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1 Introduction

1.1 General description

XP/VS Server is a cost effective multi-user Remote Desktop access solution for Windows using the standard Microsoft Remote Desktop Protocol (RDP).

Installing XP/VS Server allows an unlimited number of users remote-access to all their Windows desktops and applications simultaneously.

Please see the following screen-shot for details:

Because compatible Remote Desktop Connection client software is already pre-installed on most devices and operating systems, seamless integration into existing networks without any hardware or software changes is assured.

XP/VS Server is suitable for small and medium enterprises and offers premium support services.

1.2 Manufacturer’s notice

XP / VS Server allows simultaneous remote usage of applications. Some applications are licensed for a single computer, while other applications may be licensed for single or multiple users. It is always the liability of the purchaser/user to comply with the licensing terms of any software that may be used with XP/VS Server.
It is also the liability of the XP/VS Server purchaser/user to read and comply with the licensing terms of the particular Windows operating system or to contact Microsoft for clarification about those licensing terms.
All products mentioned in this document are copyrighted by their respective owners.
## 2 Product features

### 2.1 Basic features

The following table shows the basic features of the 3 different XP/VS Server versions. The latest online version of this feature comparison can be found at:


<table>
<thead>
<tr>
<th>XP/VS Server versions:</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Features Version 1.x</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote Control</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Mirroring of Remote Desktop sessions for support purposes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting single applications instead of a full Windows Desktop in Remote Desktop sessions (not seamless)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Access to server devices and resources in Remote Desktop sessions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Following client devices and resources can be used inside of Remote Desktop sessions: printers, clipboard, smart cards, ports (COM, LPT), drives*</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Remote audio from <strong>server to client</strong> in Remote Desktop sessions (audio downstream)*</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Audio recording from <strong>client to server</strong> in Remote Desktop sessions (audio upstream)**</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Windows Media Player redirection from <strong>server to client</strong> in Remote Desktop sessions**</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>TS Easy Print (Client side printer driver support) With TS Easy Print no printer drivers have to be installed on the server**</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>TS RemoteApp (Seamless Windows): Same as TSX RemoteApp but does not work if XP/VS Server is installed on Windows XP, Vista or Server 2003</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

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http://www.thinstuff.com
**XP/VS Server versions:**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
</table>
| **True Multimonitor support**
Applications behave in RDP sessions spanning over multiple monitors the same as locally (maximize over just 1 monitor etc.)** |      |          |              |
| **Aero Glass Remoting**
| **Enhanced Application Compatibility**
Compatibility mode for legacy applications which are not Terminal Server capable |      |          |              |
| **Domain authentication of Remote Desktop users**
(The XP/VS Server system must be member of a Windows Server Domain - does not work on Windows Home editions) |      |          |              |

* not supported if XP/VS Server is installed on Vista Home operating systems

** only works if XP/VS Server is installed on Windows 7 or Server 2008 R2

### 2.2 Optional features:

The following table shows the optional features of the 3 different XP/VS Server versions. The latest online version of this feature comparison can be found at: [http://www.thinstuff.com/products/xpvs-server/#a1](http://www.thinstuff.com/products/xpvs-server/#a1)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
</table>
| **TSX RemoteApp (Seamless Windows)**
Allows publishing of single applications seamlessly instead of publishing a complete desktop session. Applications published with TSX RemoteApp appear on the client desktop as if they were local
Works on all operating systems including Windows XP, Vista and Server 2003
(requires TSX Remote Desktop Connection client on the client system) |      |          |              |
<table>
<thead>
<tr>
<th>XP/VS Server versions:</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSX Session Broker (Load Balancing)</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Based on server load values incoming RDP sessions are automatically assigned to individual servers in multiple server environments (The XP/VS Server system must be member of a Windows Server Domain - does not work on Windows Home editions)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td><strong>TSX USB</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Allows you to use all client attached USB devices in your Remote Desktop session as if they were directly attached to the local USB port of the server. This is useful for e.g. USB flatbed scanners, MFC devices (printer, scanner, fax), handhelds, mobile phones, webcams etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Features Version 1.x currently under development**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSX Gateway (RDP over HTTPS)</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>RDP VPN solution</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td><strong>TSX Application Control</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Rights Management for RemoteApps</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td><strong>TSX Web Access</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Web portal to access RemoteApps and Remote Desktops</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

For user manual please see 11.3.1 User Manuals
3 Server requirements

3.1 Supported operating systems

Following table shows a list of supported server side operating systems for each XP/VS Server version:

<table>
<thead>
<tr>
<th>XP/VS Server Versions:</th>
<th>Lite</th>
<th>Standard</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Server Operating Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x86 (32-Bit) and x64 (64-Bit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows XP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All versions including XP Home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Vista</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All versions including Vista Home Basic and Home Premium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All versions including Windows 7 Starter, Home Basic and Home Premium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Server 2003/2008/2008 R2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All versions including Small Business Server, Web Server and Foundation Server (also without the Terminal Services / Remote Desktop Services role)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 Hardware

Hardware requirements for XP/VS Server can vary depend on the used Windows operating system and applications. So the following values are based on an average user with office applications.

Minimum hardware requirements for the base system:

- CPU: Pentium 4 1Ghz or similar
- RAM: 512MB or more

Recommended hardware requirements for the base system:

- CPU: Intel Core2 duo or similar
- RAM: 1 GB or more

Recommended values for each additional RDP user:

- approx. 128MB RAM and 100MHz CPU speed.

As 32-Bit Windows operating systems do not support more then max. 4 GB RAM you will not be able to serve more then a maximum of approx. 20-30 concurrent RDP connections.
As 64-Bit Windows operating systems support more than 4GB RAM (up to 128GB or more) and multiple physical CPUs you will be able to serve up to 100 or more concurrent RDP connections.
e.g.: Windows 7 Business 64-Bit supports up to 128 GB of RAM and 2 physical processors (e.g. with 2 physical Core2 Quad CPUs you will have a total of 8 logical CPU cores and with 2 physical Quad Xeon CPUs you will even have a total of 16 logical CPU cores).

3.3 Application compatibility
Most modern Windows applications should also run with XP/VS Server if they are compatible with Microsoft Terminal Services / Remote Desktop Services.
To verify if your application is compatible with Microsoft Terminal Services / Remote Desktop Services please contact the software manufacturer.

For legacy applications XP/VS Server also offers a special "Application compatibility mode" which behaves exactly like the Microsoft Terminal Server "Application Compatibility Mode". For details please see 7.1.7 Options

3.4 Security
To achieve the best compatibility with older Remote Desktop Connection clients XP/VS Server is set to “Allow connections from computers running any version of Remote Desktop”.
Under Windows Vista and above it is possible to increase security by changing this setting to “Allow connections only from computers running Remote Desktop with Network Level Authentication”.
Please see the following screenshot for details:
3.5 XP/VS Server in virtualized environments

XP/VS Server can also be installed on all supported virtualized Windows operating systems running in virtualization environments as for instance XEN Server, XEN Desktop, VMWARE Server, VMWARE Workstation, VMWARE View, Microsoft Hyper-V Server, Microsoft Virtual PC, Windows 7 XP Mode, Virtual Box and others.
4 Client requirements

To connect to XP/VS Server you need a Remote Desktop Connection software on the client system which supports the standard Microsoft Remote Desktop Protocol (RDP). RDP client software is already pre-installed or available on most devices and operating systems, such as Microsoft Windows, Linux, Mac OS X, Java, Thin Clients, Android devices (Smartphones, Tablets, Google TV, etc.), Apple iPhone OS (iOS) devices (iPhone, iPod Touch, iPad), Handhelds, Notebooks, Netbooks, Tablet PCs.

On Windows XP and above the Microsoft Remote Desktop Connection client is already pre-installed and can be found in Start Menu → All programs → Accessories → Remote Desktop Connection.

To achieve the best results we recommend to always use the newest available Remote Desktop Connection clients.

Following some Remote Desktop Connection (RDP) clients:

- **Windows** - Thinstuff TSX RDP 7 client

- **Apple iPhone OS (iOS)** - Thinstuff iRdesktop RDP client
  http://itunes.apple.com/app/irdesktop/id311467740?mt=8

- **Windows** - Microsoft RDP 7 clients
  Windows XP x86(32Bit):
displaylang=en&FamilyID=72158b4e-b527-45e4-af24-d02938a95683
  Windows Vista x86(32Bit):
  Windows Vista x64(64Bit):

- **Max OS X** - Microsoft RDP client

- **Mac OS X** - Cord RDP client (based on rdesktop)
  http://cord.sourceforge.net/

- **Linux commandline** - RDP clients
  FreeRDP: http://www.freerdp.com/
  rdesktop: http://www.rdesktop.org/

- **Linux packages** – RDP client packages for the major distros
  Ubuntu: http://packages.ubuntu.com/maverick/freerdp-x11
  Open SuSe: https://build.opensuse.org/package/show?
  package=freerdp&project=X11:xfce:nilda
  Fedora and Mandriva: http://rpmfind.net/linux/rpm2html/search.php?
  query=freerdp&submit=Search+...&system=&arch=
Debian: http://packages.debian.org/unstable/main/freerdp-x11
Gentoo: http://gpo.zugaina.org/net-misc/freerdp
FreeBSD: http://portsmon.freebsd.org/portoverview.py?category=net&portname=freerdp

- **Linux GTK2+/Gnome GUI** - RDP client frontends
  FreeRDP: http://remmina.sourceforge.net/
rdesktop: http://tsclient.sourceforge.net/

- **Linux Qt/KDE GUI** - RDP client frontends
  rdesktop: http://krdesktop.sourceforge.net/

- **Android** – RDP clients
  http://www.xtralogic.com/rdpclient.shtml

- **Java** - RDP clients
  http://jrdesktop.sourceforge.net/
  http://properjavardp.sourceforge.net/
5 Software installation and maintenance

5.1 Requirements
Following requirements must be fulfilled for usage of XP/VS Server:

- **Grant users the right to connect to XP/VS Server**
  To grant users the right to connect to XP/VS Server remotely they have to be added to the local “Remote Desktop Users” group on the server. As there is no user interface to fulfil this task on Windows Home operating systems XP/VS Server grants all Users (Administrators and Standard Users) this right by default.

- **Firewall exceptions**
  At installation time XP/VS Server automatically adds an exception for incoming TCP port 3389 in the Windows Firewall (called “Thinstuff XP/VS”). If you use third party firewall solutions you can disable the automatic firewall please consult the manufacturers manual for details on how to add exceptions there.

- **Installing XP/VS Server on Microsoft Server operating systems**
  If you want to install XP / VS Server on a Microsoft server operating system, please verify that the Microsoft Terminal Server Role and the Terminal Server Licensing service is not installed. Valid for all 32-bit (x86) and 64-bit (x64) versions of Microsoft Windows Server 2003, 2008 and 2008 R2

5.2 Installation


   The installation package contains following files:
   - XPVS Changelog.txt (XP/VS Server changelog)
   - ThinstuffXPVSServer-X.X.XXX.exe” (XP/VS Server installer)
   “X.X.XXX” always shows the product version number.
   - XP/VS Server Manual as .pdf file

   During installation you will also have the possibility to download the additional feature TSX RemoteApp. More details about this feature can be found in the TSX RemoteApp Manual.
2. Select your language. The language can also be changed at any time after installation in the XP/VS Administrator GUI.

3. On the welcome dialogue, select “Next”

4. This screen shows the “End-user License Agreement”. Select “I agree” to continue.
5. Select whether you want to install the server-part or the workstation-part of the XP/VS Server. The workstation part is only required if you want to use the TSX USB feature which is currently only supported with XP/VS Server Professional. It can not be installed on the same machine as the XP/VS Server (client-part). Then select “Next”.
6. Select the destination folder for the XP/VS installation and then "Next".

7. In this step you can either select the XP/VS version you want to evaluate (Professional, Standard or Lite) or, if you already own a valid license, select “None, I do already have a valid license”. Then select “Next”.

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http://www.thinstuff.com
8. (Optional) Download TSX RemoteApp installer. For further details please consult the TSX RemoteApp manual. Click “Next”

9. Select „Install“ to proceed
10. In this step you can see the installation progress and the remaining installation time.

![Installation Progress](image)

11. To complete the installation, you must restart your computer! Select “Reboot now” and then “Finish” to reboot your computer and complete the installation process. Alternatively you can also choose “I want to manually reboot later” if you do not wish to reboot now.

![Reboot Confirmation](image)
5.3 Update

If you want to update your XP/VS Server installation you can download the latest version here: [http://www.thinstuff.com/releases/ThinstuffXPVSServer-latest.zip](http://www.thinstuff.com/releases/ThinstuffXPVSServer-latest.zip).

Up to version 1.0.406 you will have to uninstall the previous XP/VS version manually before you can install the new version.

Since version 1.0.424 and above the installer will automatically uninstall the old version and install the new version.

However, in both cases all your XP/VS licenses and settings will be preserved so you do not have to worry about losing them during the update process!

5.4 Deinstallation

If you want to uninstall XP/VS Server, do the following:

1. Click on the Start-Button, open the “Control Panel” and click “Programs”

2. Now click on “Uninstall a program” under “Programs and Features”
3. Select “Thinstuff XP/VS Terminal Server ...”, and then “Uninstall”.

4. Select “Yes” in both following dialogues to complete the deinstallation process and restart your computer. If you select “No” in the second dialogue you can manually restart your computer later to complete the deinstallation process.
In order to complete the installation of Thinstuff XP/VS Terminal Server 1.0.450, you must restart the computer. Other users are currently logged on to this computer, and restarting may cause them to lose their work. Do you want to restart now?
6 Licensing

6.1 General
Thinstuff XP/VS Server is always licensed per server, no matter if that server is a physical computer or a virtual machine. XP/VS Server licenses allow a given number of concurrent Remote Desktop connections to this server. Currently there are 1, 3, 5, 10 and unlimited connection licenses available. The console session is not a Remote Desktop connection and therefore not counted in XP/VS Server licensing system. As XP/VS Server uses its own licensing mechanisms no other licenses of similar products can be used with XP/VS Server. In consequence - if XP/VS Server is installed without any valid licenses, it will be impossible to establish any Remote Desktop connection.

6.2 XP/VS Demo Licenses
The XP/VS Server installer comes with a built-in 14-day demo license. This demo-license - valid for 14 days after installation - may only be used for demo and testing purposes.

If you register for a Thinstuff account here: https://www.thinstuff.com/licensing/index.php?action=register
or if you have already registered at Thinstuff website you can create one additional 14-day demo license and extend your demo period.
XP/VS demo licenses can be used on multiple computers at the same time. Demo licenses must not be activated.

XP/VS demo licenses offer exactly the same features as full licenses, but at each login to your terminal server you will receive the following demo message:

```
Thinstuff XP/VS Terminal Server Message

This computer is running Thinstuff XP/VS Terminal Server with a demo license intended for evaluation and testing purposes only and not for commercial usage.

Your evaluation period will end in 13 day(s) and 23 hour(s).

Do you want to purchase a valid XP/VS license now?

Yes  No
```
6.3 XP/VS Full Licenses

Full (bought) XP/VS Server licenses have to be activated within 14 days after installation. For details about activation please see 6.6 Activation.

After the successful activation process XP/VS licenses can not be moved to another computer, you will get an error “Invalid hardware Key” which refuses all remote-connections.

In that case send a request to Thinstuff to release your XP/VS license for reactivation: email to xpvssupport@thinstuff.com with the license ID and the reason for reactivation.

Full XP/VS licenses are dedicated to one single Thinstuff webshop account and can not be moved to another account.

6.4 Registration

As registered user you have several possibilities in your “Thinstuff Account”:

- redeem “Thinstuff Coupons” and transfer them into valid “Thinstuff XP/VS Server-Licenses” (full version), activate and download.
- manage and activate licenses
- create second, additional 14-day trial licenses for XP/VS Server (first license included in the activation package)

To register, please proceed with the following:

1. Open your web browser and go to: https://www.thinstuff.com/licensing/index.php?action=login

2. Now click on “Create new account”:

![Thinstuff License Tool and Online Shop](image)
3. Select whether you want to register as a company or as a private person. For reason of precaution you may change this selection in the next step. You will be redirected automatically to the next registration step.

**Thinstuff License Tool and Online Shop**

**Sign Up for a Thinstuff License Management Account**

Please complete this form to gain access to trial licenses, downloads, product information and many other resources. An email with your password will be sent to your email address.

Start by selecting your account type:

<table>
<thead>
<tr>
<th>Company</th>
<th>* Account type</th>
</tr>
</thead>
</table>

All fields with * are mandatory

Return to the login page

4. To create a valid “Thinstuff Account” please fill the mandatory fields, marked with “*” and select “Sign Up”.

**Sign Up for a Thinstuff License Management Account**

Please complete this form to gain access to trial licenses, downloads, product information and many other resources. An email with your password will be sent to your email address.

<table>
<thead>
<tr>
<th>Company</th>
<th>* Account type</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:Office@company.com">Office@company.com</a></td>
<td>Email address</td>
</tr>
<tr>
<td>Company AG</td>
<td>Company name</td>
</tr>
<tr>
<td>Mr</td>
<td>Title</td>
</tr>
<tr>
<td>Max</td>
<td>First name</td>
</tr>
<tr>
<td>Mustermann</td>
<td>Last name</td>
</tr>
<tr>
<td>Germany</td>
<td>Country</td>
</tr>
<tr>
<td></td>
<td>Telephone number</td>
</tr>
</tbody>
</table>

All fields with * are mandatory

☐ I agree to the Thinstuff Terms and Conditions [in a new window]

→ Sign Up!

5. Now you have successfully created your “Thinstuff Account”, and within a short time you will receive an email with your password.

6. Now you can sign in your “Thinstuff Account” with your entered user-name and password.
6.5 Coupons

A "Thinstuff Shop Coupon" is a voucher code which can be redeemed into full valid licenses in your “Thinstuff Account”.
Thinstuff Shop Coupons consist of 24 digits (6 blocks of 4 digits separated with hyphens) e.g. „6220-0540-6299-4397-2460-9030“, which you receive from your reseller or with your invoice.
First of all the coupon must be converted into a valid license!

If you purchase in our web-shop directly as an end-customer, the license will be created in your Thinstuff account after successful payment (no coupon code). If your XP/VS License has been purchased through Thinstuff partner, you will receive a “Coupon”.
You will find your purchased license files in your Thinstuff Account, right beside the relating shop-product.

6.5.1 Redeem Coupon

You can redeem your coupon directly during the activation and convert it into a valid license, please proceed as described in chapter “6.6 Activation”
6.6 Activation

6.6.1 Online Activation

1. Open the program “Thinstuff XP/VS Administrator” and click in the menu bar “File” and subsequent “Add/Activate License”

2. Now it will open the activation-window. Please select “Add licenses/ Start internet activation...”

3. In the next step, please log into your “Thinstuff Account”. Further information concerning registration you will find in chapter “6.4 Registration”. fig.1 Your web browser will be opened and you have to login with your user name and your password.

Login or create an account

A Thinstuff license management account is necessary for getting evaluation licenses for Thinstuff products and for managing bought licenses. Are you already registered in the license management?

Existing User
I already have a Thinstuff license management account:

office@company.com E-Mail Address
*********** Password

Login

I forgot my password, please send me a new one

New User
I want to register at Thinstuff license management:

Create a new account
4a. If you have bought a license directly in our web shop

*fig.1* You have to select “activate” next to your license (checkbox) and then click “Activate/download selected license”

![Activate or Download existing licenses](image)

4b. *(OPTIONAL)* If you have redeemed a coupon from a Thinstuff Partner

*fig.1* Enter your coupon-code and click “Convert this Coupon!“.

*fig.2* Your coupon will be converted into a valid license. You have to select “activate” and afterwards click “Activate/download selected license”.

![Activate or Download existing licenses](image)

5. Download activated License

*fig.1* Click now on the newly activated license below the item “Activated licenses”.

![Thinstuff License Tool and Online Shop](image)
6. Import the license

In the following dialogue please select „Open with : Thinstuff XP/VS Terminal Server Administrator“ and “Open”, the license will be imported automatically into your XP/VS Server Administrator.

7. Activation completed

After the successful import of the license file you will get confirmation message “License imported successfully”

*fig.1* As shown in the window, the license appears now as valid in your XP/VS Server Administrator.
6.6.2 Offline Activation

You have also the possibility of offline-activation of your XP/VS license by copying the
needed information from your computer without internet access to pc with internet access.

1. **On your computer without internet access, where you have installed XP/VS Server**

   fig.1 To get the activation information please open the program XP/VS Terminal Server Administrator and select “File” and “Add/Activate License”. Subsequently click the button “Copy hardware key to clipboard”

2. Paste the text into a text editor (e.g. Notepad), save it locally (e.g. xxx-hwkey.txt) and copy this text-file to your computer with internet access.

3. **On your computer with internet access:**

   fig.1 Please log into your Thinstuff-Account

   ![Login or create an account](image)

   A Thinstuff license management account is necessary for getting evaluation licenses for Thinstuff products and for managing bought licenses. Are you already registered in this license management?

   **Existing User**
   I already have a Thinstuff license management account:
   office@company.com  E-Mail Address
   **********************  Password

   ![Login](image)

   I forgot my password, please send me a new one

   **New User**
   I want to register at Thinstuff license management:
   → Create a new account!
4a. If you have bought a license directly in our web shop

_**fig. 1**_* Switch into your account to “Overview” and click on “Activate” next to your favoured license.

___

**fig. 2**_ Please select your text file, which you have created previously based on the activation-information.

**Activate License:**

To activate the license please either upload the hardware key file or copy and paste the hardware key contents of the system where you have installed our product.

Activate from file:

---

**fig. 3** _Now click on „Activate license“._

---

4b. (Optional) If you have redeemed a coupon from a Thinstuff Partner

_**fig. 1**_* If you have successfully logged into your Thinstuff Account, select “Add/Manage a shop coupon” on the very right pane of “Overview”._
**fig. 2** Enter your coupon-number and click on “Add this coupon”

![Thinstuff License Tool and Online Shop](image)

**fig. 3** Now you have to confirm the transformation of the coupon into the license. By doing this your coupon is not valid any more and you’ll get a full valid license instead of it.

![Thinstuff License Tool and Online Shop](image)

**fig. 4** The transaction was successful. Please click on „Continue to your account overview.“

![Thinstuff License Tool and Online Shop](image)
5. Download activated license

**fig. 1** Click now on the newly activated license below the item “License file to download an re-import”.

**Activate License:**

To activate the license please either upload the hardware key file or copy and paste the hardware key contents of the system where you have installed our product.

Activate from file:

```
Browse
```

Activate from text:

```

```

→ Activate License

**fig. 7** Now click on „Activate license“.

**Activate License:**

To activate the license please either upload the hardware key file or copy and paste the hardware key contents of the system where you have installed our product.

Activate from file:

```
C:\folder\Key.txt
```

Activate from text:

```

```

→ Activate License

**fig. 6** Please select your text file, which you have created previously based on the activation-information.

**Activate License:**

To activate the license please either upload the hardware key file or copy and paste the hardware key contents of the system where you have installed our product.

Activate from file:

```
Browse
```

Activate from text:

```

```

→ Activate License

**fig. 5** Click on “Activate” next to your favoured license.

3 connections for 1 server

<table>
<thead>
<tr>
<th>349.00 EUR excl. VAT</th>
<th>349.00 EUR incl. VAT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://example.com/activate.png" alt="Activate License" /></td>
<td><img src="https://example.com/select.png" alt="Select License" /></td>
</tr>
</tbody>
</table>

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http://www.thinstuff.com
**fig. 2** In the following dialogue please select „Save“ to save the license file locally.

6. Copy the license file (license_XXXXX.tlic) on that computer, where XP/VS Server is installed.

7. **Import the license**

**fig. 1** Open the XP/VS Server Administrator on the your server machine and click in the menu bar “File” → Import license from file in the menu bar.

**fig. 2** Now select your license file (.tlic) and click „Open“.
8. Activation completed

*fig.1* Now you receive a notice, that your license has been successfully imported, please confirm this dialogue with “Ok”. As shown in the window, the license appears now as valid in your XP/VS Administrator.

6.7 Licensing on virtual machines

On virtual machines the XP/VS license is always bounded on the MAC address of the primary Windows network interface.

In following cases this may cause following problems with XP/VS licensing:

A) If you try to move or copy a virtual machine e.g. on VMWARE and select "create new identifier" a new MAC address is created.

B) Also changing the order of the network interfaces in Windows (if. e.g. another network interface is added - e.g. a VPN connection ...) causes the MAC address of the primary Windows network interface to change.

C) Some visualization solutions (e.g. HyperV, Xen, etc.) will create a new MAC-address for every new Guest OS.

In all of this cases the XP/VS license becomes invalid (“invalid hardware key”) To avoid please make sure that the MAC address of the primary Windows network interface does not change on virtual machines.

*In case B)* you can fix your problem by recreating the initial order of the Windows network interfaces.

*In case C)* can be avoided by assigning a static MAC-address.

If you use a visualization platform (e.g. VMWare, HyperV, Xen, etc.), please assign a static MAC-Address to your Virtual Guest Computers before you install XP/VS Terminal Server.
6.7.1 Change of the Primary Network Interface

Please follow the steps below to change your network adapter:

1. Go to “Start” and open “Control Panel”

2. Open in the preference window “Network and Internet” and click to “Network and Sharing Center”

3. There you will find “Change Adapter Settings” next to the point that you open.

4. By default the menu bar is hidden, but it can be shown by “Organize → Layout → Menu bar”
5. Now please open the "Advanced Settings", click to Advanced → Advanced Settings.

6. To change the priority of a network adapter, please select the favoured adapter from and move with the arrow key on the right. Subsequently click OK.

6.8 Reactivation

XP/VS licenses are bounded by activation to the hardware of the respective computer. If the hardware has changed significantly (replacement of motherboard or of the entire computer ...), in the XP/VS Server Administrator of your physical machine will be displayed the error message “Invalid hardware key”.

For virtual machines, this case occurs, when the MAC-address of the primary Windows network interfaces has changed (see 6.7 Licensing on virtual machines)

In such a case please contact your trader or send us an email:

xpvssupport@thinstuff.com

IMPORTANT! Please let us know your customer number, license number, and the reason for the reactivation.

After approval of reactivation by Thinstuff your license can be reactivated (see 6.6 Activation).
6.9 Upgrade of Licenses

You can upgrade your XP/VS license at any time after purchase directly in our web-shop at https://www.thinstuff.com/licensing/.
Just press the “Upgrade” button and then follow the instructions.
The upgrade price is always the price difference + EUR 10,- / US$ 15 upgrade fee.
7 Usage of XP/VS Server

7.1 XP/VS Server Administrator Window

The XP/VS Server Administrator window is divided into the following four areas:

- Menu Bar
- Selection Screen
- Information Screen
- Status Line

The respective areas of the XP/VS Server window will be described more detailed in the following sections:

7.1.1 Menu Bar

The menu bar allows to access many function and commands of the XP/VS Server.
If a menu item is greyed out, then this item is currently unavailable. Maybe a local or a general group policy (if your computer belongs to a domain) for this element is set, or not available for your license version.
The following table provides an overview of the structure of the menu bar:

<table>
<thead>
<tr>
<th>File</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Import License From File</td>
</tr>
<tr>
<td></td>
<td>Add/Activate License</td>
</tr>
<tr>
<td></td>
<td>Exit</td>
</tr>
<tr>
<td>View</td>
<td>Status Bar</td>
</tr>
<tr>
<td>Options</td>
<td>Allow logins with blank password</td>
</tr>
<tr>
<td></td>
<td>Enable Application Compatibility mode</td>
</tr>
<tr>
<td></td>
<td>Restrict Terminal Services users to a single remote session</td>
</tr>
<tr>
<td></td>
<td>Disable automatic Firewall Configuration</td>
</tr>
<tr>
<td></td>
<td>TSX USB Server Administrator</td>
</tr>
<tr>
<td></td>
<td>Session Directory Configuration</td>
</tr>
<tr>
<td></td>
<td>Language</td>
</tr>
<tr>
<td>Help</td>
<td>About Thinstuff XP/VS Terminal Server</td>
</tr>
<tr>
<td></td>
<td>Visit the Thinstuff XP/VS Website....</td>
</tr>
<tr>
<td></td>
<td>Configure Product Evaluation Version ...</td>
</tr>
</tbody>
</table>

The various functions of the individual elements are explained in Chapter “7.1.4 Function of Menu Bar”.

7.1.2 Selection Screen and Information Screen

The main part of the XP/VS Server Administrator is represented by this two panes – the “Selection Screen” and the “Information Screen”. In the “Information” window will be displayed a general overview about the currently selected item of the “Selection” window.

The various functions of each element will be explained in chapter “7.1.9 Features in Selection- and Information-Screen”.
7.1.3 Status Line

In the status line you will get additional information or description of the current item. To hide the status line, please open “View” and disable “Status Bar”

An example is shown in the following image:

![Status Line Example](image)

7.1.4 Function of Menu Bar

7.1.5 File

**Import License From File**

... you can add the XP/VS Server-licenses (*.tlic)

![Import License From File](image)

**Add/Activate License**

This feature allows to activate the license and accordingly copy the hardware key of a computer to the clipboard (see 6.6 Activation).

![Add/Activate License](image)
Exit
The XP/VS Server Administrator window can be closed by choosing this menu item (an alternative to the shortcut "ALT + F4").

7.1.6 View

Status Bar
In the status line you will get additional information/description of the current item. To hide the status line, please open “View” and disable “Status Bar”

7.1.7 Options

Allow logins with blank password
This item will allow those users remote access, whose password is not set. This feature is - for security reasons - by default disabled.

Enable Application Compatibility mode
Microsoft designates this feature in Terminal Server "Application compatibility mode". This mode is supported by Thinstuff XP/VS Terminal Server, like in Terminal Server from Microsoft. To activate this option, check “Enable Application Compatibility mode” in “Options”. When enabled XP/VS Terminal Server behaves as MS Terminal Server.

The user-specific win.ini should be created in the user directory.

Further details on the "Application Compatibility Mode" is available here:
http://support.microsoft.com/kb/186498/en-us
http://support.microsoft.com/kb/186499/en-us

Restrict Terminal Services users to a single remote session
By default users are limited to one simultaneous Remote Desktop Connection. You may permit several concurrent remote desktop connections for one user by disabling this menu item.

Disable automatic Firewall Configuration
RDP and Session Directory exceptions in the Windows Firewall will be created automatically during installation of XP/VS Server.
XP/VS Server will also verify these exceptions at every system reboot and will correct them automatically if any changes are detected. You can disable this feature in the menu, if you prefer managing your Windows firewall manually or if you are using any other third party firewall products.

**TSX USB Server Administrator**
You are able to start “TSX USB Server Administrator” via this item or, alternatively, by “Start” → “All Programs” → “Thinstuff” → “Thinstuff TSX USB Server Administrator”.
“TSX USB” is only available in XP/VS Server Professional.

TSX USB allows to forward client attached USB devices (which cannot be forwarded with existing RDP mechanisms) over RDP to your XP/VS Server. These devices seem to be connected locally on the server.

Thinstuff TSX USB Client is required on client-side.
During the installation proceed as described in chapter “5.2 Installation”, but at point 5 – you have to enable the client-part instead of the server-part.

More informations about TSX USB can be found here:
8 TSX USB – Server
9 TSX USB – Client

**Session Directory Configuration** ...
TSX Session Broker is a feature integrated into XP/VS Server (Standard and Professional) which allows the XPVS-pc to take part in a load balanced Terminal Server farm based on Microsoft Session Directory (Windows Server 2003) or Session Broker (Windows Server 2008).
(see chapter 3.1 Supported operating systems)

More informations about TSX Session Broker can be found at chapter 10 TSX Session Broker!

**Language**
Here you can change the interface language of XP/VS Server. Currently the following languages are available:

• English
• German
• Spanish

The change-over of the language of XP/VS Server will be executed by restarting the application.
7.1.8 Help

**About Thinstuff XP/VS Terminal Server**
Program-version of XP/VS Server is shown. This information can be useful for support proposes.

**Visit the Thinstuff XP/VS Website**
This menu item opens the XP/VS Server product page in your default web browser.

**Configure Product Evaluation Version**
If you are in a trial period, by dint of this menu item you can switch between the versions of XP/VS Server. Consequently this is the best way to find out, which version will suite your needs. If you have changed the evaluation version, you have to restart your operating system.

7.1.9 Features in Selection- and Information-Screen

The Selection- and Information-Screen form a unit. So you are able to view e.g. general information about your licenses by selecting on the left pane “Terminal server” (Selection Screen).

Right below “Terminal Servers” of your domain will be listed. If you select the server's name of your computer, on the right pane you will see the information of the logged in users.
Mark one favoured user on the right pane with a right-click, now you can select between the following options:

- **Send Message**: by choosing this option you are able to send a message to connected remote-users. If you leave this field blank, the remote-user will get the message “Error”.
- **Connect**: you are able to reconnect to a disconnected remote desktop session.
- **Disconnect**: with this option you may disconnect the session for the selected Remote-Desktop-user.
- **Log off**: You can log off the connected Remote-Desktop-user.
- **Remote Control**: by using this option you can mirror connected Remote-Sessions. This feature may be useful for support purposes.
8 TSX USB – Server

The **TSX USB** feature is only integrated in the Professional version of the XP/VS Server. So you need a valid XP/VS Professional license on your server machine to use that feature. There are no separate licenses for TSX USB available. You will find this licensing information in chapter 6 Licensing!

8.1 Enable/Disable the TSX USB Feature

Before you want to use the TSX USB feature you have to enable on server-side!

To enable the TSX USB feature on your XP/VS Server machine please do the following:

1. Run “XP/VS Server Administrator”, click "Options" and afterwards "TSX USB Server Administrator" or open the TSX USB – Server Administrator directly.

2. The TSX USB Server Administrator window will open.

3. Click "Options" and "TSX USB Configuration".
4. Mark checkbox "Enable USB Device Redirection" field and choose one of the two options:
   - Connect to any devices
to see all USB devices which are redirected from your clients
   - Only connect to the following USB devices
only devices with specific vendor and device IDs will be redirected to your server machine

![USB Device Redirection](image)

More informations about the client-side configuration you will find at chapter 9
TSX USB – Client!

8.2 TSX USB – Server Administrator Window

8.2.1 Menu Bar

The following table provides an overview of the structure of the menu bar:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Exit</td>
</tr>
<tr>
<td>View</td>
<td>Refresh</td>
</tr>
</tbody>
</table>
| Options| TSX USB Configuration
        | Allow Non-Admins to launch this utility |
| Help   | About...    |
8.2.2 Device Window

The “Device Window” offers an overview which devices can be redirected within the RDP session to your server machine.

You are able to disconnect these redirected devices from your server and call up USB device-properties.
With a right-click on a device you'll see the available functions for this hardware.

The 'Properties' window will display several information of your USB device:
9 TSX USB – Client

9.1 TSX USB - Device Sharing Window

9.1.1 Menu Bar

The following table provides an overview of the structure of the menu bar:

<table>
<thead>
<tr>
<th>File</th>
<th>Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>Refresh</td>
</tr>
<tr>
<td>Options</td>
<td>Allow Non-Admins to launch this utility</td>
</tr>
<tr>
<td>Help</td>
<td>About...</td>
</tr>
</tbody>
</table>

9.1.2 Device Window

The Device Window gives you an overview which devices are physically connected to the client machine and which are shared to a server machine within a remote desktop session.

As shown in figure above those devices are listed which are connected locally and labelled separately which are redirected over RDP to the server.

Some devices will have a prohibitory sign in the icon 🛑.
This device cannot be shared, you need to control your local computer (available, any error already on local side, etc.)

9.2 How can I share an USB Device?

Before you connect to the Server per RDP please do the following:

1. Make sure that your device is working properly on the client computer!
2. Run the "TSX USB Client" on the client machine.
3. Click with the right-mouse-button on the device you want to share and click “Share USB Device”.
4. The Device is now released to redirect – shown with 'hand' icon.
5. When you connect to your server via RDP your shared device will appear in the TSX USB Server Administrator.
Keep in mind that everybody can access the device because for the server it's like locally connected device. Please make sure that you have enabled the TSX USB redirection on the server-side - otherwise the redirection will not work!
10 TSX Session Broker

10.1 Requirements

10.1.1 General

• The TSX Session Broker feature requires a XP/VS Standard or Professional license (more information about installing and configuring the XP/VS Server can be found at chapter 5 - Software installation and maintenance- page 14)
• The computer with XP/VS Terminal Server installed must be joined to a Windows Server Domain.
• Please note that Windows 2003/2008/2008-R2 Server is required, session directory/broker service enabled and running.
  The session directory/ broker services are included in all Windows Server 2003/2008/2008-R2 Editions (even Small Business Editions).

10.1.2 Supported Operating Systems

TSX Session Broker is supported on following x86 (32 Bit) and x64 (64 Bit) versions of the server-side operating systems:

• Windows XP x86 Professional
• Windows XP x64
• Windows Vista Business/Ultimate/Enterprise
• Windows 7 Professional/Ultimate/Enterprise
• Windows Server 2003 R2 SBS/Standard/Enterprise (SP1/SP2)
• Windows Server 2008 R2

10.2 Setup

1. Enable Session Directory Service

If you are using a Windows 2003 Server with Session Directory:
Open "Services" from "Administrative Tools" and locate the service called "Terminal Services Session Directory"

If you are using a Windows 2008/2008-R2 Server with Session Broker:
Open the Server Manager and install the TS Session Broker Role Service from the Terminal Services Roles.
2. Define which member servers are allowed to join your Session Directory/Broker

In order to allow a Terminal Server to join a Session Directory or Session Broker you have to add the computer to a local group called "Session Directory Computers". This local user group is basically used to define a list of Terminal Server computers that can join Session Broker/Directory.

On the Windows Server computer running the Session Directory or Session Broker service:
- Open "Local Users and Groups"
- Locate the group called "Session Directory Computers"
- Add all participating XP/VS Terminal Server Computers to this group

3. Join all required XP/VS Terminal Servers

On each single XP/VS Terminal Server that will participate in the Session Directory / Session Broker:

- Open Thinstuff XP/VS Terminal Server Administrator
- Select "Session Directory Configuration ..." - menu bar “Options”
- Activate the check box "Join a TS Session Directory or TS Session Broker"
- Enter the name of the Windows Server 2003/2008 computer running the Session Directory / Session Broker service
- Enter a common name for your farm/cluster (e.g. "myfarm1"). Unless you know what you're doing please enter exactly the same string on all your XP/VS Terminal Servers!
- And - unless you know better - enable the check box "Use IP address redirection"

4. Load Balancing

If you want to use Round robin DNS load balancing:

- Add the farm name (e.g. "myfarm1") as a second hostname (A entry) for each XP/VS Terminal Server participating in the load balanced Terminal Server farm
- Don’t forget that the Remote Desktop Clients must be configured to connect to this farm name (e.g. "myfarm1") instead of connecting to a hostname or IP address of a specific Terminal Server!
10.3 Usage

After you have configured the server machines you are able to connect with your Remote Desktop Client.
Connect with your RDP Client to the farm name (e.g. "myfarm1") instead of connecting to a hostname or IP address of a specific Terminal Server.

Because of DNS Round Robin the Remote Desktop Clients will get distributed equally among the member servers.
On Logon the XP/VS Terminal Server will consult the Session Directory or Session Broker server to determine if there is an existing disconnected RDP session for that user.
Depending on the result of that query the XP/VS Terminal Server will either accept the connection or redirect the RDP client to the server running the previously disconnected RDP session.
The XP/VS Terminal Servers will automatically update the session's state (connected, disconnected, deleted) on the Session Directory / Session Broker.
11 Customer Support

11.1 Non technical enquiries
Non technical enquiries should be addressed to sales@thinstuff.com

11.2 Technical enquiries
Technical enquiries should be addressed to xpvssupport@thinstuff.com together with the following information:

- XP/VS License-ID
- Email address of your Thinstuff account
- installed Thinstuff components

11.3 Online Resources

11.3.1 User Manuals
All user manuals can be found here:
http://www.thinstuff.com/downloads-support/downloads/

11.3.2 FAQ Page
On this page you will find answers to the most frequently asked questions.
http://www.thinstuff.com/faq/

11.3.3 XP/VS Server Product Page
The XP/VS Server product page can be found here:
http://www.thinstuff.com/products/xpvs-server/

11.3.4 XP/VS Server Price List
The complete price list of various editions of XP/VS Server can be found here:

11.3.5 Thinstuff Product Folder
All Thinstuff Product folders can be found here:
http://www.thinstuff.com/downloads-support/downloads/
12 Legal Notices

12.1 Copyright

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A detailed description can be found here: