

2X Manual

2X Client for Windows
v11





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INSTALLING 2X CLIENT FOR WINDOWS



2X Client System requirements

- Windows 2000, XP, Vista, Windows 7, Windows 8.
- The same hardware requirements as specified by Microsoft when using any of these workstation OSs
- Some features (like high color, sound, etc) will only be available if your workstation has the appropriate hardware installed and is properly configured.

Installing 2X Client

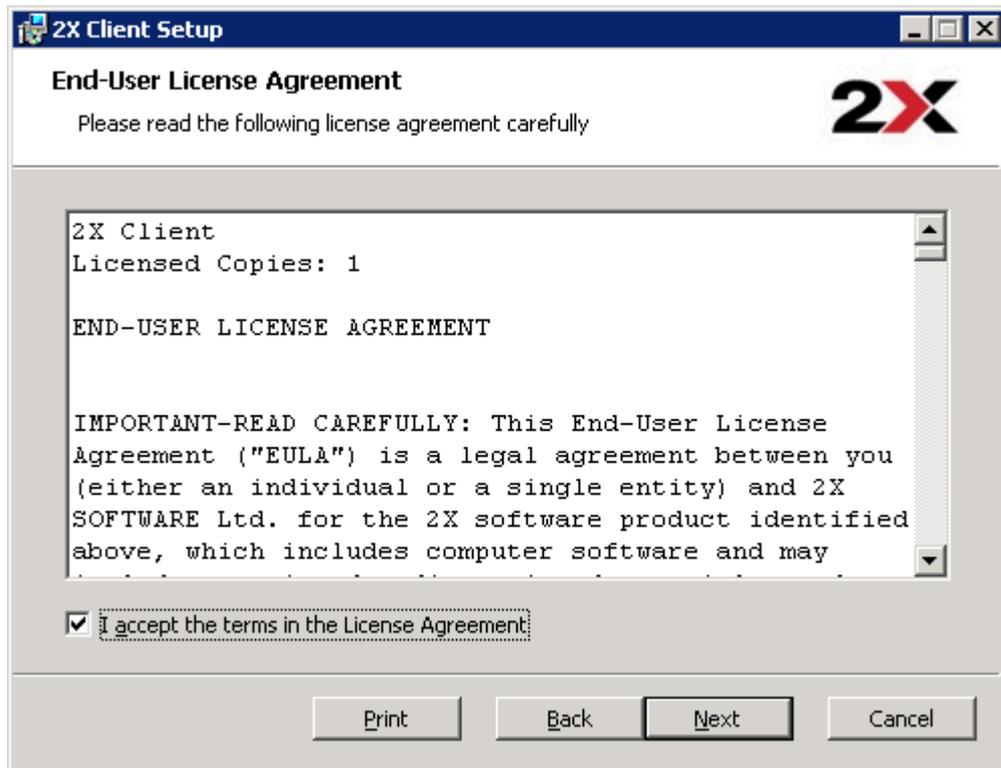
Before you run the installation procedure please make sure that you are logged on as an administrator and the system requirements are met.

Run the 2X Client setup program by double clicking on the '**2XClient.msi**' file on the client machine. A welcome dialog will appear. Close other Windows programs and click '**Next**'.



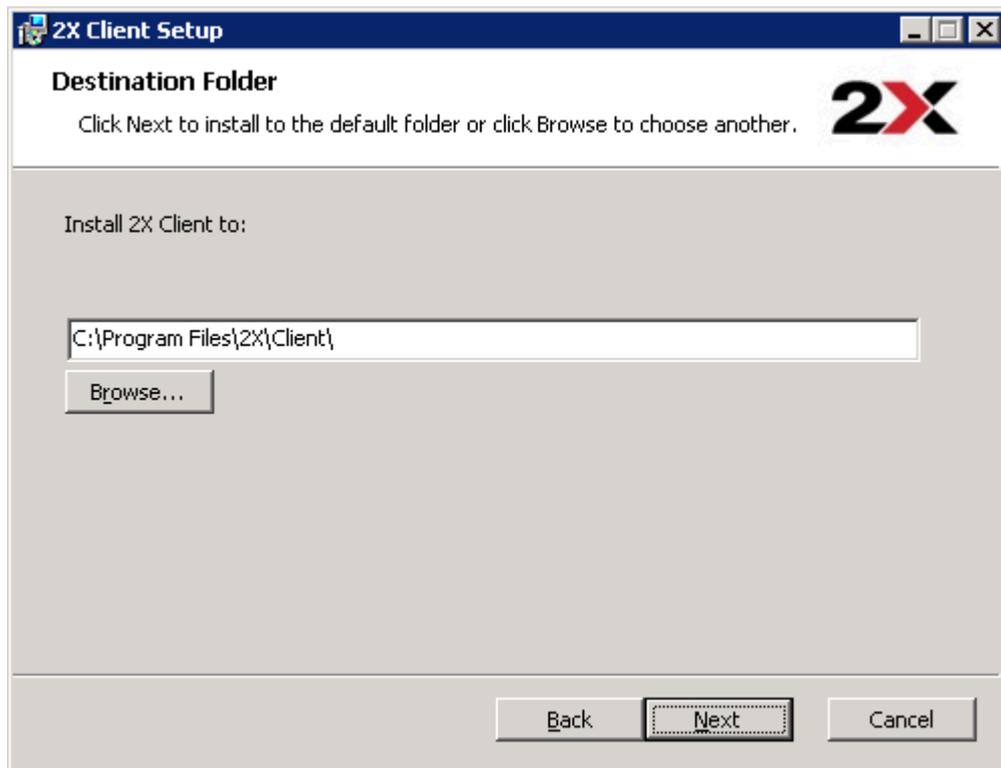
2X Client Setup Program welcome screen.

2. Accept the License Agreement and click 'Next'.



The End-User License Agreement.

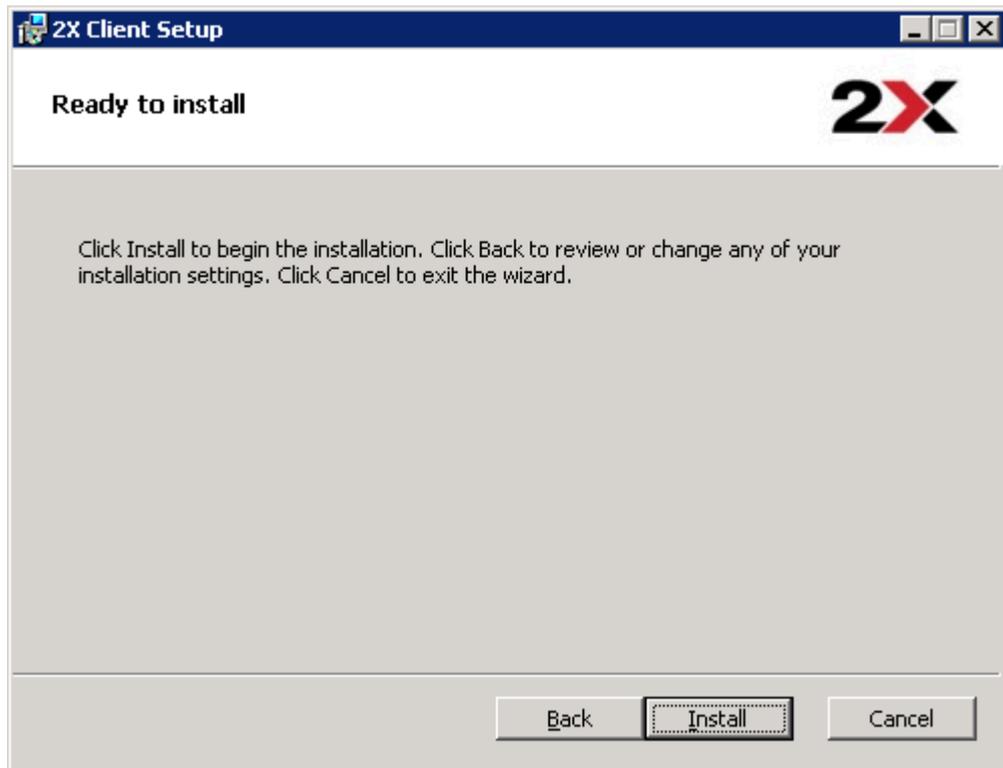
3. Select the location where you want to install the 2X Client and click 'Next'.



Choosing the location where the 2X Client will be installed

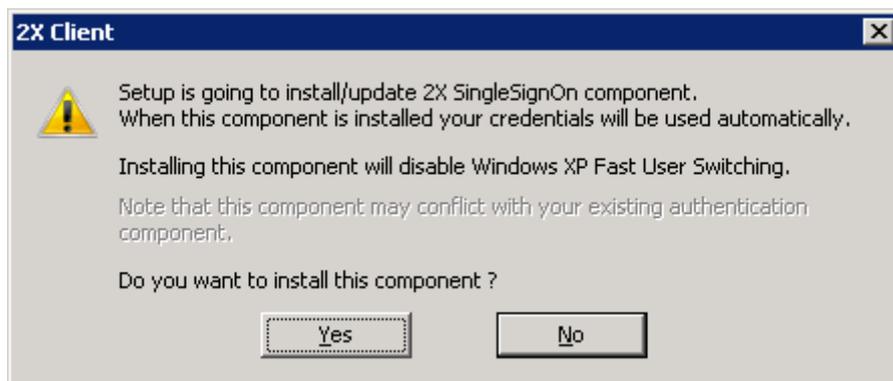


4. To start copying files click 'Install'.



Starting the installation program.

5. Click 'Yes' to install the 'Single Sign-On' component. This component will automatically use your credentials to connect to 2X ApplicationServer & LoadBalancer.



Installing Single Sign-On



6. Setup will copy the required files. Click on Finish to view the status screen.



Post-Installation status screen.



Modifying the 2X Client Install

By using the MSI format, administrators can now deploy the 2X Client remotely by using Group Policies or any other deployment tool that accepts the MSI format. Installing the 2X Client on remote computers using the MSI is much easier and will reduce the chance of user error during the installation process.

The MSI can be deployed in many different ways (i.e. Group Policies, SMS, Altiris and even a simple login script).

It is not within the scope of this implementation manual to cover every single option available. Make sure you consult your application manual for more information about deploying MSI packages remotely.

There are two ways to modify the client installation settings:

1. Modify the original file using Orca.
2. Install 2X Client with modified options (msiexec.exe /i 2xclient.msi)

Silent Install

Install 2X Client with modified option: msiexec.exe /qn /I 2xclient.msi

General Settings

DEFSETTINGS: To use when 2X Client installer reads 2xsetting.2xc as default settings.

DEFSETXML: To use when XML settings are entered manually.

OVERRIDEUSERSETTINGS: To override the user settings with client MSI settings.

- **0** – Client settings are not overridden
- **1** – Client settings are overridden with the new settings of the Client MSI setup.

DISABLEOPTIONS: To disable the Options button and hide the options to configure the client settings. This option can be applied to users without administrative rights.

- **0** – Options are enabled
- **1** – Options are disabled

DISABLEOPTIONSADMIN: To disable the Options button and hide the options to configure the client settings. This option can be applied to users with administrative rights.

DISABLESAVEPASSWORDADMIN: To disable the clients from saving the password even if they have administrative rights.

- **0** – Option to save password is enabled
- **1** – Option to save Password is disabled

DISABLESAVEPASSWORD: To disable the clients from saving the password. This option is ignored with users with administrative rights.

- **0** – Option to save password is enabled
- **1** – Option to save Password is disabled

TUXGINA: Exclude/Include SSO during a silent installation

- **0** – Install SSO
- **1** – Exclude SSO
- **2** – Prompt during installation [Default]

TUXGINASRV: Install SSO on both Client and Server

- **0** – Install SSO only on the Client
- **1** – Install SSO on both Client and Server

Using Active Directory

There are two different ways that you can deploy an application through the Active Directory.

You can either **publish** the application or you can **assign** the application.

You can only **publish** applications to **users**, but you can **assign** applications to **either users or to computers**.

The applications are deployed in different ways; depending on which of methods you decide to use.

2X recommends that administrators assign the applications to **COMPUTERS**. The main reason is that the application is actually installed the next time the computer reboots.

When assigning to users, the application is not installed until the user actually clicks on the icons created for the application.

To assign an application to certain computers simply do the following in Active Directory:

1. Open the Group Policy Editor.
2. To assign an application to a computer, navigate through the group policy console to Computer Configuration>Software Settings>Software Installation. Now, right click on the Software Installation container and select New>Package commands from the shortcut menu. Select the appropriate MSI file and click Open. You are now asked whether you want to publish or assign the application. Select assign and click OK.

NOTE: When doing a silent installation, the MSI can be deployed using the following syntax (one single line):

```
msiexec /qn /i 2XClient.msi
```

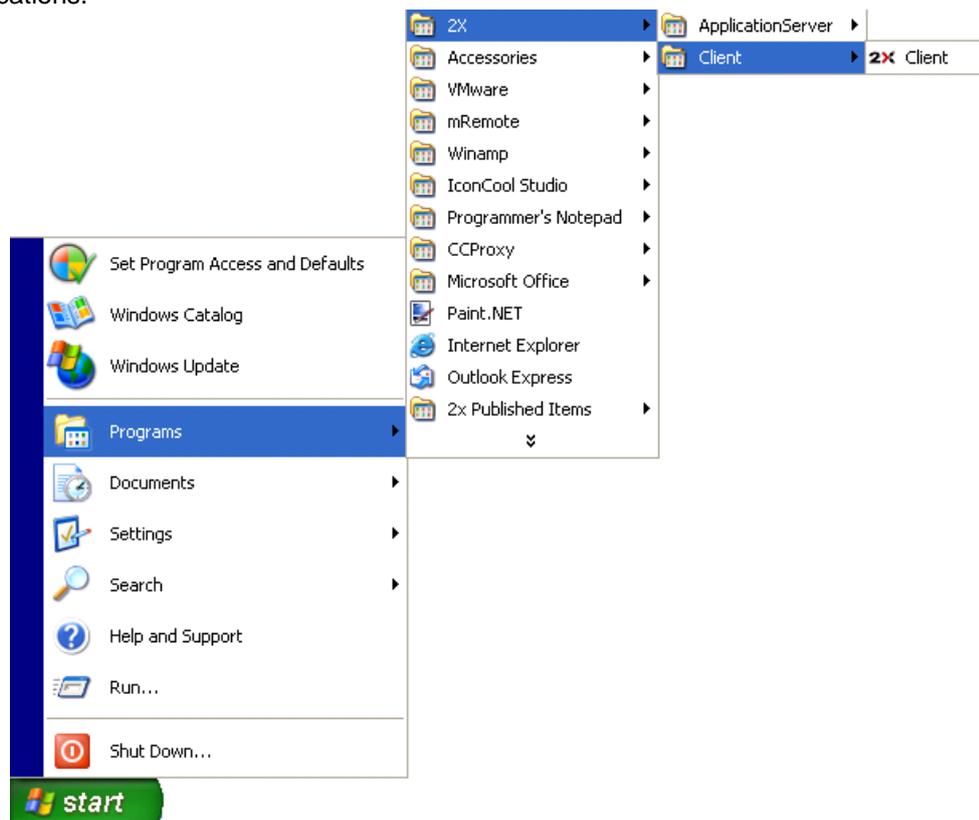
An example to install the 2X Client with options to be able to save password is enabled (DISABLESAVEPASSWORD=0), and installation of the 2X Client without SSO is given by the following syntax:

```
msiexec /qn /i 2XClient.msi DISABLESAVEPASSWORD=0 TUXGINA=1
```

USING 2X CLIENT

Introduction

After you have installed the 2X Client, you can now launch the 2X Client to access your published applications.



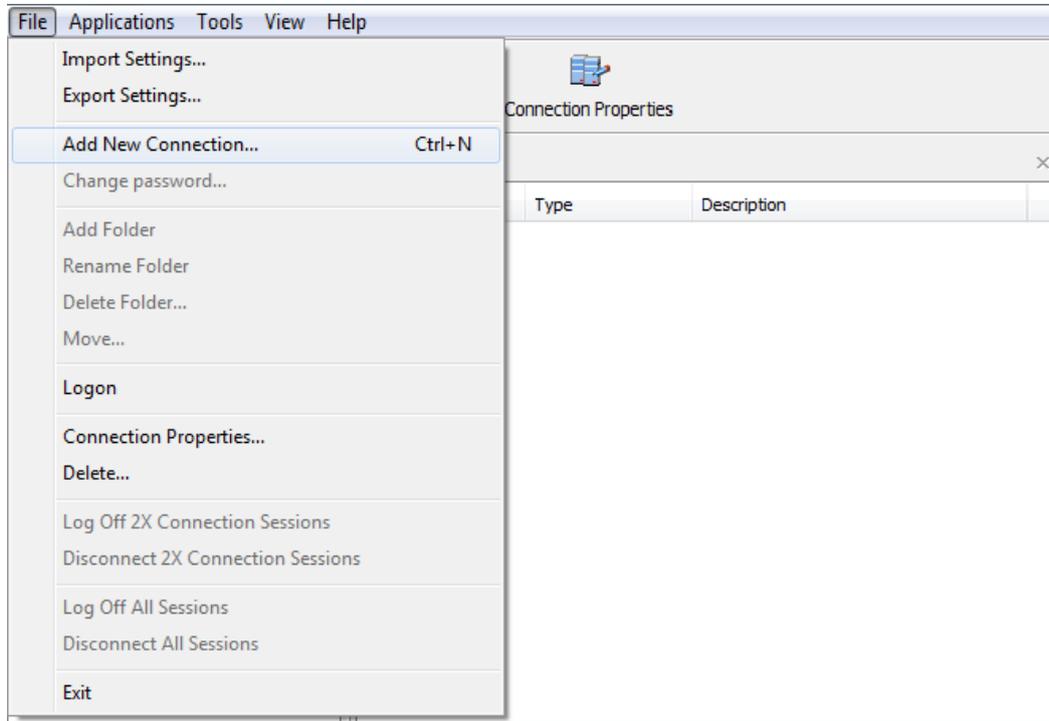
Launching the 2X Client

To open the 2X Client: Start > [All] Programs > 2X > 2X Client > 2X Client

Configuring 2X Client for Windows

When launching the 2X Client you will be prompted to configure a new 2X ApplicationServer XG connection. If you need to configure multiple 2X ApplicationServer XG connection, click on File menu and then choose 'Add New Connection...'

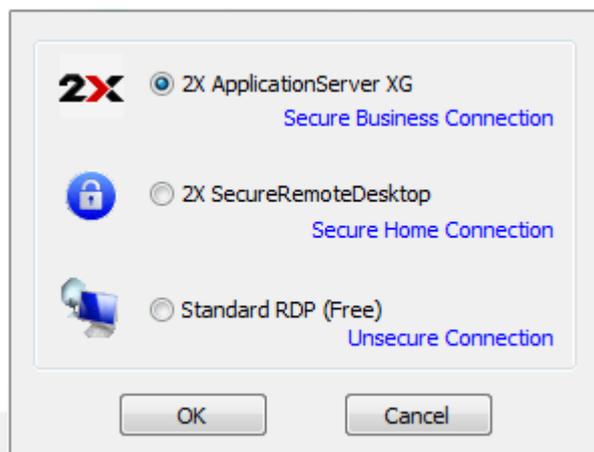
2X Client for Windows is able to connect to multiple farms*.



2X Client Initial Screen.

*Term used in remote session computing that refers to a group of Remote Desktops

After clicking 'Add New Connection...', the following window is shown:



Adding a new connection.

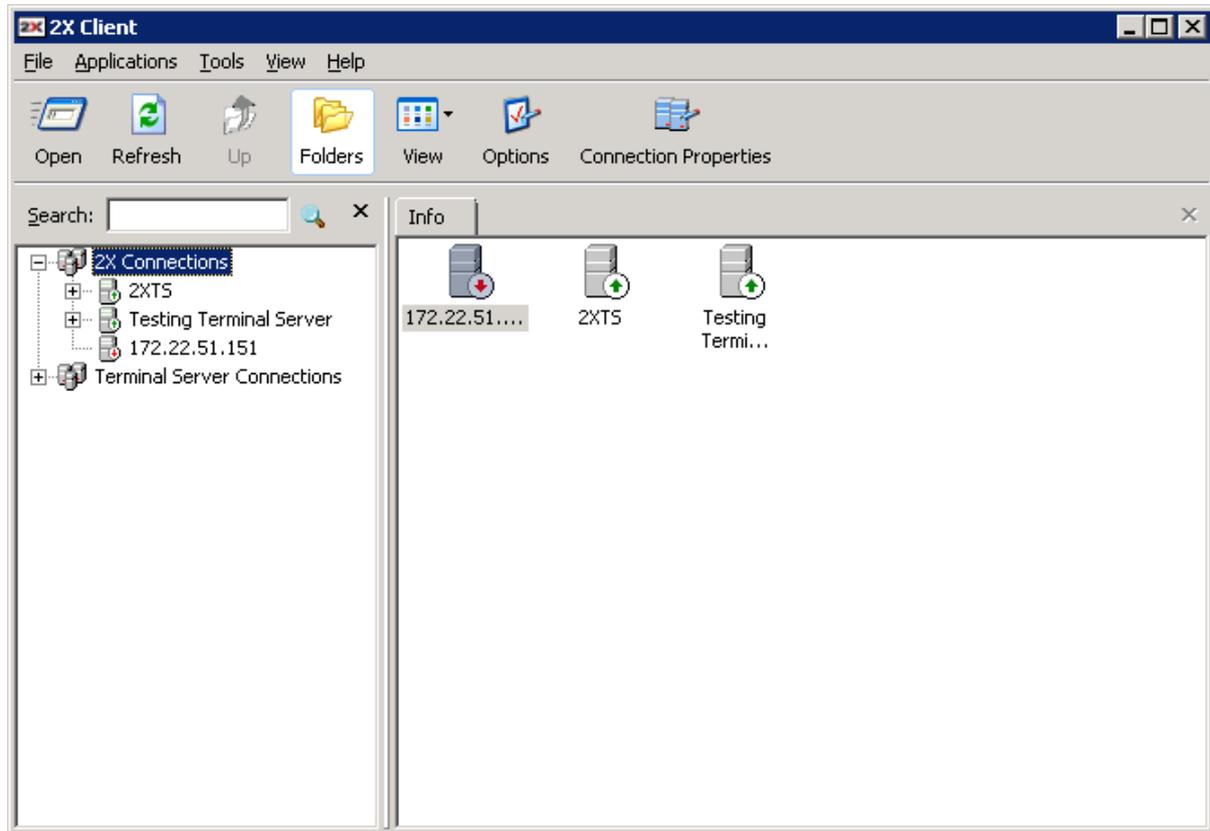
Then, select the connection you want to add to the 2X Client from:

- *2X ApplicationServer XG*
- *2X SecureRemoteDesktop*
- *Standard RDP (Free)*



2X ApplicationServer XG connection

Whether you are adding a new 2X ApplicationServer XG connection for the first time, or if you are adding an additional connection, the Connection Properties Dialog Box opens so that you are able to fully configure your connection. All existing connections will show on the Info tab, as shown below.



2X ApplicationServer XG connection

Connection Tab

Connection Properties - Testing Terminal Server

Connection | Display | Local Resources | Experience | Network | Authentication

Connection Settings

Primary Connection: 2x.testing ...

Connection Mode: Gateway Mode

Port: 80

Secondary Connections...

Alias: Testing Terminal Server

Logon

Auto Logon

Use system credentials (SSO)

Username: user1

Password:

Save Password

Domain: 2xtesting

OK Cancel Help

2X ApplicationServer XG connection Properties – Connection tab.

In the Connection Settings area, enter the Primary Server name or IP address, in the 'Primary Connection' field. This should be the name or IP where the 2X Secure Client Gateway resides.

If your administrator enabled 'Broadcast 2X Secure Client Gateway Address' option on the server, you can click on the browse button '...' and you should see the available 2X ApplicationServer XG connection in your area.

If you do not see any 2X ApplicationServer XG connection, simply ask your administrator for the application server IP and port and add this information manually.

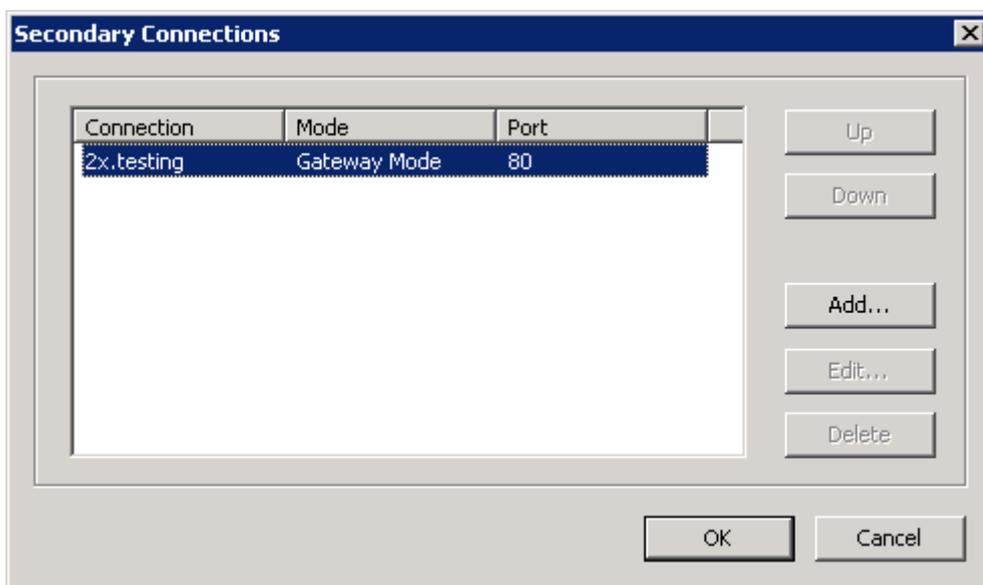
In the 'Connection Mode' field there are four types available:

- Gateway Mode: Clients are connected with the 2X Secure Client Gateway and the session connection is tunneled through the first available connection. This mode is ideal for servers which are only reachable via the gateway and do not require a high level of security.
- Gateway SSL Mode: Connection is made as in the regular gateway mode, but the connection is encrypted.
- Direct Mode: Clients first connect to the 2X Secure Client Gateway for the best available Server and then connect directly with that particular Server. This is best used when the client and the server are on the same network.
- Direct SSL Mode: This connection is created as in the Direct Mode option, but the connection to the 2X Secure Client Gateway is encrypted.

NOTE: In order to connect through the 2X Secure Client Gateway you will need to set the port number that was configured on the 2X Secure Client Gateway Port on the Connection Settings page. (Default Gateway Port 80/443)

If you have more than one Gateway available to connect to your farm, you should add them as secondary connections. The client will use these connections if the primary server should fail.

You can also add a Secondary Server, if a backup 2X Secure Client Gateway is available.



Secondary Connections

Click on the 'Secondary Connections' button and you will be able to change the 'Alias' for the name of the farm which is displayed in the client main list.

You can move the servers up or down in the list, you can 'Add', 'Edit' or 'Delete'.



Logon Panel

Check the 'Auto Logon' box to enable the 2X Client to connect automatically instead of displaying the logon page every time you need to access the 2X ApplicationServer XG connection.

To use the local system credentials when connecting with a particular 2X ApplicationServer XG connection; enable 'Use System Credentials (SSO)'. When you enable this option, you will automatically login when connecting with the 2X Secure Client Gateway and the Remote Desktops.



The screenshot shows a 'Logon' dialog box with the following elements:

- A user icon on the left.
- A checked checkbox for 'Auto Logon'.
- An unchecked checkbox for 'Use system credentials (SSO)'.
- A 'Username:' label followed by a text box containing 'user1'.
- A 'Password:' label followed by a text box containing masked characters (dots).
- A checked checkbox for 'Save Password'.
- A 'Domain:' label followed by a text box containing '2xtesting'.

Logon Panel on the Connection Tab

NOTE: You will need to install this module when installing the 2X Client to be able to use the SSO.

In the 'Logon' section, enter your username, password and domain to be used when retrieving your published applications.

This information is encrypted and saved locally under the HKCU hive.

Display Tab

Select your preferred resolution by selecting one of the options from the drop down list. You can set the connection to use the available area, a predefined resolution, full screen or a custom resolution. If you select 'Custom' you will have to enter the width and the height in the enabled text boxes. The user can also change the following settings:

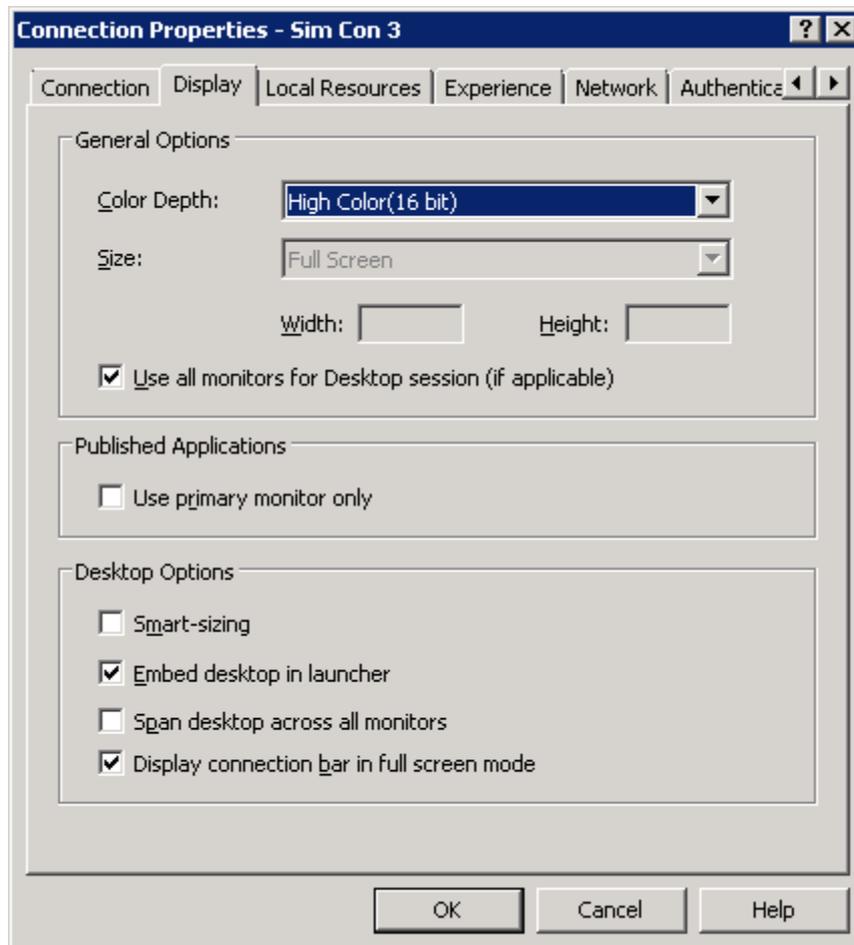
Use primary monitor only – Enable this to start published applications in your primary monitor only and not have it span through all the monitors connected to your system.

Smart sizing – Desktop smart sizing will scale the RDP desktop to fit the connection window.

Embed desktop in Launcher – Enable this option to access the published desktop inside the 2X Client

Span desktop across all monitors – Enable this option to span the published desktops across all connected monitors.

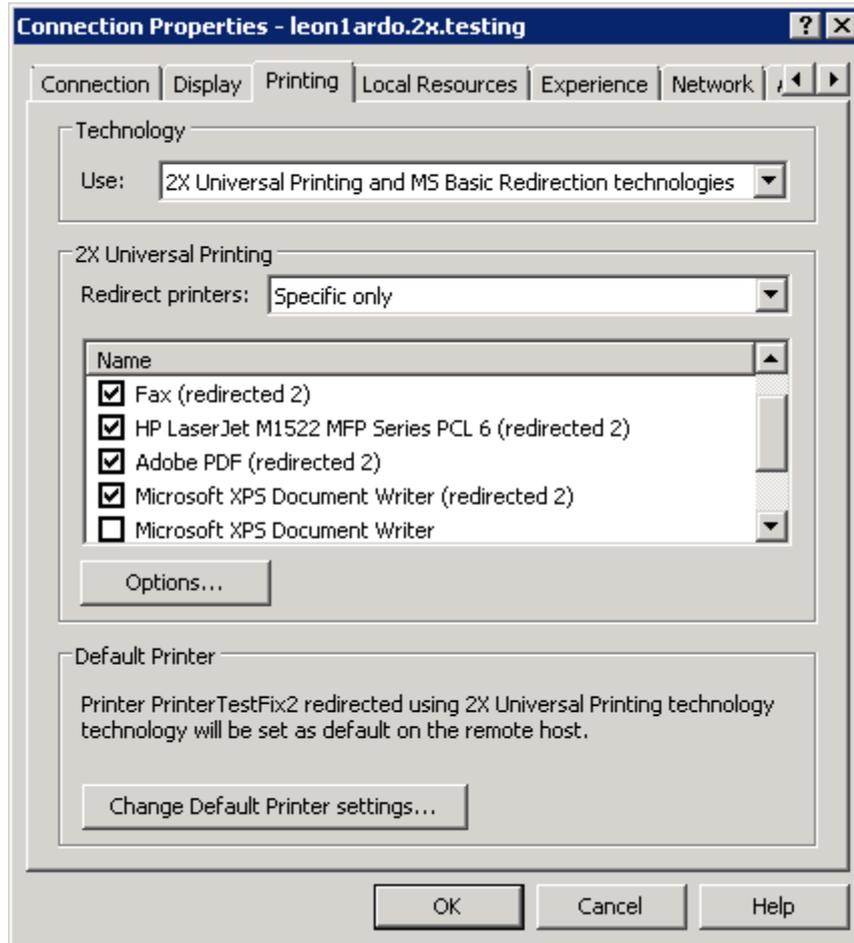
Display connection bar in full screen mode – Enable this option to show the connection bar when connecting in full screen mode.



Display Tab

Printing Tab

In this section you can configure the *Printing Settings* used in the current connection.



Printing Tab

Technology

You can configure the technology to be used when redirecting printers to remote computers. You can select one of the following:

None – Select this option if you don't want any printing redirection to be configured.

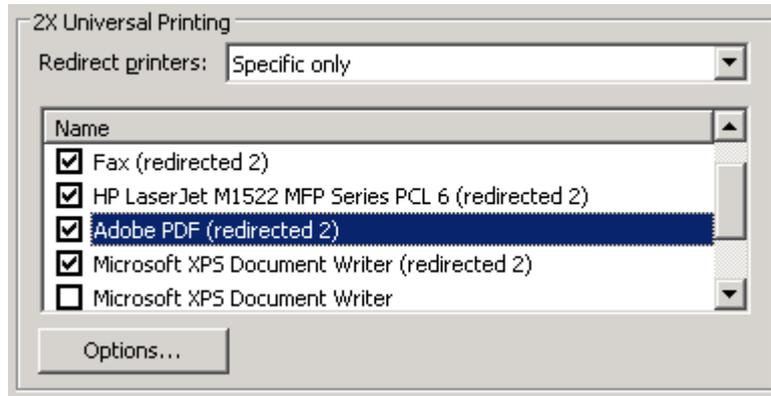
2X Universal Printing technology – Select this option if you want to use 2X Universal Printing technology when redirecting printers to the remote computer.

Microsoft Basic Printing Redirection technology – Select this option if you want to use Microsoft Basic printing technology when redirecting printers to the remote computer.

2X Universal Printing and Microsoft Basic redirection technologies – Select this option if you want to redirect printers using both 2X Universal Printing and Microsoft Basic redirection technologies.

2X Universal Printing

In this section you can configure the settings for 2X Universal Printing if this technology was previously selected.

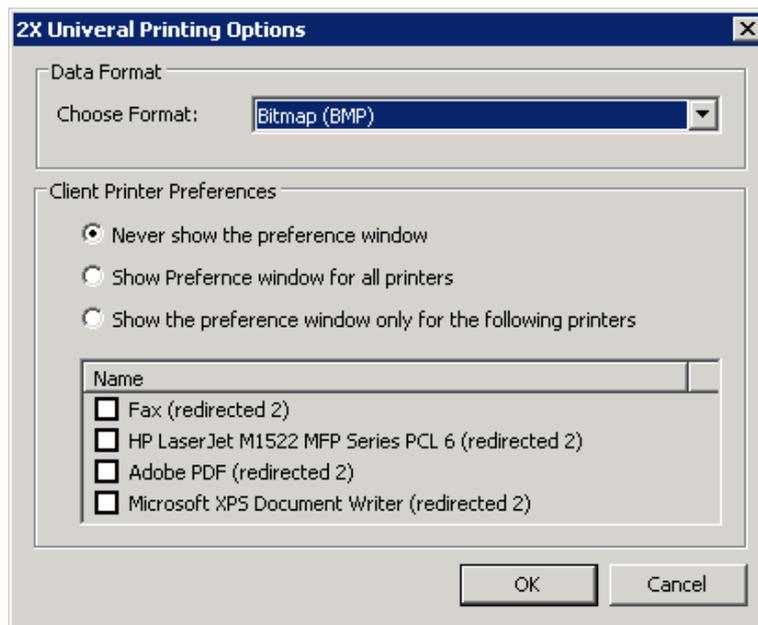


2X Universal Printing Tab

Select which printers to redirect by selecting one of the following options:

- All** – All the printers on the client side will be redirected.
- Default** – Only the client windows default printer will be redirected.
- Specific Only** – Only the selected printers from the list will be redirected.

Additional options can be configured by clicking 'Options...' and the following window is shown.



2X Universal Printing Options



Select data format for the print jobs from one of the following options:

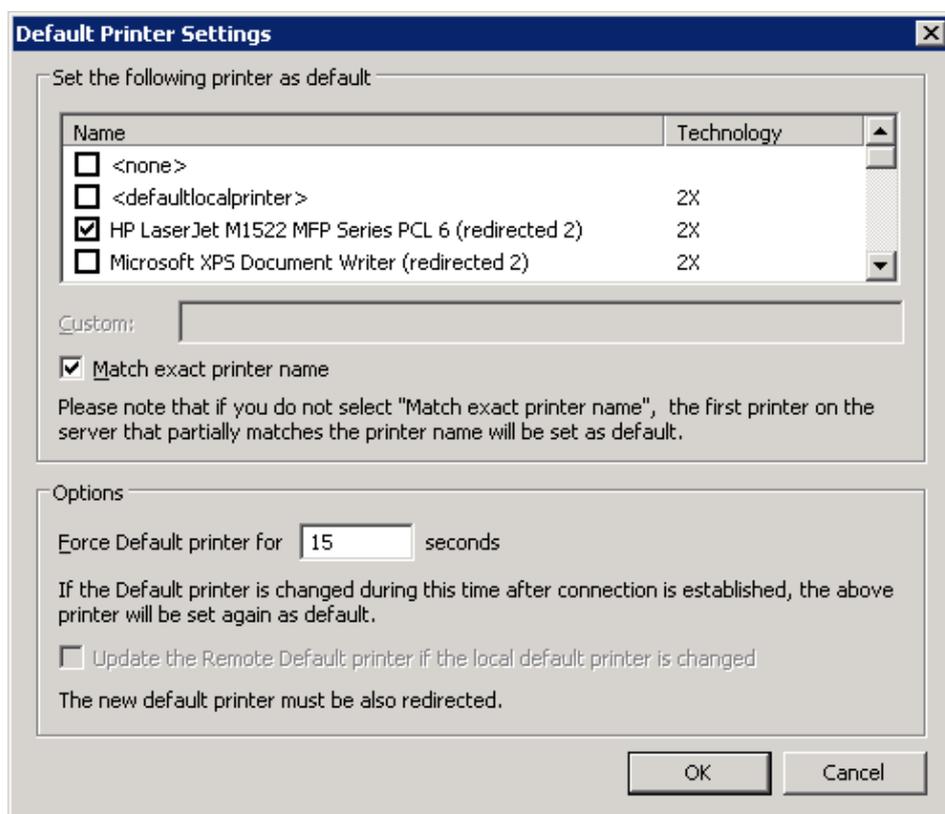
- Portable Document Format (PDF) - Use vector format and embedded fonts.
- Enhanced Meta File (EMF) - Use vector format and embedded fonts.
- Bitmap (BMP) - Bitmap images.

You can choose to configure printer preferences before printing. You can select:

- Never show the preference window – The printer preferences window will never be shown before printing.
- Show Preference window for all printers – The printer preferences window will be shown for all printers before printing.
- Show the preferences window only for the following printers – The printer preferences window will be shown for all selected printers from the list box which is enabled when this setting is selected.

Default printer settings

To configure the default printer settings, from the printing page click 'Change Default Printer settings...' and the following window will be shown:



Default Printer Settings

The default printer list shows the available printers that are ready to be redirected by the client to the remote computer. The list also includes the printing technology that the available printers will use. The technology reflects the setting selected as described in the section 'Technology'. For example, if the technology was set to 2X Universal Printing technology, only the printers using the 2X Universal Printing technology will be listed.

To disable the default printer, select '<none>' from the list.

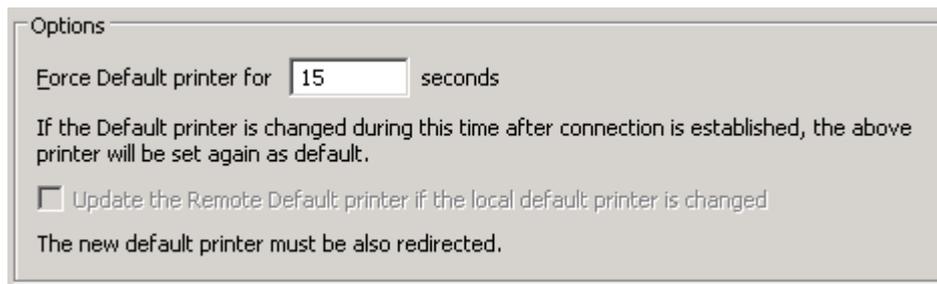
To redirect the default local printer on the client side to the remote computer, select <defaultlocalprinter> from the list.

When custom is selected, you can specify a custom printer which might be installed on the remote computer. The first printer that matches the printer name inserted in the custom text box, will be set as the default printer on the remote computer.

Select '*Match exact printer name*' to match the name exactly as inserted in the custom text box.

Please note that the remote printer name might differ from the original printer name. Also note that local printers might not be redirected due to server settings or policies.

Default printer options



Options

Force Default printer for seconds

If the Default printer is changed during this time after connection is established, the above printer will be set again as default.

Update the Remote Default printer if the local default printer is changed

The new default printer must be also redirected.

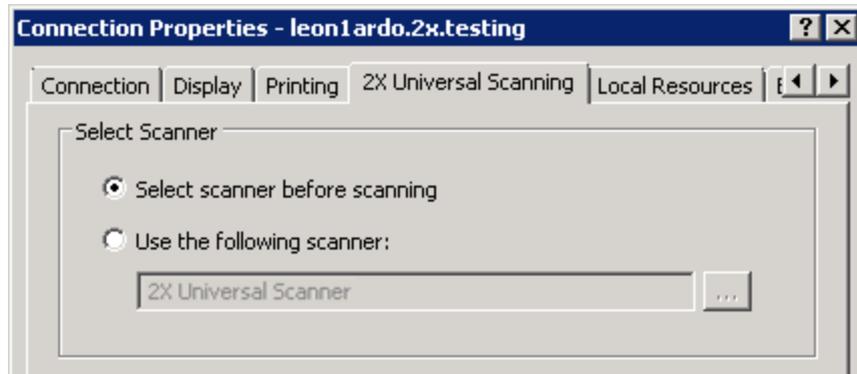
Default Printer Options

You can specify the time a printer will be forced as default. If the default printer is changed during this time after the connection is established, the printer is re set as default.

Check the '*Update the remote default printer if the local default printer is changed*'. If you would like that the remote default printer is changed automatically when the local default printer is changed. Please note that the new printer must have been previously redirected.

Universal Scanning Tab

From the 'Universal Scanning' tab you can set which scanner you want to use when one is required by a published application. A scanner can be selected before every scan or a specific scanner can be set.



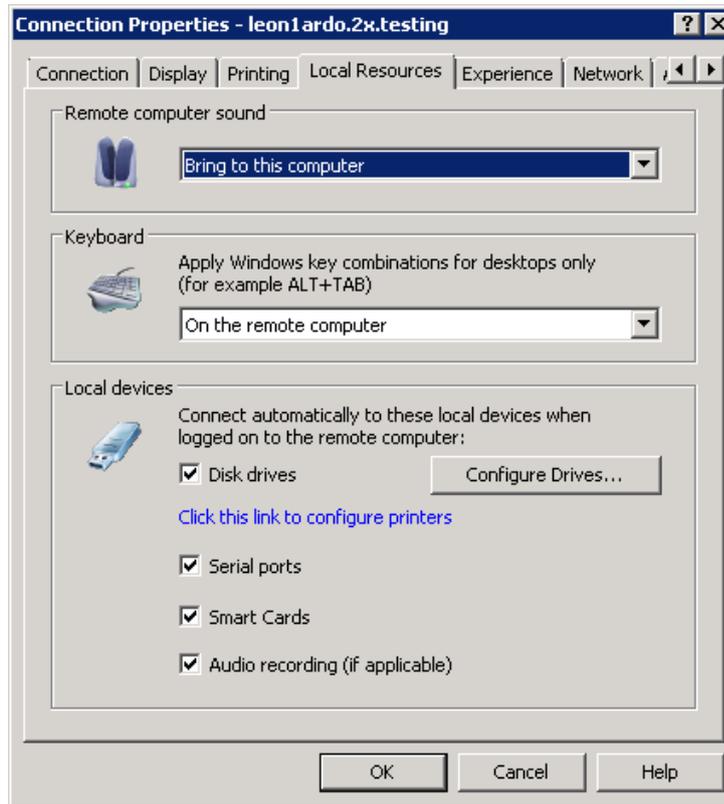
2X Client – Options - Universal Scanning tab

Please note that when using 64-bit 2X Client , the scanners are not visible.



Local Resources Tab

If you want to configure how local resources are handled by the Remote Desktop, simply click on the 'Local Resources' tab and select the options you want (these are the same options available with the regular Microsoft RDP Client).



2X Client – 2X ApplicationServer XG connection Properties – Local Resources tab.

Remote Computer Sound

Bring to this computer – Selecting this option, the sound playing on the remote computer will be played on the local computer.

Do not play – Selecting this option, no sound would be played.

Leave at remote computer – Selecting this option, sound would be played only on the remote computer but not on the local computer.

Keyboard

This option has effect only when deploying desktop sessions.

On the local computer – Selecting this option, will allow the Windows key combinations to be applied on the local computer.

On the remote computer – Selecting this option, will allow the Windows key combinations to be applied on the remote computer.

In full screen mode only – Selecting this option, Windows key combinations would be applied on the remote session only when in full screen mode. In window mode the keys will be applied to the local computer.

Local Devices

Select which devices you would like to redirect to the remote session:

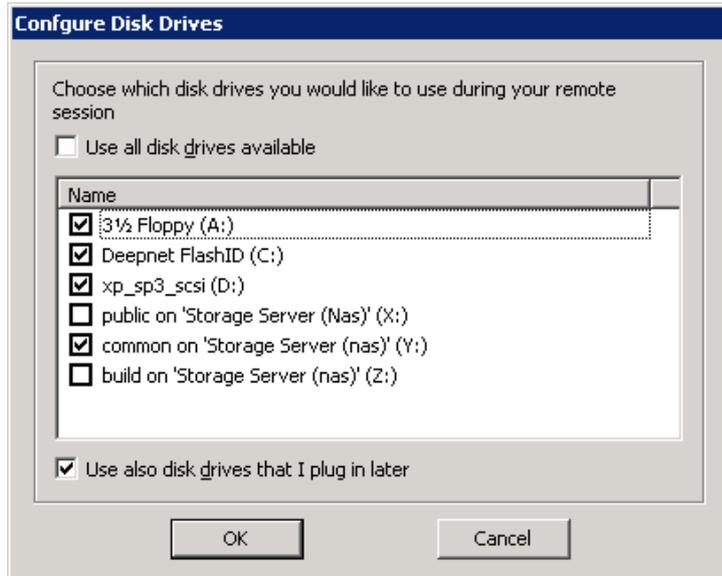
Device Type	Notes
Disk drives	Local Drives (e.g. C:\, d:\)
Serial ports	Local Serial and Parallel Communication ports (e.g.: com1, com2, lpt1)
Smart Cards	Smart Cards readers
Audio recording	Audio recording devices. Note that you need Windows 7 or Windows 2008 or higher.

[To configure printers for a 2X ApplicationServer XG connection click the link shown.](#)



Configure Drives

You can select which drive to redirect to the remote computer. To do so click the 'Configure Drives...' button and the following window will be shown.



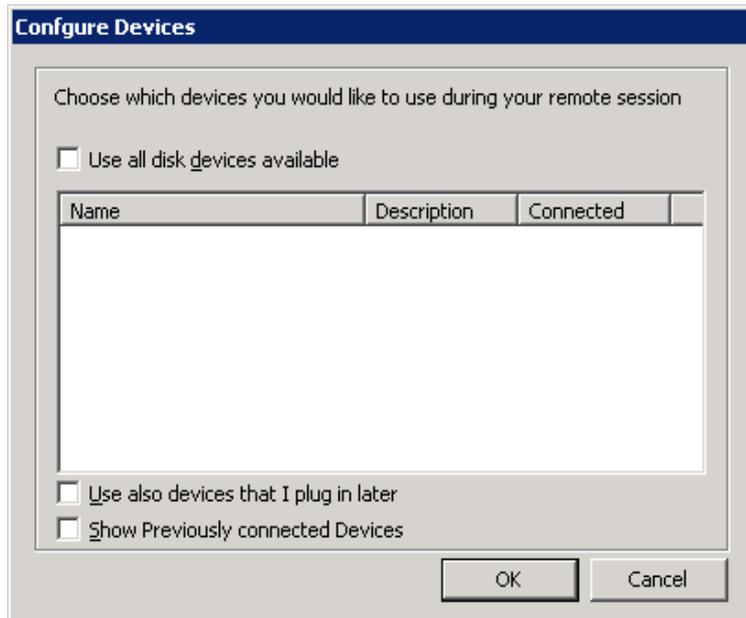
2X Client – 2X ApplicationServer XG Properties – Local Resources tab.

Use all disk drives available – Selecting this option, all the drives detected on the local machine will be redirected to the session on the remote computer. If this is unselected, only the selected drives from the list box will be redirected.

Use also disk drives that I plug in later – Selecting this option would redirect any drives that the user will hot plug after the session is established (such as USB flash drives etc).

Configure Devices

You can select which Devices to redirect to the remote computer. To do so click the 'Configure Devices...' button and the following window will be shown.



2X Client – 2X ApplicationServer XG Properties – Local Resources tab.

Use all disk devices available – Selecting this option, all the devices detected on the local machine will be redirected to the session on the remote computer. If this is unselected, only the selected devices from the list box will be redirected.

Use also devices that I plug in later – Selecting this option would redirect any devices that the user will hot plug after the session is established (such as USB flash drives etc).

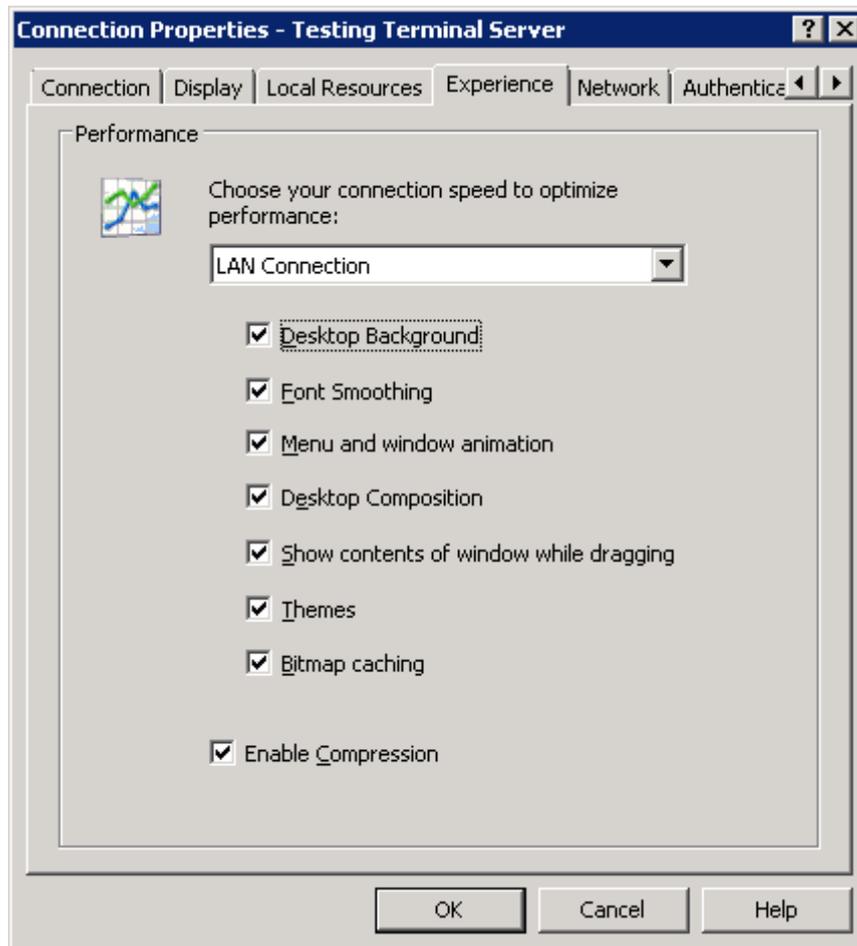
Show Previously connected Devices – Selecting this option would show devices which were previously connected to the remote computer.

Experience Tab

The Experience tab allows you to tweak the connection speed to optimize the performance of the connection with the remote host.

If you are using a connection to a remote computer in a local network that runs at 100Mbit or up, it is usually safe to have all of the experience options turned on.

It is also recommended to enable compression to have a more efficient connection.

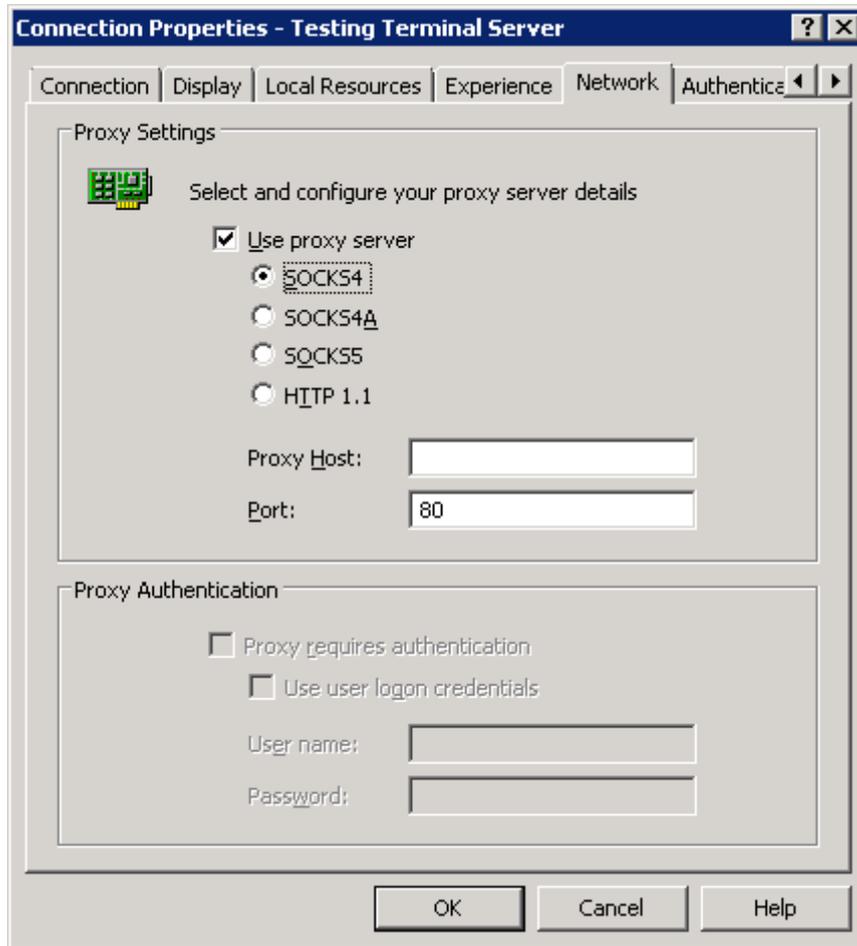


2X Client – 2X ApplicationServer XG Properties – Experience tab.

Network Tab

Select the Network Tab to configure your network settings so you will be able to connect to the 2X ApplicationServer using a proxy.

To be able to connect to a Proxy Server, check the 'Use Proxy Server' box. The following are different proxy connection types that can be used:



2X Client – 2X ApplicationServer XG Properties – Network tab

SOCKS4 – Enable this option to transparently use the service of a network firewall.

SOCKS4A – Enable this option to allow a client that cannot connect to resolve the destination host's name to specify it.

SOCKS5 – Enable this option to be able to connect using authentication.

HTTP 1.1 – Enable this option to connect using the standard HTTP 1.1 protocol connections.

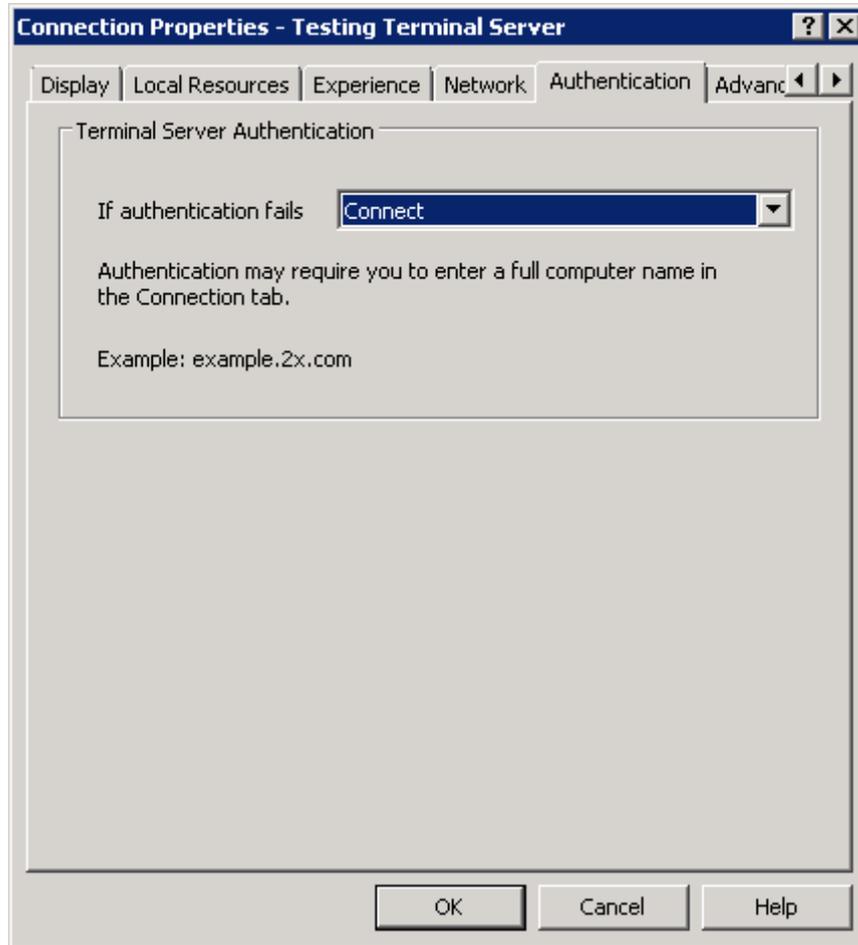
After selecting a connection type, the Proxy Host (domain name or IP Address) and port number have to be specified.

For SOCKS5 and HTTP 1.1 connections, authentication has to be enabled, check the *Proxy Requires Authentication* checkbox, and enter user credentials.

Check 'Use user logon credentials' to use the user logon credentials when authenticating with the proxy server.

Authentication Tab

On the Authentication tab the user can modify what happens when the authentication fails.



Authentication Tab

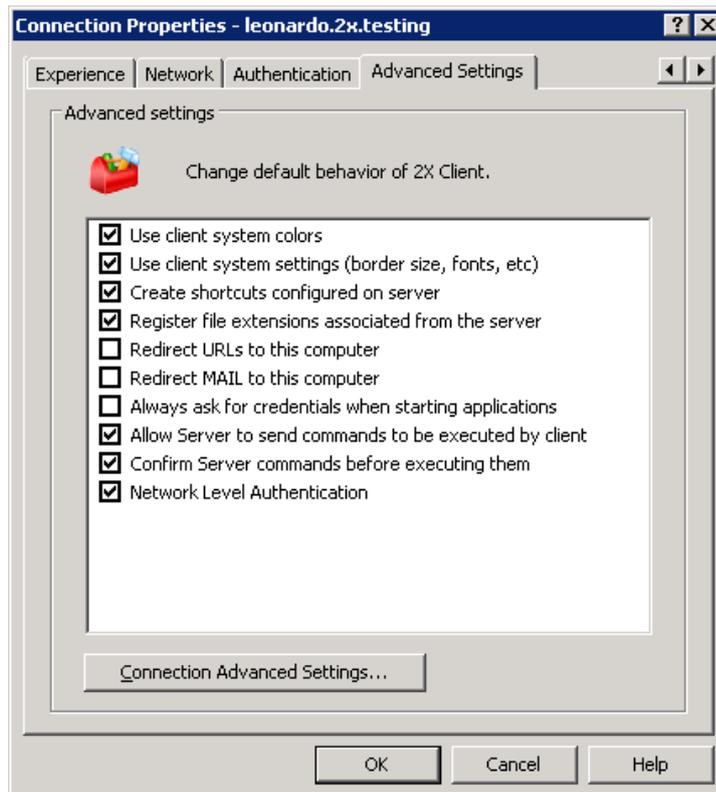
There are three ways authentication failure can be managed:

Connect - the user can ignore the certificate of the server and still connect.

Warn - the user is alerted about the certificate and still has the ability to choose whether he wants to connect or not.

Do not connect - the user is not allowed to connect if he is not authenticated.

Advanced Settings Tab



2X ApplicationServer XG Properties – Advanced Settings

Use Client System Colors – Enable this option to use the client system colors instead those specified on the Remote Desktop.

Use Client System Settings – Enable this option to use the client system settings instead those specified on the terminal server.

Create shortcuts configured on server – For each published application, the administrator can configure shortcuts on the clients' desktop and Start menu folder. With this option one can choose to have or not to have these shortcuts.

Register file extensions associated from the server – For each published application, the administrator can associate certain file extensions. With this option the client can choose whether to register these file extensions or not.

Redirect URLs to this computer – Enable this option to use the local web browser when opening 'http:' links.

Redirect Mail to this computer – Enable this option to use the local mail client when opening 'mailto:' links.

Always ask for credentials when starting applications – If this option is enabled then the user will be prompted to enter their credentials when starting applications.

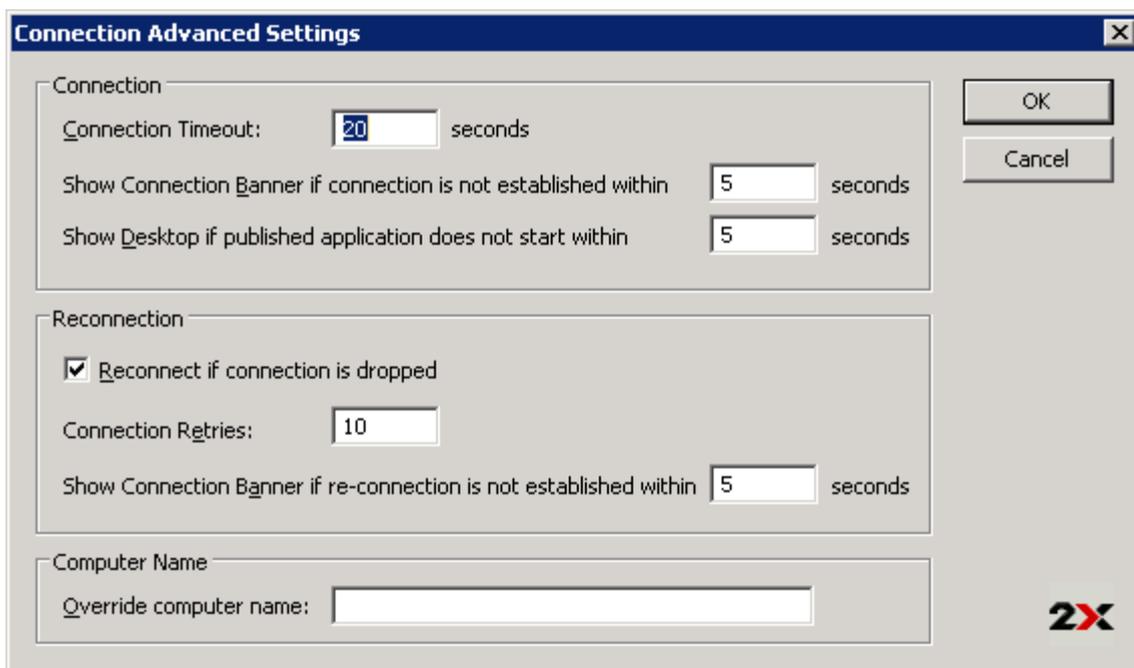
Allow Server to send commands to be executed by client – Enable this option to allow commands being received from the server to be executed by the client.

Confirm Server commands before executing them – If this option is enabled a message is displayed on the client to confirm any commands before being executed from the server.

Network Level Authentication – Check this option to enable network level authentication which will require the client to authenticate themselves before connecting to the server.

Connection Advanced Settings

Click on 'Connection Advanced Settings...' button to further configure the connection settings.



Connection Advanced Settings

'*Connection Timeout*' is the amount of time the client will try to connect to the 2X ApplicationServer XG until the connection is aborted. While the connection is being established, the Connection Banner will be shown.

You can set after how long the banner will be shown by setting the time in seconds in the '*Show Connection Banner if connection is not established within:* field.

If a published application is not launched within the time specified in the 'Show Desktop if published application does not start within' field, the *server's* desktop will be loaded. This is helpful if an error occurred on the server while launching an application. By loading the server's desktop, the error can be seen.

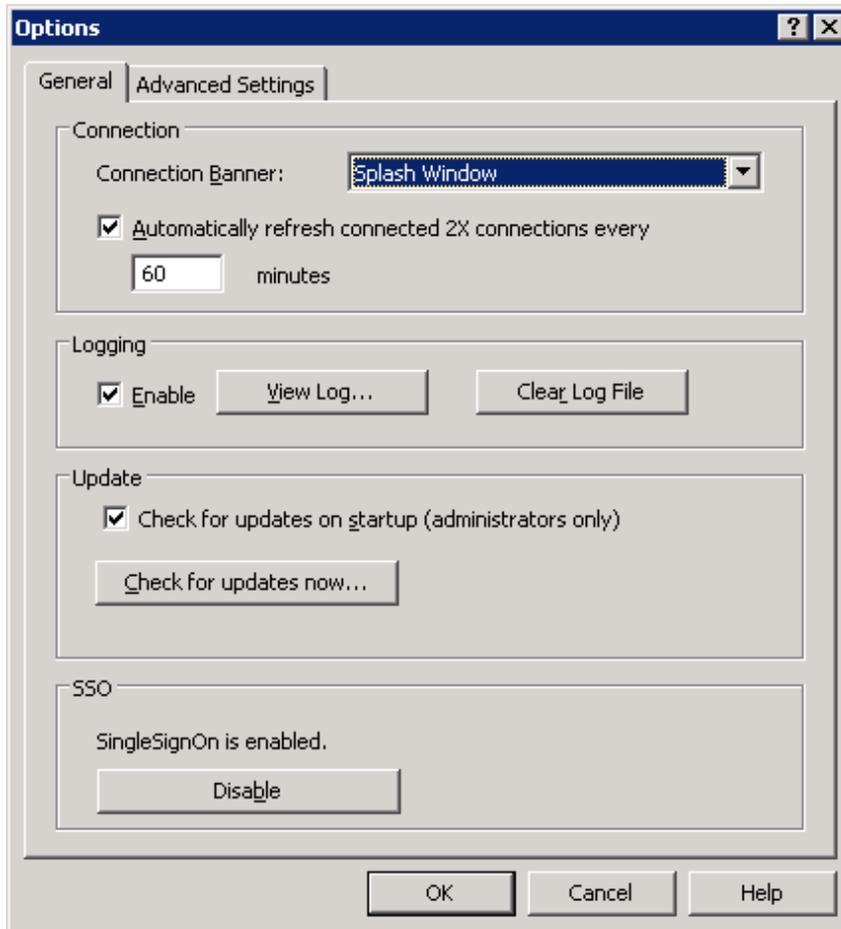
Check the '*Reconnect if connection is dropped*' checkbox and set the number of '*Connection Retries*' field. If a connection is dropped the 2X Client can automatically try to reconnect.

The '*Override computer name*' field should be the name that your computer will use during a Remote Desktop session.

If set, this will override the default computer name. Any filtering set by the administrator with 2X ApplicationServer will make use of the '*Override computer name*'.

Options

General Tab



2X Client - Options - General tab

Connection banner is shown when the 2X Client is connecting to a server or a desktop. You can choose to have a Splash Window, or a Taskbar Toast Window icon or you can choose to hide the connection banner.

Automatically refresh connected 2X connection every checkbox allows you to set the auto refresh time frame for each 2X Connection.

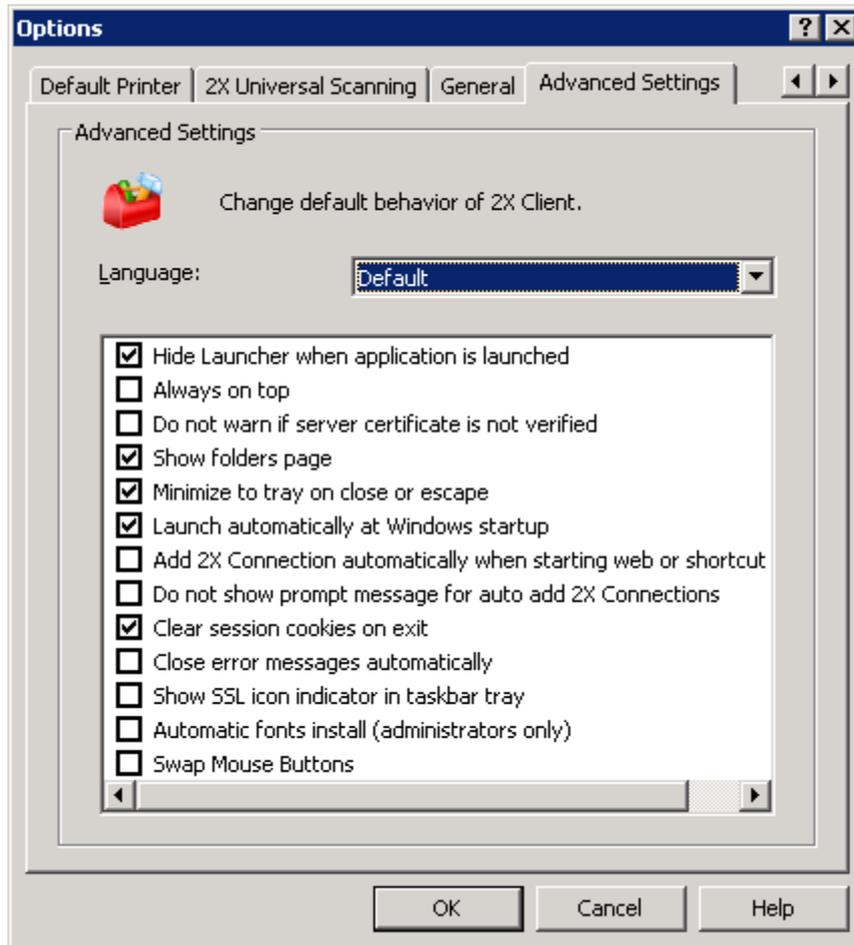
Check for updates on startup (Administrators only) is available only with administrative rights. 2X Client will check for any available updates of the 2X Client upon startup.

Logging should be enabled to view the log or clear the log file.

SSO (SingleSignOn) should be enabled if you want to use your system credentials when connecting to a Farm.

Advanced Settings Tab

In the Advanced Settings tab you can configure the default behavior of 2X Client.



2X Client – Options – Advanced Settings tab.

Hide Launcher when application is launched - If this option is enabled, the launcher will be minimized in the system tray after an application is launched.

Always on Top - With this feature enabled other applications will no longer mask the launcher.

Do not warn if server certificate is not verified – When connected over SSL, and the certificate is not verified, a warning message will be displayed. You can disable this warning message by enabling this option.

Show folders page – Enabling this option will show the available folders while showing the hierarchy of the application groups as configured on the server.

Minimize to tray on close or escape – Enable this feature to place the 2X Client to the System Tray when you click on the close button or hit escape.

Launch automatically at Windows startup – This option will place a shortcut in the start menu folder of the client and the 2X Client will launch automatically with the Windows startup.

Add 2X Connection automatically when starting web or shortcuts items This option will add the 2X Connection preferences in the 2X Client when starting an item contained in a 2X Connection that is not yet listed.

Don't show prompt message for auto add 2X Connections – Enable this option to disable prompt messages when adding auto 2X Connections.

Clear session cookies on exit – When a user logs on, a 2X ApplicationServer logon cookie is kept. This will allow the user to connect again with 2X ApplicationServer without re-authenticating. Check this option to delete any cookies when the user closes the 2X Client.

Close error messages automatically – When a session disconnects because of an error, the error is automatically dismissed after 15 seconds.

Show SSL icon indicator on taskbar tray – When a session connects using SSL, an icon is added on the taskbar tray. Double-click on the icon and you will see your certificate information.

Automatic Fonts Installed (administrators only) – If automatic fonts are installed on the server, then when a session connects, the fonts will be available.

Swap Mouse Buttons - When enabling this setting, the mouse buttons functionality will be swapped on the remote computer.

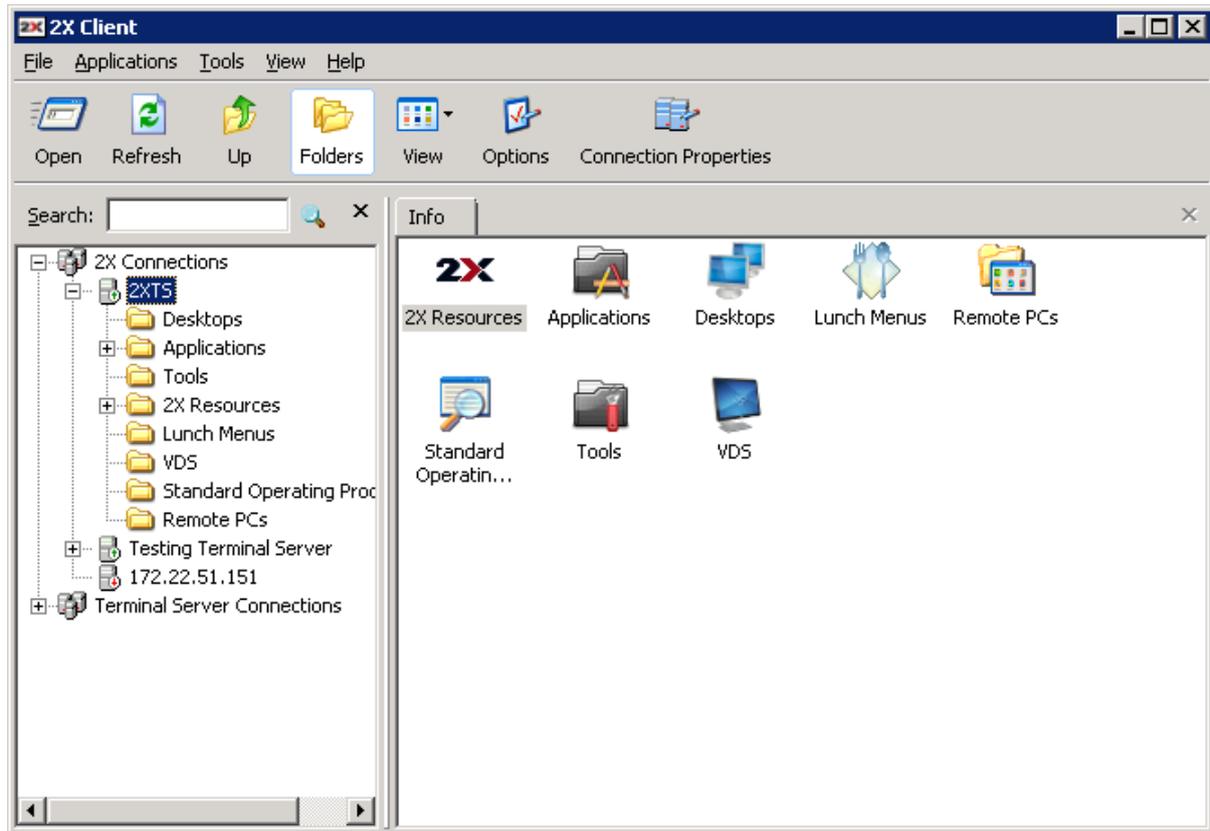
Redirect vendor paper sizes for 2X Universal Printing- When enabling this setting, non-standard paper sizes which are not included in the standard options will be redirected to the client. Sizes may vary depending on the vendor.

Raw printing support- When enabling this setting, printing will still work for applications sending data in RAW format.



Listing of Published Applications Using Folders

After configuring the 2X Client simply click 'OK'. If you entered a valid username and password and the server IP address and port are correct, you should see the list of published applications available to your username/computer/IP address in the main window.



2X Client main window with published applications.

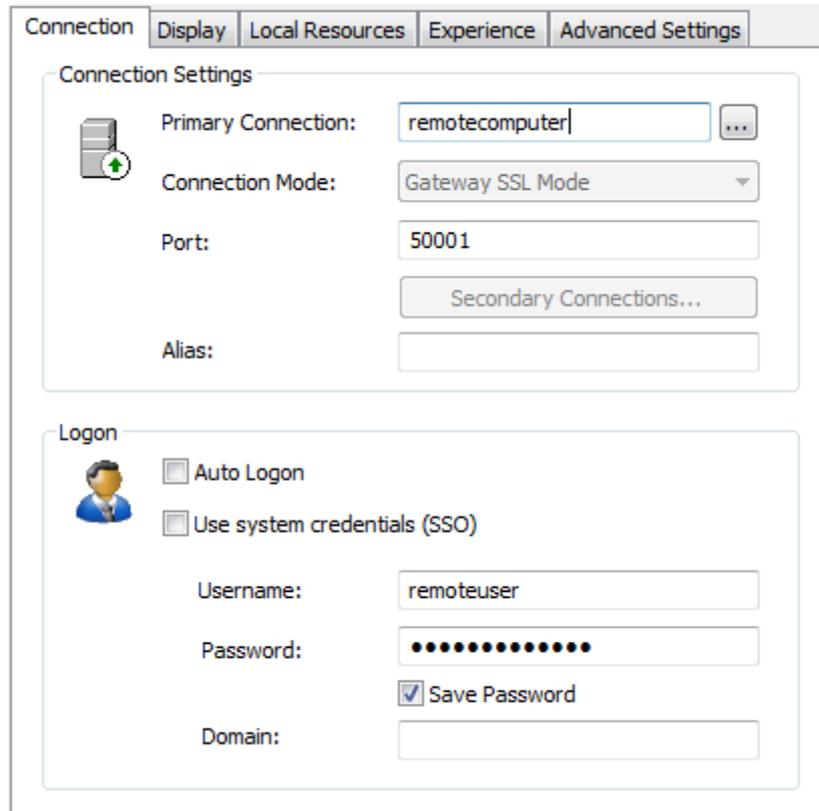
If you want to create shortcuts for your published applications on your local desktop computer, simply right click an application and select 'Create shortcut'. A shortcut for that application will be placed on your desktop.

NOTE: The 2X Client uses the Microsoft RDP protocol when connecting to your Remote Desktops. This means it fully supports all the features supported by the RDP 5.2 specifications at the time of writing. In case some of these do not work as expected, try launching the regular Microsoft RDP Client and connect to your Remote Desktops to see if they work or not.

If they work as expected but do not work when using the 2X Client, please contact our technical support as explained on the '[Troubleshooting](#)' section of this manual.

2X SecureRemoteDesktop Connection

Connection Tab



The screenshot shows the 'Connection' tab of the '2X SecureRemoteDesktop Properties' dialog box. The dialog has five tabs: 'Connection', 'Display', 'Local Resources', 'Experience', and 'Advanced Settings'. The 'Connection' tab is active and contains two main sections: 'Connection Settings' and 'Logon'.

Connection Settings:

- Primary Connection:** A text field containing 'remotecomputer' with a dropdown arrow to its right.
- Connection Mode:** A dropdown menu set to 'Gateway SSL Mode'.
- Port:** A text field containing '50001'.
- Secondary Connections...** A button.
- Alias:** An empty text field.

Logon:

- Auto Logon
- Use system credentials (SSO)
- Username:** A text field containing 'remoteuser'.
- Password:** A text field with masked characters (dots).
- Save Password
- Domain:** An empty text field.

2X SecureRemoteDesktop Properties – Connection tab.

In the Connection Settings area, enter the Primary Server name or IP address, in the 'Primary Connection' field. This should be the name or IP where the 2X SecureRemoteDesktop resides.

For 2X SecureRemoteDesktop connection, the 'Connection Mode' is set automatically to Gateway SSL Mode for a maximum secure connection. The 'Connection Mode' cannot be configured.

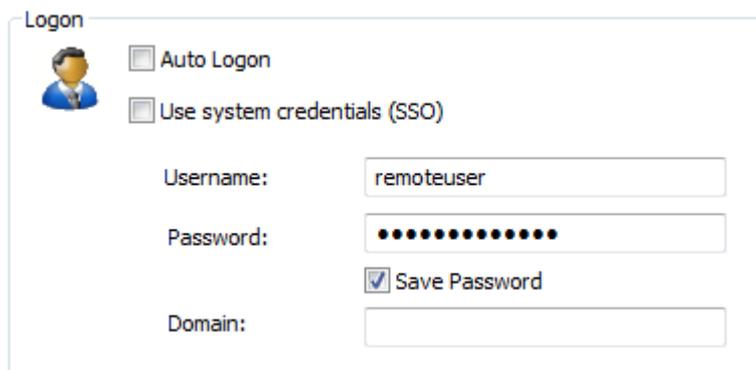
The default port for a 2X SecureRemoteDesktop is set to 50001.

You can specify an 'Alias' for the 2X SecureRemoteDesktop Connection in the alias text box as shown.

Logon Panel

Check the 'Auto Logon' box to enable the 2X Client to connect automatically instead of displaying the logon page every time you need to access the 2X SecureRemoteDesktop Connection.

To use the local system credentials when connecting with a particular 2X SecureRemoteDesktop connection; enable 'Use System Credentials (SSO)'. When you enable this option, you will automatically login when connecting with a 2X SecureRemoteDesktop.



Logon

Auto Logon

Use system credentials (SSO)

Username: remoteuser

Password: ●●●●●●●●●●

Save Password

Domain:

Logon Panel on the Connection Tab

NOTE: You will need to install this module when installing the 2X Client to be able to use the SSO.

In the 'Logon' section, enter your username, password and domain to be used when retrieving your published applications.

This information is encrypted and saved locally under the HKCU hive.

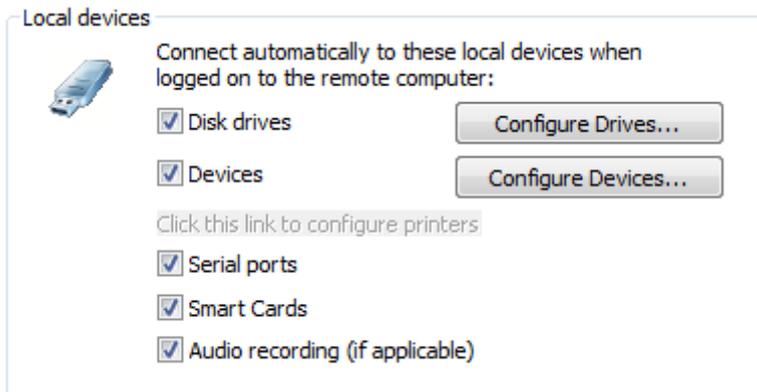


Display Tab

NOTE: The settings required to configure Display tab are the same as for 2X ApplicationServer XG connection. Please see the section [Display Tab](#) (found within “2X ApplicationServer XG connection”).

Local Resources Tab

NOTE: The settings required to configure Local Resources tab are the same as for 2X ApplicationServer XG connection except that there is no link to configure printers as shown below. Please see the section [Local Resources Tab](#) (found within “2X ApplicationServer XG connections”).



Local Resources tab for 2X SecureRemoteDesktop Connection Tab

Experience Tab

NOTE: The settings required to configure Experience tab are the same as for 2X ApplicationServer XG connection. Please see the section [Experience Tab](#) (found within “2X ApplicationServer XG connections”).

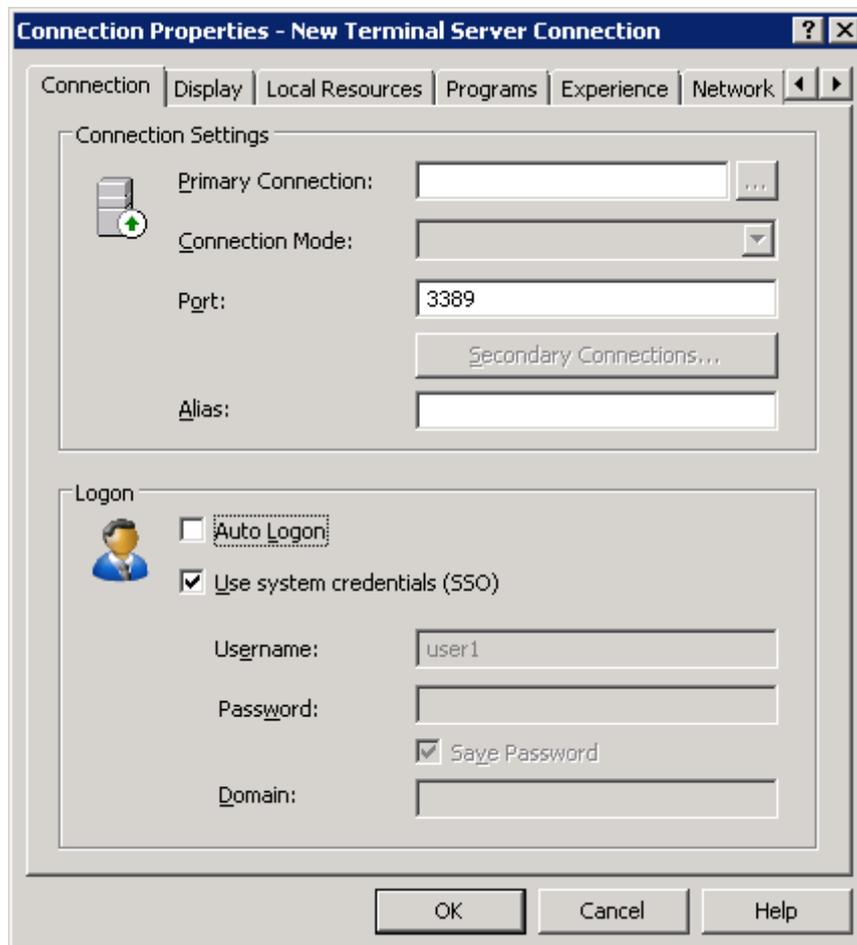
Advanced Settings Tab

NOTE: The settings required to configure Advanced Settings tab are the same as for 2X ApplicationServer XG connection. Please see the section [Advanced Settings Tab](#) (found within “2X ApplicationServer XG connections”).

Remote Desktop Connection

2X Client is able to connect to multiple Remote Desktop desktops using an RDP connection. To connect to a desktop click 'File' and select 'Add New Remote Desktop Connection...'

Connection Tab



The screenshot shows a Windows-style dialog box titled "Connection Properties - New Terminal Server Connection". It has several tabs: "Connection", "Display", "Local Resources", "Programs", "Experience", and "Network". The "Connection" tab is selected. Under "Connection Settings", there is a "Primary Connection" text box with a browse button "...", a "Connection Mode" dropdown menu, a "Port" text box containing "3389", a "Secondary Connections..." button, and an "Alias" text box. Under "Logon", there is a user icon, an "Auto Logon" checkbox (unchecked), a "Use system credentials (SSO)" checkbox (checked), a "Username" text box containing "user1", a "Password" text box, a "Domain" text box, and a "Save Password" checkbox (checked). At the bottom are "OK", "Cancel", and "Help" buttons.

2X Client – Connection Properties – Connection Properties

Connection Settings Panel

In the Connection settings area, type the Primary Connection name or IP address. This should be the name or IP of the desktop you want to connect to. The 'Alias' will give the connection a display name for better readability.

NOTE: In order to connect through the 2X Secure Client Gateway you need to set the Port number that was configured on the 2X Secure Client Gateway Port in the Connection Settings Page. (Default Gateway Port 80)

Logon Panel



The screenshot shows a 'Logon' dialog box with the following elements:

- Auto Logon:** (unchecked)
- Use system credentials (SSO):** (checked)
- Username:**
- Password:**
- Domain:**
- Save Password:** (checked)
- Buttons:** OK, Cancel, Help

Enable 'Auto Logon' to automatically log into the remote desktop when accessing it.

To use the local system credentials when connecting with that particular 2X ApplicationServer XG connection enable the 'Use System Credentials (SSO)' checkbox. When you enable this option, you will automatically login when connecting with the 2X Secure Client Gateway and the Remote Desktops.

NOTE: You need to [install this module](#) when installing the 2X Client to be able to use the SSO.

In the 'Logon' section, enter your username, password and domain to be used when retrieving your published applications. This information is encrypted and saved locally under the HKCU hive.

Display Tab

Select your preferred resolution by selecting one of the options from the 'Color Depth' drop down list. You can set the connection to use the available area, a predefined resolution, full screen or a custom resolution. If you select 'Custom', enter the width and the height.

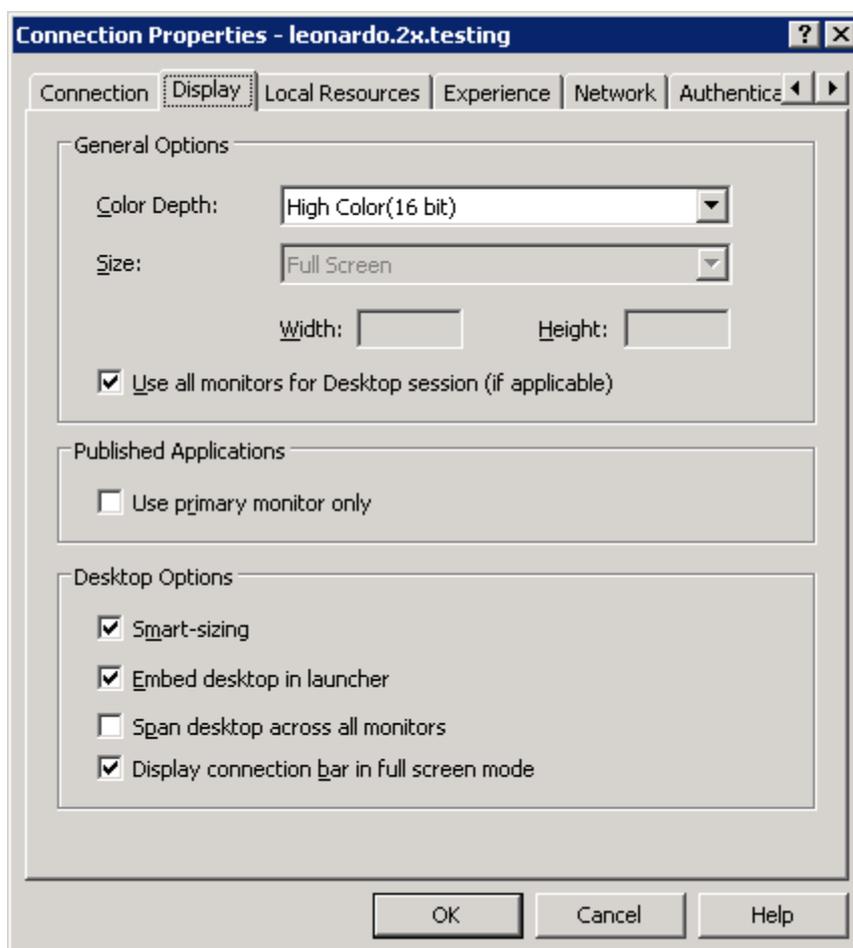
The user can also change the following settings:

Smart sizing – Desktop smart sizing will scale the RDP desktop to fit the connection window.

Embed desktop in launcher – Enable this option to access the published desktop inside the 2X Client

Span desktop across all monitors – Enable this option to span the published desktops across all connected monitors.

Display connection bar in full screen mode – Enable this option to show the connection bar when connecting to a desktop in full screen mode.



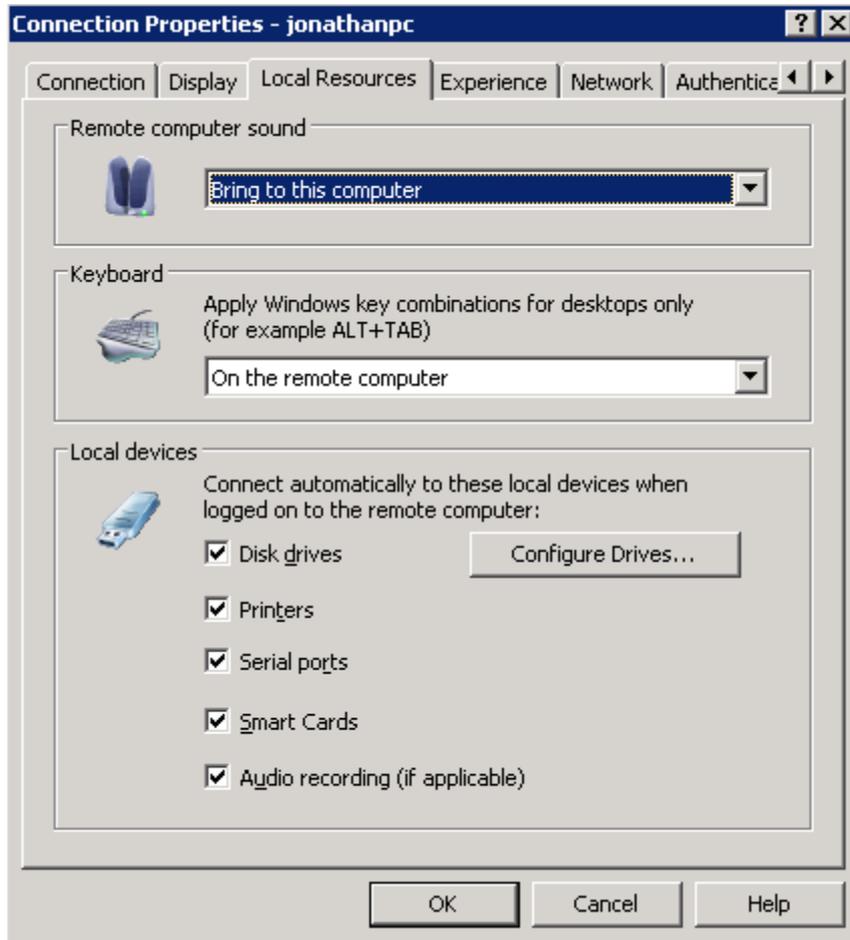
2X Client – Connection Properties – Display



Local Resources Tab

If you want to configure how local resources are handled by the Remote Desktop, simply click on the 'Local Resources' tab and select the options you want to enable.

NOTE: These are the same options available with the regular Microsoft RDP Client.



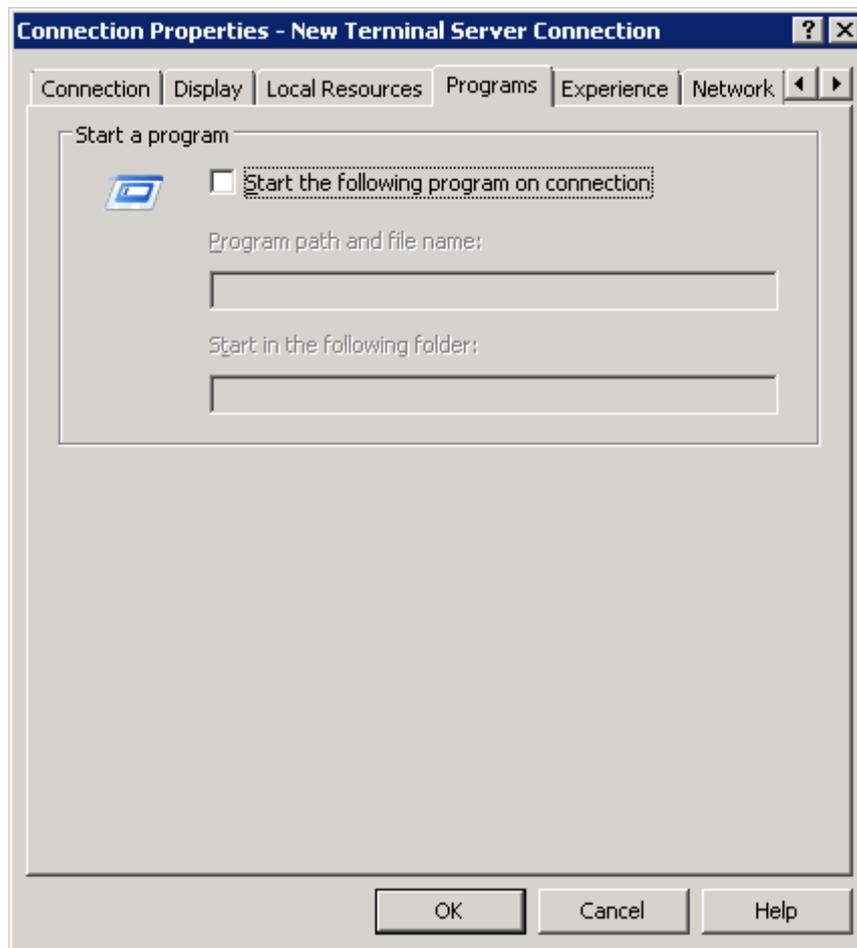
2X Client – Connection Properties – Local Resources tab.

Programs Tab

Enable 'Start the following program on connection' to start an application when a connection to the remote desktop is established.

Type the path and file name of the application that you would like to launch in the 'Program path and file name' field (Example – "c:\windows\notepad.exe").

You can also set a start folder in the 'Start in the following folder' field. (i.e. – "c:\windows").



2X Client – Connection Properties – Programs Settings

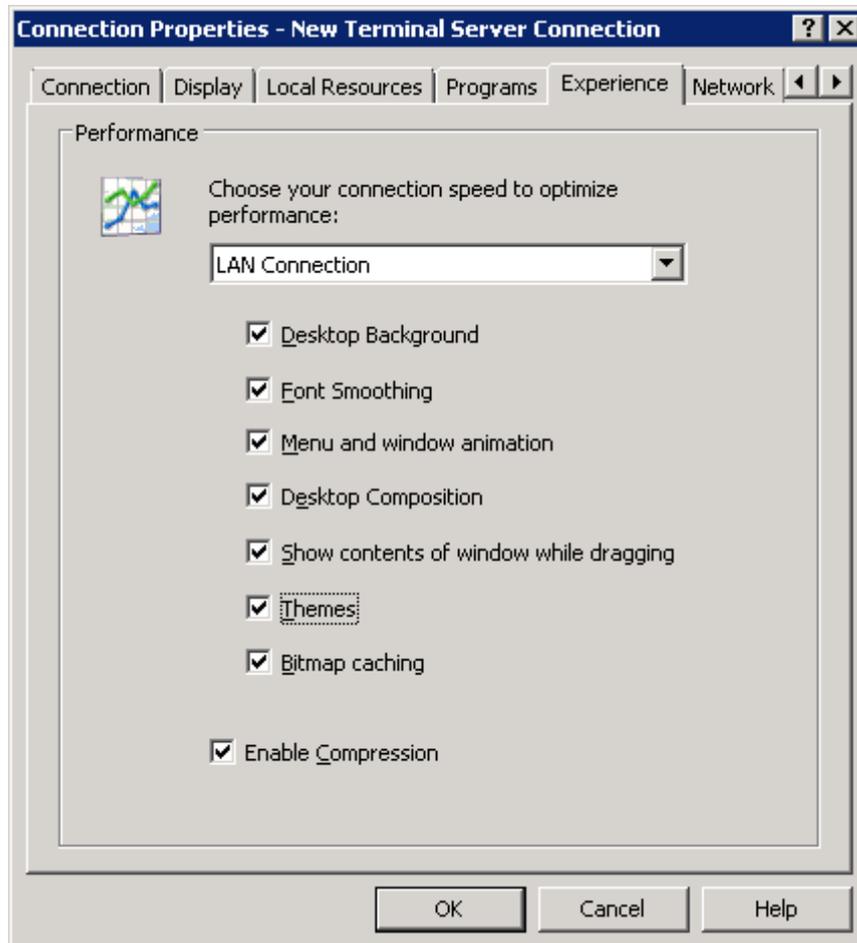


Experience Tab

The experience tab allows you to tweak the connection speed to optimize the performance of the connection with the remote host.

If you are using a connection to a remote computer in a local network that runs at 100Mbit or up, it is usually safe to have all of the experience options turned on.

It is also recommended to enable compression to have a more efficient connection.



2X Client – Connection Properties – Experience tab.

Network Tab

In the Network Tab you may configure network settings to be able to connect to 2X ApplicationServer using a proxy.

To be able to connect to a Proxy Server, check the Use Proxy Server checkbox. The following are different proxy connection types that can be used:

SOCKS4 – Enable this option to transparently use the service of a network firewall.

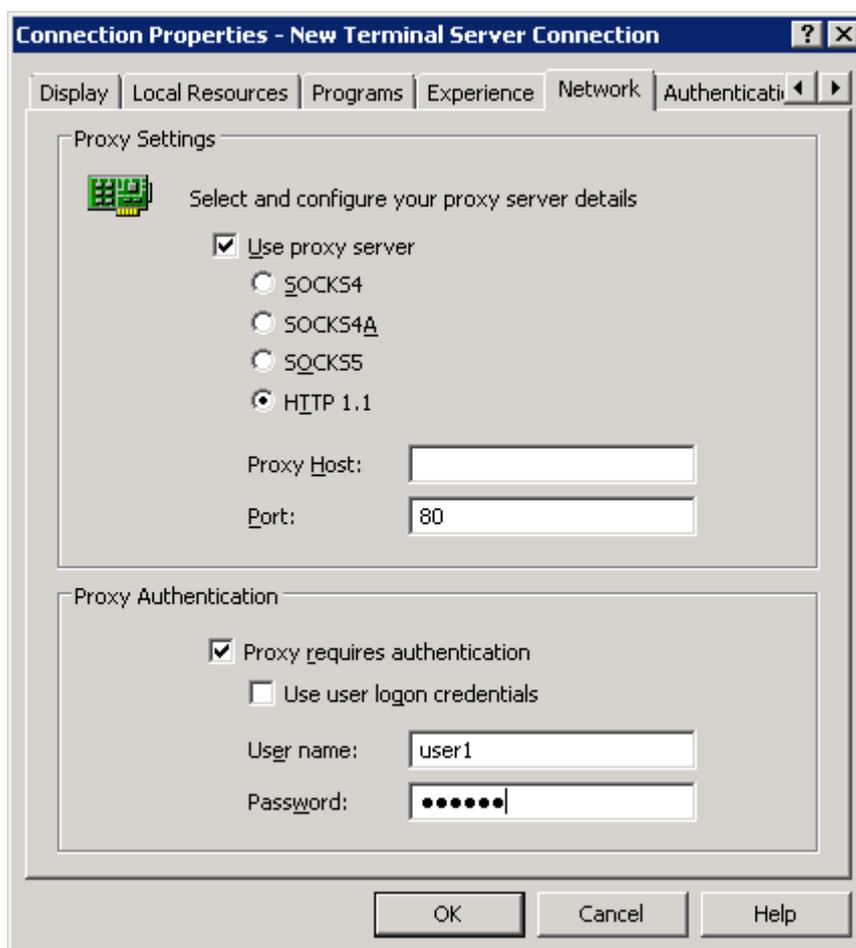
SOCKS4A – Enable this option to allow a client that cannot connect to resolve the destination host's name to specify it.

SOCKS5 – Enable this option to be able to connect using authentication.

HTTP 1.1 – Enable this option to connect using standard HTTP 1.1 protocol connections.

After selecting a connection type, the Proxy Host (domain name or IP Address) and port number have to be specified.

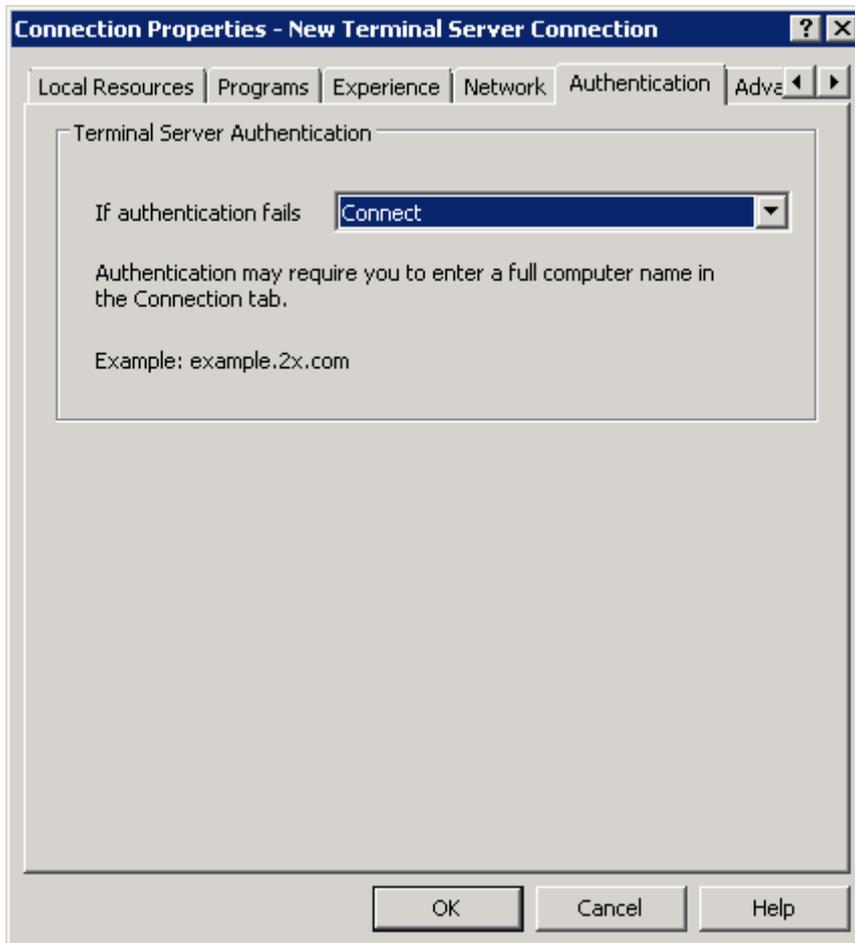
For SOCKS5 and HTTP 1.1 connections, authentication has to be enabled, check the Proxy Requires Authentication checkbox, and type in user credentials. Check 'Use user logon credentials' to use the user logon credentials when authenticating with the proxy server.



2X Client – Connection Properties – Network tab.

Authentication Tab

On the Authentication tab you are able to configure the remote desktop authentication settings. If authentication fails, you can choose from Connect, Warn or Do Not Connect.



Authentication Tab

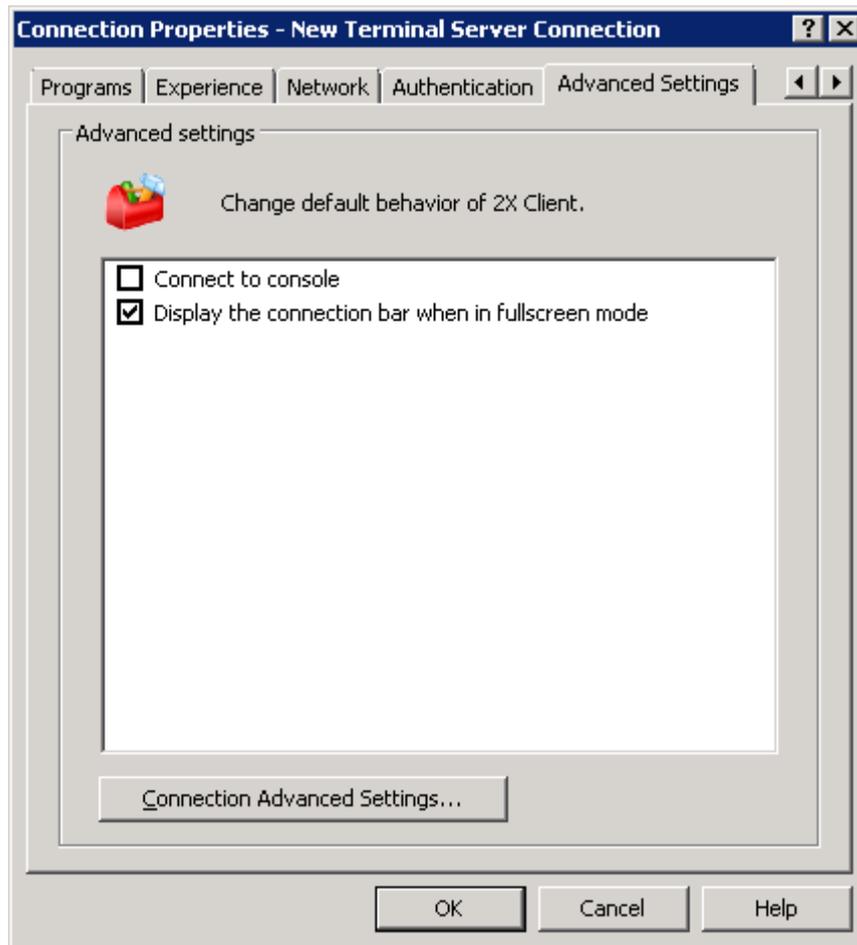
There are three ways authentication failure can be managed:

Connect - the user can ignore the certificate of the server and still connect.

Warn - the user is alerted about the certificate and still has the ability to choose whether he wants to connect or not.

Do not connect - the user is not allowed to connect if he is not authenticated.

Advanced Settings Tab

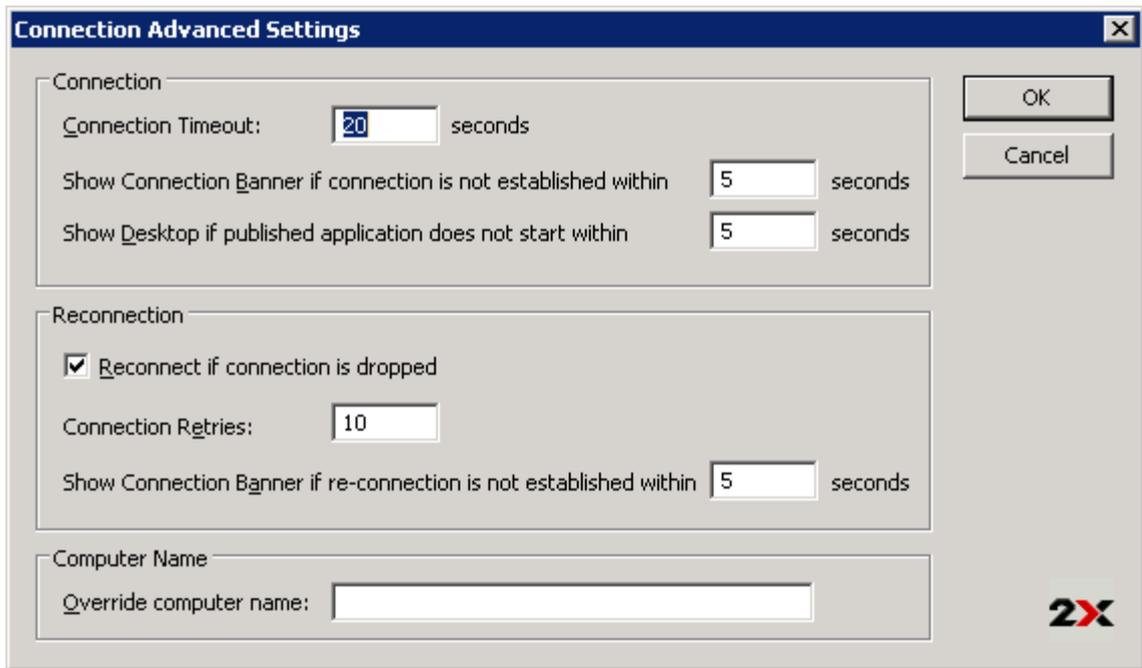


2X Client – Connection Properties – Advanced Settings

Connect to console – Enable this option to connect to the console session of the Remote Desktop.

Display the connection bar when in full screen mode – When enabled, the RDP connection bar will show at the top of the page.

Click on 'Connection Advanced Settings...' to further configure the connection.



Connection Advanced Settings

'*Connection Timeout*' is the amount of time the client will try to connect to the 2X ApplicationServer XG connection until the connection is aborted.

While the connection is being established, the Connection Banner will be shown. You can set how long the banner will be shown by entering the time in seconds in the '*Show Connection Banner if connection is not established within*' field.

If a published application is not launched within the time specified in the '*Show Desktop if published application does not start within*' field, the server's desktop will be loaded. This is helpful if an error occurred on the server while launching an application. By loading the server desktop, the error can be seen.

If a connection is dropped, the 2X Client can automatically try to reconnect. You can set the amount of retries carried out by the 2X Client until the reconnection is aborted.

In the '*Show Connection Banner if re-connection is not established within*' box allows you to set a timeframe to show the connection banner if re-connecting.

'*Override computer name*' will be the name that your computer will use during a Remote Desktop session. If set this will override the default computer name. Any filtering set by the administrator with 2X AS & LB will make use of the 'Override computer name'.



Command Line Parameters for 2X Client

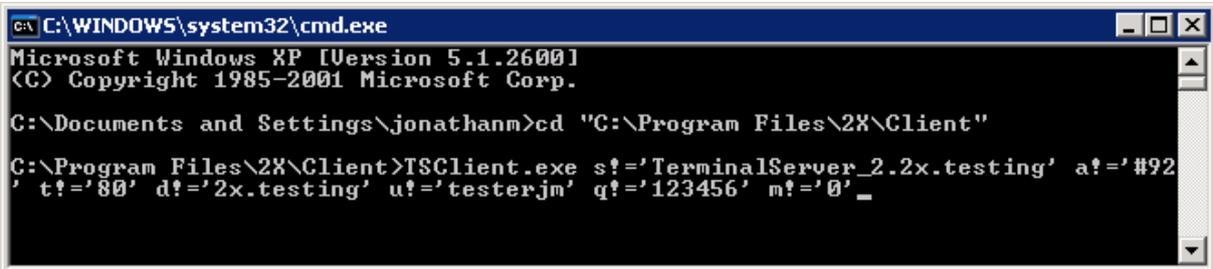
Windows 2X Client parameters are available when launching published application and published desktop from command line.

Parameters	Note
s!='primary server'	Primary Server hostname or IP
b!='backup server'	Secondary Server hostname or IP
a!='application/desktop id'	Published Application/Desktop ID
p!='override application params'	
t!='port'	Port of the 2X ApplicationServer XG connection
u!='username'	Username for the user to connect with
q!='password'	Password for the user
d!='domain' ignored if user name is in UPN format	Domain name
l!='0/1' 0 use primary server, 1 user backup server	Specify value in order to connect either to primary or backup server
m!='connection mode' (gateway mode = 0, direct mode 1, gateway ssl mode = 2, direct ssl = 3, direct rdp=4)	Specify value for the connection mode
o!='0/1' if set to 1 credentials are overwritten with SSO information if available	When set to 1, credentials are overwritten with SSO credentials.
i!='connection alias'	Specify a connection Alias

Example:

1. From command line, go to location where 2X Client is installed.
2. Run the following command:

```
TSClient.exe s!='2008ad1.2x.testing' a!='#50' t!='80' d!='2x.testing'  
u!='testerjm' q!='123456' m!='0'
```



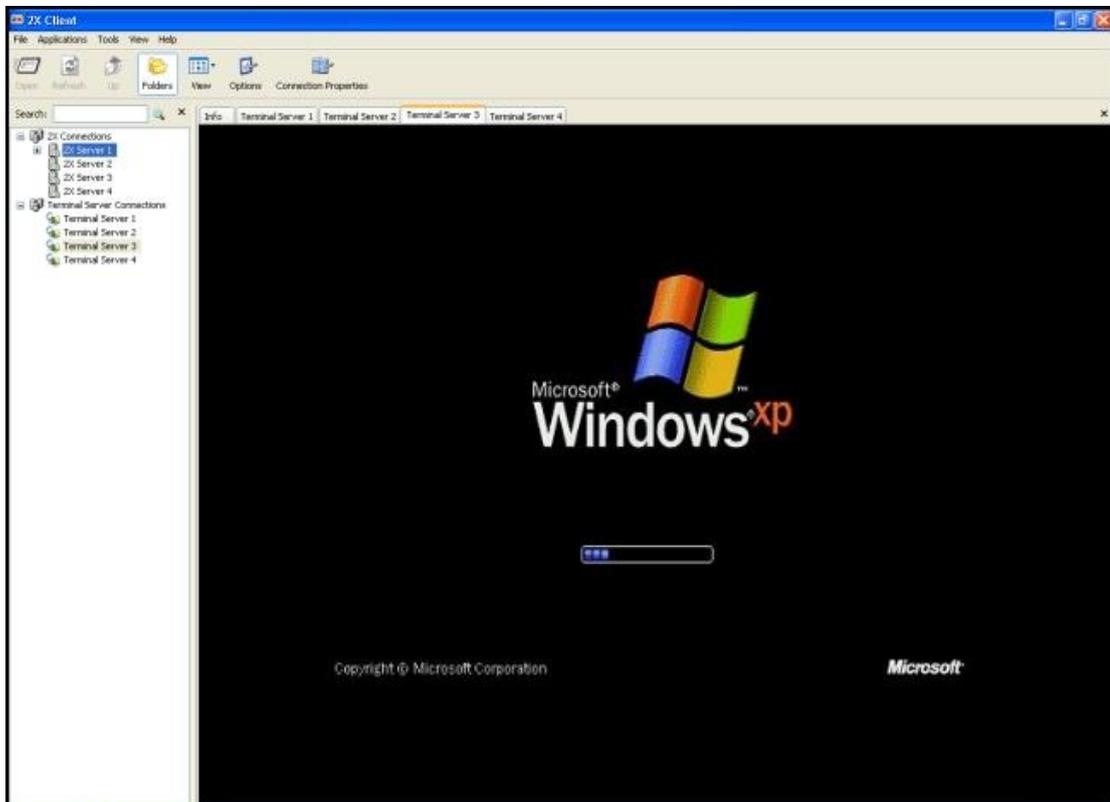
```
C:\WINDOWS\system32\cmd.exe  
Microsoft Windows XP [Version 5.1.2600]  
<C> Copyright 1985-2001 Microsoft Corp.  
C:\Documents and Settings\jonathanm>cd "C:\Program Files\2X\Client"  
C:\Program Files\2X\Client>TSClient.exe s!='TerminalServer_2.2x.testing' a!='#92'  
' t!='80' d!='2x.testing' u!='testerjm' q!='123456' m!='0'
```

Connection Advanced Settings

Running the above command would launch Published application with ID92, for user testerjm.

Using Remote Desktop Connections

After adding a Remote Desktop connection, simply double click it or click 'Open' to start the connection. You can start multiple connections at once. 2X Client will embed all the connections inside the window and you can switch between one connection and another by clicking on the corresponding tab.



Embedded Desktops

Right click on the desktop tab to view the following options:

- **Send Ctrl+Alt+Del** – Send the Ctrl+Alt+Del command to the published desktop which is used to open Windows Task Manager or Windows Security
- **Smart-Sizing** – If enabled, Smart Sizing will resize the published desktop so that the whole desktop can fit in the available area.
- **Disembed from Launcher** – This will launch the published desktop outside of the 2X Client.
- **Close** – Click to close the open connection.

2X CLIENT FOR U3

U3 is a company producing a propriety method of auto launching applications from specially formatted USB U3 smart drives.

The U3 launch pad is a program manager that is preinstalled on every U3 smart drive. You can install U3 2X Client and also launch it from the U3 launch pad.



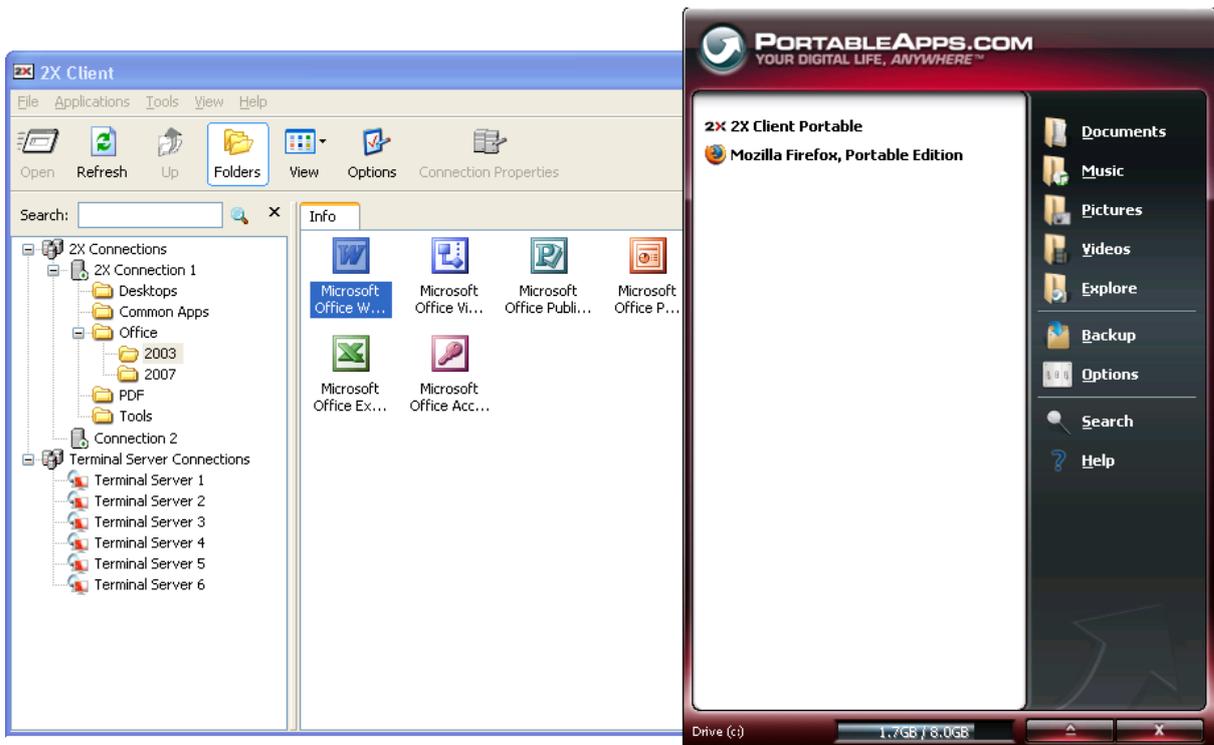
U3 2X Client Launch Pad

As you can see above, 2X Client will run normally without being installed on your local machine, when running on a U3 smart drive.

NOTE: You will have to download the U3_2XClient.u3p packet; this will be installed and launched through the U3 launch pad.

2X CLIENT FOR PORTABLEAPPS.COM PLATFORM

PortableApps.com is a software solution that allows you to take your favorite software with you. A fully open source and free platform, it works on any portable storage device (USB flash drive, iPod, memory card, portable hard drive, etc).



2X Client running from PortableApps.com

As you can see above, 2X Client will run normally without being installed on your local machine, when running on PortableApps.com.

To add 2X Client to PortableApps.com simply download 2X Client for PortableApps.com, then open PortableApps.com, Click on 'Options' and then choose 'Install a New App'.

PortableApps.com will ask you for the application you want to install.

Choose the 2X Client for PortableApps.com installation file and follow the on screen instructions.

NOTE: You will have to download the 2XPortableClient.paf.exe packet; this will be installed and launched through the PortableApps.com application.

TROUBLESHOOTING AND SUPPORT

Introduction

The troubleshooting chapter explains how you should go about resolving issues you may have. The main sources of information available to users are:

- The manual – most issues can be solved by reading and referring to the manual.
- The 2X support site – accessible from the 2X website. It includes a knowledge base with the most frequently asked questions.
- Contacting the 2X support department by email at <http://support.2x.com>
- Contacting our support department by telephone.

Knowledgebase

2X maintains a knowledgebase, which includes answers to most commonly asked problems. If you have a problem, please consult the knowledgebase first. The knowledgebase is continuously updated and contains the-most-up-to-date listings of support questions and patches.

The knowledgebase can be found at <http://www.support.2x.com>

Request Support via E-mail

If you are unable to resolve your issue after using the knowledgebase and referring to this manual, please contact the 2X support department.

Contact us via e-mail, and attach any references or examples of the issue you are experiencing. This will enable us to solve your issue quickly and efficiently.

You may be asked to collect some information and you may be asked a number of questions. Please take your time to answer these questions accurately. Without the proper information it will not be possible to diagnose your problem.

We will answer your inquiry within 24 hours or less, depending on your time zone.

Request Support via Phone

You can also contact 2X by phone for technical support. Please check our [support](#) website for the correct numbers to call, depending on where you are located, and for our hours of operation.

ABOUT 2X

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