



# Tanium™ Containers Deployment Guide

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# Overview

With Tanium™ Containers, you can extend the visibility of the Tanium™ Core Platform to containers that run on the endpoints in your environment. Tanium Containers provides:

- Container orchestration software versions
- Cloud-based container service information
- Runtime visibility to containers
- Validation that the correct container images are in use
- Insight into container configuration and permissions
- Visibility into container network connectivity

## Tanium™ Client Container

To use the Tanium Core Platform to monitor containers on endpoints in an enterprise deployment, install and configure the Tanium™ Client Container on those endpoints. The Tanium Client Container is a containerized version of the Tanium Client that provides visibility into running containers in orchestrated worker environments. The Tanium Client Container also includes tools to query and parse data from the running containers to provide data to the sensors from the Containers solution.

The Tanium Client Container runs directly on container nodes and is compliant with the Open Container Initiative (OCI).



The Tanium Client that runs inside the Tanium Client Container is not upgradable. To switch to a new version of the Tanium Client in the Tanium Client Container, download a new version of the Tanium Client Container image, load it into your registry, and re-apply the Tanium Client Container DaemonSet described in [Installing Tanium Containers on page 11](#).

## Operating modes

The Tanium Client Container runs in one of two modes: *client mode* and *tools mode*. The Tanium Client Container automatically chooses a mode at runtime.

### Client mode

The Tanium Client Container operates in client mode if the Kubernetes worker node does not already have a Tanium Client. In client mode, the Tanium Client Container communicates directly with the Tanium Server as a Tanium Client.



When in client mode, the Tanium Client Container only responds to sensors in the Tanium Containers solution. This prevents the Tanium Server from treating the Tanium Client Container as a traditional endpoint. The Tanium Client Container is a Tanium Client but, as a container, it is not a traditional endpoint that runs packages or contains endpoint tools installed by Tanium solutions.

## Tools mode

The Tanium Client Container operates in tools mode if the Kubernetes node already contains a Tanium Client. In tools mode, the Tanium Client Container provides tools to query and parse data from running containers to the existing Tanium Client. The Tanium Client Container continues to run as a paused container. In this mode, the existing Tanium Client responds to container sensors in addition to general (non-container) sensors.

## Integration with other Tanium products

Containers has integration with Tanium™ Trends for additional reporting of related data.

### Trends

Trends features a **Containers** board that shows container usage across the environment. The following panels are in the **Containers** board:

- Running Containers
- Running Pods
- Vendor
- Kubernetes Service
- Kubernetes Version
- Node Operating System
- Container Runtime
- Container Runtime Version
- Container Image Hash
- Privileged Containers
- Container Breaching Paving Policy
- Multi-Process Containers

For more information about how to import the Trends boards that are provided by Containers, see [Tanium Trends User Guide: Importing the initial gallery](#).

# Getting started

## Step 1: Review the requirements

Review the Tanium requirements and supported container configurations. See [Tanium Containers requirements on page 9](#).

## Step 2: Obtain the Tanium™ Client Container

To use the Tanium Core Platform to monitor containers on endpoints in an enterprise deployment, install and configure the Tanium Client Container on those endpoints. See [Obtain the Tanium Client Container on page 11](#).

## Step 3: Import the Containers solution on the Tanium Server

To ask container-related questions through Tanium™ Interact and the Tanium™ Console, import the Containers solution. See [Import the Containers solution on the Tanium Server on page 11](#).

## Step 4: Install and configure the Tanium Client Container

Set up and configure the Tanium Client Container on your container environment nodes. See [Install and configure the Tanium Client Container on page 11](#).

## Step 5: Verify the installation

Ask a question that uses a sensor from the Containers solution to verify the hosts with the Tanium Client Container respond to the Tanium Server. See [Verify Containers on page 18](#).

## Step 6: Explore the Containers solution

Explore the sensors in the Containers solution to see which questions are available in Interact and the Tanium Console. See [Reference: Tanium Containers sensors on page 21](#).

## Step 7: Monitor Containers metrics

From the Trends menu, go to Boards and then click **Containers** to view the number of **Running Containers** and **Running Pods** and the **Container Inventory** and **Container Hygiene** sections.



# Tanium Containers requirements

Review the requirements before you install and use Tanium Containers.

## Core platform dependencies

Make sure that your Tanium™ Core Platform servers are 7.4.1 or later. You need access to the `tanium-init.dat`.

## Solution dependencies

Other Tanium solutions are required for Containers to function (required dependencies) or for specific Containers features to work (feature-specific dependencies).

### Required dependencies

Containers has the following required dependencies at the specified minimum versions:

- Tanium™ [Interact](#) 2.4.50 or later. Queries the Container sensors.

### Feature-specific dependencies

Containers has the following feature-specific dependencies at the specified minimum versions:

- Tanium™ [Trends](#) 3.6 or later. Used to view the Containers board.

## Third-party software

Tanium Containers supports the following container versions in on-premises and cloud environments.



IMPORTANT

Confirm that the Tanium Client Container is hosted on a private container registry to securely provide the Tanium Client Container image. Do not host the image on a public container registry.

| Software          | Requirement   | Supported runtime environments  |
|-------------------|---------------|---|
| Kubernetes        | 1.15 or later | <ul style="list-style-type: none"> <li>Use Linux-based worker nodes with the following operating systems (OSes): <ul style="list-style-type: none"> <li>Bottlerocket</li> <li>CoreOS</li> <li>Ubuntu</li> <li>Any Linux OS supported by the Tanium Client. For more information, see <a href="#">Tanium Client Management User Guide: Client version and host system requirements</a>.</li> </ul> </li> <li>Use a private container registry or similar to provide the Tanium Client Container to the worker nodes.</li> <li>Use Containerd, cRIO, or Docker as the container runtime.</li> </ul> |
| Red Hat OpenShift | 3.x or later  | <ul style="list-style-type: none"> <li>Red Hat Enterprise Linux (RHEL)</li> <li>Red Hat Enterprise Linux CoreOS (RHCOS)</li> </ul>  |

## Host and network security requirements

Specific ports and processes are needed to run Containers.

### Ports

The following ports are required for Containers communication.

| Source        | Destination              | Port  | Protocol | Purpose                                      |
|---------------|--------------------------|-------|----------|--|
| Module Server | Module Server (loopback) | 17527 | TCP      | Internal purposes; not externally accessible |



BEST PRACTICE

Configure firewall policies to open ports for Tanium traffic with TCP-based rules instead of application identity-based rules. For example, on a Palo Alto Networks firewall, configure the rules with service objects or service groups instead of application objects or application groups.

# Installing Tanium Containers

Perform the following steps to import the Containers solution on the Tanium™ Server, and to obtain, install, and configure the Tanium Client Container on endpoints with container images.

## Before you begin

- Read the [release notes](#).
- Review the [Tanium Containers requirements on page 9](#).

## Obtain the Tanium Client Container

The Tanium Client Container ZIP file is included in the Linux installer bundle (`linux-client-bundle.zip`) that you download through Tanium Client Management 1.8 or later. For instructions, see [Tanium Client Management User Guide: Download installation packages for the Tanium Client](#).

If you have an older version of Tanium Client Management, [Contact Tanium Support on page 20](#) to obtain a download link for the Tanium Client Container ZIP file.

## Import the Containers solution on the Tanium Server

Perform the following steps to install the Containers solution on the Tanium Server.



NOTE

If you have multiple Tanium Servers in an active-active configuration, you only need to perform these steps on one Tanium Server if you have Tanium Core Platform 7.4.3.1204 or later. Otherwise, perform these steps on each Tanium Server.

1. Sign in to the Tanium Console with an administrator account.
2. From the Main menu, go to **Administration > Configuration > Solutions**.
3. In the **Content** section, select the checkbox for **Containers** and click **Install**.
4. Review the content to import and click **Begin Install**.
5. If prompted, click **Yes** to confirm the action.

## Install and configure the Tanium Client Container

Use the following steps to set up and configure the Tanium Client Container on your container environment nodes. The steps are the same for both nodes that contain the Tanium Client and nodes that do not have an existing Tanium Client. The Tanium Client Container automatically detects an existing Tanium Client on the host and selects the appropriate operating mode. For more information, see [Operating modes on page 6](#).



The commands provided in this section are examples. Make sure to adjust your own commands to match your environment.



The following examples use an Amazon Elastic Kubernetes Service (EKS) environment in region `us-west-1` with the account `12345678` and the AWS username `awsadmin`. The concepts apply to any Kubernetes environment. Additionally, the examples use `tanium/tcc` as the name of the Tanium Client Container image and `tcc` for the name of the Kubernetes app. Adjust your own commands accordingly.

## Unzip the Tanium Client Container ZIP file

Move or copy the ZIP file into your preferred directory or folder, and then extract the contents of the file.

Docker example:

```
docker image load --input tanium-client-container-2.0.1-7.4.5.1204.tar
```

CTR example:

```
ctr image import "Tanium-client-container-2.0.1-7.4.5.1204.tar"
```

## Validate the Tanium Client Container import

Validate the Tanium Client Container image before registering it with your private container registry.

1. View the labels for the Tanium Client Container image. For example:

```
docker images --filter 'label=org.opencontainers.image.vendor'
```

2. Confirm that the Tanium Client Container version number in the zip and the `tcc` tag match. For example, with `tanium-client-container-2.0.2-7.4.7.1094.zip`, the tag should be `2.0.2-7.4.7.1094`.

## Push the Tanium Client Container to the image registry

Use the following steps to register the Tanium Client Container image with your private container registry.

1. Authenticate your local Docker command with the EKS registry. For example:

```
$ aws ecr get-login-password --region us-west-1 | docker login --username  
awsadmin --password-stdin 12345678.dkr.ecr.us-west-1.amazonaws.com
```

2. Tag the Tanium Client Container image in the registry. For example:

```
$ docker tag tanium/tcc:latest 12345678.dkr.ecr.us-west-1.amazonaws.com/tcc:latest
```

3. Push the image to the registry. For example:

```
$ docker push 12345678.dkr.ecr.us-west-1.amazonaws.com/tcc:latest
```



Some registries require you to create the repository beforehand and do not allow you to push images that are not configured.

## Configure the Tanium Client Container

Perform the following steps to configure your Kubernetes environment.

### CONFIGMAP

The Tanium Client Container requires two environment variables: `CONTAINER_RUNTIME` and `CONTAINER_RUNTIME_ENDPOINT`.

- The `CONTAINER_RUNTIME` variable must be `docker`, `containerd`, or `crio`. The value must match your Kubernetes environment.
- The `CONTAINER_RUNTIME_ENDPOINT` variable must point to the CRI-compatible container socket that is used by your container runtime.

Create a `configmap.yaml` file such as the following example to declare the metadata and environment variables for the Tanium Client Container. You can also use the configuration file to apply ENV variables to the Tanium Client as well as the log level.

```
---
apiVersion: v1
kind: ConfigMap
metadata:
  name: tcc-config
  namespace: default
  labels:
    app: tcc
data:
  CONTAINER_RUNTIME: "docker"
  CONTAINER_RUNTIME_ENDPOINT: "unix:///var/run/docker.sock"
```

## SECRET

The Tanium Client Container requires the `tanium-init.dat` initialization file from the Tanium Server. The `tanium-init.dat` file allows Tanium Clients to register with the Tanium Server and use the Tanium Zone Server settings. For instructions on how to download the `tanium-init.dat` initialization file from the Tanium Server, see [Tanium Client Management User Guide: Configure client settings](#).

After you download the `tanium-init.dat` initialization file, use the following command to verify the Tanium Servers in the `server name list` in the file:

```
# TaniumClient pki show ./tanium-init.dat --verbose
```



TIP

You can override the values in the `tanium-init.dat` file, if necessary. See [Override tanium-init.dat configuration on page 17](#).

To securely allow the Tanium Client Container access to the contents of the `tanium-init.dat` file, generate a Kubernetes secret. For example:

```
$ kubectl create secret generic tanium-init --from-file tanium-init.dat --output=yaml --dry-run=client > secret-tanium-init.yaml
```



IMPORTANT

Be careful not to allow the `tanium-init.dat` file to be distributed or stored outside of your organization, such as in a publicly accessible source code repository or any other location accessible from the public internet. Limit the distribution to specific use in the deployment of Tanium Clients and the Tanium Client Container.

Though the `tanium-init.dat` file does not contain private keys and cannot be used to provide control over a Tanium environment, a user with malicious intent could use the file to connect an unapproved client and use this unauthorized access to learn how your organization uses Tanium.



TIP

In Tanium Core Platform 7.4.1 or later, you can also retrieve the `tanium-init.dat` file from the Tanium Server through the REST API.

## DAEMONSET

A Kubernetes DaemonSet is a special container configuration that is automatically created for each node. The DaemonSet is commonly used for metrics, logging, and security tooling.

The DaemonSet configuration declares how the Tanium Client Container runs and combines data from the `configmap` and `secret`.



IMPORTANT

The Tanium Client Container must run in privileged mode; be sure to limit access to the Tanium Client Container.

Create a `daemonset.yaml` file that declares essential configurations and volume mounts to allow the Tanium Client Container to function properly. For example:

```
---
apiVersion: apps/v1
kind: DaemonSet
metadata:
  name: tcc
  namespace: default
  labels:
    app: tcc
spec:
  selector:
    matchLabels:
      app: tcc
  template:
    metadata:
      labels:
        app: tcc
    spec:
      hostIPC: false
      hostPID: true
      hostNetwork: true
      restartPolicy: Always
      containers:
        - name: tcc
          image: 12345678.dkr.ecr.us-west-1.amazonaws.com/tcc:latest
          imagePullPolicy: Always
          volumeMounts:
            - name: tanium-init-volume
              mountPath: /opt/Tanium/init
              readOnly: true
            - name: host-var-run
              mountPath: /host/var/run
            - name: host-run
```

```
    mountPath: /host/run
  - name: host-root
    mountPath: /host/root
    readOnly: true
env:
  - name: CONTAINER_RUNTIME
    valueFrom:
      configMapKeyRef:
        name: tcc-config
        key: CONTAINER_RUNTIME
  - name: CONTAINER_RUNTIME_ENDPOINT
    valueFrom:
      configMapKeyRef:
        name: tcc-config
        key: CONTAINER_RUNTIME_ENDPOINT
securityContext:
  runAsUser: 0
  runAsGroup: 0
  privileged: true
volumes:
  - name: tanium-init-volume
    secret:
      secretName: tanium-init
      defaultMode: 0400
  - name: host-var-run
    hostPath:
      path: /var/run
      type: Directory
  - name: host-run
    hostPath:
      path: /run
      type: Directory
  - name: host-root
    hostPath:
```



```
path: /  
type: Directory
```

## OVERRIDE TANIUM-INIT.DAT CONFIGURATION

If the Tanium Client Container is in an environment with a different Tanium Server configuration than what is included in the `tanium-init.dat` file, you can override the `tanium-init.dat` configuration by adding environment variables in the `daemonset.yaml` or `configmap.yaml` files. You can use the following environment variables:

- `TANIUM_CLIENT_LISTEN_PORT`
- `TANIUM_CLIENT_LOG_LEVEL`
- `TANIUM_SERVER_LIST`
- `TANIUM_SERVER_PORT`

For example:

```
- name: TANIUM_CLIENT_LOG_LEVEL  
  value: 11
```

## Deploy the Tanium Client Container

With the **kubectl** command configured for your cluster environment, apply each of the YAML files. For example:

```
$ kubectl apply --filename="secret-tanium-init.yaml"
```

```
$ kubectl apply --filename="configmap.yaml"
```

```
$ kubectl apply --filename="daemonset.yaml" --selector="app=tcc"
```

When complete, the Tanium Client Container should be applied to your Kubernetes environment, each existing node creates a container with the Tanium Client Container, and each new node now runs a Tanium Client Container container as part of the creation process. You can verify the DaemonSet of the Tanium Client Container with the following command:

```
$ kubectl get --selector="app=tcc" daemonsets
```

## Verify Containers

After you install the Containers solution on the Tanium Server and install the Tanium Client Container on at least one container host, use the **Is Managed Container Host** sensor to verify the Tanium Server retrieves results from the Tanium Client Container.

1. Sign in to the Tanium Server as a user with the Administrator reserved role, or a user with the **Ask Dynamic Questions** permission.
2. On the Tanium **Home** page, enter the following question in the **Explore Data** field:

```
Get Is Managed Container Host
```

3. Click **Search**.

The **Question Results** page opens to show answers from endpoints.

- Endpoints that are container hosts with the Tanium Client Container respond with **True**.
- Endpoints that are not container hosts with the Tanium Client Container do not respond and appear as **[no results]**.

Verify that there are one or more **True** responses to confirm that the Tanium Client Container responds.

## What to do next

- In Trends, click **Boards > Containers** to monitor metrics.
- See [Reference: Tanium Containers sensors on page 21](#) for a list of sensors in the Containers solution.

# Troubleshooting

If you encounter unexpected behavior with Tanium Containers, use the information contained here to troubleshoot the issue.



The troubleshooting examples use `tanium/tcc` as the name of the Tanium Client Container image and `tcc` for the name of the Kubernetes app. Adjust your own commands accordingly.

## Unable to view or select content

In environments that enable role-based access control (RBAC), users cannot access content to which they do not have permission. Sensors are among those objects that are managed through RBAC. If you are unable to access sensors in the Tanium Containers solution, make sure your user account has sufficient permission to the **Containers** content set.

- You must have read permission to the **Containers** content set to view sensors in the Tanium Containers solution.
- You must have write permission to the **Containers** content set to add, edit, or delete sensors in the Tanium Containers solution.
- You must have the **Trends API Board** read, **Trends Data** read, and **Trends** show permissions to the **Trends** content set to view the Containers board in Trends.

## Gather details for the Tanium Client Container

If you experience issues when you deploy or run the Tanium Client Container on endpoints, use the **describe** command to view details for the Tanium Client Container. For example:

```
kubectl describe daemonset.apps/tcc
```

For more information and options, see the [describe command in the Kubernetes command reference](#).

## Uninstall the Tanium Client Container

Run the following commands to uninstall the Tanium Client Container from the Kubernetes nodes:

```
kubectl delete daemonset.apps/tcc --wait=true --cascade=foreground
```

```
kubectl delete configmap/tcc --wait=true
```

```
kubectl delete secret/tanium-init --wait=true
```

## Uninstall the Tanium Containers solution

Perform the following steps to remove the Tanium Containers solution from the Tanium Server.



If you have multiple Tanium Servers in an active-active configuration, you only need to perform these steps on one Tanium Server if you have Tanium Core Platform 7.4.3.1204 or later. Otherwise, perform these steps on each Tanium Server.

1. Sign in to the Tanium Console as a user with the Administrator role.
2. From the Main menu, go to **Administration > Configuration > Solutions**.
3. In the **Content** section, select the checkbox for **Containers** and click **Uninstall**.
4. Review the summary and click **Yes**.

## Contact Tanium Support

To contact Tanium Support for help, sign in to <https://support.tanium.com>.

# Reference: Tanium Containers sensors

Use the sensors contained in the Containers solution to retrieve information from the containers in the environment.

- Tanium Client Containers that run in client mode only respond to sensors in the Containers solution.
- Tanium Client Containers that run in tools mode respond to the sensors in the Containers solution, while the Tanium Clients on the Kubernetes worker nodes respond to non-container sensors.



Because containers are intended to be temporary, the sensors in the Containers solution cannot be registered with the Tanium Data Service. For more information on the Tanium Data Service, see [Tanium Console User Guide: Manage sensor results collection](#).

## Container Host Operating System

**Category:** Containers

Returns the Operating System generation of a managed container host.

### Columns

| Name                            | Description | Type | Hidden |
|---------------------------------|-------------|------|--------|
| Container Host Operating System |             | Text | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Image

**Category:** Containers

Returns information about the images used to instantiate running containers.

### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

## Columns

| Name           | Description | Type | Hidden |
|----------------|-------------|------|--------|
| Container ID   |             | Text | No     |
| Name           |             | Text | No     |
| Image SHA256   |             | Text | No     |
| Image Location |             | Text | No     |
| POD ID         |             | Text | No     |
| Privileged?    |             | Text | No     |
| Labels         |             | Text | No     |
| Process Path   |             | Text | No     |
| Process Args   |             | Text | No     |

## Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Image Name

**Category:** Containers

Returns the names of images used to instantiate running containers.

## Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Labels

**Category:** Containers

Returns labels defined for running containers.

## Columns

| Name         | Description | Type | Hidden |
|--------------|-------------|------|--------|
| Container ID |             | Text | No     |
| Labels       |             | Text | No     |

#### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Name with Image Hash

**Category:** Containers

Returns the names and hashes of images (not containers, but the template used to instantiate the container).

#### Columns

| Name         | Description | Type | Hidden |
|--------------|-------------|------|--------|
| Container    |             | Text | No     |
| Image SHA256 |             | Text | No     |

#### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Network

**Category:** Containers

Returns network details for running containers.

#### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

#### Columns

| Name           | Description | Type | Hidden |
|----------------|-------------|------|--------|
| Container ID   |             | Text | No     |
| Protocol       |             | Text | No     |
| Local Address  |             | Text | No     |
| Remote Address |             | Text | No     |
| Created        |             | Text | No     |
| State          |             | Text | No     |
| PID            |             | Text | No     |
| Application    |             | Text | No     |
| Command Line   |             | Text | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container PID Count

**Category:** Containers

Returns the number of Process IDs (PIDs) for running containers.

### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

### Columns

| Name         | Description | Type    | Hidden |
|--------------|-------------|---------|--------|
| Container ID |             | Text    | No     |
| Name         |             | Text    | No     |
| PID Count    |             | Numeric | No     |



### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Running Processes

**Category:** Containers

Returns process details for running containers.

### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

### Columns

| Name            | Description | Type | Hidden |
|-----------------|-------------|------|--------|
| Container ID    |             | Text | No     |
| Executable Path |             | Text | No     |
| Command         |             | Text | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Runtime

**Category:** Containers

Provides detail regarding the executor of the containers, the "Container Runtime."

### Columns

| Name                   | Description | Type | Hidden |
|------------------------|-------------|------|--------|
| Container Runtime Name |             | Text | No     |

| Name                          | Description | Type | Hidden |
|-------------------------------|-------------|------|--------|
| Container Runtime Version     |             | Text | No     |
| Container Runtime API Version |             | Text | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Stats

**Category:** Containers

Provides runtime resource utilization statistics for running containers.

### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

### Columns

| Name              | Description | Type      | Hidden |
|-------------------|-------------|-----------|--------|
| Container ID      |             | Text      | No     |
| Name              |             | Text      | No     |
| CPU Percentage    |             | Numeric   | No     |
| Memory Percentage |             | Numeric   | No     |
| Memory Limit      |             | File Size | No     |
| Network TX        |             | File Size | No     |
| Network RX        |             | File Size | No     |
| Disk Read         |             | File Size | No     |
| Disk Write        |             | File Size | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Container Uptime

**Category:** Containers

Provides information regarding the age of running containers.

### Parameters

| Name         | Description   | Type | Possible / Default values |
|--------------|---|------|---------------------------|
| Container ID | If specified, only return data for the specified container ID. Otherwise, return data for all containers. | Text |                           |

### Columns

| Name         | Description | Type          | Hidden |
|--------------|-------------|---------------|--------|
| Container ID |             | Text          | No     |
| Name         |             | Text          | No     |
| Uptime       |             | Time Duration | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Is Managed Container Host

**Category:** Containers

Identifies managed endpoints that are container hosts and have the TCC/TCC tools.

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Is Tanium Client Container

**Category:** Containers

Returns **True** if the Tanium Client runs in a Tanium Client Container, **False** otherwise. Windows, macOS, Solaris, and AIX endpoints always return **False**.

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |
| macOS    | Shell      |
| Windows  | VBScript   |

## Kubernetes Environment

**Category:** Containers

Identifies the Kubernetes environment details, typically of the cloud provider.

### Columns

| Name                    | Description | Type | Hidden |
|-------------------------|-------------|------|--------|
| Infrastructure Provider |             | Text | No     |
| Kubernetes Product      |             | Text | No     |
| Kubernetes Version      |             | Text | No     |
| Kubernetes Service Host |             | Text | No     |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Kubernetes Pods

**Category:** Containers

Enumerates all Kubernetes running pods including those typically hidden from view.

### Columns

| Name      | Type | Description |
|-----------|------|-------------|
| Pod ID    | Text |             |
| Name      | Text |             |
| Namespace | Text |             |
| Status    | Text |             |
| Created   | Text |             |
| Attempt   | Text |             |
| Runtime   | Text |             |

### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Running Containers

**Category:** Containers

Identifies all running containers, including those hidden and unknown to the orchestration layer (such as System or Rogue containers).

### Parameters

| Name                     | Description   | Type     | Possible / Default values |
|--------------------------|---|----------|---------------------------|
| Show unorchestrated only | Show containers that are running on the host, but not reported by the orchestrator. | Checkbox | Unchecked                 |
| Hide pause containers    | Hide pause containers<br><code>/pause</code> and<br><code>/usr/bin/pod</code>       | Checkbox | Unchecked                 |

### Columns

| Name         | Description | Type | Hidden |
|--------------|-------------|------|--------|
| Container ID |             | Text | No     |
| Runtime      |             | Text | No     |

| Name         | Description | Type    | Hidden |
|--------------|-------------|---------|--------|
| Source       |             | Text    | No     |
| Status       |             | Text    | No     |
| Created      |             | Text    | No     |
| Pid          |             | Text    | No     |
| MD5Sum       |             | Text    | No     |
| RootFS       |             | Text    | No     |
| OS           |             | Text    | No     |
| Pid Count    |             | Integer | No     |
| LWP Count    |             | Integer | No     |
| Arguments    |             | Text    | No     |
| Orchestrated |             | Text    | No     |

#### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |

## Tanium Client Container Version

**Category:** Containers

Returns the version of the Tanium Client Container.

#### Supported Platforms

| Platform | Query Type |
|----------|------------|
| Linux    | Shell      |