



XiO Cloud[®] Service Third-Party Device Monitoring

Configuration Guide
Crestron Electronics, Inc.

Original Instructions

The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

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Introduction

The XiO Cloud® service provides monitoring capabilities for supported third-party devices¹ within a Crestron system using the Crestron Drivers framework, including projectors and displays, cable and satellite boxes, streaming media players, Blu-ray Disc® players, video conferencing devices, and others. The devices will appear in the XiO Cloud service and need only to be claimed to start monitoring.

NOTE: Supported third-party devices that use the Crestron Connected® communications protocol can be claimed to the XiO Cloud service directly without requiring a Crestron control processor.

Crestron XiO Cloud™ Gateway software² can also be used to monitor supported third-party devices that are not connected to a Crestron system. This configuration allows monitoring via Ping, TCP, SNMP, and the Crestron Drivers framework over Ethernet. Power on and power off commands can also be executed for all monitored devices that support this functionality.

This document provides information on how to configure third-party device monitoring in connection with an XiO Cloud service account.

¹ The level of third-party device support and compatibility is dependent on the availability of third-party device drivers, which may be subject to the control of the applicable third-party device manufacturer.

² Crestron XiO Cloud Gateway software was previously a feature subset of Crestron Virtual Control (VC-4) software. Users who installed the Crestron XiO Cloud Gateway software as part of a VC-4 installation should migrate to the standalone Crestron XiO Cloud Gateway software as described in "Appendix C: Migrate from Crestron Virtual Control" of the [Crestron XiO Cloud Gateway Software Installation Guide](#).

System Requirements

The following system requirements must be met prior to configuring third-party device monitoring with the XiO Cloud service.

Device Monitoring within a Crestron System

- An active XiO Cloud service account
 - Minimum XiO Cloud version: 1.21
 - [SW-XIOC-EM](#) Endpoint Management license required per room for base functionality (configuration)
 - [SW-XIOC-S](#) Support license required per room for full functionality, including device monitoring and alerts
- A supported Crestron control system with the following configuration:

Control System	Minimum Firmware Release	Maximum Devices
3-Series® Control System (excluding DMPS3 series)	PUF 1.7001.0007	5 Crestron Drivers devices can be specified within a user program per control system
3-Series Control System (DMPS3 series only)	DMPS3-XXX: PUF 2.0200.0004, DMPS3-4K-50/100/150: 1.030.0001, DMPS3-4K-2XX/3XX: PUF 2.0200.0004	5 Crestron Drivers devices can be specified within a user program per control system
4-Series™ Control System	PUF 2.5001.00004	25 Crestron Drivers devices can be specified within a user program per control system
Crestron Virtual Control (VC-4)	2.4557.00121	950 total devices can be specified within user programs across all rooms with a maximum of 400 Crestron Drivers devices.

NOTE: The device limit for Crestron Virtual Control includes all devices that have been added to the control system for monitoring within rooms and from the cloud.

- A SIMPL or SIMPL# Pro program loaded to an open slot on the control system that includes the Crestron Drivers devices that will be monitored within XiO Cloud. Refer to [Configuration on page 4](#) for more information.
- [Crestron Drivers devices](#) that are compiled with minimum framework version 6.00.000.0025. For a list of all currently supported device types, refer to the [Crestron XiO Cloud Gateway software](#) product page.

NOTE: If the supported third-party devices in your Crestron system do not use Crestron Drivers, they must be monitored externally using Crestron XiO Cloud Gateway software as described on the next page.

Device Monitoring with Crestron XiO Cloud Gateway

- An active XiO Cloud service account
 - Minimum XiO Cloud version: 1.21
 - [SW-XIOC-EM](#) Endpoint Management license required per room for base functionality (configuration)
 - [SW-XIOC-S](#) Support license required per room for full functionality, including device monitoring and alerts
- [Crestron XiO Cloud Gateway software](#)

NOTE: Crestron XiO Cloud Gateway software was previously a feature subset of Crestron Virtual Control (VC-4) software. Users who installed the Crestron XiO Cloud Gateway software as part of a VC-4 installation should migrate to the standalone Crestron XiO Cloud Gateway software as described in the [Crestron XiO Cloud Gateway Installation Guide](#).

- Minimum software versions: 2.4557.0176 (for base functionality), 2.7000.00052 (for 950 maximum device support)
 - A maximum of **950** third-party devices can be added within the Crestron XiO Cloud Gateway software environment, with a maximum of **400** Crestron Drivers devices (as of software version 2.7000.00052).
- Supported third-party devices that can be monitored over Ethernet using one of the following methods:
 - Crestron Drivers devices selected from Crestron Drivers Portal
 - Ping
 - SNMP
 - TCP

Configuration

The following topics describe how to configure third-party device monitoring within an XiO Cloud account.

Prior to configuration, review [System Requirements on page 2](#) to ensure that all necessary requirements have been met.

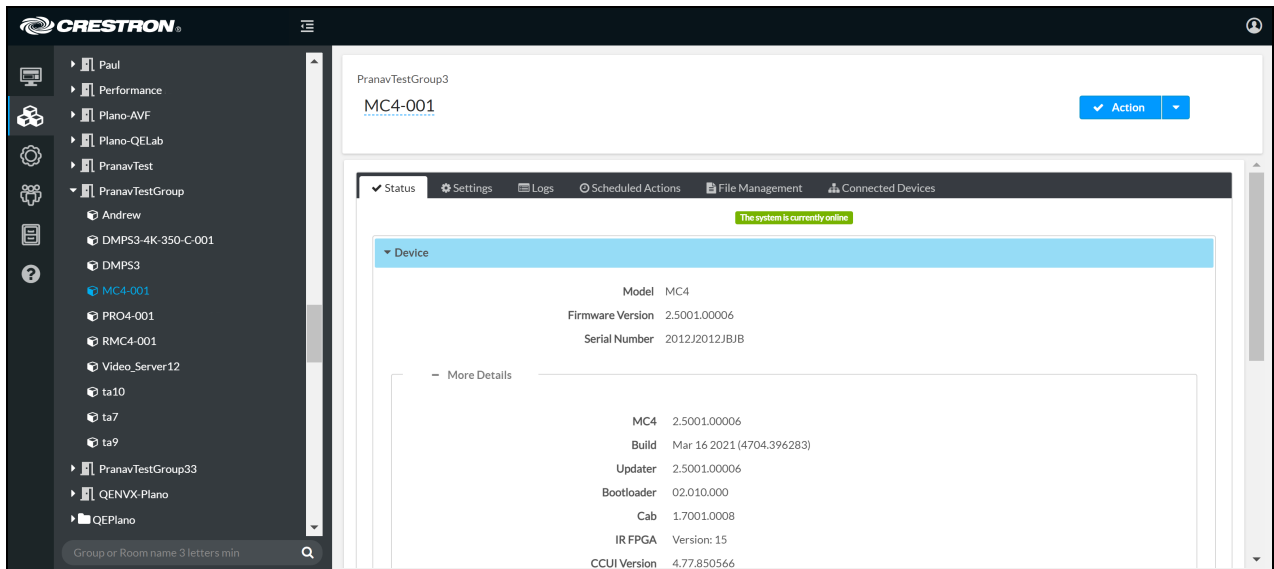
Configure Device Monitoring within a Crestron System

Use the following procedures to monitor Crestron Drivers devices within a Crestron system.

Claim Supported Third-Party Devices

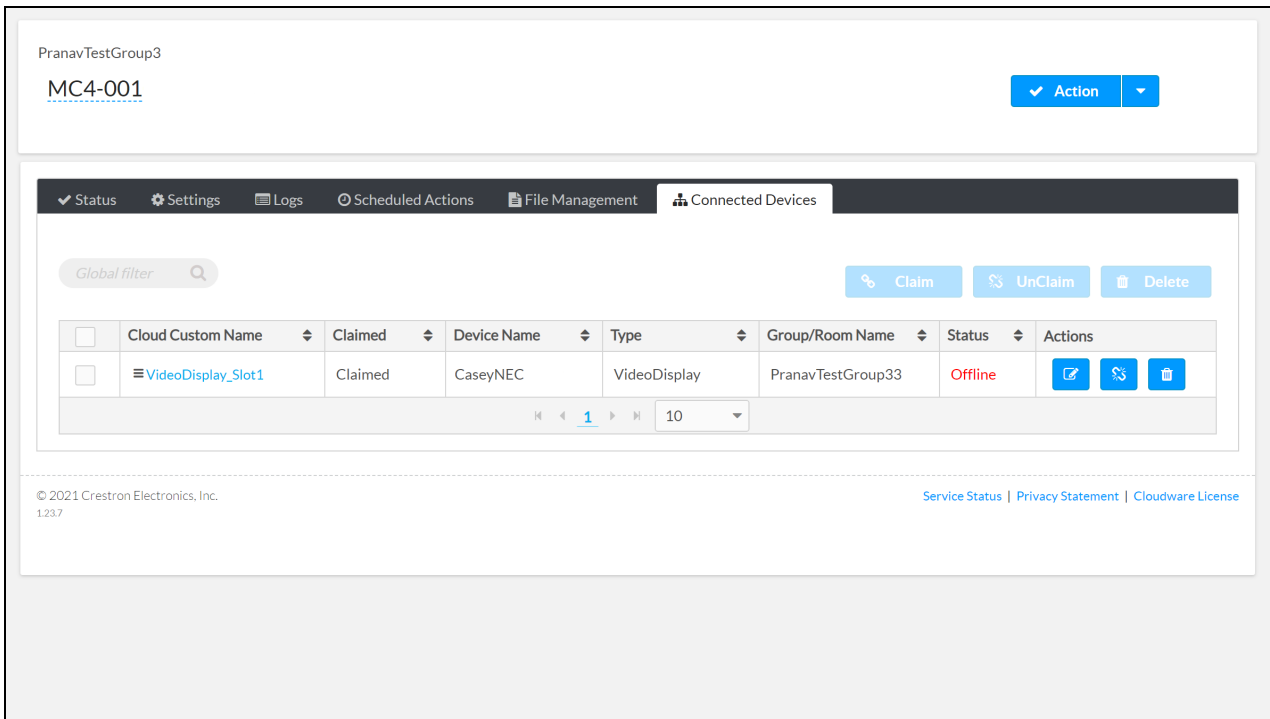
1. Claim a supported Crestron control system to your XiO Cloud account. Refer to the [XiO Cloud® Provisioning and Management Service User Guide](#) for more information on claiming devices to the XiO Cloud service.
2. Load a SIMPL or SIMPL# Pro user program to an open slot on the control system that includes the third-party devices to be monitored. For more information, refer to the appropriate topics in the SIMPL or SIMPL# Pro help file.
3. Select the control system from the **ENVIRONMENT** group tree in XiO Cloud.

XiO Cloud - ENVIRONMENT Group Tree



4. Navigate to the **Connected Devices** tab.

Connected Devices Tab



All third-party devices that have been specified in the user program are displayed in table format. The following information and settings are provided for each third-party device:

- **Cloud Custom Name:** The custom name provided for the device within XiO Cloud. If the device is claimed to the XiO Cloud service, select the custom name to view the status for that device.
- **Claimed:** Indicates whether the third-party device has been claimed within the XiO Cloud service.
- **Device Name:** The name provided for the device in the user program.
- **Type:** The device type as defined by the device driver.
- **Group/Room Name:** The group that contains the device (if it has been added to a group).
- **Status:** Indicates whether the device is online or offline. Also indicates whether the parent control system is offline (indicated by the **Cloud Connector Offline** status).
- **Actions:** Provides the following actions that can be selected for the device:
 - Select the **Edit** button to edit the **Cloud Custom Name**. Select the **Update** button (shown while editing the **Cloud Custom Name**) to save any changes.
 - Select the **Claim** button to claim the device to the XiO Cloud service. If the device is already claimed, select the **Unclaim** button to unclaim the device.
 - Select the **Delete** button to delete the device from the XiO Cloud service.

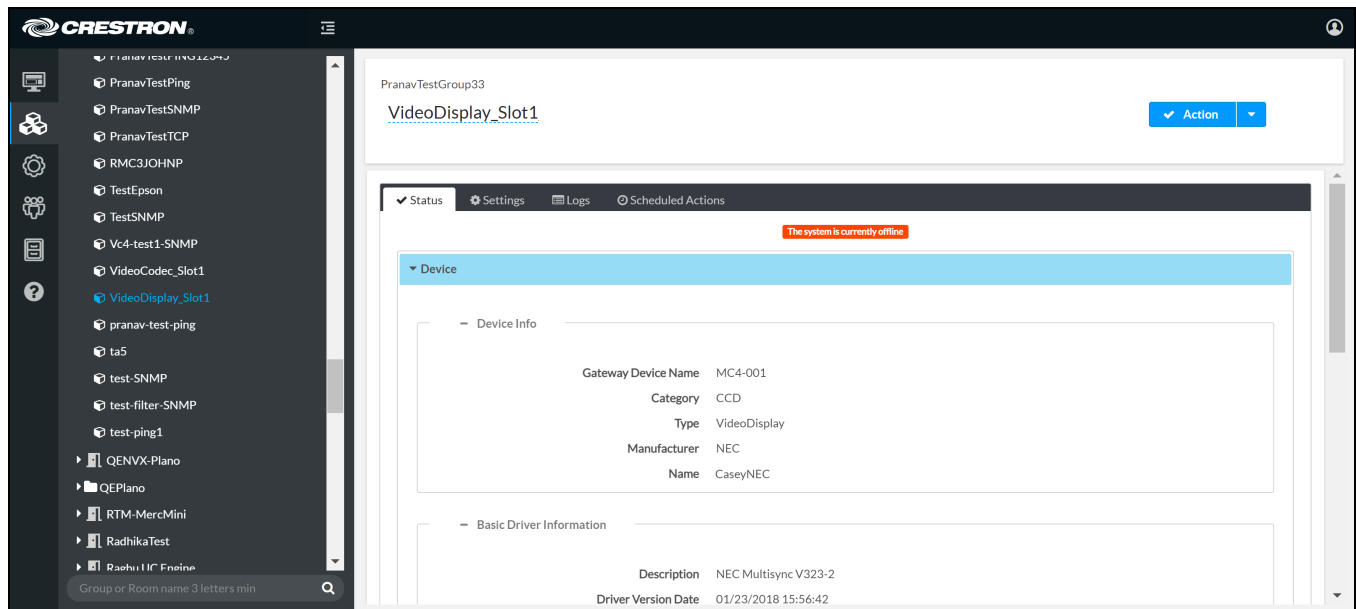
NOTE: Use the **Delete** button to delete a device from the device list. A device will also be deleted from the device list if it or the control system running the user program containing it is unclaimed from XiO Cloud. The device will continue to be shown in the device list if the user program containing it is stopped.

Select the **Claim** button next to a device in the **Connected Devices** table to claim it to the XiO Cloud service. Once a device is claimed, it can be added to a group by dragging it into the desired group within the **ENVIRONMENT** group tree.

Monitor Supported Third-Party Devices

Select the device from the **Connected Devices** table or the **ENVIRONMENT** group tree to view its status. A hamburger menu icon is shown next to the device name in the group tree, indicating that the device is connected via a control system.

XiO Cloud - Third-Party Device Status



The status reported for each device is dependent on its type and driver:

- At a minimum, the device will report basic information including its control system gateway name, category, type, manufacturer, and name. The device will also report information about its driver and supported communication protocols.
- Accordions are provided that can be expanded to view additional status for the device. For example, a projector device may provide accordions for **Power**, **Input Selections**, **Volume**, **Consumables**, and **Alerts**.

Additionally, **Power On** and **Power Off** events can be scheduled for the device using the **Scheduled Actions** tab (if supported by the driver). For more information on scheduled actions, refer to the [XiO Cloud® Provisioning and Management Service User Guide](#).

Configure External Device Monitoring

Use the following procedures to configure Crestron XiO Cloud Gateway software to monitor third-party devices external to a Crestron control system.

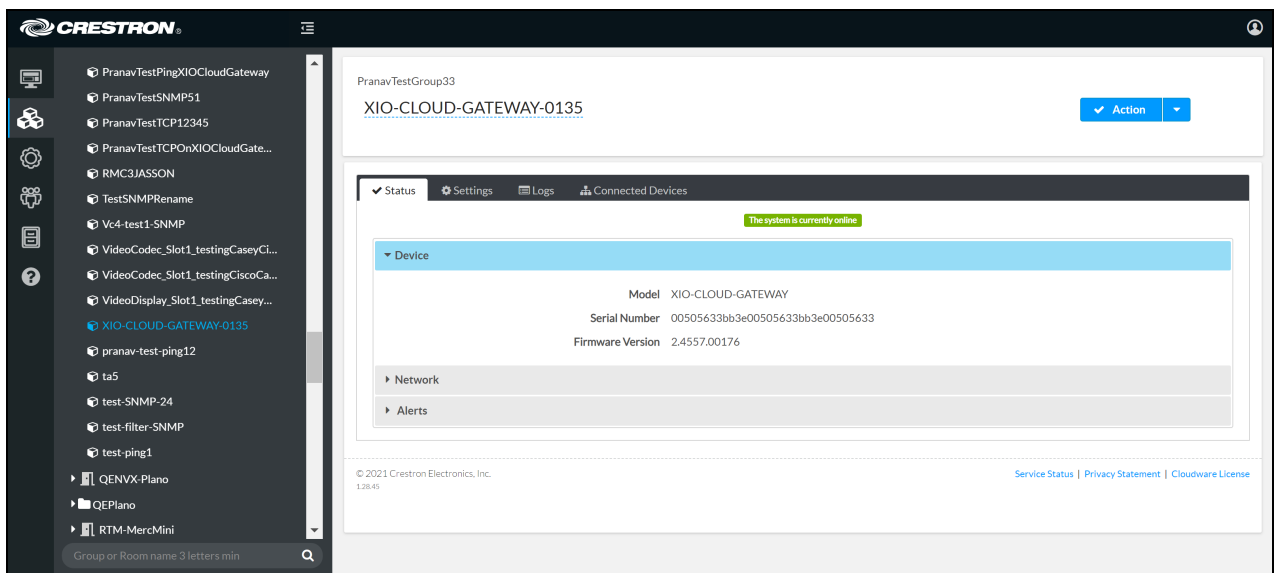
Add Supported Third-Party Devices

1. Install Crestron XiO Cloud Gateway software as described in the [Crestron XiO Cloud Gateway Installation Guide](#).

NOTE: Crestron XiO Cloud Gateway software was previously a feature subset of Crestron Virtual Control (VC-4) software. Users who installed the Crestron XiO Cloud Gateway software as part of a VC-4 installation should migrate to the standalone Crestron XiO Cloud Gateway software as described in the [Crestron XiO Cloud Gateway Installation Guide](#).

2. Claim the Crestron XiO Cloud Gateway server to your XiO Cloud account. Refer to the [XiO Cloud® Provisioning and Management Service User Guide](#) for more information on claiming devices to the XiO Cloud service.
3. Select the gateway from the **ENVIRONMENT** group tree in XiO Cloud.

XiO Cloud - ENVIRONMENT Group Tree



4. Navigate to the **Connected Devices** tab.

Connected Devices Tab

The screenshot shows the 'Connected Devices' tab for a 'TestGroup' named 'XIO-CLOUD-GATEWAY-01'. The table below lists several devices with their respective names, types, and statuses.

<input type="checkbox"/>	Cloud Custom Name	Device Name	Type	Group/Room Name	Status	Actions
<input type="checkbox"/>	AndrewAdd312	AndrewAdd312	Ping	TestGroup	Online	
<input type="checkbox"/>	AndrewAdd4	AndrewAdd4	Ping	TestGroup	Offline	
<input type="checkbox"/>	AndrewTestAdd	AndrewTestAdd	Ping	TestGroup	Online	
<input type="checkbox"/>	PranVtestSnmp12	PranVtestSnmp12	SnmpMonitoring	TestGroup	Online	
<input type="checkbox"/>	PranavTestCCD12	PranavTestCCD12	Avr	TestGroup	Offline	
<input type="checkbox"/>	PranavTestPING12345	PranavTestPING123...	Ping	TestGroup	Offline	
<input type="checkbox"/>	PranavTestPingForPRO4	PranavTestPingForP...	Ping	TestGroup	Online	
<input type="checkbox"/>	PranavTestSNMP51	PranavTestSNMP51	SnmpMonitoring	TestGroup	Online	

5. Select **+Add Connected Device**. The **Add Connected Device to Gateway** dialog box is displayed.

Add Connected Device to Gateway Dialog Box

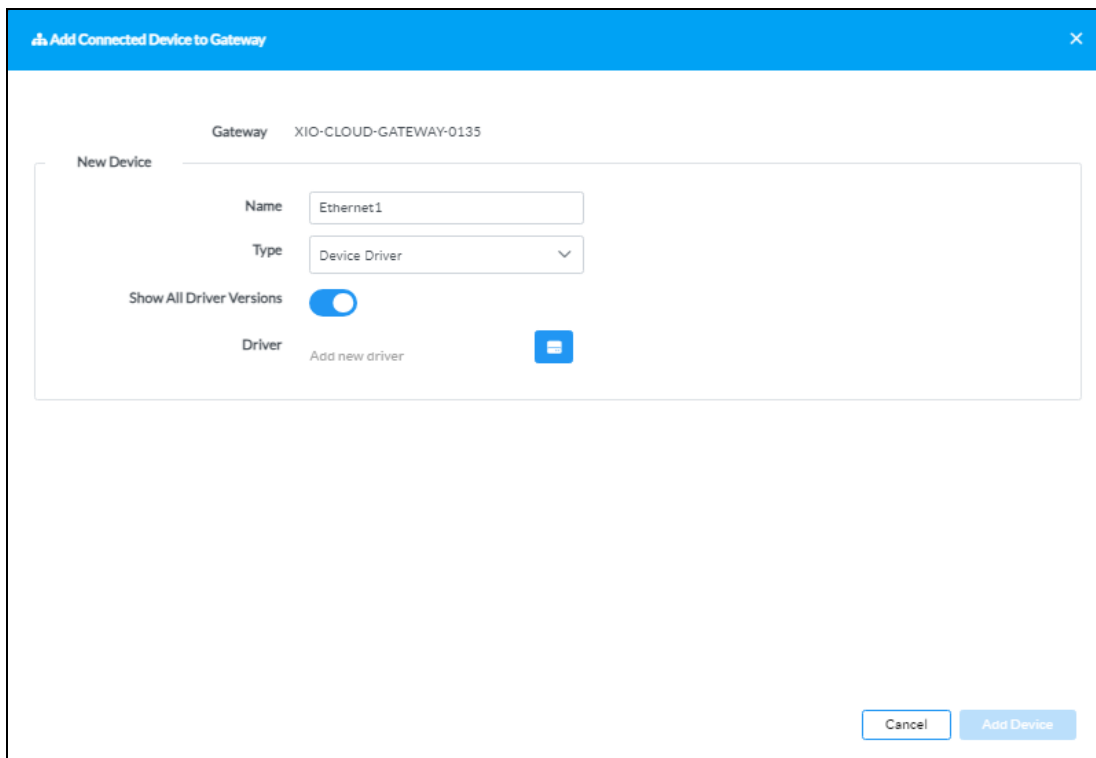
The dialog box is titled 'Add Connected Device to Gateway'. It shows the selected gateway as 'PranavNewTestVmForEG'. Below this, there is a section for 'New Device' with two input fields: 'Name' and 'Type'. The 'Type' field is a dropdown menu currently showing 'Select a DeviceType'. At the bottom of the dialog, there are 'Cancel' and 'Add Device' buttons.

6. Enter a name for the device in the **Name** text field.
7. Select the device type from the **Type** drop-down menu. The configuration options for the device differs depending on its type as described in the following sections.

Configure IP Crestron Drivers Device Monitoring

1. From the **Add Connected Device to Gateway** dialog box, select **Device Driver**. Controls for configuring a Crestron Driver device are shown.


Add Connected Device to Gateway Dialog Box - Device Driver



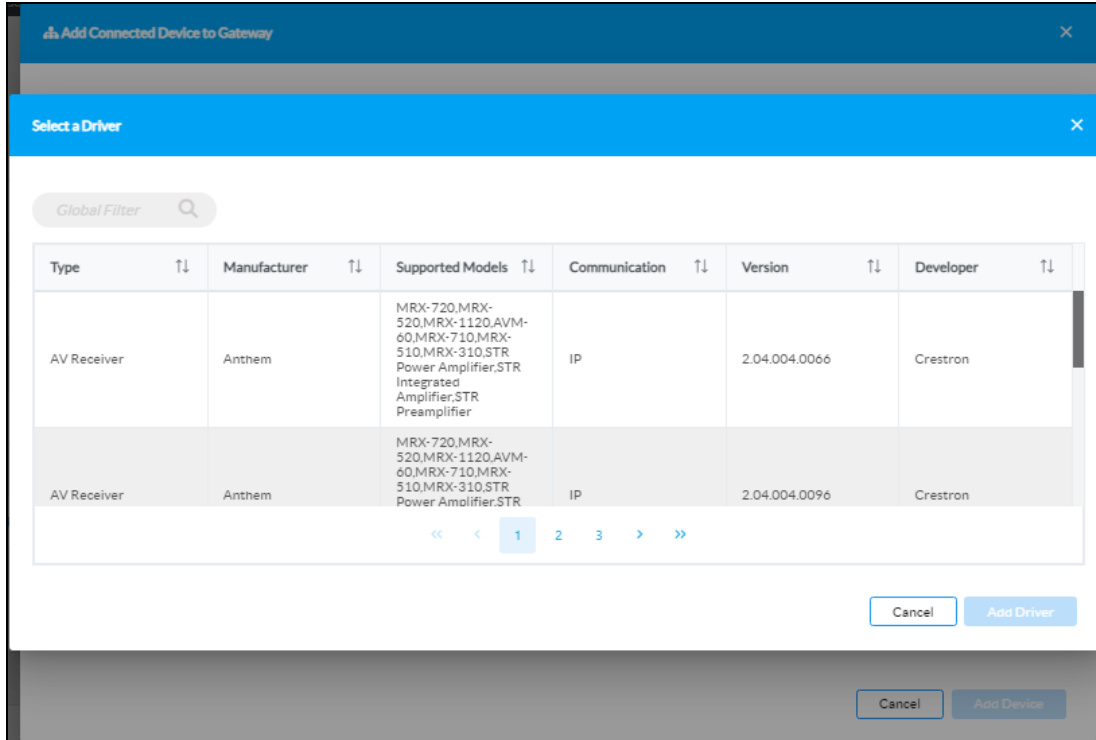
The screenshot shows a dialog box titled "Add Connected Device to Gateway" with a close button (X) in the top right corner. The dialog is for a gateway named "XIO-CLOUD-GATEWAY-0135". Inside the dialog, there is a section titled "New Device" with the following fields and controls:

- Name:** A text input field containing "Ethernet1".
- Type:** A dropdown menu currently set to "Device Driver".
- Show All Driver Versions:** A toggle switch that is turned on.
- Driver:** A button labeled "Add new driver" with a blue icon of a document with a plus sign.

At the bottom right of the dialog, there are two buttons: "Cancel" and "Add Device".

2. If desired, turn on the **Show All Driver Versions** toggle to show all versions of a driver when searching in the Crestron Drivers portal.
3. Select the **Add New Driver** button . A **Select a Driver** dialog box is displayed showing all drivers that can be selected from the Crestron Drivers portal.

Select a Driver Dialog Box



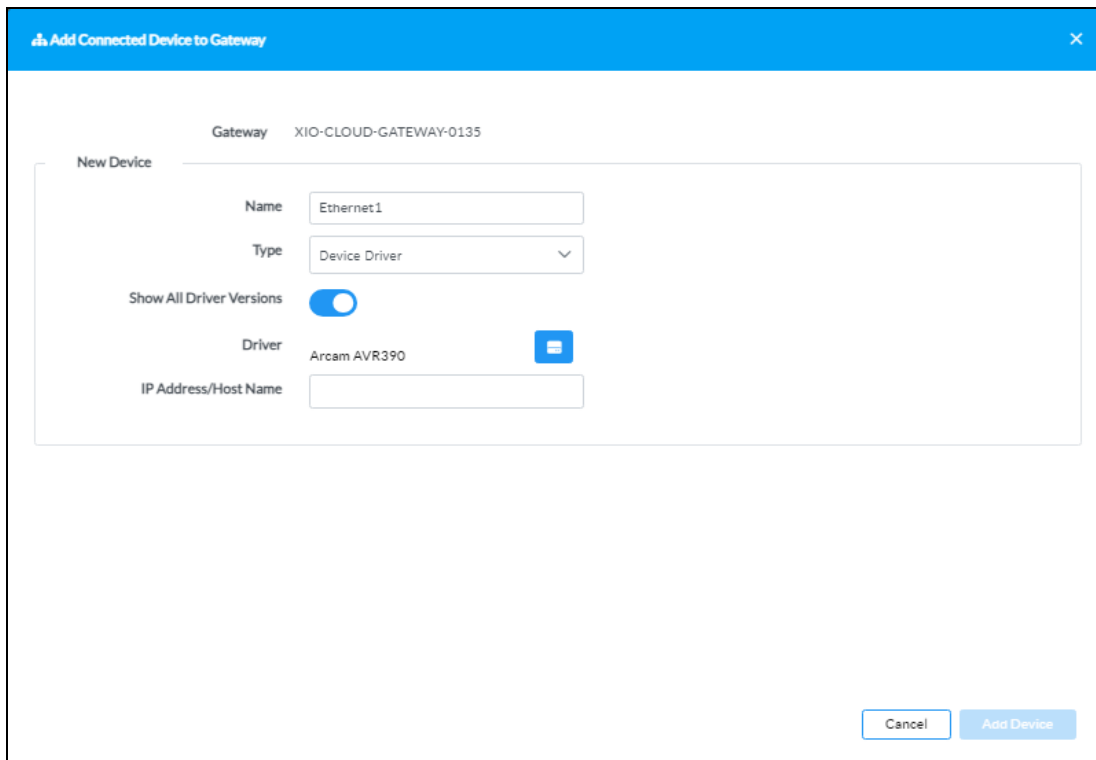
NOTE: Only Crestron Driver devices that connect over Ethernet (IP) can be selected. Any driver that uses a different connection method is filtered out.

Drivers are displayed in table format. The following information is provided for each driver.

- **Type:** The Crestron Driver device type
- **Manufacturer:** The device manufacturer
- **Supported Models:** The device models that are supported by this driver
- **Communication:** The communication method supported by the driver (only IP/Ethernet drivers are available for selection)
- **Version:** The driver version
- **Developer:** The driver developer (indicates whether the driver was developed by Crestron or by a third-party developer)

4. Select the table row containing the desired driver to select it, then select **Add Driver**. The **Add Connected Device to Gateway** dialog box is updated with controls and setup instructions for the driver.

Add Connected Device to Gateway Dialog Box - Driver Selected



The screenshot shows a dialog box titled "Add Connected Device to Gateway" with a close button (X) in the top right corner. The "Gateway" is identified as "XIO-CLOUD-GATEWAY-0135". The "New Device" section contains the following fields and controls:

- Name:** Ethernet1
- Type:** Device Driver (dropdown menu)
- Show All Driver Versions:** A toggle switch that is currently turned on.
- Driver:** Arcam AVR390, with a blue square button containing a white document icon to its right.
- IP Address/Host Name:** An empty text input field.

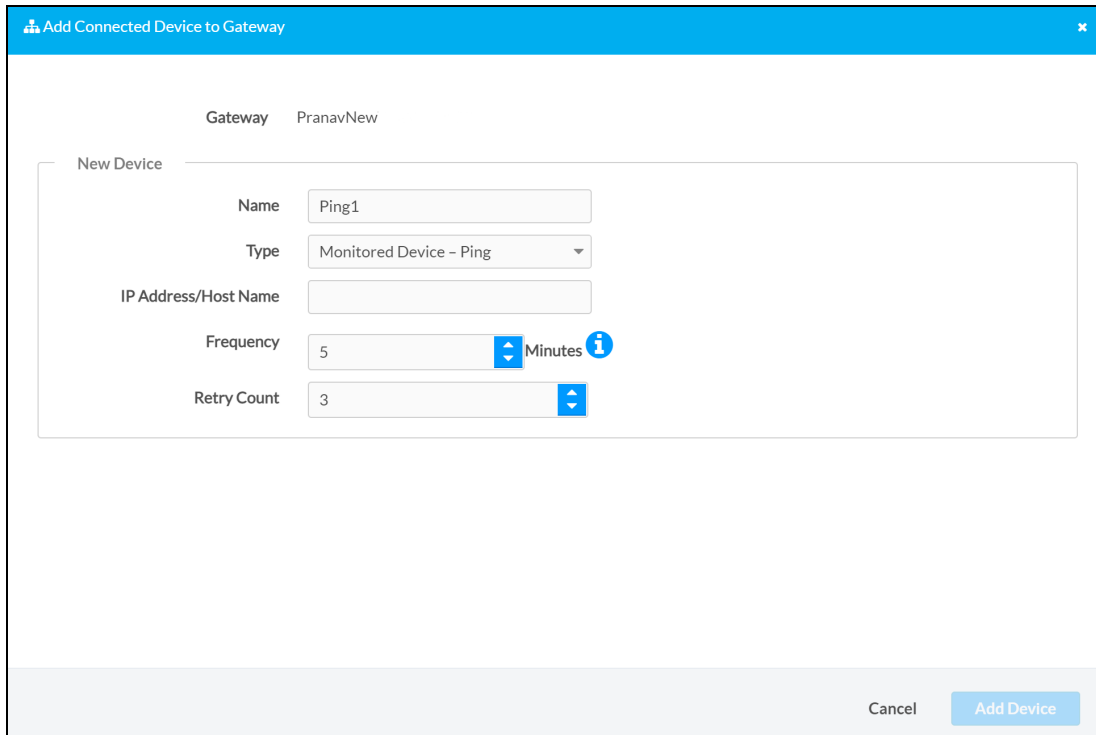
At the bottom right of the dialog box, there are two buttons: "Cancel" and "Add Device".

5. Enter the device IP address or hostname into the **IP Address/Host Name** text field.
6. If applicable, configure the device as instructed in the **Setup Instructions** section. Use the **Continue** and **Back** buttons to move through the various instructions.
7. Select **Add Device**. The device is added to the **Connected Devices** table for the control system.

Configure Ping Monitoring

1. From the **Add Connected Device to Gateway** dialog box, select **Monitored Device - Ping**. Controls for configuring an IP device for ping monitoring are shown.

Add Connected Device to Gateway Dialog Box - Ping Monitoring



The screenshot shows a dialog box titled "Add Connected Device to Gateway" with a close button (X) in the top right corner. The dialog is for a gateway named "PranavNew". Inside the dialog, there is a section titled "New Device" containing the following fields:

- Name:** A text input field containing "Ping1".
- Type:** A dropdown menu set to "Monitored Device - Ping".
- IP Address/Host Name:** An empty text input field.
- Frequency:** A text input field containing "5", with up and down arrow buttons and the unit "Minutes" and an information icon (i).
- Retry Count:** A text input field containing "3", with up and down arrow buttons.

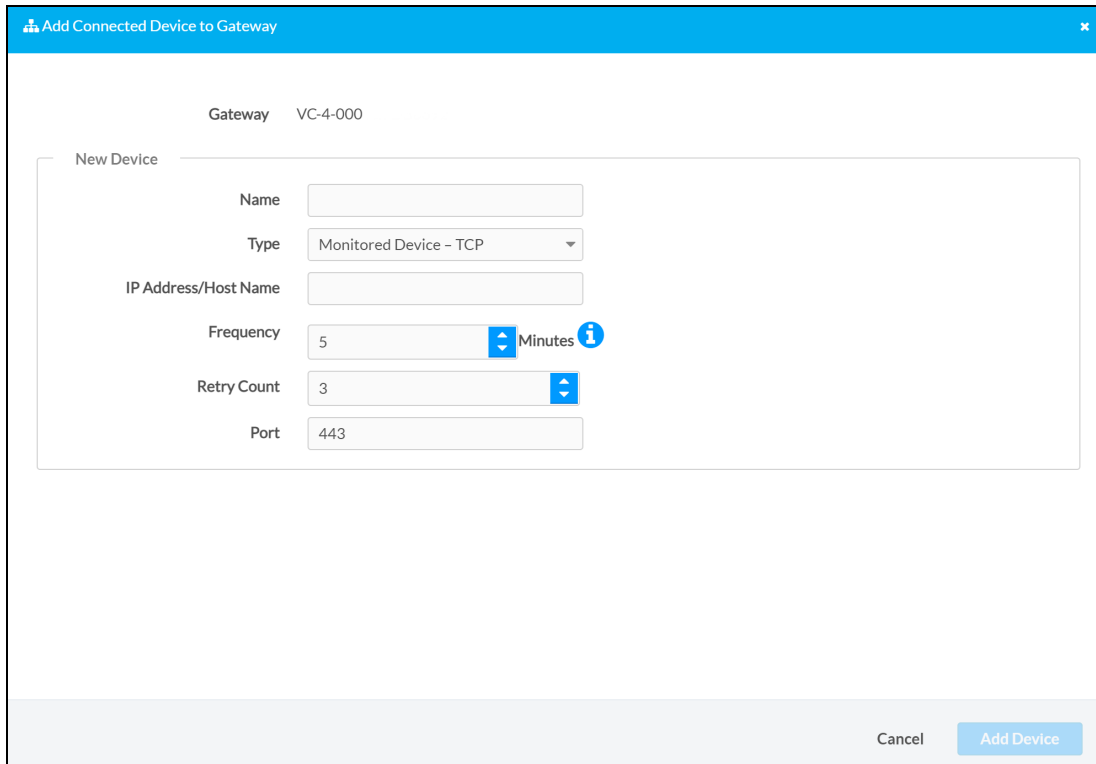
At the bottom of the dialog, there are two buttons: "Cancel" and "Add Device".

2. Enter the device IP address or hostname into the **IP Address/Host Name** text field.
3. Enter a number into the **Frequency** text field to set the duration (in minutes) between each ping attempt. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
4. Enter a number into the **Retry Count** text to set the number of ping attempts that will be made to the device before it is considered offline. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
5. Select **Add Device**. The device is added to the **Connected Devices** table for the control system.

Configure TCP Monitoring

1. From the **Add Connected Device to Gateway** dialog box, select **Monitored Device - TCP**. Controls for configuring a TCP device for monitoring are shown.

Add Connected Device to Gateway Dialog Box - TCP Monitoring



The screenshot shows a dialog box titled "Add Connected Device to Gateway" with a close button (X) in the top right corner. The dialog is for a gateway named "VC-4-000". Inside the dialog, there is a section titled "New Device" containing the following fields:

- Name:** A text input field.
- Type:** A dropdown menu currently set to "Monitored Device - TCP".
- IP Address/Host Name:** A text input field.
- Frequency:** A text input field with the value "5" and a unit of "Minutes". It includes up and down arrow buttons and an information icon (i).
- Retry Count:** A text input field with the value "3" and up and down arrow buttons.
- Port:** A text input field with the value "443".

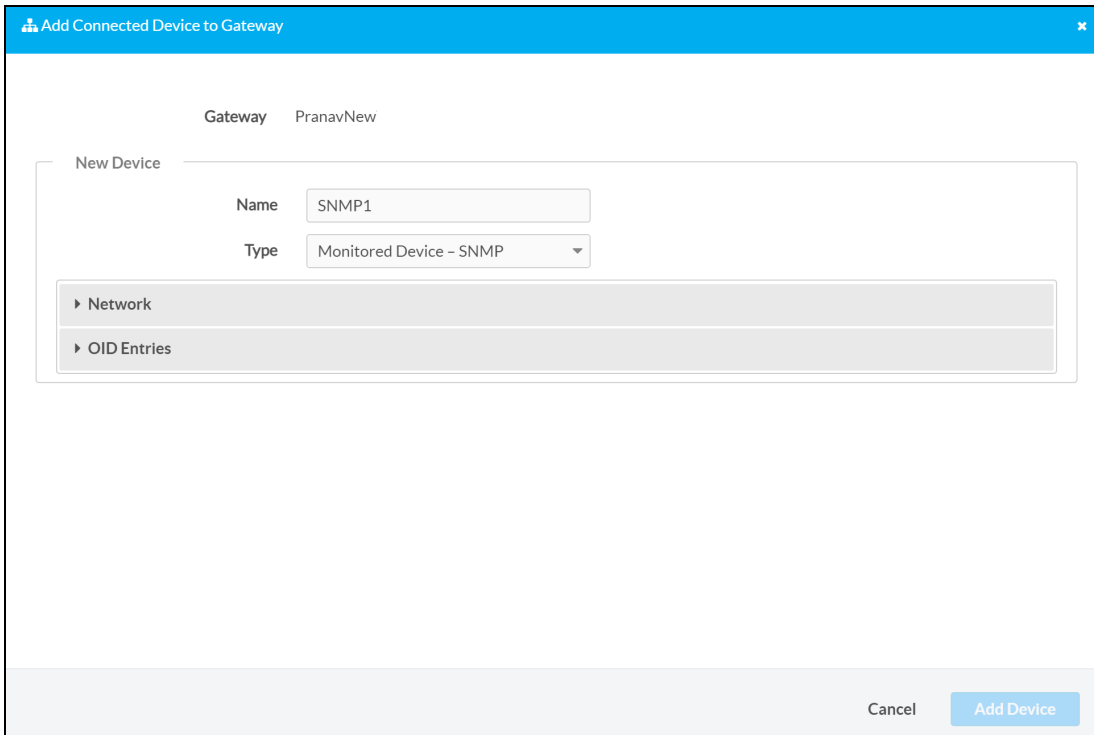
At the bottom right of the dialog, there are two buttons: "Cancel" and "Add Device".

2. Enter the device IP address or hostname into the **IP Address/Host Name** text field.
3. Enter a number into the **Frequency** text field to set the duration (in minutes) between each ping attempt. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
4. Enter a number into the **Retry Count** text field to set the number of ping attempts that will be made to the device before it is considered offline. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
5. Enter the TCP port number used by the device into the **Port** text field. "443" is the default value.
6. Select **Add Device**. The device is added to the **Connected Devices** table for the control system.

Configure SNMP Monitoring

1. From the **Add Connected Device to Gateway** dialog box, select **Monitored Device - SNMP**. Controls for configuring an SNMP device for monitoring are shown.

Add Connected Device to Gateway Dialog Box - SNMP Monitoring



The screenshot shows a dialog box titled "Add Connected Device to Gateway" with a close button (X) in the top right corner. The dialog is for a gateway named "PranavNew".

Under the heading "New Device", there are two input fields:

- Name:** A text box containing "SNMP1".
- Type:** A dropdown menu with "Monitored Device - SNMP" selected.

Below these fields is a list of expandable sections:

- ▶ Network
- ▶ OID Entries

At the bottom right of the dialog, there are two buttons: "Cancel" and "Add Device".

2. Expand the **Network** accordion to configure network settings for the device.

Add Connected Device to Gateway Dialog Box - SNMP Monitoring (Network)

The screenshot shows a dialog box titled "Add Connected Device to Gateway". At the top, it indicates the current Gateway is "PranavNew". Below this, there is a "New Device" section. The "Name" field is set to "SNMP1" and the "Type" is set to "Monitored Device - SNMP". A blue header bar labeled "Network" is expanded, revealing several configuration fields: "IP Address/Host Name" (empty), "Frequency" (set to 5 with a "Minutes" label and an information icon), "Retry Count" (set to 3), "Port" (set to 161), "Community Name" (empty), and "SNMP Version" (set to NoAuthNoPrivacyV1). At the bottom right of the dialog, there are "Cancel" and "Add Device" buttons.

- Enter the device IP address or hostname into the **IP Address/Host Name** text field.
- Enter a number into the **Frequency** text field to set the duration (in minutes) between each ping attempt. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
- Enter a number into the **Retry Count** text field to set the number of ping attempts that will be made to the device before it is considered offline. The up and down arrow buttons next to the text field can also be used to raise or lower the value.
- Enter the SNMP port number used by the device into the **Port** text field. "161" is the default value.
- Enter the SNMP community string name in the **Community Name** text field to enable the connection to the SNMP server.
- Use the **SNMP Version** drop-down menu to select the SNMP version (with or without authentication) used by the SNMP server.

- Expand the **OID Entries** accordion to configure the queried OIDs (object identifiers) for the SNMP connection.

Add Connected Device to Gateway Dialog Box - SNMP Monitoring (OID Entries)

Gateway: PranavNew

New Device

Name: SNMP1

Type: Monitored Device - SNMP

Network

OID Entries

Search...

	Id	Name	Description
<input type="checkbox"/>			

+ Add x Remove

Cancel Add Device

- Enter the following information for the initial OID Entry:
 - Enter the OID entry value in the **Id** text field. This value is based on the identifier location within the OID hierarchy.
 - Enter the OID name in the **Name** text field.
 - Enter a description for the OID in the **Description** text field.

- Select **+ Add** to add additional OID entries for the SNMP connection if necessary. Each OID entry contains the same text fields as provided for the initial entry.

The following image shows sample OID entries that are formatted properly.

Sample OID Entries

Id	Name	Description	Value
1.3.6.1.4.1.236.4.3.210.1.1.0	Name	test	QMRN
1.3.6.1.4.1.236.4.3.210.1.2.0	Firmware	T-KTM2ELAKUC-2220.5	T-KTM2ELAKUC-2220.5
1.3.6.1.4.1.236.4.3.210.1.3.0	STRING1	02 69 00	02 69 00
1.3.6.1.4.1.236.4.3.210.1.4.0	STRING2	31	31
1.3.6.1.4.1.236.4.3.210.1.5.0	Serial	07YUHNFM901082E	07YUHNFM901082E
1.3.6.1.4.1.236.4.3.210.1.6.0	String	00 08	00 94
1.3.6.1.4.1.236.4.3.210.1.7.0	String	00 00 00 01 1B 02	00 00 00 01 00 02
1.3.6.1.4.1.236.4.3.210.2.0	STRING	1	00
1.3.6.1.4.1.236.4.3.210.3.1.0	String	1234567890	20

- Select **Add Device**. The device is added to the **Connected Devices** table for the control system.



Configure Supported Third-Party Devices


Once supported third-party devices have been added to the gateway, navigate to the **Connected Devices** tab for the gateway to view them. All supported third-party devices that have been added are displayed in table format.

Connected Devices Tab

Cloud Custom Name	Device Name	Type	Group/Room Name	Status	Actions
AndrewAdd312	AndrewAdd312	Ping	TestGroup	Online	[Edit] [Delete]
AndrewAdd4	AndrewAdd4	Ping	TestGroup	Offline	[Edit] [Delete]
AndrewTestAdd	AndrewTestAdd	Ping	TestGroup	Online	[Edit] [Delete]
PranVtestSnmp12	PranVtestSnmp12	SnmpMonitoring	TestGroup	Online	[Edit] [Delete]
PranavTestCCD12	PranavTestCCD12	Avr	TestGroup	Offline	[Edit] [Delete]
PranavTestPING12345	PranavTestPING123...	Ping	TestGroup	Offline	[Edit] [Delete]
PranavTestPingForPRO4	PranavTestPingForP...	Ping	TestGroup	Online	[Edit] [Delete]
PranavTestSNMP51	PranavTestSNMP51	SnmpMonitoring	TestGroup	Online	[Edit] [Delete]

The following information and settings are provided for each third-party device:

- **Cloud Custom Name:** The custom name provided for the device within XiO Cloud. If the device is claimed to the XiO Cloud service, select the custom name to view the status for that device.
- **Device Name:** The name provided for the device in the user program.
- **Type:** The device type as defined by the device driver (for Crestron Driver devices) or the connection type
- **Group/Room Name:** The group or room that contains the device (if it has been added to a group or room).
- **Status:** Indicates whether the device is reporting as online or offline. Also indicates whether the parent Crestron XiO Cloud Gateway software is offline (indicated by the **Cloud Connector Offline** status).
- **Actions:** Provides the following actions that can be selected for the device:
 - Select the **Edit** button  to edit the device using the settings described in [Add Supported Third-Party Devices on page 7](#) for the connection type.
 - Select the **Delete**  button to delete the device from the XiO Cloud service.

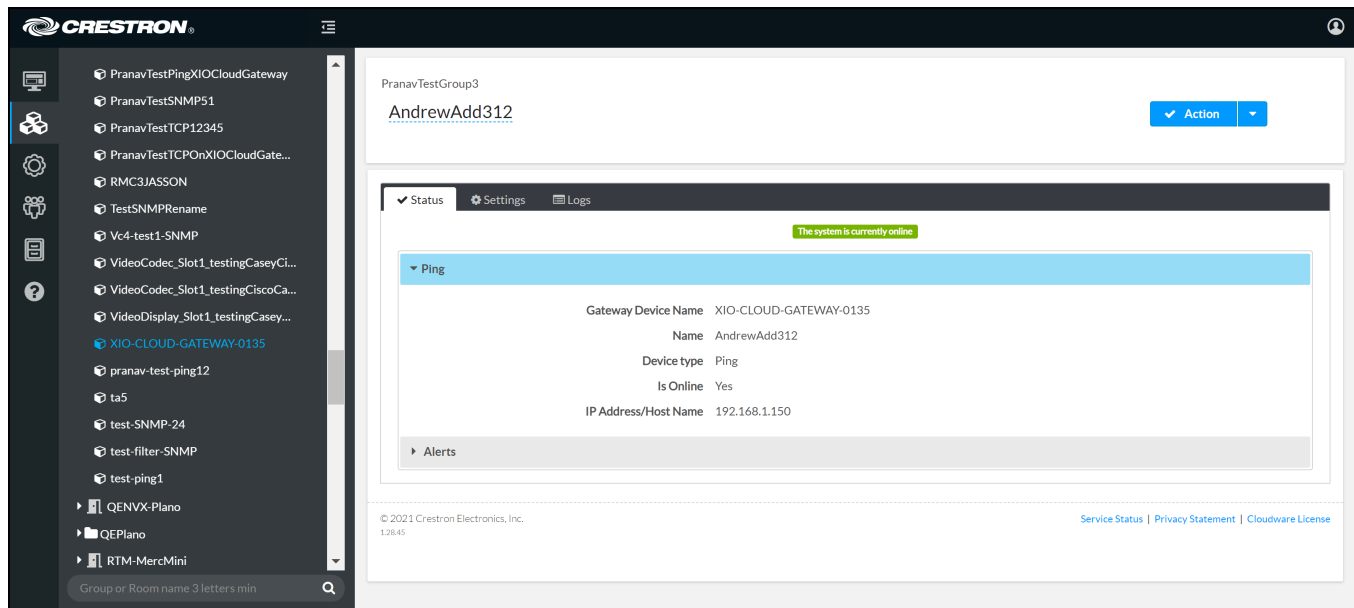
A claimed supported third-party device be added to a group by selecting the cloud icon  to the right of the device's table entry and then dragging it into the desired group within the **ENVIRONMENT** menu.

A supported third-party device can be unclaimed by selecting it in the **Connected Devices** table then selecting **Unclaim** or deleted by selecting **Delete**.

Monitor Supported Third-Party Devices

Select the device from the **Connected Devices** table or the **ENVIRONMENT** group tree to view its status.

XiO Cloud - Third-Party Device Status



The screenshot displays the Crestron XiO Cloud web interface. On the left is a dark sidebar with a navigation menu containing various device names and a search bar at the bottom. The main content area shows the details for a device named 'AndrewAdd312' within a group 'PranavTestGroup3'. At the top right of the device details is an 'Action' dropdown menu. Below this, there are tabs for 'Status', 'Settings', and 'Logs'. The 'Status' tab is active, showing a green banner that reads 'The system is currently online'. Underneath, a 'Ping' section is expanded to show the following details:

Gateway Device Name	XIO-CLOUD-GATEWAY-0135
Name	AndrewAdd312
Device type	Ping
Is Online	Yes
IP Address/Host Name	192.168.1.150

Below the ping details is an 'Alerts' section with a right-pointing arrow. At the bottom of the interface, there is a footer with copyright information: '© 2021 Crestron Electronics, Inc. 1.28.45' and links for 'Service Status', 'Privacy Statement', and 'Cloudware License'.

The status reported for each device is dependent on its type and driver (if applicable):

- At a minimum, the device will report basic information including its control system gateway name, name, and connection type.
- Accordions are provided that can be expanded to view additional status for the device depending on its connection or device type. For example, an SNMP device may provide accordions for **Network**, **OID Entries**, and **Alerts**.

Additionally, **Power On** and **Power Off** events can be scheduled for the device using the **Scheduled Actions** tab (if supported by the driver or connection method). For more information on scheduled actions, refer to the [XiO Cloud® Provisioning and Management Service User Guide](#).

Best Practices

Refer to the following best practices when configuring third-party device monitoring with Crestron XiO Cloud Gateway software.

- Crestron XiO Cloud Gateway software should be installed on a Linux® server dedicated to third-party device monitoring.
- The following specifications are recommended for the Linux server:
 - **Operating System:** Red Hat Enterprise Linux® 8.2 software (64-bit version) or greater; or AlmaLinux OS® 8.3 software (64-bit version); or Rocky Linux™ OS 8.4 software (64-bit version) or greater

NOTE: Version 9.x of any of the listed operating systems is not currently supported.

- **Network Interface:** 1 Gbps
 - **Hard Drive:** 500 GB
 - **Disk Space:** 200 GB
 - **CPU Cores:** 4
 - **RAM:** 16 GB
- No more than 950 devices should be monitored within a single Crestron XiO Cloud Gateway environment, with a maximum of 400 Crestron Drivers devices per environment (as of software version 2.7000.00052).
 - Use the default settings Ping/TCP ping times and offline retry counts.

