

## ThinPrint Host Integration Service

Optimized printing from host systems to Remote Desktop or Citrix environments

– specified for Citrix XenApp and ICA printing –

## Manual

ThinPrint GmbH  
Alt-Moabit 91 a  
10559 Berlin  
Germany/Alemania

Cortado, Inc.  
7600 Grandview Avenue  
Suite 200  
Denver, Colorado 80002  
USA/EEUU

Cortado Pty. Ltd.  
Level 20, The Zenith Centre,  
Tower A  
821 Pacific Highway  
Chatswood, NSW 2067  
Australia



E-mail: [info@thinprint.com](mailto:info@thinprint.com)  
Web: [www.thinprint.com](http://www.thinprint.com)  
Issued: July 11, 2016 (v154)

**© Copyright**

This document is the intellectual property of ThinPrint GmbH. This document may be copied in whole or in part, provided this Copyright notice is included in every copy.

**® Registered trade marks**

All hardware and software names mentioned in this document are the registered trademarks of their respective companies or should be regarded as such.

**Safety warning**

Please note the safety warnings in the technical documentation from your hardware vendor and from the manufacturer of each device and component.

Before beginning installation, we recommend closing all windows and applications and deactivating any virus scanner.

<b>Introduction</b>	5
How does the Host Integration Service work?	5
Constellations	5
System requirements Host Integration Service	7
Host Integration Service licensing	8
<b>Installation</b>	9
Installing Host Integration Service (on one XenApp server only)	9
Preparing the host systems	10
Example for AIX	10
Example for Linux	11
Example for Windows	11
Preparing the XenApp servers	12
<b>Configuring Host Integration Service</b>	13
On the XenApp server with Host Integration Service	13
Selecting LPRs	13
LPD and LPR configuration	14
Specifying a server for session query	15
Name translation	16
Importing user names for name translation	16
Finishing configuration	17
Accepting changes	17
Detecting user names from the host system	17
Example of a RFC 1179 control file	17
Alternative user name transmission	18
<b>Printing</b>	19
The print process	19
Changing printers	20
Alternative 1	20
Alternative 2	20
If you still can't print • Checklist	21

<b>Appendix .....</b>	<b>22</b>
Customer service and technical support .....	22
Uninstalling Host Integration Service .....	22
Relevant entries in Windows Registry .....	23
Additional sources .....	24
Acronyms and abbreviations .....	24

## Introduction

### How does the Host Integration Service work?

The ThinPrint Host Integration Service is a software solution that enables print support for application servers such as SAP, AS/400, iSeries or Unix systems – hereafter referred to as host systems. The Host Integration Service is installed on an application server (here, on a Citrix XenApp server).

The Host Integration Service receives print jobs as a Line Printer Daemon (LPD) and forwards them to the XenApp session (as an example) from which the print job was initiated. In turn, the ThinPrint Engine compresses the print jobs and then forwards them via ICA or RDP protocol across limited bandwidth to the ThinPrint Client.

Once at the client side, the ThinPrint Client decompresses the files to be printed. If necessary, an application is started using parameters (e.g., Adobe Reader) to convert the received data to a print file. Lastly, the ThinPrint Client sends the data to its *current printer*.

**Note!** The Host Integration Service will only work if run together with a ThinPrint Engine. For information about system requirements, installation, and configuration of ThinPrint Engine, consult the respective manual ([Page 24](#)).

### Constellations

A typical environment for the Host Integration Services could be as follows: The users in an SAP system use Windows PCs. They connect to a XenApp server with ICA clients installed on the PCs. The Citrix server is connected to the SAP system and provides the users with the *SAP GUI for Windows*. Protocol for the Citrix sessions is ICA, which is also to be used as print protocol (Illus. 1 to 3).

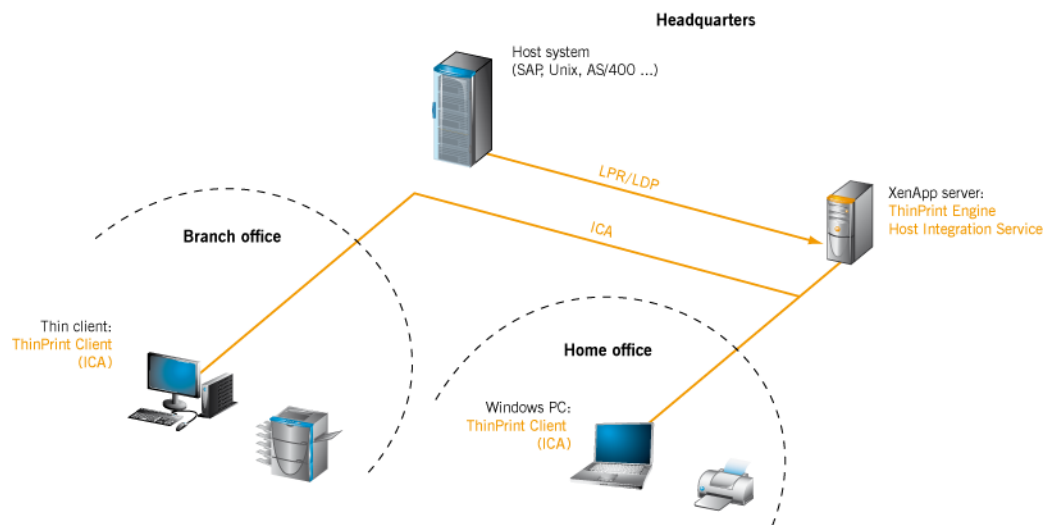
There are two possible constellations:

1. A standalone XenApp server on which the Host Integration Service is installed (Illus. 1).
2. A XenApp farm in which the Host Integration Service is installed on one of the servers (Illus. 2).
3. The Host Integration Service is installed on a member server in the Active Directory but outside of the XenApp farm (Illus. 3).

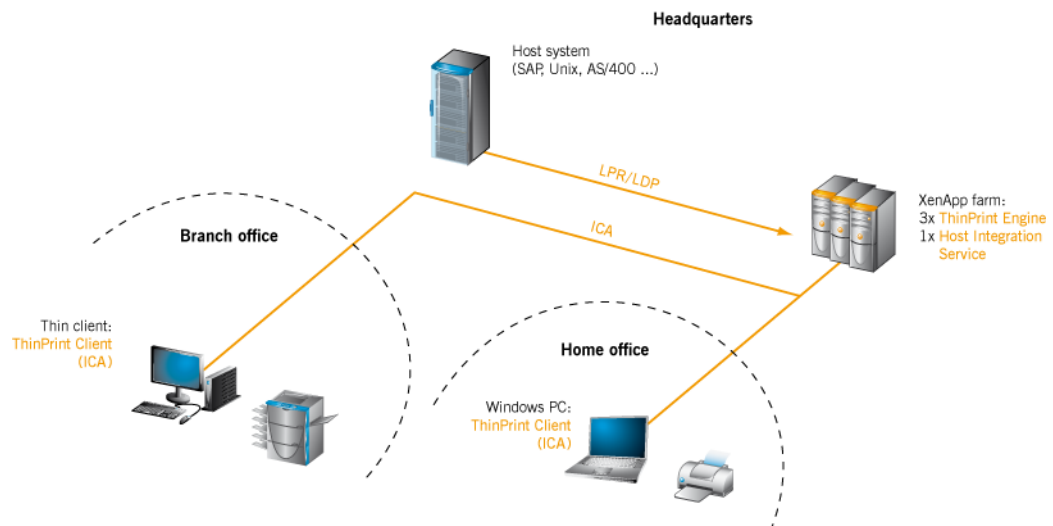
In each of these cases, the Host Integration Service (LPD) receives print jobs from the host system (LPR). The print job contains information about the user who initiated it. In cases 2 and 3 the Host Integration Service must first use this information to identify the server on which the user's session is running. It then sends the print job to that XenApp server (protocol: TCP/IP<sup>1</sup>); from there, ThinPrint Engine compresses the print data and forwards it via ICA protocol over controlled bandwidth to the user.

---

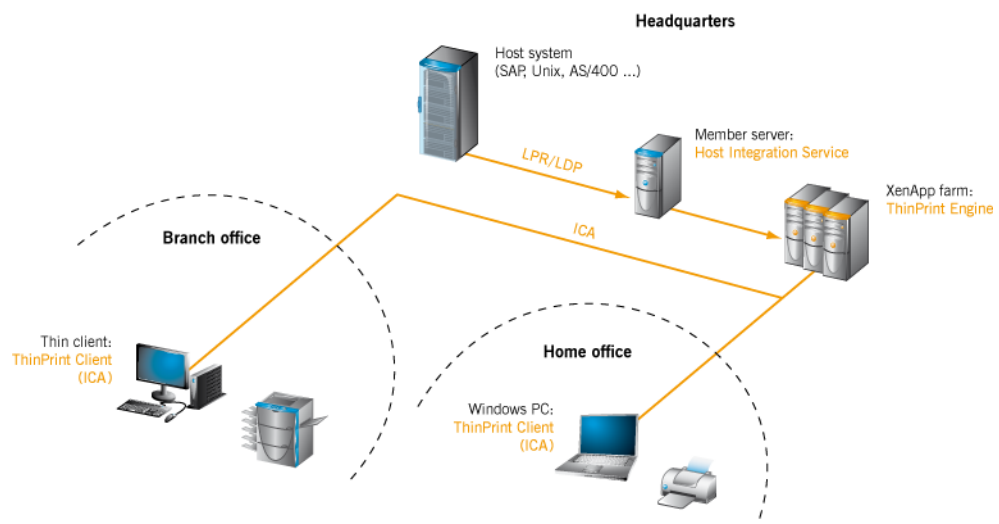
<sup>1</sup> strictly speaking: SMB (Server Message Blocks)



**Illus. 1** constellation 1: Host Integration Service on a standalone XenApp server



**Illus. 2** constellation 2: Host Integration Service on a member of a XenApp farm



**Illus. 3** constellation 3: Host Integration Service on a separate server in the domain

## System requirements Host Integration Service

- The host environment is installed and configured; i.e., the host system incl. LPR, the XenApp server as well as the ICA or RDP clients.
- The host system sends the user names with the print jobs; either they are added to the *control file*, or to the print job's banner page, or to the print job name, or to the printer queue name by the host system's LPR ([Page 17](#) and RFC 1179).
- A Host Integration Service is required per domain (Active Directory).
- The LPD SERVICE must be **disabled** on the server running Host Integration Service (LPD is a Role Service of the PRINT AND DOCUMENT SERVICES, Illus. 4).
- The XenApp servers running Windows Server 2008 R2 SP1 (or later) and XenApp 6.0 or 6.5<sup>2</sup>.
- A ThinPrint Engine must be installed on all XenApp servers; see the ThinPrint Engine manual.

Use of the Host Integration Service requires that a special printer is connected to a **VIRTUAL CHANNEL PROTOCOL (ICA OR RDP)** ThinPrint port.<sup>3</sup> This printer uses a native printer driver ([Page 12](#)).

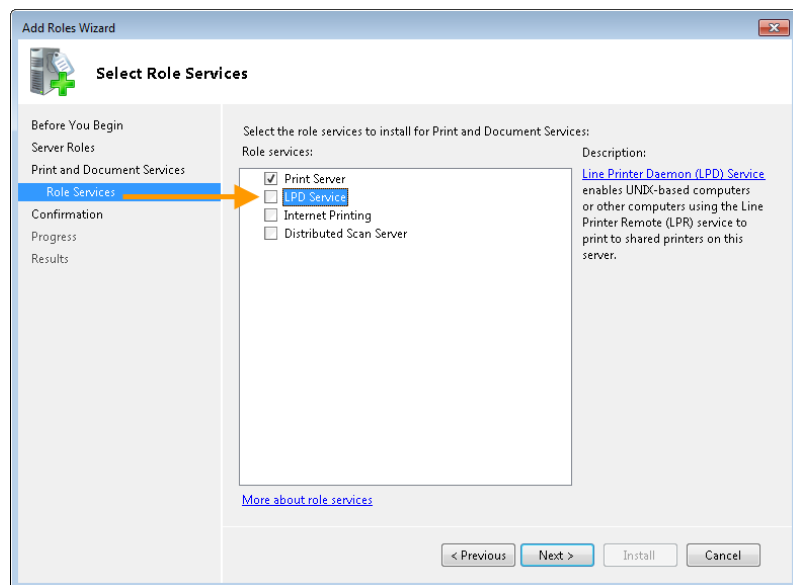
The name convention for the printer connected to the ThinPrint port must be: **client\_address:printer\_ID#printer\_name** (Illus. 5). And the printer name may not include either a colon (:) or a hash mark (#) – in this example: Lexmark Optra.

- All of the XenApp servers must be configured identically (and must be members of the same farm and the same domain).
- All necessary printers and a **ThinPrint Client** (type: **ICA or RDP**) are installed on the respective PCs and/or thin clients; see also the ThinPrint Client manuals and the supported devices list (<https://www.thinprint.com/en/resources-support/supported-devices/>).
- You need a license server (see [Page 8](#)).

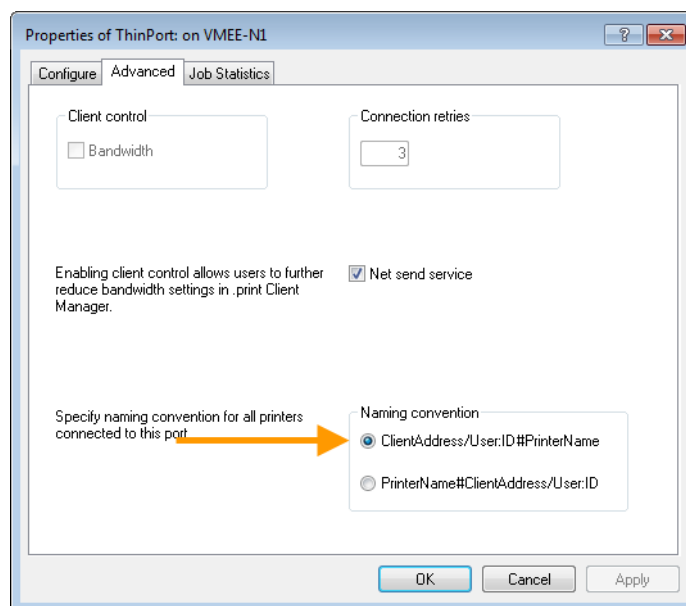
---

<sup>2</sup> For Citrix 7 and later, please contact the ThinPrint support:  
<https://www.thinprint.com/en/resources-support/support-request/>

<sup>3</sup> Recommendation: For enhancing print performance use ThinPrint port pooling.



Illus. 4 Print and Document Services Role: don't enable LPD service



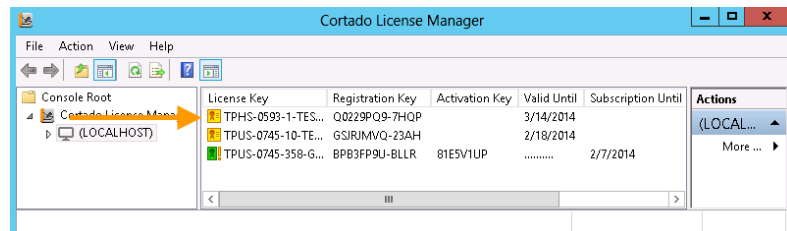
Illus. 5 selecting the ThinPrint Port naming convention

## Host Integration Service licensing

1. You need the **ThinPrint Engine Premium type license** (ThinPrint version 10). You enter this on the (to be installed) **license server**. The license server can be installed on any computer in the domain, e.g. the print server. This is not described in depth here, but details can be found in the license server manual.



- For Host Integration Service, you can also apply in Enterprise Portal<sup>4</sup> for a **TPHS-0593-1 type license**, free of charge. Enter the TPHS license on the server on which Host Integration Service is running (XenApp server, for example). If the XenApp servers belong to different farms or domains, a Host Integration Service is required for each farm or domain.



Illus. 6 License Manager with license key for Host Integration Service

**All license keys are valid for 30 days after they have been entered. They must be activated within this time** to continue printing. A license key's expiration date can be found under VALID UNTIL (Illus. 6). Once you have successfully tested ThinPrint, you can purchase a full license. You will receive new license keys, which are then entered in the License Manager. To activate the license keys upload them together with their registration keys to the Cortado Enterprise Portal.

For entering and for activating the license keys see the Licensing manual.

## Installation

### Installing Host Integration Service (on one XenApp server only)

- Copy the Host Integration Service file **TPLPDSrv.exe** in an own program directory; e.g.:

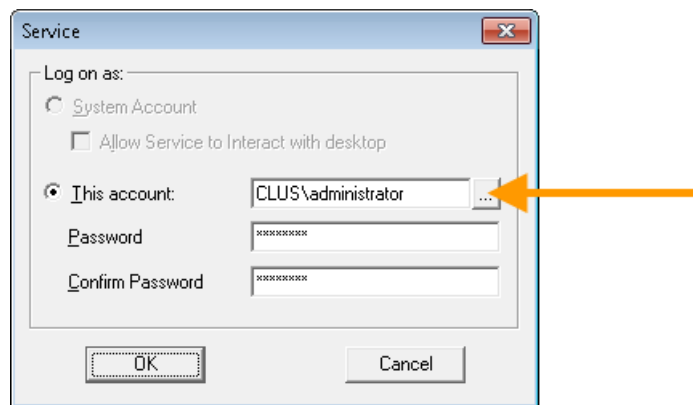
C:\Program Files\ThinPrint Host Integration Service

- Open the Command Prompt and change to this directory.
- Register TPLPDSrv.exe as a Windows service with:

```
TPLPDSrv -install
```

- Log on with the administrator account – preferably a domain administrator –; enter the password twice and confirm with OK (Illus. 7).

<sup>4</sup> <https://enterpriseportal.cortado.com>

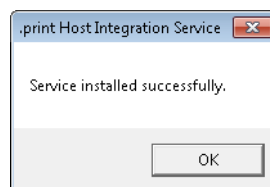


**Illus. 7** selecting an Administrator account as the service account

**Note!** The user account under which the Host Integration Service was installed must have local administrator permissions on all XenApp servers. Furthermore, it may need to be set up as Citrix administrator in the Citrix Management Console (read permission is sufficient).

5. Acknowledge the following message with OK.

You will receive the message that the Host Integration Service has been registered (Illus. 8). The service should only be started once its configuration has been completed; see [Accepting changes \(Page 17\)](#).



**Illus. 8** Host Integration Service registered as a Windows service

## Preparing the host systems

### Example for AIX

- In the `/etc/qconfig` file, add a printer that prints to the Host Integration Service:

```
lphis:
    device = @hisServer
    up = TRUE
    host = xenapp01
    s_statfilter = /usr/lib/lpd/bsdshort
    l_statfilter = /usr/lib/lpd/bsdlong
    rq = optra
@xenapp01:
    backend = /usr/lib/lpd/rembak
```

With **host**, you are specifying the Host Integration Service address. It must be possible to resolve the name of the computer on which the Host Integration Service is installed – here, **xenapp01**. Check the entries in `/etc/hosts`.

For the local printer (lphis) and the remote printer's queue name (rq) you can specify any name.

### Example for Linux

- In the `/etc/printcap` file, add a printer that prints to the Host Integration Service:

```
lphis:\
:lp=:\
:rm=192.168.201.139:\
:rp=optra:\
:sd=/var/spool/lpd/remote:\
:mx#0:\
:sh:
```

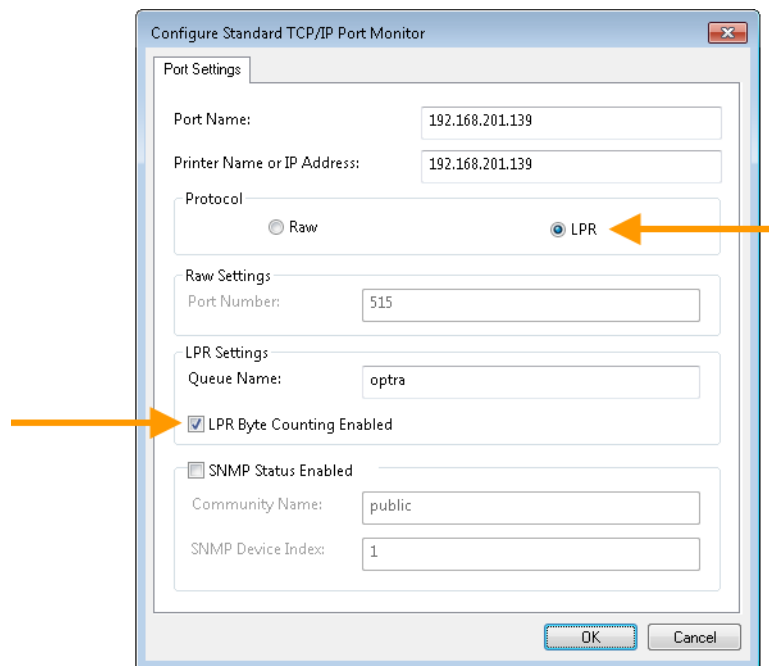
With **:rm** (remote machine), you are specifying the Host Integration Service address.

For the local printer (lphis) and the remote printer's queue name (:rp) you can specify any name.

### Example for Windows

- Add a printer that prints to the Host Integration Service; connect it to an LPR or Standard TCP/IP Port (Illus. 9).  
With **PRINTER NAME OR IP ADDRESS**, you are specifying the Host Integration Service address. Enable **LPR BYTE COUNTING** for Standard TCP/IP Ports.

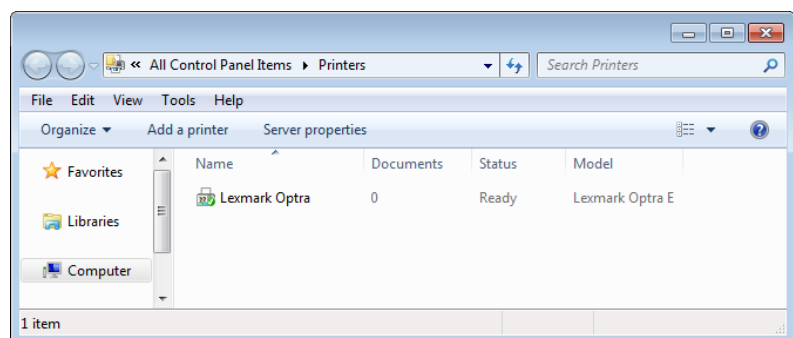
For the local printer and the remote printer's **QUEUE NAME** you can specify any name (exception: using the queue name for user name transmission; for this see [JOBINFO \(Page 23\)](#)).



**Illus. 9** Standard TCP/IP Port: enter Host Integration Service's IP address, select LPR, and enable LPR BYTE COUNTING

## Preparing the XenApp servers

- Install any printer – e.g. **Lexmark Optra** – (Illus. 10) and connect it to a ThinPrint port; port type: VIRTUAL CHANNEL PROTOCOL (ICA OR RDP).
- Share the printer (the Host Integration Service can use both the printer name and the share name).



**Illus. 10** printer created, shared and connected to a ThinPrint Port (in this example: Lexmark Optra)

**Note!** The printer should have the permissions of the user in whose context the Host Integration Service is running (Illus. 7). If users are not to see the printer, only assign this account and the accounts SYSTEM and Administrator with FULL CONTROL (= PRINT, MANAGE PRINTERS AND DOCUMENTS) to this printer.

## Configuring Host Integration Service

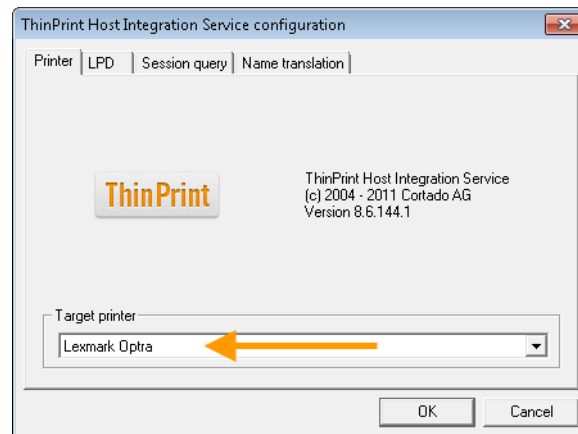
### On the XenApp server with Host Integration Service

TARGET PRINTER

- Start the Host Integration Service configuration in its installation directory from the command prompt:

```
TPLPDSrv -setup
```

- Select<sup>5</sup> or type<sup>6</sup> the printer **Lexmark Optra** as TARGET PRINTER (Illus. 11) which the Host Integration Service uses for forwarding print jobs to the ThinPrint Engine.



Illus. 11 Host Integration Service configuration panel: PRINTER (example)

### Selecting LPRs

CHANGE

The LPD tab card offers LPR and LPD settings. The most important setting is the specification of the host systems that are allowed to send print jobs via LPR to the Host Integration Service (Illus. 12). The default setting of 0.0.0.0 means that no host has been specified yet; you can CHANGE this entry.

ADD

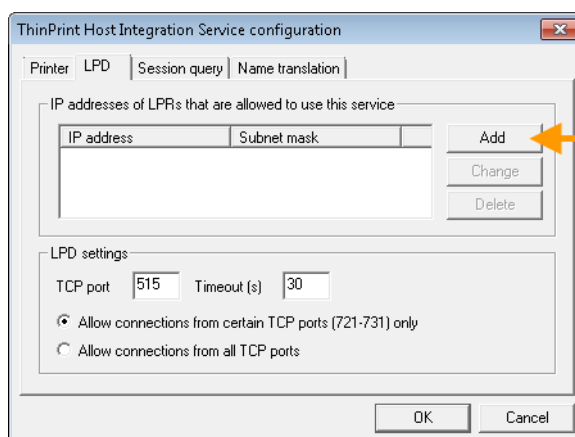
New entries are added with ADD. Clicking this button opens the window shown in Illus. 13. Enter the IP address and subnet mask of, for example, the SAP server:

```
192.168.130.20
255.255.252.0
```

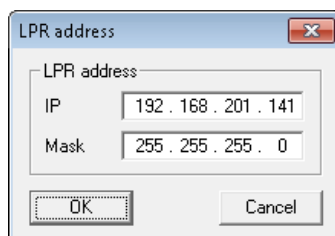
The result is shown in Illus. 14.

<sup>5</sup> In case of version STANDALONE REMOTE DESKTOP HOST OR XENAPP SERVER (LOCAL) (Illus. 15)

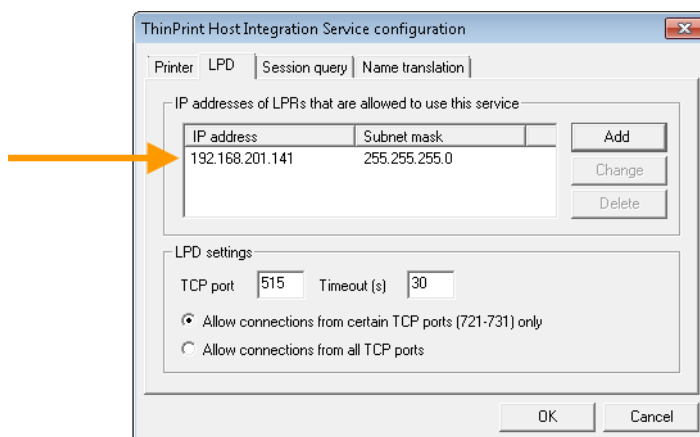
<sup>6</sup> In case of version XENAPP FARM (XENAPP 6 OR HIGHER) (Illus. 16)



**Illus. 12** adding a host system



**Illus. 13** specifying a host that is allowed to send print jobs to the Host Integration Service



**Illus. 14** one host system added

## DELETE

Click DELETE to remove individual entries from the list.

## LPD and LPR configuration

### TCP PORT

- Enter the TCP port where the Host Integration Service should “listen” for incoming data. Default: 515 (Illus. 14).

### TIMEOUT

- Enter the amount of time the Host Integration Service is to wait for a response from the host system before canceling the transmission. Default value: 30 s.

ALLOW CONNEC-  
TIONS FROM CERTAIN  
TCP PORTS ONLY

- Specify whether print jobs are only to be sent from LPRs with TCP port numbers from 721 to 731 or are to be sent from TCP ports with any port number.

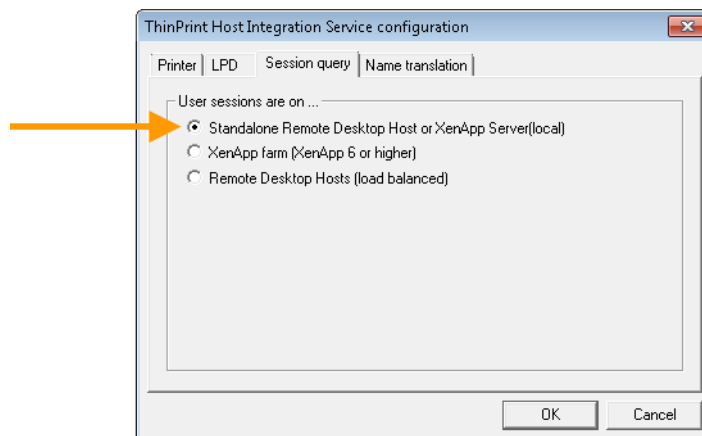
### Specifying a server for session query

The Host Integration Service must detect the server on which the relevant user's session is running. There are two possible constellations here (see [Page 5](#)).

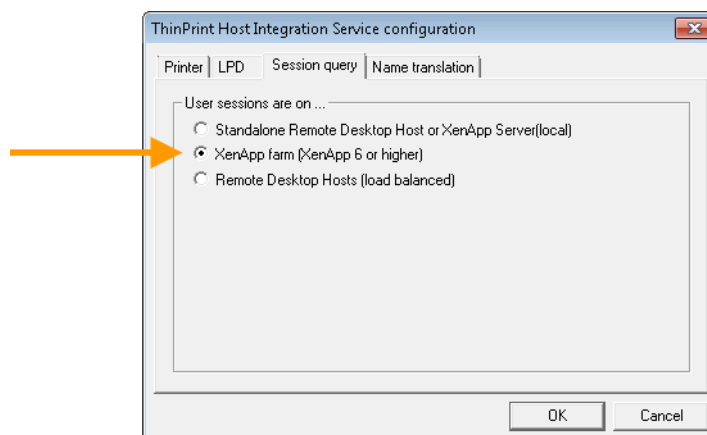
On the SESSION QUERY tab (Illus. 15), you can configure according to the constellation:

Host Integration Service installed on ...	Configuration
1 ... a standalone XenApp server	• Select STANDALONE REMOTE DESKTOP HOST OR XENAPP SERVER (LOCAL), Illus. 15
2 .... a Citrix farm server	• Select XENAPP FARM (XENAPP 6 OR HIGHER), Illus. 16 <sup>a</sup>

a Click ADD, enter the IP address, and click OK.



**Illus. 15** session queried on local standalone XenApp server



**Illus. 16** specifying a local XenApp farm server for session query

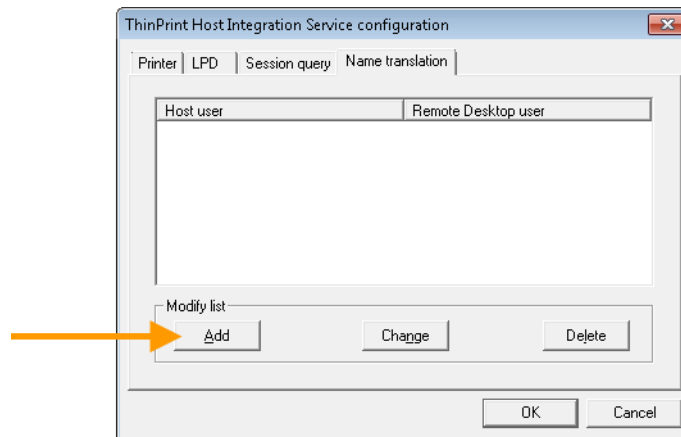
The option REMOTE DESKTOP HOSTS (LOAD BALANCED) isn't supported with Host Integration Service version 8.6.

## Name translation

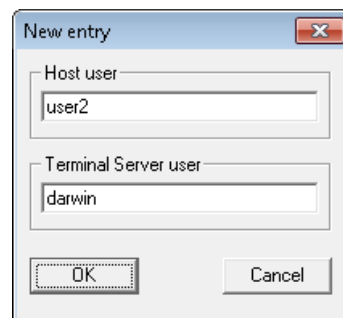
If different user names are to be used on the one hand for the host system and on the other hand for the XenApp farm, these can be associated with each other on the NAME TRANSLATIONS tab (Illus. 17).

Example: XenApp server user Darwin uses the user account *user2* in the SAP GUI for Windows; the Host Integration Service forwards print jobs from *user2* to Darwin's user station (see also [Page 17](#)).

Table entries can be edited with the ADD, CHANGE, and DELETE functions. Clicking ADD or CHANGE opens a window in which assignments can be edited (Illus. 18).



**Illus. 17** associating host's user names to XenApp farm's or domain user names



**Illus. 18** name translation: new entry

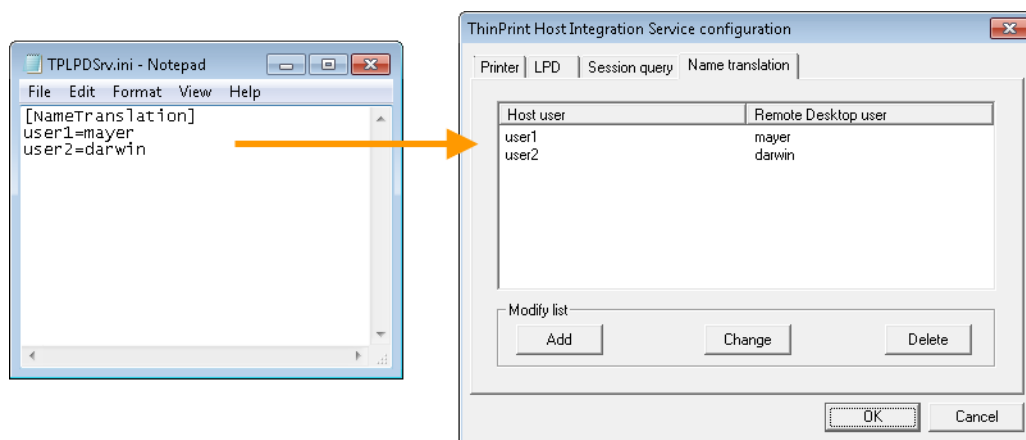
## Importing user names for name translation

If you need to add several entries to the name translation table, you can simply edit the TPLPDSrv.ini file. This, the Host Integration Service creates automatically with a (re)start. It's found in the same folder as TPLPDSrv.exe (= program directory; see [Page 9](#)).



- Copy all name translations into TPLPDSrv.ini. Each translation requires on line. Host user names and terminal server user names are separated by an equal sign (=); Illus. 19.
- Or:
  - Create a text file from a database.
  - Paste the header **[NameTranslation]** into the first line.
  - Separate user names with an equal sign (=).
  - Name the file TPLPDSrv.ini.
  - Use this file to overwrite the TPLPDSrv.ini in your program directory ([Page 9](#)).

The new TPLPDSrv.ini file is thereafter immediately available. In this case, it is unnecessary to restart the **TP Host Integration Service** Windows service<sup>7</sup>.



**Illus. 19** name assignment in the TPLPDSrv.ini file

### Finishing configuration

OK

- Lastly, save your settings with OK (Illus. 17).
- Start **TP Host Integration Service** from the Windows SERVICES folder.

### Accepting changes

Later changes made with the Host Integration Service configuration first take effect after restarting the Windows service.

1. Open the Windows SERVICES folder.
2. Restart the service **TP Host Integration Service**.

## Detecting user names from the host system

### Example of a RFC 1179 control file


A control file as per RFC 1179 is usually created by print systems under Unix. For the Host Integration Service, it does not matter whether the control file is sent from

<sup>7</sup> formerly .print Host Integration Service

the LPR (host print system) to the LPD (Host Integration Service) before or after the print data. The control file could contain the following information:

```

H SAP_SERVER
P user2
J Microsoft PowerPoint - Multibit500.ppt [Read-Only]
l dfA123SAP_SERVER
U dfA123SAP_SERVER
N Microsoft PowerPoint - Multibit500.ppt
    
```



Legend:

- H** = Host name (= LPR)
- P** = User name on the host system (see also [Page 16](#))
- J** = Document name
- l** = Data file for which no filter is to be used
- U** = Data file name
- N** = Document name

## Alternative user name transmission

As an alternative to the *control file*, the user name from the host system can also be embedded as follows:

- In the print job's banner page
- In the print job name
- In the printer queue name

You can set the syntax for the embedding yourself. Simply make sure that the Host Integration Service can retrieve the user name from the received data. To do so, you have to define the following registry keys for the Host Integration Service by hand:

```

hkey_local_machine\software\thinprint\tplpd\jobinfo [reg_dword]
hkey_local_machine\software\thinprint\tplpd\formatstringre [reg_sz]
    
```

As the content of JOBINFO, enter the source of the user name (control file, banner page, print job name or queue name; see JOBINFO on [Page 23](#)).

As the content of FORMATSTRINGRE, enter a character string in form of a Regular Expression<sup>8</sup>. This specifies where the user name is found in the received data ([Page 23](#)).

<sup>8</sup> see *Regular expression* in [Wikipedia](#)

Examples for user names embedded in print job names:

Print job name	FormatStringRE	Meaning
<i>user2.text.ps</i> = print file <i>text.ps</i> from <i>user2</i>	<code>([ ^ .]*).*</code>	All characters up to the first period (.) belong to the sought user name. The rest is ignored. (default value)
<i>1234user2.text.ps</i> = print file <i>text.ps</i> with job ID 1234 from user 2	<code>[0-9]*([ ^ .]*).*</code>	All digits at the start belong to a job ID. The following characters give the sought user name – up to the first period (.). The rest is ignored.
<i>text.ps:user2</i> = print file <i>text.ps</i> from <i>user2</i>	<code>.*:.*</code>	All characters up to the first colon (:) are ignored. The following characters give the sought user name.

## Printing

### The print process

Printing with the Host Integration Service could proceed as follows: From within an SAP session, a user initiates a print job (Illus. 2, [Page 6](#)). The host system (in this example: an SAP server) sends the file to be printed via LPR/LPD to the server where the Host Integration Service is installed.

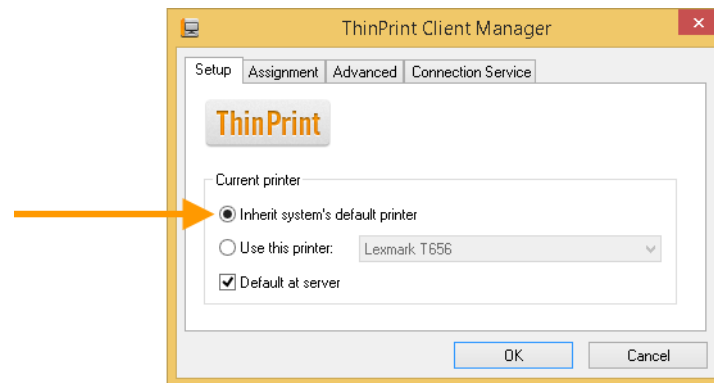
The Host Integration Service detects the XenApp server to which the user is logged on, then forwards the print job to the ThinPrint Engine installed on that server. The ThinPrint Engine sends the print job via ICA protocol compressed and across controlled bandwidth to the user who initiated the print job within his SAP session.

The ThinPrint Client decompresses and decrypts the print job and forwards it to its CURRENT PRINTER (Illus. 20). Note that the user who is printing must be enabled for ThinPrint on the license server (see license server manual).

## Changing printers

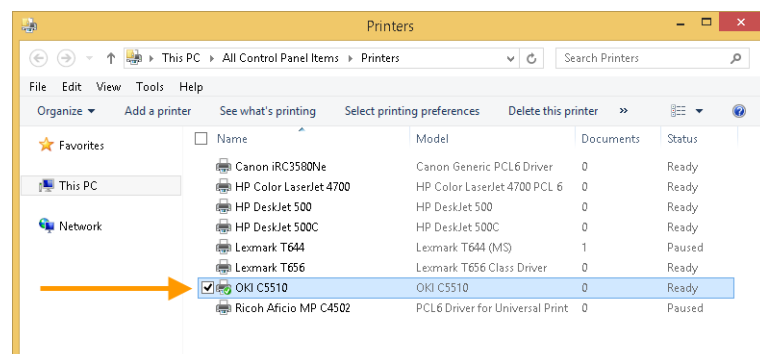
### Alternative 1

Requirement: the CURRENT PRINTER in the ThinPrint Client must be the same as the PC's Windows default printer (Illus. 20).



**Illus. 20** Current Printer = Windows default printer Lexmark T656 (example)

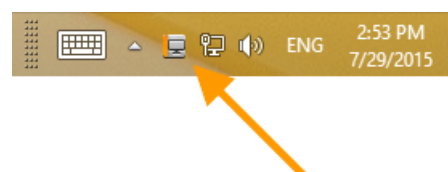
- The users disconnect the current XenApp session (it is not necessary to log off).
- They select a different Windows default printer in the PRINTERS folder on the client computer (Illus. 21).
- They reconnect the XenApp session.



**Illus. 21** changing Windows default printer; new default printer: OKI C5510 (example)

### Alternative 2

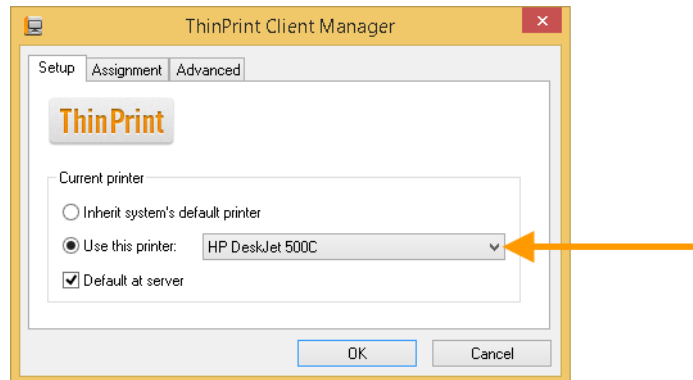
- The users open the ThinPrint Client Manager during a XenApp session by clicking its icon in the local machine's task bar (Illus. 22).



**Illus. 22** ThinPrint Client in the task bar

- They change the CURRENT PRINTER and select OK (Illus. 23).

- They disconnect the current XenApp session and reconnect it.



**Illus. 23** changing Current Printer to HP DeskJet 500C (example)

## If you still can't print • Checklist

If printing does not work properly, please check the following before contacting ThinPrint support ([Page 22](#)).

- Is the same protocol selected for the ThinPrint Client and the ThinPrint port?
  - Is the ICA version of the ThinPrint Client installed on the client machine?
  - To which ThinPrint port is the printer for this ThinPrint Client connected (= Host Integration Service's target printer)? VIRTUAL CHANNEL PROTOCOL (ICA OR RDP) must be selected in the ThinPrint port configuration (MMC) on the XenApp server(s).
- Check the name convention of the ThinPrint port to which the Host Integration Service's target printer is connected; see ThinPrint port configuration (MMC) on the XenApp server(s). The name convention for the printer connected to the ThinPrint port must be: **client\_address:printer\_ID#printer\_name**.
- Are printer(s) installed on each client machine?
- Is/are the host system's IP address/es entered in the Host Integration Service configuration? (Illus. 14)
- Is the Host Integration Service's IP address entered in the printer settings on the host system(s)? ([Page 10](#))
- Are you sure that the TCP port number(s) (515 for the Host Integration Service) is/are not being used by another program? (Illus. 4)
- Test the option ALLOW CONNECTIONS FROM ALL TCP PORTS instead of ALLOW CONNECTIONS FROM CERTAIN TCP PORTS (721–731) ONLY. (Illus. 14)
- Are name translations entered for host user names and XenApp server user names? (Illus. 17)
- The Windows service TP HOST INTEGRATION SERVICE<sup>9</sup> must be restarted after configuration.
- Is the Windows service TP HOST INTEGRATION SERVICE running?
- Is the Windows service LPD SERVICE disabled on the Host Integration Service machine?

<sup>9</sup> formerly .print Host Integration Service

- If you selected USE ENCRYPTION in the port configuration, continue reading the section *Encryption of print data* in the ThinPrint Engine manual, or disable encryption for now.
- Debugging (Host Integration Service):
  - Create the Registry entries DEBUGFILE and DEBUGLEVEL ([Page 23](#)).
  - Restart the TP HOST INTEGRATION SERVICE (Windows service).
  - Try to print from a host session.
  - Search for “\_ERR\_” entries in the logfile.
- Did you provide a ThinPrint license to the printing user in license server?

## Appendix

### Customer service and technical support

[www.thinprint.com/](http://www.thinprint.com/) → RESOURCES & SUPPORT

<https://www.thinprint.com/en/resources-support/support-request/>

### Uninstalling Host Integration Service

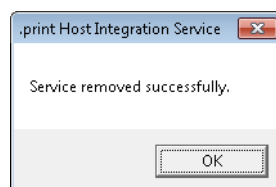
1. Pause the Host Integration Service; e.g., from the command prompt in the installation directory with:

```
net stop TPLPDSrv
```

2. Uninstall the Host Integration Service with:

```
TPLPDSrv -uninstall
```

You will receive the message depicted in Illus. 24.



**Illus. 24** Host Integration Service successfully uninstalled

It could be that the Windows service is first only marked for deletion (disabled) in the list of services; after Windows has been restarted, it will no longer be included in the list.

**Note!** The SERVICES configuration must be closed to uninstall a Windows service (in this example: TP HOST INTEGRATION SERVICE).

## Relevant entries in Windows Registry

The Host Integration Service creates the following registry entries or they can be created by hand under:

hkey\_local\_machine\software\thinprint\tplpd

Name	Menu item (Host Integration Service)	Description	Type	Default value
DEBUGFILE	—	Path to the log(book) file; e.g., c:\temp\host_integration.log	reg_sz	none
DEBUGLEVEL	—	Level of log(book) file entries: 0 = No entries in the log file 1 = Only error messages will be logged 2 = Only error messages and warnings will be logged 3 = Log everything	reg_dword	none
EXPORT-RANGE	ALLOW CONNECTIONS FROM CERTAIN TCP PORTS (721–731) ONLY (Illus. 14)	Print jobs are only received from all LPRs (value: 1) or with TCP port numbers from 721 to 731 (value: 0)	reg_dword	0
FORMAT-STRINGRE	—	Sets how the user name will be retrieved from a string – using a regular expression (see also JOBINFO and <a href="#">Page 18</a> ) Example: <i>file_name.user2.ps</i> (= print job name) FormatStringRE = [ ^ .]*\.[ ( [ ^ .]* )\.	reg_sz	([ ^ .]*) .*
IPLIST	IP ADDRESSES OF LPRs, THAT ARE ALLOWED TO USE THIS SERVICE (Illus. 14)	Host servers that are allowed to send print jobs via LPR to the Host Integration Service, incl. subnet mask; examples: 192.168.130.20/22 127.0.0.1/8	reg_multi_sz	none
JOBINFO	—	Sets where the user name will be retrieved from (see also FORMATSTRINGRE as well as <a href="#">Page 11</a> and <a href="#">Page 18</a> ): 0 from the control file 10 (hex) from the banner page or from the print job name 20 (hex) from the queue name 30 (hex) from the print job name	reg_dword	0

Name	Menu item (Host Integration Service)	Description	Type	Default value
PORT	TCP PORT (Illus. 14)	TCP port were the Host Integration Service receives data (= "listen")	reg_dword	515
SELECTED-PRINTER	TARGET PRINTER (Illus. 11)	Printer to which the Host Integration Service sends print jobs for the ThinPrint Engine; example in Illus. 11: Lexmark Optra	reg_sz	1st
SERVICETYPE	USER SESSIONS ARE ON ... (Illus. 15)	0 = standalone XenApp server (local machine) 1 = Citrix farm server	reg_dword	0
TIMEOUT	TIMEOUT (S) (Illus. 14)	Time (in seconds) the Host Integration Service is to wait for a response from the host system before canceling the transmission	reg_dword	30

## Additional sources

Further information about ThinPrint can be downloaded from our website.

### *Manuals and descriptions*

Manuals and other technical information are available at <https://www.thinprint.com/en/resources-support/guides-manuals/>.

### *Thin clients and gateways*

Thin Clients or terminals with embedded ICA/RDP type of ThinPrint Client as well as ThinPrint gateway appliances can be found at <https://www.thinprint.com/en/resources-support/supported-devices/>.

### *Software downloads*

The current version of **ThinPrint Engine**, can be downloaded at: [www.thinprint.com/demo](http://www.thinprint.com/demo).  
**ThinPrint Clients** as well as tools like **Finishing Detector** and **ThinPrint Preview** (TPView.exe) can be found at <https://www.thinprint.com/en/resources-support/software/clientsandtools/>.

## Acronyms and abbreviations

<b>GUI</b>	Graphical User Interface
<b>Host system</b>	SAP R/2 or R/3, AS/400, iSeries, Unix, or other servers
<b>ICA</b>	Independent Computing Architecture (Citrix)
<b>ID</b>	Identification number



<b>IP</b>	see TCP/IP
<b>LPD</b>	Line Printer Daemon
<b>LPR</b>	Line Printer Remote
<b>RDP</b>	Remote Desktop Protocol (Microsoft)
<b>s</b>	Second(s)
<b>SMB</b>	Server Message Blocks
<b>TCP/IP</b>	Transmission Control Protocol/Internet Protocol
<b>TP</b>	ThinPrint