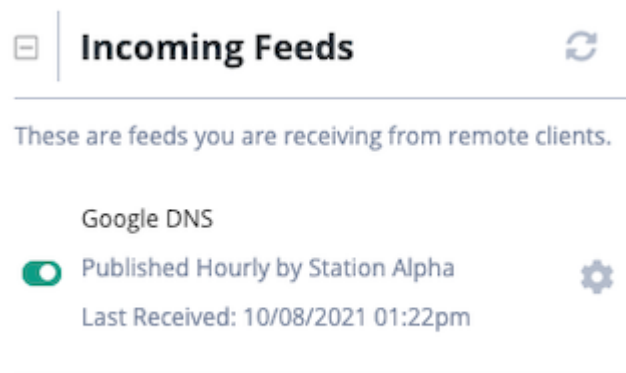
COMPONENT/ TERM

DEFINITION



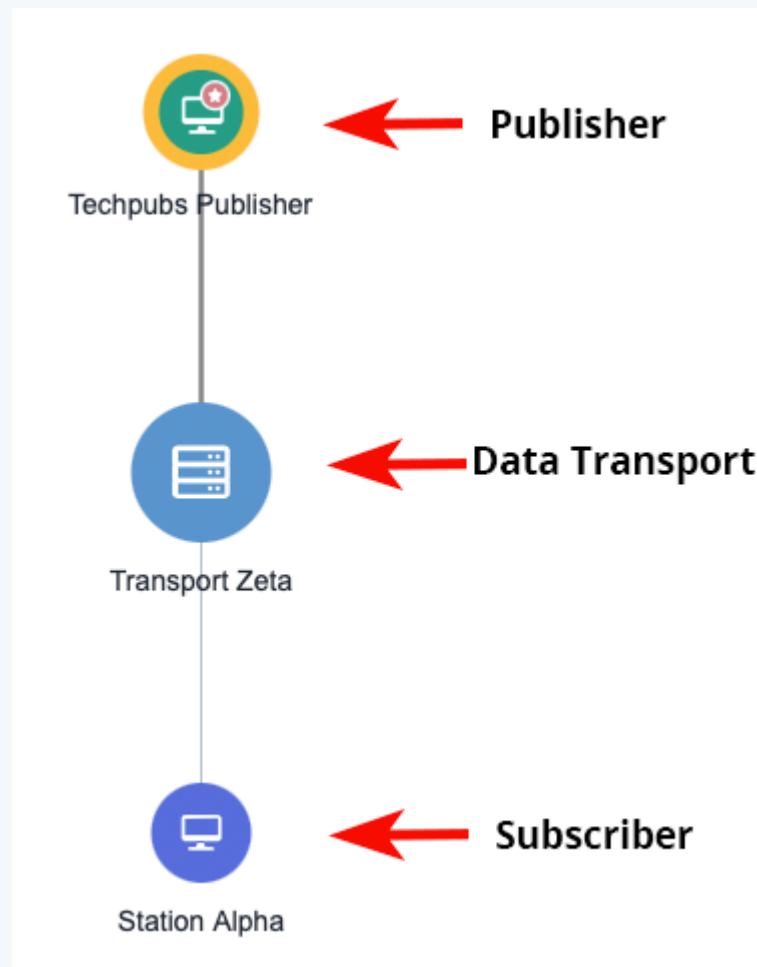
Incoming Feeds Pane

The Incoming Feeds pane is accessible from the right menu pane after clicking a Subscriber or Publisher node in your Topology View. You can see the names of the feeds offered to you, [subscribe to/unsubscribe a feed](#), and view feed details such as the instance that sent it, the publish rate, and the last received time stamp.



Nodes

A node is a basic unit of a data structure within TQX, such as an instance (Publisher/Subscriber) or data transport, that can be viewed on the Topology view. You can click on a node to view specific information.

**COMPONENT/
TERM****DEFINITION****Outgoing Feeds
Pane**

The Outgoing Feeds pane is accessible from the right menu pane after clicking a Subscriber or Publisher node in your Topology View. You can see the names of the feeds you provide to other instances, the number of feed recipients, the publish rate, and the last published time stamp. You also have an option to [create a new feed](#) from this pane.

COMPONENT/ TERM

DEFINITION


☰

Outgoing Feeds

↻

These are feeds you are sharing with remote clients.

Active IPs

Last Published: 03/24/2021 08:27pm 

1 Recipient

Create Feed

Publisher

A ThreatQ instance with a TQX broker license, which allows a user to [create a connection bundle](#). At least one Publisher instance is required in order to create a connection. In TQX, Publisher nodes have a star badge icon in the Topology View.

Subscriber

A ThreatQ instance on version 4.49+ that does not have a TQX broker license. A Subscriber can [subscribe to Data Feeds](#) from a Publisher and [offer Data Feeds to the Publisher](#) for subscription. However, a Subscriber can neither see nor offer Data Feeds to other Subscribers connected to the Publisher.

Topology View


The Topology View provides you with a visual representation of your TQX connections. You can access the view by clicking on the Data Exchange menu and selecting **Connections**.

From this view, you can click on various nodes to view specific information. Publishers can create/offer Data Feeds and create new connection bundles from this view as well.


COMPONENT/
TERM

DEFINITION

Connections



```
graph TD; TP[TechPubs Publisher] --- OB[OpenDXL Broker]; OB --- SA[Station Alpha];
```

 **TechPubs Publisher**
Publisher
UUID: ab0b2be9-9211-47d9-822e-e83066e29420

Incoming Feeds

These are feeds you are receiving from remote clients.

Google DNS

Published Hourly by Station Alpha

Last Received: 10/08/2021 01:22pm

Outgoing Feeds

These are feeds you are sharing with remote clients.

dk_test

Last Published: 10/08/2021 01:23pm

1 Recipient

Create Feed

Activity Log

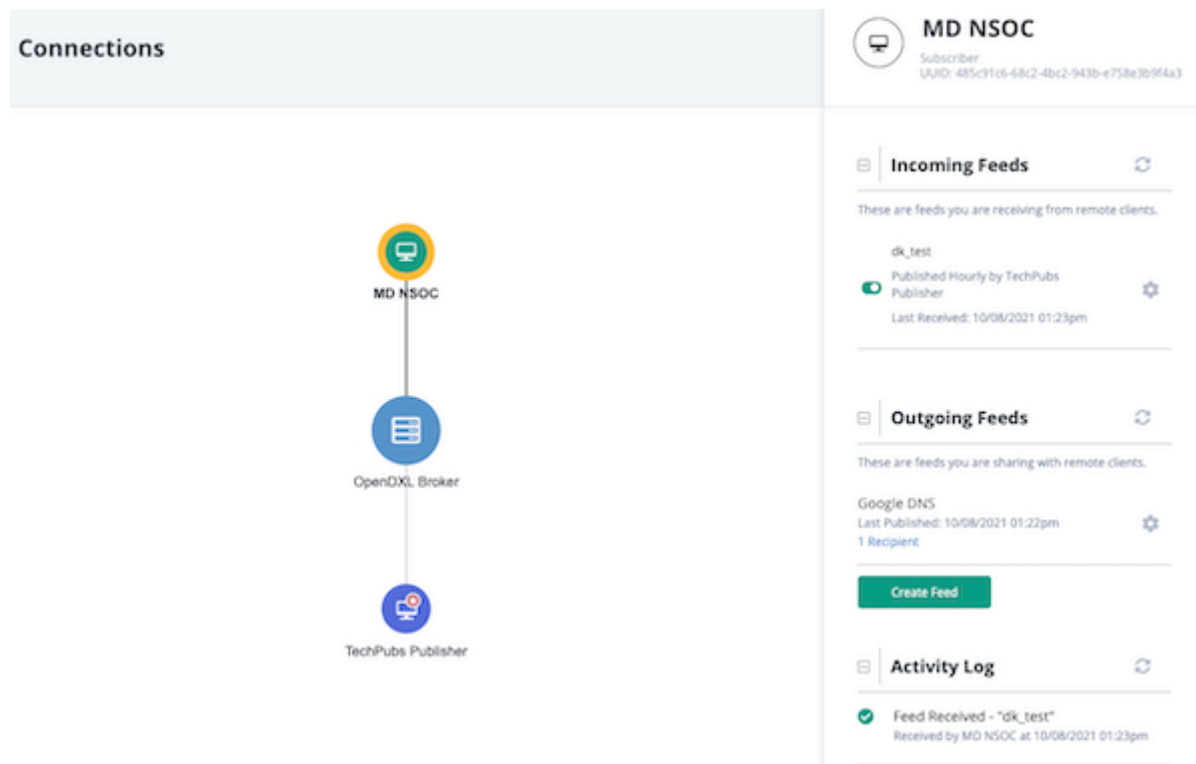
Feed Received - "dk_test"

Received by Station Alpha at 10/08/2021 01:23pm

Topology View

You can access your instance's Topology View by clicking on the **Data Exchange** icon in the top navigation bar and selecting **Connections**.

The Topology View provides you with a node-based graph of your connections.



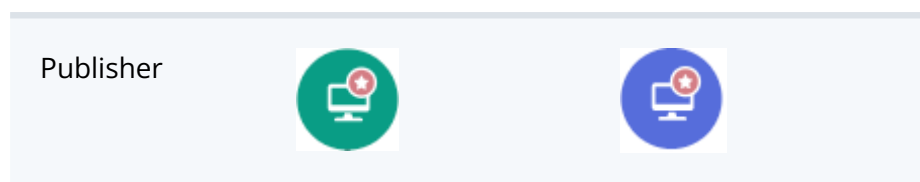
Clicking on a specific node allows you to view related information such as Data feeds you are sharing or receiving, an Activity Log, as well as the ability to create/download new and existing connection bundles (Publishers only).

Icons

Even though the names assigned to Publisher, Client, and Data Transport nodes vary, you can quickly identify these nodes by their distinct icons.

PUBLISHER VIEW

SUBSCRIBER VIEW



Subscriber




Data Transport



As shown above, icon color varies based on whether you are logged in as a Publisher or a Subscriber. However, the Publisher node is always stamped with a star in the upper right corner.

Tips and Tricks

- Within the Connections screen, click the refresh button  to refresh the data displayed.
- The Universally Unique Identifier (UUID) for each Publisher and Subscriber is displayed directly below the node name in the details panel. Publisher and Subscriber names can be changed, but this ID cannot.
- Changes to node names can take up to thirty seconds to display.
- You can use the scroll button on your mouse to zoom in and out on the Topology View in the Connections page.
- You can click and drag your Topology View to a different location in the Connections screen.
- You can click any node in the Topology View to view its details on the right side of the screen.

Instance Naming

You can rename each node to your preference in order to easily identify other instances and transports in your view. This only affects your instance's Topology View. This allows each instance to use customized naming conventions without affecting other instances.




The Publisher names an instance: Station Alpha when creating an integration bundle.

The intended Subscriber will name his instance: MD NSOC.


In the Publisher's Topology View, the Subscriber will be named: Station Alpha

Connections




```

graph TD
    TP[TechPubs Publisher] --- OB[OpenDXL Broker]
    OB --- SA[Station Alpha]
        
```


Station Alpha
Subscriber
 UUID: 485c91c6-68c2-4bc2-943b-e758e3b9f4a3



Incoming Feeds

These are feeds you are receiving from this client.

Google DNS	Published Hourly	
------------	------------------	---


Outgoing Feeds

These are feeds you are sharing with this client.

dk_test	Published Daily	 
Last Received: 10/08/2021 01:23pm		


[Share Feed](#)

Activity Log

 Feed Received - "dk_test"
 Received by Station Alpha at 10/08/2021 01:23pm


In the Subscriber's Topology View, the Subscriber will see the instance name he selected: MD NSOC.

Connections




```

graph TD
    MD[MD NSOC] --- OB[OpenDXL Broker]
    OB --- TP[TechPubs Publisher]
        
```


MD NSOC
Subscriber
 UUID: 485c91c6-68c2-4bc2-943b-e758e3b9f4a3


Incoming Feeds

These are feeds you are receiving from remote clients.

dk_test	Published Hourly by TechPubs Publisher	
Last Received: 10/08/2021 01:46pm		


Outgoing Feeds

These are feeds you are sharing with remote clients.

Google DNS	Last Published: 10/08/2021 01:40pm	
1 Recipient		

[Create Feed](#)

Activity Log

 Feed Received - "dk_test"
 Received by MD NSOC at 10/08/2021 01:46pm

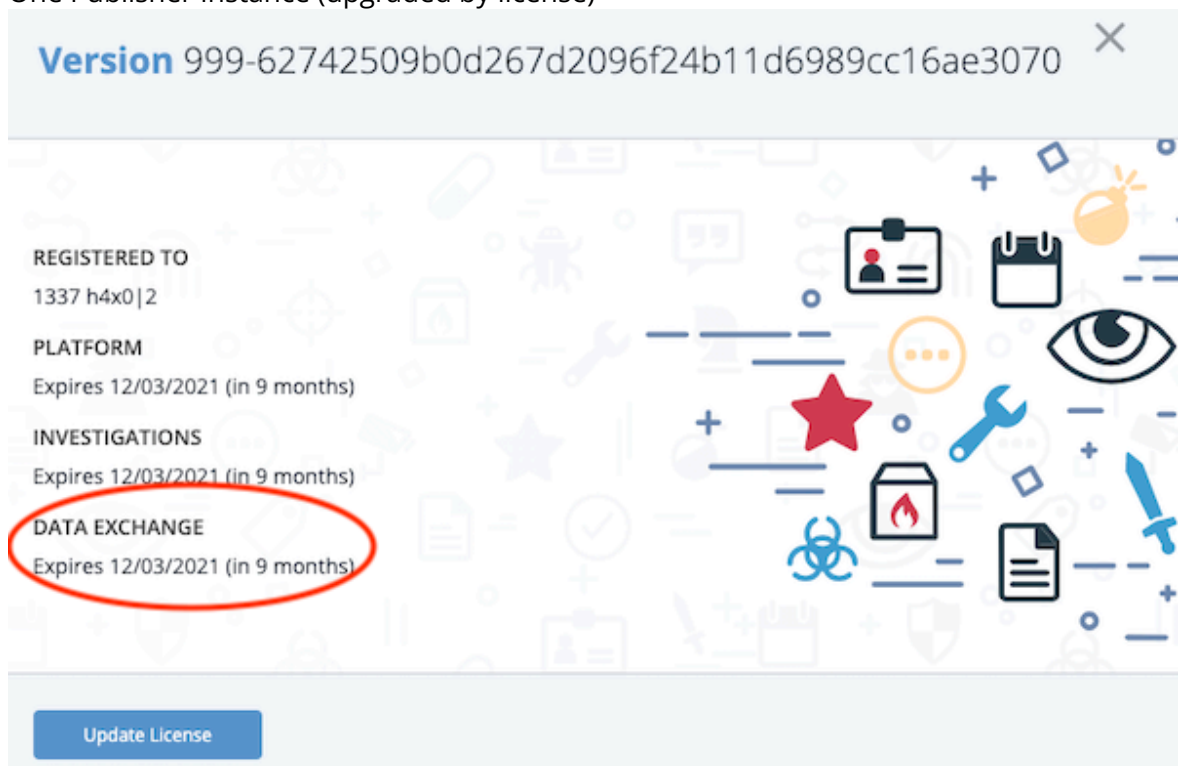
Getting Started - First Connections

The information found in this topic will provide the initial steps to create a Connection Bundle , set up a Subscriber , and to create your first Data Feed.

Confirm Requirements

Confirm that you have the following:

- Two separate ThreatQ instances
 - One Publisher Instance (upgraded by license)

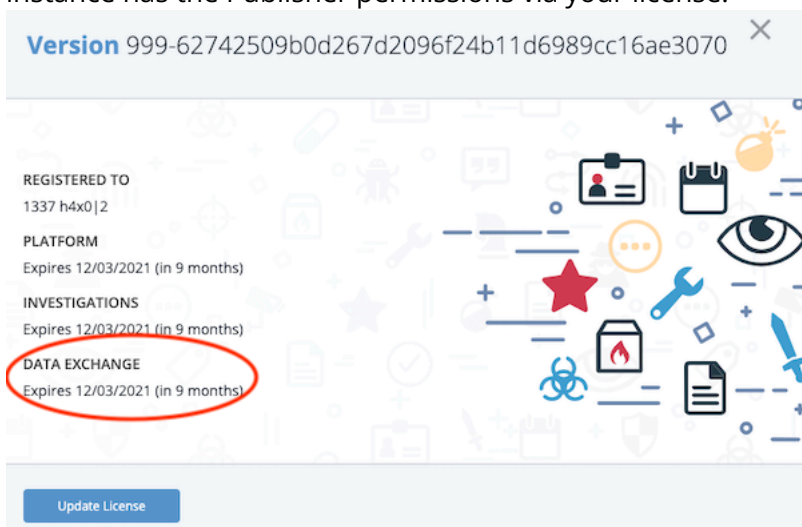


- One Subscriber Instance (included with standard ThreatQ License version 4.49+)
- Network connection between the two instances
- At least one saved Data Collection (Publisher instance)

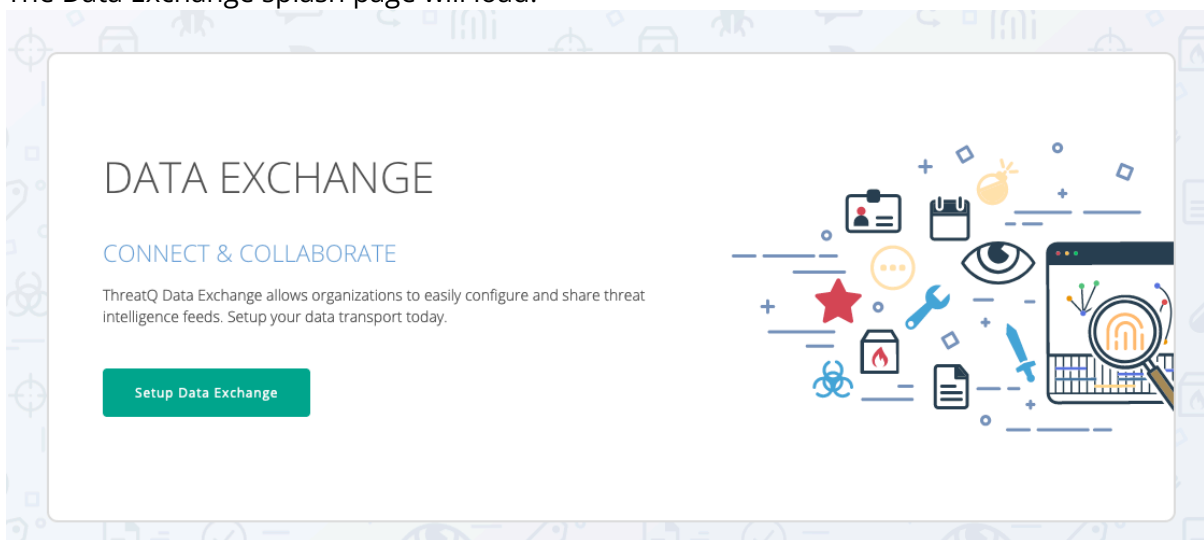
Publisher - Creating a Connection Bundle

1. Click on the settings icon and select **About**.

2. Confirm that the **Data Exchange** license information is displayed. This confirms that your instance has the Publisher permissions via your license.

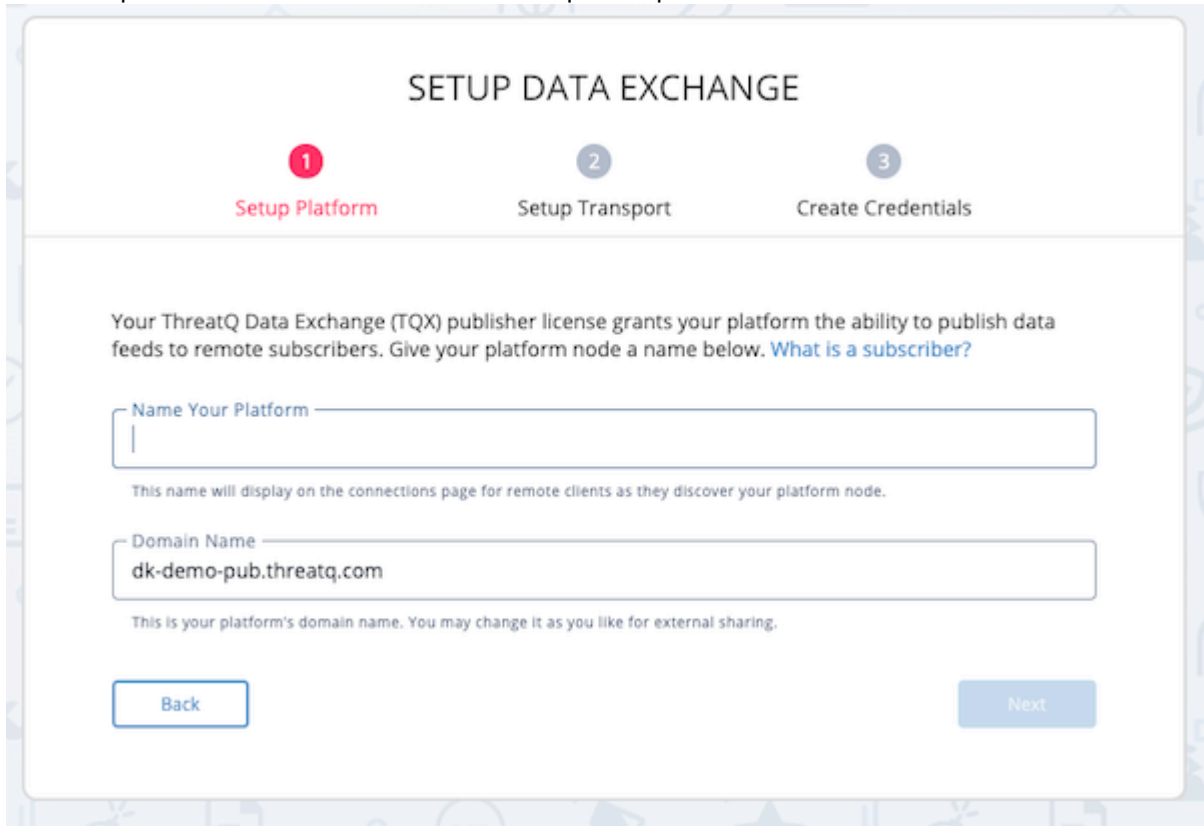


3. Click on the **Data Exchange** icon and select **Connections** in the top navigation bar. The Data Exchange splash page will load.



4. Click on **Setup Data Exchange**.

The Setup Wizard will load with the first step, Setup Platform, selected.



SETUP DATA EXCHANGE

1 Setup Platform 2 Setup Transport 3 Create Credentials

Your ThreatQ Data Exchange (TX) publisher license grants your platform the ability to publish data feeds to remote subscribers. Give your platform node a name below. [What is a subscriber?](#)

Name Your Platform

This name will display on the connections page for remote clients as they discover your platform node.

Domain Name

This is your platform's domain name. You may change it as you like for external sharing.

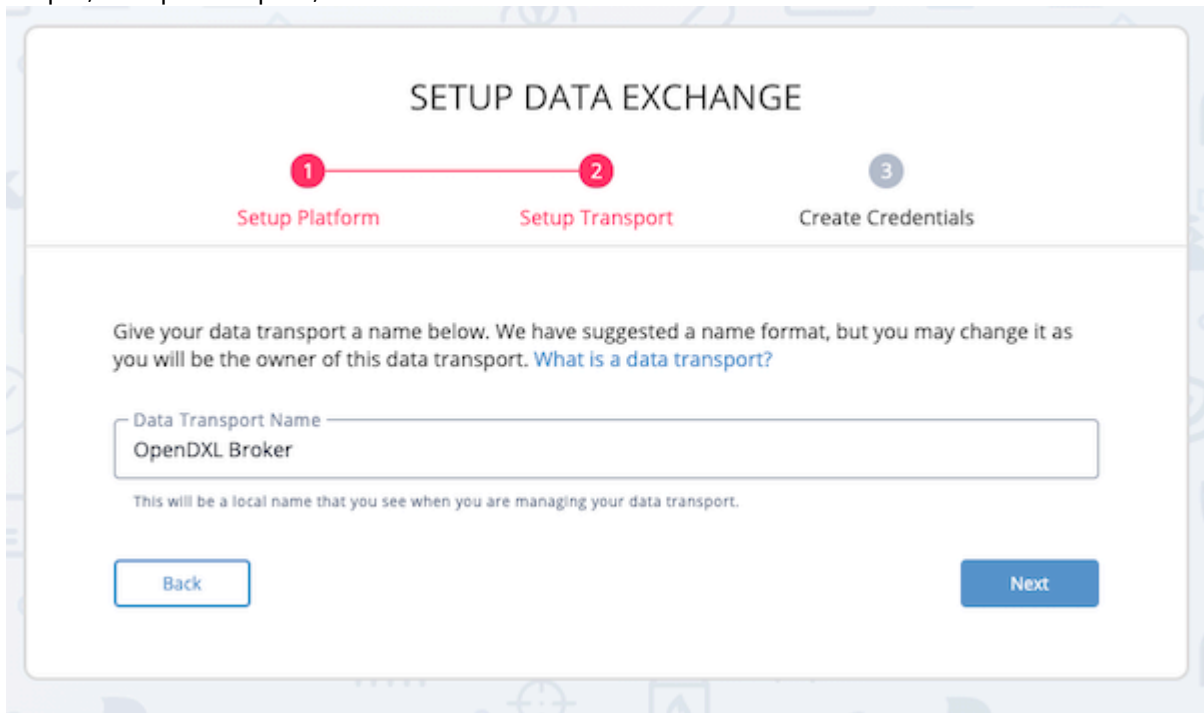
5. Enter a **Platform Name** for your instance. This is the name that you will use to identify yourself on the connections page. Subscribers will also see this name when viewing their Topology view.



You can change this name later but it will only affect your view. Subscribers will still see the name you entered for this step.

6. The **Domain Name** field is automatically populated based on your ThreatQ instance. Leave this field as is.
7. Click on **Next**.

Step 2, Setup Transport, will load.



SETUP DATA EXCHANGE

1 Setup Platform 2 Setup Transport 3 Create Credentials

Give your data transport a name below. We have suggested a name format, but you may change it as you will be the owner of this data transport. [What is a data transport?](#)

Data Transport Name
OpenDXL Broker

This will be a local name that you see when you are managing your data transport.

Back Next

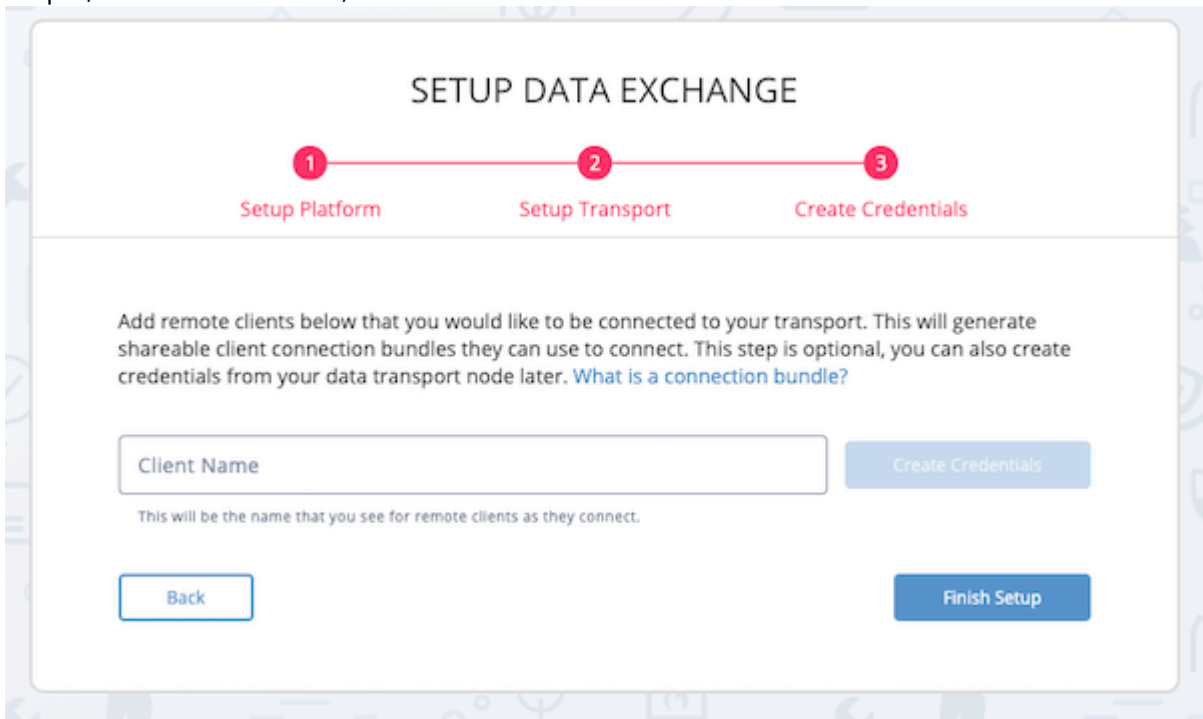
8. Update the **Data Transport Name** if desired, otherwise use the default entry. This name will be used to identify the Broker node in your Topology view.



Subscribers are given the option to name the Data Transport during their connection setup. The name you enter in this field will not affect what Subscribers see.

9. Click the **Next** button.

Step 3, Create Credentials, will load.



SETUP DATA EXCHANGE

1 — 2 — 3
Setup Platform Setup Transport Create Credentials

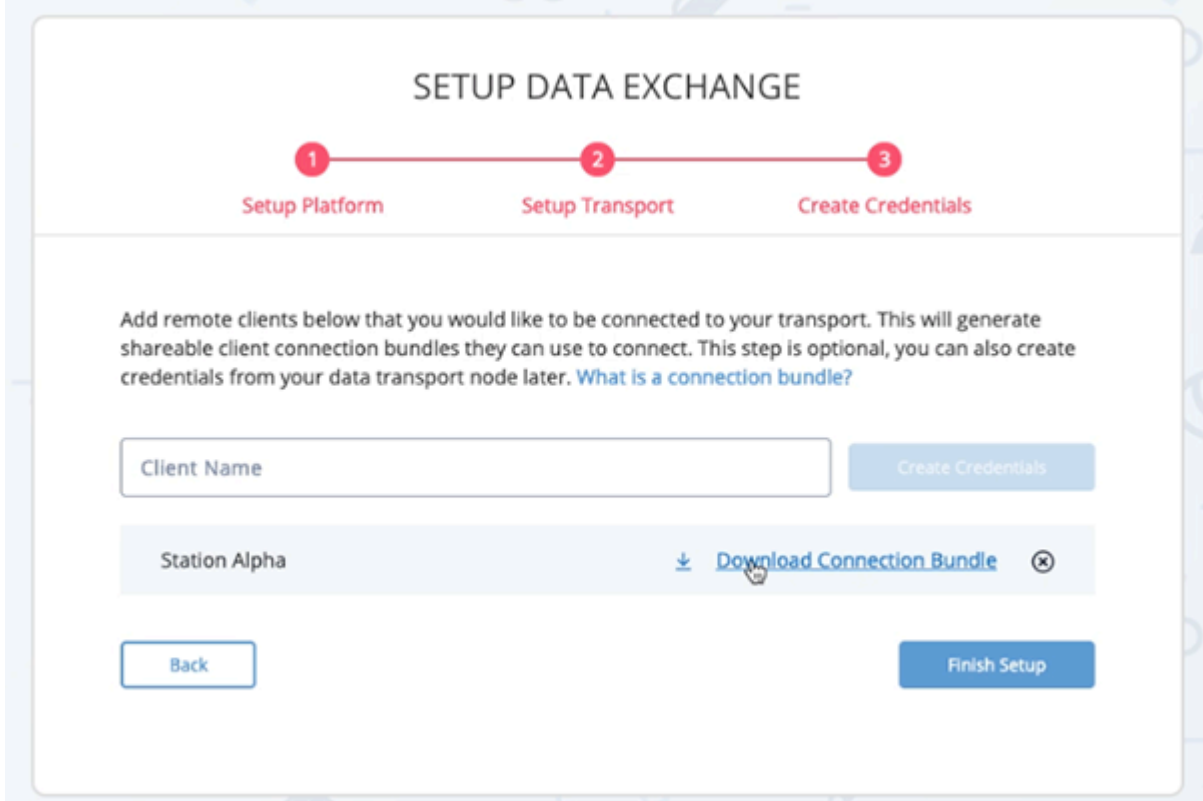
Add remote clients below that you would like to be connected to your transport. This will generate shareable client connection bundles they can use to connect. This step is optional, you can also create credentials from your data transport node later. [What is a connection bundle?](#)

Client Name Create Credentials

This will be the name that you see for remote clients as they connect.

Back Finish Setup

10. Enter a **Client Name** and click on **Create Credentials** for each Subscriber you will connect to using ThreatQ Data Exchange. The names you enter here will only affect your Topology view.



SETUP DATA EXCHANGE

1 — 2 — 3
Setup Platform Setup Transport Create Credentials

Add remote clients below that you would like to be connected to your transport. This will generate shareable client connection bundles they can use to connect. This step is optional, you can also create credentials from your data transport node later. [What is a connection bundle?](#)

Client Name Create Credentials

This will be the name that you see for remote clients as they connect.

Station Alpha Download Connection Bundle ✕

Back Finish Setup



Publisher names a Subscriber: Station Alpha.
Subscriber names their platform: East Wing NSOC

The Publisher will see the Subscriber node as: Station Alpha

The Subscriber will see his/her platform as: East Wing NSOC

11. Repeat step 10 to create credentials for additional subscribers.
12. Click the **download** icon to download the Connection Bundle for each client.



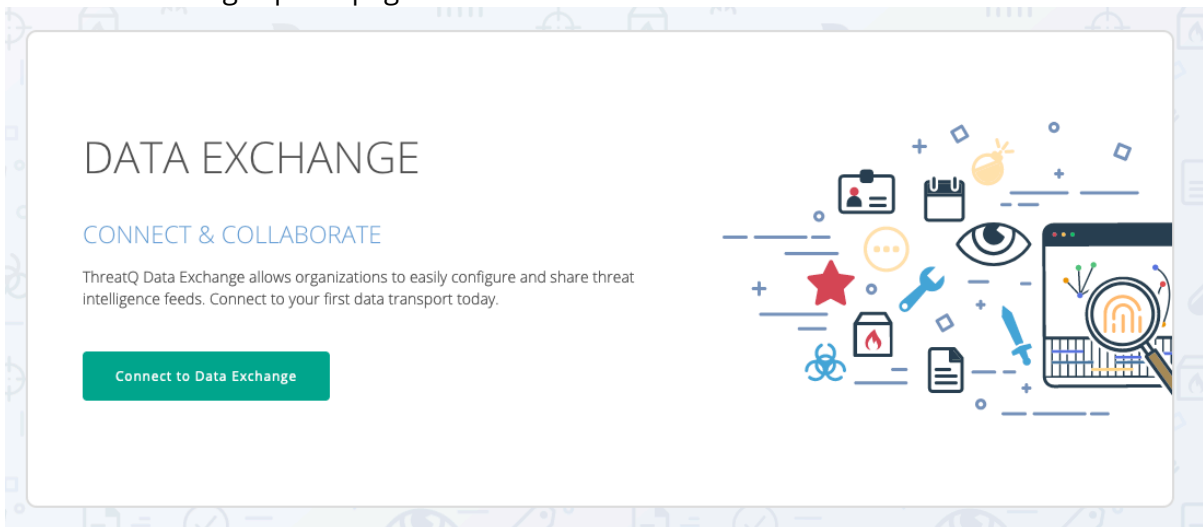
Subscribers will need the Connection Bundle file during their setup.

13. Click the **Finish Setup** button.
14. Send the Connect Bundle(s) you downloaded in step 12 to the Subscriber(s).

The Subscriber will now need to perform their setup to continue the setup process. If you have not done so already, send the connection bundles to the Subscriber.

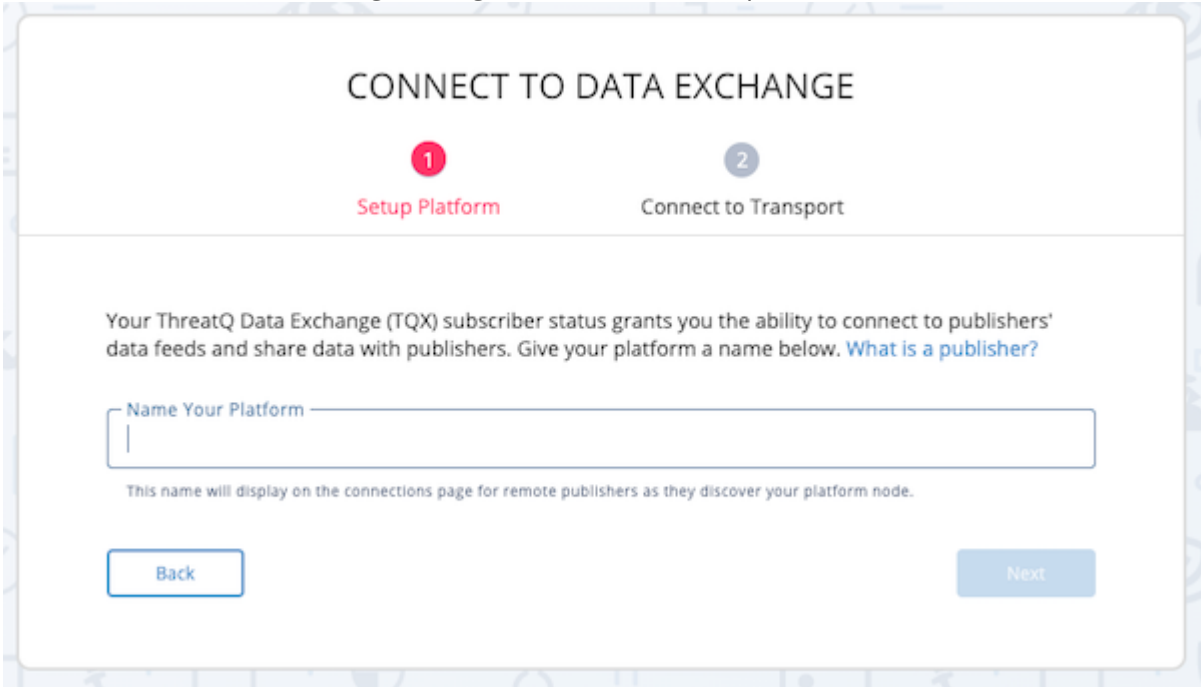
Subscriber - Connecting to a Publisher

1. Click on the **Data Exchange** icon in the top navigation bar of ThreatQ and select **Connections**. The Data Exchange splash page will load.



2. Click on **Connect to Data Exchange**.

The Connect to Data Exchange dialog box will load on Step 1.



CONNECT TO DATA EXCHANGE

1 Setup Platform 2 Connect to Transport

Your ThreatQ Data Exchange (TX) subscriber status grants you the ability to connect to publishers' data feeds and share data with publishers. Give your platform a name below. [What is a publisher?](#)

Name Your Platform

This name will display on the connections page for remote publishers as they discover your platform node.

Back Next

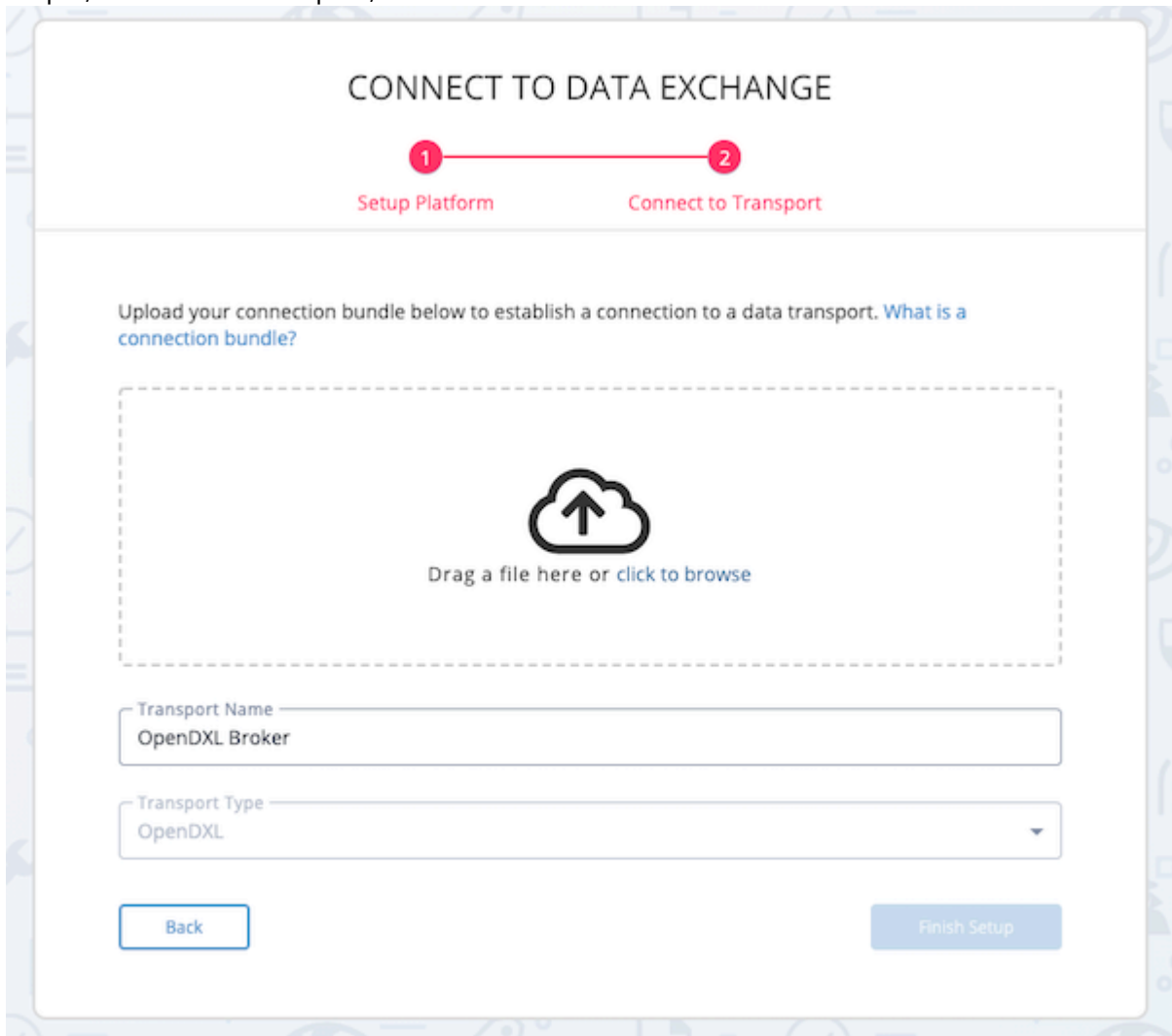
3. Enter a name for your platform instance. You will use this name to identify your instance in your Topology view.



You can change this name later but it will only affect your view. Publishers may have a different a different name for your instance but will only see it in their Topology view.

4. Click on **Next**.

Step 2, Connect to Transport, will load



CONNECT TO DATA EXCHANGE

1 Setup Platform 2 Connect to Transport

Upload your connection bundle below to establish a connection to a data transport. [What is a connection bundle?](#)

Drag a file here or [click to browse](#)

Transport Name
OpenDXL Broker

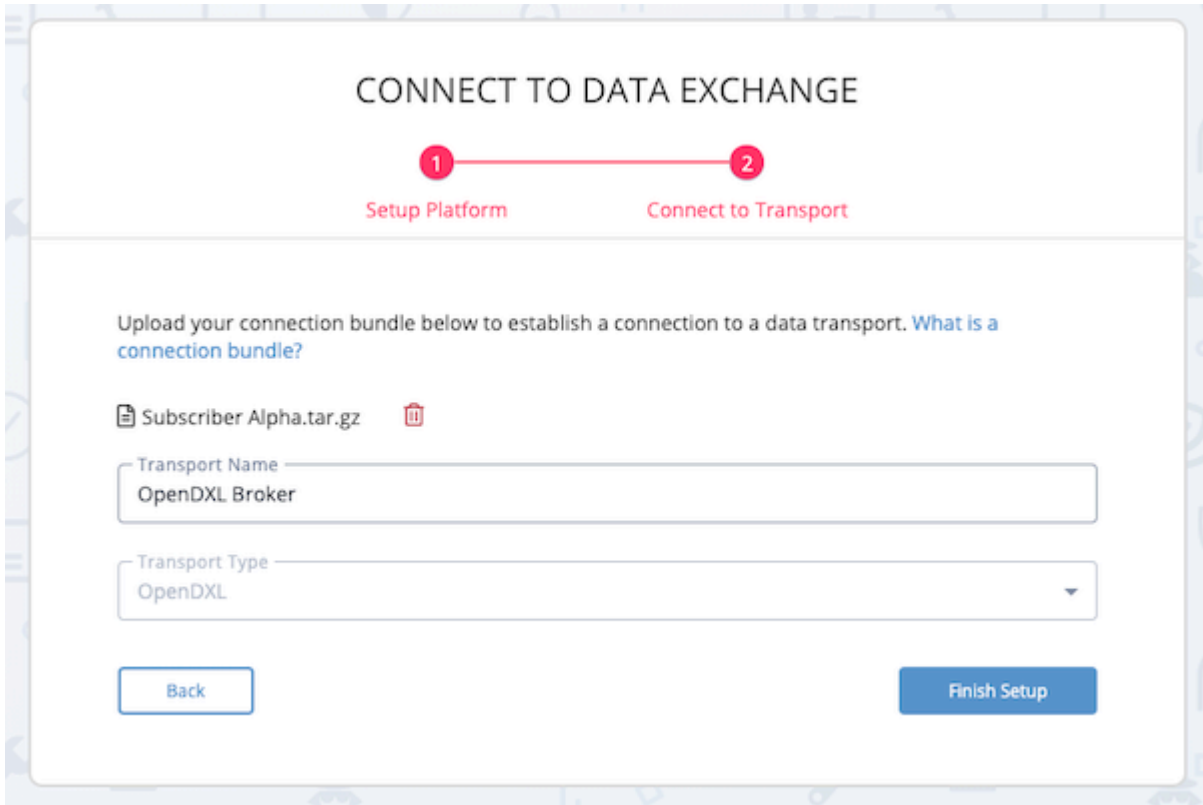
Transport Type
OpenDXL

Back Finish Setup

5. Upload the **Connection Bundle** file by either:
 - Dragging and dropping the file into window
 - Clicking on the **Click to Browse** link to locate the file saved on your local drive.





The Connection Bundle file is obtained from the user that set up the Publisher ThreatQ instance.



CONNECT TO DATA EXCHANGE

1 Setup Platform — 2 Connect to Transport

Upload your connection bundle below to establish a connection to a data transport. [What is a connection bundle?](#)

 Subscriber Alpha.tar.gz 

Transport Name
OpenDXL Broker

Transport Type
OpenDXL

Back Finish Setup

6. Update the **Data Transport Name** if desired, otherwise use the default entry. This name will be used to identify the transport node in your Topology view.
7. Leave the **Transport Type** dropdown field as is.




The system default transport is the only transport available. The option for additional transports will be added in future releases of the ThreatQ platform.

8. Click on the **Finish Setup** button.

The Connections page will load. You will see your platform, identified as a green node, and the transport, identified as a blue node. Pause until the Subscriber and Publisher instances discover each other.

Connections



Subscriber Alpha
Subscriber
UUID: e278181e-048f-4d11-b87e-060853a68670

Incoming Feeds

No feeds are being shared with you.

Outgoing Feeds

You are not sharing any feeds.


Create Feed

Activity Log

Subscriber Alpha added
04/22/2021 12:59pm

! It can take up to 30 seconds for the discovery process to complete. Refresh the page in order to see the new connection. After the instances have discovered each other, the Connections pages will show the connections. The publisher will now see the subscriber node and the subscriber will now see the publisher node.

Connections



Subscriber Alpha
Subscriber
UUID: e278181e-048f-4d11-b87e-060853a68670

Incoming Feeds

No feeds are being shared with you.

Outgoing Feeds

You are not sharing any feeds.

Create Feed

Activity Log

Subscriber Alpha established initial connection to OpenDXL Broker
04/22/2021 12:59pm

 Subscriber Alpha added
04/22/2021 12:59pm

Publisher - Creating a Data Feed

1. Click on the **Data Exchange** icon in the top navigation bar of ThreatQ and select **Data Feeds**.

The Data Feeds page will load.

Data Feeds

Create FeedDelete Feed

Outgoing Feeds

Manage configuration settings and recipients for your outgoing feeds.

You currently have no outgoing feeds.

Incoming Feeds

View and edit ingestion settings for incoming feed subscriptions.

You currently have no incoming feeds.

2. Click on **Create Feed**.

The Create Feed form will load.

Create Feed

Feed Status

Disabled
☒
Enabled

Basic Info

Feed Name

Publish Frequency

Transport
OpenDXL Broker

Description

Add description...

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

This feed has no recipients.

+ Add

Dataset

Select a data collection below that will define the data being exported in this feed.

Select a data collection

Create a new data collection.

Output Criteria

You can use the section below to determine what supporting context should or should not be part of the output of this feed.

Supporting Context

Select options below to choose what supporting context should be included.

☐ Attributes
☐ Contact Information
☐ Description
☐ Event Date
☐ File Information
☐ First Seen
☐ Last Seen
☐ Objective
☐ Published At
☐ Source Code
☐ Spearphish Details
☐ Tags

Relational Data

Feeds have the ability to include related objects and their context.

☐ Adversaries
☐ Attack Pattern
☐ Campaign
☐ Course Of Action
☐ Events
☐ Exploit Target
☐ Identity
☐ Incident
☐ Indicators
☐ Intrusion Set
☐ Malware
☐ Report
☐ Signatures
☐ Tool
☐ Ttp
☐ Vulnerability

Data Modifications

☐ Overwrite Source

The source provided below will replace all sources in the output of this collection.

3. Populate the following form sections to specify the content and recipients of your feed:

SECTION

DESCRIPTION

Feed Status

Defaults to Disabled. Click the toggle to enable the feed.

Basic Info

- **Feed Name** - Enter the name you want to use for your feed.
- **Publish Frequency** - Select Daily or Hourly depending on how often you want the feed to be published to Subscribers
- **Transport** - At this time, you can only use the default transport provided by TQX. Additional transport options will be made available in future ThreatQ platform releases.

Recipients

Offer Feed to Public - Check this box to give all clients connected to the Transport the option to subscribe to the feed. After you save your feed settings, the Recipients section displays the clients eligible to subscribe to the feed.

OR

Click the **+Add** button to access the Add Recipients window which lists all the connection bundles you created. Select a recipient and click **Add Recipient**.



Subscribers do not have to be connected yet to be assigned to a Data Feed. The Subscriber will not receive the Data Feed connection profile or system objects until they connect to the transport and subscribe to the feed.

Dataset

Select the Threat Library Data Collection to be exported with feed.

OR

Click the **Create a New Data Collection** option to open the Threat Library in a new tab and create a Data Collection.

Output Criteria

Select the supporting context that should be included in the feed using the checkboxes supplied. Only fields used in the data exported are selectable. Fields not associated with the data collection selected are greyed out.

Select the relational data to be included in the transfer. Based on the object you select the following data is included in the feed:

SYSTEM OBJECT	FIELDS
Indicator	type_id, status_id, class, value
Adversary	name
Event	type_id, title
Signature	type_id, status_id, name, value
Custom Objects	type_id, status_id, value

Data Modifications

To override the default source name for the feed, check the **Overwrite Source** checkbox and enter the new source name. A Subscriber can view the data feed source name under object sources in their object details page.

- Click the **Save** button. The recipients of the feed receive a system notification that a new feed is available for subscription. This notification includes a link to the Data Feeds page which allows

the recipient to review feed details before subscribing.

NOTIFICATION CENTER

[MARK ALL AS READ](#)

SYSTEM NOTIFICATION

'Publisher' has offered 'COA' to you. To subscribe, [click for details](#).

a minute ago

SYSTEM NOTIFICATION

'Publisher' has offered '66s' to you. To subscribe, [click for details](#).

3 days ago

SYSTEM NOTIFICATION

'Publisher' has offered '99s' to you. To subscribe, [click for details](#).

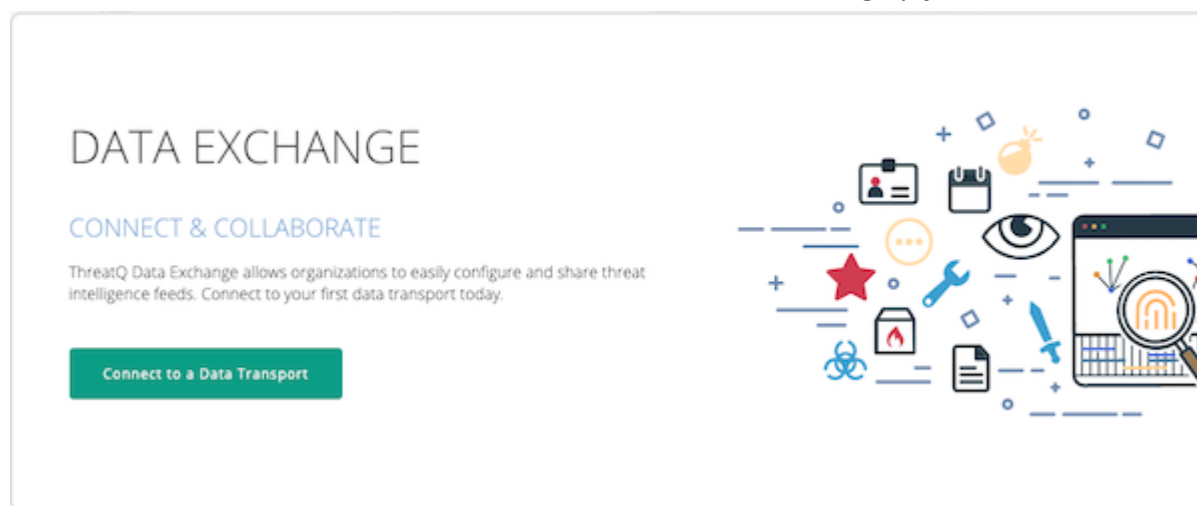
3 days ago

[SHOW MORE](#)


Publisher Instances






About Publisher Instances

Publishers are the driving force of TQX and this is reflected in the Topology View displayed in the Connections page. The first time a Publisher clicks an option on the Data Exchange menu, the Data Exchange wizard leads them through the process of setting up their first Subscriber(s). See the [Getting Started - First Connections](#) section for more information on setting up your first connection.




After the Publisher generates a Subscriber connection bundle and the Subscriber uploads it, the Topology View shows that the Publisher and Subscriber communicate via the Data Transport. In the following example, TechPubs Publisher can send Data Collections to Station Alpha via the OpenDXL Broker Data Transport.



[Dashboards](#)
[Threat Library](#)
[Investigations](#)
[Data Exchange](#)
[Integrations](#)
[+ Create](#)


Connections




TechPubs Publisher



OpenDXL Broker



Station Alpha




TechPubs Publisher

Publisher
UUID: a079538b-0ec5-4d83-a735-d64cdec1e36f

Incoming Feeds

These are feeds you are receiving from remote clients.

DNS

 Published Hourly by Station Alpha

Last Received: 10/08/2021 02:46pm

Outgoing Feeds

These are feeds you are sharing with remote clients.


IPs

Last Published: 10/08/2021 02:44pm

1 Recipient

[Create Feed](#)

Activity Log

 Feed Received - "DNS"

Received by TechPubs Publisher at 10/08/2021 02:46pm

Creating a Client Connection Bundle

As a publisher, you can create client bundles to add subscribers to your publisher instance. You can only create connection bundles for subscribers - a publisher cannot connect to another publisher instance.

Once a connection bundle has been created, you can send the bundle to the subscriber instance to connect - see the [Connecting to a Publisher](#) for more details on how a subscriber uploads the connection bundle.



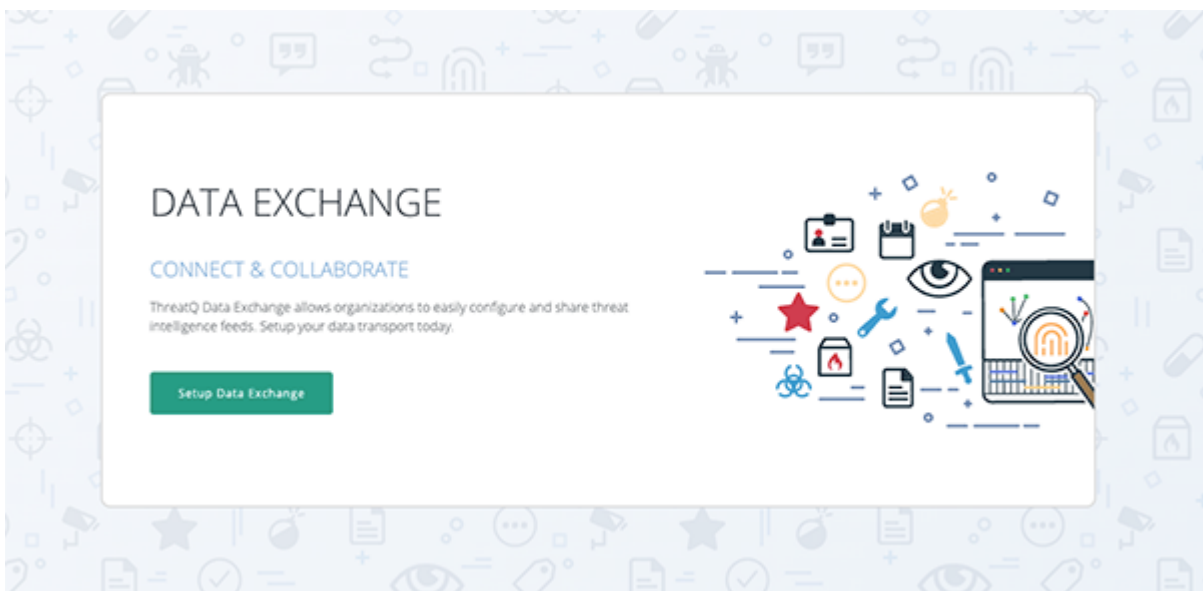
The steps for creating your initial connection bundle when you setup your publisher instance and adding additional connections to functioning instance differ slightly.

Creating an Initial Client Bundle

Creating your first connection bundle can be performed from the Data Exchange initial landing page. This page will automatically load upon selecting any Data Exchange menu links.

1. Click on the **Data Exchange** menu option located in the top navigation bar.

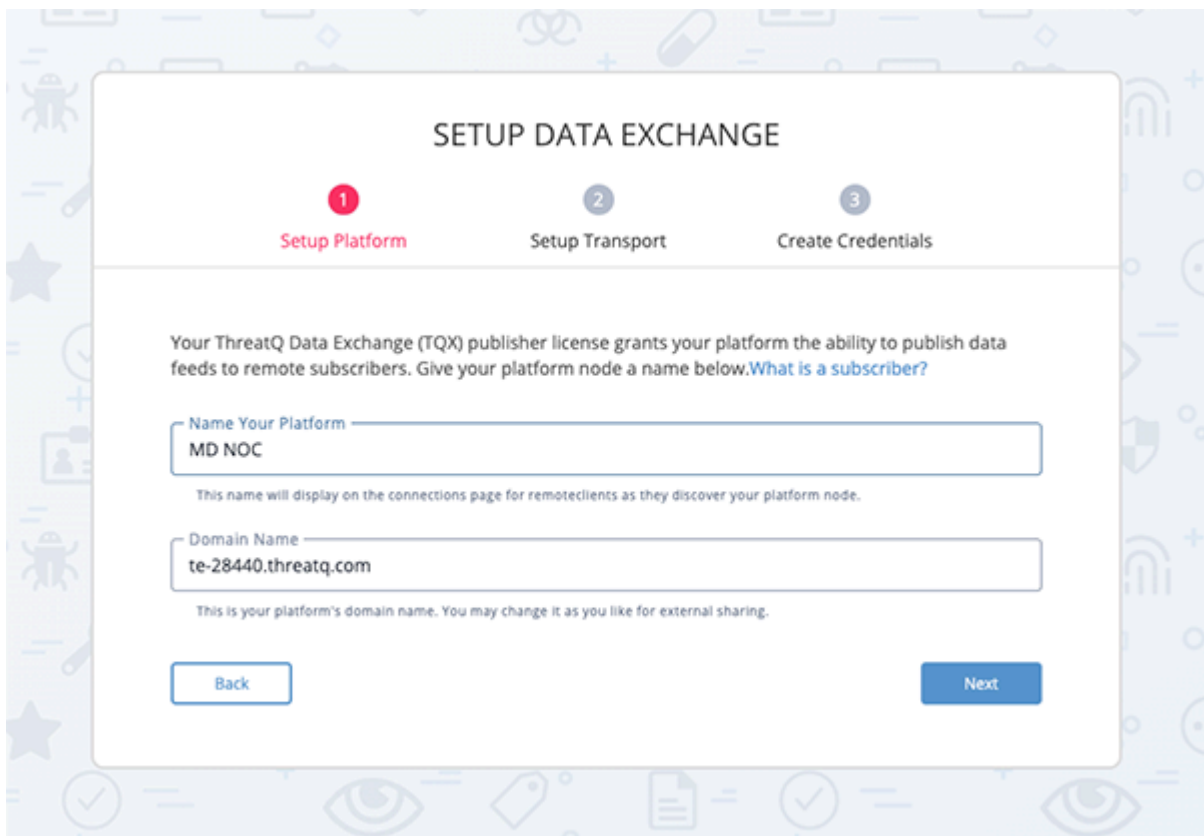
The Data Exchange setup landing page will load.



2. Click on the **Setup Data Exchange** button.
3. Enter the name that will be used to identify your instance in the TQX node view.



This name will appear as your instance for the subscriber.



SETUP DATA EXCHANGE

1 2 3
Setup Platform Setup Transport Create Credentials

Your ThreatQ Data Exchange (TQX) publisher license grants your platform the ability to publish data feeds to remote subscribers. Give your platform node a name below. [What is a subscriber?](#)

Name Your Platform

This name will display on the connections page for remoteclients as they discover your platform node.

Domain Name

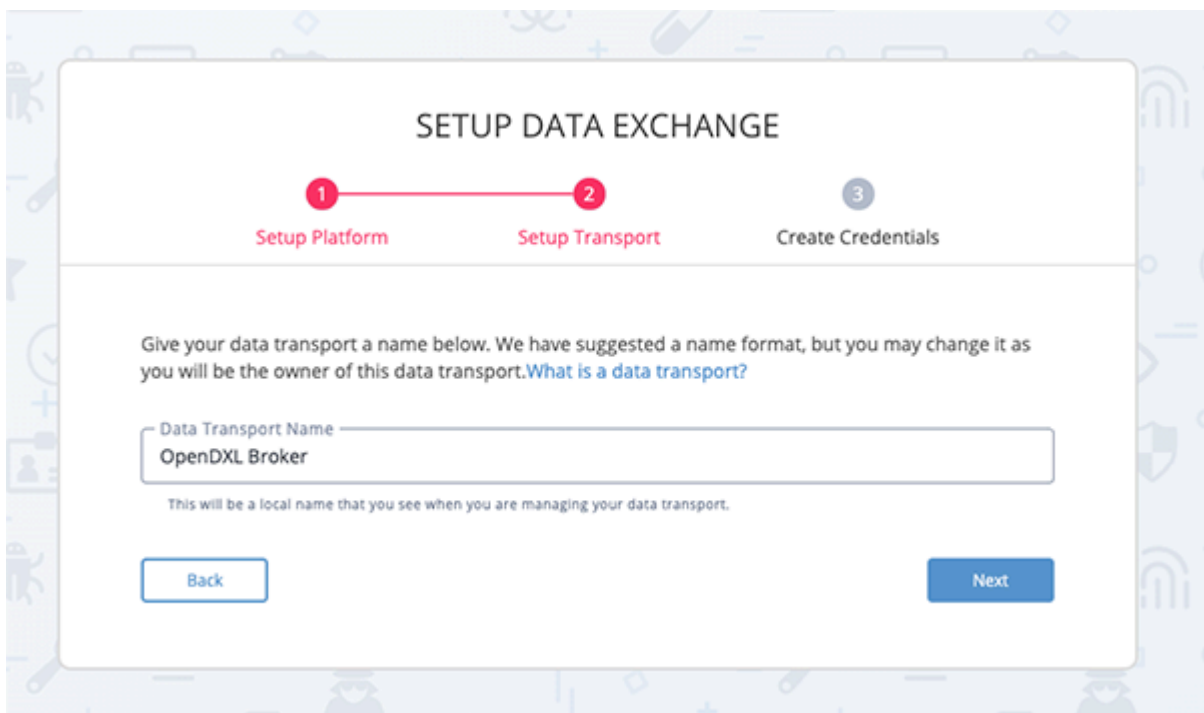
This is your platform's domain name. You may change it as you like for external sharing.

Back
Next

4. Click on **Next**.
5. Enter the name for the **Data Transport**.



This will be the local name you will see when managing your data transport. You can also leave the default value: **OpenDXL Broker**.



SETUP DATA EXCHANGE

1 2 3
Setup Platform Setup Transport Create Credentials

Give your data transport a name below. We have suggested a name format, but you may change it as you will be the owner of this data transport. [What is a data transport?](#)

Data Transport Name

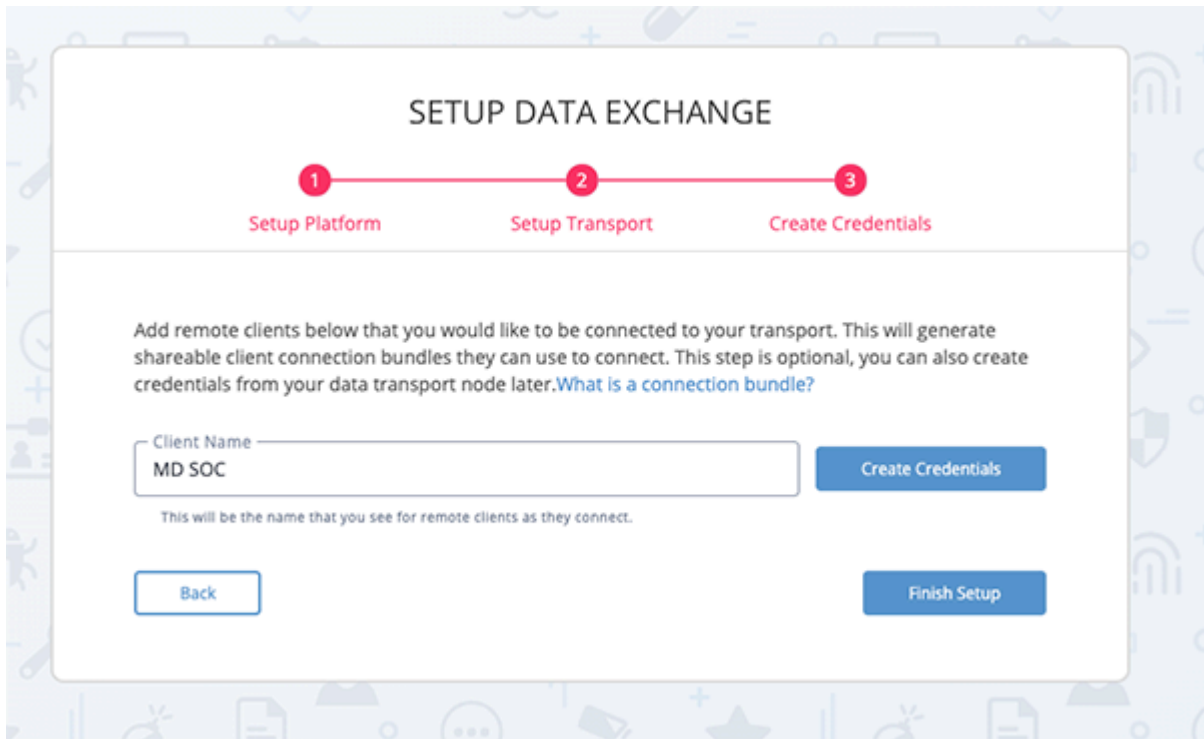
This will be a local name that you see when you are managing your data transport.

Back
Next

6. Click on **Next**.
7. Enter a **Client Name** for the subscriber.



This name will be used to identify the subscriber in the TQX node view.



SETUP DATA EXCHANGE

1 — 2 — 3

Setup Platform Setup Transport Create Credentials

Add remote clients below that you would like to be connected to your transport. This will generate shareable client connection bundles they can use to connect. This step is optional, you can also create credentials from your data transport node later. [What is a connection bundle?](#)

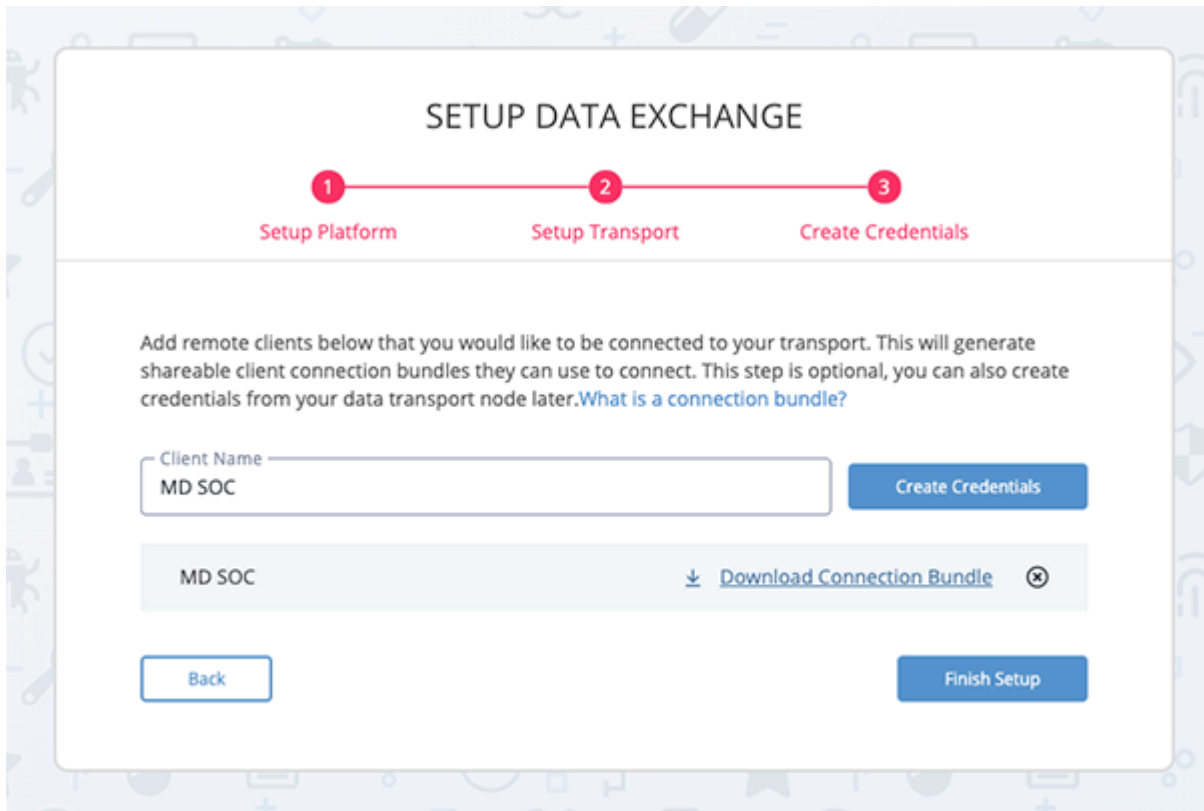
Client Name

This will be the name that you see for remote clients as they connect.

[Back](#) [Finish Setup](#)

8. Click on the **Create Credentials** button.
9. Repeat steps 7 and 8 to create additional bundles.

10. Download the connection bundles that you have created using the links provided.



SETUP DATA EXCHANGE

1 — 2 — 3
Setup Platform Setup Transport Create Credentials

Add remote clients below that you would like to be connected to your transport. This will generate shareable client connection bundles they can use to connect. This step is optional, you can also create credentials from your data transport node later. [What is a connection bundle?](#)

Client Name Create Credentials

MD SOC ↓ [Download Connection Bundle](#) ✕

Back Finish Setup

11. Click on **Finish Setup** when you have finished creating your bundles and transfer the downloaded connection bundles to the subscriber instances.




In the event that you clicked on Finished Setup before downloading the bundle(s), you can download the connection bundles from the node view by clicking on the transport node. Connection bundles will be located under the Credential Management heading.


The node view will load with nodes for your instance and broker displayed. Once the subscriber has uploaded the connection bundle, created in steps 7-10, that node will also appear in the node view.

Connections


No clients are connected to your transport. Click on a transport node below to add.



MD NOC



OpenDXL Broker



MD NOC
Publisher
UUID: 300046ef-801a-4091-bd11-1e38a56709ff

Incoming Feeds

No feeds are being shared with you.

Outgoing Feeds

You are not sharing any feeds.

Create Feed

Activity Log

MD NOC added
03/03/2022 08:15pm

Creating Additional Client Bundles


Once you have created a client bundle, the getting started wizard is no longer available. You can create additional bundles from the Connections node view.

1. Click on the **Data Exchange** navigation option and select **Connections**.


The Connections node view will load.

Connections


No clients are connected to your transport. Click on a transport node below to add.



MD NOC



OpenDXL Broker



MD NOC
Publisher
UUID: 300046ef-801a-4091-bd11-1e38a56709ff

Incoming Feeds

No feeds are being shared with you.

Outgoing Feeds

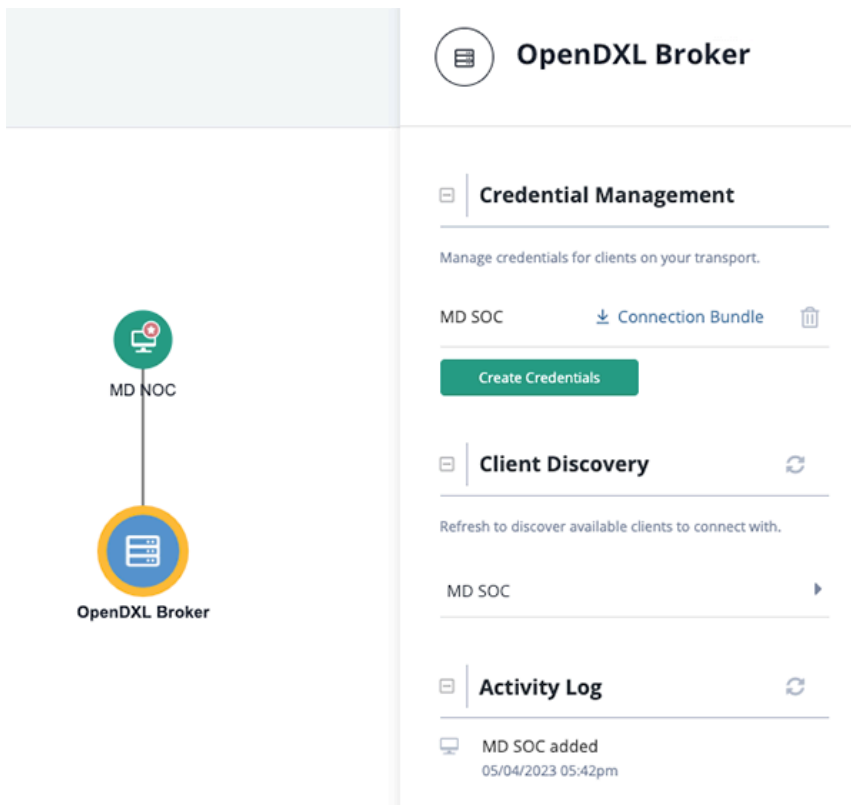
You are not sharing any feeds.

Create Feed

Activity Log

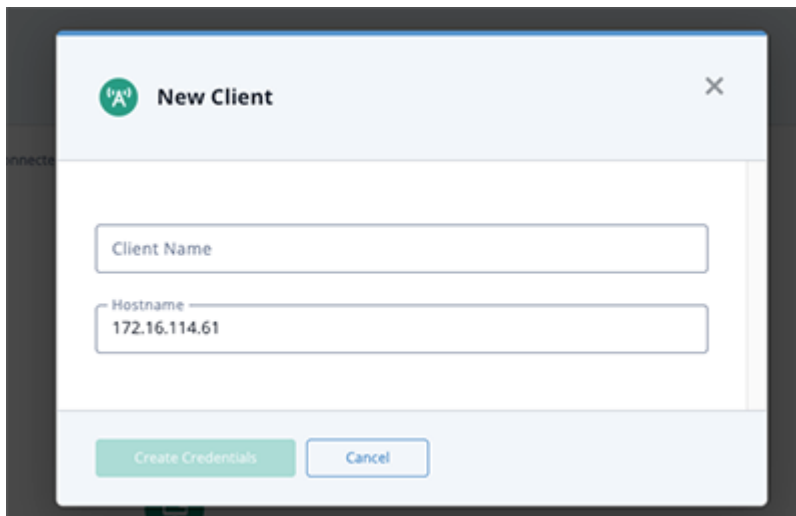
MD NOC added
03/03/2022 08:15pm

- Click on the **blue transport node** to load its details in the right pane.



- Click on the **Create Credentials** button located under the Credential Management heading.

The New Client window will open.



- Enter the new Subscriber's name in the **Client Name** field.



This name will be used to identify the subscriber in your node view.

- Optional** - The Hostname field displays the name of your current TQX instance, however you have the option to update this name.

6. Click the **Create Credentials** button.

The new subscriber will be displayed in the Credential Management section.



OpenDXL Broker



Credential Management

Manage credentials for clients on your transport.

DC SOC

[↓ Connection Bundle](#)



MD SOC

[↓ Connection Bundle](#)



Create Credentials

7. Click on the **Connection Bundle** link next to the new connection to download the connection bundle. Send this file to the Subscriber to upload via their TQX instance.

Viewing Connection Details

You can view all data exchange details for your publisher instance, data transport, and subscriber instances from the connections page.


Viewing Your Outgoing and Incoming Data

1. From the Connections screen, click the Publisher node.

The right pane will display the publisher details.

2. Click the +/- button next to a section to expand/minimize details.

The following information is available:

SECTION	DESCRIPTION	TASKS
Incoming Feeds	Lists the following information on feeds shared with you by a Subscriber: <ul style="list-style-type: none"> • Feed name • Publisher name • Date/time the you last received data from the feed 	<p>Subscribe to a feed. Specify Indicator and Signature statuses for a feed.</p> <p>See the Data Feeds section for more information on these tasks.</p>
Outgoing Feeds	Lists the Data Collections you have shared with Subscribers.	<p>Editing Data Feeds - Click the gear icon  next to the feed name to access the Edit Feed screen where you can edit feed recipients, edit feed settings, and delete the feed. See the Editing a Data Feed and Data Feed Sharing Options topics for more details.</p> <p>Create Data Feeds - Clicking on the Create Feed button will open the Create Feed page - See the Creating a Data Feed for further details.</p>
Activity Log	Lists a time/date stamp and brief description for TQX	Click the Show More link to expand the activity log display.

activities such as your initial setup as a Publisher.



TechPubs Publisher

Publisher

UUID: a07f538b-0ec5-4dd3-a735-dd4cdec1e36f



Incoming Feeds



These are feeds you are receiving from remote clients.

DNS



Published Hourly by Station Alpha



Last Received: 10/08/2021 02:46pm



Outgoing Feeds



These are feeds you are sharing with remote clients.

IPs

Last Published: 10/08/2021 02:44pm



[1 Recipient](#)

Create Feed



Activity Log



Feed Received - "DNS"


Received by TechPubs Publisher at 10/08/2021

02:46pm

Viewing Data Transport Details

1. From the Connections screen, click the Data Transport node.
The right panel will load the data transport details.
2. Click the +/- button next to a section to expand/minimize details.

The following information is available:

SECTION	DESCRIPTION	TASKS
Credential Management	Allows you to work with connection bundles for new or existing Subscribers connected to the Data Transport.	Download a connection bundle. - Click the Connection Bundle link next to the Subscriber name. Delete a Subscriber's connection. - Click the trashcan icon  next to the Subscriber name to delete his connection to the data transport. Create a connection bundle. - See the Create a Client Connection Bundle topic for more information on this process.
Client Discovery	Lists the Subscribers connected to the Data Transport and the Data Feeds they receive.	View Subscriber feed details. - Click the arrow next to the Subscriber name to view: <ul style="list-style-type: none">• Feeds received by the Subscriber• Feed frequency (hourly or daily)• Date/time the Subscriber last received data from the feed Remove a Subscriber from a feed. - See the Data Feed Sharing Options topic for more details. Share/Create a feed. - Click the Share Feed button to access the Share Feed window. From this window, you can: <ul style="list-style-type: none">• Share an existing feed. - Click the checkbox next to an existing feed you want to share with the Subscriber. Then, click the Share feed button.• Create a new feed. - Click the Create New Feed button to access the Create Feed window and share a data collection with a subscriber.

Activity Log

Lists a time/date stamp and brief description for feed activities such as, the initial setup of the Publisher and Subscriber(s).

Click the **Show More** link to expand the activity log display..



OpenDXL Broker



Credential Management

Manage credentials for clients on your transport.

Station Alpha

[↓ Connection Bundle](#)



Create Credentials



Client Discovery



Refresh to discover available clients to connect with.

Station Alpha



Activity Log



Feed Received - "DNS"


Received by TechPubs Publisher at 10/08/2021

02:46pm

Viewing Subscriber Details

1. From the Connections screen, click a Subscriber node.

The right side of the screen displays a details panel including the following sections:

SECTION	DESCRIPTION	TASKS
Incoming Feeds	Lists feeds the Subscriber has shared with you.	Subscribe to a feed. Specify Indicator and Signature statuses for a feed. See the Data Feeds topic for more information on these tasks.
Outgoing Feeds	Lists the feeds you have shared with the Subscriber.	Remove a Subscriber from a feed. - See the Data Feeds topic for more details. Edit a Data Feed. - Click the gear icon  next to the feed name to access the Edit Feed screen. From this screen, you can: <ul style="list-style-type: none">• Edit feed details. - Enter your changes and click the Save button.• Delete a feed. - Click the Delete Feed button. The Are You Sure? window prompts you to confirm the deletion by clicking the Delete Feed button. Share/create a feed. - Click the Share Feed button to access the Create Feed window. From this window you can: <ul style="list-style-type: none">• Click the Share Feed button to share an existing feed with the Subscriber.• Click the Create New Feed button to access the Create Feed window and Share a Data Collection with a Subscriber.
Activity Log	Lists a time/date stamp and brief description for feed activities such as, initial setup of the Subscriber.	Click the Show More link to expand the activity log display.

2. Click the +/- button next to a section to expand/minimize details.



Station Alpha

Subscriber

UUID: 188ce167-c612-4aad-a923-b266ff480178



Incoming Feeds



These are feeds you are receiving from this client.

DNS

Published Hourly



Outgoing Feeds



These are feeds you are sharing with this client.

IPs

Published Daily

Last Received: 10/08/2021 02:45pm



Share Feed



Activity Log



Feed Received - "IPs"

Received by Station Alpha at 10/08/2021 02:45pm

Updating the Name of a Node

TQX allows you to change the names of Publisher, Subscriber, and Data Transport nodes. Each Publisher and Subscriber node has a name and a Universally Unique Identifier (UUID). Although you cannot change UUIDs, you can customize the names of the nodes in your Topology View.



Any name changes you perform on your instance will only apply to your instance.

Example: as a publisher, changing the name of a subscriber node in your connections view will not update the subscriber's name in their view on their subscriber instance.

1. From the Connections page, click the node's icon in the Topology View.

The node details are displayed on the right side of the screen.

2. Click the node's name and enter your changes.
3. Click the checkmark on the right side of the field to save your change.

TQX will confirm your change with the following message: **Node name updated.**



Name changes can take up to thirty seconds to update for all viewers on your instance.

Deleting a Client Connection Bundle

Deleting a client connection bundle, which severs the connection between a publisher and subscriber, requires actions by both instances.

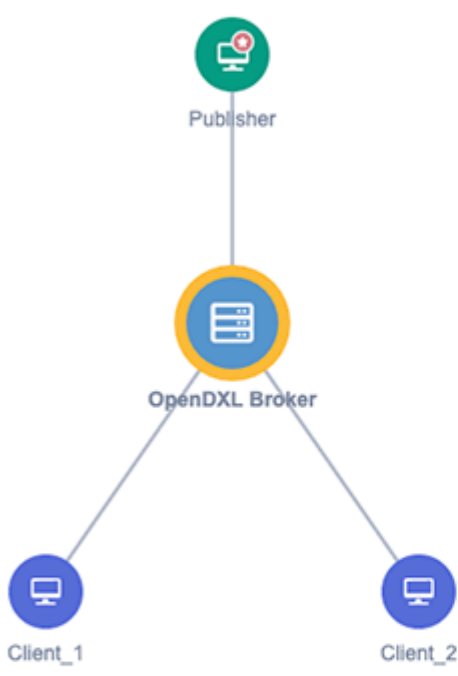


You also elect to [stop sharing](#) all data feeds with a subscriber instead of deleting the client connection bundle.




The steps must be performed in order. Otherwise, the discovery ping from the subscriber will result in the instances being reconnected.

1. Instruct the subscriber to delete his data transport as described in the [Deleting the Data Transport](#) topic.
2. Navigate to the Connections page by clicking on the **Data Exchange** menu item and selecting **Connections**.
3. Click on the **transport node** to view its details in the right pane.




```

graph TD
    Publisher((Publisher)) --- OpenDXL_Broker((OpenDXL Broker))
    OpenDXL_Broker --- Client_1((Client_1))
    OpenDXL_Broker --- Client_2((Client_2))
        
```





OpenDXL Broker




Credential Management

Manage credentials for clients on your transport.



Client_1	↓ Connection Bundle	
Client_2	↓ Connection Bundle	


[Create Credentials](#)




Client Discovery

Refresh to discover available clients to connect with.

Client_1	
Client_2	



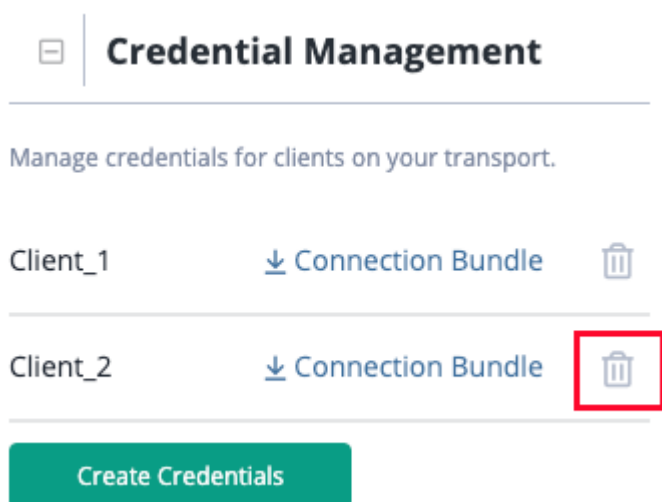
Activity Log



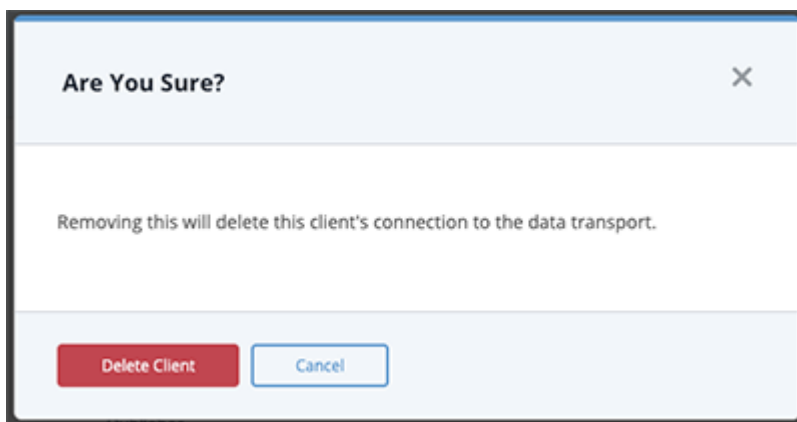
Feed Received - "33s3"

Received by Client_2 at 05/16/2023 05:06pm

- Click on the **trashcan icon** located to the right of the connection bundle.



- Click **Delete Transport** to confirm deletion.



The subscriber node and connection bundle listing will be removed from your view.

Subscriber Instances


About Subscriber Instances






Subscribers benefit from the Data Collections created and sent to them by Publishers as Data Feeds. Although they can receive Data Feeds, they cannot send them to other Subscribers. However, they can send a Data Feed to the Publisher so the Publisher can recreate it and distribute it to other Subscribers.

The first time a Subscriber clicks an option on the Data Exchange menu, the Data Exchange wizard leads them through the process of setting up their first connection. See the [Getting Started - First Connections](#) section for more information on setting up your first connection.




After you set up a connection to a Publisher's Data Feed, the Connections screen displays the Topology View which provides a visual diagram of your relationship to the Data Transport and Publisher.



[Dashboards](#)
[Threat Library](#)
[Investigations](#)
[Data Exchange](#)
[Integrations](#)
[+ Create](#)


Connections




MD NSOC



OpenDXL Broker



TechPubs Publisher




MD NSOC

Subscriber
UUID: 188ce167-c612-4aad-a923-b266ff480178

Incoming Feeds

These are feeds you are receiving from remote clients.

IPs

 Published Hourly by TechPubs Publisher

Last Received: 10/08/2021 02:45pm

Outgoing Feeds

These are feeds you are sharing with remote clients.


DNS

Last Published: 10/08/2021 02:46pm

1 Recipient

[Create Feed](#)

Activity Log

 Feed Received - "DNS"

Received by TechPubs Publisher at 10/08/2021 02:46pm

Connecting to a Publisher

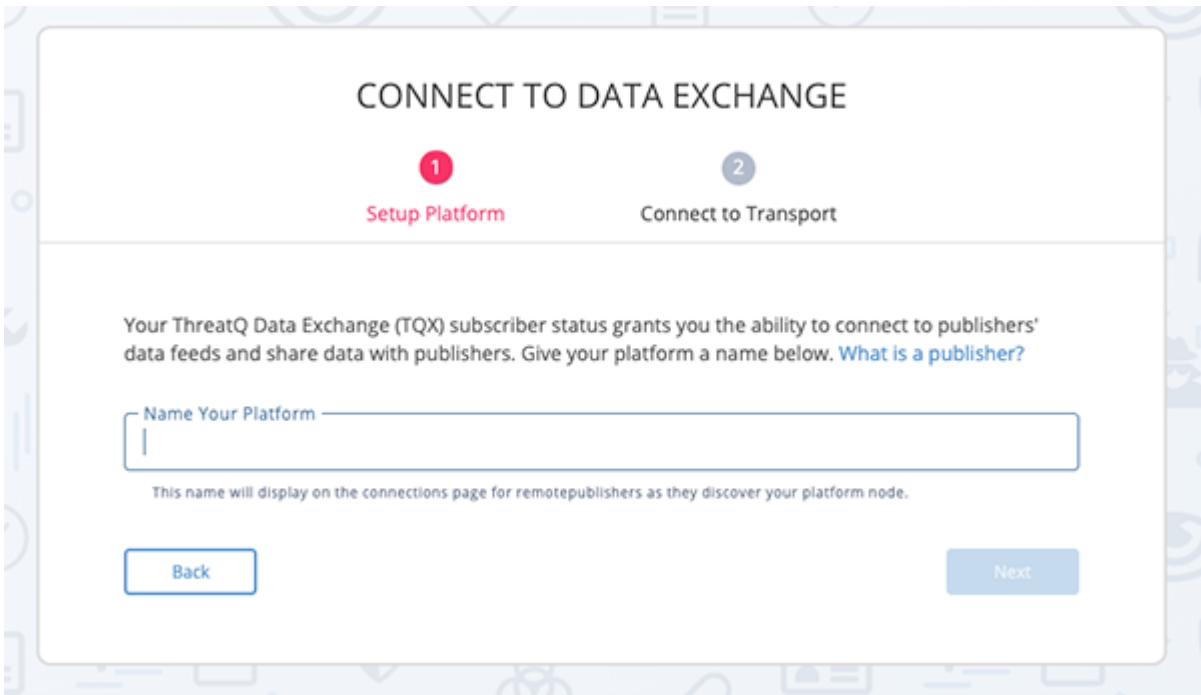
As a subscriber, you can connect to a publisher to receive data feeds that have been shared your instance by the publisher. You can also create your own data feed to be shared with the publisher.



Subscribers can only connect to a single publisher and cannot connect to another subscriber instance. Subscribers have the option of deleting the current connection they have with a publisher in order to connect with a different publisher.

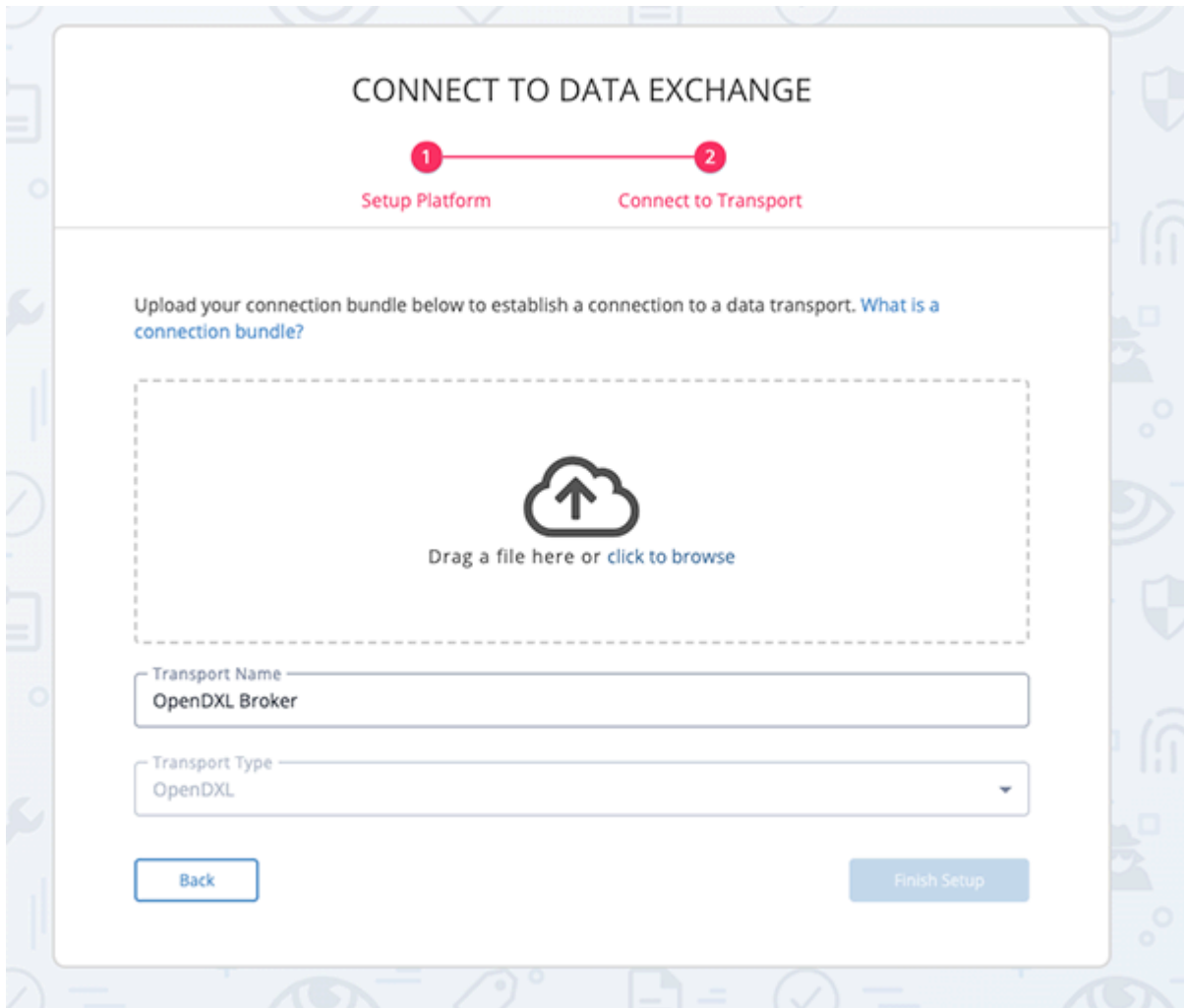
1. Click on the **Data Exchange** menu option located in the top navigation bar.

The Connect to Data Exchange wizard will load.



2. Enter a name for your instance in the field provided. This name is what you will see your instance as in your node view. This name does not affect the publisher's view.
3. Click on **Next**.

The Connect to Transport screen will load.




4. Optional - update the UI name for the Data Transport or leave the default - OpenDXL Broker. This name is what you will see the transport as in your node view and does not affect the publisher's view.
5. Upload the connection bundle from the publisher by either:
 - Clicking on the file and dragging it into the window
 - Using the **click to browse** option to select the file from your local machine.
6. Click on **Finish Setup**.

You will now be connected to the publisher and can now subscribe to the data feeds offered by that publisher.

Viewing Connection Details

- From the Connections screen, click your Subscriber node.
The right side of the screen displays a details panel including the following sections:

SECTION	DESCRIPTION	TASKS
Incoming Feeds	<p>Lists the following information on feeds shared with you by a Publisher:</p> <ul style="list-style-type: none"> Feed name Publisher name Date/time the you last received data from the feed 	<p>Subscribe to a feed. Specify Indicator and Signature statuses for a feed.</p> <p>See the Data Feeds topic for more information on these tasks.</p>
Outgoing Feeds	<p>Lists the following information on feeds you have shared with a Publisher:</p> <ul style="list-style-type: none"> Feed name Date/time the Publisher last received data from the feed Publisher name 	<p>View feed details - This section lists the date/time the feed was last published as well as the number of feed Subscribers. You can click the Recipients link to view the recipient names in the Edit Feeds page.</p> <p>Edit a feed. - Click the gear icon  next to the feed name to access the Edit Feed screen. From this screen, you can:</p> <ul style="list-style-type: none"> Edit feed details. - Enter your changes and click the Save button. Delete a feed. - Click the Delete Feed button. The Are You Sure? window prompts you to confirm the deletion by clicking the Delete Feed button. <p>Share/create a feed. - Click the Share Feed button to access the Create Feed window and Share a Data Collection with a Publisher.</p>
Activity Log	<p>Lists a time/date stamp and brief description for TQX activities such as your initial setup as a Subscriber.</p>	<p>Click the Show More link to expand the activity log display.</p>

- Click the +/- button next to a section to expand/minimize details.



MD NSOC

Subscriber

UUID: 188ce167-c612-4aad-a923-b266ff480178



Incoming Feeds



These are feeds you are receiving from remote clients.

IPs



Published Hourly by TechPubs
Publisher



Last Received: 10/08/2021 02:45pm



Outgoing Feeds



These are feeds you are sharing with remote clients.

DNS

Last Published: 10/08/2021 02:46pm



[1 Recipient](#)

Create Feed



Activity Log




Feed Received - "DNS"

Received by TechPubs Publisher at 10/08/2021
02:46pm

View Data Transport Details

1. From the Connections screen, click the Data Transport node.
The right side of the screen displays a details panel including the following sections:

SECTION	DESCRIPTION	TASKS
Client Discovery	Lists the Publisher with whom you shared a Data Feed.	<p>View Publisher feeds. - Click the arrow next to the Publisher name to view:</p> <ul style="list-style-type: none"> • Feeds received by the Publisher • Feed frequency (hourly or daily) • Date/time the Publisher last received data from the feed(s). <p>Remove the Publisher from a Data Feed. - See the Data Feeds topic for more details.</p> <p>Update Data Feed options. - Click the gear icon  to access the Edit Feed window. After you enter your changes, click the Save button.</p> <p>Share/Create a feed. - Click the Share Feed button to access the Share Feed window. From this window, you can:</p> <ul style="list-style-type: none"> • Share an existing feed. - Click the checkbox next to an existing feed you want to share with the Publisher. Then, click the Share feed button. • Create a new feed. - Click the Create New Feed button to access the Create Feed window and Share a Data Collection with a Publisher.
Activity Log	Lists a time/date stamp and brief description for TQX activities such as the receipt of a Data Feed by the Subscriber.	Click the Show More link to expand the activity log display.

2. Click the +/- button next to a section to expand/minimize details.



OpenDXL Broker



Client Discovery



Refresh to discover available clients to connect with.

TechPubs Publisher



Activity Log



Feed Received - "DNS"

Received by TechPubs Publisher at 10/08/2021
02:46pm



Feed Sent - "DNS"

Sent to TechPubs Publisher at 10/08/2021
02:46pm



Feed Received - "IPs"

Received by MD NSOC at 10/08/2021 02:45pm

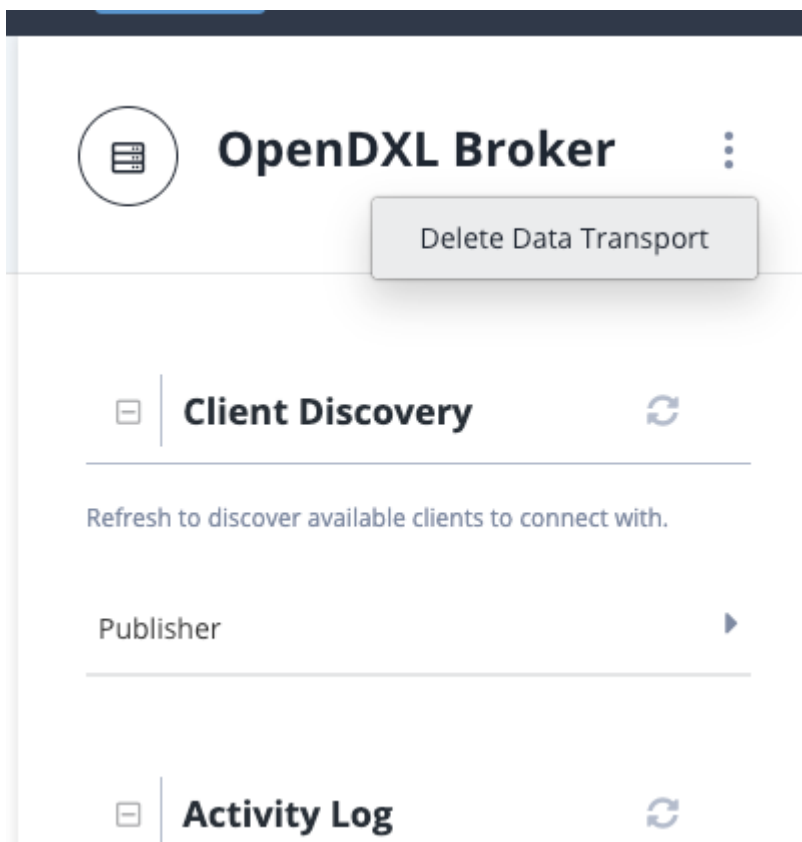
Deleting the Data Transport

You can delete a data transport that will disconnect you from your current publisher. This will allow you to upload a new connection bundle from a different publisher instance.



You also elect to unsubscribe from all data feeds from publisher instead of deleting the transport if you are not connecting to a new publisher instance.

1. Navigate to the Connections page by clicking on the **Data Exchange** menu item and selecting **Connections**.
2. Click on the **transport node** to view its details in the right pane.
3. Click on the **vertical ellipsis** to the right of the transport name and select **Delete Data Transport**.



4. Confirm deletion, when prompted, to delete the transport.

Data Feeds

About Data Feeds

Data Feeds are used to transmit threat intel data from one instance to another. You select a Data Collections to configure the information to share with other instances, determine the support context included with the intel, and select the instances to share this data with. You also have the ability to override the source of the Data Feed . After you create the feed, the recipients receive a system notification. They can then subscribe to the feed to begin receiving data from it.



It is recommended that you allow your subscribers to connect to your instance before assigning a Data Feed. This allows your instance to push out the Data Feed immediately. If you assign a Data Feed to an instance that has yet to connect, the Data Feed will be pushed at the next frequency if there are new objects in the Data Feed.

You can manage feeds from the Data Feeds page and the Topology View. The Data Feeds page allows you to create/edit feeds and provides you with a comprehensive list of the Data Feeds you send (Outgoing Feeds) and the ones you receive (Incoming Feeds). Based on the Feed type, Outgoing or Incoming, you can perform different actions.

Creating a Data Feed

Publisher and Subscriber instances can create data feeds to share. Publishers can share data feeds with all subscribers while subscribers can only share their data feeds with the publisher.

1. Click on the **Data Exchange** menu item and select **Data Feeds**.

The Data Feeds page will load. Here you can view any existing incoming and outgoing feeds.

Data Feeds

Create FeedDelete Feed

Outgoing Feeds

Manage configuration settings and recipients for your outgoing feeds.

NAME	LAST PUBLISHED	SHARED WITH	FEED STATUS
<input type="checkbox"/> 17s	N/A	1 Recipient	Enabled

Incoming Feeds

View and edit ingestion settings for incoming feed subscriptions.

NAME	LAST RECEIVED	CREATED BY	SUBSCRIPTION STATUS
DEMO		ThreatQ Platform	Offered
33s3	05/17/2023 05:06pm	ThreatQ Platform	Subscriber

2. Click on the **Create Feed** button.

The Create Feed form will load.

Create Feed

Feed Status

Disabled
☒
Enabled

Basic Info

Description

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

This feed has no recipients.

Dataset

Select a data collection below that will define the data being exported in this feed.

[Create a new data collection.](#)

Output Criteria

You can use the section below to determine what supporting context should or should not be part of the output of this feed.

Supporting Context

Select options below to choose what supporting context should be included.

☐ Attributes
☐ Contact Information
☐ Description

☐ Event Date
☐ File Information
☐ First Seen

☐ Last Seen
☐ Objective
☐ Published At

☐ Source Code
☐ Spearphish Details
☐ Tags

Relational Data

Feeds have the ability to include related objects and their context.

☐ Adversaries
☐ Asset
☐ Attack Pattern

☐ Campaign
☐ Course Of Action
☐ Events

☐ Exploit Target
☐ Identity
☐ Incident

☐ Indicators
☐ Intrusion Set
☐ Malware

☐ Report
☐ Signatures
☐ Tool

☐ Ttp
☐ Vulnerability

Data Modifications

☐ Overwrite Source

The source provided below will replace all sources in the output of this collection.

- Enter a **Feed Name**. This is the name that will appear in the UI.
- Select a **Publish Frequency** that which the feed will be sent out to other ThreatQ instances. Options include:
 - Daily
 - Hourly
- Enter a **Description** for the data feed.
- Select the **Recipients** to receive the data feed. You can select specific instances or enable the **Offer Feed to Public** option.



Subscribers can only send data feeds to the publisher. Only the publisher will be offered when selecting a recipient. The **Offer Feed to Public** option will not be offered. See the [Data Feed Subscriptions](#) topic for more details on subscribing and unsubscribing to a data feed.

- Select a data collection for the **Dataset** field.



You can also click on the **Create a New Data Collection** option to be taken to the Threat Library to create a data collection.

8. Select which **Supporting Context** will be included in the data feed using the checkboxes provided.
9. Select which **Relational Data** (related objects) to include in the data feed.
10. Use the **Override Source** checkbox under the **Data Modifications** heading and enter a name to override the default source name for the feed.



A Subscriber can view the Data Feed source name under object sources in their object details page.


11. Click on the **Disabled/Enabled toggle** to enable the data feed.
12. Click on **Save** to create the data feed.

The Data Feeds page will load with the new feed listed. The recipients of the feed receive a system notification that a new feed is available for subscription. This notification includes a link to the Data Feeds page which allows the recipient to review feed details before subscribing.

NOTIFICATION CENTER

[MARK ALL AS READ](#)


SYSTEM NOTIFICATION



'Publisher' has offered 'COA' to you. To subscribe, [click for details.](#)

a minute ago


SYSTEM NOTIFICATION



'Publisher' has offered '66s' to you. To subscribe, [click for details.](#)

3 days ago

SYSTEM NOTIFICATION



'Publisher' has offered '99s' to you. To subscribe, [click for details.](#)

3 days ago

[SHOW MORE](#)

Editing a Data Feed

You can edit the name, publish frequency, data collection utilized, recipients, and what information is transmitted for an existing data feed.

1. Enter the Edit Feed page for a data feed by either:
 - clicking on the feed from the Data Feeds page.
 - clicking on the edit gear icon on the Connections Node view.

The Edit Feed page will load.

Edit Feed

Delete Feed

Feed Status

Disabled

Enabled

Last Run:
N/A

Next Run:
N/A

Last Modified:
05/17/23 04:05pm

Basic Info

Feed Name
DEMO

Publish Frequency
Daily

Transport
OpenDXL Broker

Description

This is a demonstration of a TQX Data Feed

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

CLIENT NAME	SUBSCRIPTION STATUS	LAST RECEIVED
Client_1	Offered	N/A
Client_2	Offered	N/A

+Add

Dataset

Select a data collection below that will define the data being exported in this feed.

Select a data collection

33s

Create a new data collection.

Output Criteria

You can use the section below to determine what supporting context should or should not be part of the output of this feed.

Supporting Context

Select options below to choose what supporting context should be included.

☒ Attributes

☒ Contact Information

☒ Description

☒ Event Date

☒ File Information

☒ First Seen

☒ Last Seen

☒ Objective

☒ Published At

☒ Source Code

☒ Spearphish Details

☒ Tags

Relational Data

Feeds have the ability to include related objects and their context.

☐ Adversaries

☐ Asset

☐ Attack Pattern

☐ Campaign

☐ Course Of Action

☐ Events

☐ Exploit Target

☐ Identity

☐ Incident

☐ Indicators

☐ Intrusion Set

☐ Malware

☐ Report

☐ Signatures

☐ Tool

☐ Ttp

☐ Vulnerability

Data Modifications

☐ Overwrite Source

The source provided below will replace all sources in the output of this collection.

2. Make your required edits and click on **Save**.

ThreatQ Data Exchange User Guide
Version 1.0.0

70

Data Feed Sharing Options

You can edit who you share your data feeds with from the data feed's details page. Publishers can share data feeds with all connected instances while subscribers can only share their data feeds with the publisher instance they are connected to in TQX. Once you have shared a feed another instance, it will appear as an offered incoming feed. The instance will then be able to subscribe to the shared feed.

Sharing a Data Feed

1. Navigate to the Data Feed's details page by either:
 - Connection Node View - clicking on the gear icon next to the data feed under the Outgoing Feeds heading.
 - Accessing the Data Feeds page and clicking on the data feed under Outgoing Feeds heading.
2. Click on the **Add** button under the Recipients heading to select an instance to share the data feed with.






Publishers will have an additional option to **Offer Feed to Public**, which will share the feed with all instances connected. This option is not available to subscriber instances, who are only permitted to share data feeds with the publisher.

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

CLIENT NAME	SUBSCRIPTION STATUS	LAST RECEIVED	
Client_1	Subscribed	05/18/2023 5:05pm	
client_3	Subscribed	05/18/2023 5:05pm	
Client_2	Offered	N/A	

 +Add

3. Click on **Save** to save your changes.




Unsharing a Data Feed from the Data Feed details Page

1. Navigate to the Data Feeds page.
2. Click on the data feed to edit under the Outgoing Feeds heading to open the Edit Feed page.
3. Locate the instance under the Recipients heading and click on the **trash icon** located to the right of row.

Recipients

☐ Offer Feed to Public

By selecting this box, you will offer this feed to all clients connected to this data transport. Once you save this setting, these clients will appear in the list below.

CLIENT NAME	SUBSCRIPTION STATUS	LAST RECEIVED	
Client_1	Subscribed	05/18/2023 5:05pm	
client_3	Subscribed	05/18/2023 5:05pm	
Client_2	Offered	N/A	

[+Add](#)

- Click on **Delete Recipient**, when prompted, to confirm.

Are You Sure?

×

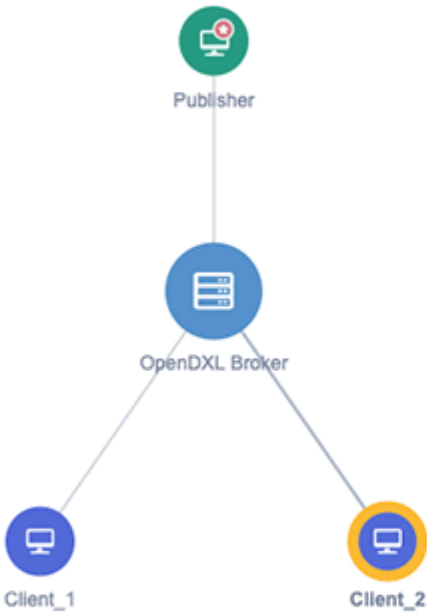
Are you sure you want to remove this recipient from the feed?

Delete Recipient

Cancel

Unsharing a Data Feed from the Connections Node View

- Click on the instance you no longer want to share the data feed with to load its details in the right page.



```

graph TD
    Publisher((Publisher)) --- OpenDXL_Broker((OpenDXL Broker))
    OpenDXL_Broker --- Client_1((Client_1))
    OpenDXL_Broker --- Client_2((Client_2))
    
```

Client_2
Subscriber
UUID: f2df1d5a-3629-4037-94de-9628116d7d4e

Incoming Feeds

These are feeds you are receiving from this client.

17s
Published Hourly
⚙️

Outgoing Feeds

These are feeds you are sharing with this client.

33s
Published Daily
⚙️
🗑️

33s3
Published Daily
⚙️
🗑️

Last Received: 05/18/2023 05:06pm

DEMO
Published Daily
⚙️
🗑️

est
Published Daily
⚙️
🗑️

Share Feed

2. Locate the data feed under the Outgoing Feeds heading and click on the **trash icon**.
3. Click on **Remove Feed**, when prompted, to confirm.

Remove Feed

×

Are you sure you want to remove the feed from this recipient?

Remove Feed

Cancel

Data Feed Subscriptions

Once a data feed has been shared with you, it will appear in under your Incoming Feeds with a status of **Offered**. This indicates that the feed has been shared with your instance.

Subscribing/Unsubscribing to a Feed from the Connections Node View

The following provides you with steps on how to subscribe and unsubscribe to/from a data feed from the Connections Node view.

1. Navigate to your Connections Node view.
2. Click on your instance node to load its details in the right pane.
3. Locate the shared feed under the Incoming Feeds heading.



Shared but not subscribed data feeds will be listed with a status of **Offered**.

4. Click on the enable/disable toggle switch to either subscribe or unsubscribe to the data feed.
5. If you are subscribing to a feed, you will be prompted to select the default statuses to apply to threat objects ingested from the feed. Set your default statuses and **Subscribe**.

Subscribing/Unsubscribing to a Feed from the Feed Ingestion Settings Page

The following provides you with steps on how to subscribe and unsubscribe to/from a data feed from the Feed Ingestion Settings page.

1. Navigate to the Data Feeds page.
2. Click on the shared data feed under the Incoming Feeds header.



Shared but not subscribed data feeds will be listed with a status of **Offered**.

- Click on the subscription toggle option to subscribe or unsubscribe to the data feed.

Feed Ingestion Settings

33s3

Published Hourly

Feed Status

Unsubscribed ☒ Subscribed

Last Run: 05/17/23 05:06pm

Next Run: 05/17/23 06:06pm

Last Modified: 05/17/23 08:21pm

Default Status Settings

For objects that have status in your system, you can choose a default status for each object type as they are ingested from this feed.

Object Type	Status Setting
Indicators	Retain Existing ▼
Signatures	Retain Existing ▼

- If you are subscribing to a feed, you will be prompted to select the default statuses to apply to threat objects ingested from the feed. Set your default statuses and **Subscribe**.

Editing Object Default Statuses

When you first subscribe to a data feed, you are prompted to select the default status of objects that are ingested. You can also update the default status that is assigned to threat data ingested by an incoming feed from the Feed Ingestion Settings page.

1. Click on the Data Exchange menu link and select **Data Feeds**.

The Data Feeds page will load.

Data Feeds

Create FeedDelete Feed

Outgoing Feeds

Manage configuration settings and recipients for your outgoing feeds.

NAME	LAST PUBLISHED	SHARED WITH	FEED STATUS
<input type="checkbox"/> 17s	N/A	1 Recipient	Enabled

Incoming Feeds

View and edit ingestion settings for incoming feed subscriptions.

NAME	LAST RECEIVED	CREATED BY	SUBSCRIPTION STATUS
DEMO		ThreatQ Platform	Offered
33s3	05/17/2023 05:06pm	ThreatQ Platform	Subscriber

2. Click on a feed under the Incoming Feeds heading.

The Feed Ingestion Settings page will load.

Feed Ingestion Settings

33s3

Published Hourly

Feed Status

Unsubscribed ☒ Subscribed

Last Run: 05/17/23 05:06pm

Next Run: 05/17/23 06:06pm

Last Modified: 05/17/23 08:21pm

Default Status Settings

For objects that have status in your system, you can choose a default status for each object type as they are ingested from this feed.

Object Type	Status Setting
Indicators	Retain Existing ▼
Signatures	Retain Existing ▼

- Use the dropdown menus provided to update the default status assigned to the objects as they are ingested from the data feed.



You can also select **Retain Existing** to keep the status assigned to the object in the data feed.

Deleting a Data Feed

You can delete your outgoing data feeds from the Data Feeds page as well as from the Edit Feed page.

Deleting a Data Feed from the Data Feeds Page

You can delete one or multiple feeds at once from the Data Feeds page.

1. Navigate to the Data Feeds page.
2. Click on the checkboxes next to the data feed(s) to delete.

Data Feeds

Create Feed
Delete Feed

Outgoing Feeds

Manage configuration settings and recipients for your outgoing feeds.

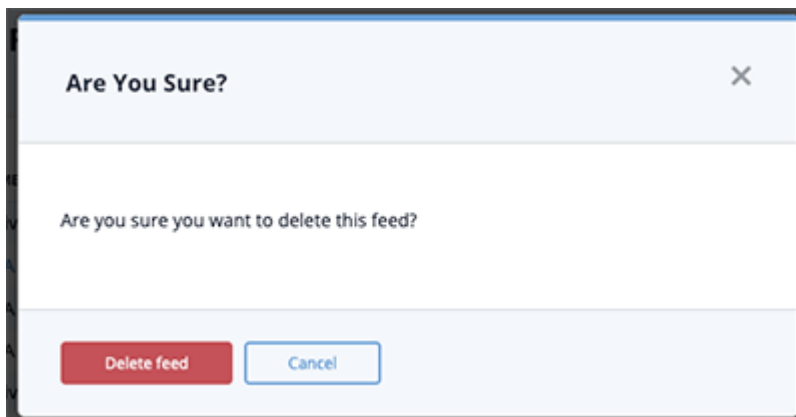
NAME	LAST PUBLISHED	SHARED WITH	FEED STATUS
<input type="checkbox"/> 33s	05/24/2023 05:05pm	3 Recipients	Enabled
<input type="checkbox"/> 33s3	05/24/2023 05:06pm	1 Recipient	Enabled
<input type="checkbox"/> DEMO	N/A	2 Recipients	Enabled
<input checked="" type="checkbox"/> est	N/A	1 Recipient	Enabled

Incoming Feeds

View and edit ingestion settings for incoming feed subscriptions.

NAME	LAST RECEIVED	CREATED BY	SUBSCRIPTION STATUS
17s	05/17/2023 09:05pm	ThreatQ Platform	Offered

3. Click on the **Delete Feed** option located to the top right.
4. Click on **Delete Feed**, when prompted, to confirm deletion.



Deleting a Data Feed from the Edit Feed Page.

1. Navigate to the Edit Feed page for a data feed by either:
 - clicking on the feed from the Data Feeds page.

- clicking on the edit gear icon on the Connections Node view.
2. Click on the **Delete Feed** option located to the top right.

Edit Feed

Delete Feed

Basic Info

Feed Name
COA

Publish Frequency
Hourly

Transport
Transport Zeta

3. Click on **Delete Feed**, when prompted, to confirm deletion.

Are You Sure?

×

Are you sure you want to delete this feed?

Delete feed

Cancel

FAQs

Can I install/use my own data transport?

Currently, TQX only supports the default OpenDXL transport installed with the product. However, future releases will give you the option to implement additional Data Transports .

As a Subscriber, can I offer a Data Feed to another Subscriber?

Subscriber instances can offer Data Feeds to Publishers. However, they cannot offer Data Feeds to other Subscribers. For added security, Subscribers will be unable to see other Subscribers connected to the Publisher.

What happens if my Data Feed contains indicators with a custom status that a Subscriber does not have in place on their instance?

At this time, custom statuses are not supported by TQX. In this event, the custom status would not be created on the Subscriber instance nor would the system objects with that status be ingested by the Subscriber instance.

What happens if my Data feed contains indicators with a set score?

Indicator Scores are not included when sending Data Feeds to another instance.

As a Subscriber, can I unsubscribe to a data feed?

Yes. You can unsubscribe from a data feed to stop the ingestion of data. You also have the option to re-subscribe to the data feed at a later date.

As a Subscriber, can I connect to multiple Publishers?

Currently, TQX only supports one data transport per instance. This allows Publishers to connect to multiple Subscribers through one data transport. Subscribers cannot connect to multiple Publishers as it would require additional data transports.

As a Publisher, can I connect to other Publishers?

No, at this time, data Connection Bundles are designed to provide Publisher > Subscriber and Subscriber > Publisher communication.

As a Publisher that is publishing multiple Data Feeds to a Subscriber, can I remove an individual data feed?

Publishers can remove recipient instances from Data Feeds. See the Data Feeds topic for more information.

How do I upgrade to a Publisher instance?

Contact ThreatQ Sales to purchase a Publisher license. Then, see the Licensing topic in the Help Center for information on adding this new license.

Change Log

- **Version 3.0.0**
 - Bug fixes included with ThreatQ version 5.12.0
- **Version 2.0.0**
 - Updates included with ThreatQ version 5.6.0
- **Version 1.6.0**
 - Updates included with ThreatQ version 4.57
- **Version 1.4.0**
 - Updates included with ThreatQ version 4.56
- **Version 1.4.0**
 - Updates included with ThreatQ version 4.54
- **Version 1.3.0**
 - Updates included with ThreatQ version 4.53
- **Version 1.2.0**
 - Updates included with ThreatQ version 4.52
- **Version 1.1.0**
 - Updates included with ThreatQ version 4.50
- **Version 1.0.0**
 - Initial Release