How to improve printing for virtual desktops?

ThinPrint .print ■ The new way of printing

.print in a nutshell

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How do you optimize printing in virtualized environments?

This brief guide describes the use of ThinPrint .print in virtualized Windows environments and how they can be configured with the products VMware VDI, Microsoft Virtual Server, Citrix XenDesktop and others.

Why use ThinPrint .print in virtualized environments?

ThinPrint .print abolishes the fixed coupling of applications to printer hardware. Thanks to DRIVER FREE PRINTING, a specific printer driver is no longer required on the virtual machines (VM). High compression and bandwidth management virtualize the spatial proximity too. Thus, printer hardware can be in both remote branch and home offices.

ThinPrint .print likewise solves the 32/64-bit incompatibility of printer drivers. SSL encryption[1] provides the necessary security. Images for virtual machines can thus be created and managed more flexibly. Extensive management tools simplify administration and provide many additional benefits to the point of tracking print volumes.

Which environments is ThinPrint .print recommended for?

Use of ThinPrint .print is basically recommended for any virtualized environment where printing will take place. The higher the number of printers and, particularly, of different printer models, the sooner ThinPrint .print's added value becomes evident. There are two typical installation forms:

1. **Virtual print server**
   This installation form is universal and is also recommended for VDI environments[2]. A print server virtualized with ThinPrint .print can be used in combination with any VM.

2. **Virtual desktop environments with no print servers**
   VDI environments are a special form of virtualized environments, in which individual desktops are made centrally available to users.

Installation of a virtual print server

Step 1

– Create a virtual machine for the print server.
(Requirements: Windows Server 2003 with Service Pack 1 or higher or Windows Server 2003 x64 with Service Pack 1 or higher, or Windows Server 2008)

1 Secure Socket Layer or Transport Layer Security
2 Virtual Desktop Infrastructure (e.g., VMware VDI or Citrix XenDesktop)

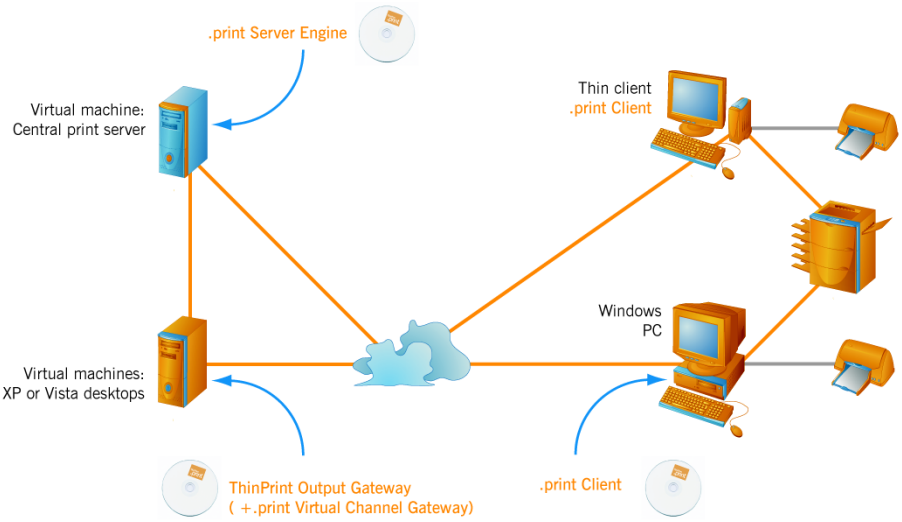
Step 2

– Download the product .print Server Engine 7.6 from the ThinPrint Web site (www.thinprint.com→ PRODUCTS→ OVERVIEW→ .PRINT SERVER ENGINE → DEMO VERSION).
Note that there is a 32-bit and a 64-bit version of the .print Server Engine. Choose the one appropriate version for your print server.

– Install the software on the virtual machine with the setup program and follow the instructions of the setup routine. During the installation, enter (at least) two (demo) license keys[3], which you received via e-mail or from your salesperson: .print Print Server Basic Pack (= basic license for one print server; license key type: TPPS-0388-1) and a user license key (for 10 named users; license key type: TPUS-0388-10). More information about the installation can be found in the .print Server Engine manual (www.thinprint.com→ PRODUCTS → OVERVIEW→ .PRINT SERVER ENGINE→ MANUALS).

Step 3

– If you are using the virtual print server together with virtual or real Windows desktops, install the Driver Free Printing component **ThinPrint Output Gateway** on the virtual desktops. Select the file OEMPRINT.INF from the folder TPOG3 in the program directory of the .print Engine.
For printing via ICA or RDP, install also **Virtual Channel Gateway for virtual Desktops** on the desktops. This tool is for free and needs no administration at all (download from www.thinprint.com/→ PRODUCTS → .PRINT FOR CITRIX→ .PRINT VCG FOR VIRTUAL DESKTOPS→ DEMO VERSION).
More information about the installation and the use of Windows Terminal Servers can be found in the .print Server Engine manual.



Illus. 1 Installation of ThinPrint .print components in an environment with a virtual central print server

Step 4

– Download the **.print Client Windows** from the ThinPrint Web site (www.thinprint.com/→ SUPPORT→ THINPRINT .PRINT CLIENTS & TOOLS, and install it on a Windows PC. Select the print protocol: ICA/RDP or TCP/IP.
Or provide a terminal (= Thin Client) with the integrated .print Client (www.thinprint.com/→ PRODUCTS→ OVERVIEW→ .PRINT SERVER ENGINE → SUPPORTED ENVIRONMENTS→ SUPPORTED DEVICES).

3 per central print server

Installation of virtual desktop environments with no print server

Step 1

– Create a virtual machine as the template for the Windows desktops (Requirements: Windows XP Professional with Service Pack 2 or higher or Windows XP Professional x64)

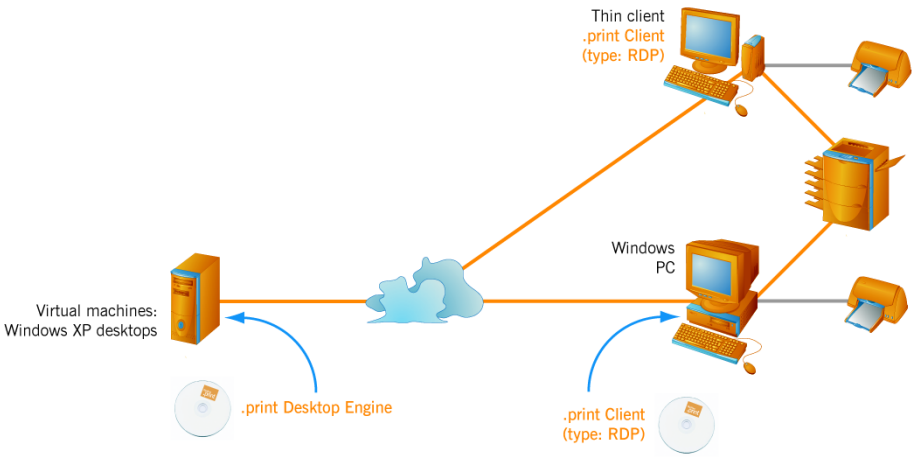
Step 2

– Download the program .print Desktop Engine 7.0 from the ThinPrint Web site (www.thinprint.com/→ PRODUCTS→ OVERVIEW→ .PRINT DESKTOP ENGINE → DEMO VERSION). Note that there is a 32-bit and a 64-bit version of the .print Desktop Engine.

– Install the software on the template (of the virtual machines) with the setup program and follow the instructions of the setup routine. During the installation, enter the (demo) license key, which you received via e-mail or from your salesperson: .print Desktop Engine (license key type: TRDP-0330-2 or TADP-0330-2). More information about the installation can be found in the .print Desktop Engine manual (www.thinprint.com/→ PRODUCTS→ OVERVIEW → .PRINT DESKTOP ENGINE→ MANUALS).

Step 3

– Make as many copies of this template as the number of virtual desktops you require.



Illus. 2 Installation of ThinPrint .print components in an environment with virtual Windows desktops with no print server

Step 4

– Download the **.print Client Windows (RDP type)** from the ThinPrint Web site (www.thinprint.com/→ SUPPORT→ THINPRINT .PRINT CLIENTS & TOOLS→ .PRINT CLIENT WINDOWS .MSI FILES→ WINDOWS RDP or WINDOWS X64 RDP), and install it on a Windows PC. Or provide a terminal (= Thin Client) with the integrated .print Client (www.thinprint.com/→ PRODUCTS→ OVERVIEW→ .PRINT RDP ENGINE→ SUPPORTED THIN CLIENTS.

The installation routines of the .print Desktop Engine and .print Client Windows are Plug & Play. Immediately after the installation, you can create a remote desktop connection and print from there.