



# Deploying Dedicated Virtual Desktops in Hosted Environments



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# Deploying Dedicated Desktops in Hosted Environments

Hosted Server VDI enables CSPs to provide dedicated VDI desktops to tenants through Citrix XenDesktop, without the need for dedicated hardware. Using Hosted Server VDI, CSPs can:

- ◆ Use servers running Windows Server 2008 R2 to host the Virtual Desktop Agent.
- ◆ Share server resources among multiple tenants, remaining compliant with the Microsoft Service Provider License Agreement (SPLA).
- ◆ Deliver desktops with the look and feel of Windows 7, when the Service Provider Automation Pack is installed.

Tenants enjoy the benefits of dedicated VDI desktops without the costs associated with purchasing dedicated licenses or extra hardware.

**Note:** The use of Dedicated Desktops in a Hosted Environment is supported for Citrix Service Providers only.

## System Requirements

To use Hosted Server VDI, you need the following components:

- ◆ A working XenDesktop environment that includes Delivery Desktop Controllers (DDCs) running XenDesktop 5.6.
- ◆ A virtual or physical machine running Windows Server 2008 R2, for hosting the Virtual Desktop Agent.
- ◆ The Virtual Desktop Agent for XenDesktop 5.6 FP1. This component is included in the Hosted Server VDI package, available for download from the Citrix Web site as part of the [Citrix Cloud Provider Pack](#).

## Server Prerequisites

Before installing Hosted Server VDI, ensure the server you designate for hosting the Virtual Desktop Agent meets the following prerequisites:

- ◆ No Windows server roles are installed.
- ◆ Microsoft .NET Framework 3.5.1 feature is installed.
- ◆ The following services are running and configured to start automatically:
  - Windows Audio

- Windows Audio Endpoint Builder

## User Device Requirements

To use this feature, user devices must be successfully running one of the following components:

- ◆ Receiver for Windows 3.3
- ◆ Receiver for Windows 3.2
- ◆ Receiver for Mac 11.5
- ◆ Receiver for Linux 12.1
- ◆ Receiver for Chrome OS 1.0

## Deployment Overview

To deploy dedicated VDI desktops, you perform the following tasks:

1. Ensure your XenDesktop environment meets the requirements described in the "System Requirements" section.
2. Install Windows Server 2008 R2 on the server you designate for hosting the Virtual Desktop Agent and ensure the prerequisites described in the "Server Prerequisites" section are met.
3. Download the Hosted Server VDI package, available from the Citrix Web site, to the server you designate for hosting the Virtual Desktop Agent.
4. On the server designated for hosting the Virtual Desktop Agent, install the agent using the Windows command line.
5. Download the [Service Provider Automation Pack](#) from the Citrix Web site and use it to apply the Windows 7 look and feel to dedicated VDI desktops.

After all installation tasks are completed, you make the server hosting the Virtual Desktop Agent available to users. This might include the following tasks:

- ◆ Add the server to a new or existing machine catalog.
- ◆ Verify the server is included in the appropriate desktop groups.
- ◆ Verify the appropriate Web Interface sites have been created for the XenDesktop farm.
- ◆ Verify that users can access the server through Citrix Receiver.

For more information on performing these tasks, refer to the [XenDesktop product documentation](#) located in Citrix eDocs.

## Installing the Virtual Desktop Agent

Before you install the Virtual Desktop Agent, ensure the server meets the following requirements:

- ◆ No Windows server roles are installed.
- ◆ Microsoft .NET Framework 3.5.1 feature is installed (From the Server Manager, click **Features>Add Features>.NET Framework 3.5.1 Features>.NET Framework 3.5.1**).
- ◆ The following services are running and configured to start automatically:
  - Windows Audio
  - Windows Audio Endpoint Builder

When you install the Virtual Desktop Agent, you enter a command string that includes the following parameters:

- ◆ CITRIXWDDM specifies whether or not the Citrix WDDM driver is installed. Typically, this driver is used for Aero command remoting. However, for Hosted Server VDI, this driver is not installed to ensure compatibility with user environments that include multiple monitors. Therefore, the value for this parameter is 0 (zero).
- ◆ ALLOWSERVERVDA specifies whether or not to allow the Virtual Desktop Agent to be installed on the server. To use Hosted Server VDI, the Virtual Desktop Agent is required. Therefore, the value for this parameter is 1.
- ◆ CONTROLLER\_NAMES specifies the DDCs you want to use to deliver dedicated VDI desktops, using either the FQDN or IP address. When specifying multiple DDCs, separate each entry with a semicolon (;). For example, DDC01.testdomain.com; DDC02.testdomain.com.

Use this parameter to specify the DDCs during agent installation. To specify the DDCs after agent installation, you add a subkey to the Windows Registry.

## To install the Virtual Desktop Agent and specify the DDCs in a single operation

On a server running Windows Server 2008 R2, open the Command Prompt window and type the following command string:

```
msiexec /i XdsAgent_x64.msi CITRIXWDDM=0 ALLOWSERVERVDA=1  
CONTROLLER_NAMES=[FQDN] / [IP]
```

## To install the Virtual Desktop Agent and specify the DDCs after installation

Use this procedure to install the Virtual Desktop Agent and, afterward, specify the DDCs you want to use in the Windows Registry.

 **Caution:** Editing the Registry incorrectly can cause serious problems that may require you to reinstall your operating system. Citrix cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk. Be sure to back up the registry before you edit it.

1. On a server running Windows Server 2008 R2, open the Command Prompt window and type the following command string:

```
msiexec /i XdsAgent_x64.msi CITRIXWDDM=0 ALLOWSERVERVDA=1
```

2. From the Windows Registry, create the following subkey:
  - Key path: HKLM\Software\Wow6432Node\Citrix\VirtualDesktopAgent
  - Type: REG\_SZ
  - Name: ListOfDDCs
  - Value: Enter the FQDN or IP address of the DDC you want to use. When specifying multiple DDCs, separate entries with semicolons (;).

## To enable the Windows Desktop Experience for VDI desktops

*Windows Desktop Experience* refers to providing hosted desktops with the Windows 7 look and feel and controlling desktop customization by users through Group Policy. Before enabling the Windows Desktop Experience for VDI desktops, download the following items from the Citrix Web site:

- ♦ [Citrix Service Provider Automation Pack](#) (CitrixAppDeliverySetupTools.exe), which installs and configures the Enhanced Desktop Experience component and includes the PowerShell scripts required to enable the Windows 7 look and feel for published desktops and restrict user access to the server hosting the Virtual Desktop Agent.
- ♦ The Setup Tools Guide (titled *Citrix Cloud App Delivery Setup Tools Administration Guide*) which includes additional details for using the PowerShell scripts and Group Policy objects mentioned in this topic.

Perform the tasks outlined in this topic before creating the image template for VDI desktops so that the Windows Desktop Experience is enabled for all VDI desktops that are created.

1. On the server hosting the Virtual Desktop Agent, launch the **CitrixAppDeliverySetupTools.exe** file.
2. From the PowerShell command line, run the **New-CtxManagedDesktopGPO** script.
3. From the Group Policy Management Console, perform the following actions:
  - a. Link the following GPOs to the OU containing the tenant's user accounts:
    - ♦ **CtxStartMenuTaskbarUser**

- ◆ **CtxPersonalizableUser** or **CtxRestrictedUser**

- b. Link the **CtxRestrictedComputer** GPO to the OU containing the server hosting the Virtual Desktop Agent.
4. Restart the server.