



# HP RDP

# ENHANCEMENTS

## for Flash Redirection

June 2011

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## Key Advantages

HP RDP Enhancements for Flash Redirection is a software solution that redirects Adobe® Flash® media from the server to the thin client. By using the thin client CPU to decode Flash media, this add-on significantly reduces server CPU load, providing greater scalability and improved performance.

This will allow end users to conveniently access Flash-based materials, such as corporate training videos and embedded flash videos in many Web sites.

## Features:

- Flash redirection in VMware View and Microsoft® Remote Desktop Services (RDS) environments using RDP6
- Solution supports a server-side registry entry which will disable Flash Redirection for unsupported sites  
Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Hewlett-Packard\FIash Redirection  
Value: "bl"  
Type: REG\_MULTI\_SZ
- HP RDP Enhancements for Flash Redirection works independently of HP RDP Enhancements for Multimedia and USB Redirection.

## Limitations

- Some Web sites containing very large Flash content (files over 100MB) may not be supported due to limited temporary storage available on Thin Clients. This may include sites that distribute large Flash video files either as embedded Shockwave Flash (SWF) content or as External Progressive Download content, instead of distributing content as Streaming video.
- Since video compressed for the Web typically requires 1 to 5 megabytes per minute, a 100MB file may contain anywhere from 20 to 100 minutes of video. To support files above this size, Streaming video distribution should be used.
- The solution supports a server-side registry entry which will disable Flash redirection for unsupported sites. End users can still access unsupported sites—it is just that such Web sites will not use flash redirection.

## Support

### Products Supported:

- HP t5740 Thin Client running Windows® Embedded Standard (WES) 2009 (Image version # 5.1.810w or later)
- HP Compaq t5730w Thin Client running WES 2009 (Image version # 5.1.810w or later)
- HP gt7720 Thin Client running WES 2009 (Image version # 5.1.710w or later)
- HP t5570 Thin Client running WES 2009
- HP t5400 Thin Client running WES 2009
- HP t5630w Thin Client running WES 2009
- HP vc4820T Thin Client running WES 2009
- HP t5745 Thin Client running ThinPro (Image version # T6X31012 for 1GB version, or later)
- HP Compaq t5735 Thin Client running ThinPro (Image version # T6X31012 for 1GB, or later)

- HP gt7725 Thin Client running ThinPro (Image version # T6X31012 for 1GB, or later)
- HP t5565 Thin Client running ThinPro (Image version # T5X32014 for 1GB, or later)

## Prerequisites

- Microsoft Internet Explorer® version 6, 7, or 8 installed on both the server and the thin clients
- Adobe Flash Player version 10 (installed on both the server and the thin clients) Client and server versions of **Adobe Flash Player** must match.
- Approximately 1 MB of free space is required for the installation

## How It Works

- Upon encountering Adobe Flash media, the server checks that **HP RDP Enhancements for Flash Redirection** is installed on both the server and the thin client.
- Instead of decoding the Flash media using the server CPU, the server redirects it to the thin client.
- If the thin client is properly configured with both an **Adobe Flash Player** and **HP RDP Enhancements for Flash Redirection**, the Flash media is decoded and played back locally on the thin client.

## Locating and Downloading HP RDP Enhancements for Flash Redirection

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### NOTE:

There are two versions of the add-on:

For thin clients running WES: **HP RDP Flash Redirection Software**

For thin clients running ThinPro: **HP ThinPro Add-On (HP RDP for Flash Redirection)**

Each version contains a server component and a client component.

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To locate and download the appropriate software.

1. Go to <http://www.hp.com>.
2. Click **Support & Drivers**, then click **Drivers & Software**.
3. In the text box, enter the Thin Client model number and click **SEARCH**.
4. Select your thin client operating system.
5. Locate and download the software:  
For thin clients running WES: **HP RDP Flash Redirection Software**  
For thin clients running ThinPro: **HP ThinPro Add-On (HP RDP for Flash Redirection)**

6. Follow the instructions in the text file that accompanies the software to unbundle the compressed files.

## Installing the Server Component

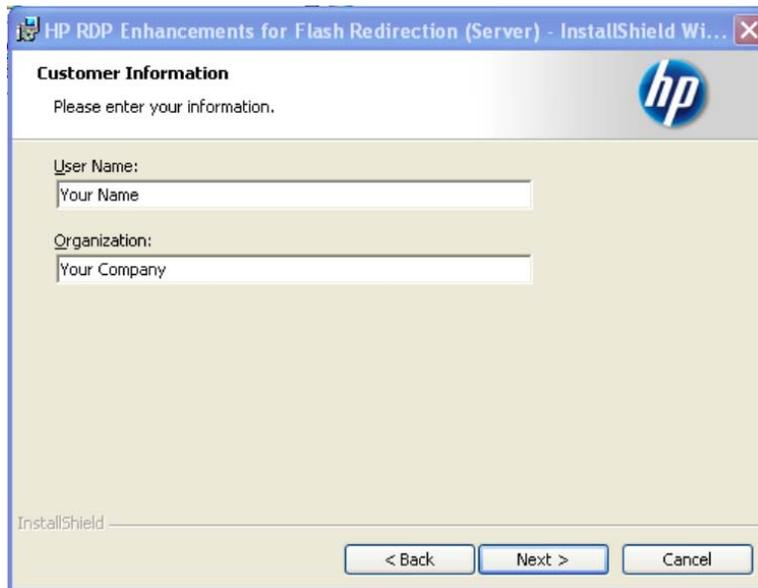
1. On the server, using an Administrator account, locate and run the **HP RDP Enhancements for Flash Redirection (Server).msi** file.
2. If prompted with a Security Warning, select **Run**.



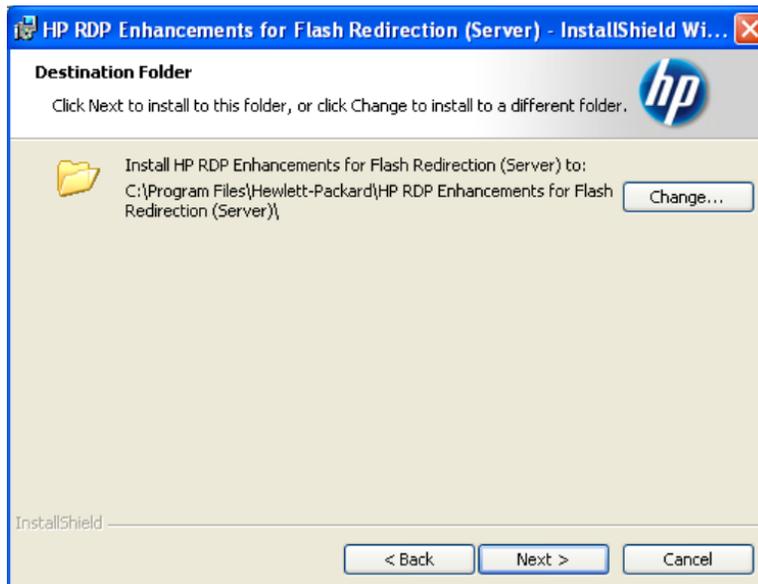
3. Click **Next** to begin the installation.



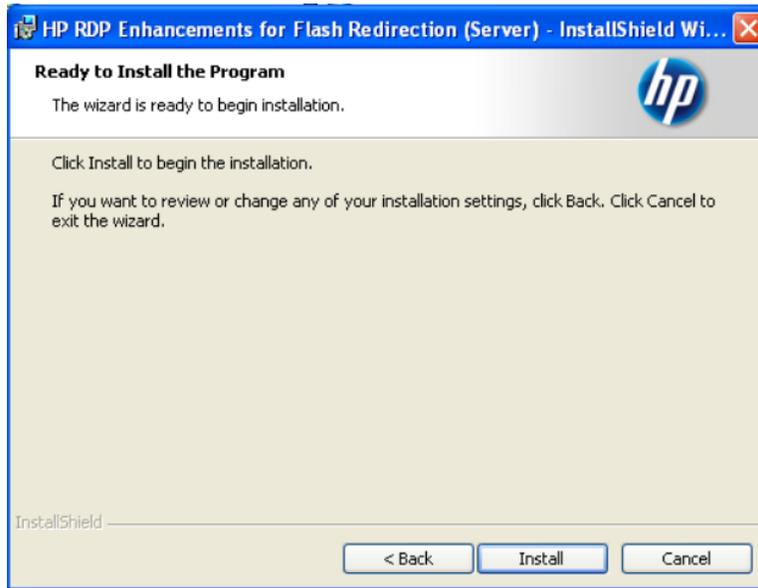
4. Fill in the appropriate **User Name** and **Organization** and click **Next**.



5. Click **Change** if you want to change the destination folder for the software; otherwise click **Next** to continue.

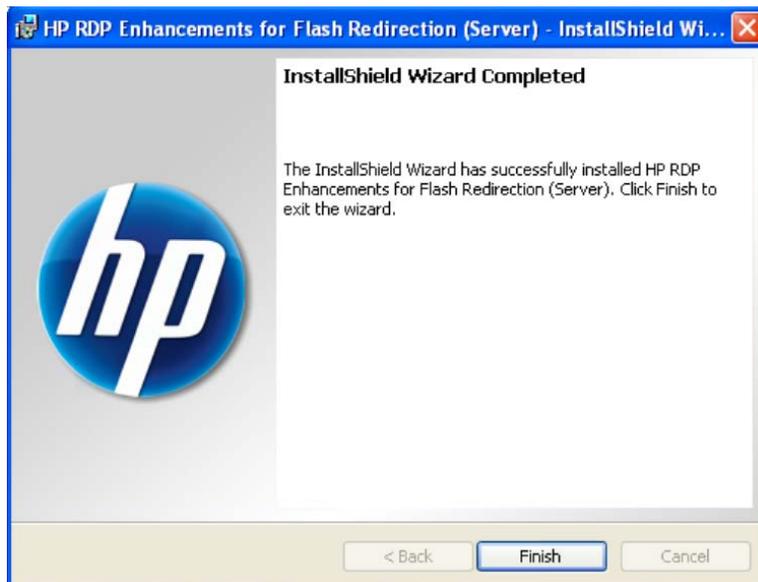


6. Click **Install** to confirm that you are ready to begin the installation.



A progress indicator is displayed. Installation may take several minutes.

7. When installation is complete, click **Finish**.



8. When prompted to restart the server, you may restart the server or wait for a more convenient time; however, you must restart the server before the installation will take effect.

## Installing HP RDP Enhancements for Flash Redirection Client Component on the Thin Client

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### NOTE:

The client component is included in the **HP RDP Enhancements for Flash Redirection** download.

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### Thin Clients Running Windows Embedded Standard 2009

1. Locate the **Add\_HP\_RDP\_Flash\_Redirection\_Client\_Side\_\*.exe** file. Copy it to a USB flash memory device, and then execute it on the thin client.

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### NOTE:

\* refers to the software version number and may vary. The filename should begin with

**Add\_HP\_RDP\_Flash\_Redirection\_Client\_Side\_**

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2. On the WES Thin Client, open the **Control Panel** and then open the **HP RAMDisk Manager**.
3. In the **HP RAMDisk Manager**, set the size of the Z: RAMDisk. It is recommended that it be set to the maximum value.

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### NOTE

The maximum value for the Z:RAMDisk in image 710 is 64MB. The maximum value for image 810 is 96 MB.

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4. After installation and RAM disk configuration, the write filter must commit the changes to the flash memory. This can be done by executing the following command from the command line:  
`C:\windows\system32\ewfmgr.exe c: -commit`  
Or by right-clicking the **Write Filter** notification area icon and selecting **Commit**.

## Thin Clients Running HP ThinPro

1. Locate the **FlashMMR-\*\_i386.deb** file. Unless you have specified another location, it will usually be found in the folder `C:\Program Files\Hewlett-Packard\HP ThinPro\Add-On\RDPFRed` on the system from which you extracted the compressed files.

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### NOTE:

\* refers to the software version number and may vary. The filename should begin with **FlashMMR-**.

Use management software, such as HP Device Manager or Altiris to complete the remaining steps.

2. Download the **FlashMMR-\*\_i386.deb** file to the HP ThinPro Thin Client.
3. Run `fsunlock`.
4. Run `dpkg -I FlashMMR-*_i386.deb`.

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### IMPORTANT:

\* refers to the software version number; be sure to specify the exact filename in step 2, above.

5. Run `fslock`.
6. Restart the thin client.



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