

Virtual Server Download Instructions

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Requirements

To complete this process you will need the following:

- This generic server download document
- The product specific supplemental instructions document
- An internet connection able to download 10-30GB files
- Enough available disk space to download and then unzip the server (so 2x the download size)
- The user name and password to download the files
- The decryption key for the server zip file
- A zip program that supports AES256 encryption/decryption (Windows built in tools do not).
- A server virtualization environment (VMware ESXi or Microsoft Hyper-V) with enough resources to run the server

If you do not have one or more of these, please contact your Project Team.

Overview

This document will guide you in obtaining your new virtual server.



Read this document in its entirety before starting the process and if you have any questions ask your Project Team before continuing.

All steps in this document are "product generic". An additional document with "product specific" steps has also been provided, which this procedure calls for in the Server Creation section.

Consider security impacts on the process as you review the document. Antivirus, antimalware, firewalls, proxy services, etc., all may have a direct effect on your ability to complete these tasks.

Instructions

Downloading

The file you are going to download will be 10-30 GB in size (specific size will depend on the product). Typical download times are in the 2-5hr range, depending on your Internet connection. Please plan accordingly.

We recommend using FTP but if your organization does not allow FTP, you may download the file over HTTPS, using the URL below and the same user/password provided to you for FTP.

Keep in mind that FTP is better suited to this process due to the very large file sizes, because it is more efficient and has the ability to restart interrupted transfers.

HTTPS URL: <https://immftp.exavault.com/login>

If you use the HTTPS web page download method:

- 1) Do not use the "Download All" button or check multiple files to download. Selecting more than one file will cause the FTP server to automatically zip those files. The server OVA is too large and the process will fail.
- 2) Ensure you "unblock" all files after downloading them. Using files that are blocked by Windows security will not work.

- 1) **Download the files** with a machine which:
 - a. Will not go to sleep during the time it's downloading.
 - b. Has adequate space to store the very large server file.
- 2) **Download** the files using the FTP (or HTTPS) URL and the **User/Password** which was provided by your Project Team.
 - a. Files that will be downloaded:
 - i. Checksums.xml
 - ii. ChecksumVerify.exe
 - iii. <ProductName>.zip
- 3) **Wait** until all files have finished transferring

Problems connecting to or downloading the file? See the [FTP troubleshooting section](#) in this document.

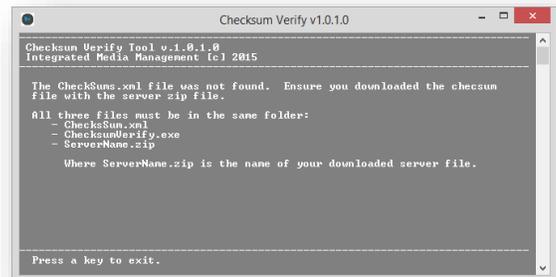
Verifying

Verification of the file download is done through Checksum validation. A program “ChecksumVerify.exe” has been provided with the server download to facilitate this process.

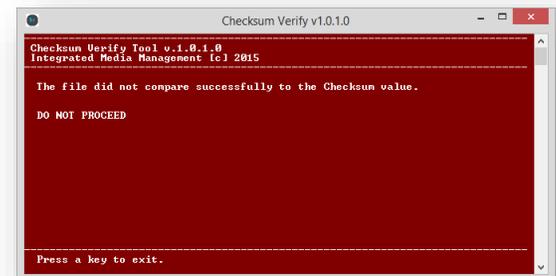
This step is critical to guaranteeing the success of your installation. Make sure you get a **green** result before continuing.

- 1) **Verify you have all three files** in the same folder. It is important to not rename any of these files. If the names change from the originally published names the process will fail.
 - a. CheckSums.xml
 - b. ChecksumVerify.exe
 - c. “ServerName”.zip (where “ServerName” is the name of the server file you downloaded)
- 2) **Run ChecksumVerify.exe**
- 3) **Wait for the results.** You will get one of the following screens:

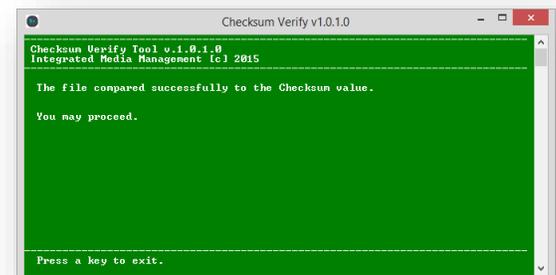
Gray = It can't find the checksum.xml file. Go back to step 1) and make sure all three files are in the same folder.



Red = The checksum didn't verify correctly. Either the file didn't finish transferring or it was changed. Do Not Continue. Re-download your files and try again.



Green = The checksum did verify and you may continue.



Importing

You will need enough working disk space to extract the zipped virtual server as well as enough datastore space to import the new virtual server into your virtual server host.

- 1) **Extract** the zipped OVA file
 - a. Use 7-zip to ensure compatibility with the decryption algorithms. 7-zip is open source and free for commercial use. <http://www.7-zip.org/>
 - i. If you use a different zip program, you may have decryption issues. You will have to support those and work directly with the software publisher to resolve them.
 - b. Decryption key is provided by your Project Team
- 2) **Import** the virtual server (OVA file).
 - a. Use your preferred method to deploy a virtual server OVA.
 - i. See [Appendix A](#) for importing examples. If you need assistance with VMware or Microsoft virtual server importing please contact your VMware or Microsoft service provider.
 - b. Import only 1 server of each type you are deploying. If you are licensed for more than one of each, you will "clone" them after the first one is fully installed and tested.

Virtual Server Configuration

It is important that you are able to correctly manage and optimize your virtual server and host environment. The virtual server is provided to you with baseline virtual server defaults, which may or may not be the "best" configuration for your environment.

The following items should be reviewed to ensure you set them correctly for your environment:

- Network adapter type
- SCSI adapter type
- VM version (if VMware)
- VMware Tools version (if VMware)
- Gen1 machine (if Hyper-V)
- Reserved resources vs Not Reserved

This list is not all inclusive. It is intended as a prompt for you to review the environment and ensure it is correct for you.

If you need assistance with your VM management please contact the company that provides your virtual environment support.

Server Initialization

- 1) **Power on** the new virtual server
- 2) **Follow the on screen instructions** to activate the sysprep'd Microsoft Server
 - a. Input your Microsoft license key. The virtual server does not come with a Windows license. If you need to acquire one, contact your Microsoft License provider/vendor.
 - b. Input the new Local Administrator password (make sure you record this as it is needed in our installation process)

Protection

Before making any changes to this server, ensure that it is backed up to protect your progress.

- 1) **Create a Snapshot** (or Microsoft equivalent) named "Before Rename"
 - a. Shut down the server
 - b. Create the snapshot (do not create this with the server powered on)

Retain this snapshot until the server is fully configured and tested.

Rename/Add to Domain

The server needs to be in the same Domain as your workstations or some features will not work.

- 1) **Rename** the server
 - a. Give it a unique name that appropriately reflects how you want the "Live" server named. (the "Test" instance will be cloned from this one later)
 - b. Add it to your domain

Windows Update Service

If the OVA server contains Windows Server 2016 or later, the Windows Update Service may have been disabled as part of our publishing process to prevent installation issues. Ensure you re-enable it per your policy.

It is important that Windows Updates are not scheduled to run during the Servers operational hours.

Time Settings

If your group policy does not automatically apply time zone / daylight savings settings to new systems, ensure that these settings are set correctly on the server.

Supplemental Instructions

Please refer to the supplemental instructions document provided for additional product-specific install steps and perform these steps at this time. If you do not have the product specific supplemental instruction document, please contact your project team for assistance.



Do not continue without performing the product specific steps in the supplemental instruction document. The server will not function without those instructions being completed.

Retain the OVA File

The source OVA is your backup in case you need to re-import the baseline server as part of this process. It can also be important to have this file for testing when diagnosing issues in the installation process.

The source OVA file should be retained until such time you have a fully installed, tested and operational server.

Once you are live on the server, it is recommended that you power down the server, export it to OVA and then retain that copy as your failsafe.

FTP Issues

It is not uncommon that security of Financial Institutions blocks FTP access for most internal workstations. Please talk to your internal security staff to enable FTP access so you can complete this task. We have provided connections for both FTP and SFTP in case one is preferable to your security policies.

Before continuing, verify that the ports used for FTP are open/allowed. Depending on which protocol you are going to use, the ports are as follows.

FTP = 21 or SFTP = 22

Test the Download Server

You can verify the server is up and functional by using one of the numerous online FTP test sites. This eliminates your own security setup (for now) in the process. An example test site is listed below.

1. https://www.wormly.com/test_ftp_server
2. Enter the fields in as follows:

Test an FTP Server

FTP Test Tool

FTP Server

immftp.exavault.com

Enter an IP address or a fully qualified hostname

Use SSL?

Yes No

Username

ImmTest

Optional - will attempt to login with this username

Password

ImmTest

Optional.

Test this FTP server >>

3. Select the **Test this FTP server >>** button

It will return a number of FTP messages ending in something like below (may not be exactly what you get) showing the final success status:

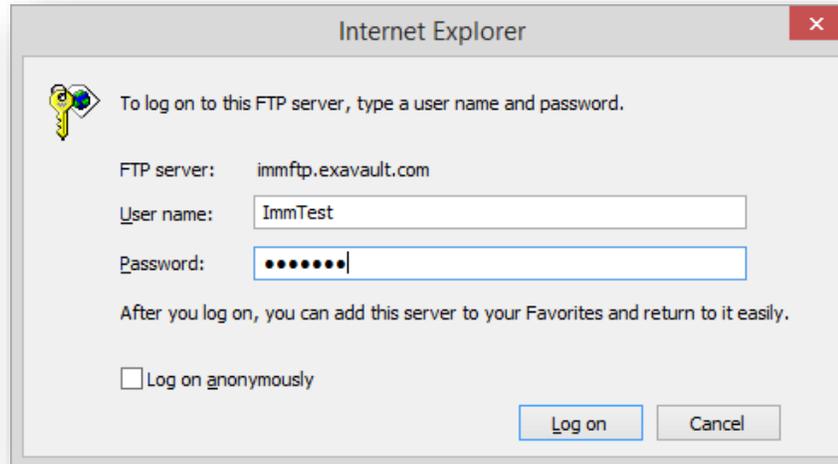
```
Resolving hostname...
Starting FTP Test...
* Rebuilt URL to: ftp://immftp.exavault.com/
* Trying 67.208.93.227...
* Connected to immftp.exavault.com (67.208.93.227) port 21 (#0)
< 220 ProFTPD 1.3.5 Server (EV) [67.208.93.227]
> USER ImmTest
< 331 Password required for ImmTest
> PASS ImmTest
< 230 User ImmTest logged in
> PWD
< 257 "/" is the current directory
* Entry path is '/'
> EPSV
* Connect data stream passively
* ftp_perform ends with SECONDARY: 0
< 229 Entering Extended Passive Mode (|||62813|)
* Trying 67.208.93.227...
* Connecting to 67.208.93.227 (67.208.93.227) port 62813
* Connected to immftp.exavault.com (67.208.93.227) port 21 (#0)
> TYPE A
< 200 Type set to A
> LIST
< 150 Opening ASCII mode data connection for file list
* Maxdownload = -1
* Remembering we are in dir ""
< 226 Transfer complete
* Connection #0 to host immftp.exavault.com left intact
FTP Test completed.
```

Test your own Access

After showing that the server is up in the previous sections test, you can test your own connectivity directly in a browser window (IE is shown here).

1. Open your browser and type in the URL: <ftp://immftp.exavault.com>

If your security allows the connection out of your network, you will see a prompt something like below (depending on your browser and version):



2. Enter the user: ImmTest
3. Enter the pw: ImmTest
4. Select the **Log In** button

You will receive a directory listing something like below if you can complete the connection. There is one file in the folder called "Success.txt".



At this point if you **did not** get either the logon screen or the resulting folder display, the issue is security on your end, because the previous Download Server Test demonstrated that the server was up and functional.

"ImmTest" worked but the product download credentials don't.

Test your product download credentials via the HTTPS site. If they fail to log on, let your Project Manager know so they can troubleshoot the log on issue.

Still not working?

Virtually 100% of reported FTP issues come from CU Security and can only be resolved on your end. The tests in the previous sections should delineate where the issue is.

I can't make FTP work, what now?

Alternative #1

Use the HTTPS URL to download the files.

If you do this ensure that the files are "unblocked" before using them. Check each files "properties" to ensure they are not blocked by windows.

Alternative #2

Use the FTP method from a different location that is not blocking FTP. Please note the security warning below.



You are not permitted to decrypt the server's zip file outside of your institution's secure environment. Ensure that you bring the file inside your secured network prior to decrypting it and that it never exists outside your FI as an unencrypted file, either on a computer or any type of media.

Appendix A: Importing Examples

Our virtual server files are exported from a VMware ESXi system, which makes it a simpler process to get them into a VMware host. However, Microsoft provides a method to take these files and use them in their Hyper-V product. Examples for importing into both systems are included here.

Note: We do not provide technical support for either VMware ESXi or Microsoft Hyper-V. These examples are provided for illustration purposes to show ways in which we have tested using our virtual server files. For assistance with ESXi and Hyper-V, contact whoever supports you on those products (e.g. Microsoft and VMware).

VMware ESXi

Example, when using the vSphere v6.0 client:

1. Select the **File** menu
2. Choose **Deploy OVF Template**
3. Browse for the OVA file
4. Follow the wizard directions. Use the options that are correct for your environment but do not change the server resources to be under the required specs for the product (review the System Requirements documentation).

Microsoft Hyper-V

Note: Hyper-V requires these machines to be set up as Gen1 not Gen2 servers.

Example, when using the Microsoft VM Converter v3

<https://www.microsoft.com/en-us/download/details.aspx?id=42497>

Requires that you have imported the PowerShell module MvmcCmdlet.psd1. Read the Microsoft documentation for the Converter for help.

1. **Extract** the OVA file to OVF files, using whichever zip or tar tool you decide (7-zip works).
2. **Convert** the VMDK disk files to VHDX files. Disk1 is C: and Disk2 is E:
 - a. Here are a couple PowerShell examples:

```
ConvertTo-MvmcVirtualHardDisk -SourceLiteralPath "C:\Temp\OVF\TIC-CNS-58-OVA-2012R2-disk1.vmdk" -VhdType DynamicHardDisk -VhdFormat vhdx -destination "C:\Temp\VHDX\TIC-CNS-58-OVA-2012R2-disk1_DriveC.vhdx"
```

```
ConvertTo-MvmcVirtualHardDisk -SourceLiteralPath "C:\Temp\OVF\TIC-CNS-58-OVA-2012R2-disk2.vmdk" -VhdType DynamicHardDisk -VhdFormat vhdx -destination "C:\Temp\VHDX\TIC-CNS-58-OVA-2012R2-disk2_DriveE.vhdx"
```

3. **Move** the VHDX files to the DataStore where you will house the new Hyper-V machine.
4. **Create** the new Hyper-V machine via your normal process. See the documentation provided with our OVA to know the required system resources (RAM/CPU).
5. **Attach** the VHDX files to the new virtual machine. Ensure drive letter assignments are correct or the system will not function.

Support

If you have trouble completing this procedure, contact your Project Team for assistance.