IBM Aspera High-Speed Transfer Server Administration

WT011 (Classroom)

ZT011 (Self-paced)

Course description

This course is intended to teach the necessary knowledge and skills to install, configure, and use the IBM Aspera High-Speed Transfer Server.

For information about other related courses, see the IBM Training website:

**ibm.com**/training

General information

Delivery method

Classroom or self-paced virtual classroom (SPVC)

Course level

ERC 1.0

Product and version

Product name version 1.0

Audience

This course is intended for administrators the IBM Aspera High-Speed Transfer Server.

Learning objectives

After completing this course, you should be able to:

* Describe the operation of the FASP protocol
* Outline the functions of various Aspera software products
* Explain Aspera configuration parameters and assign their values
* Create and manage Aspera users and groups
* Perform file transfers using the Aspera GUI and from the command line
* Implement support for Aspera Node API
* Configure Hot Folders and Aspera Watch Service
* Execute basic troubleshooting tasks for common problems

Prerequisites

* Fundamental knowledge of using Windows and Linux operating systems
* Basic understanding of networking

Duration

3 days

Skill level

Intermediate

Notes

The following unit and exercise durations are estimates, and might not reflect every class experience. If the course is customized or abbreviated, the duration of unchanged units will probably increase.

This is a new course.

Course agenda

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| Course introductionDuration: 15 minutes |

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| Unit 1. Understanding IBM Aspera FASPDuration: 2 hours |
| Overview | This unit describes the operation of the FASP protocol and how it compares with traditional file transfer protocols. |
| Learning objectives | After completing this unit, you should be able to:* Explain the fundamental performance problem of TCP-based transfers
* Outline the process FASP uses to determine optimal packet size
* Highlight the difference between how FASP and TCP manage packet loss
* Describe the adaptive rate control process used by FASP
* Identify the factors that influence transfer rates
* Clarify the value of using Vlinks
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| Unit 2. Overview of IBM Aspera SoftwareDuration: 1 hour and 30 minutes |
| Overview | This unit a brief overview of IBM Aspera software and how they may be integrated as an Aspera environment |
| Learning objectives | After completing this unit, you should be able to:* Identify the function of common IBM Aspera software
* Outline how IBM Aspera software products interact with each other
* Describe the ascp process and how it communicates with Aspera products
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| Unit 3. Installing IBM Aspera High-Speed Transfer ServerDuration: 2 hours and 30 minutes |
| Overview | This unit presents the necessary tasks to prepare a system for and installation of IBM Aspera High-Speed Transfer Server software |
| Learning objectives | After completing this unit, you should be able to:* Identify the prerequisites for a successful deployment of IBM Aspera High-Speed Transfer Server
* Configure the system firewall to support Aspera transfers
* Secure access to Aspera services by modifying the SSH configuration
* Locate and install the appropriate IBM Aspera High-Speed Transfer Server software (Windows and Linux)
* Explain the purpose of the Aspera service account on Windows systems running IBM Aspera High-Speed Transfer Server software
* Verify installation success by transferring files to and from the Aspera Demo Server
* Configure Aspera log redirection
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| Exercise 1. Installing IBM Aspera High-Speed Transfer ServerDuration: 2 hours |
| Overview | This exercise demonstrates the installation of IBM Aspera High-Speed Transfer (HST) Server software. |
| Learning objectives | After completing this exercise, you should be able to:* Install the IBM Aspera HST Server software on both Windows and Linux platforms
* Test the system’s ability to transfer files by using the IBM Aspera HST Server application
* Access and use the IBM Aspera HST Server documentation
* Use the Aspera GUI to manipulate local and remote files and directories
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| Unit 4. Configuring IBM Aspera High-Speed Transfer ServerDuration: 2 hours |
| Overview | This unit presents the various parameters available for configuring IBM Aspera High-Speed Transfer Server software |
| Learning objectives | After completing this unit, you should be able to:* Navigate the Aspera GUI to access various configuration parameters
* Identify the kinds of global parameters that may be configured
* Define maximum bandwidth and default target rates for transfers
* Manage file permissions for inbound/outbound transfers
* Define and implement Vlinks
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| Exercise 2. Configuring IBM Aspera High-Speed Transfer ServerDuration: 2 hours |
| Overview | This exercise demonstrates the configuration of the IBM Aspera High-Speed Transfer Server by modifying the parameters that specify and control how transfers to and from the server are handled. |
| Learning objectives | After completing this exercise, you should be able to:* Use the IBM Aspera GUI to configure Aspera parameters
* Configure various configuration parameters, for example, docroot, Target Rate Cap, transfer authorizations, and others
* Create predefined connections and share them with other users
* Implement the File Manifest function
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| Unit 5. Managing Aspera users and groupsDuration: 1 hour |
| Overview | This unit addresses the basic configuration for adding and managing Aspera transfer users and groups |
| Learning objectives | After completing this unit, you should be able to:* Distinguish between a system user account and a transfer user account
* Identify what system user account parameters need to be modified to properly support Aspera transfer services
* Create Aspera transfer users and groups
* Describe the precedence of configurations for user, group, and global settings
* Verify user account’s ability to perform FASP-based transfers
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| Exercise 3. Managing Aspera users and groupsDuration: 1 hour |
| Overview | This exercise uses the Aspera GUI to configure new users and groups, to define configuration parameters that manage transfers performed by users and groups, and to implement Vlinks. |
| Learning objectives | After completing this exercise, you should be able to:* Add transfer group to the Aspera configuration
* Add users to the Aspera configuration
* Configure bandwidth parameters
* Implement Vlinks and verify operation
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| Unit 6. Using command-line operationsDuration: 2 hours |
| Overview | This unit briefly introduces the use of the Aspera command-line utilities |
| Learning objectives | After completing this unit, you should be able to:* Run the appropriate asuserdata command to print all possible aspera.conf entries and their associated asconfigurator commands
* Use asconfigurator utility to modify aspera.conf entries
* Transfer files and directories between Aspera servers using the ascp command
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| Exercise 4. Using command-line operationsDuration: 2 hours |
| Overview | This exercise demonstrates the use of IBM Aspera command-line tools to configure the aspera.conf file with the asconfigurator utility and to initiate and manage file transfers using the ascp command. |
| Learning objectives | After completing this exercise, you should be able to:* Use various asconfigurator options to update the aspera.conf file
* Use the ascp command with various options to perform transfers between IBM Aspera HST Servers
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| Unit 7. Configuring advanced featuresDuration: 2 hours |
| Overview | This unit addresses several features that are not required for basic configuration of the IBM Aspera Transfer Server, but are commonly implemented on production systems |
| Learning objectives | After completing this unit, you should be able to:* Configure IBM Aspera High-Speed Transfer Server to use custom SSL certificates and token authorization
* Outline the process of configuring HTTP Fallback
* Manipulate files using the Aspera Pre/Post feature
* Configure and manage Node API settings
* Distinguish between the hot folders and Aspera Watch Service
* Explain the procedure for implementing hot folders on Windows platforms
* Implement Aspera Watch Folders
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| Exercise 5. Configuring advanced featuresDuration: 2 hours and 30 minutes |
| Overview | The steps in this module are designed to give you hands-on experience configuring Node API and automating transfers using Hot Folders and Aspera Watch Folders. |
| Learning objectives | After completing this exercise, you should be able to:* Modify the aspera.conf file to support Node API
* Create a Node API user
* Configure a hot folder on a Windows system
* Configure an Aspera Watch Folder on a Linux system
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| Unit 8. Routine maintenance tasksDuration: 1 hour and 30 minutes |
| Overview | This unit identifies common performance bottlenecks, presents common maintenance tasks, and introduces how to interpret some of the Aspera log file entries. |
| Learning objectives | After completing this unit, you should be able to:* Identify common transfer performance bottlenecks
* Describe the process for conducting backups of Aspera files and configurations
* Access log files to identify errors
* Use log files to analyze file transfer performance
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For more information

To learn more about this course and other related offerings, and to schedule training, see **ibm.com**/training

To learn more about validating your technical skills with IBM certification, see **ibm.com**/certify