RES VDX Guide

Contents

Chapter 1: Introduction

RES Virtual Desktop Extender (VDX) provides you the unique ability to seamlessly enhance a remote desktop with applications that run locally. Because applications that end users rely on are merged within a remote desktop, they no longer need to switch between multiple sessions, making desktop virtualization a viable option across an organization.

It is possible to redirect file associations from the local desktop to the remote desktop. If, for example the file association **mailto** is configured to **open**, opening a local e-mail link will start Microsoft Outlook in your remote desktop. The other way around, it is also possible to redirect file associations from the remote desktop to the local desktop. If, for example the file association **.DXF** is configured to **open**, opening a .DXF file in your remote desktop will start a local AutoCAD application, integrated in your remote desktop.
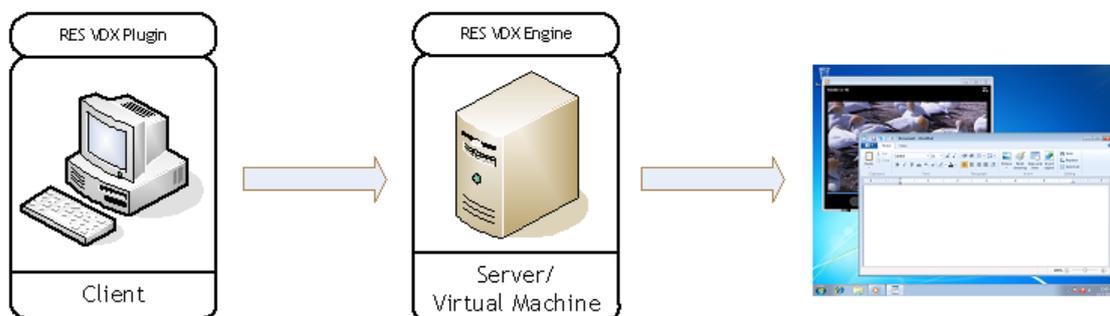
1.1 VDX Components

VDX requires several components for operation:

Component	Functionality
RES VDX Plugin	Takes care of the communication from the local client to the virtual desktop
RES VDX Engine	Takes care of merging local applications from the client within the virtual desktop
RES VDX Licensing Service	Service that takes care of licensing in your network. This component does not need to be installed if you manage VDX licensing through RES Workspace Manager
RES VDX Licensing Console	Desktop application that allows you to manage licensing for VDX
RES VDX Admin Pack	Optional extension to VDX that allows you to manage settings and licensing for VDX. It contains the components RES VDX Editor, together with some sample configuration files for extended configuration, and the RES VDX Licensing Console
RES VDX Editor	Desktop application that allows you to manage the settings for VDX

With VDX, a virtual channel is created between the remote desktop and the local desktop as soon as a virtual session is initialized. To realize this virtual channel, the following software components need to be installed:

- On the local client, the **RES VDX Plugin** needs to be installed. The RES VDX Plugin takes care of the communication from the local client to the server or the virtual machine that hosts the remote desktop.

- On the server or the virtual machine that hosts the remote desktop, the **RES VDX Engine** needs to be installed. The RES VDX Engine takes care of merging local applications from the client within the remote desktop.

1.2   Licensing Model

In VDX, licensing is based on VDX clients: each RDP or ICA session that is started with a VDX client requires one license per seat.

Licensing in VDX is taken care of by three components:

- The **RES VDX Licensing Service**. The RES VDX Licensing Service distributes licenses in your network.
- The **RES VDX Licensing Console**. The RES VDX Licensing Console is a desktop application that allows you to manage licensing for VDX, including importing, registering and activating RES VDX licenses.
- The **RES VDX Engine**. The RES VDX Engine communicates with the RES VDX Licensing Service when an RDP or ICA session is started and licenses the VDX client.

When the RES VDX Engine receives an RDP or ICA session, it automatically starts searching for a RES VDX Licensing Service. When it finds one, it licenses the VDX client that started the session. A client can claim a license for a maximum of 45 days or until the license expires. This count is reset each time a new remote session is started (today, my license is claimed for 45 days; when I start a new session tomorrow, it is claimed for another 45 days).

- Claimed licenses are automatically released after 45 days of inactivity (i.e. if a remote session has not been started within 45 days).
- If a license service host is unavailable for some reason, claimed licenses can still be used until the lease expires.
- If no licenses are available or if all licenses are expired, you can use VDX for a grace period of 5 minutes after which VDX will be terminated.

VDX licensing and RES Workspace Manager

If you use VDX in combination with RES Workspace Manager, you can choose to manage VDX licensing through RES Workspace Manager. In that case, VDX licenses are stored in the RES Workspace Manager Datastore.

- When a user workspace session is started, the RES VDX Engine will retrieve its license through RES Workspace Manager.
- If no licenses are found or if the number of available licenses is insufficient, the RES VDX Engine will start looking for a VDX licensing server outside the RES Workspace Manager Datastore.

Notes

- With the release of RES Workspace Manager 2011, it is also possible to import, register and activate RES VDX licenses using the **License Wizard** in the Console of RES Workspace Manager.
- The legacy Standard and Enterprise edition of RES Workspace Manager 2011 contain a licensing model in which VDX licenses are included in RES Workspace Manager licenses: when RES Workspace Manager licenses are imported, the same number of VDX licenses will become available.
- See the RES Workspace Manager Help for more information about managing VDX licensing with RES Workspace Manager.

1.3 Display Scenarios

VDX supports three display scenarios. Each scenario requires specific settings. For an overview of these settings, see **Setting up the Behavior of the RES VDX Engine** (on page 13).

- **A single display**
  In this scenario, both the local desktop and the remote desktop are run on the same display. The remote desktop is the visible desktop, showing both remote applications and local applications. The local taskbar is obscured.

- **A dual display setup with the remote desktop spanning both displays**
  In this scenario, both the local desktop and the remote desktop span both displays. The remote desktop is the visible desktop, showing both remote applications and local applications. The local taskbar is obscured.

- **A dual display setup with the local desktop running on the primary display and the remote desktop running on the secondary display**
  Both taskbars are displayed.

> **Note**
>
> Other display scenarios may work correctly, but are not verified by RES Software.

Chapter 2: Installation and Setup

2.1   Prerequisites

Prerequisites	
RES VDX Admin Pack	Microsoft .NET Framework 4.0 or later (client profile install)
RES VDX Engine	Microsoft .NET Framework 4.0 or later (full install)
RES VDX Licensing	Microsoft .NET Framework 4.0 or later (full install)
RES VDX Plugin	Microsoft .NET Framework 4.0 or later (client profile install)

You can download the latest version of Microsoft .NET Framework at
http://www.microsoft.com/net/.

> **Notes**
> - If RES VDX Plugin / RES VDX Engine is run on Microsoft Windows 7 / Vista / 2008 / 2008 R2, the color scheme will be changed to basic.
> - VDX supports all editions of RES Workspace Manager 2011 and later, except the Express edition.
> - VDX supports all infrastructures based on either RDP or ICA, including Citrix XenDesktop 5.0.
> - This version of VDX does not supported unattended installations of components.

2.2   Installing RES VDX Licensing

RES VDX Licensing can be installed on any machine in your network. The installation includes the RES VDX Licensing Service and the RES VDX Licensing Console, a desktop application that allows you to manage licensing for VDX.

RES Software recommends to install RES VDX Licensing and to set up licensing before installing and setting up other VDX components.

You can also choose to manage the VDX licensing from a different computer. This requires the installation of the RES VDX Admin Pack on that computer. See **Installing the RES VDX Admin Pack** (on page 8).

Installation

For x86 computers, install the file `RES-VDX-Licensing(x86)-9.5.0.msi` and follow the Setup Wizard prompts. For x64 computers, use the file `RES-VDX-Licensing(x64)-9.5.0.msi`.

After installing RES VDX Licensing, the application **RES VDX Licensing Console** is available in the Start menu.

2.3   Installing the RES VDX Plugin

The RES VDX Plugin needs to be installed on all local clients.

Installation

For x86 computers, install the file `RES-VDX-Plugin(x86)-9.5.0.msi` and follow the Setup Wizard prompts. For x64 computers, use the file `RES-VDX-Plugin(x64)-9.5.0.msi`.

The RES VDX Plugin is initiated automatically each time an RDP or ICA session is started.

2.4   Installing the RES VDX Engine

The RES VDX Engine needs to be installed on the server or virtual machine that hosts the remote sessions.

Installation

For x86 computers, install the file `RES-VDX-Engine(x86)-9.5.0.msi` and follow the Setup Wizard prompts. For x64 computers, use the file `RES-VDX-Engine(x64)-9.5.0.msi`.

The RES VDX Engine is initiated automatically each time a remote session is started.

2.5   Installing the RES VDX Admin Pack

The RES VDX Admin Pack is an optional extension to VDX. It contains all necessary files to manage the settings and licensing for VDX, including some sample configuration files for extended configuration. You can install the RES VDX Admin Pack on any machine in your network, but it is usually installed on the administrator's workstation.

The RES VDX Admin Pack includes:

- **RES VDX Editor**: This is a desktop application that allows you to manage the settings for VDX.
- **RES VDX Licensing Console**: This is a desktop application that allows you to manage licensing for VDX.

Installation

Install the file `RES-VDX-AdminPack-9.5.0.msi` and follow the Setup Wizard prompts.

After installation of the RES VDX Admin Pack, the applications **RES VDX Editor** and **RES VDX Licensing Console** are available in the Start menu.

2.6　　Setting up Licensing

After installing the RES VDX Licensing Service and the RES VDX Licensing Console(s), you can set up licensing. You can set up licensing for VDX with the RES VDX Licensing Console, which is available from the Start menu.

Immediately after installing RES VDX Licensing, no licenses are available yet:

- **Evaluating VDX** (on page 9)
- **Using VDX in a Production Environment** (on page 9)

> **Note**
>
> If you cancel the License Wizard when no licenses are available, you can use VDX for a grace period of 5 minutes after which VDX will be terminated.

2.6.1　　Evaluating VDX

The installation package of the RES VDX Licensing Service contains an evaluation license for 10 VDX clients, which needs to be activated before it becomes available. This evaluation license is valid for 30 days. To use VDX after the trial period, you need VDX licenses, which you can buy at your reseller.
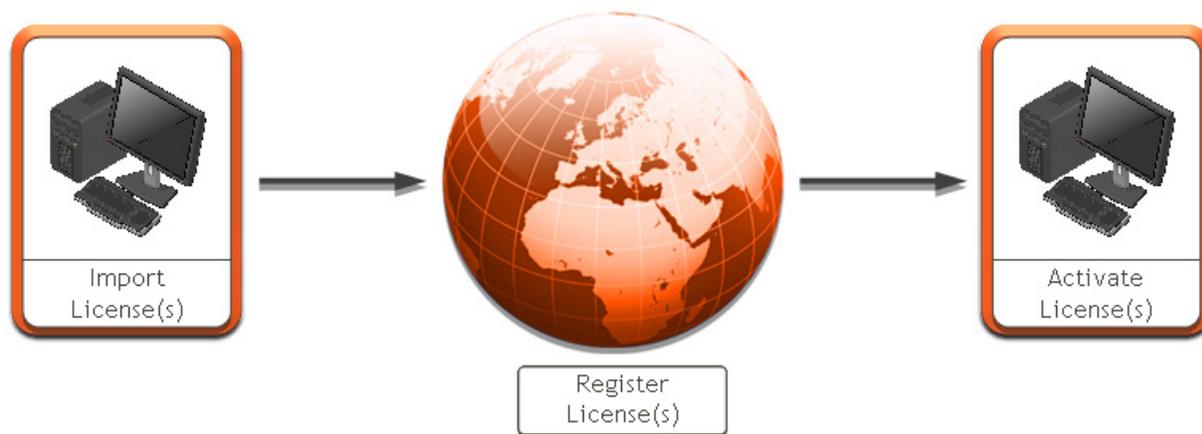
Configuration

1. Start the **RES VDX Licensing Console** from the Start menu. The **License Wizard** opens.

2. Select **Evaluate for 30 days** and click **Next**.

3. Retype the number when prompted and click **Finish** to activate the evaluation license.

4. After activation, the RES VDX Licensing Console shows a default RES VDX Site ID and an evaluation license, including the number of days it is still valid.

2.6.2 Using VDX in a Production Environment

To use VDX in a production environment, you need to add, register and activate VDX licenses. VDX licenses can be purchased at your reseller.

The licensing process

The licensing process consists of three steps and is the same for new and for existing environments. You can perform these steps with the License Wizard:

1: Add all licenses

1. Save the license file that you received by e-mail to an accessible location.

2. Start the RES VDX Licensing Console and click the **Licenses** tab.

3. Click the **License Wizard** and follow the prompts to upload the licenses. At the end of the process, you will be prompted to register your licenses.

   - Evaluation licenses and Corporate licenses need to be registered immediately.
   - Production licenses can be registered immediately or within 30 days.

2: Register all licenses at once

1. Open the **License Wizard** again and follow the prompts.

   - The name of your site must be a unique name in your environment.
   - There are two ways to submit the request for license activation to RES Software:
     - **Web**: e-mail the activation request from the RES Software website.
     - **Save to file**: save the activation request as a text file that you send to activation@ressoftware.com yourself.

2. After completion of the process, you will receive a single activation file by e-mail within 24 hours (working days only).

ⓘ   **Notes**

- Licenses can be registered in bulk: when you start the registration process, the Datastore is scanned for licenses that have not been activated yet, and this information is stored in the text file that is sent to RES Software.
- At any time, additional licenses can be registered using the same procedure. Additional licenses must be registered under the same Site name.

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3. Activate all licenses

1. Save the activation file that you received by e-mail to an accessible location.

2. Open the **License Wizard** again and follow the prompts.

3. When the licensing process is completed, the default Site ID is automatically replaced by a true Site ID that links your licenses to your business.

⚠️ **Warning**

License files and activation files contain crucial information. Editing such files will render them useless.

💡 **Tips**

- The RES Software Portal at http://support.ressoftware.com provides Solution Assurance benefits and access to product support. The portal is available to registered customers with valid, activated licenses.
- To register your company, visit http://support.ressoftware.com and enter the Site ID of your environment.

2.6.3 Managing Licensing

After setting up licensing, you can manage your licenses with the RES VDX Licensing Console, which is available from the Start menu.

The **Licenses** tab gives an overview of your licenses and allows you to add and delete licenses. If necessary, you can also connect to a different licensing service.

Configuration

- At startup of the Console, it starts looking for a licensing service automatically. First, it will search for a licensing service on the local machine; if none is found, it will send a multicast to find a licensing service on the network. If multiple licensing service hosts are found, the **Select Licensing Service Host** window opens, which allows you to select a licensing service.
- If necessary, you can also connect to a different licensing service manually, by clicking **Connect**.
- To add, register or activate VDX licenses, click **License Wizard**. See **Using VDX in a Production Environment** (on page 9).
- To view the details of a license, select it and click **View**. You can only view the details of production licenses.
- To delete a license, select it and click **Delete**. You can only delete production licenses.

The **VDX Clients** tab gives an overview of all licenses that are claimed by a VDX client. If necessary, you can also release licenses.

Configuration

- To release a claimed license, select a VDX client and click **Release**. Releasing a license is useful if the number of available licenses is insufficient. If some licenses are claimed by VDX clients that are currently not in use (e.g. because someone is on holiday for three weeks, or a computer has become obsolete), you can release these licenses again and make them available for other VDX clients.

ⓘ   **Note**

In certain situations, for example if the RES VDX Licensing Service is hosted on a machine in a different segment of your network as the RES VDX Licensing Console and the VDX clients, it can be useful to change the connection settings of the RES VDX Licensing Service. See **Changing the Connection Settings of the RES VDX Licensing Service** (on page 13).

2.7   Setting up VDX

2.7.1   Setting up the Behavior of the RES VDX Engine

The behavior of the RES VDX Engine is determined by a combination of settings and configuration data. Immediately after installation, the RES VDX Engine shows default behavior. If you want to make changes to this behavior, you can do this by:

- **Using the RES VDX Editor** (on page 13)
- **Manually Creating an XML file** (on page 16)
- **Manually Configuring Registry Settings** (on page 18)

🛈   **Note**

Settings and configuration data should always be stored on the machine on which the **RES VDX Engine** runs.

Using the RES VDX Editor

The RES VDX Editor is a desktop application that allows you to change the behavior of the RES VDX Engine. You can do this by configuring various settings with the RES VDX Editor and saving these settings as an XML file, `configuration.xml`. As the basis of this file, you can use the file `configuration_example.xml`, which is included in the installation folder of the RES VDX Engine. This file is also included in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`.

When the RES VDX Engine is initiated, it uses the settings in the file `configuration.xml` as the basis for its behavior. If it cannot find this file, it will revert to the default settings.

Configuration

1. Start the **RES VDX Engine** from the Start Menu. The **Open VDX configuration file** window opens.

2. Browse to the file `configuration_example.xml` and open it. You can find this file in the folder `%program files%\RES Software\VDX Engine` or in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`. The RES VDX Editor opens.

3. Configure the settings (see below).

4. Save the settings as `configuration.xml` to the installation folder of the RES VDX Engine (`%program files%\RES Software\VDX Engine`).

   - You can also save this file at an alternative location and use this location as a startup parameter for the RES VDX Engine. For example, if the file `configuration.xml` is located:

     - In a different folder than the installation folder, use the command line `"VDXEngine.exe c:\[folder name]\configuration.xml"`.

     - On a fileshare, use the command line `"VDXEngine.exe \\[FQDN server]\[folder name]\configuration.xml"`.

     - On a server, use the command line `"VDXEngine.exe http://[FQDN server]/configuration.xml"`.

In the RES VDX Editor, the following tabs are available:

Configuration > Shortcuts

This tab specifies the local applications that should be available in the remote session.

Shortcut window	
Location	Location of the shortcut in the remote session (either desktop or session)
ShortcutName	The name of the shortcut
Icon	The location of the shortcut's icon on the remote desktop (leave it empty to use the default icon of the local client)
Target	The path for the application's executable on the local client
Arguments	Application arguments, if applicable
Start in	Working directory for the application on the local client
Create conditions tab > Check application availability	If selected, the shortcut to the application will be hidden on the remote desktop if it is not available on the local client
Create conditions tab > User or group names	Allows you to specify for which users and/or groups the application shortcut should be available

Configuration > Plugin -> Engine Redirections

This tab specifies the file types that are directed to the remote session.

Redirection window	
File Type	The file type that will be redirected to the remote desktop. If, for example **mailto** is configured to **open**, opening a local e-mail link will start Microsoft Outlook in your remote session. Note that the actual files that are opened, need to be stored at a location that is known to both server and client under the same name (so, on a network share).
Verbs	The action(s) to be taken. For example, **open**, **print**, etc. Separate multiple verbs with a comma (,).
Create conditions tab > Check application availability	If selected, the redirection will be disabled if the application is not available on the local client
Create conditions tab > User or group names	Allows you to specify for which users and/or groups the redirection should be available

Configuration > Engine -> Plugin Redirections

This tab specifies the file types that are directed to the local desktop.

Redirection window	
File Type	The file type that will be redirected to the local desktop. If, for example **.dxf** is configured to **open**, opening a .dxf file in your remote session will start a local AutoCAD application, integrated in your remote desktop. Note that the actual files that are opened, need to be stored at a location that is known to both server and client under the same name (so, on a network share).
Icon	The location of the shortcut's icon on the remote desktop (leave it empty to use the default icon of the local client)
Verbs	The action(s) to be taken. For example, **open**, **print**, etc. Separate multiple verbs with a comma (,).
Create conditions tab > Check application availability	If selected, the redirection will be disabled if the application is not available on the local client
Create conditions tab > User or group names	Allows you to specify for which users and/or groups the redirection should be available

Settings

- **Enable VDX**: Enables full VDX functionality. If disabled, Window-management by VDX is disabled.

- **Ignore Workspace Manager**: Ignores any RES Workspace Manager settings for VDX. If VDX is started through RES Workspace Manager, it will still use its own settings, licenses, etc. This option is only relevant when using VDX in combination with RES Workspace Manager.

- **Disable Screensaver**: Disables the screensaver in the remote session.

- **Enable client application shortcuts**: Enables the shortcuts that you configured on the **Configuration** tab.

- **Enable file type redirections**: Enables the file type redirections that you configured on the **Configuration** tab.

  - **Hide client taskbar at session start**:
    Yes: Hides the local taskbar when starting a remote session.
    No: Shows the local taskbar when starting a remote session.
    Autodetect: Uses the settings as they are used in the scenarios as described in **Display Scenarios** (on page 5).

  - **Show already running applications**
    Yes: Displays a list of running client applications when starting a remote session.
    No: Does not show a list of running client applications when starting a remote session.
    Autodetect: Uses the settings as they are used in the scenarios as described in **Display Scenarios** (on page 5).

- **End running client applications at log off**: Ends any applications that are running on the client when logging off.

- **Let users access client start menu through VDX**: Shows the start menu of the client in an alternative start menu, accessible from the RES VDX tray icon on the remote desktop.

- **Let users access client desktop through VDX**: Shows the desktop shortcuts of the client in an alternative start menu, accessible from the RES VDX tray icon on the remote desktop.

- **Let users access client system tray through VDX**: Shows the system tray of the client in an alternative start menu, accessible from the RES VDX tray icon on the remote desktop.

- **Disable virtual Z-order for the following processes**: Excludes specific local processes from the remote session. This forces classic behavior: Application on top of the remote session or the remote session on top of the application. Separate multiple processes with semicolons (;).

- **Ignore the following client processes**: Ignores running client processes from VDX integration. These applications will not be available through VDX and/or the client desktop / client Start Menu folders. Separate multiple processes with semicolons (;).

- **Custom message for the run balloon**: Allows you to adapt the title and message of the information balloon that is displayed with the RES VDX icon in the system tray.

License server

This tab specifies how the RES VDX Engine should search for a license server.

- **Autodetect the license server**: lets the RES VDX Engine search for available license servers in its own LAN by sending a multicast signal.

- **Use the following list of license servers**: allows you to set up a list of locations where the RES VDX Engine should search for a license server. The RES VDX Engine will first try these locations to find a license server; if none are found, it will send a broadcast.

You can specify license server locations in the following format:

Value	Example
FQDN name of host	WIN7X64.demo.com
FQDN name of host+port number	WIN7X64.demo.com:1234
IP address of host	192.168.10.4
IP address of host+port number	192.168.10.4:3456

ℹ️ **Notes**

- If you use VDX in combination with RES Workspace Manager, you must configure the settings and configuration information at **Setup > Integration > RES VDX**. In that case the `configuration.xml` file, including the settings and configuration data is ignored (unless the option **Ignore Workspace Manager** is configured).
- Additionally an .XML Schema file containing the structural definition of the configuration file is available from RES Software upon request.

Manually Creating an XML File

Besides using the RES VDX Editor to configure an XML file that determines the behavior of the RES VDX Engine, you can also configure this file manually. As the basis of this file, you can use the file `configuration_example.xml`, which is included in the installation folder of the RES VDX Engine. This file is also included in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`.

When the RES VDX Engine is initiated, it uses the settings in the file `configuration.xml` as the basis for its behavior. If it cannot find this file, it will revert to the default settings.

Configuration

1. Browse to the file `configuration_example.xml` and open it with an editor (e.g. Notepad). You can find this file in the folder `%program files%\RES Software\VDX Engine` or in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`. The RES VDX Editor opens.

2. Configure the settings (see below).

3. Save the settings as `configuration.xml` to the installation folder of the RES VDX Engine (`%program files%\RES Software\VDX Engine`).

   - You can also save this file at an alternative location and use this location as a startup parameter for the RES VDX Engine. For example, if the file `configuration.xml` is located:

     - In a different folder than the installation folder, use the command line `"VDXEngine.exe c:\[folder name]\configuration.xml"`.

     - On a fileshare, use the command line `"VDXEngine.exe \\[FQDN server]\[folder name]\configuration.xml"`.

     - On a server, use the command line `"VDXEngine.exe http://[FQDN server]/configuration.xml"`.

The XML file is divided into three sections:

- **<ClientConfiguration>**: This section contains client side options and file type redirections.
- **<ServerConfiguration>**: This section contains server side options, file type redirections and application shortcuts.
- **<LicenseConfiguration>**: This section contains license server options.

<ClientConfiguration>

ClientToServerRedirections These are file types that are directed to the remote session	
FileType	The file type that will be redirected to the remote desktop. If, for example **mailto** is configured to **open**, opening a local e-mail link will start Microsoft Outlook in your remote session. Note that the actual files that are opened, need to be stored at a location that is known to both server and client under the same name (so, on a network share).
Verbs	The action(s) to be taken. For example, **open**, **print**, etc.
CreateCondition > CheckAppAvailability	If set to **true**, disables the redirection if the application is not available on the local client

<ServerConfiguration>

ServerToClientRedirections These are file types that are directed to the local desktop	
FileType	The file type that will be redirected to the local desktop. If, for example **.dxf** is configured to **open**, opening a .dxf file in your remote session will start a local AutoCAD application, integrated in your remote desktop. Note that the actual files that are opened, need to be stored at a location that is known to both server and client under the same name (so, on a network share).
Verbs	The action(s) to be taken. For example, **open**, **print**, etc.
CreateCondition > CheckAppAvailability	If set to **true**, disables the redirection if the application is not available on the local client
ServerToClientShortcuts These are the local applications that should be available in the remote session	
Location	Location of the shortcut in the remote session (either **Desktop** or **Session**)
ShortcutName	The name of the shortcut
Icon	The location of the shortcut's icon on the remote desktop (leave it empty to use the default icon of the local client)
ClientExecutablePath	The path for the application's executable on the local client
Arguments	Application arguments, if applicable
ClientWorkingDirectory	Working directory for the application on the local client
CreateCondition > CheckAppAvailability	If set to **true**, hides the shortcut if the application is not available on the local client

<LicenseConfiguration>

LicenseServersFindMode	Specifies how the RES VDX Engine should search for a license server (either **autodetect** or **list**)
LicenseServer	Allows you to set up a list of locations where the RES VDX Engine should search for a license server. The RES VDX Engine will first try these locations to find a license server; if none are found, it will send a broadcast.

You can specify license service locations in the following format:

Value	Example
FQDN name of host	WIN7X64.demo.com
FQDN name of host+port number	WIN7X64.demo.com:1234
IP address of host	192.168.10.4
IP address of host+port number	192.168.10.4:3456

> **Notes**
>
> - If you use VDX in combination with RES Workspace Manager, you must configure the settings and configuration information at **Setup > Integration > RES VDX**. In that case the `configuration.xml` file, including the settings and configuration data is ignored.
> - Additionally an .XML Schema file containing the structural definition of the configuration file is available from RES Software upon request.

Configuring registry settings

Instead of configuring an XML file that determines the behavior of the RES VDX Engine, you can also configure this behavior by configuring registry settings on the machine on which the RES VDX Engine is installed.

Configuration

- Configure registry settings at `HKEY_LOCAL_MACHINE\Software\RES\VDX Engine` to store settings that are specific to the local computer.
- Configure registry settings at `HKEY_CURRENT_USER\Software\RES\VDX Engine` to store settings that are specific to the currently logged-in user.

The following registry settings are available to control the behavior of the RES VDX Engine:

Setting	Value Name	Default value
Load VDX Settings from registry instead of from the `configuration.xml` file	`LoadConfigFromRegistry`	0
Enable Client Startmenu	`EnableClientStartMenu`	1
Custom Client Startmenu Title	`CustomClientStartMenuTitle`	""
Enable Client Desktop	`EnableClientDesktop`	0
Custom Client Desktop Title	`CustomClientDesktopTitle`	""
Show Tray Icon	`ShowTrayIcon`	1
Ignore Workspace Manager	`IgnoreWorkspaceManager`	0
Disable Screensaver		
Detect Already Running Client Applications yes:1 no:0 autodetect:2 Autodetect forces settings to adapt to the scenario as described in **Display Scenarios** (on page 5)	`DetectAlreadyRunningClientApps`	2
Hide Client Taskbar yes:1 no:0 autodetect:2 Autodetect forces settings to adapt to the scenario as described in **Display Scenarios** (on page 5)	`HideClientTaskbar`	2
End Client Applications at Logoff	`EndClientAppsOnLogoff`	0
Enable VDX	`EnableVDX`	1
Disable Virtual Z-order for the following processes: Excludes specific local processes from the remote session. This forces classic behavior: Application on top of remote session or remote session on top of application.	`NoVirtualZOrderClientAppList`	"" E.g.: `notepad.exe|calc.exe`
Ignore the following client processes - Ignores running client processes from VDX integration. These applications will not be available through VDX and/or the client desktop / client Start Menu folders.	`IgnoredApplications`	"" E.g.: `notepad.exe|calc.exe`
Enable Client Application Shortcuts	`EnableClientAppShortcuts`	1
Enable File Type Redirection	`EnableFileTypeRedirection`	1

Instead of manually configuring registry settings, you can also manually edit an ADM file that holds the settings to the RES VDX Engine, `VDXSettings.adm`. This file is included in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`.

Policies are stored at:

▪ `HKEY_LOCAL_MACHINE\SOFTWARE\Policies\RES\VDX Engine` for policies that are specific to the local computer.

▪ `HKEY_CURRENT_USER\Software\Policies\RES\VDX Engine` for policies that are specific to the currently logged-in user.

Note

If the registry settings **Enable Client Application Shortcuts** and/or **Enable File Type Redirection** are enabled (1), you need to configure these options by creating a `configuration.xml`. See **Using the RES VDX Editor** (on page 13) or **Manually Creating an XML File** (on page 16).

2.7.2   Changing the Connection Settings of the RES VDX Licensing Service

In certain situations, for example if the preferred RES VDX Licensing Service is hosted on a machine in a different segment of your network as the RES VDX Licensing Console and the RES VDX Engine(s), it can be useful to change the connection settings of the RES VDX Licensing Service.

Changing the connection settings of the RES VDX Licensing Service

To change the connection settings of the RES VDX Licensing Service, go to the folder `%program files%\RES Software\VDX Licensing Service` and open the file `RES.LicensingService.exe.config` with a text editor (e.g. Notepad).

The RES VDX Licensing Service has one setting that can be configured:

▪ **<BaseAddress>**: This setting specifies the host name of the RES VDX Licensing Service. By default, this is the DNS name of the computer on which the RES VDX Licensing Service is installed. Alternatively, you can use the following values to specify this host name and add a port:

Value	Example
FQDN name of host	WIN7X64.demo.com
FQDN name of host+port number	WIN7X64.demo.com:1234
IP address of host	192.168.10.4
IP address of host+port number	192.168.10.4:3456

Changing the connection settings of the RES VDX Licensing Console

To change the connection settings of the RES VDX Licensing Console, go to the folder `%program files%\RES Software\VDX Licensing Service` and open the file `RES.LicensingService.Console.exe.config` with a text editor (e.g. Notepad).

The RES VDX Licensing Console has two settings that can be configured:

- **<DetectTimeOut>**: This setting specifies the timeout in seconds after which the RES VDX Licensing Console stops looking for a licensing service.

- **<PreferredHost>**: This setting specifies the host name of the computer on which the preferred RES VDX Licensing Service is installed. The RES VDX Licensing Console will always try to connect to this Licensing Service host. If the field is empty or if is left empty or **AutoDetect** is used, the Console will use multicast to search for a licensing service (in the same subnet. Alternatively, you can use the following values to specify this host name and add a port (depending on the settings on the RES VDX Licensing Service host):

Value	Example
FQDN name of host	WIN7X64.demo.com
FQDN name of host+port number	WIN7X64.demo.com:1234
IP address of host	192.168.10.4
IP address of host+port number	192.168.10.4:3456

> **Note**
>
> If you specify a port number different than the default port (8080), you also need to adjust your firewall settings.

2.7.3 VDX and Citrix Merchandising Server

If you use Citrix Merchandising Server, you can upload the RES VDX Plugin and deploy the plugin to the Citrix Receiver clients. Users can then use the RES VDX plugin to start a remote session.

When uploading the RES VDX Plugin:

- To specify the **meta data file**, use the file `Citrix_MerchandisingServer_x86.xml` for x86 computers. For x64 computers, use the file `Citrix_MerchandisingServer_x64.xml`. These files can be found in the folder `%program files%\RES Software\VDX Admin Pack\SupportFiles`.

- To specify the **plugin file**, use the file `RES-VDX-Plugin(x86)-9.5.0.msi` for x86 computers. For x64 computers, use the file `RES-VDX-Plugin(x64)-9.5.0.msi`.

Chapter 3: Troubleshooting

The RES VDX Plugin, on the local client, is initiated automatically each time a remote session is started. By hovering over the taskbar icon of the RES VDX Plugin, you can view the following information, which may aid you in solving the issue:

- the server or virtual machine on which the session is started.
- the session number
- the version of the plugin
- whether VDX is licensed

Similarly, when a remote session is started, you can right-click the taskbar icon of the RES VDX Engine on the remote desktop to view the VDX status. This status overview shows:

- the VDX Engine version on the machine that hosts the remote desktop
- the VDX Plugin version on the local client
- whether VDX is licensed
- whether it integrates with RES Workspace Manager

If you (left-) click the taskbar icon of the RES VDX Engine, the **Client Start Menu** window opens. This window shows items from the local Start menu, the local desktop and the local system tray of the client. The window stays open until an item is opened.

Tackling VDX connectivity problems

If the taskbar icon of the RES VDX Plugin does not appear at all on the local client, the RES VDX Plugin is probably not registered correctly. In that case, re-install the MSI of the RES VDX Plugin by using the **Repair** option. If this does not solve the issue, please check the following:

For RDP:

- The following key should be present in the registry: `HKCU\Software\Microsoft\Terminal Server Client\Default\AddIns\RESVDX`
- The `Name` value in that key should point to the path and filename of the plugin: e.g. `c:\Program Files\RES Software\VDX Plugin\VDXRDPPlugin_x86.dll`

> **ⓘ   Note**
>
> There are different versions per platform (x86/x64), use the appropriate installer on each platform.

For ICA:

- The following key should be present in the registry: `HKLM\Software\Citrix\ICA Client\Engine\Configuration\Advanced\Modules\ICA 3.0`

- The `VirtualDriverEx` value in that key should be `RESVDX`

- The following key should be present in the registry: `HKLM\Software\Citrix\ICA Client\Engine\Configuration\Advanced\Modules\RESVDX`

- The `DriverNameWin32` value should contain the name of the VDX Ica Plugin: `VDXICAPlugin.dll`

- The following files should be present in the ICA Client folder (default: `C:\Program Files\Citrix\ICA Client\`):

  - `VDXICAPlugin.dll`

  - `VDXICAPluginEx.dll`

  - `VDXPlugin.dll`

  - `VDXPluginHelper.exe`

Notes

- While the VDX RDP support is always installed when installing the RES VDX Plugin, the VDX installer detects whether a Citrix client is present. Only if a Citrix client is detected, the necessary files and registry settings are installed. After installing Citrix for the first time on a system on which the RES VDX plugin is already installed, please perform a **Repair** or a **Modify** on the installed RES VDX Plugin and check the RES VDX Citrix Plugin (x86) components.

- Citrix requires third party plugin files to be located in the Citrix main folder, but removes files and registry settings when (re)installing the Citrix Client. This affects all Citrix plugins, including VDX. Therefore, always reinstall of RES VDX Plugin after installing the Citrix client.

- You may also use the `VDXPluginHelper.exe` that is located in the installation folder to recreate the necessary registry settings. Use `/installica` for Citrix, and `/installvmv` for VMWare View. Note that this only recreates the registry settings, not the necessary files, and needs to be run using a local Administrator account.

Chapter 4: Known Limitations

RES Software has identified the following limitations of VDX:

- Focus issues with some Adobe Air applications, some subforms of Internet Explorer and Microsoft Windows Media Player.
- Elevated applications: if you want to run elevated applications, you need to run the VDX plugin as elevated application.
- Some image-related filetypes on Microsoft Windows 7 will not be redirected from plugin to engine.
- Published applications: local published applications (Citrix XenApp and TS RemoteApp) are not will not be available in a remote session.
- Microsoft Remote FX is not yet supported.

Chapter 5: Where to go from here?

- For information about installing and configuring a basic VDX setup, please refer to **Getting Started with RES VDX.**
- For information about licensing, please refer to the **RES VDX Licensing** document, which is available from the Start menu after installing RES VDX Admin Pack or RES VDX Licensing.

RES Software Support		
Europe and Asia Monday - Friday 08:00 18:00 CET	Belgium	0800-753-12 (Toll Free)
	Denmark	8088-6779 (Toll Free)
	France	0800-911178 (Toll Free)
	Germany	0800-182-7475 (Toll Free)
	Norway	800-10-731 (Toll Free)
	Sweden	020-791-079 (Toll Free)
	UK	0-800-520-0427 (Toll Free)
		+44 (0) 845 838 5550
	All other countries	+31 (0)73 622 8900
US and Canada Monday - Friday 08:00 18:00 EST	1 800 580 0786 (Toll Free)	
E-mail:	support@ressoftware.com	
Knowledge Base:	http://support.ressoftware.com	