Nomad Download Pause

Summary

Nomad integrates with Tachyon to enable pausing or resuming Nomad downloads throughout the estate. This feature provides a safety measure for situations when a faulty or harmful deployment is made by mistake. In such situations pausing Nomad downloads on all targeted devices can prevent or limit the potential damage. It can also be used to facilitate troubleshooting, making it possible to pause all Nomad downloads across the network and enable IT teams to eliminate content distribution from their assessment of network bandwidth usage.

> ⚠ Support for this feature was originally introduced in Tachyon 3.3 and requires the Tachyon client (Tachyon Agent or 1E Client) deployed to all the devices where you want the pause feature enabled.
>
> The latest version requires Tachyon 5.1 Server and a valid Tachyon license.

What is the Nomad Download Pause feature?

The Nomad Download Pause feature lets you immediately pause or resume current and future Nomad downloads at the press of a button. It is integrated directly into the Configuration Manager console and lets you select the collections you want to control. The feature works by pausing Nomad's job queue and effectively pauses all downloads on that agent and those added later, until the queue is resumed. Tachyon is used as the medium to send the pause and resume actions to the devices in the selected collection in real-time.

The feature is designed with a fail-safe in mind such that when a pause is triggered it is only active *for the next 24 hours*. After 24 hours Nomad service automatically resumes the queue. This prevents the situation where a device receives a pause command but then fails to receive a corresponding resume command for an extended period due to network problems or because it is switched off.

Installing the Nomad Download Pause feature

This section shows you how to run the 1E Nomad Branch Admin Extensions installer.

Before you start

All users require the following permissions to install and use the 1E Nomad Branch Admin Extensions:

- Local administrator rights on the computer - to install the console extensions
- Configuration Manager console installed on the computer - to install and use the console extensions
- Configuration Manager user with **Full Administrator** rights - to be able to use the Download Pause feature
- ActiveEfficiency 1.10
  (or later) installed and working - you must know and enter the full URL for the ActiveEfficiency website in the installer

Preparation in Tachyon required to support Nomad Download Pause

The Nomad Download Pause feature requires Tachyon to be installed with some manual configuration steps to create a Nomad consumer, upload some Tachyon instructions and configure permissions to allow CM administrators to execute them. These steps should be completed by a user that has Global Admin role in Tachyon.

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1. Download the **1E Nomad** Product Pack from Tachyon Exchange (tachyonexchange.1e.com/product-packs/1e-nomad). This will download **1E-Nomad.zip** that you will upload to Tachyon in step 7.
2. In the Tachyon Portal, select **Switch App** and navigate to **Settings** > **Configuration** > **Consumers**
3. Click **Add** to open the Add consumer form
4. Enter the following values then click **Add** to create the Nomad consumer

Parameter	Value
Name	Nomad
Consumer URL (optional)	leave blank
Maximum simultaneous instructions	100
Offload target URL (optional)	leave blank
Offload timeout seconds (optional)	60
Use Windows Authentication	Enable
Enabled	Enable

5. Navigate to **Settings** > **Configuration** > **Instructions** > **Instruction Sets**
6. Click **Add new set** then enter the Name **1E Nomad** on the Add new instruction set form and click **Add**
7. Click the **Upload** button on the top right of the Instruction sets page and browse to the **1E-Nomad.zip** file downloaded in step 1. This will upload the Nomad instructions to the Unassigned instruction set.
8. Select the Unassigned instruction set, select all the Nomad instructions and click **Move**
9. On the Move instructions form, select **1E Nomad** as the destination instruction set and click **Move**
10. Navigate to **Settings** > **Permissions** > **Users** and add any Configuration Manager users that will need to use the Nomad Download Pause feature. These users will be added to the Nomad Admins role in step 15.
11. Navigate to **Settings** > **Permissions** > **Roles** and click **Add**, then enter the Name **Nomad Admins** on the Add role form and click **Add** to add the Nomad Admins role to the Roles table
12. Scroll down the Roles table and click on the **Nomad Admins** hyperlink then click **Add** on the Role: Nomad Admins page
13. On the Add permission form, select **Instruction set** from the Type drop-down, then select **1E Nomad** from the Name drop-down. Select **Actioner** and click **Add**
14. On the Role: Nomad Admins page, select the **Management groups** tab, click **Add**, select the **All Devices** management group and click **Add**
15. On the Role: Nomad Admins page, select the **Members** tab and add any users or groups that will need to use the Nomad Download Pause feature.

The animation displayed opposite shows an installation account ACME\CMAdmin01, confirmation of permissions in Configuration Manager, configuration of its permissions in Tachyon, and the installation of the 1E Nomad Branch Admin Extensions. The steps to take are described in the following headings:

Configuring the installation account permissions

To perform a successful installation the **full Configuration Manager administrator** account must be added to Tachyon and have the following roles set:

- Consumer Administrators
- Instruction Set Administrators
- Permissions Administrators

To configure Tachyon permissions:

1. Log on to Tachyon with an account with the Permissions Administrators role
2. On the Administration Permissions page click the add user icon to the right of the search field under the **Users** tab
3. In the edit field under **TACHYON PERMISSIONS** enter some characters from the full Configuration Manager administrator account name and click **Search**. Tachyon will search AD for a matching set of credentials.
4. There may be more than one match displayed in the dropdown list, select the required user and click **Ok**.
5. To add the three roles:
   a. Click the **Add role** button
   b. Select **Consumer Administrators** from the **Role** dropdown
   c. Click **Add role** again and do the same for the **Instruction Set Administrators** and **Permissions Administrators** roles
   d. Once the last role has been selected click **Save and Add** instead of **Add role**
   e. The user will then be saved to Tachyon. You can confirm by selecting the user just added and checking that it has the three required roles

Installing NomadBranchAdminUIExt.msi

The following steps describe how to run the 1E Nomad Branch Admin Extensions installer. See also Installing the Configuration Manager console extensions.

> ⚠ The Configuration Manager console **must not be running** when the 1E Nomad Branch Admin Extensions installer is run.

1. Using the full Configuration Manager account just added to Tachyon double-click on the **NomadBranchAdminUIExt.msi** file
2. The first page is the **Welcome** screen, just click **Next** to continue
3. On the **License Agreement** screen select the **I accept the terms in the license agreement** option in order to continue and click **Next**
4. The next screen, **Nomad Pre-Caching**, is used to configure the URL for the ActiveEfficiency Server, which supports that feature. In our example the ActiveEfficiency server is on the same server as Configuration Manager and Tachyon and is called **ACME-CM01**. So we just replace the **<server>** part of the text already in the edit field and end up with: **http://ACME-CM01/ActiveEfficiency** once the URL has been set click **Next** to continue, at this point the connection to ActiveEfficiency will be verified
5. On the **Nomad Tachyon Integration** screen (this is the setting you need for **Nomad Download Pause**) you will need to check the **Enable Tachyon Integration** checkbox before you can enter the base URL for the Tachyon API. This is in the format: **https://<Tachyon DNS alias FQDN>**. In our example the Tachyon DNS alias FQDN is **tachyon.acme.local**. So the text **https://tachyon.acme.local** needs to be entered into the **Tachyon API Root URL** edit field. When this has been added click **Next** to continue, at this point the connection to the Tachyon API will be verified
6. The next screen is **Ready to Install the Program**. Here you need to click the Install button to start the installation process
7. Depending on the UAC settings for your server you may be prompted for some Administrator account details during the installation process. Set any details required and click **Yes** to continue

8. If the installation is successful the **InstallShield Wizard Completed** screen will be displayed. You can check the **Show the Windows Installer log** checkbox to display a log of the installation process. To close the installer dialog click the **Finish** button.

> ⓘ The Tachyon API is Tachyon's Consumer API. You can learn more about Tachyon in Tachyon 5.1 documentation.

Confirming the Nomad Download Pause feature installation

It is good practice to confirm the installation of the **Nomad Download Pause** components in both Tachyon and Configuration Manager. The animation opposite illustrates the process described in the following headings:

Confirm the installation in Tachyon

1. Logon to Tachyon as a user with at least **Consumer Administrators, Instruction Set Administrators** and **Permissions Administrators** roles.
2. On the **Administration Consumers** page check the following:
   a. A **Nomad** consumer has been added
3. On the **Administration Instruction sets** page check the following:
   a. A **1E Nomad** instruction set exists, and contains two instructions:
      - **Pause the Nomad job queue for <PauseDurationMinutes> minutes**
      - **Resume the paused Nomad job queue**
4. On the **Administration Permissions** page check the following:
   a. On the Roles tab check that the **Nomad Admins** role has been created with **Actioner** permissions on the **1E Nomad** set
   b. Click on the **Management Groups** tab, and click on the **Add** button. Select **All Devices** in the **Add management group** popup, and then click **Add**.

   > ⓘ If other management groups are selected instead then members of this role can only use the instructions on devices belonging to those management groups.

   c. On the **Users** tab check that all Configuration Manager users and groups that have the **"Full Administrator"** role have been added to Tachyon as users.

   > ⚠ You may remove users if you know they do not require Tachyon permissions. However they will be re-added the next time the installer is run and the installation account has permissions to add users.
   >
   > You may add additional users and groups manually.

   d. Select each of the added Configuration Manager users in turn and check that they have the **Nomad Admins** role added

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> (i) These permissions ensure all current **"Full Administrators"** are able to use the **Noma d Download Pause** feature by allowing them to execute the Tachyon instructions. Any other users or groups will need to be manually added to the **Nomad Admins** role.

Confirm the installation in Configuration Manager

1. On the **Administration Client Settings** page check the following:
   a. Right-click on **Default Client Settings** and check that a **1E Nomad** sub-menu has been added to the context menu containing a **Nomad Properties** menu item
2. On the **Assets and Compliance Device Collections** page check the following:
   a. Two Nomad related buttons have been added to the **H ome** ribbon:
   i. **Pause Nomad Downloads**
      ii. **Resume Nomad Downloads**

If all these checks have passed you should have a working installation of the Nomad Download Pause feature.

Using the Nomad Download Pause feature

Pausing Nomad downloads

The Nomad Download Pause feature can be applied to a collection of devices. To do this:

1. Select the collection you want and click the **Pause Nomad Downloads** button or select the **Pause Nomad Downloads** menu item from the collection's right-click context menu
2. A **Nomad Job Queue Management** dialog will appear asking explaining the consequences of continuing. If you want to continue. Click **Yes** to proceed and **No** to cancel
3. If you click **Yes**, a **Pausing Nomad downloads** dialog will appear showing the progress of the process. This should reach 100% with no errors, at this point click **Done** to close the dialog
4. When applied, the Nomad downloads on the selected collection will be paused for a period of 24 hours - after which they will resume automatically
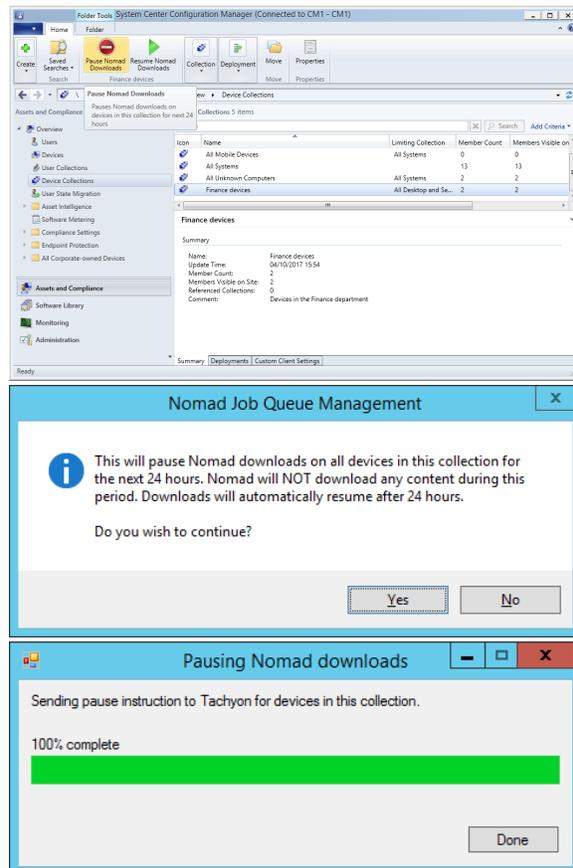

Checking paused collections in Configuration Manager

When a collection has been successfully paused an entry will appear on the **Monitoring 1E Nomad, Paused Collections** page, as shown in the picture opposite.

From here you can view the following information:

Column	Description
Collection Id	The Configuration Manager ID for the device collection
Collection	The friendly name of the device collection
Status	The current paused status for the collection. The values in this column can show one of two states:

State	Description
Paused	This state indicates that all of the devices in the collection have been paused.
Partially Paused	This state indicates that some but not all of the devices in the collection have been paused. This may happen if some of the devices in the collection are currently offline or the pause action is interrupted while Nomad is sending the instruction request to Tachyon.

|	
Remaining Time	This column shows the time remaining for the pause to be in effect. After the stated time the devices in the collection will automatically resume their Nomad job queues.
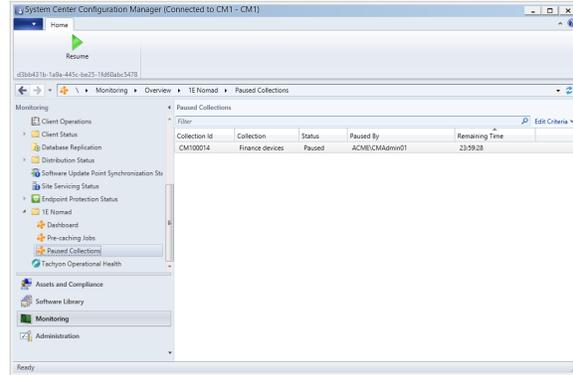
From this page you can also select to resume the paused collection by clicking on the **Resume** button or by selecting the **Resume** menu item from the collection's right-click context menu.

As soon as the Nomad job queue for the entire collection has been resumed the entry will disappear from the **Monitoring 1E Nomad, Paused Collections** page.

Checking the Pause instruction in Tachyon

You can also check the progress of the pause process by looking at the instruction history in Tachyon:

1. Log onto Tachyon using one of the full Configuration Manager administrator accounts
2. Select the **Instructions History** page
3. You should see an entry for the **Pause the Nomad job queue for 1440 minutes** instruction
4. Clicking on the instruction shows a detailed breakdown of the response from each device in the selected collection
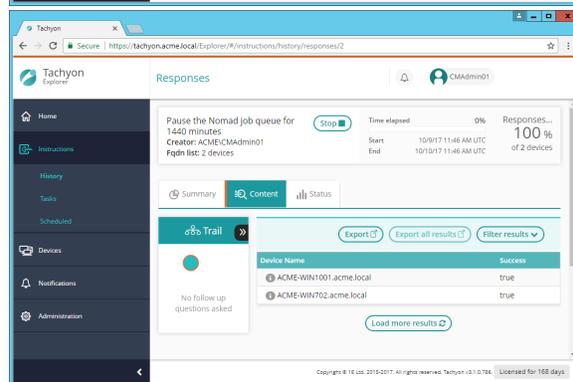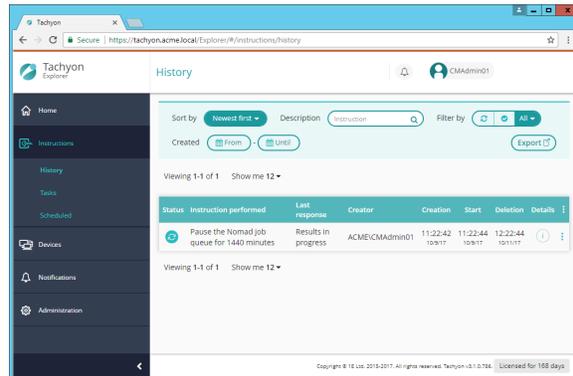

Resuming Nomad downloads

If you want to resume the Nomad downloads for a collection at any time during the 24 hours, you can

1. Select the collection you want and click the **Resume Nomad downloads** button.

2. A **Nomad Job Queue Management** dialog will appear asking explaining the consequences of continuing. If you want to continue. Click **Yes** to proceed and **No** to cancel
3. If you click **Yes**, a **Resuming Nomad downloads** dialog will appear showing the progress of the process. This should reach 100% with no errors, at this point click **Done** to close the dialog
4. When applied, the Nomad downloads on the selected collection will be immediately resumed from where they left off

As soon as the Nomad job queue for the collection has been resumed the paused collection entry will also disappear from the **Monitoring 1E Nomad, Paused Collections** page.
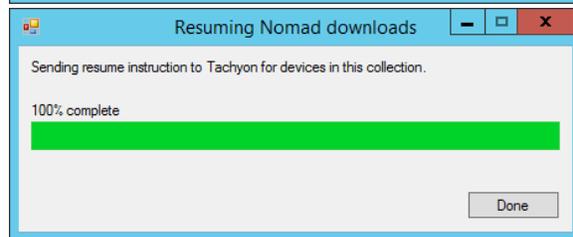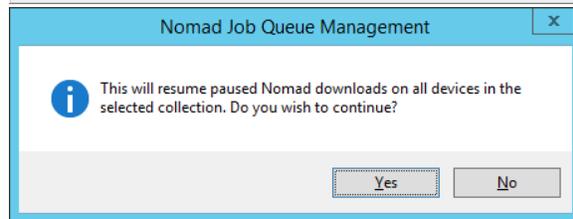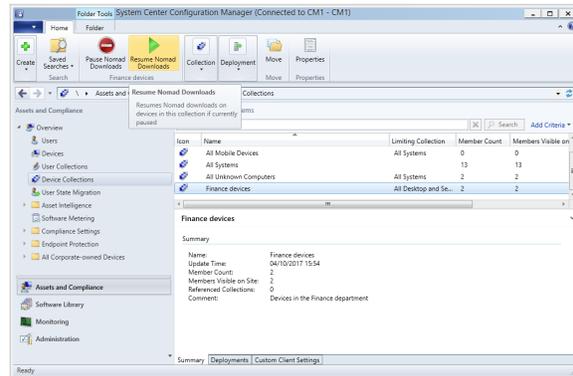
Checking the Resume instruction in Tachyon

You can check the progress of the resume process by looking at the instruction history in Tachyon:

1. Log onto Tachyon using one of the full Configuration Manager administrator accounts
2. Select the **Instructions History** page
3. You should see an entry for the **Resume the paused Nomad job queue** instruction
4. Clicking on the instruction shows a detailed breakdown of the response from each device in the selected collection
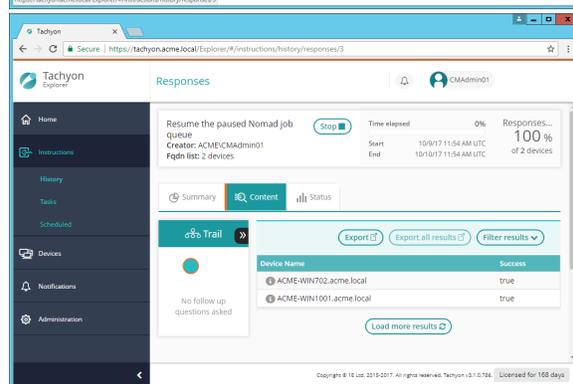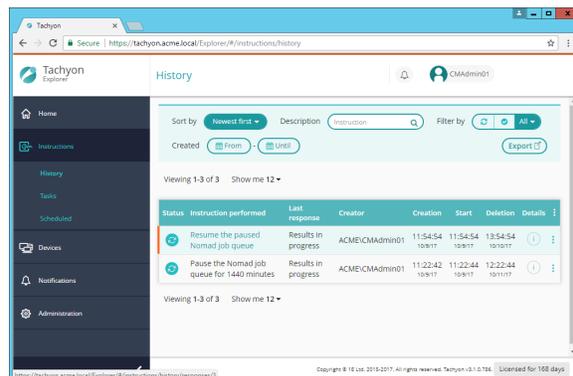
Troubleshooting

A typical error that may occur during the pause or resume process is if any of the devices in the selected collection do not have Tachyon Agents or 1E Clients installed. To rectify this install the Tachyon Agent or 1E Client on all devices in the collection.

1E-Nomad product pack

This product pack is used to create the **1E Nomad** instruction set required by the Download Pause feature.

Instruction text (ReadablePayload)	Type	Description	Instruction file name	Version
Pause the Nomad job queue for <PauseDurationMinutes> minutes	Action	Pause Nomad job queue. Required by **Nomad Download Pause** feature.	1E-Nomad-PauseNomadJobQueue.xml	7.0
Resume the paused Nomad job queue	Action	Resume paused Nomad job queue. Required by **Nomad Download Pause** feature.	1E-Nomad-ResumeNomadJobQueue.xml	4.0