



CONTAINERIZED niagara & SUBSCRIPTION LICENSING UPDATE



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Tridium, Inc.

Container Newbie

*newbie: a novice, newcomer, or inexperienced
newcomer to a particular activity*

SEP
25

2025

Containerized Niagara and Subscription Licensing Update

This TridiumTalk will provide an update on Containerized Niagara along with how to subscribe, back up, and register/unregister containers.

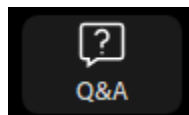
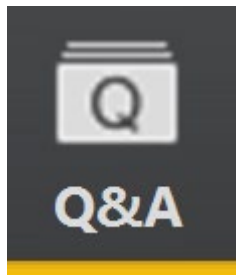
Zoom

Sep 25 - Sep 25, 2025 / 11 AM ET



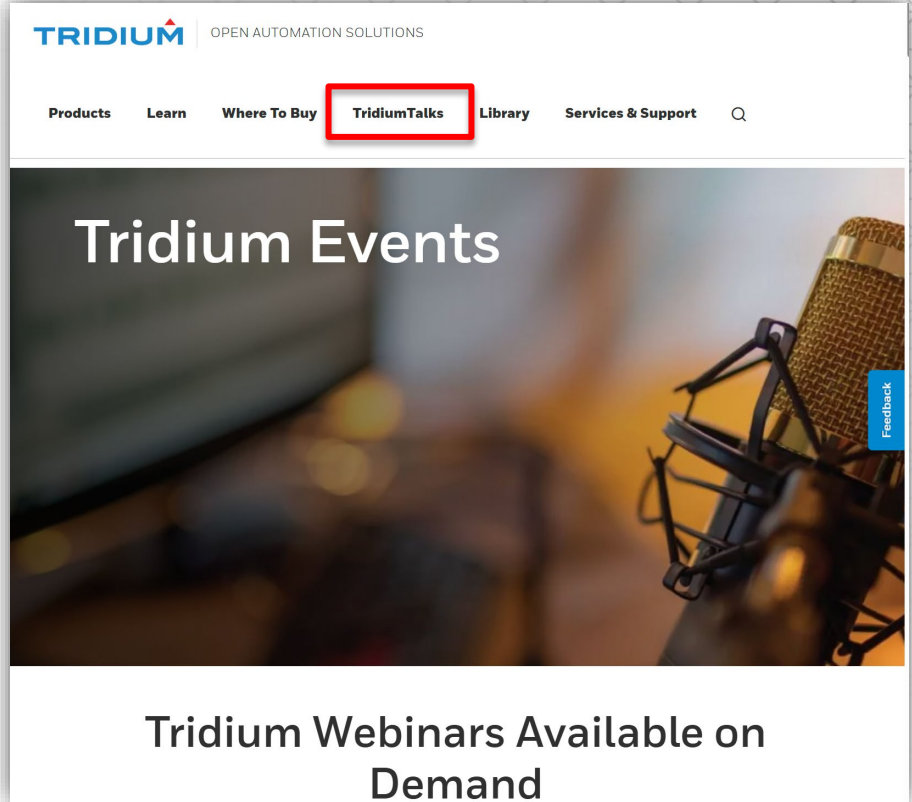
HOUSEKEEPING

Questions should be submitted via the Q&A tab





We are **recording** this session



www.tridium.com/en/resources/events



SEP
25

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Sep 25 - Sep 25, 2025 / 11 AM ET



Will **share** the Slides and template
container diagnostics in about 2 Weeks

Recording and Supporting Documents

BEFORE WE BEGIN

Quick Review and a technical word from our sponsors

WHAT I'M GOING TO COVER

What is a **container**

How it works (Requirements)

How the **subscription** works

Demo: **De-Registration** and then **Registration**

Demo: Show **Basic Configuration** using AMD/FDA

Demo: *Walk through* **Backup** and **Restore**

Demo: **Upgrading** a container to **4.15U2**

Capture Your **Questions / Feedback**

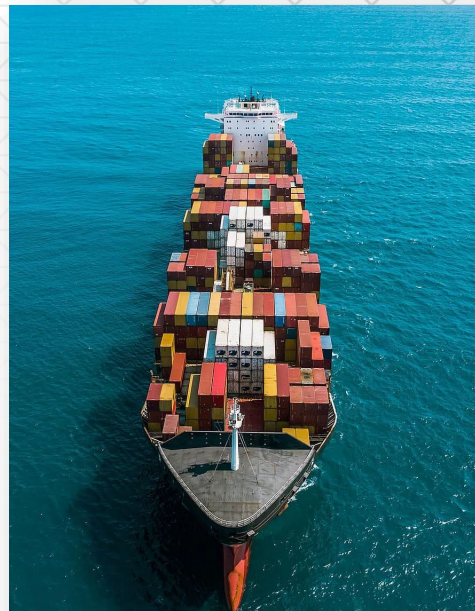
WHAT IS A CONTAINER?

A **container** is a standardized unit of software that packages up:

- **Code**
- **Dependencies**
- **System tools**
- **Libraries**
- **Settings**



This ensures that the application runs **consistently** across different environments—whether it's your laptop, a test server, or a production cloud system.



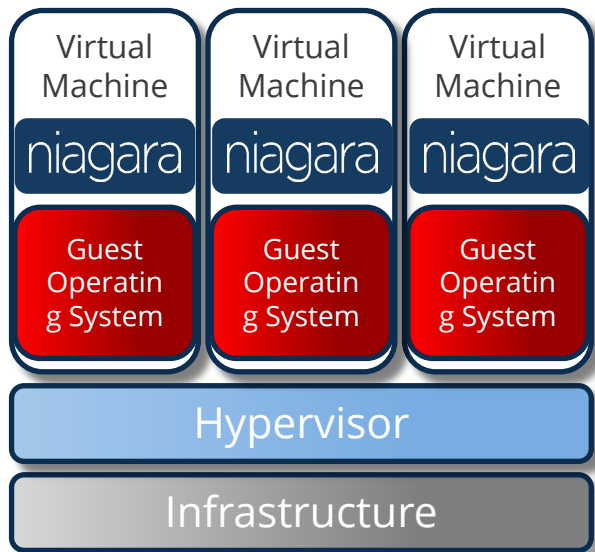
DOCKER

Docker is an open-source platform that helps developers **build, ship, and run applications** inside lightweight, portable containers.

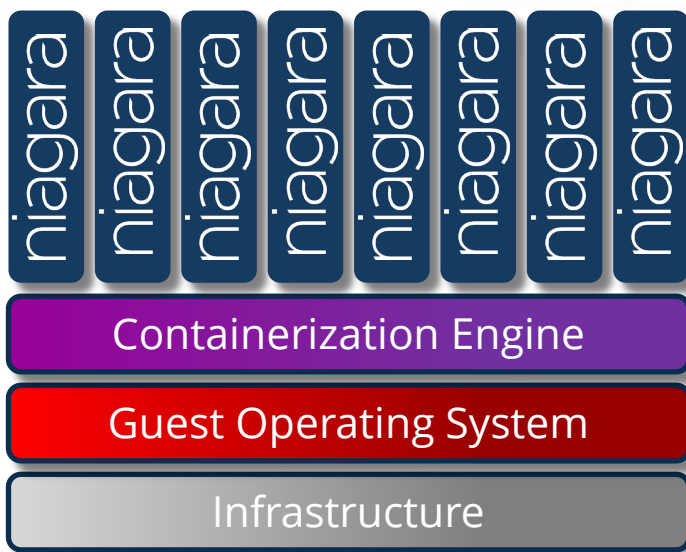


CONTAINERS OVER VMS?

Virtual Machines



Containers



Lightweight:

- Shares the host's OS system kernel
- Does not require a full OS per application
- Driving higher server efficiencies
- Reduces server and licensing costs

Secure:

- Applications are safer in containers and provides the strongest default **isolation** capabilities in the industry

WHAT'S IN A CONTAINER

image: niagara/fda/amd64/base:4.15.2.38_1.5.144-4ca74d15536a



volumes:

- niagara-user-home:/home/niagara

PORTS OF CALL



Niagara Workbench



1. Niagara **Registration**
2. **Check-in** every 2 weeks



Host

Container

Container



cap_add:

- NET_BIND_SERVICE

ports:

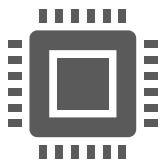
- "443:443" # standard HTTPS port
- "8443:8443" # alternate web services port for Linux station
- "4911:4911" # standard Foxs port
- "5011:5011" # standard platform TLS port

ISSUES I'VE SEEN

- Ports not open inside the container
 - Or different from default
- Container storage not large enough
- Container can't reach our registration server
- Container can't check-in leading to shutdown
- Not using Docker (*Your on your own*)
- Using ARM image when on AMD
- When to use FDA vs NDA
- Cloned
- Side loading image (no repo)



SUPPORTED ARCHITECTURES



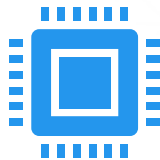
64-bit

ARM

ARM favors simplicity and fast execution of single instructions.

Uses less power and produces less heat.

Ideal for embedded devices.



64-bit

AMD x86

The x86 processors allow you to perform several activities at the same time from a single instruction.

Used predominately in servers and PCs.

AUTHORIZATION MODELS

The **File Domain Authentication (FDA)** based version is similar to how a JACE is managed today

Connect with a Workbench client using default platform credentials

Use the wizard to change the default platform credentials and passphrase **similar to how a JACE is provisioned out of the box.**

The **Workbench client can be used to manage the passphrase and platform credentials** using the platform administration view

The **Native Domain Authentication (NDA)** based version requires configuring the passphrase and platform credentials using either **environment variables** passed into the container runtime or using **platform_password** and **system_passphrase** files which are located under a **volume** which the container has access to

This uses tools such as Kubernetes Secrets to manage all credentials

SUBSCRIPTION BASED LICENSING



Available 90-Day
Trial Subscription

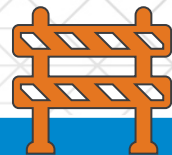
Type	Part Number
Supervisor	NCC-SUP-0 NCC-SUP-1 NCC-SUP-10 NCC-SUP-100 NCC-SUP-500
Supervisor Upgrades	NCC-SUP-UP-1 NCC-SUP-UP-10 NCC-SUP-UP-100
Supervisor Device Packs	NCC-SUP-DEV-10 NCC-SUP-DEV-50 NCC-SUP-DEV-100 NCC-SUP-DEV-500 NCC-SUP-DEV-1000

AVAILABLE ADD-ONS TO SUBSCRIPTION



Driver	Part Number
Axis Camera	NCC-DR-S-Axis 16 NCC-DR-S-AXIS 128
MaxPro Camera	NCC-DR-S-MAXP 16 NCC-DR-S-MAXP-128
Driver HTTP/JSON	NCC-DR-S-API
Analytic Points	NCC-S-NA-1000 NCC-S-NA-10000

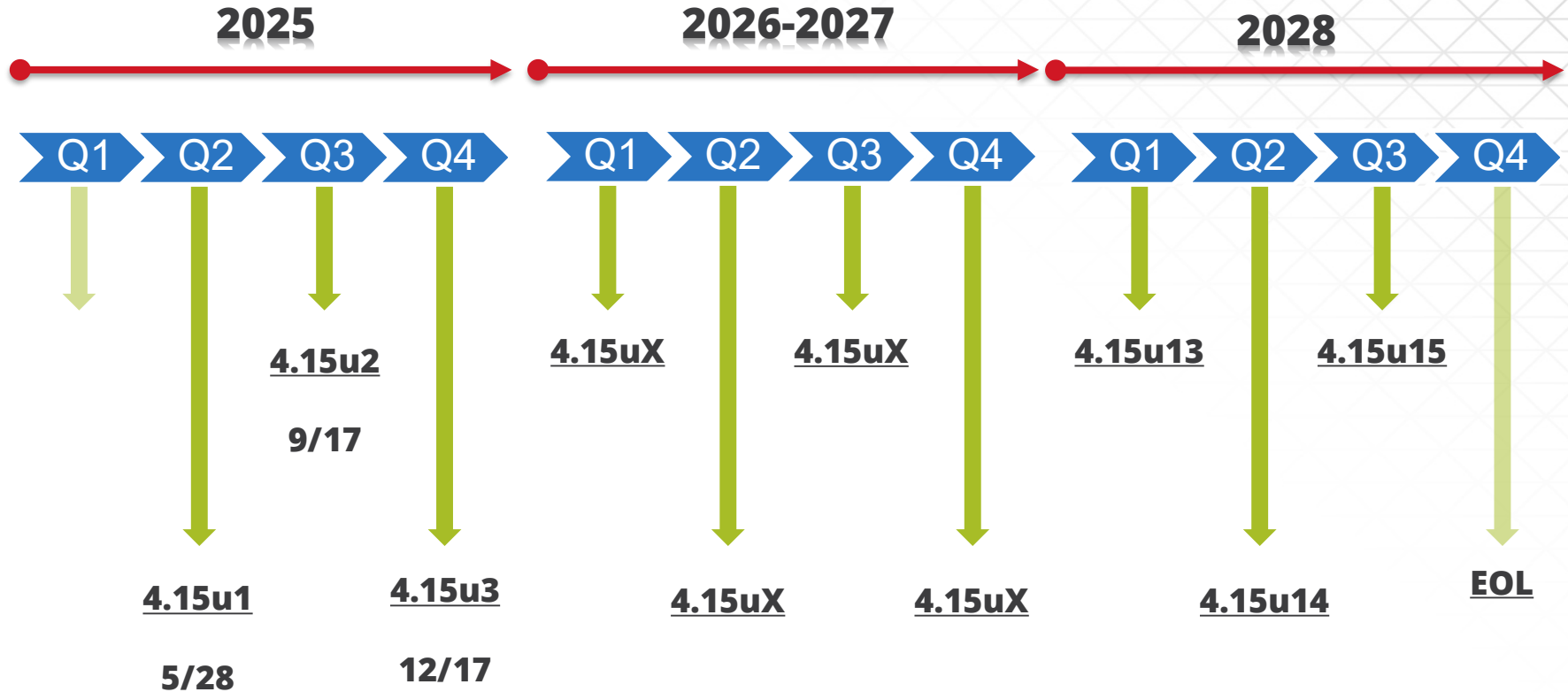
WHAT'S INCLUDED



What is Included	What is NOT included
Year Subscription	
Subscription Key used to register	Ability to run clones, 1:1 key relationship
Support for IP drivers	
Headless JAVA runtime	Workbench (required to register)
Niagara Framework image AMD/ARM	
Niagara Framework image FDA/NDA	
Ability to register and de-register using workbench (4.15.x.xx)	
Example yml files / Documentation	



4.15 – UPDATE BUILD CADENCE & DATES



VERY QUICK DEMO

Let's look at what you just heard

REFERENCES

REFERENCES

<https://docs.niagara-community.com/>

niagara

Documentation

Library

Watchlist

My
Topics

Community



Kevin Mamajek

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Filters



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Information Categories



Niagara

Features, Compatibility, and
Releases

Getting Started with Niagara
Installation Guide

Containerized Niagara Guide

View more



Niagara Security

Station Security Guide
Niagara Hardening Guide
Niagara 4 Security Page

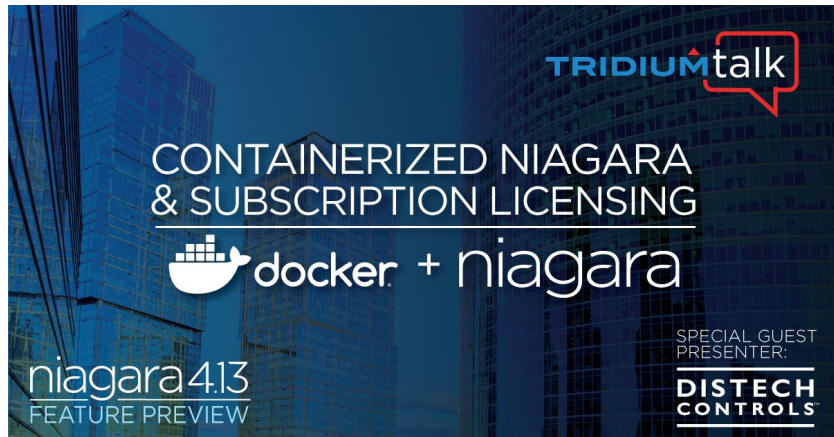


Niagara Marketplace

Niagara Marketplace Guide

TRIDIUM

REFERENCES



<https://www.tridium.com/us/en/services-support/events/2023/06/2023-06-08-containerized-niagara-subscription-licensing>



<https://www.tridium.com/us/en/services-support/events/2024/03/2024-03-21-niagara-containerization>

Q&A

The background is a solid blue color with a complex, abstract pattern of white and light blue dots and lines. These elements form a series of overlapping, wavy, and undulating shapes that create a sense of depth and movement, resembling a digital or data-driven landscape.

THANK YOU!

BACKUP CONTENT

Container Subscription

Registration Workflow

Overview / What you will need

Creating a **Niagara Community user** if you don't have one already

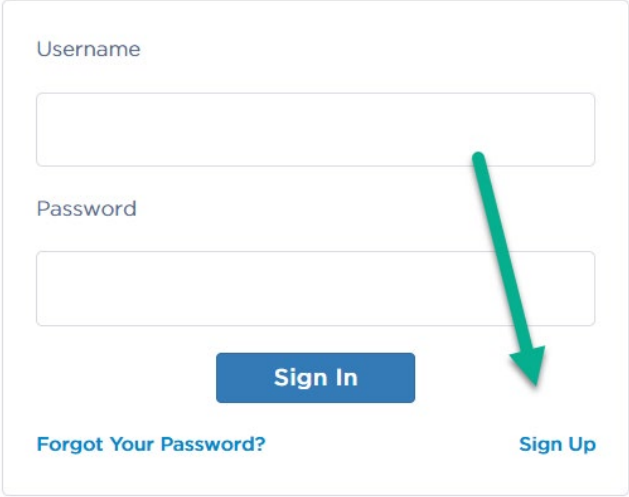
Your **Subscription Key**

Workbench that is the **SAME** version as the **Container**

- Using 4.15.1.12 in this document
- This is required because of the enhancements made to the registration process. 4.14U2 for example does not have the deregister functionality

A **running** docker **Niagara Container**

Creating a Niagara community user



A user login and registration form. It features two input fields: 'Username' and 'Password'. Below the 'Password' field is a blue 'Sign In' button. At the bottom left is a link 'Forgot Your Password?' and at the bottom right is a link 'Sign Up'. A green arrow points from the top right of the form down to the 'Sign Up' link.

Username

Password

Sign In

[Forgot Your Password?](#) [Sign Up](#)

<https://www.niagara-community.com/>

New User Signup

All fields required

First Name

Last Name

Nickname

Telephone

Country

Company Name

Company Website

Email

☐ I Agree and consent to Tridium's [Terms and Conditions](#) and have read and understood Tridium's [Privacy Policy](#).

☐ (Optional) Let's Connect - sign up to receive exclusive communications. By signing up, you are providing consent for Tridium, Inc., its affiliates, and trusted business partners (e.g., distributors) to send you marketing communications. You can withdraw your consent at any time. You agree and consent to Tridium's [Terms and Conditions](#) and have read and understood Tridium's [Privacy Statement](#).

Are you Human? What is the sum of 4 +5

Submit

[Log In](#)



1. Fill in the required fields
2. Agree and Consent
3. Do the Math
4. Click Submit



Registration Key

When a subscription is purchased, you will receive an email with a subscription key.

Don't lose this subscription key. It can be used to re-register a container after it has been **manually** unbound or deregistered.

Sample Registration Key on Licensing Server

{94EA-53E7-0018-E24D} [**Unbound**]

BUY OPTION

SELL OPTION

RENEW

MORE ▾

Model : NTEST-J-CPN-0025

Brand : Niagara Test

Subscription License Key :
{94EA-53E7-0018-E24D}

Capacity : 2500

Country : United States

Name : Kevin Mamajek VM

Owner : Tridium, Inc.

NiCS : OPEN *Inherited from Brand*

Expiration : Oct 18, 2025

Service Provider : Niagara Smart Buildings

End User Org : NSB Systems Engineering

Order : (Unbilled) /
ignore_Tridium_Internal_Testing

Version : 4.13 - N4

Unre. SW Access Exp. Date : -

Options

NCS Details

Users

Notes

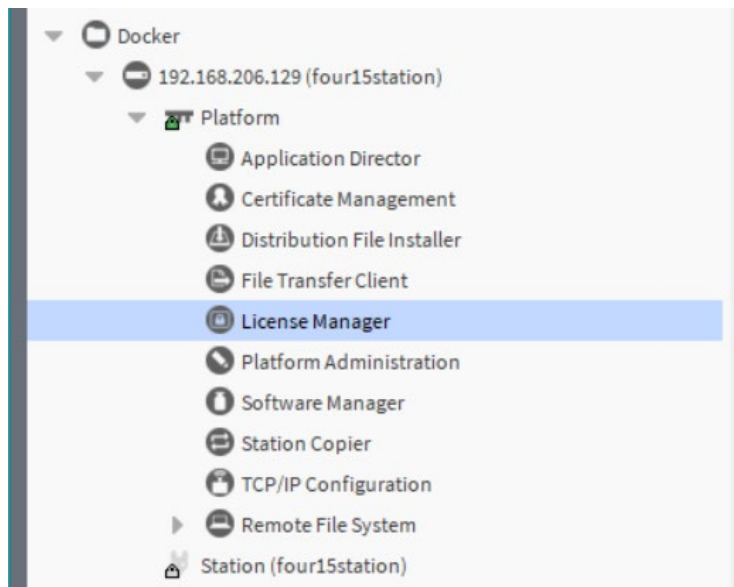
Audit

RENEW

Workbench Workflow

Use Workbench to register and bind the NRE Host ID with the Subscription Key

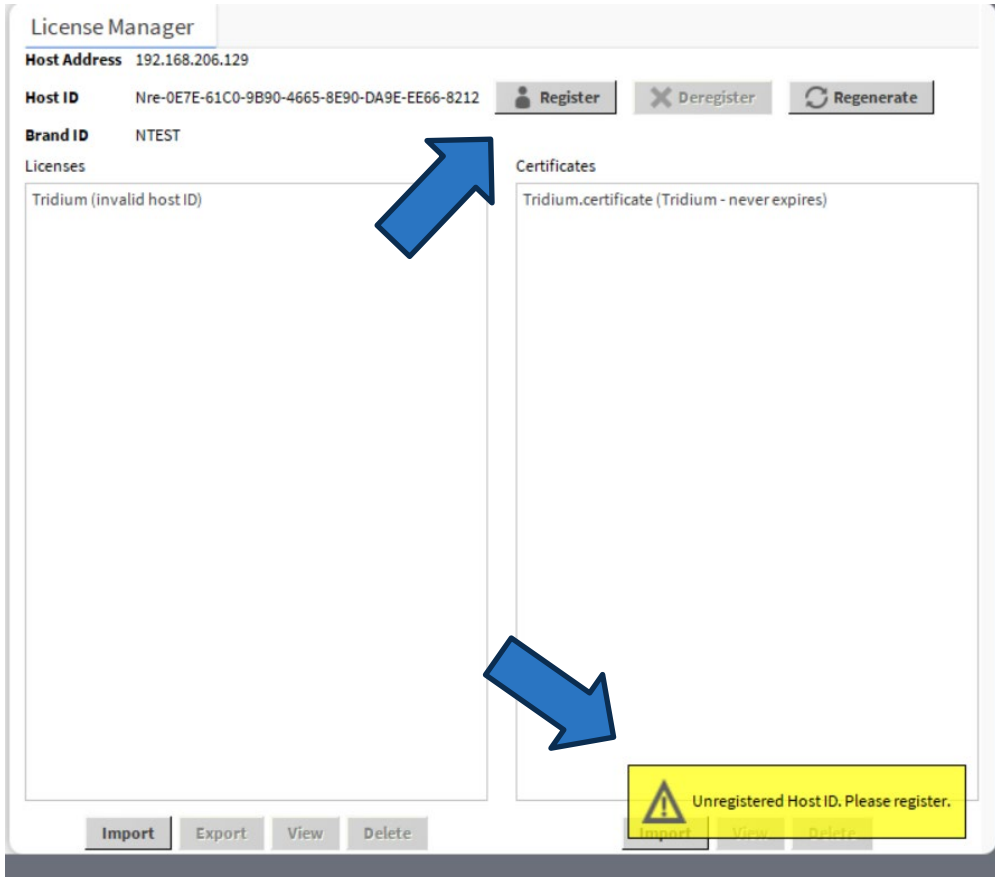
Platform License Manager



1. Using Workbench, connect to the **running Docker Niagara Container**.
2. Navigate to the **License Manager**.

- **Note:** When the Niagara container is running, the platform will always run regardless of a subscription.

Platform License Manager

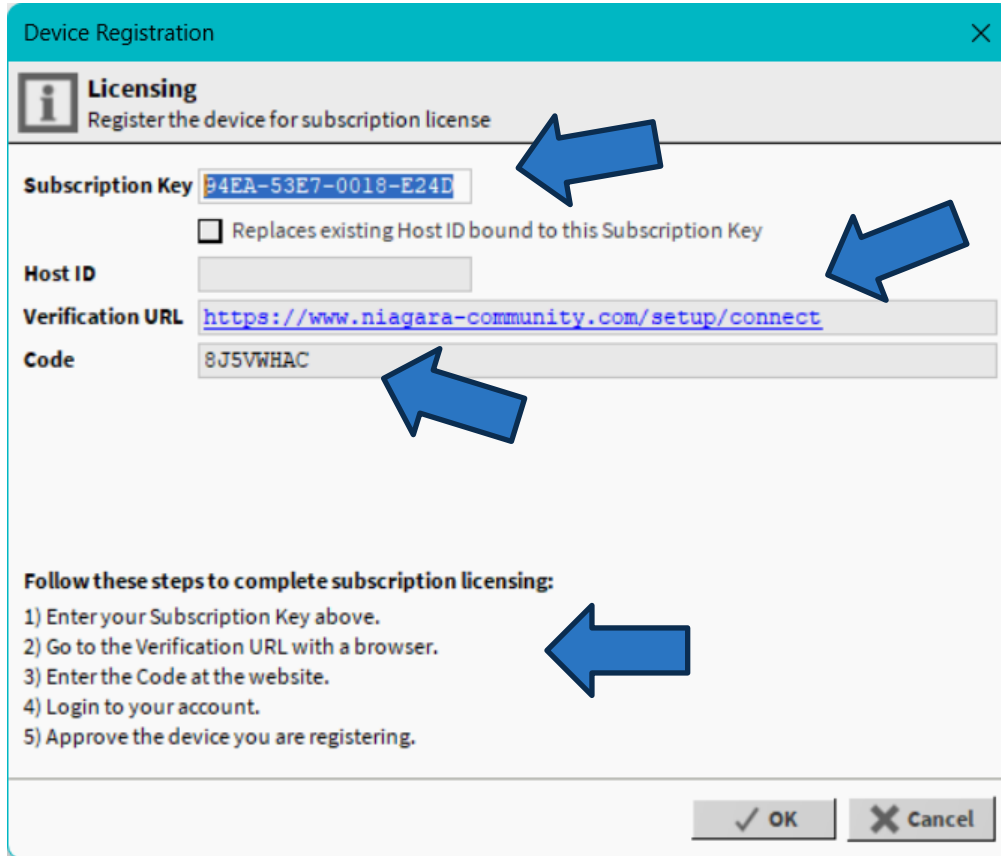


- Note the Yellow Unregistered Notice at the bottom of the License Manager.
- Note the Host ID, Nre designates a subscription Host ID.

1. Press the active **Register** button next to the Host ID.

- Note: On first launch, a Host ID will be automatically generated.
- The Regenerate button will create a new random Host ID replacing the previously generated one .
- This is available in case you need to regenerate a new Host ID that has been cloned.

Platform License Manager



The screenshot shows a 'Device Registration' window with a teal header. Below the header is a 'Licensing' section with an information icon and the text 'Register the device for subscription license'. The main area contains four input fields: 'Subscription Key' (with the value '94EA-53E7-0018-E24D'), 'Host ID' (empty), 'Verification URL' (with the value 'https://www.niagara-community.com/setup/connect'), and 'Code' (with the value '8J5VWHAC'). A checkbox labeled 'Replaces existing Host ID bound to this Subscription Key' is located between the Subscription Key and Host ID fields. At the bottom, there is a section titled 'Follow these steps to complete subscription licensing:' followed by five numbered steps. The window has 'OK' and 'Cancel' buttons at the bottom right. Four blue arrows are overlaid on the image, pointing to the Subscription Key field, the Host ID field, the Code field, and the instructions section.

Device Registration

Licensing
Register the device for subscription license

Subscription Key

☐ Replaces existing Host ID bound to this Subscription Key

Host ID

Verification URL

Code

Follow these steps to complete subscription licensing:

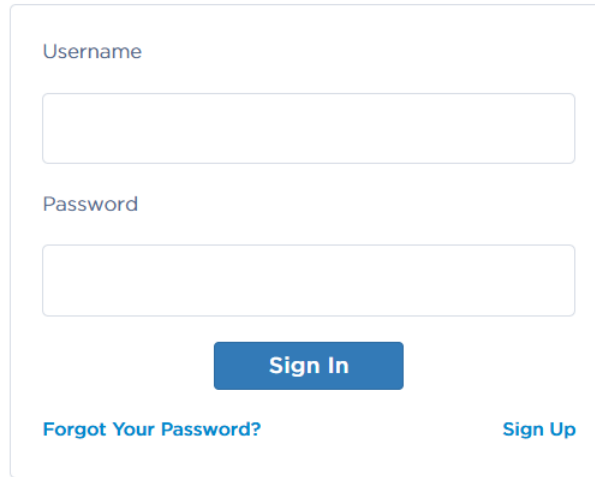
- 1) Enter your Subscription Key above.
- 2) Go to the Verification URL with a browser.
- 3) Enter the Code at the website.
- 4) Login to your account.
- 5) Approve the device you are registering.

✓ OK ✗ Cancel

1. Enter Your **subscription key** into the Subscription Key field.
 - The Host ID is locked because one was automatically created. This will unlock if you check the Replace check box and enter the Old Host ID in this field.
 2. **Copy the code** from the Code field.
 - Use this code on the registration page via the URL.
 - This code is only valid for 20 minutes. If the code expires, just cancel and register again.
 3. **Click the Verification URL** to launch the Connect page.
- **Note:** Do not click the **OK** button until you have completed the linking process via the URL.
 - Follow the steps listed in the Device Registration window.

Verification via the supplied URL

1. Enter your community **username** and **password**.



A login form with a light gray border. It contains two input fields: the first is labeled 'Username' and the second is labeled 'Password'. Below the password field is a blue button with the text 'Sign In'. At the bottom left of the form is a link that says 'Forgot Your Password?' and at the bottom right is a link that says 'Sign Up'.

Note: A community user will need to be created before you attempt to register a container device.

Verification via the supplied URL



Enter Code

Enter the 8-digit code from the device or app you're connecting.

Code

[Cancel](#) [Connect](#)

1. Enter the **Code** you copied from the Device Registration window.
2. Click **Connect**.

- NOTE: This code is only valid for 20 minutes. If the code expires, just cancel and register again.

Verification via the supplied URL



Allow Access?

NiagaraEntServerDeviceAuth is asking to:

- Access the identity URL service
- Perform requests at any time

Do you want to allow access for
kevin.mamajek@tridium.com? (Not you?)

Deny

Allow

To revoke access at any time, go to your personal settings.

Caution: You have granted access to this application 5 times, which is the limit. Approving this request automatically revokes your oldest approval. To avoid revoking your oldest approval, deny this request or manually revoke an approval in your personal settings.

1. Click **Allow**.

Note: This will connect your subscription key with the Host ID that was automatically generated within Workbench.

Verification via the supplied URL



You're Connected

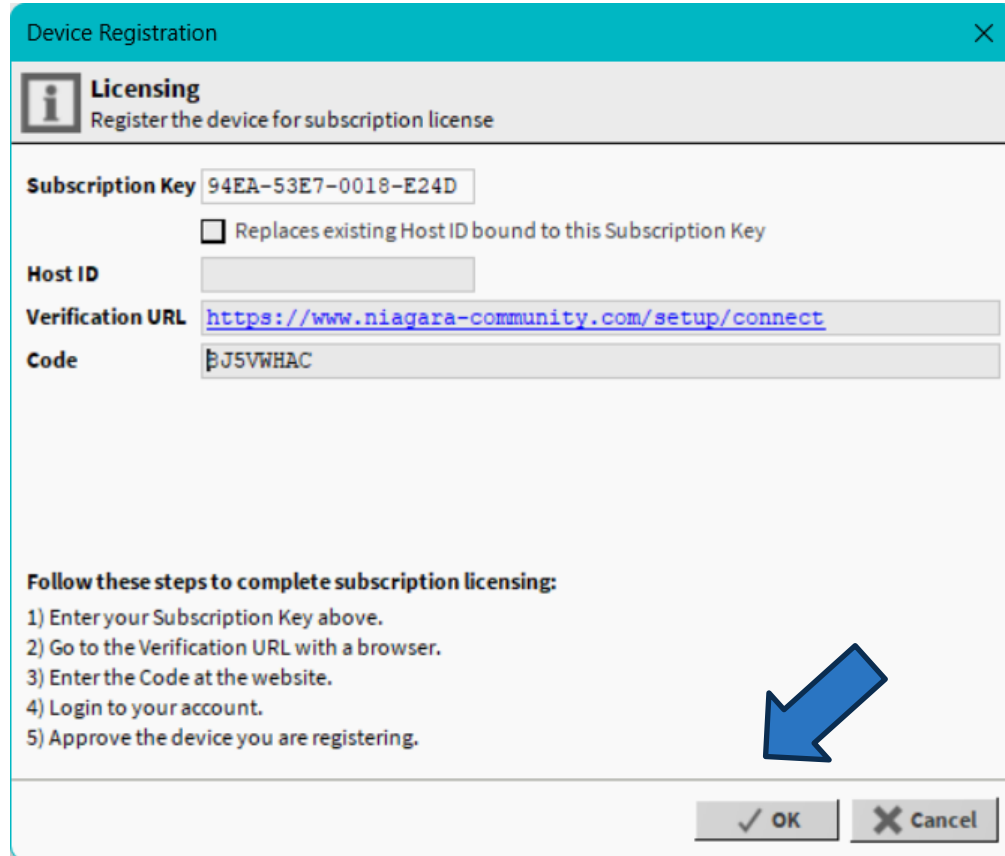
Your device or app is now connected to
kevin.mamajek@tridium.com.

Log Out

Continue

1. The registration is now complete on the licensing server.
2. Now **return** to the **Workbench** application and click the OK button to pull the license to the container.

Return to Workbench



The screenshot shows a 'Device Registration' window with a teal header and a close button. The 'Licensing' section is active, displaying fields for 'Subscription Key' (94EA-53E7-0018-E24D), 'Host ID' (empty), 'Verification URL' (https://www.niagara-community.com/setup/connect), and 'Code' (PJ5VWHAC). A checkbox for 'Replaces existing Host ID bound to this Subscription Key' is unchecked. Below the fields, a list of five steps guides the user through the licensing process. A large blue arrow points from the steps towards the 'OK' button at the bottom right.

Device Registration

Licensing
Register the device for subscription license

Subscription Key: 94EA-53E7-0018-E24D

☐ Replaces existing Host ID bound to this Subscription Key

Host ID:

Verification URL: <https://www.niagara-community.com/setup/connect>

Code: PJ5VWHAC

Follow these steps to complete subscription licensing:

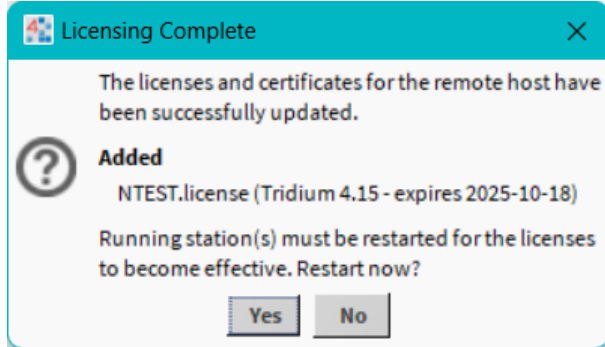
- 1) Enter your Subscription Key above.
- 2) Go to the Verification URL with a browser.
- 3) Enter the Code at the website.
- 4) Login to your account.
- 5) Approve the device you are registering.

✓ OK ✕ Cancel

1. When **returning** from the web registration process that was **successful**, you can now click **OK**.

Workbench: Licensing Complete

1. You will receive a **Licensing Complete** message.
2. Click **Yes** to reboot the container.



Workbench: License Manager

License Manager

Host Address 192.168.206.129

Host ID Nre-0E7E-61C0-9B90-4665-8E90-DA9E-EE66-8212

Brand ID NTEST

Licenses

Certificates

NTTEST.license (Tridium 4.15 - expires 2025-10-18)

Tridium.certificate (Tridium - never expires)

Import Export View Delete

Import View Delete

1. The Container is now registered and will allow for the station to start up.

Note:

- Register is now inactive.
- Deregister is now active.

Active Key and Host ID Subscription



Nre-OE7E-61C0-9B90-4665-8E90-DA9E-EE66-8212 [Active]

BUY OPTION

SELL OPTION

RENEW

MORE ▾

Model : [NTEST-J-CPN-0025](#)

Brand : [Niagara Test](#)

Subscription License Key :
{94EA-53E7-0018-E24D}

Capacity : 2500

Country : United States



Name : Kevin Mamajek VM

Owner : Tridium, Inc.

NiCS : [OPEN](#) *Inherited from Brand*

Expiration : Oct 18, 2025

Service Provider : Niagara Smart Buildings

End User Org : NSB Systems Engineering

Order : [\(Unbilled\)](#) /
ignore_Tridium_Internal_Testing

Version : 4.13 - N4

Unre. SW Access Exp. Date : -

Options

NCS Details

Users

Notes

Audit

RENEW