2X WhitePaper

DESKTOP VIRTUALIZATION

A Brief Guide to Desktop Virtualization

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This white paper contains a brief guide to desktop virtualization.

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Benefits of Virtual Desktop Computing

• Maintain the Windows desktops and builds from one central location

No need to visit physical machines to install or update software or change configuration.

• Support is improved by shadowing sessions and watching the user's steps

Use RDP tools or the VMware server console to follow what the user is doing when giving support remotely, or take control of the machine.

• Easy recovery, replacement of machines

Blue screen, dead OS, no problem! Simply delete the virtual machine and replace it in minutes rather than hours. No need to physically collect a machine.

• Centralized control, shutdown or restart machines remotely

If a user changes department, simply change the connection profile for that user, allowing them to access the appropriate department build

Shutdown or restart a client machine remotely.

• Manage your pool of machines

Add or remove virtual desktops as needed in a few minutes. No need to wait for hardware to arrive, when staff changes occur.

• Lower costs

Old PCs and low cost thin clients can be used, as the processing is done by the server not the client

No difficult Terminal Server management, 3rd party utilities needed

No Terminal Server CAL costs

Reduced support and time administering physical desktops.

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## What do I need to achieve this and how much will it cost me?

Components:

• 2X ThinClientServer PXES edition – www.2x.com/pxes - Cost: Free

• VMware Server – www.vmware.com/products/server - Cost: Free

• A server-based OS, either Linux/Windows – Cost: Free/Licensing

Hardware specification, will depend on the number of virtual machines you intend to run.

How does it work?

In a nutshell, the physical client device (PC, Thin client) boots the 2X ThinClientOS via PXE, CDROM or hard drive installation.

Physical client getting the
ThinClientOS via network
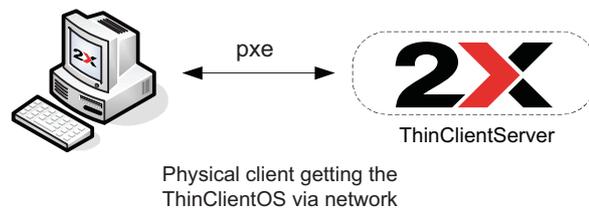
The user is then brought to a 2X login prompt, the user inserts their username and password and presses enter to connect.

At this stage the username is sent to the 2X ThinClientServer, this is matched to the connection profile and the username and password are sent for authentication to Active Directory, and if successful, the user is then logged into a virtual machine from the list of IP addresses (pool) available to the profile.
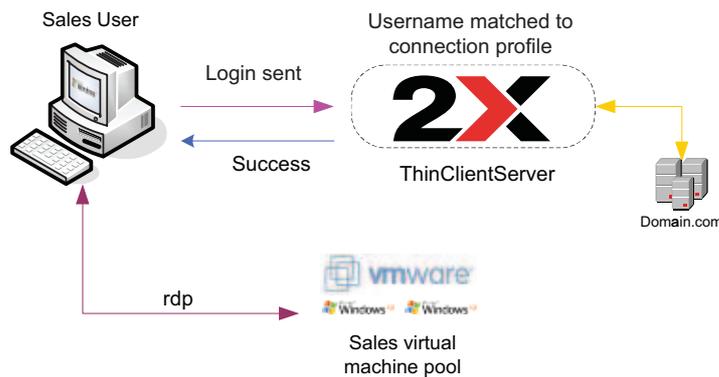
Logic Network Topology
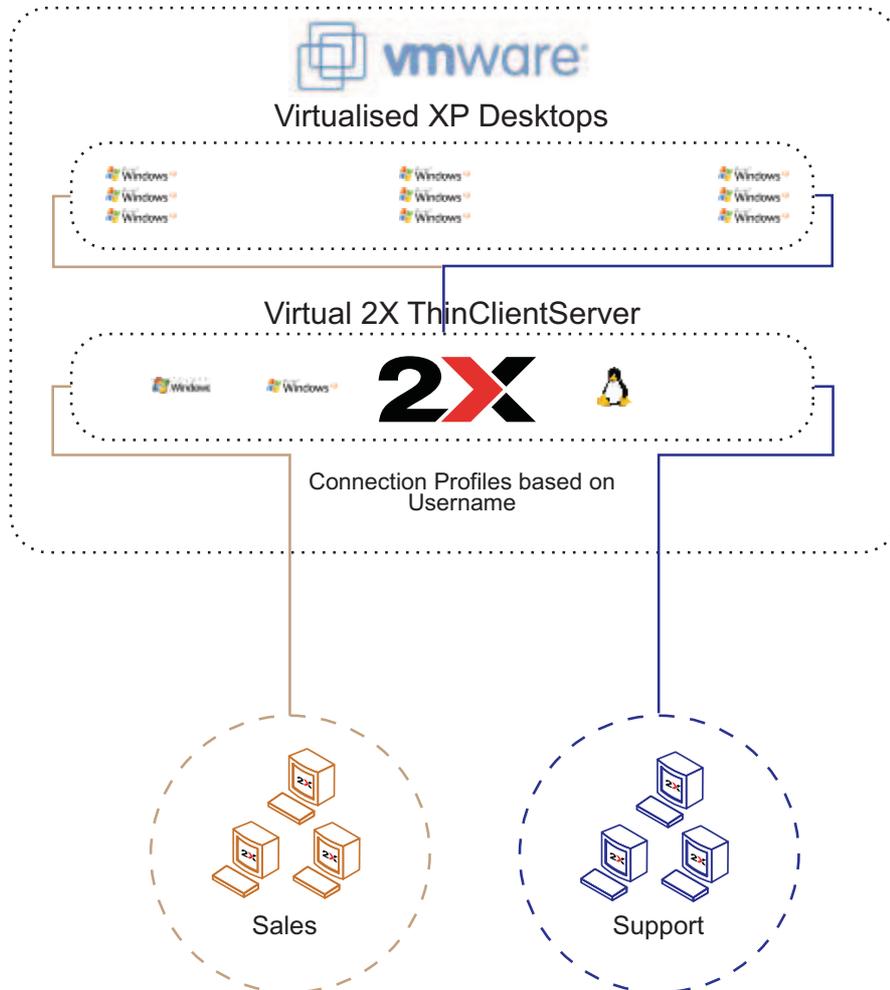
In this diagram, both the Windows XP and the 2X ThinClientServer are running in the virtual environment on the VMware server. 2X ThinclientServer can also be installed in a non virtual environment.

There are 3 pools of virtual Windows XP machines, this is due to Sales and Support needing different sets of applications available to their departments.

When a Sales user logs in, their connection profile allows them to login to the sales pool of machines.

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9 Steps to move you to the world of desktop virtualization

1. Download and install VMware Server.

2. Download and install 2X ThinClientServer PXES edition.

3. Create a virtual machine in VMware Server and install your standard Windows desktop. If you have different desktop builds for different departments, create a virtual machine build per department.

4. Create a virtual machine and install the server OS and 2X ThinClientServer or alternatively install on a physical OS.

5. Copy and clone the VMware virtual desktop machines as many times as required, ensuring you have licensing for the amount needed.

6. Start the virtual machines.

7. In 2X ThinClientServer, create connection profiles for each type of build, e.g. Sales. Within this connection profile place the IP addresses for the virtual desktops with the correct build for the sales department.

8. Set the physical clients to boot, either via PXE, Hard drive install or CDROM (Methods are listed in the 2X ThinClientServer manual).

9. Ensure roaming profiles are available on the network, this allows any user in the group to login to any available virtual machine in the 2X ThinClientServer connection profile and maintain their own desktop and settings.

The users should now be able to login to their desktop as if they were running it locally.

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ABOUT 2X | 2X Software Ltd - 2X - is a company developing software for the booming server-based computing market. Thin client computing controls skyrocketing PC management costs, centralizes application and desktop management, improves security and performance and allows users to work remotely. The company's product line includes: 2X ApplicationServer for Windows Terminal Services, 2X VirtualDesktopServer, 2X LoadBalancer for Terminal Services/Citrix and 2X ThinClientServer. 2X is a privately held company with offices in the USA, Germany, France, UK, Australia and Malta. Its management team is backed by years of experience in developing and selling network infrastructure software. 2X is a Microsoft, VMware, IBM and RedHat partner. For more information visit: http://www.2x.com. All product and company names herein may be trademarks of their respective owners.

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