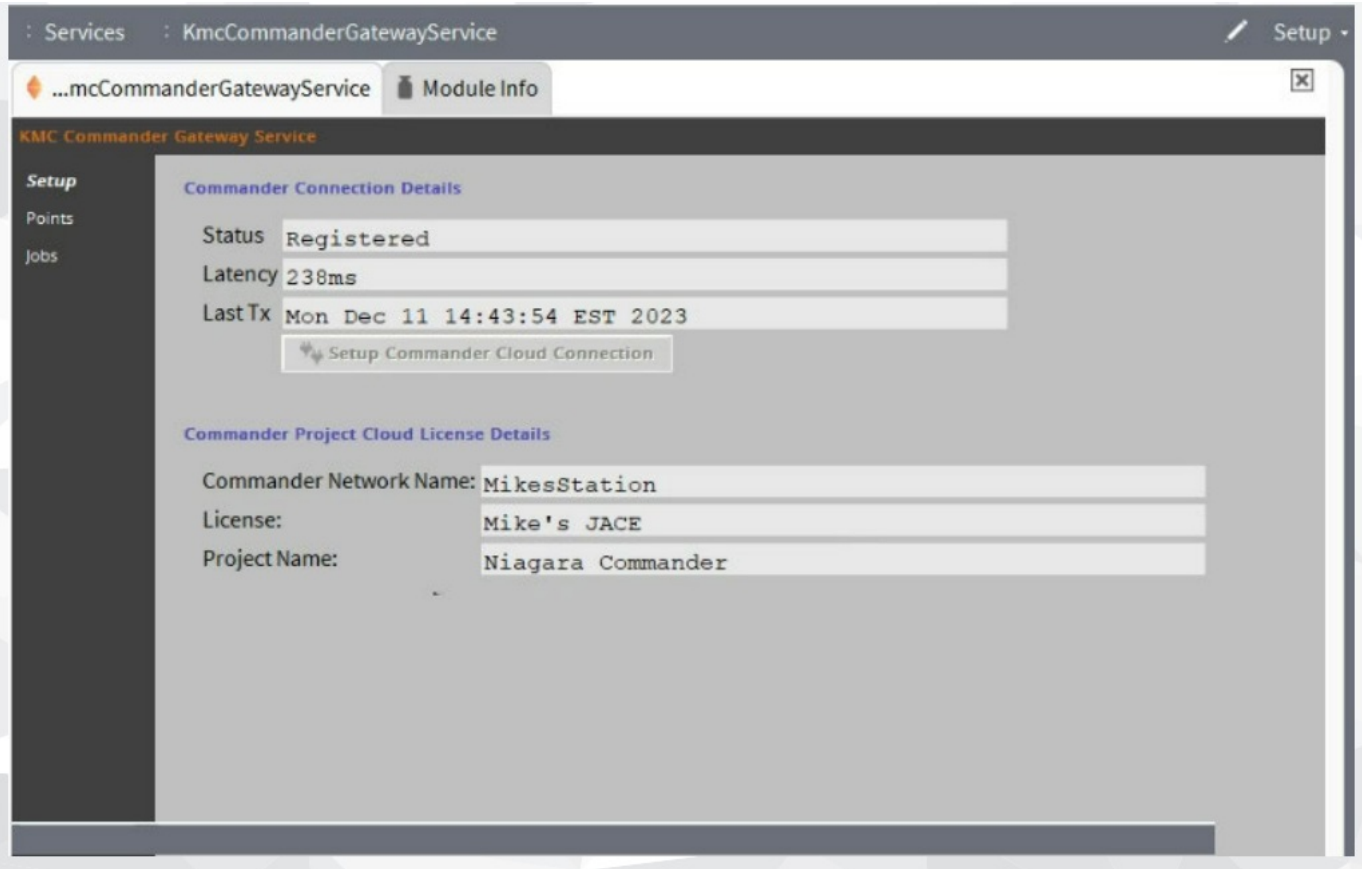


# KMC Gateway Service for Niagara Software User Guide

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## KMC Gateway Service for Niagara Software



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## Prerequisites

### Obtain Software and Licensing

Before installing a KMC Commander Gateway Service in Niagara, you must have:

- An open-license Niagara 4 Workbench (KMC N4 Workbench or third party).  
**Note:** For KMC Workbench installation details, see the KMC Workbench Software Manual found on the [KMC Converge product page](#). (You must be logged in to find the manual under the **Documents** tab.)
- The following modules and files for the KMC Commander Gateway Service (Niagara part DR kmc Commander Gateway / KMC Commander part CMDR-NIAGARA)
  - **kmcControls.license**
  - **kmcControls.certificate**
  - **kmcCommanderGateway-rt.jar**
  - **kmcCommanderGateway-wb.jar**
- KMC Commander project licensing.
- KMC Commander points licensing.

### Consult with the IT Department

If the IT department has outbound rules, a rule should be added to allow outbound traffic on TCP/IP port 443. Alternately, for additional security, outbound traffic on TCP/IP port 443 should be open (only) to the following FQDNs (Fully Qualified Domain Names):

- app.kmccommander.com (app.kmccommander.com.herokudns.com)
- kmc-endeavor-stg.herokuapp.com (needed for IFR only)

**Note:** If the firewall performs HTTPS Inspection, also make exclusions for the listed FQDNs.

**Note:** The listed FQDNs do not respond to ICMP pings.

**Note:** Services are dynamically distributed, and rules (if necessary) should use domain names rather than static IP addresses.

Also, obtain primary and secondary DNS addresses from the IT department, which will be used to set up DNS addresses in Niagara. Note whether they are DNSv4 or DNSv6.

## **Set Up DNS Addresses in Niagara**

To achieve communication from the Niagara station to the KMC Commander Cloud, a DNS will be leveraged to resolve the end-point location of [app.kmccommander.com](http://app.kmccommander.com).

**After consulting with the IT department, set up DNS in Niagara by doing the following:**

1. Using Workbench, connect to the platform of the JACE.
2. In the navigation tree, expand Platform.
3. Select TCP/IP Configuration.
4. Click the (+) next to either DNSv4 Servers or DNSv6 Servers, depending on the configuration of your system.
5. Enter the primary DNS address into the text box.
6. Repeat steps 4 and 5 for the secondary DNS address(es). (A primary and at least one secondary address is recommended).
7. Click Save, which makes a Reboot confirmation appear.
8. Click Yes.

## **Licensing the Service**

At the time that Niagara part DR-kmcCommanderGateway or KMC Commander part CMDR-NIAGARA(-3P) is purchased from KMC Controls, the Niagara Host ID of the intended station is provided to KMC Controls Customer Service.

Customer Service binds the license to that Host ID. Once this is done, connecting the Host ID to the Niagara licensing server (by means of a license import in Workbench) adds or updates the following license and certificate files:

- kmcControls.license
- kmcControls.certificate

**Note:** KMC Controls Customer Service also sends an email with a .zip folder containing the license and certificate files. Import those files to the JACE from your computer if connection to the Niagara licensing server is not possible.

**Note:** For details on license import processes, refer to the Tridium documentation (docPlatform.pdf, License Manager).

## **Know Before Installing**

Before installing the KMC Commander Gateway Service, read the following sections to understand the potential impact of the service on the station.

### **Impact of the Service on Station Operation**

The KMC Commander Niagara Gateway Service is designed to provide data from the Niagara Station to the KMC Commander Cloud. Providing this data will mean that the service will have to poll the points in the station. The polling of these points can impact the station performance.

### **CPU Usage**

Prior to installing the service, review the JACE's resources by viewing the resource manager on the station. Note

the CPU% and Memory Usage during normal operation.

After installing the service and setting up all the points that will be leveraged by the service, revisit the JACE's resource manager to confirm normal operation. For details on normal operation, see the Tridium documentation (docIT.pdf, System Performance).

### **Point Polling**

The KMC Commander Niagara Gateway Service will poll points based on the project level point update time in KMC Commander Cloud (default: 5 minutes). As points are added to the cloud, the service will create a listing of these points in the service within the station.

Upon a point update cycle, the service will get an updated value from the object by subscribing to that point in Niagara. The default point subscription in Niagara is 1 minute. During this time the point being polled will be polled based on its Niagara tuning policy settings.

### **Tuning Policies**

Configuration of the Niagara object's tuning policies can severely impact the JACE's performance when exchanging data with the KMC Commander Cloud. Proper tuning policies should be implemented across all points of interest to be exchanged with the KMC Commander Gateway Service.

For example, the default Niagara tuning policy is set to 5 seconds. If that policy is used for the points of interest, then at every KMC Commander Cloud update request (default interval of 5 minutes) those points will be polled every 5 seconds for 1 minute.

**Note:** For details on tuning policy setup, refer to the Tridium documentation (docDrivers.pdf, Tuning).

### **Adding the Service**

#### **Adding the Module (.jar) File s to Workbench**

1. **Copy the KMC Commander Gateway Service .jar files (kmcCommanderGateway-rt.jar and kmcCommanderGateway-wb.jar) to the Niagara 4 modules folder at the following location: C:\\modules**
2. **Restart Workbench.**

Continue with the topic **Transferring the Module (.jar) Files to a JACE on page 7.**

### **Transferring the Module (.jar) Files to a JACE**

#### **Perform these steps after adding the mule (.jar) files to Workbench:**

1. In Workbench, locate the JACE controller in the Nav tree.
2. Connect to the JACE Platform.
3. In the JACE platform, double-click Software Manager.
4. In the File list, press and hold CTRL while clicking each of the following files:
  - kmcCommanderGateway-rt.jar
  - kmcCommanderGateway-wb.jar

5. Click Install.

**Note:** If upgrading, click Upgrade.

6. Click Commit.
7. Restart Workbench.



Continue with the topic **Verifying Module Presence on page 7.**

### **Verifying Module Presence**

Perform the following steps after the modules have been transferred to the JACE to verify the module certificate validity.

**Note:** Refer to the Tridium document docModuleSign.pdf for details.

1. Connect to the JACE platform.
2. Expand the platform and locate the Software Manager.
3. Double-click Software Manager.
4. In the module list, locate the following modules:
  - kmcCommanderGateway-rt.jar
  - kmcCommanderGateway-wb.jar
5. Note which of the following icons are present in the Installed and Avail. columns:

- A green shield  indicates a valid certificate is present.
- A question mark  indicates that a JACE reboot is required. To reboot the JACE, click Reboot in the Application Director view of the JACE's platform.


**Note:** A JACE reboot is different than a JACE restart.


Continue with the topic **Adding the Service to a Station on page 8.**

### **Adding the Service to a Station**



**To add the KMC Commander Gateway Service to a JACE station, do the following:**

1. In the Workbench Nav tree, locate and connect to the JACE Platform and Station.
2. Open a Palette side bar.

**Note:** Click Side Bars , then select Palette from the dropdown menu.

3. In the Palette side bar, click Open Palette .
4. From the Open Palette window, in the Module column, locate then select **kmcCommanderGateway**.

**Note:** To narrow the list, type **kmc** in the filter.

5. Click OK.  KMC Commander Gateway Service appears in the module's Palette.
6. Drag the  KMC Commander Gateway Service from the module's Palette and drop it on the Services node of the JACE station's database.
7. In the Name window that appears, leave the name as is, or edit the name as appropriate.
8. Click OK. The service appears in Services.

### **Connecting the Service**

To connect the KMC Commander Gateway Service in Niagara to the KMC Commander Project Cloud, do the

following:

1. Double-click  KMC Commander Gateway Service, which opens its Setup view in a tab to the right.

**Note:** From the Workbench Nav side bar, locate  KMC Commander Gateway Service under the station's Services node.

2. Click Setup Commander Cloud Connection, which opens a Commander Login window.
3. Enter your KMC Commander Project Cloud account Username (email) and Password.
4. Change the automatically populated Commander Network Name as needed, or leave it as is.

**Note:** This is the name for the station as it will display in the KMC Commander web application. It can also be modified later within that application.

5. Click Connect.

**Note:** If connection succeeds, Status will show "Connected" and License will change from "Login to select" to the KMC Commander license and project, or a dropdown list of licenses and projects if more than one is assigned to this account.

6. Select the correct license and project from the License dropdown list (if more than one is assigned to this account).

**Note:** The displayed format is "License Name — Project Name". The names are set in the KMC Commander (Cloud) System Administration. See the [Accessing System Administration](#) topic on KMC Commander Help or in the KMC Commander Software Application Guide PDF.

7. Click OK, which saves the selection and closes the window.

Note: In the KMC Commander Gateway Service Setup view, below Commander Connection Details, Status changes to "Registered", and live Latency and Last Tx (last transmission [by service to the cloud] time) information displays.

Note: To update the License and Project Name information (below Commander Project Cloud License Details),


click the Workbench **Refresh**  button.

Once connected, the JACE is automatically added in KMC Commander's Networks Explorer. Proceed with setting up the JACE in KMC Commander by [Logging into the Project Cloud](#), then [Discovering Devices](#). Refer to those topics on KMC Commander Help or in the KMC Commander Software Application Guide PDF.

## Removing the Service

If tuning policies are set up properly ( [see Tuning Policies on page 6](#) ), the KMC Commander Gateway Service should not need to be removed. Should the service need removed for any reason, perform these steps.

### Removing the Service

1. Using Workbench, connect to the Station on the remote JACE.
2. Expand the Station in the navigation tree.
3. Within the Station, expand Config.
4. Within Config, expand Services.
5. Right-click  KMC Commander Gateway Service.
6. In the drop-down menu, click Delete.

7. Right-click the Station.
8. Click Save Station.

## **Removing the Modules**

1. Using Workbench, connect to the Platform of the remote JACE.
2. In the navigation tree, expand Platform.
3. Double-click Software Manager.
4. In the main view panel, select both of these modules:
  - kmcCommanderGateway-rt
  - kmcCommanderGateway-wb
5. Click Uninstall.
6. Click Commit.

**Note:** If the station is running, Stop Applications? will appear. Click **OK**.

## **Important Notices**

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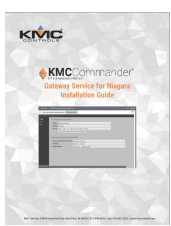
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## **CUSTOMER SUPPORT**



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## Documents / Resources



### [KMC Gateway Service for Niagara Software](#) [pdf] User Guide

862-019-15A, Gateway Service for Niagara Software, Service for Niagara Software, Niagara Software, Software

## References

- [app.kmccommander.com](http://app.kmccommander.com)
- [KMC Controls | Building Automation and Control Solutions](#)
- [Accessing System Administration](#)
- [Logging Into the Project Cloud](#)
- [Discovering Devices](#)
- [Website Terms of Use | KMC Controls](#)
- [User Manual](#)

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