

# Create private cloud with Hyper-V (Part 1)

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## >>> Create private cloud with Hyper-V (Part 2)

Although it is not possible to deny the benefits that IaaS clouds can bring, it is undesirable for organizations to depend on the Internet to access the cloud servers. They will not be able to access the server if the Internet connection is lost or when the connection is congested. This is what businesses and organizations wonder.

With the solution to build a private cloud, businesses will not only benefit from the flexibility of the IaaS cloud, but also avoid the risk of losing server access due to Internet connection failure.

The series will guide users how to build their own cloud to quickly deploy different types of network servers. The cloud will have a self-service portal that allows administrators (or authorized users) to use a simple web interface to select the resources they want to provide and assign functions for server to deploy. For example, with the click of a button, an administrator can execute a new domain controller or a new Exchange Server.

## Active Directory

The private cloud solution introduced in this article requires an Active Directory infrastructure. Due to the way cloud is built, you need domain controllers. In some situations, the private cloud may not be accessible after performing virtualization on domain controllers. To avoid this, it is recommended to place at least one domain controller outside of the virtualized environment.

## Microsoft Deployment Toolkit

The first step to building your own cloud is to install Microsoft's Deployment Toolkit 2010. Microsoft Deployment Toolkit (MDT) is a free tool that can be downloaded [here](#).

Here we will install the Deployment Toolkit on a physical server that has access to other servers forming the cloud. MDT is not a highly required application so we do not have to use a program-specific server. The server used will serve as a repository for executable image files. This requires the use of a server with large storage space for image files to create. And these image files must be accessible via network sharing.

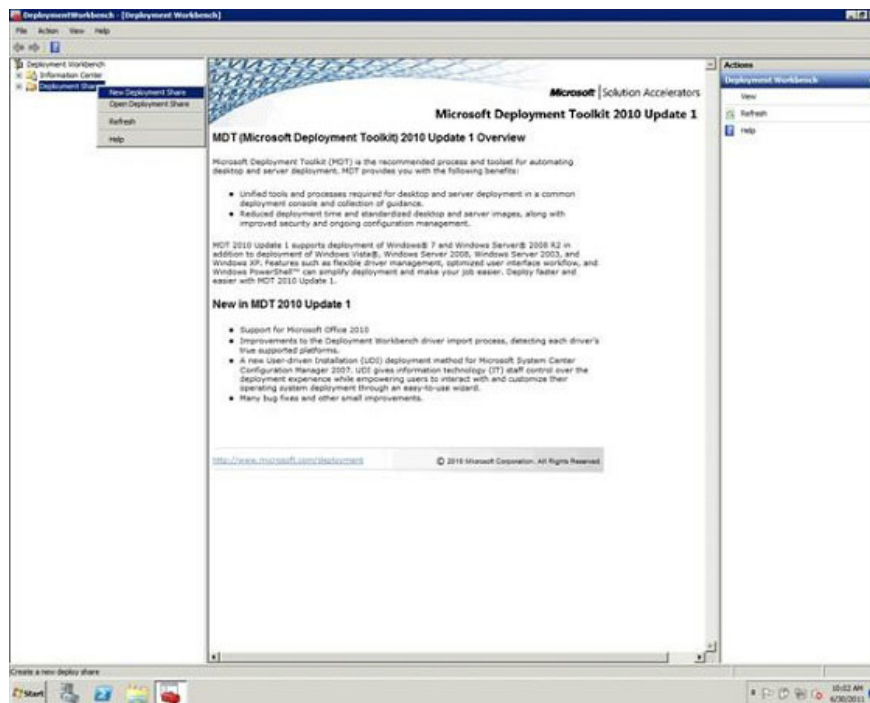
# MDT installation

Windows MDT is only 15MB in size. After the download is complete, run the executable file to display the installation window. In this article, we will use the Update 1 (5.1.1642.01) update of the toolkit.

Click **Next** to bypass the welcome screen. The program will ask if you accept the terms of the agreement. If accepted, click **Next** to continue. The program continues to ask what components users want to install. Choose to install all components (this is the default option) and click **Next** to install.

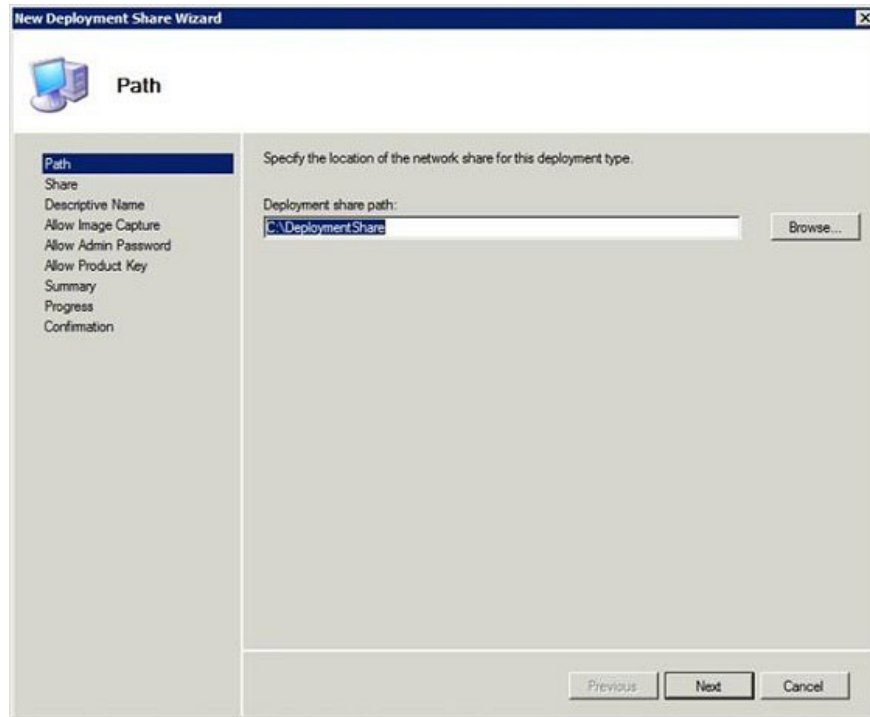
## Create a public folder

Now Windows Deployment Toolkit has been installed. We will need to create a public folder (deployment share). To do this, open the Deployment Workbench, right-click on the **Deployment Shares** folder and select **New Deployment Share** from the context menu, as shown below.

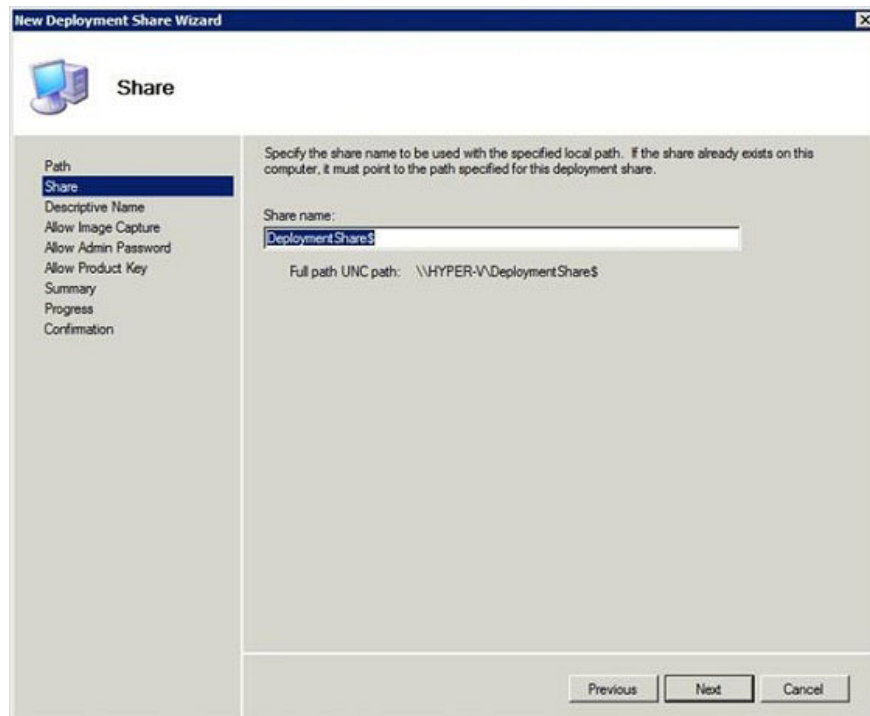


While creating a public folder, an error message may appear asking to update to a newer Windows Automated Installation Kit. Download the Automated installation Kit. Remember that before installing this new version, users must install SP1 for Windows Server 2008 R2. Download the service package here.

When you create a new public folder, Windows will launch the installation window. On the first screen, enter the path for the public folder, as shown below. This is the link to save all executable image files. Therefore, choose a location carefully and have a large storage space.



Click **Next** then name the public folder that will be created. The default name is **DeploymentShare \$** . Last name symbol to hide the folder.



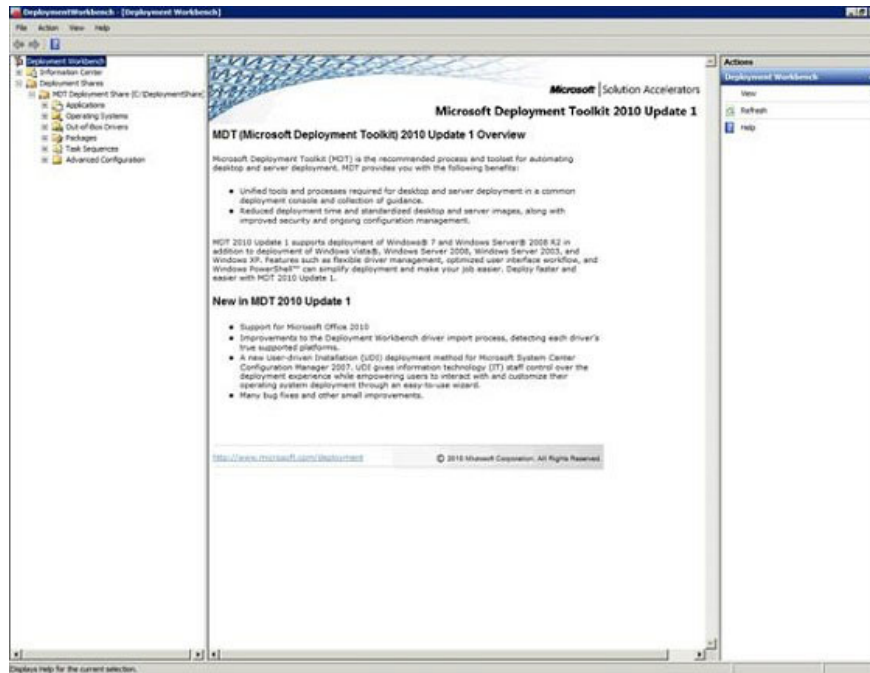
After clicking **Next** , enter a description for the folder to be created. For the purposes of the article, I will use the default description of **MDT Deployment Share** .

Click **Next** and the installation window will ask users if they want to save the image file. Activate the option and click **Next** .

A screen appears asking if you want to grant an administrator password to users. Temporarily don't tick this option because we really don't want users to know the local admin password.

After clicking **Next**, the installation window will ask if you want Windows to request product key from the user. Ignore this option.

When you click **Next**, you will see a summary of the configuration options we have selected. Check to confirm the options. If all is well, click **Next** to create a public folder. When the process is complete, click **Finish**.



## Conclude

So we have created the public folder. Now it's time to add some operating systems to the directory.

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