



Aspera Cargo User Guide 1.6.1

Windows

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Introduction

IBM Aspera Cargo is a Windows service that enables IBM Aspera Faspex users to automatically check for and download incoming Faspex packages.

With Cargo, you can perform the following tasks:

- Download Faspex packages to a directory of your choice.
- Monitor and adjust package download speed.
- Change transfer policies.
- Decrypt downloaded content in conjunction with IBM Aspera Crypt software.

Benefit	Feature Description
Automatically downloads Faspex packages	Cargo is compatible with Faspex and can be configured to automatically download received packages. Cargo also supports multiple, concurrent FASP transfers.
Easy installation	Cargo is available as a small, installable package.
Lightweight	Cargo includes CargoD, a Windows service that runs using a configuration file.

Installation

System Requirements

- Windows XP, Vista, 7, 8, or 10.
- Valid Faspex user account credentials.

Installing Cargo

Before installing Cargo, obtain from your system administrator the URL and credentials for at least one Faspex server for use with Cargo.

To install Cargo, do the following:

1. Go to the [Aspera website](#), select the appropriate operating system and version, and click **Download**.
2. Accept the license agreement by selecting the check box and click **Install**.

The installation begins. To cancel the installation click **Cancel**.

3. Click **Finish** to complete the installation.

You can launch Cargo by navigating to **Start > All Programs > Aspera > Cargo Downloader** and clicking the **Cargo Downloader** icon.

Upgrading Cargo

Upgrade Cargo by downloading the latest version from the Aspera website.

1. Navigate to the [Aspera website](#).

2. Follow the instructions in [Installing Cargo](#) on page 3 to run the installation program on your desktop to overwrite the existing version of Cargo.

Note: When you upgrade to the current version of Cargo, your existing **asperacargod.conf** file is retained, using the same filename. The installer program also installs a new blank configuration file, **asperacargod.conf.new**.

Uninstalling Cargo

1. To uninstall Cargo, select **Start > Control Panel > Uninstall a program**.
2. Locate Aspera Cargo Downloader in the list of installed programs, then right-click it and select **Uninstall**.

Installing the CargoD Service

Use the Aspera installation program to set up CargoD on your computer.

1. Go to the [Aspera website](#), select the appropriate operating system and version, and click **Download**.
2. Run the downloaded **.msi**, and proceed through the installer screens:
 - a) Accept the license agreement.
 - b) On the **Aspera Service Account** screen, create and confirm a password for the service user.
 - c) Click **Install**.
 - d) When installation is complete, click **Finish**.

The CargoD service starts automatically.

3. Open or create a configuration file named **asperacargo.conf** and place it at the following location:
 - 32-bit Windows: **C:\Program Files\Aspera\CargoD\etc\asperacargo.conf**
 - 64-bit Windows: **C:\Program Files (x86)\Aspera\CargoD\etc\asperacargo.conf**
4. In a text editor, edit the Cargo configuration file.
For instructions, see [Configuring the CargoD Service](#).
5. Finally, stop and restart CargoD.

Note: You must restart CargoD in order for your configuration settings to take effect. For instructions, see [Starting and Stopping CargoD](#).

Uninstalling the CargoD Service

1. To uninstall CargoD, go to **Start > Control Panel > Uninstall a program**.
2. Select **Aspera CargoD**, right-click, and select **Uninstall**.

Configuring Preferences

General Preferences

1. Open the **Preferences** dialog:
 - Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.
2. Click **General** to set up the following general preferences:

Field	Description
Automatically launch Aspera Cargo Downloader when Windows starts	Select this check box to automatically launch Cargo when Windows starts.
Open Transfers window when a transfer is added	Select this check box to open the Transfers dialog when a transfer is added. This check box is selected by default.
Close Transfers window when all transfers are complete	Select this check box to automatically close the Transfers dialog when all transfers are complete.
Remove transfer list items	Select whether to remove the entry automatically from the transfer view after it has completed or to manually remove items. By default, manually removing items is selected.
Enable queuing	Queuing allows a fixed number of concurrent transfers specified by the Maximum concurrent transfers value. Remaining transfers are queued and will not be started until the number of concurrent transfers goes below the maximum. When queuing is disabled, all transfers will run concurrently.
Maximum concurrent transfers	When queuing is enabled, you can enter a maximum number of concurrent transfers in this field. When queuing is not enabled, this field is unavailable.
Check for new packages	Select the time interval to wait between checking for new packages.
Create separate folders for packages	By default, multiple packages with the same title will be downloaded into separate folders. When unchecked, all contents of multiple packages with the same title will be downloaded into a single folder.

3. Click **Apply** to apply and save your settings, or click **Close** to cancel your selections.

Transfer Preferences

1. Open the **Preferences** dialog:

Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.

2. Click **Transfers** to set up the following transfer preferences:

Field	Description
Automatically retry failed transfers <ul style="list-style-type: none"> • Attempts • Interval 	<p>When enabled, Cargo makes a specified number of attempts in a specified time interval to retry failed transfers. Select whether to enable retrying failed transfers. Specify the number of attempts and the interval in which Cargo will try to resend in seconds, minutes, or hours.</p> <p>By default this feature is enabled with three retry attempts and in 30-second intervals.</p>
Logging Level	<p>Choose the level of information to be recorded in the Aspera Drive logs. Options are: Info, Debug, or Trace.</p> <p>Note: Do not change this setting unless asked to do so by Aspera Technical Support.</p>

3. Click **Apply** to apply and save your settings, or click **Close** to cancel your selections.

Network Preferences

1. Open the **Preferences** dialog:

Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.

2. Click **Network** to set up the following network preferences:

Field	Description
Obtain proxy configuration from	<p>Select whether to obtain the proxy configuration from the System or provide a manual proxy configuration. If you select Manual, the fields for manual configuration of the HTTP Fallback Proxy become available.</p> <p>Note: If you select System and your system settings have changed since you last used system proxy configurations with Cargo, you must restart Cargo.</p> <p>By default System is selected.</p>
Use HTTP Proxy <ul style="list-style-type: none"> • Username • Password • Address • Port 	<p>If you selected Manual, from the previous drop-down list, the fields for manual configuration of the HTTP Fallback Proxy become available. These fields are not available for configuration if you selected System in the previous drop-down list.</p> <p>Cargo will use the proxy server you continue when HTTP fallback transfers are occurring.</p> <ul style="list-style-type: none"> • Type your username. • Type your password. • Type your server's URL or IP address and port number.
Use FASP Proxy (DNAT) or Secure (DNATS) <ul style="list-style-type: none"> • Username • Password • Address • Port 	<p>When FASP proxy is enabled, Aspera passes the DNAT or DNATS (secure) username, server address, and port to ascp.</p> <p>Select the appropriate check box to use FASP proxy with DNAT or DNATS.</p> <ul style="list-style-type: none"> • Type your server username. • Type your server password. • Type your server's URL or IP address and port number.

3. Click **Apply** to apply and save your settings, or click **Close** to cancel your selections.

Bandwidth Preferences

1. Open the **Preferences** dialog:

Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.

2. Click **Bandwidth** to set up the **Limit to** field.

3. In this field, specify the download rate in either megabits per second (Mbps) or kilobits per second (Kbps). This limit is applied to each individual transfer.

4. Click **Apply** to apply and save your settings, or click **Close** to cancel your selections.

Managing Accounts

Adding Accounts

1. Open the **Preferences** dialog:
Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.
2. Click **Accounts**.
3. To add an account, click  and provide the information listed in following table:

Field	Description
Description	The name of the account. The name is used only by Cargo.
Host URL	The URL address for the server, and the port number (if applicable).
User	The username that you have on the Faspex transfer server.
Password	The password that you have on the Faspex server.
Automatically decrypt files on download <ul style="list-style-type: none"> • Passphrase • Confirm 	Specify whether to decrypt files automatically when downloading them. When this option is checked: <ul style="list-style-type: none"> • Enter the passphrase to use when decrypting files. • Confirm the passphrase by typing it again. If there is a passphrase mismatch, the file is left encrypted, but downloads successfully. In this case, you can use the Unlock encrypted files link to manually decrypt files.
Save downloaded files to	Specify a folder to which to save the downloaded file to. You can choose the default folder, which is typically a folder in your local environment, or you can click Browse to select a different folder.

4. Click **Apply** to add the account and save the account settings, or click **Close** to cancel your selections.

Deleting Accounts

1. Open the **Preferences** dialog:
Launch Cargo. Locate the **Aspera Cargo Downloader** icon in the Windows system tray, right-click the icon, and select **Preferences**.
2. Click **Accounts**.
3. Click  to remove an account.
A dialog appears that prompts you to confirm the account removal, and to inform you that in case of a removal all account transfers and services will be stopped and removed.
4. Click **Apply** to remove the account, or click **Close** to cancel the account removal.

Using Cargo

Downloading Packages

Note: Ensure that Cargo is running in order to download packages. If you exit Cargo, it no longer retrieves packages. However, you can still log into your Faspex transfer server to download them manually from the web.

You can view and manage all package transfer sessions within the **Transfers** dialog.

1. To open the **Transfers** dialog, right-click the **Aspera Cargo Downloader** icon in the notification area on the task bar, and select **Tranfers**.
2. Use the following buttons in the **Transfers** dialog to control and get information on your transfers:

Field	Description
	Open the Transfer Monitor. For information on using the Transfer Monitor to control transfer speed, see Monitoring Transfers on page 8.
	Go to where the file is located on your computer.
	Stop the transfer session.
	Resume a paused, queued, or canceled transfer.
	Retry a failed transfer or manually start a queued transfer.

3. If Cargo retrieves encrypted packages, you can decrypt them using the application Aspera Crypt. For additional information, see [Decrypting Packages](#) on page 9.

Queuing

When the queuing option is enabled, your settings determine the number of permitted concurrent transfers. Additional transfers are queued in the Transfers dialog and initiated when a transfer is finished. You can start a queued transfer

manually by clicking . Your most recent transfer is shown at the top of the list. For more information on queuing, see [General Preferences](#) on page 4.

Maximum Packages for Download

Each time Cargo performs a check on your Faspex server, it reads only up to 250 of the latest packages (or last-seen packages) for potential download. Packages older than the latest 250 are not detected.

Monitoring Transfers

You can monitor and adjust file transfer speed by clicking  to open the Aspera Connect **Transfer Monitor** dialog. If you have sufficient server privileges and your transfer server is configured to allow it, you can modify the following:

Field	Description
Transfer progress bar	Adjust the file transfer speed by clicking and dragging the transfer rate slider.
	Click to view the destination folder of the transferred files.
	Click to stop the transfer session.
Transfer policy	Select the transfer policy from the drop-down list:

Field	Description
<ul style="list-style-type: none"> • Fixed • High • Fair • Low 	<ul style="list-style-type: none"> • The transfer transmits data at a rate equal to the target rate, although this may impact the performance of other traffic present on the network. • The transfer rate is adjusted to use the available bandwidth up to the maximum rate. • The transfer attempts to transmit data at a rate equal to the target rate. If network conditions do not permit that, it transfers at a rate lower than the target rate, but not less than the minimum rate. • The transfer rate is less aggressive than Fair when sharing bandwidth with other network traffic. When congestion occurs, the transfer rate is decreased to the minimum rate, until other traffic retreats.

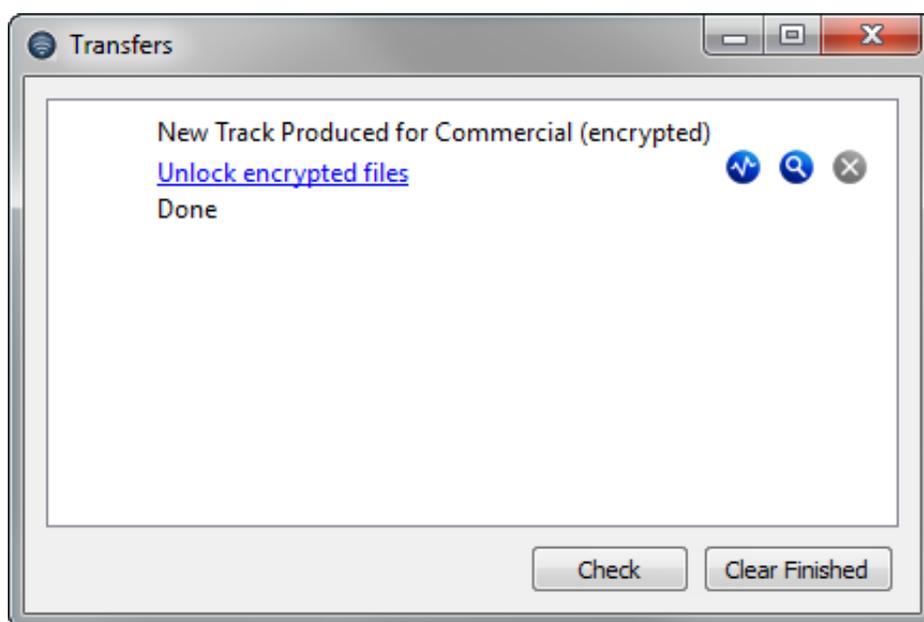
Note: You can only switch between High and Fair transfer policies if the host is running IBM Aspera Enterprise Server version 3.0 or later.

Decrypting Packages

Encrypted files are protected from unwanted access. When encrypted files arrive at their destination, you need to decrypt them before you can use them. Cargo works in conjunction with IBM Aspera Crypt to decrypt the contents.

Note: Decrypting files requires a passphrase that the sender of the package used to encrypt the package. Ensure that you have that passphrase.

1. After Cargo has downloaded and saved your package to a specified folder, the **Transfers** dialog opens. Click **Unlock encrypted files** to begin the decryption process.



2. Type your passphrase into the text field. You can select the **Show Passphrase** check box to display your passphrase to verify its spelling.
3. Click **Decrypt** to decrypt your package and view the output. If you type an incorrect passphrase and click **Decrypt**, you receive a status message stating that decryption has failed.
4. You can view the output in the **Aspera Crypt** dialog.

The decrypted contents appear in the same directory as the original encrypted contents. If the decrypted file (without the **.aspera-env** extension) already exists in that directory, *(decrypted)* is added to the filename.

If your **Aspera Crypt** dialog has multiple decrypted items listed, you can use the **View** drop-down to sort the items by **Latest**, **Finished** or **Failed**.

The CargoD Service

Configuring the CargoD Service

Cargo includes a Windows service, CargoD. To configure CargoD, open or create the following configuration file in a text editor:

32-bit Windows: **C:\Program Files\Aspera\CargoD\etc\asperacargo.conf**

64-bit Windows: **C:\Program Files (x86)\Aspera\CargoD\etc\asperacargo.conf**

A sample **asperacargo.conf** file is included below (and is built into the installation package). Your settings may differ from the example shown. At a minimum, change the required entries, as appropriate to your system.

Note: You must use XML-appropriate symbols when editing the configuration file. For example, `&` instead of `&`.

Important: Enter your password in the `<password>` field in plain text. After you start the CargoD service for the first time, the password will be obfuscated so that an observer cannot deduce the password by reading the file.

Important: After editing the configuration file, you must stop and restart CargoD in order for your settings to take effect.

```
<?xml version='1.0' encoding='UTF-8'?>
<conf version="1">

<accounts>

  <!-- Add one or more accounts here. -->
  <account>

    <!-- Required. -->
    <user>faspexuser1</user>

    <!-- Required. -->
    <password>p@ssword</password>

    <!-- Required. eg. https://example.com/aspera/faspex -->
    <host>https://www.mycompany.com/aspera/faspex</host>

    <!-- Required. This is the location where all the account packages will
    be downloaded. -->
    <download_folder>/incoming_packages/</download_folder>

    <!-- Optional. If specified, Cargo will attempt to decrypt during
    download. -->
    <passphrase>p@ssword</passphrase>

    <!-- Optional. Cargo stops looking for packages with sequence IDs less
    than or equal to
    this number. (The default is 0.) -->
    <last_sequence_id>0</last_sequence_id>

    <!-- Optional. Cargo will ignore invalid certificates. (The default is
    false.) -->
    <ignore_invalid_cert>false</ignore_invalid_cert>
```

```

    </account>
</accounts>
<general>
    <!-- Optional. Time, in minutes, to check for new packages. Valid values
    are 1, 5, 15, 30, 60. (default 15) -->
    <check_interval>5</check_interval>

    <!--Optional. This is the number of concurrent transfers allowed to run
    at the same time.
    0 means that queuing is off and all transfers will run immediately. (The
    default is 1.) -->
    <concurrent_transfers>1</concurrent_transfers>

    <!-- Optional. This is the maximum number of active or failed transfers
    in the queue.
    If the max is reached, failed transfers will be removed.
    If there are no failed transfers, no new transfers will be added. (The
    default is 100.) -->
    <max_transfers>100</max_transfers>

    <!-- Location of the Cargo database to write to or read from.
    (The default is $INSTALL_DIR/var.) -->
    <db_dir></db_dir>
</general>
<transfers>
    <!-- Optional. Set to true to download packages to unique folders. (The
    default is true.) -->
    <separate_folders></separate_folders>

    <!-- Optional. Number of retries for failed transfers. (The default is
    3.) -->
    <retry_attempts></retry_attempts>

    <!-- Optional. Interval, in seconds, between retries. (The default is
    30.) -->
    <retry_interval></retry_interval>

    <!-- Optional. Specifies verbosity of logging.
    0 - info, 1 - debug, 2 - trace. (The default is 0.) -->
    <log_level></log_level>
</transfers>
<network>
    <http_proxy>
        <!-- Optional. Set to true to set fallback proxy settings. (The
        default is false.) -->
        <enable>false</enable>
        <username></username>
        <password></password>
        <address></address>
        <port></port>
    </http_proxy>
    <fasp_proxy>

```

```

    <!-- Optional. Set to true to set FASP proxy settings. (The default
    is false.) -->
    <enable>false</enable>
    <username></username>
    <password></password>

    <!-- dnat:// or dnats:// for secure FASP proxy. -->
    <address></address>
    <port></port>
  </fasp_proxy>
</network>

<bandwidth>

  <!-- Optional. Download bandwidth limit in Mbps. To let server decide,
  leave empty. -->
  <download_limit></download_limit>

</bandwidth>

</conf>

```

Setting	Description	Values
User	<i>[Required]</i> Your Faspex user name (that is, your login ID).	
Password	<i>[Required]</i> Your Faspex account's password. For security, the <code><password/></code> tag is converted to <code><password_obfuscated/></code> upon successful parsing of the conf file. Subsequent reads of the conf file will use the obfuscated tag.	
Host	<i>[Required]</i> Faspex Server hostname or IP address.	
Download Folder	<i>[Required]</i> The directory that will be used to stored downloaded packages.	
Passphrase	<i>[Required]</i> Enter your passphrase to automatically decrypt packages upon download. If there is a passphrase mismatch, the file is left encrypted, but downloads successfully. For security, the <code><passphrase/></code> tag is converted to <code><passphrase_obfuscated/></code> upon successful parsing of the conf file. Subsequent reads of the conf file will use the obfuscated tag.	
Check Interval	<i>[Optional]</i> Time elapsed (in minutes) between checking for new packages.	Valid values are 1, 5, 15, 30, and 60 minutes. Default value is 15.
Concurrent Transfers	<i>[Optional]</i> The number of transfers that are allowed to run at the same time.	Default value is 1. A setting of 0 means that queuing is turned off (all transfers start immediately).
Max Transfers	<i>[Optional]</i> The maximum number of active or failed transfers in the download queue. If the max is reached, failed transfers will be removed. If there are no failed transfers, no new transfers will be added.	Default value is 100.

Setting	Description	Values
	 CAUTION: The <code>max_transfers</code> setting is an advanced feature intended for debugging purposes only.	
DB Directory	[Optional] CargoD's database location. Note that <i>one</i> asperacargod process can access only <i>one</i> database location at a time. You can run multiple, concurrent asperacargod processes by creating a conf file and db directory for each process.	Default value is <code>\$INSTALL_DIR/var</code> .
Separate Folders	[Optional] Set to <code>true</code> to download packages with the same title to unique folders.	Default value is <code>true</code> .
Retry Attempts	[Optional] Number of retries for failed transfers.	Default value is 3.
Retry Intervals	[Optional] Interval between retries in seconds.	Default value is 30.
Log Level	[Optional] Specifies logging verbosity.	<ul style="list-style-type: none"> • 0 - info (default) • 1 - debug • 2 - trace
HTTP Fallback Proxy	[Optional] By setting <code><enable/></code> to <code>true</code> , you can modify the proxy configuration for the server handling HTTP fallback. HTTP fallback serves as a secondary transfer method when the Internet connectivity required for Aspera accelerated transfers (i.e., UDP port 33001, by default) is unavailable. If UDP connectivity is lost or cannot be established, then the transfer will continue over the HTTP protocol based on this proxy configuration. Note that the HTTP fallback settings include NTLM authentication credentials (username and password), as well as the host name/IP address and port number.	Default value is <code>false</code> .
FASP Proxy	[Optional] When FASP proxy is enabled, Aspera will pass the DNAT or DNATS (secure) username, server address and port to ascp . To enable FASP proxy, set <code><enable/></code> to <code>true</code> and input your FASP proxy credentials, address (<code>dnat://</code> or <code>dnats://</code> for secure FASP proxy) and port.	Default value is <code>false</code> .
Download Limit	[Optional] Download bandwidth limit in Mbps. To let the server decide the limit, leave this setting empty.	

Using the Cargo Daemon

Cargo includes a headless daemon, CargoD. The help file below displays the **asperacargod** command-line options.

```
> cd \Program Files [(x86)]\Aspera\CargoD\bin
```

```
> asperacargod -h
```

```
Options:
  -h, --help                Display usage
  -f CONF-FILE              The path to the configuration file (see
note below)
  -L LOG-DIR               Logging dir
  -L-                       Log to console
  -A, --version            Display version
```

`--clear-db`

Clear database

Note: By default, **asperacargod** will try to load the configuration file from **C:\Program Files (x86)\Aspera\CargoD\etc**. To explicitly define the location of your configuration file, use the **-f** option shown above.

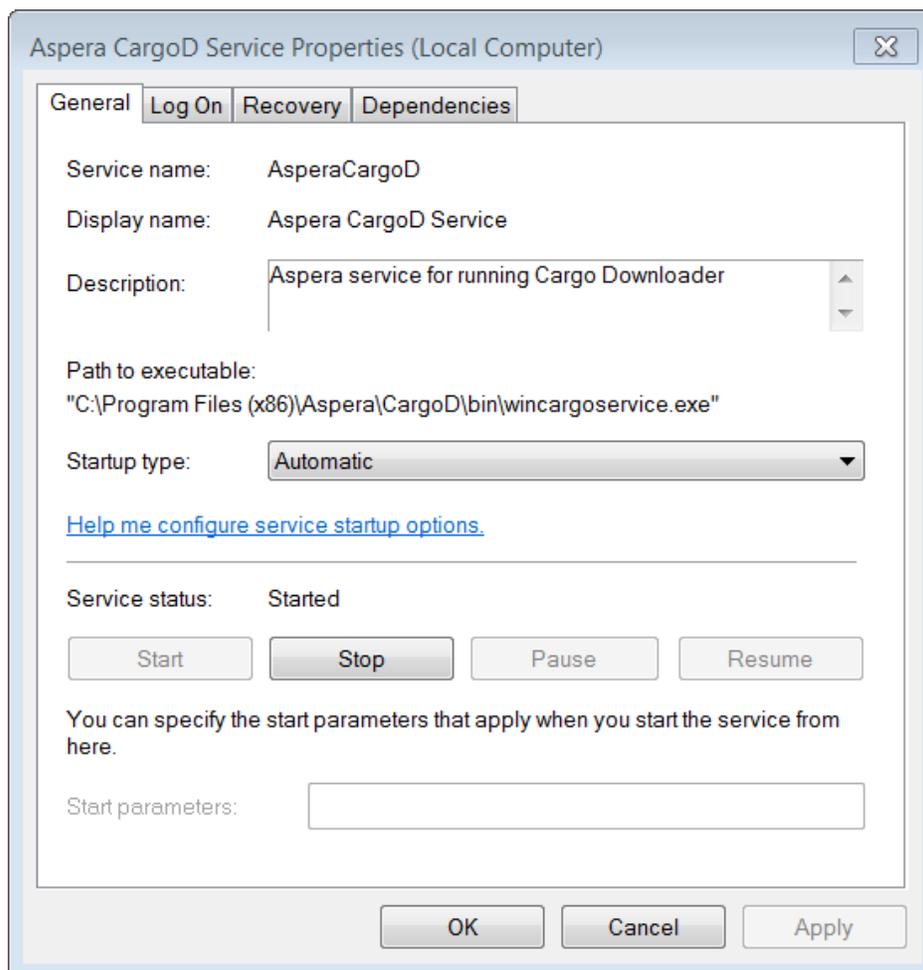
Starting and Stopping CargoD

The CargoD service starts automatically when you finish installing CargoD.

To stop or restart the service (such as after editing the configuration file), do the following:

1. Go to **Start > Administrative Tools > Services**.
2. In the **Services** list, double-click **Aspera CargoD Service**.

The **Aspera CargoD Service Properties** dialog opens.



3. Click **Stop** or **Start** to stop or (re)start CargoD.

The CargoD Logfile

CargoD logs data about the transfers it handles. You can use the CargoD logfile to view the status of your transfers.

Logfile Location

The CargoD logfile can be found at the following location:

C:\Program Files (x86)\Aspera\CargoD\var\log\asperacargod.log

Logfile Size

CargoD creates a rolling log of a maximum of 10 logfiles, of ~10 MB each.

Technical Support

Support Websites

For an overview of IBM Aspera Support services, go to <https://asperasoft.com/company/support/>.

To view product announcements, webinars, and knowledgebase articles, as well as access the Aspera Support Community Forum, sign into the IBM Aspera Support site at <https://www.ibm.com/mysupport/> using your IBMid (not your company Aspera credentials), or set up a new account. Search for Aspera and select the product. Click **Follow** to receive notifications when new knowledgebase articles are available.

Personalized Support

You may contact an Aspera support technician 24 hours a day, 7 days a week, through the following methods, with a guaranteed 4-hour response time.

Email	aspera-support@ibm.com
Phone (North America)	+1 (510) 849-2386, option 2
Phone (Europe)	+44 (0) 207-993-6653 option 2
Phone (Singapore)	+81 (0) 3-4578-9357 option 2

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