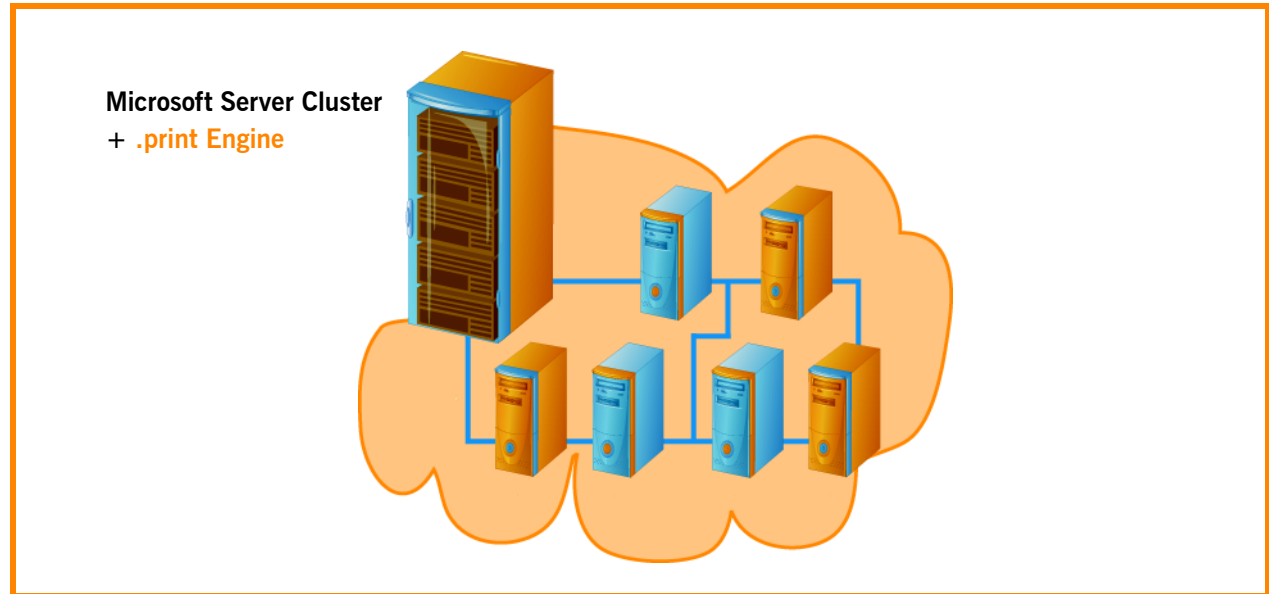


## Microsoft Cluster Services and ThinPrint .print

Installation and configuration of .print Engine (version 7.6)



Microsoft Cluster Services place special demands on program installation and configuration. This white paper therefore describes what additional steps are necessary to install .print Engine and configure ThinPrint Ports in a print server cluster under Windows Server 2003.

For .print Engine installation on print servers under Windows see the “.print Server Engine” manual.

### Installation

- Installing and licensing .print Engine
- Installing Output Gateway driver
- Adding a ThinPrint Port to the server cluster
- Adding an Output Gateway printer

### ThinPrint Ports

- Adding
- Configuring

### Appendix

- Customer service and technical support
- Uninstallation
- Additional sources
- Abbreviations

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## System requirements

### Network

ThinPrint .print runs in a network architecture. A TCP/IP network must therefore be installed.

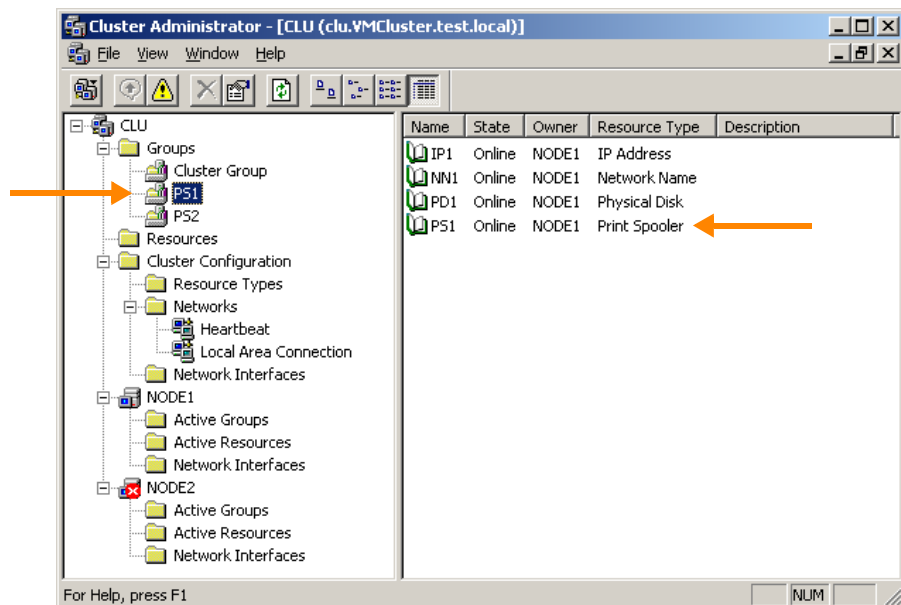
### .print Engine

.print Engine requires one of the following operating systems:

- Windows Server 2003 with Service Pack 1 or later, installed as server cluster (MSCS)
- Windows Server 2003 x64 with Service Pack 1 or later, installed as server cluster (MSCS)

### Print spooler

The server cluster must have at least one print spooler group (Illus. 1). To set up a print spooler group on a cluster server see Microsoft Help and Support at <http://support.microsoft.com/kb/197046/en-us>.



**Illus. 1** Print spooler groups ps1 and ps2 in the Cluster Administrator (example)

## Installation

### Installing and licensing .print Engine on cluster nodes

#### Installation

.print Engine must be installed individually on every node in the cluster:

- Install .print Engine on the cluster node. Use the installation program *Setup.exe* as well as
  - the “.print Server Engine” manual ([Page 13](#)) or
  - the “Quick installation .print Server Engine” manual ([Page 13](#))

#### Licensing

During .print Engine installation (see above), you are asked to enter license keys. You should have received these from your reseller or by e-mail from ThinPrint. Depending on the purchased Product version (Windows 32 bit or x64) and on the selected license type, (server or user based), select the license key from the following types:

Product version	Licensing type	
	Server-based	User-based
32-bit	THPS-0388-1 (Server Engine) THSA-0388-1 (Server Access licenses supplied with Application Server Engines)	TPPS-0388-1 (Printserver Basic Pack) TPUS-0388-10 (10 Named Users)
64-bit	TAPS-0388-1 (Server Engine) THSA-0388-1 (Server Access licenses supplied with Application Server Engines)	TPPS-0388-1 (Printserver Basic Pack) TPUS-0388-10 (10 Named Users)

When purchasing user based licensing, it is usual to buy as many licenses as there are users in the Terminal-Server or host environment. Therefore you may have received further TPUS licenses, for example TPUS-0388-20 for 20 named users, TPUS-0388-100 for 100 named users etc. You will have only received the server access license key if you are using the .print Server Engine together with Microsoft or Citrix terminal servers.<sup>1</sup>

The license keys of “.print Server Engine” (THPS and/or TAPS) and of “.print Printserver Basic Packs” (TPPS) have to be purchased and installed per cluster node; in this situation each license key can be activated only once. The server access license keys (THSA) and the user license keys (TPUS) however, only need to be purchased once and can be installed and activated on each cluster node (= multiple activation).

<sup>1</sup> Alternatively, for larger terminal-server environments, a single server access license key can be supplied for all terminal servers, e.g. THSA-0388-25 for a farm with 25 terminal servers.

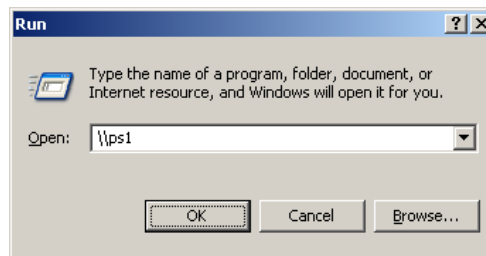
## Unattended licensing

From version 7.6, using the print component TPLicMMC.dll, ThinPrint license keys can be distributed and activated either unattended or remotely. Refer to “Unattended installation and licensing of .print server components” white paper ([Page 13](#)). However, you need to make sure that the server address (target host) in the license file is that of the cluster node and not of the cluster instance or the print spooler group (Failing to do so will result in passing the licenses through to the cluster node that is active at that moment, and that may be the wrong one).

## Installing Output Gateway driver in the server cluster

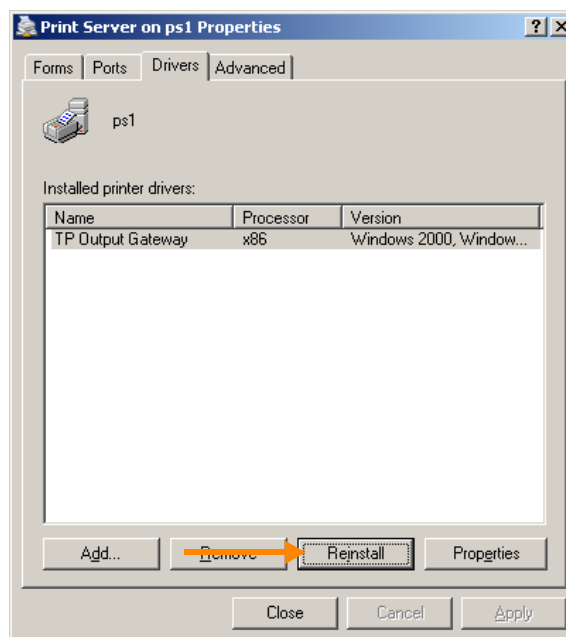
The following steps are only necessary if ThinPrint Output Gateway is to be used as printer driver in the server cluster. Perform these steps for each print spooler group.

1. Change to the desired print spooler group by entering its UNC path under START→ RUN (Illus. 2).



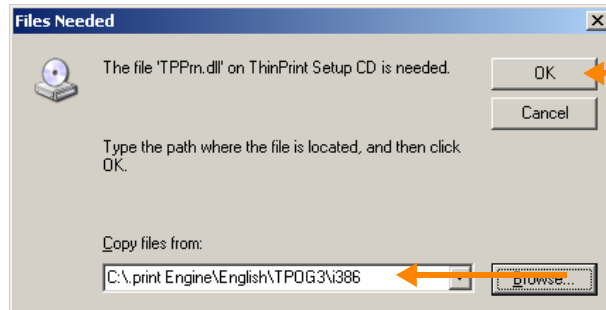
**Illus. 2** Example for a UNC path of a print spooler group

2. Select in the print spooler group’s printers folder: FILE→ SERVER PROPERTIES→ DRIVERS (Illus. 3).
3. Select REINSTALL. Click YES or OK to confirm the following windows.



**Illus. 3** Reinstall Output Gateway driver in the SERVER PROPERTIES

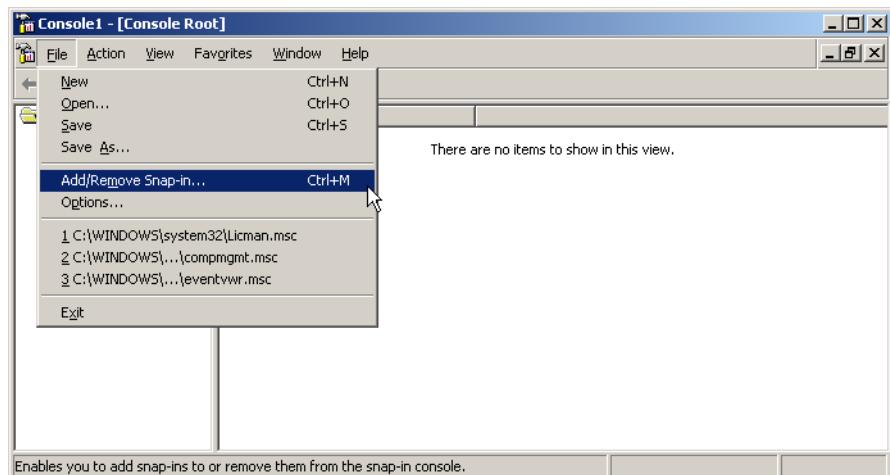
4. Select the path to the Output Gateway driver (TPOG3) including processor environment (i386 for 32 bit or amd64 for x64) and click OK to confirm (Illus. 4).
5. Click CLOSE to confirm the following window.



Illus. 4 Select the path to the Output Gateway driver

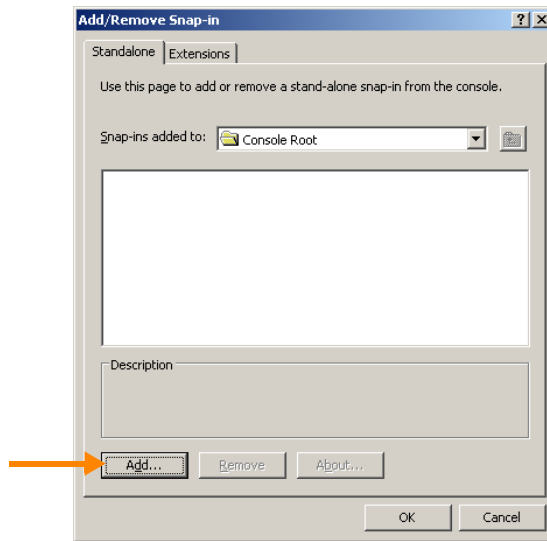
## Adding ThinPrint Ports to the server cluster

1. Start Microsoft Management Console from the command prompt with: **mmc**.
2. Select FILE→ ADD/REMOVE SNAP-IN (Illus. 5).



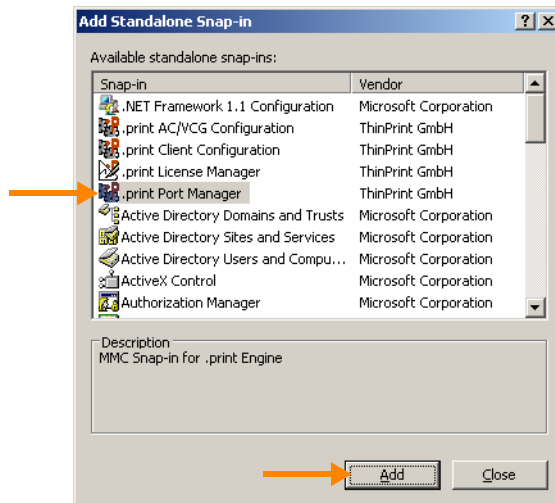
Illus. 5 Started Microsoft Management Console

3. Select ADD (Illus. 6).



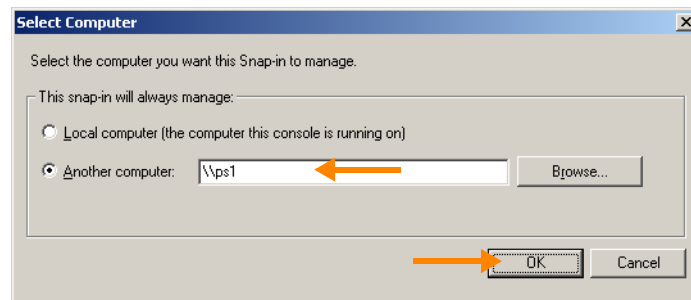
**Illus. 6** MMC: Click Add

4. For ThinPrint Port configuration select .PRINT PORT MANAGER and click ADD (Illus. 7).



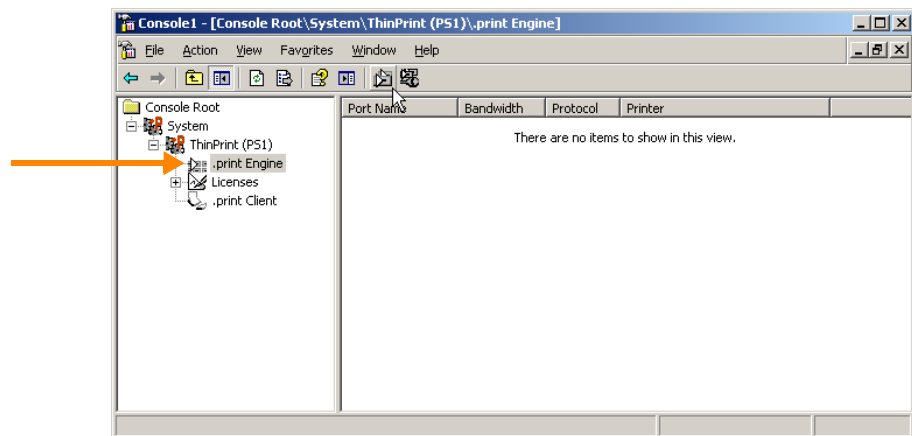
**Illus. 7** MMC: Select .print Port Manager

5. Select ANOTHER COMPUTER, enter the name of the print spooler group and click OK to confirm (Illus. 8).



**Illus. 8** MMC: Select the desired print spooler group

6. Click CLOSE and OK once you have added the print spooler group.
7. Select the .print Engine (Illus. 9).

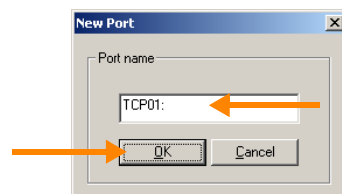


**Illus. 9** ThinPrint Ports in the MMC

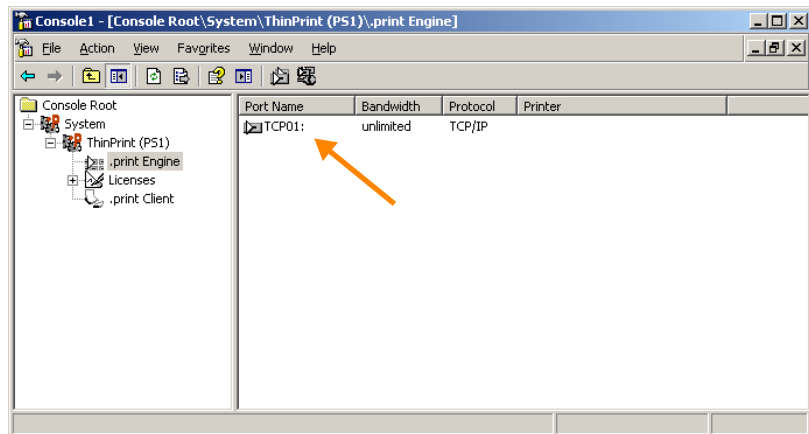


*Creating new  
ThinPrint Ports*

8. Create a new ThinPrint Port (by clicking the button in the illustration left).
9. Enter a port name and click OK to confirm (Illus. 10).  
The new ThinPrint Port appears in the MMC (Illus. 11).



**Illus. 10** Enter a printer port name

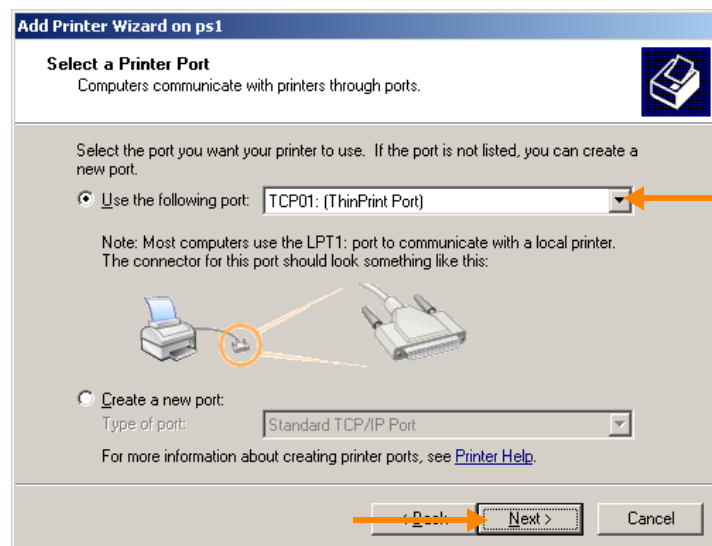


Illus. 11 New ThinPrint Port in the MMC

### Adding Output Gateway printers

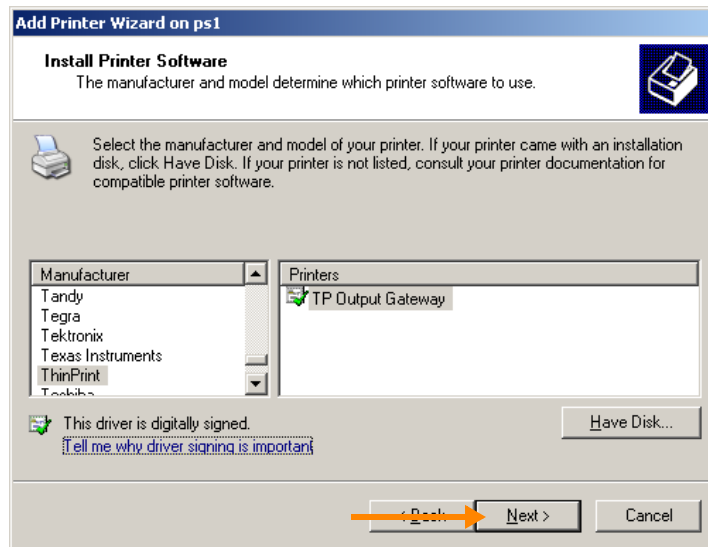
The following steps are only necessary if ThinPrint Output Gateway is to be used as printer driver in the server cluster. Perform these steps for each print spooler group.

1. Change to the desired print spooler group by entering its UNC path under START→ RUN (Illus. 2).
2. Open the PRINTERS AND FAXES folder and select FILE→ ADD PRINTER.
3. Select the previously installed ThinPrint Port (e.g., TCP01:) as printer port (Illus. 12) and click NEXT.

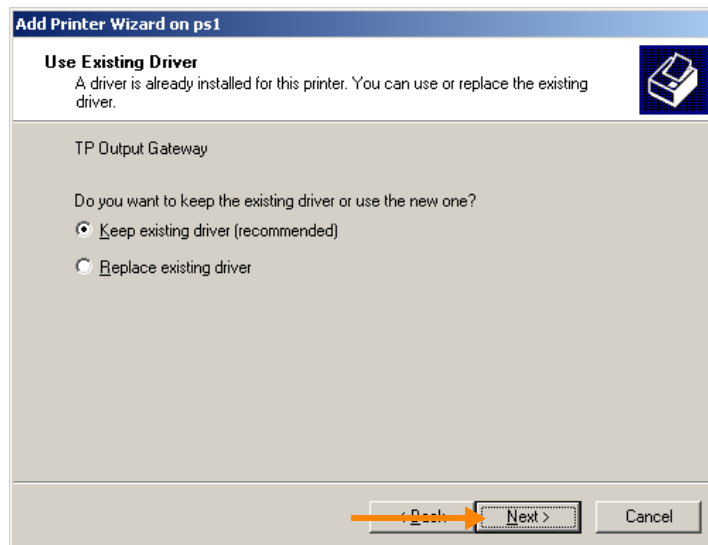


Illus. 12 Select a ThinPrint Port

4. Choose THINPRINT from the list of printer manufacturers, select TP OUTPUT GATEWAY, and click NEXT (Illus. 13 and 14).

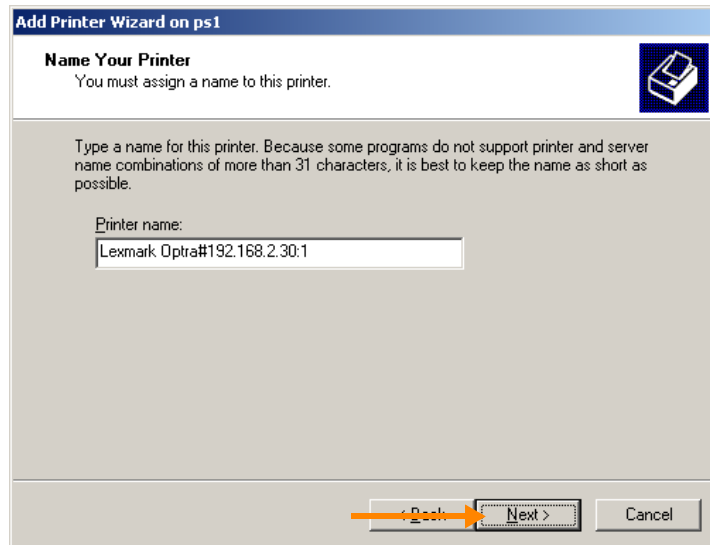


Illus. 13 Select TP Output Gateway as a printer driver

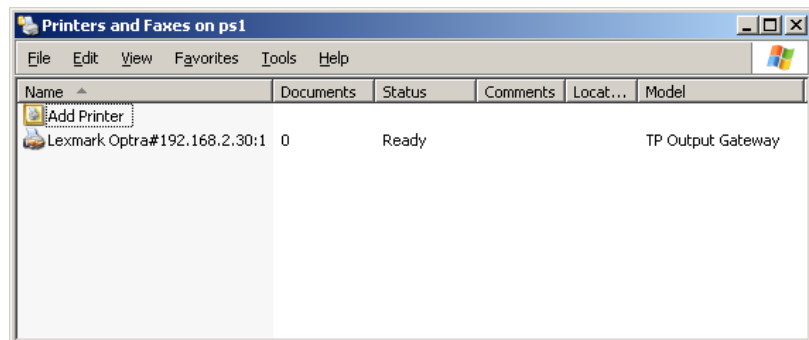


Illus. 14 Keep existing driver

5. Enter a printer name according to the .print name conventions<sup>2</sup> (Illus. 15) and share the printer afterwards. Click NEXT to confirm respectively. The result shows Illus. 16.



**Illus. 15** Printer name according to .print name conventions

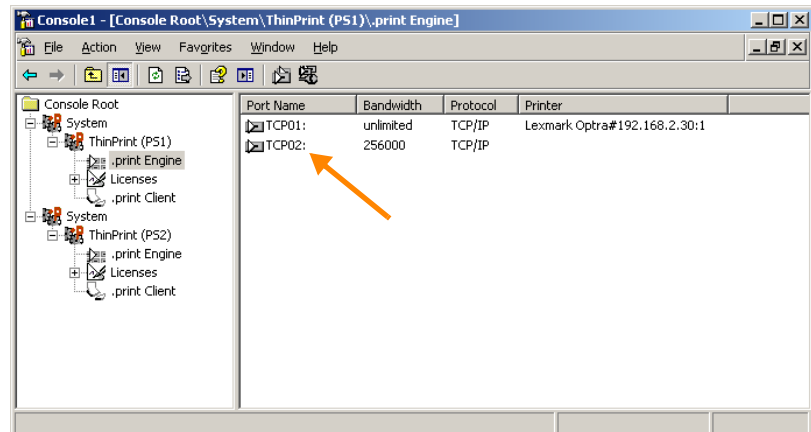


**Illus. 16** Printer using TP Output Gateway as the driver installed and shared in the print spooler group (example)

<sup>2</sup> See the “.print Server Engine” manual ([Page 13](#)).

## Adding and configuring ThinPrint Ports

Please see [Page 7](#) for information on creating ThinPrint Ports. For configuration, select .print Engine in MMC and double click the port you wish to configure (Illus. 17). Follow the instructions described in the “.print Server Engine” manual ([Page 13](#)).



**Illus. 17** Port configuration in the MMC: Double click the ThinPrint Port of the desired print spooler group (here: ps1 or ps2)

## Appendix

### Customer service and technical support

[www.thinprint.com/](http://www.thinprint.com/) → SUPPORT & SERVICES  
[support@thinprint.com](mailto:support@thinprint.com)

### Additional sources

Further information about ThinPrint .print can be downloaded from our website.

*Manuals* “.print Server Engine“ manuals are available at [www.thinprint.com/](http://www.thinprint.com/) → FIND PRODUCT → .print Server Engine → MANUAL(S).

*White papers* The “Unattended installation and licensing of .print server components” white paper can be downloaded at [www.thinprint.com/](http://www.thinprint.com/) → FIND PRODUCT → .print Server Engine → WHITE PAPERS or at [www.thinprint.com/](http://www.thinprint.com/) → SUPPORT & SERVICES → WHITE PAPER DOWNLOAD.

### Abbreviations

Please see also the index of abbreviations in the “.print Server Engine” manual.

<b>MMC</b>	Microsoft Management Console
<b>MS</b>	Microsoft
<b>MSCS</b>	Microsoft Cluster Services
<b>TP</b>	ThinPrint
<b>TPOG</b>	ThinPrint Output Gateway
<b>UNC</b>	Name convention for accessing network resources under Microsoft operating systems (universal naming convention); e.g., \\server\verzeichnis