

200 XP 

What is Azure Import/Export?

5 minutes

Azure Import/Export provides a way for organizations to export data from Azure Storage to an on-premises location. The service offers a secure, reliable, and cost-effective method to export large amounts of data.

You can also use Azure Import/Export to import data to Azure Storage from an on-premises location. However, we recommend that you use an Azure Data Box device when you're in a region where the Azure Data Box family is supported. Importing data by using one of the products in the Azure Data Box family is easier than using Azure Import/Export.

When you're moving large amounts of data between locations, speed and reliability are fundamental requirements. Even the fastest networks have bandwidth limitations. If you need to transfer tens of terabytes (TB) of data between remote sites, the operation could take several days. Additionally, if the transfer fails at some point, you don't want to have to start the whole process again from the beginning. The Azure Import/Export service is designed to address these issues.

In the film production company scenario, you need a reliable and secure way to transfer 200 TB of film footage from Azure Storage to your local facility as quickly as possible. You decide to investigate using the Azure Import/Export service as a means of accomplishing this task.

In this unit, you'll learn more about the Azure Import/Export service. You'll also come to understand the scenarios where it's best suited.

The Azure Import/Export service

Azure Import/Export is an Azure service that's used to migrate large quantities of data between an on-premises location and an Azure Storage account. By using the service, you send and receive physical disks that contain your data between your on-premises location and an Azure datacenter. You ship data that's stored on your own disk drives. These disk drives can be Serial ATA (SATA) hard-disk drives (HDDs) or solid-state drives (SSDs).

The Azure Import/Export service is ideally suited to situations where you must upload or download large amounts of data, but your network backbone doesn't have sufficient capacity or reliability to support large-scale transfers. You typically use this service to:

- Migrate large amounts of data from on-premises to Azure, as a one-time task
- Back up your data on-premises in Azure Storage

- Recover large amounts of data that you previously stored in Azure Storage
- Distribute data from Azure Storage to customer sites

The WALImportExport tool

If you're importing data into Azure Storage, your data must be written to disk in a specific format. Use the WALImportExport drive preparation tool to do this. This tool checks a drive and prepares a journal file that's then used by an import job when data is being imported into Azure.

The WALImportExport tool performs the following tasks:

- Prepares disk drives to be shipped to the Azure datacenter. WALImportExport formats the drive and checks it for errors before data is copied to the disks.
- Encrypts the data on the drive.
- Quickly scans the data and determines how many physical drives are required to hold the data being transferred.
- Creates the journal files that are used for import and export operations. A journal file contains information about the drive serial number, encryption key, and storage account. Each drive you prepare with the Azure Import/Export tool has a single journal file.

There are two versions of this tool:

- Version 1 supports import or export of data to or from Azure Blob storage.
- Version 2 supports import of data into Azure Files.

Download the appropriate version of WALImportExport from the Microsoft Download Center. The WALImportExport tool is compatible only with 64-bit Windows operating systems.

Security considerations

For export jobs, the Import/Export Service uses BitLocker to encrypt the drive before it's shipped back to you. Microsoft provides you with the encryption key. You then use the encryption key to access the data and transfer it to your on-premises location.

For import jobs, all data must be encrypted through BitLocker before you send the disks to Microsoft. This encryption helps protect your data. No one can read the data on the disk drives without providing the encryption key. You can encrypt disks by using the WALImportExport tool. Or, you can manually enable BitLocker on the drive and provide the encryption key to the WALImportExport tool.

By default, BitLocker uses 128-bit encryption to protect data on disk drives. If you're transferring critical data, such as credit card details, customer account information, or online

account details, you can enable 256-bit encryption. To use 256-bit encryption, you change the encryption mode in BitLocker before the data is copied.

Check your knowledge

1. What does the Azure Import/Export service do?

- ☐ Migrates large amounts of data between on-premises storage and Azure by using disks supplied by Microsoft
- ☐ Transfers large amounts of data between on-premises storage and Azure by using a high-bandwidth network connection
- ☐ Transfers large amounts of data between on-premises storage and an Azure Storage account without tying up network bandwidth

2. What's the purpose of the WAImportExport tool?

- ☐ Use it to copy files to a disk to import data into Azure Storage.
- ☐ It prepares a drive containing files for import into Azure Storage.
- ☐ Use it to create an import job. You specify the files that the disk contains and what should be imported into Azure Storage.

Check your answers
