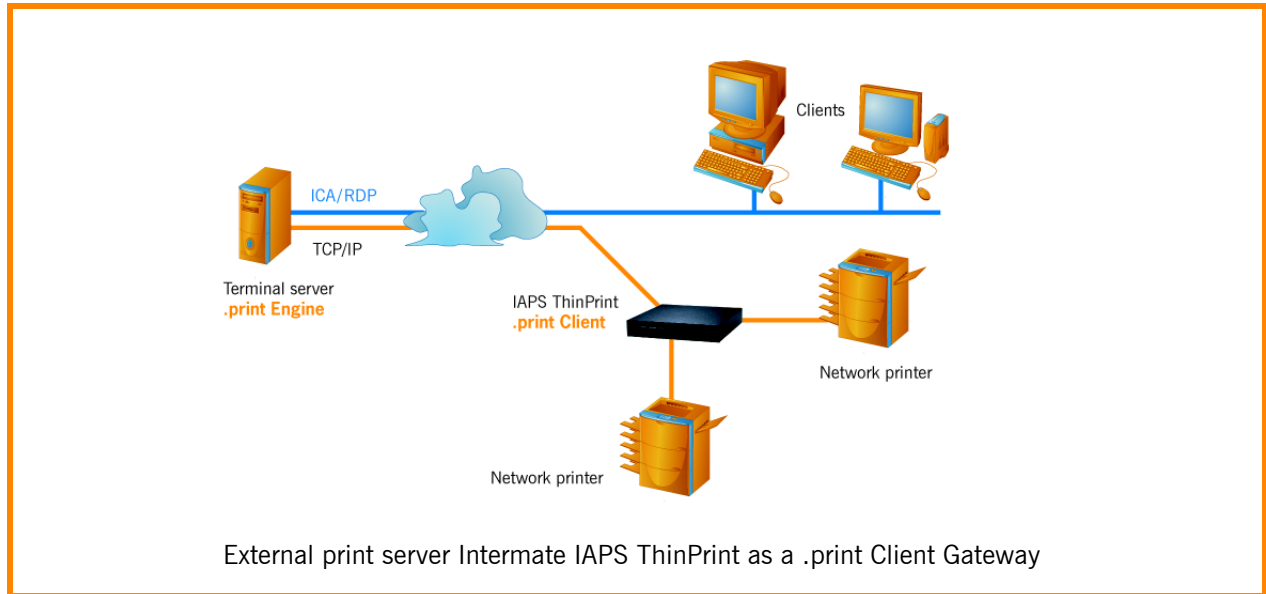


IAPS ThinPrint as a .print Client Gateway

Example for practice



A *.print Client Gateway* can greatly simplify the introduction of ThinPrint .print because it can receive print jobs for an entire group of clients and printers, decompress them, and then distribute them conventionally in a local network – like a local print server. Then the .print Client is only necessary on the “local print server” for this remote LAN. Otherwise, the .print client must be installed on each end device.

The following example helps you install a .print Client Gateway using the external **Intermate IAPS ThinPrint** print server as a test scenario. Once you get a feel for the functionality, you can install it according to your system's individual requirements.

An IAPS ThinPrint print server has an embedded .print Client. It can address up to sixty-four network printers (via TCP/IP).

Why ThinPrint .print and Client Gateway?

Sample configuration

Installation

- Printer and IAPS ThinPrint print server
- Client machine(s)
- Terminal server

Configuration

- Network
- IAPS ThinPrint print server
- Terminal server
- Test print
- ThinPrint Ports
- .print AutoConnect

Appendix

- Additional sources

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Foreword

The .print Client Gateway can greatly simplify the introduction of ThinPrint .print because it can receive print jobs for an entire group of clients and printers, decompress them, and then distribute them conventionally in a local network – like a local print server. Then the .print Client is only necessary on the “local print server” or .print Client Gateway for this remote LAN. Otherwise, the .print client must be installed on each end device: rich clients, printers, print servers, thin clients, PDAs, etc. This could mean that with thin clients, for example, a BIOS update is necessary. Even mixed environments pose no problem: The .print client is installed onto all devices where simple installation is possible, and all others are served by a Client gateway.

Any machine with .print Client installed can be used as a Client Gateway (e.g., a Windows or a Linux workstation). Thin clients or external print servers with embedded .print Clients can also be used. The following example helps you install a **.print Client Gateway** using the external **Intermate IAPS ThinPrint** print server¹ as a test scenario. Once you get a feel for the functionality, you can install it according to your system's individual requirements.

An IAPS ThinPrint² has an embedded .print Client. It can address up to sixty-four network printers (via TCP/IP). See also www.intermate.com.

Tipp! There are some alternatives for .print Client Gateways: for example here, you can configure Win32 clients, Linux clients, or external print servers. If, however, you also want to keep printer drivers off of your servers (Driver Free Printing), you must use Windows machines as .print Client Gateway.

1 External print servers also known as print boxes – but don't confuse with dedicated print servers.

2 IAPS = Intermate Advanced Print Server

Why ThinPrint .print and Client Gateway?

	General .print	.print Client Gateway with IAPS ThinPrint
Use	<ul style="list-style-type: none"> • Bandwidth control and print data compression, especially for server based environments • Print data encryption • Driver Free Printing 	Not necessary to install .print Client on every client device; it's embedded in the IAPS ThinPrint print server
Function	.print Server component provides bandwidth control, print data compression, streaming, and encryption, then sends print data to the .print Client component.	Receipt and decompression of print data, transmission to network printers
.print components to be installed	Windows or Unix: <ul style="list-style-type: none"> • .print Engine • .print Client Windows only: <ul style="list-style-type: none"> • .print AutoConnect • .print Connection Service if necessary • .print Virtual Channel Gateway if necessary 	<ul style="list-style-type: none"> • .print Engine onto the terminal server(s) and/or dedicated print server • [.print Client (TCP/IP) is embedded in the IAPS ThinPrint; AutoConnect support included]
.print licenses	Windows: <ul style="list-style-type: none"> • .print Application Server Engine and/or .print Server Engine • .print Connected Gateway if necessary Unix: <ul style="list-style-type: none"> • .print Engine Unix 	Windows: <ul style="list-style-type: none"> • without dedicated print server/s: .print Application Server Engine license • with dedicated print server/s: .print Server Engine license on each print server and .print Application Server Engine license on each terminal server Unix: <ul style="list-style-type: none"> • .print Engine Unix

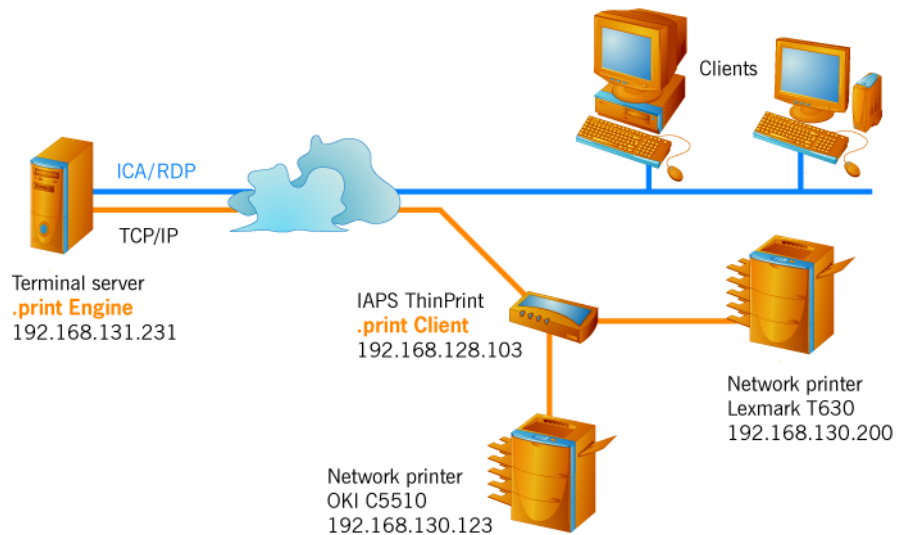
Sample configuration

By way of example, we will assume an environment with a Windows terminal server. The components necessary for the example in Illus. 1 are:

- At least one PC (as terminal client)
- 1 Intermate IAPS ThinPrint print server
- 2 network printers with their own network card (without integrated .print Client)
- 1 terminal server, .print Engine and .print AutoConnect installed

Tips

1. .print Client Gateway works exclusively with the protocol TCP/IP.
2. The following .print (demo) license is necessary for this example configuration: .print Application Server Engine
3. This example illustrates IAPS ThinPrint configuration without .print AutoConnect. For the use of .print AutoConnect see the “.print Application Server Engine” user manual ([Page 14](#)):



Illus. 1 Sample configuration

Installation

Safety warning

All ThinPrint products are pure software solutions. For safety warnings for your hardware, please consult the technical documentation provided by the respective manufacturer and supplier of each hardware device and component.

Printer and IAPS ThinPrint

- Connect the IAPS ThinPrint and the network cards of both network printers to the network.

Client machine(s)

- Install 32-bit Windows and a RDP or ICA client onto a PC (see Illus. 1).

Terminal server

- Install the *.print Engine* onto a Microsoft or Citrix terminal server (see Illus. 1 and the “.print Application Server Engine” manual or “Remote Desktop Suite Premium” respectively; [Page 14](#)).

Configuration

Network

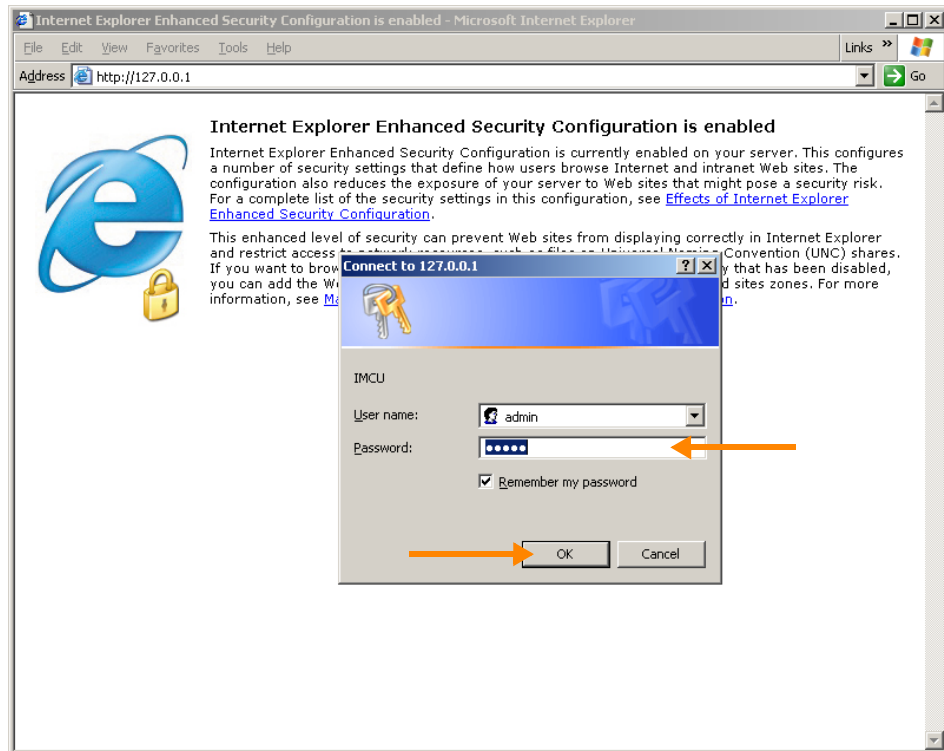
- Assign all devices IP addresses within the same subnet; in this example:
 - for the *IAPS ThinPrint* 192.168.128.103
 - for the *Lexmark* network printer 192.168.130.200
 - for the *OKI* network printer 192.168.130.123
 - for the Windows terminal server 192.168.131.231

Client Gateway IAPS ThinPrint

Intermate Management & Configuration Utility

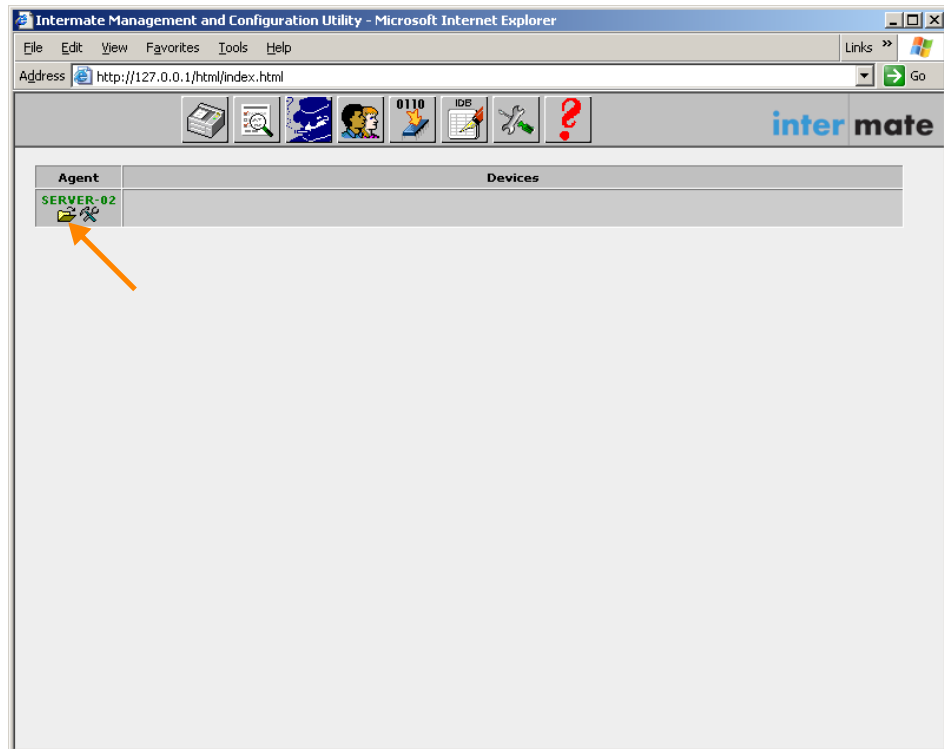
- IP address*
- If you do not know the IP address of the IAPS ThinPrint or if it is not reachable, install and start the SHE management tool, **Intermate Management & Configuration Utility (IMCU)**³ on the PC or terminal server (Illus. 2; default password: admin).

³ Included in delivery of the IAPS ThinPrint



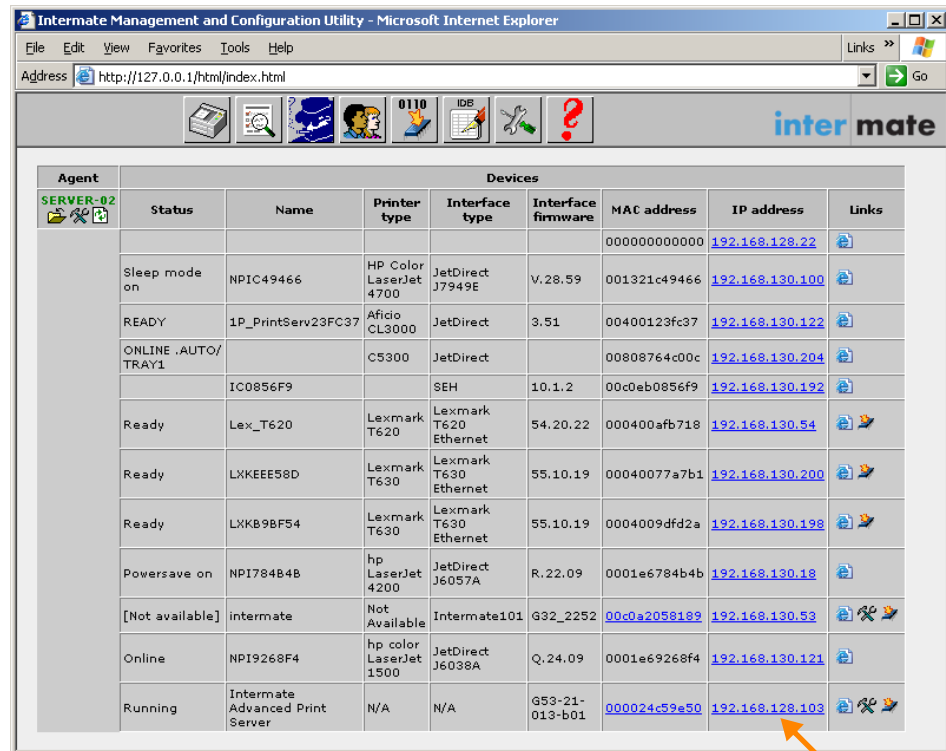
Illus. 2 Intermate Management & Configuration Utility: Login

- Expand the table of print servers (Illus. 3).



Illus. 3 Intermate Management & Configuration Utility: Select EXPAND

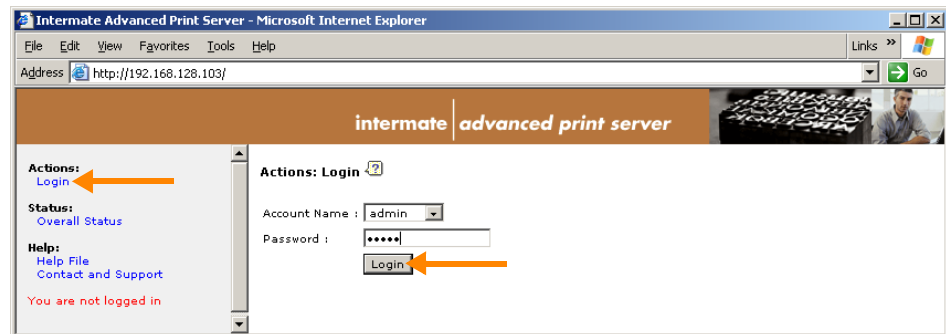
- Find the IP address of the IAPS ThinPrint here (Illus. 4). Close the IMCU. Further configuration can be made with the IAPS web interface.



Illus. 4 Interimate Management & Configuration Utility: IP address of the IAPS

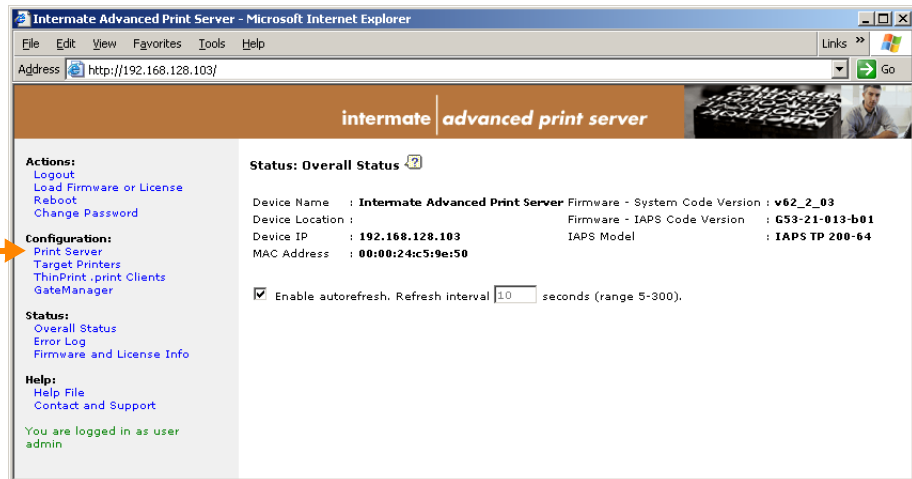
IAPS web interface

- Login – Open the IAPS web interface and log in (Illus. 5; default password: admin).



Illus. 5 Configuring the IAPS ThinPrint with web interface: Login

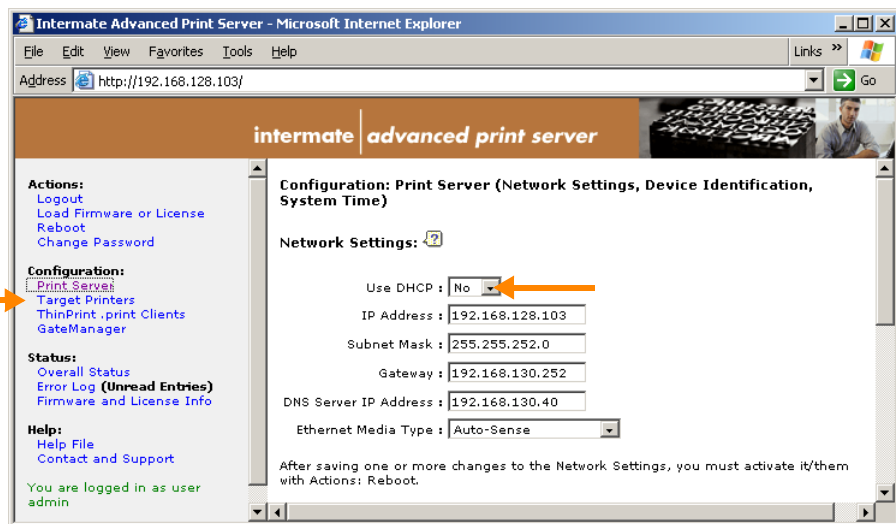
- Select PRINT SERVER (Illus. 6).



Illus. 6 Configuring the IAPS ThinPrint with web interface: Select PRINT SERVER

DHCP off

- Change the IP address of the IAPS (if necessary) and disable DHCP (Illus. 7). Click SAVE CHANGES and then TARGET PRINTERS.

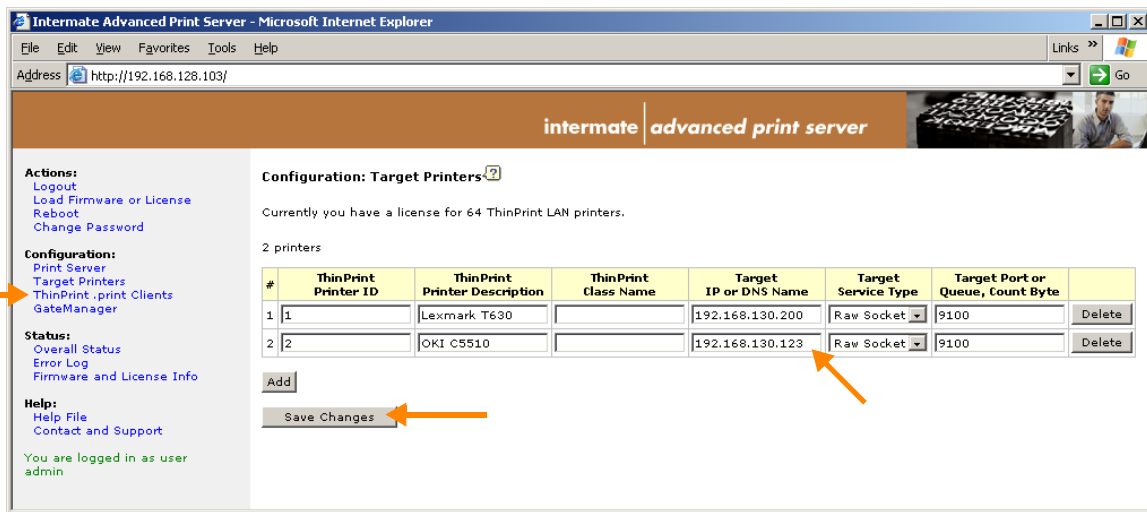


Illus. 7 Configuring the IAPS ThinPrint with web interface: Disabling DHCP

Network printers

- Set up your network printers as described on [Page 7](#) and confirm by clicking SAVE CHANGES (Illus. 8).
- Select THINPRINT .PRINT CLIENTS.

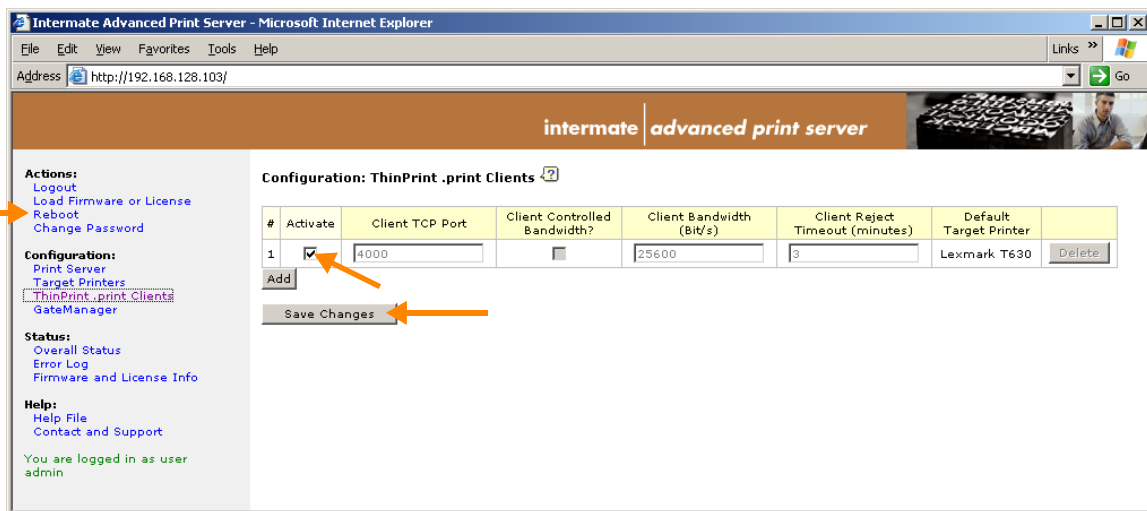
Tip! IAPS ThinPrint has models for one to sixty-four network printers. You should define one .print Client for every eight printers (Illus. 9). It is also advised to select the same settings for all .print Clients.



Illus. 8 Configuring the IAPS ThinPrint with web interface: Create two printers

.print Client(s)

- Enable one .print Client (Illus. 9) and confirm with SAVE CHANGES.
- Finish configuration by restarting the print server with REBOOT.



Illus. 9 Configuring the IAPS ThinPrint with web interface: Enable .print Client(s) and reboot the print server

Terminal server

Creating printers

- Create printer objects on the terminal server for all printers connected to the IAPS ThinPrint. Install the relevant printer drivers. Associate these printer objects with a *ThinPrint Port*.
- Next, rename the printer objects in the following format:

```
printer_name#IP_address_IAPS:printer_ID
```

The IP address is the .print Client Gateway's (IAPS), and the printer ID can be seen in Illus. 8. In our example, this creates the two printers connected to the IAPS (Illus. 10):

- Lexmark T630#192.168.128.103:1
- OKI C5510#192.168.128.103:2

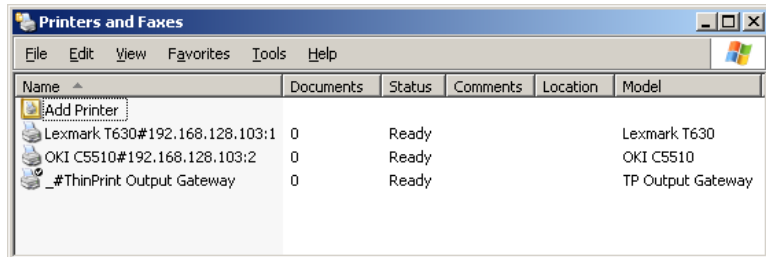


Bild 10 Printers folder on the terminal server

The printer name before the # is unimportant for addressing print data; it only serves to distinguish the printers.

Test print

Now test your .print Client Gateway installation. Print from within a session to each of the printers, **Lexmark T630** and **OKI C5510** (or directly from the server).

How does print data find its way to the correct printer?

All print data is sent to the IAPS ThinPrint – the .print Client Gateway (IP address: 192.168.128.103). After decompressing it, the IAPS ThinPrint forwards print data to the printer. Which printer receives what print job is decided by the printer ID (see Illus. 8 and 10):

Printer	Printer ID in the IAPS	Printer object name on the server
Lexmark T630	1	Lexmark T630#192.168.128.103:1
OKI C5510	2	OKI C5510#192.168.128.103:2

- Print data with the ID 1 is sent to the Lexmark T630.
- Print data with the ID 2 is sent to the OKI C5510.

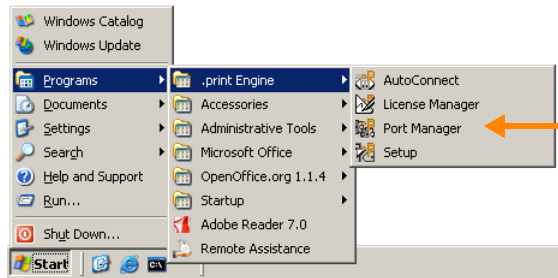
Done!

Next step? Try renaming the printer objects on the server by replacing the IP address with the IAPS's host name (see also Illus. 7, [Page 10](#)).

Additional configuration options

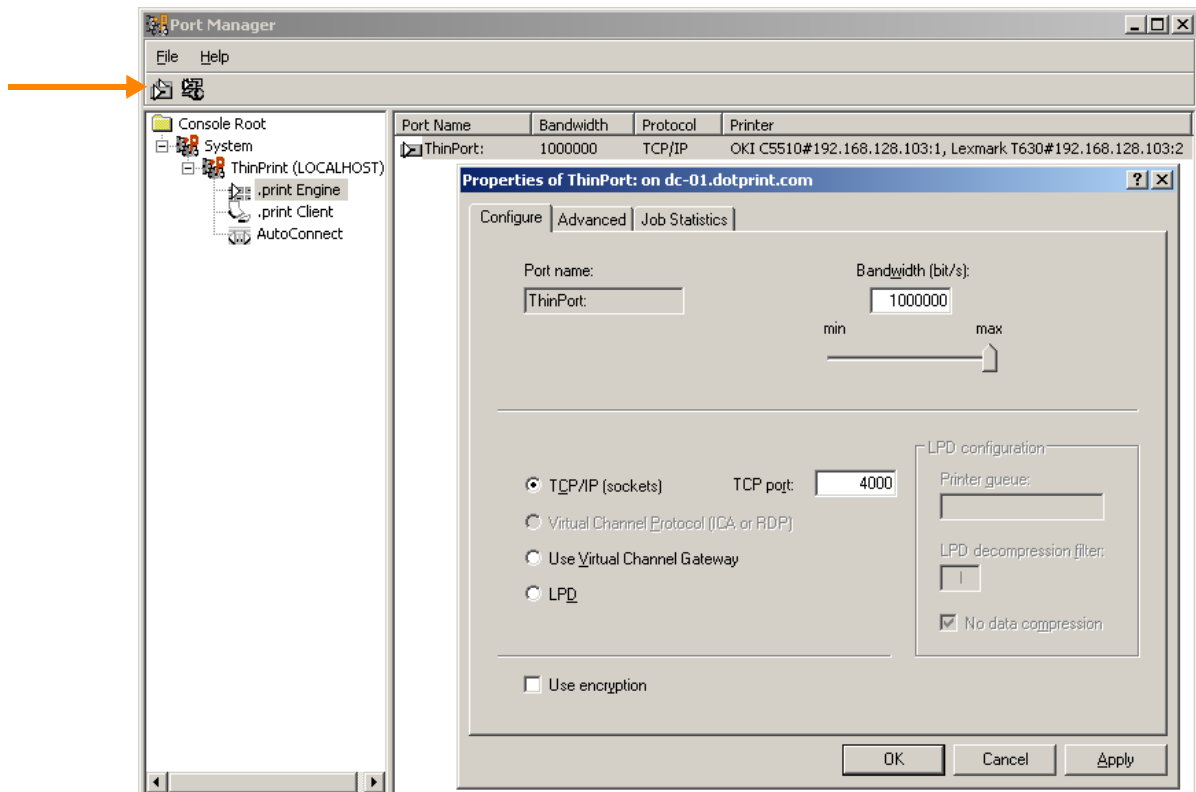
Adding and configuring ThinPrint ports

1. Start ThinPrint Port configuration in the Microsoft Management Console (MMC). You can use the program group .PRINT ENGINE in START menu (Illus. 11).



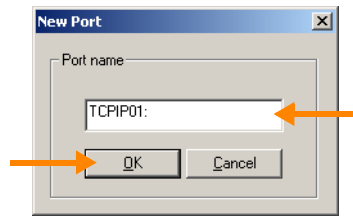
Illus. 11 Starting configuration of ThinPrint Ports with MMC

2. The ThinPrint Port settings can be opened by double clicking a port name (Illus. 12).
3. To create a new ThinPrint Port click the relevant icon (arrow in Illus. 12).



Illus. 12 MMC: managing ThinPrint ports

4. Enter a suitable port name and confirm with OK (Illus. 13).



Illus. 13 MMC: adding a new ThinPrint port

.print AutoConnect

The section on “Creating printers” ([Page 11](#)) describes how you can manually create printers that print with ThinPrint .print to the IAPS ThinPrint. The process of creating printers on a server can be automated with a component of the .print Engine – this component is called .print AutoConnect.

More information can be found in the white paper, “.print AutoConnect and .print Virtual Channel Gateway” as well as in the .print Engine user manuals ([Page 14](#)).

Appendix

Additional sources

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

Manuals Included in delivery of the IAPS ThinPrint:

- Intermate Advanced Print Server IAPS ThinPrint 200 Series • Getting Started
- ThinPrint Client and Client Gateway in the Intermate100, Intermate101, and LAN FS3
- TCP/IP Setup Guide using the IMCU

The following ThinPrint manuals are available at www.thinprint.com/ → FIND PRODUCT → <product name> → MANUAL(S):

- .print Application Server Engine (for Windows terminal servers)
- .print Server Engine (for dedicated print servers under Windows)
- .print Engine Unix
- .print Engine AS/400
- Remote Desktop Suite Premium
- .print Connected Gateway
- .print Queue Manager
- .print Host Integration Service
- .print Client user manuals

*White papers or
support papers*

The following white papers can be downloaded at www.thinprint.com/→ FIND PRODUCT→ <product name>→ WHITE PAPERS or www.thinprint.com/→ SUPPORT & SERVICES→ WHITE PAPER DOWNLOAD:

- .print AutoConnect and .print Virtual Channel Gateway
- Licensing
- Windows machine as a .print Client Gateway
- Intermate 101 as a .print Client Gateway
- SEH ISD300 as a .print Client Gateway
- SEH TPG60 as a .print Client Gateway