

Devon IT Terminal
Operating System
(DeTOS)
Dell Edition

Administration Manual



Notes, Cautions, and Warnings



NOTE: A NOTE indicates important information that helps you make better use of your computer.



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Contents

Introduction	6
What is DeTOS?	6
DeTOS Features	6
DeTOS Installation	7
Getting Started	8
Control Panel	10
Network Tools	11
Echo Agent System Information	12
Persistence	14
Persistence in DeTOS Thin Clients	14
System Settings	17
Display Settings	17

Input/Time	20
Local Storage	21
Management	23
Network	25
Printer Settings.....	27
Sounds	28
Advanced Options.....	29
Devon Zero™	29
Launch Terminal.....	38
Export Config.....	40
ELO Touch Screen Support.....	41
Connections	43
Citrix ICA	45
Firefox Web Browser	50
No Machines	53
VMware View	55
X11 Connection.....	57
rDesktop.....	58

Kaviza	63
Getting Help.....	64
Contacting Dell	64

Introduction

What is DeTOS?

Devon IT Terminal Operating System (DeTOS) Dell Edition is an embedded Thin Client Operating System designed to be simple, secure, and centrally manageable. DeTOS can be used to access hosted desktops using Microsoft Remote Desktop Services, VMware View, Citrix XenApp or XenDesktop, web-based applications, and more.

DeTOS Features

- **Simple**-Configuring a session out of the box is quick and painless using the DeTOS intuitive web based control panel. The same control panel can be used either locally from the thin client or remotely from the management software.
- **Modern**-DeTOS can connect to hosted desktops using the industry's best protocols including PCoIP, Citrix ICA Client, Citrix XenDesktop, rDesktop (RDP) or Windows Terminal Services, and VMware View Client. DeTOS also includes a built-in browser that allows accessing web-based applications or kiosk usage.
- **Centrally Managed**-DeTOS-based terminals can be centrally managed using Devon IT Echo Management Console Dell Edition.
 - Echo is shipped as a virtual appliance, so it is easy to set up.
 - Echo can automatically discover and inventory the thin clients on your network.
 - Echo has the concept of a default profile. Using a default profile, additional thin clients are automatically configured when you plug them into your network.

- Echo allows individual profiles for different users, including specific Connections, Thin Client Settings, Passwords, and Customizable Desktop Icons.
- Echo allows you to update the thin client's embedded OS. Updates can be scheduled to happen outside of production hours, for example over the weekend.

DeTOS Installation

No installation is required for customers who have purchased DeTOS based thin clients from Dell. Your thin client already contains a factory installed DeTOS operating system. A USB re-flash utility is available if you need to reinstall the operating system at any point in the future.

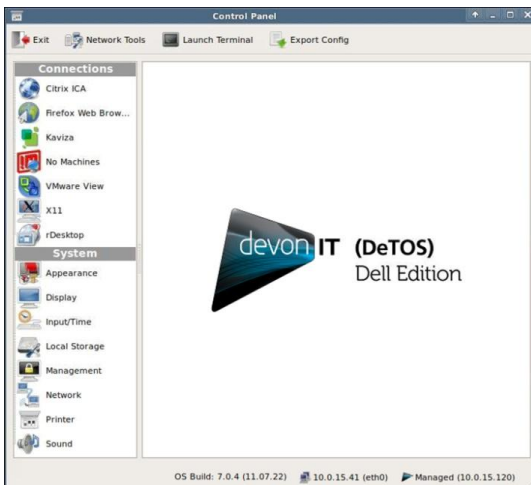
Visit **support.dell.com** to download the USB re-flash utility tool for reinstalling the operating system for OptiPlex FX130 and OptiPlex FX170.

Getting Started

After the initial bootup, or when booting up after having selected the **Reset to Factory Settings**, your thin client will ask if you wish to run as a Devon Zero™ client, or as a thin client console running DeTOS. If running in Devon Zero™ mode, see the section titled “Devon Zero™” in the “Advanced Options” chapter to continue. If you chose to operate your thin client using DeTOS instead, you will be shown the DeTOS desktop and taskbar. To get started, do the following:

- Check that your thin client is connected to the network.
- If you have set up a management server in your network, check that the thin client was able to contact the management server and is in managed mode.
- Create a desktop shortcut to allow thin client users to get connected to a remote server. (See Chapter 6, “Connections,” for more information.)

To check the network connection status, click the **DeTOS** button and then select **Control Panel**.

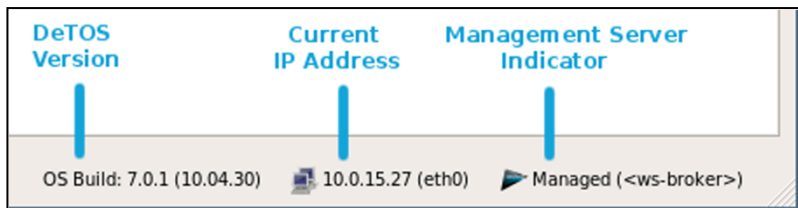


Along the bottom of the **Control Panel** is a row of status messages. These messages include the DeTOS build number, the terminal's current IP address, and a Thin Client Management Connection Indicator.

DeTOS default factory setting is DHCP. If you have a DHCP server on your network, the status bar should show the leased IP address. If you want the thin client to use a fixed IP address please refer to this guide's network section. A message of `no ip address` will appear if network connectivity is lost or was never established in the first place. This may be related to a loose or faulty network cable. It may also be an indication of DHCP issues. If you need to troubleshoot a network issue, please refer to the network diagnostic section below.

Along with the IP address, the **Control Panel** status section also shows you whether your thin client is in managed or unmanaged (stand alone) mode. By default, DeTOS based terminals try to locate a management server. If a management server is found, the terminal switches to managed mode, where it “pulls” its configuration from the management server. If not, it will stay in standalone/unmanaged mode and use its local configuration.

The **Control Panel** status area also shows the OS build. This is a string based on the DeTOS version and the build date, using the following format: `7.x.x (YY.MM.DD)`



Management Server Splash Screen

During bootup, if the terminal cannot make contact with a Management Server, then a black splash screen will appear just prior to the DeTOS desktop loading. This screen contains the Devon IT logo and displays a message saying, `Attempting to connect to Management Server`. The splash screen will be displayed until successful contact is made with a management server, the cancel button is pressed, or the specified timeout (30 seconds by default) is reached.

The **Management** section, found under the **Control Panel**, allows you to configure the behavior of this splash screen. Configuration options include:

- Setting the terminal to **Managed** or **Unmanaged** modes.
- Specifying a different management server address
- Adjusting the timeout value
- Enabling or disabling the splash screen **Cancel** button

Management Server Indicator

Once you are on the DeTOS Desktop, the Echo Agent running on your terminal will continue to periodically contact a Management Server named `ws-broker` on your local area network. When successful, the Management **Server Indicator** box found along the bottom of the **Control Panel** will read `Managed`. Otherwise, the icon will change to a red circle and the status will say `Unmanaged`. In this case, verify that your management server is online and accessible on your LAN. Also be sure to check your DNS server to verify that an entry for `ws-broker` exists and points to the IP address of your management server.

Control Panel

The **Control Panel** is the local tool for configuring **Connection and System** settings on your thin client.

- **Connection Settings** - Your terminal has the ability to connect to remote servers utilizing several types of protocols. The rDesktop client uses the RDP protocol and allows you to connect to Microsoft Windows Terminal Servers. The Citrix ICA client is used to establish connections to Citrix Presentation and XenApp servers. The VMware View client allows you to connect to a VMware View server, which in turn, provides the end-user with their own virtual desktop session. Lastly, you may create a Firefox web browser connection to surf the web. This can be used for several purposes:
 - Connect to a web applications; e.g., a webmail server.
 - Connect to a connection broker web interface; e.g., Citrix XenDesktop.
 - Use the thin client as a Kiosk (select the **Enable Kiosk Mode** button under the **Kiosk Mode** panel)

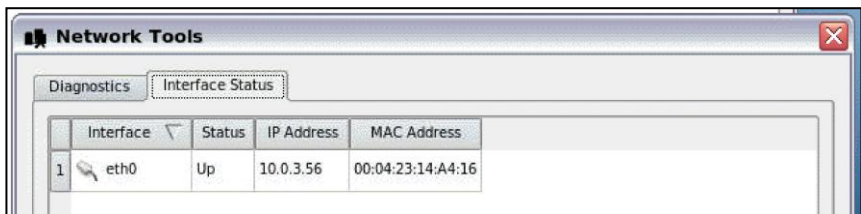
- **System Settings** - These are the display, sound, keyboard, mouse, printer and date/time configurations for your terminal. Also under the System section is the ability to set an administrative password for the control panel and change the local storage mode.

Network Tools

The toolbar along the top of the **Control Panel** window contains a button named **Network Tools**. Clicking this button will open a separate, smaller window that provides you with current network status and useful diagnostic programs.

Interface Status

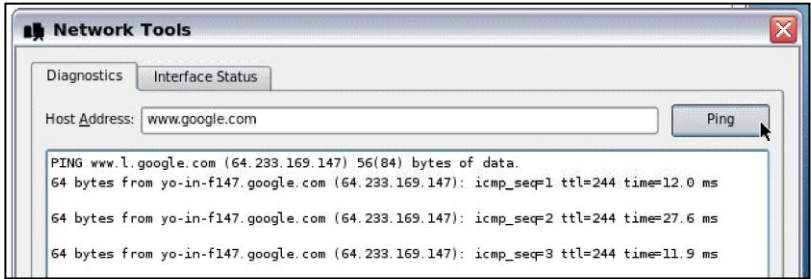
Click the **Interface Status** tab along the top of the **Network Tools** window to view the IP address that is currently assigned to this terminal. The MAC Address for this machine is also reported on this screen.



Diagnostics

If you are experiencing difficulty connecting to servers on certain segments of your LAN, then you may want to use the ping command to verify you are reaching specific servers and/or gateways on the subnet in question. To use ping:

1. Select the **Diagnostics** tab from the **Network Tools** window.
2. In the **Host Address** field, type in the IP address or website you want to test against and then press the **Ping** button.



3. If there is an error in the delivery to the destination, the ping command displays an error message. Otherwise, replies will continuously display for each packet successfully sent and received.
4. Press the `Stop` button to terminate the ping loop.

Echo Agent System Information

Echo Management- Displays the current status and information of the Echo Management server to which your thin client is connected.

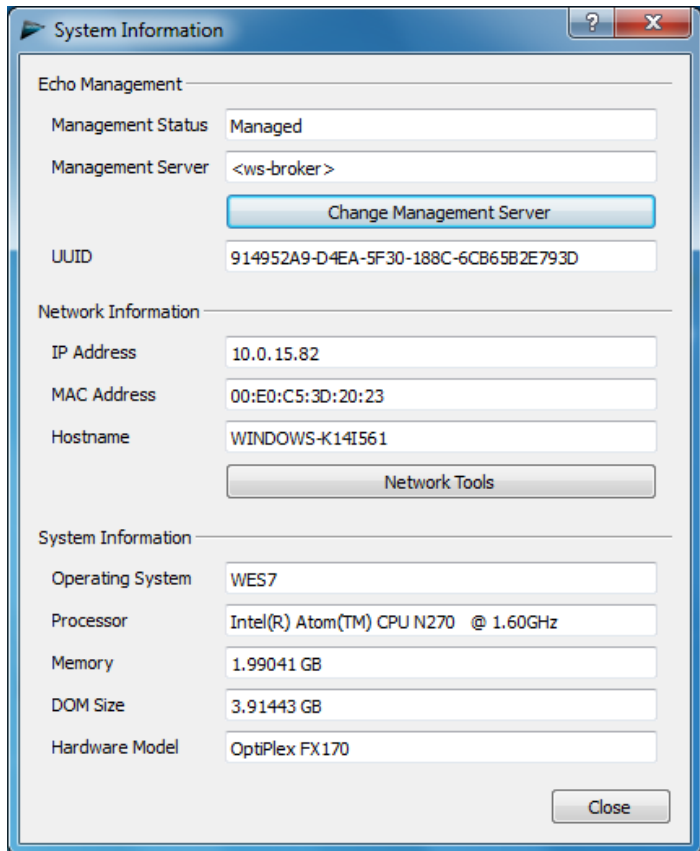
- **Management Status-**Displays when the thin client is being managed by an Echo server.
- **Management Server-**Displays the current address of the Echo server.
- **Change Management Server-**Allows you to change the Echo server.
- **UUID-**Displays the current UUID assigned to the terminal.

Network Information-This displays information about the current network connection.

- **IP Address-**Displays the current IP address assigned to the thin client.
- **MAC Address-**Displays the current MAC address assigned to the thin client.
- **Hostname-**Displays the name assigned to the thin client.
- **Network Tools-**Allows you to run diagnostics test with the network connection and to check on the current status of the network connection.

System Information-Displays information about the operating system and the thin client.

- **Operating System**-Displays the name of the image or operating system that is in use.
- **Processor**-Displays the processor that the thin client is using.
- **Memory**-Displays the total internal memory of the thin client.
- **DOM Size**-Displays the total storage capacity size of the thin client.
- **Hardware Model**-Displays the name of the thin client in use.



Persistence

Persistence, within the scope of thin client computing, refers to the continuing existence of connections and settings after a terminal has been rebooted.

Default Behavior

By default, or after resetting your terminal to default factory setting, DeTOS is set to persistent mode. This means that any configuration change you make will persist across reboots. You can change this to a stateless mode where the thin client settings and connections are dynamically “pulled” from the management server, or a snapshot mode where you define the desired configuration and prevent users from making any changes. These options are all configured in the **Control Panel**, under the **System Settings**, in a section called **Local Storage**.

Persistence in DeTOS Thin Clients

There are two strategies for achieving persistence on DeTOS-based thin clients.

Strategy #1: Maintain Profiles via Remote Management Server

DeTOS thin clients can be centrally managed using the Devon IT Echo Management Console Dell Edition. Using Echo, administrators can create several connections and settings and then group them together to form one single collection called a profile. This profile can then be pushed or assigned to one or more thin clients. With your profile properly configured, each time a terminal is booted up and discovered by Echo, all connections and system settings according to its assigned profile are immediately applied – or *pushed* out – to that terminal.

Strategy #2: Allow Configurations to be Stored Locally on the Thin Client

The second approach for achieving persistence is to allocate a specific area of the local DOM for reading and writing system settings and connections. DeTOS allows for even greater flexibility by offering two variations of this strategy:

- **Enable Local Storage**-While running in this mode, DeTOS will write to the local DOM each and every time configurations are added, deleted or modified under the Control Panel.
- **Enable Snapshot Storage**-When this mode is selected, DeTOS allows writes to the local DOM, but in a more finely controlled manner. An administrator can configure the settings and then store the current configurations to the DOM by clicking **Take Snapshot**. The only settings and connections that will persist across reboots are the ones captured during the snapshot. The terminal essentially falls back into a non-persistent operating mode after the snapshot and discards any new configurations from here on out – until the administrator clicks **Take Snapshot** again, and a new snapshot is used as the primary configuration. In some ways, this mode can be thought of as a hybrid of the standard Enable Local Storage and No Local Storage modes.

Case Examples

The **Local Storage** section of the **Control Panel** allows you to use three methods for local storage:

- **No Local Storage**
- **Enable Local Storage**
- **Enable Snapshot Storage**

These case examples are provided below to help you decide which of these three options will work best for you.

Case 1: “I do not want any users to mess up the thin client’s configuration. I am currently using, or plan to use, Devon IT Echo Management Console Dell Edition to centrally manage my thin client.”

Solution: You will be utilizing strategy #1, as described earlier. Choose the **No Local Storage** option on the thin client and make sure you have an Echo server properly configured and accessible on your LAN. With persistence disabled, the thin client becomes stateless and relies completely on the management server for all its configurations.

Case 2: “I simply want the thin client to maintain its configuration settings locally. I do not want to rely on a management server.”

Solution: Choose the **Enable Local Storage** radio button option. While running in this mode, DeTOS will write to the local DOM each and every time configurations are added, deleted, or modified. A remote management server is not needed.

Case 3: “I like the idea of having a non-persistent terminal with an assigned profile, but do not want to use Devon IT Echo Management Console Dell Edition to manage my terminals. What's the alternative?”

Solution: Choose the **Enable Snapshot Storage** radio button option, press **Apply**, and then reboot the terminal. Next, configure the terminal as desired, and then press the **Take Snapshot** button. From then on, the thin client will use the same exact configuration as when the snapshot was taken – even after being rebooted. A remote management server is not needed.



NOTE: If you would like to change your configuration later, you will have to press the **Take Snapshot** button again to save all of the changes made to your terminal. Upon reboot, your terminal will load whichever Snapshot was is currently being used. Pressing the **Clear Local Storage** button will ask the terminal to clear all connections and settings saved locally, clear the current snapshot used for the reboot, and restore itself to factory settings on the next reboot.

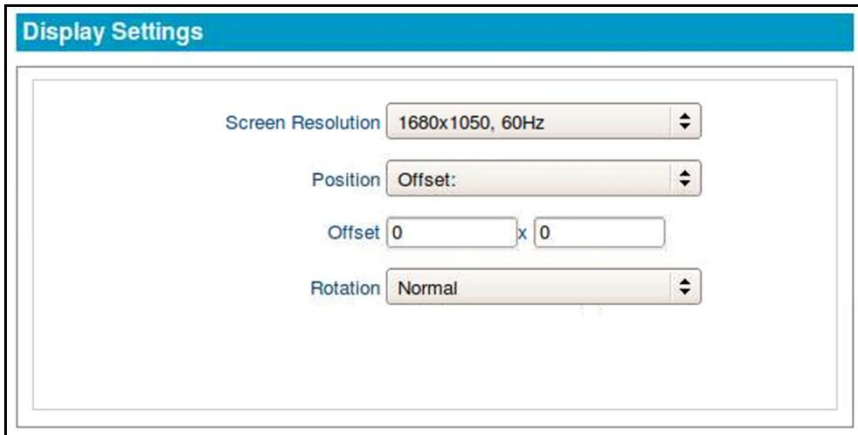
System Settings

Display Settings

Strategy #1: Maintain Profiles via Remote Management Server

This section describes the display options available for a single monitor attached to a terminal.

- 1 From the DeTOS desktop, select **DeTOS→Control Panel**.
- 2 Click the **Display** icon on the left-hand side of the **Control Panel**, under **System Settings**.



The screenshot shows the 'Display Settings' window. It features a blue header bar with the text 'Display Settings'. Below the header, there are four settings:

- Screen Resolution:** A dropdown menu showing '1680x1050, 60Hz'.
- Position:** A dropdown menu showing 'Offset:'.
- Offset:** Two input fields, both containing the number '0', separated by an 'x'.
- Rotation:** A dropdown menu showing 'Normal'.

- **Screen Resolution**-Select the desired resolution from the dropdown list OR select **Auto-detect** to allow DeTOS to automatically choose the best resolution for the attached monitor.

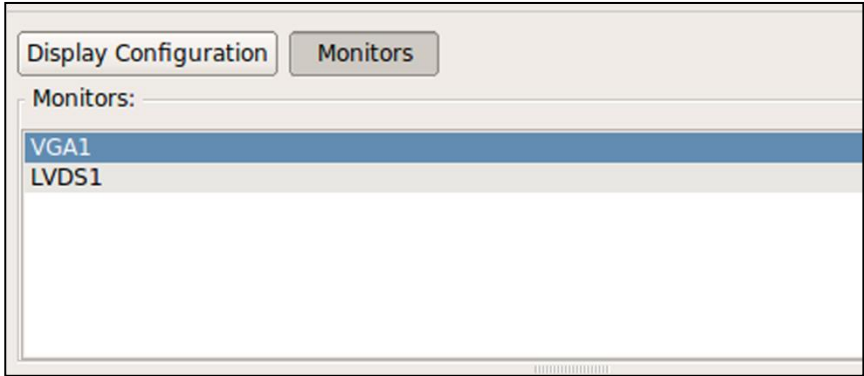
- **Color Depth**-All supported color depths for your monitor will be listed in this dropdown box.
- **Enable Screen Blanking**-Checking this box will reveal two timeout values for screen blanking and suspend time.

Once you are finished, press the **Apply** button for the changes to take effect. If you selected **Auto-Detect** for the screen resolution, then the change in resolution will occur on next reboot. Otherwise, all other display changes will take effect immediately.

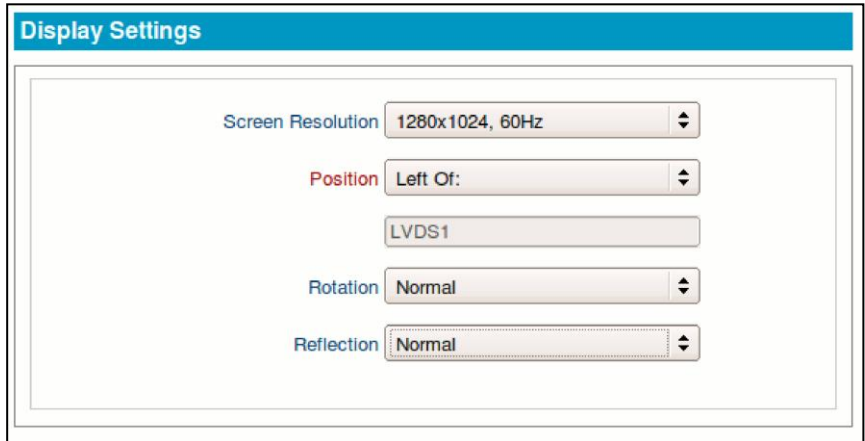
Dual Monitors

This section describes how to set up and configure dual monitors (OptiPlex FX170 only).

- 1 While the unit is turned off, attach both monitors to the thin client.
- 2 Turn on the thin client.
- 3 Upon bootup, the display will be mirrored on both monitors.
- 4 From the DeTOS Desktop, select **DeTOS** → **Control Panel**.
- 5 Click the **Display** icon on the left-hand side of the **Control Panel**, under System.
- 6 You will be presented with display settings for **Color Depth** and **Screen Blanking** options. These settings apply to both monitors associated with the DVI-1 (bottom) port and the LVDS1 represents the DVI-2 (top) port.
- 7 To adjust specific properties for each monitor, click the **Monitors** button along the top of the **Control Panel**. You will then be presented with the names of the two monitors attached to the terminal. The exact names will vary depending on how they are detected on that particular terminal. For an OptiPlex FX170 thin client, the VGA1 port is typically associated with the DVI-1 (bottom) port and the LVDS1 represents the DVI-2 (top) port.



- Click one of the monitor names from the list. This will open a configuration screen that contains **Resolution**, **Position**, **Rotation**, and **Reflection** properties for that specific monitor.



- Screen Resolution**-Select the desired resolution from the dropdown list OR select **Auto-detect** to allow DeTOS to automatically choose the best resolution for the attached monitor.

- **Position**

- **Left of or Right of** -If your monitors are positioned in a side-by-side arrangement, then you'll want to specify one of the monitors as being to the **Left of** or **Right of** the opposite monitor.
- **Above or Below** -If your monitors are positioned in a top and bottom arrangement, then you'll want to specify one of the monitors as being to the **Above** or **Below** the opposite monitor.
- **Clone** -Choosing the **Clone** option will cause the display to be duplicated on both monitors. (Also known as "Mirrored.")



NOTE: This is the default behavior for dual monitors when powered on for the first time.

- **Offset** -When you select the offset option, you will be presented with two additional fields for **X** and **Y** coordinates. For example: 50x50 will cause the display to be positioned 50 pixels left of and 50 pixels higher than its normal centered state.
- **Rotation** -Select **Right** to rotate the display clockwise and **Left** to rotate the screen counter-clockwise. You can also select **Invert** to flip the entire display upside down.
- **Reflection** -Select **X**, **Y**, or **XY** values to rotate the screen along the XY plane.



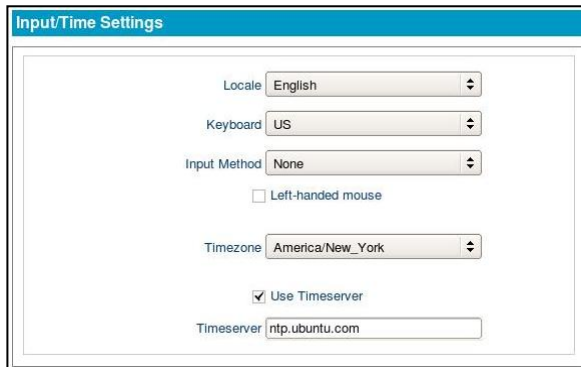
NOTE: The X plane is Horizontal. The Y plane is Vertical.

Once you are finished, press the **Apply** button and reboot the thin client for the changes to take effect.

Input/Time

This section allows you to configure keyboard, mouse, and time settings for the terminal.

- 1 From the DeTOS Desktop, select **DeTOS→Control Panel**.
- 2 Select the **Input/Time** icon on the left-hand side of the **Control Panel** under **System**.



- **Locale**-English is the default locale setting. Switching to a new locale will, upon reboot, adjust the system locale and translate the user interface of the local DeTOS desktop to the selected language.
- **Keyboard-USA** is the default keyboard input setting. Switching to a new keyboard input will alter the keyboard mapping immediately after selecting **Apply**.
- **Left-Handed Mouse**-Select this checkbox if you are using a left-handed mouse and need to invert the right and left mouse buttons.
- **Time Zone**-The time zone options are organized geographically by region first and then by city. Select the appropriate time zone for your location.
- **Timeserver**-Defining a timeserver allows the terminal to query an NTP service in order to keep its date and time in sync. By default, this is enabled and set to Ubuntu's timeserver.

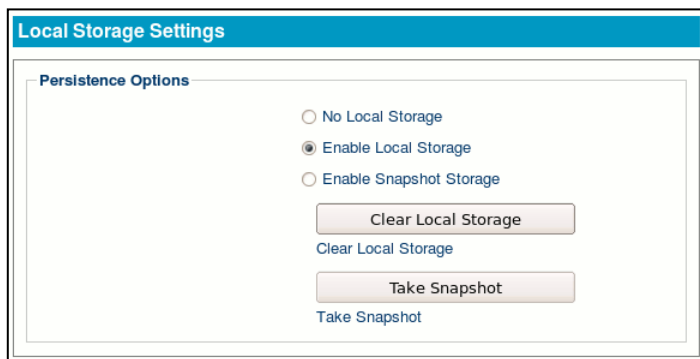
Press the **Apply** button for the changes to take effect. Most settings will be changed immediately, but changes to system locale will require a reboot.

Local Storage

The **Local Storage** section of the **Control Panel** allows the administrator to choose one of three modes for how local storage is utilized.

- 1 From the DeTOS Desktop, select **DeTOS**→**Control Panel**.

- 2 Click the **Local Storage** icon on the left-hand side of the **Control Panel** under **System**.



- **No Local Storage**-Selecting this mode disables persistence. The thin client becomes stateless and relies completely on the management server for all its configurations. Be sure to press the **Apply** button and then **reboot** the thin client for this mode to take effect.
- **Enable Local Storage (default)**-While running in this mode, DeTOS will write to the local DOM each and every time configurations are added, deleted or modified under the Control Panel. Press the **Apply** button and then **reboot** the thin client for this mode to take effect.
- **Enable Snapshot Storage**-To utilize local storage in a profile-like manner. Be sure to press the **Apply** button, and then reboot. Upon reboot, configure the thin client as desired, and then press the **Take Snapshot** button. From now on, the thin client will use the same configuration as when the snapshot was taken – even after reboots.
- **Clear Local Storage**-Press this button to clear-out all settings currently stored in local or snapshot storage. Be sure to reboot the thin client after you pressed this button.
- **Take Snapshot**-While running in a **Snapshot Storage** mode, you may press this button to capture the thin client’s current connections and settings configuration. Be sure to reboot the terminal after you pressed this button.



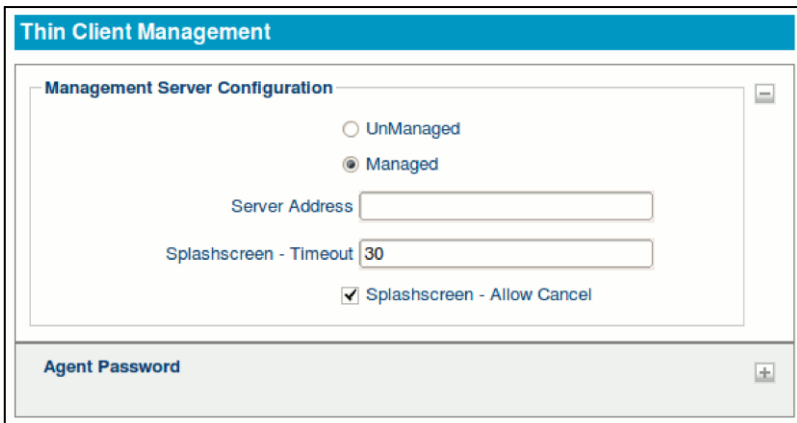
NOTE: No matter which persistence option you select, it is recommended that you password protect the Control Panel to prevent your end-users from accidentally changing the mode.

Management

Management Server Configuration

During bootup, if the thin client cannot make contact with a Management Server, then a white splash screen will appear just prior to the DeTOS desktop loading. This screen contains a message saying `Attempting to connect to Management Server`. The splash screen will be displayed until successful contact is made with a management server, the cancel button is pressed, or the specified timeout (30 seconds by default) is reached. The **Management Server Configuration** screen allows you to configure the behavior of this splash screen, along with other management server options.

- 1 From the DeTOS Desktop, select **DeTOS→Control Panel**.
- 2 Click the **Management** icon on the left-hand side of the **Control Panel** under **System**.



The screenshot shows a window titled "Thin Client Management" with a blue header. Inside, there is a section titled "Management Server Configuration" with a minus sign icon in the top right corner. This section contains two radio buttons: "UnManaged" (unselected) and "Managed" (selected). Below these are two text input fields: "Server Address" and "Splashscreen - Timeout" (containing the value "30"). At the bottom of this section is a checked checkbox labeled "Splashscreen - Allow Cancel". Below the "Management Server Configuration" section is a grey bar labeled "Agent Password" with a plus sign icon in the bottom right corner.

- **Managed/Unmanaged**-By default, the thin client is set to `Managed` mode and will attempt to make contact with a management server. You have the option of severing all communications with a management server by selecting the **Unmanaged** radio button. Press **Apply** and reboot the thin client for this to take effect.

- **Server Address**-While in managed mode, the thin client will maintain contact with a management server named `ws-broker`. Use this field to specify a different hostname or IP address for your management server.
- **Splash Screen – Timeout**-Use this field to adjust the number of seconds the splash screen appears on the screen before it times-out and loads the DeTOS Desktop. Enter a value of 0 to bypass the screen altogether.
- **Splash Screen – Allow Cancel**-A **Cancel** button is provided on the splash screen that allows the user to abort the timeout delay. Uncheck this box to hide the cancel button and force the user to wait the required amount of time.



NOTE: The purpose of the splash screen feature is to gracefully handle network latency that may occur during the thin client's first contact with a management server during bootup. This feature becomes vital in the case where you have a management server applying connections to the thin client that are configured to Autostart on bootup.

Agent Password

A System Password can be set to restrict access to the **Control Panel**.

To set the Password:

- 1 Select **DeTOS**→**Control Panel**.
- 2 Click the **Management** icon on the left-hand side of the **Control Panel** under **System**.
- 3 Select the plus **[+]** to open the **Agent Password** section of this screen.

- 4 Enter a password in the password field and re-enter it to confirm your password.
- 5 Press the **Apply** button to save your password.



NOTE: Once a system password is set, the user will be prompted for the password when they attempt to open the **Control Panel**. If the **Cancel** button is pressed or a user incorrectly types the password, then the **Control Panel** will open in a read-only mode. A small padlock icon will also appear along the bottom of the **Control Panel** window, indicating that edits are not allowed. Keep your password safe!

Network

By default, the thin client attempts to contact a DHCP server on your network during bootup. If you have a DHCP server on your network, then the thin client will acquire an IP address automatically and no further network configuration is required on your part. However, there are additional options available.

Thin clients capable of connecting to wireless networks will still default to a wired connection if available. To change the network for your connection:

- 1 From the DeTOS Desktop, select **DeTOS** → **Control Panel**.
- 2 Select the **Network** icon on the left-hand side of the **Control Panel** under **System**.
- 3 Select the desired connection from the **Networks** dropdown menu in the **Networks** section.
- 4 Click **Apply**.

If you've selected a wireless network, a **Wireless Network** section will appear beneath the **Networks** section. To further configure a wireless connection:

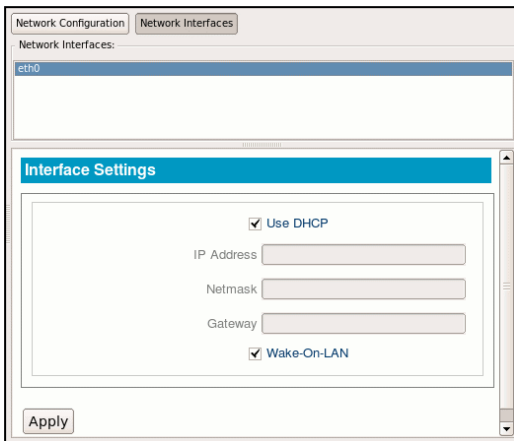
- 1 Select the authentication method used on your network from the **Authentication** dropdown menu
- 2 Depending on the authentication method selected, you may have to enter additional information into the fields that appear.
- 3 When all the required fields have been filled, click **Apply**.

Alternatively, you can now access the connections available to you by utilizing the **Network** tray icon. To connect using the tray icon:

- 1 Right click on the **Network** tray icon in the lower left corner of the desktop.
- 2 Select the network desired from the list of available networks that is displayed.
- 3 Enter your password into the **Password** field in the popup that appears.
- 4 Click **OK** to connect.

If you need to set a Static IP address on a DeTOS thin client:

- 1 From the DeTOS Desktop, select **DeTOS** → **Control Panel**.
- 2 Select the **Network** icon on the left-hand side of the **Control Panel** under **System**.
- 3 Expand the **IP Configuration** section of the **Network Settings** menu.



- 4 Deselect the **Use DHCP** checkbox.
- 5 Type in appropriate values for the IP Address, Netmask, and Gateway address fields and then press **Apply**.
- 6 Sometimes, depending on your network, it may take 15-20 seconds to reconfigure to the Static IP. This is normal, and a reboot is **NOT** required.

- 7 To make any changes to the Host Name, or to add or edit your own DNS servers, edit the **Hostname** field in the **Networks** area found near the top of the window. Press **Apply** when finished to save.
- 8 When changing your Network settings, this may take 15-20 seconds, depending on your network speed, for your changes to take effect. This is normal and your thin client will **NOT** need to be rebooted for the changes to take effect.

Printer Settings

DeTOS supports redirected printing to a locally attached USB or Parallel printer. Once the Printer Settings are properly configured and applied, redirected printing will be enabled for all RDP, Citrix ICA, and VMware View connections created on your thin client.

- 1 From the DeTOS Desktop, select **DeTOS** → **Control Panel**.
- 2 Click the **Printer** icon on the left-hand side of the **Control Panel**, under **System**.



The screenshot shows a window titled "Printer Settings". It contains three input fields: "Printer Name" with the text "MyLocalPrinter", "Driver Name" with the text "Lexmark E238", and "Connect to" with a dropdown menu currently set to "USB".

- 3 Enter the following values:
 - a. **Printer Name**-Enter a name for this printer. Do not include spaces.
 - b. **Driver Name**- Make sure the driver for the printer you will be using has been installed on the server(s) you plan on connecting to. Select the desired driver from the dropdown list, or you can manually enter the driver name. To check the exact driver name on a Windows server:
 - i. Click **Start** → **Settings** → **Control Panel** → **Printers and Faxes**.

- ii. Select **File**→**Server Properties**.
 - iii. Select the **Drivers** tab. This will display installed printer drivers.
 - iv. Find the driver name of the printer you are using. The driver name that appears here must be entered into the **Driver Name** field exactly the same way – including spaces and proper case. For example, if the driver name on the server is reported as Lexmark E238, then you must type Lexmark E238 into the **Driver Name** field. Values are case sensitive.
- c. **Connect to**-Select the appropriate connection type from this dropdown list. (USB or Parallel).
- 4 Press the **Apply** button to save. The printer changes will take place immediately. No reboot is required.
 - 5 Launching any of your RDP, Citrix ICA, or VMware View connections, you will find your printer under the Printers and Faxes Window and it will be automatically designated as the default printer.



NOTE: To redirect printing to all of your protocols such as rDesktop, make sure that all options for redirection are enabled, including Printing and Disk Drive Mapping.

Sounds

This section allows you to adjust the master volume level for the terminal.

- 1 From the DeTOS Desktop, select **DeTOS**→**Control Panel**.
- 2 Click the **Sound** icon on the left-hand side of the **Control Panel** under **System**.
- 3 Left-click and drag the bar left or right to decrease or increase the volume.
- 4 Press the **Apply** button to save. Your changes will take place automatically.



Advanced Options

Devon Zero™

Devon Zero™ is the new zero client configuration option for Dell Optiplex FX130 and Optiplex FX170 terminals that enables them to effortlessly connect to your server and begin operations right out of the box.



NOTE: Only terminals installed with DeTOS are capable of running in Devon Zero™ mode.

Zero Configuration Environment Setup Process

The entire process of establishing a Devon Zero™ configuration environment is carried out through DNS. Once an environment has been established, Devon Zero™ machines can operate without the need of a management server. To set up the Devon Zero™ environment you will need to obtain the squashfs image, which can be found by visiting support.dell.com.

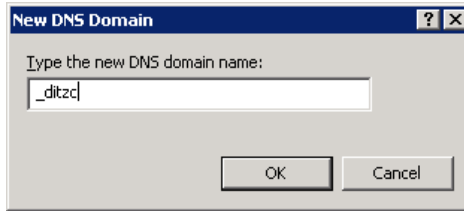
It is necessary to create a share to host the squashfs image in order to utilize it with terminals running in zero configuration mode. In order to create this share:

1. Create a folder in your DNS server to host the squashfs image.
2. Right click on the folder and go to the **Properties** menu.
3. In the **Sharing** tab, click on the **Share...** button.
4. In the **File Sharing** menu, select **Everyone** from the dropdown menu and click **Add**.
5. In the **Permission Level** column, make sure to set the newly created entry as **Read**. Then, click on **Share** to accept this change and close the menu.

6. Once the folder has been successfully created, copy your squashfs image into it.

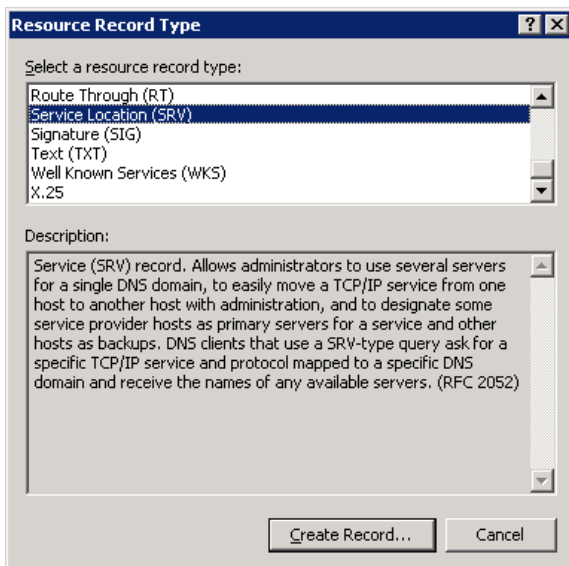
After the squashfs image has been placed in a share, it is necessary to enter the details for what sort of session the Devon Zero™ configuration will run. The DNS is configured to have a zone of “_ditzc” at the top level of the desired domain, which will have the zero configuration feature enabled. . In order to set up these details using DNS management:

1. Create a new domain in your DNS management named _ditzc.



2. Create a zone under the _ditzc zone and name it _image
3. Right click on the server and select **Other new records**.

4. Select the **SRV Service Location** file format and select **Create Record**.



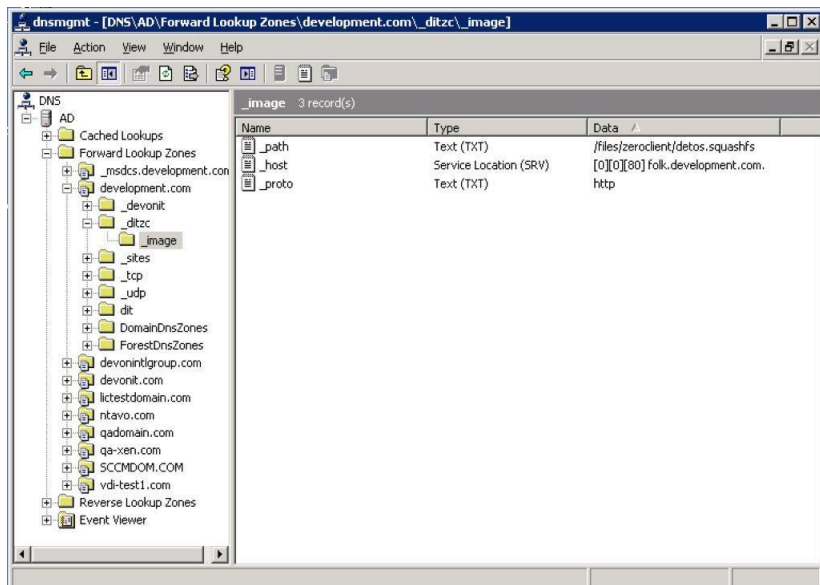
5. Write `_host` in the **Service** field.
6. Set the **Protocol** as `_image`.
7. Be sure to set the port to match the protocol used above.
8. Enter the location of the host in the **Host offering this service** field.

9. Click **OK**.

The DNS is further configured to have a zone of “_image” within the “_ditzc” zone which contains the following TXT records:

- **_host** – The host address of the server that contains the operating system image.
- **_path** – The absolute path to the operating system image on the server.
- **_proto** – The protocol used to access the server that contains the operating system.

- **_port** – The port used to access the server that contains the operating system image.



The protocol used to access the server can be one of the following options:

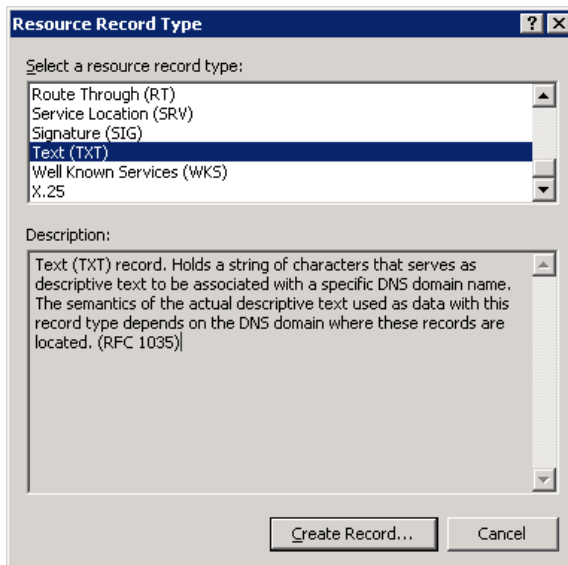
- **http** – The hypertext transport protocol.
- **ftp** – The file transfer protocol
- **iscsi** – the IP based SCSI transport protocol
- **nfs** – The network file system protocol.
- **cifs** – The common internet file system protocol.

Devon Zero™ is able to run two types of remote sessions: RDP and ICA. When establishing the zero configuration environment, the following values can be used to specify the type of session desired:

- **RDP** – The value of “rdp” in the PROTO connection setting defines the session type as Remote Desktop Protocol. The connection settings of RDP_SERVER and RDP_PORT are extracted from the session record.
- **ICA** – The value of “ica” in the PROTO connection setting defines the session type as Citrix’s ICA protocol. The connection setting of PNA_URL is extracted from the session record.

You must create a zone called `_proto` within the `_image` zone. To create this zone:

1. Right click on the `_image` zone and select **Create other new record**.



2. Select **TXT** under the **Resource Record Type** menu and click **Create Record**.

3. Name the file `_proto` in the **Record Name** field.
4. In the text field, enter the protocol desired through which the image will be downloaded.

The screenshot shows a dialog box titled "New Resource Record" with a standard Windows window title bar (minimize, maximize, close buttons). The dialog has a tabbed interface with the "Text (TXT)" tab selected. It contains several input fields and a checkbox:

- Record name (uses parent domain if left blank):** A text box containing the text "_proto".
- Fully qualified domain name (FQDN):** A text box containing the text "_proto._ditzc.development.com.".
- Text:** A large text area containing the text "http".
- Delete this record when it becomes stale:** An unchecked checkbox.
- Record time stamp:** An empty text box.
- Time to live (TTL):** A text box containing "0 :1 :0 :0" with the label "(DDDD:HH:MM:SS)" to its right.

At the bottom right of the dialog are two buttons: "OK" and "Cancel".

5. Click **OK**.

Setting up the `_path` zone is nearly the same process as creating the `_proto` zone. In order to create the `_path` zone:

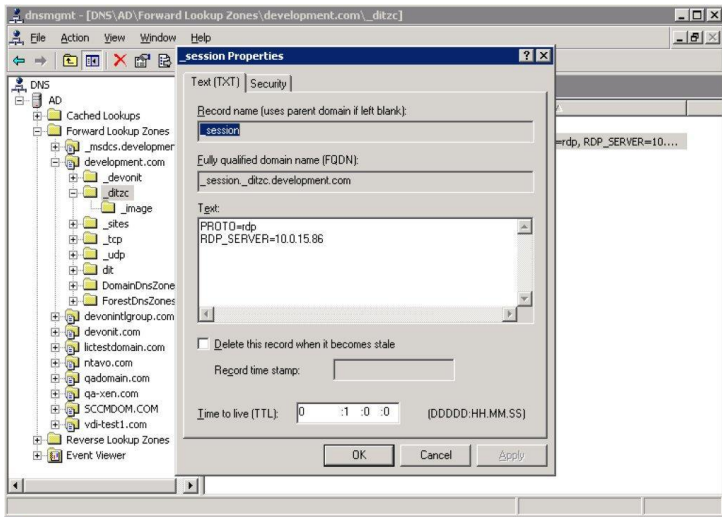
1. Right click on the `_image` zone and select **Create other new record**.
2. Select **TXT** under the **Resource Record Type** menu and click **Create New Record**.
3. Name the file `_path` in the **Record Name** field.
4. In the text field, enter the protocol desired through which the image will be downloaded.
5. Click **OK**.

The DNS is configured to have a TXT record of “`_session`” inside of the “`_ditzc`” zone of the desired domain that will have zero configuration available. The operating system image is a compressed partition image with the squashfs format and placed on a public share. The URL format can be extended using shell variables in order to allow OS images to be specific images reserved for particular devices. The currently supported shell variables are:

- **MODEL** – The model of the device as reported by the hardware. (ie FX130, FX170)
- **ARCH** – The architecture of the device. (ie X86, X86_64, ARM, etc.)

To create the `_session` zone:

1. Right click on the `_ditzc` zone and select **Other New Records**.
2. Create a TXT record and name it `_session`.
3. In the text field, enter the key value pairs necessary to outline the details of your desired session for Devon Zero™. Proto=ica or rdp, and also include the argument specific to the protocol that passes the url or ip address for the needed server, depending on the type of session.



4. Once the desired value pairs have been entered, click **OK** to accept the changes.



NOTE: You can only have one configuration for Devon Zero™ per domain. If you wish to apply different configurations to different units, you must create alternate configurations via subnets.

Once the system administrator has established the zero configuration environment via DNS, any further management becomes unneeded. After this point, a terminal that has been instructed to operate in Devon Zero™ mode will go directly to a login screen upon bootup. By entering their login credentials, users can immediately proceed to their remote sessions.



NOTE: As an additional option, “DomainName\UserName” formats are supported to populate the domain option of the client session.

Should it become necessary to convert a Dell Optiplex FX130 or FX170 from a Devon Zero™ based zero client back into a DeTOS based thin client, a USB re-flash utility is available.

Visit **support.dell.com** to download the USB re-flash utility tool for reinstalling the operating system for OptiPlex FX130 and OptiPlex FX170.

Launch Terminal

There may be times when you wish to open a Terminal window to run command-line tools only accessible from a Linux shell. To access the shell, click the button found at the top of the Control Panel named `Launch Terminal`.

The **ifconfig** and **ping** commands are two popular Linux tools used for diagnosing network connectivity and interface settings. The following two sections describe their basic usage.



Viewing Current Network Interface Settings

Type `/sbin/ifconfig` and press <Enter> to display the status of the currently active network interfaces.

```
detos@00-1C-59-01-01-C5:~$ /sbin/ifconfig
eth0      Link encap:Ethernet  HWaddr 00:1c:59:01:01:c5
          inet addr:10.0.15.54  Bcast:10.0.15.255  Mask:255.255.255.0
          inet6 addr: fe80::21c:59ff:fe01:1c5/64  Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:6210  errors:0  dropped:0  overruns:0  frame:0
          TX packets:6310  errors:0  dropped:0  overruns:0  carrier:0
          collisions:0  txqueuelen:1000
          RX bytes:1160959 (1.1 MB)  TX bytes:3751319 (3.7 MB)
          Interrupt:16

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
```

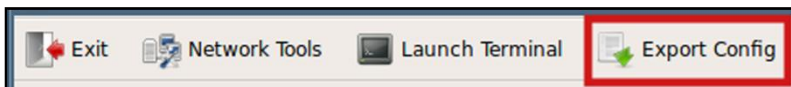
The value of `inet addr`, in the `eth0` group of statistics, is the currently assigned IP Address of your DeTOS terminal. If DHCP was used, this is the IP address that your terminal acquired during bootup. If you configured static network settings, then this address should match the value you entered in the **IP Address** field.

```
detos@00-1C-59-01-01-C5:~$ ping 10.0.15.250
PING 10.0.15.250 (10.0.15.250) 56(84) bytes of data:
64 bytes from 10.0.15.250: icmp_seq=1 ttl=255 time=0.845 ms
64 bytes from 10.0.15.250: icmp_seq=2 ttl=255 time=0.806 ms
64 bytes from 10.0.15.250: icmp_seq=3 ttl=255 time=0.806 ms
64 bytes from 10.0.15.250: icmp_seq=4 ttl=255 time=0.808 ms
64 bytes from 10.0.15.250: icmp_seq=5 ttl=255 time=0.807 ms
^C
--- 10.0.15.250 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4004ms
rtt min/avg/max/mdev = 0.806/0.814/0.845/0.029 ms
detos@00-1C-59-01-01-C5:~$ █
```

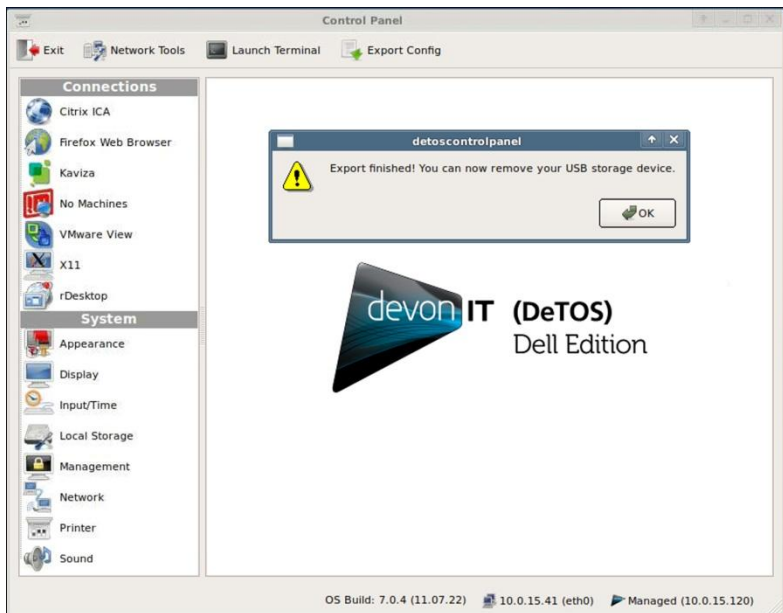
Export Config

If you are working with a Dell Support Analyst to troubleshoot a problem on your terminal, you may be asked to send your terminal's **Config** file. You can easily export your own **Config** file by following these steps:

1. Plug a USB flash drive into the terminal.
2. Click the button found along the top of the **Control Panel** named **Export Config**.



3. The process only takes a few seconds. Once it is finished you will receive a message saying the export is finished and you may remove the flash drive.



4. A file named **detosConfig.tar** will now exist on the flash drive. This file contains important diagnostic information that can be analyzed by Dell Support and will help troubleshoot and solve issues you may be experiencing.

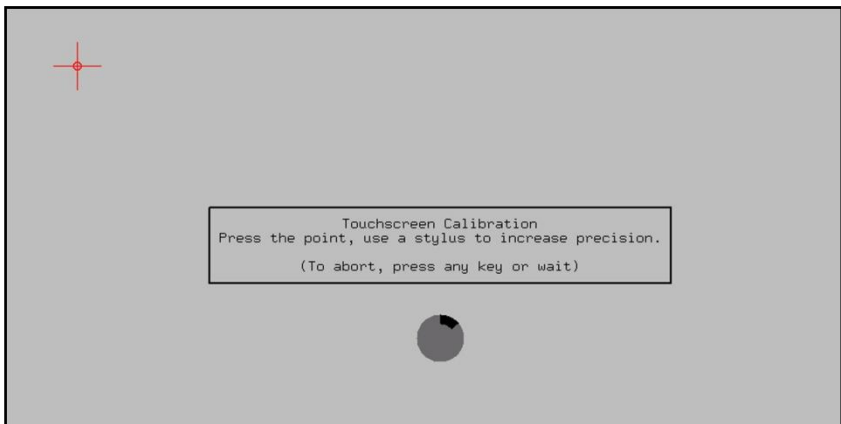
ELO Touch Screen Support

Upon connecting an ELO Touch Screen to your thin client you will be presented with a calibration screen on first boot to ensure your unit functions properly.

There are two ways to calibrate your ELO Touch Screen device when attached to your thin client.


Calibration – Option 1

Upon first boot of the operating system, you will see a gray calibration screen with a countdown timer in the middle if an ELO device is found.



- 1 Use your finger or a stylus to tap the center of the red cross that displays in the upper left-hand corner. Try to get as close as possible to the small circle in the center of the red cross.

Another calibration spot will appear in the top right-hand corner. Use your finger or a stylus to tap the center of the red cross. Repeat for the calibration spots that appear in the bottom right-hand corner of the screen, and then the bottom left-hand corner of the screen.

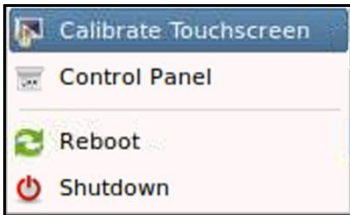
-  **NOTE:** If the calibration is inaccurate, the calibration tool will ask you to re-try the process until a more accurate reading is achieved. You can wait until calibration is achieved or press any key to cancel the dialog at any time.




You will see your normal desktop screen once the Touch Screen is calibrated.

Calibration – Option 2

The second method of calibrating the hardware can be found in the DeTOS **Start Menu**. Select **Calibrate Touchscreen**. You will see the gray calibration screen.


Follow the steps from Option 1 to calibrate the touch screen.



-  **NOTE:** There is currently no way to configure the calibration of an individual device and push that setting via the Devon IT Echo Management Console Dell Edition software. Calibration files will not be persistent through rebooting, so the device must always have to be calibrated when attempting to use a touch screen device with Devon IT VDI Blaster Dell Edition.
-  **NOTE:** Re-imaging or updating your thin client will require you to re-calibrate the device.
-  **NOTE:** If at any time the calibration seems inaccurate you can plug in a mouse and attempt to re-calibrate the device.

Connections

Adding New Connections

- 1 From the DeTOS Desktop, select **DeTOS→Control Panel**.
- 2 Click the icon you wish to create; it is listed under the **Connections** bar, on the left-hand side of the **Control Panel**.
- 3 The main window will split into two separate frames. The top frame will list all existing connections for this particular type or protocol. To add a new connection, click the plus [+] button.
- 4 You will be prompted to enter a name for this connection. Enter a name for this connection and press the **OK** button to continue.
- 5 The bottom frame will display configuration fields that are specific to the connection type you are creating. Some connections, like Firefox Web Browser, will only have a couple of fields required for configuration and be listed on a single form. Connections that have several configuration options associated with them, like RDP and Citrix, will have their settings grouped and sorted under separate sections, called form panels. These panels can be opened and closed by clicking the plus [+] and minus [-] buttons found along the top, right-hand side of each panel box.
 **NOTE:** The number of form panels will vary, depending on the type of connection you are creating. Click the plus [+] or minus [-] buttons to expand and collapse these sections.
- 6 Once you are finished setting up your connection, click the **Apply** button along the bottom of the frame. An icon for the new session will be created on the DeTOS Desktop. The end user can double-click this icon to launch the connection.



- 7 As you create connections in the **Control Panel**, icons for those sessions will appear on the desktop. Double-click the icon to launch that session.

How to Rename or Delete Connections

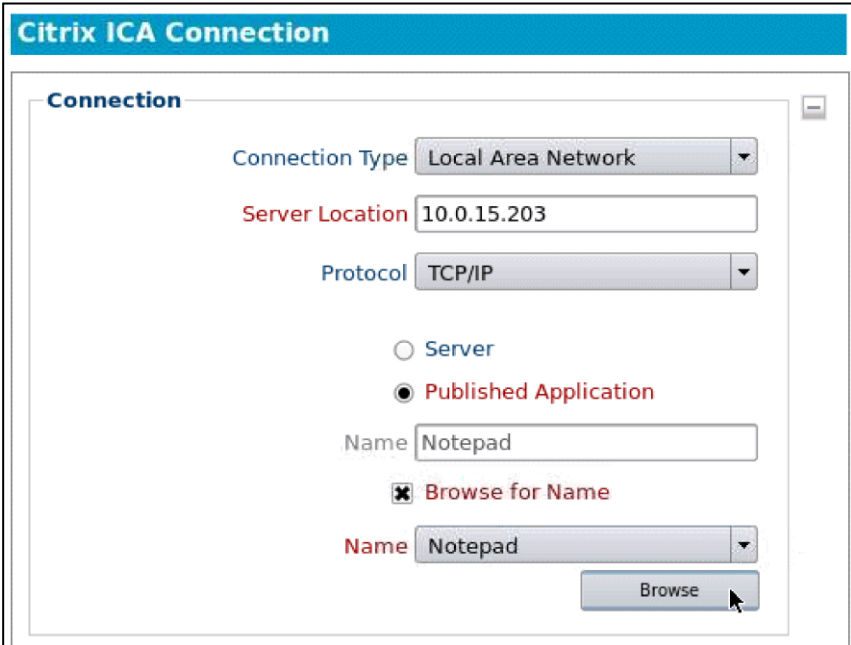
- 1 From the DeTOS Desktop, select **DeTOS** → **Control Panel**.
- 2 In the **Control Panel**, the top center panel lists your currently added connections in the **Connections window**.
- 3 Select the session type to view the list, and then select the specific name of the connection you want to edit.
 - **To Rename**-Double-click the entry. Your pointer will change to a [I] cursor and highlight the connection name, allowing you to type in a new name for this connection. Press <Enter> to save your changes.
 - **To Delete**-Press the minus [-] button to remove that connection. You will be asked to confirm the removal. Click **Apply** to remove that connection completely.

Citrix ICA

The Citrix Receiver client in DeTOS allows you to connect to Citrix XenApp Servers (formerly known as Presentation Server). This Citrix client also contains the necessary plug-in used for connecting to XenDesktop via the thin client's local web browser.

The Connection Section

The first section displayed for a Citrix ICA session is **Connection**. This form panel will already be expanded for you.



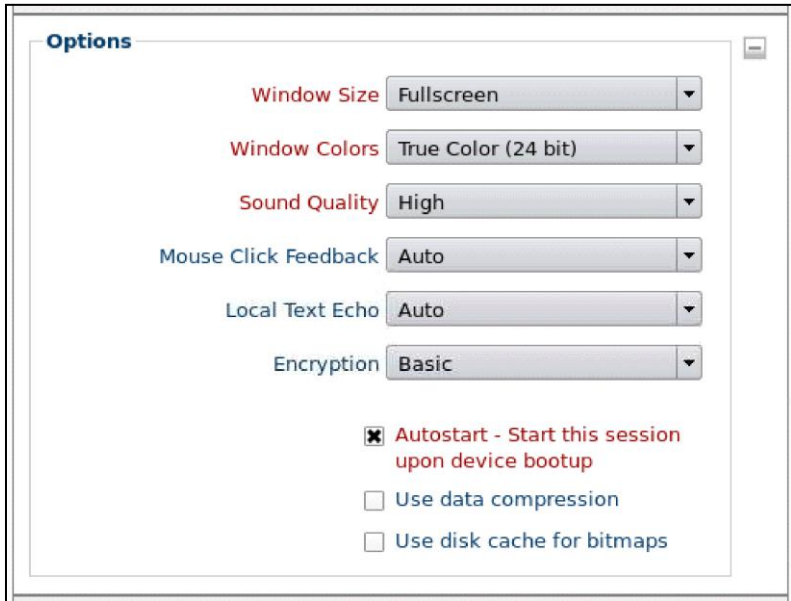
The screenshot shows the 'Citrix ICA Connection' window with the 'Connection' section expanded. The form contains the following fields and options:

- Connection Type:** Local Area Network (dropdown menu)
- Server Location:** 10.0.15.203 (text input)
- Protocol:** TCP/IP (dropdown menu)
- Radio buttons:** Server, Published Application
- Name:** Notepad (text input)
- Checkbox:** Browse for Name
- Name:** Notepad (dropdown menu)
- Button:** Browse

- **Server Location**-Type in the IP address or hostname of your Citrix server.

- **Protocol**-Select the appropriate protocol needed to connect to your Citrix Server. There are two methods for connecting to your Citrix Server:
 - **Server**-To connect to the desktop of your Citrix Server, click the radio button called **Server**.
 - **Published Application**-To connect to a published application on your Citrix Server, select the radio button called **Published Application**.
- **Browse for Name**-Mark the checkbox called **Browse for Name**. Then click the **Browse** button once. This will contact the server and populate the list. Click the down arrow on the Name list and select your server name or published application name.

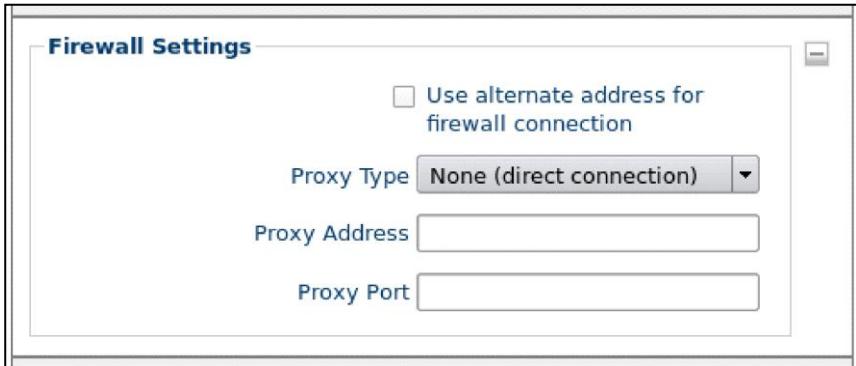
The Options Section



- 1 **Window Size**-Select the type of window you want your ICA session to display in.
 - Full screen-The ICA session will take up the entire display.
 - Fixed Size-You may select fixed sized windows, such as **640x480**, **800x600**, and **1024-x768**.
 - Percentage Based-You may select a size based on the percentage of available desktop display, such as **25%**, **50%**, and **75%**.
 - Seamless-When using the **Published Application** feature, you can select Seamless mode to launch Windows applications like **Notepad** directly on DeTOS, without using the Citrix Window.
- 2 **Windows Colors**-Color depth options are **16 colors**, **256 colors**, **16-bit**, and **24-bit**.
- 3 **Sound Quality**-Adjust the sound from **Low**, **Medium**, or **High Quality**.

- 4 **Citrix SLR (Speed Screen Latency Reduction) Options**-Enabling the following two options are usually only needed when high latency is occurring or poor bandwidth conditions exist.
 - **Mouse Click Feedback**-The mouse cursor will change to an hourglass as soon as a user performs a mouse click on an event and will wait for a response from the server before it changes back.
 - **Local Text Echo**-This option allows a user to see the character they type into their session on the screen, without this key press hitting the actual server at that time.
- 5 **Encryption**-Select the appropriate level of encryption to be used when connecting to this Citrix Server.
- 6 **Autostart**-Enable this checkbox to automatically launch this session each time the thin client completes its boot procedure.
- 7 **Auto Restart**-Select **Yes** or **Prompt** to automatically restart the connection.
 - **Yes**-Once the session is terminated, the session will automatically restart. There is no way for the end-user to stop it from occurring every time it closes.
 - **Prompt**-Once the session is terminated, the user will receive a **YES/NO** prompt asking them if they wish to reconnect to the session.
- 8 **Use data compression**-In an environment where system and client resources are not a concern, data compression can be used to decrease the amount of data that must be sent across the network.
- 9 **Use disk cache for bitmaps**-Allows graphical objects to be stored in the local disk cache on the client device.

The Firewall Settings Section



Firewall Settings

Use alternate address for firewall connection

Proxy Type: None (direct connection)

Proxy Address:

Proxy Port:

- **Use alternative address for firewall connection**-Mark this checkbox if you need the ICA session to connect to the Citrix server's external IP address. The *external* address for the server is specified as the *alternate* address.
- **Proxy Settings**-If your Citrix environment utilizes a proxy server, then choose the appropriate type from the **Proxy Type** field. Enter the address of the proxy server and port number in the **Proxy Address** and **Proxy Port** fields, respectively.

The User Log On Section



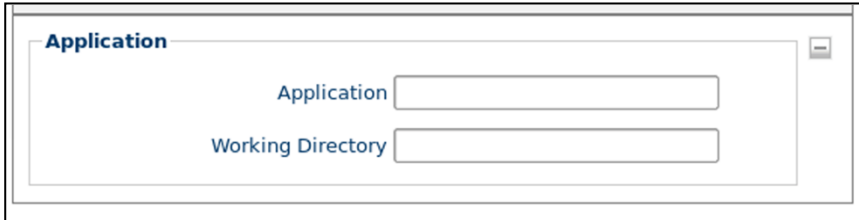
User Logon

User name: mricci

Domain: SUPPORT-WGJ0WAJ

- **User Name**-Specify the name of a user account to log on as. This is an optional field.
- **Domain**-Specify the domain to log on to. This is an optional field.

The Application Section



The screenshot shows a configuration window titled "Application". Inside the window, there are two text input fields. The first is labeled "Application" and the second is labeled "Working Directory". Both fields are currently empty.

- **Application**-Specifies the path of the application on the Citrix server to be automatically launched when the connection is made. This is an optional field.
- **Working Directory**-Specifies the working directory used for the application.

Firefox Web Browser

The following section describes the steps for configuring the local Firefox web browser on DeTOS.

The General Section



The screenshot shows a configuration window titled "General". It contains three settings: a text input field for "Start URL", a checkbox for "Autostart - Start this session upon device bootup" which is currently unchecked, and a dropdown menu for "Auto Restart" which is currently set to "No".

- **Start URL**-Specifies the initial web page to appear when the browser is first launched.

- **Autostart**-Enable this checkbox to automatically launch this session after the thin client completes its boot procedure.
- **Auto Restart**-Select **Yes** or **Prompt** to automatically restart the connection.
 - **Yes**-Once the session is terminated, the session will automatically restart. There is no way for the user to stop it from occurring.
 - **Prompt**- Once the session is terminated, the user will receive a **YES/NO** prompt asking them if they wish to reconnect to the session.

Click the **Apply** button to save the connection. Double-click the Firefox icon on the desktop to launch the browser session. Browser plug-ins for Flash Player and Java have been pre-installed.

The Proxy Settings Section

Proxy Settings

Auto-detect proxy settings for this network
 Use system proxy settings
 Manual proxy configuration:

HTTP Proxy
 HTTP Port
 SOCKS Host
 SOCKS Port

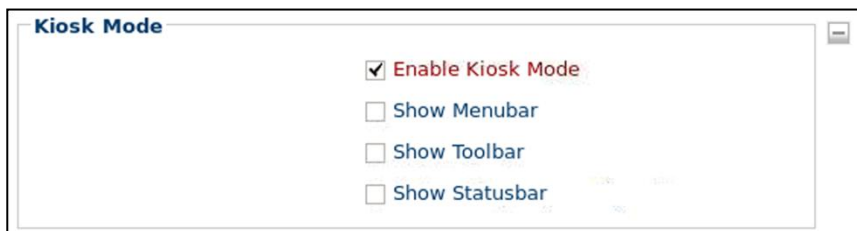
Automatic proxy configuration:
 URL

- **Auto-detect proxy settings for this network**-This option will allow Firefox to automatically detect the proxy settings for your network.

- **Use system proxy settings**-This option allows you to use the proxy settings configured for your system.
- **Manual proxy configuration**-Choose this option if you have more than one proxy server and you would like to specify which server to use. Complete these fields: **HTTP Proxy**, **HTTP Port**, **SOCKS Host**, and **SOCKS Port**.
- **Automatic proxy configuration**-If you have a proxy configuration (**.pac**) file, use this field to specify the URL address to the **.pac** file.

The Kiosk Mode Section

The Firefox web browser in DeTOS 7 includes a Kiosk Mode. When activated you can hide certain things in the web browser, like the **Address** bar, **Menu** bar, **Tool** bar, or **Status** bar.



- **Enable Kiosk Mode**-This checkbox must be enabled to even view the other three options below:
 - **Show Menu Bar**-With this box checked, the **File**, **Edit**, **View**, etc. **Menu** bar will appear.
 - **Show Toolbar**-With this box checked, the user has access to the **Address** bar to change websites, and access to the **Back**, **Forward**, **Stop**, and **Refresh** buttons in the **Toolbar**, usually below the **Menu** bar.
 - **Show Status Bar**-Check this box to un-hide the internet status bar below the webpage. This is the **Status** bar that shows the progress of websites, such as **Waiting for Address**, **Connecting to Address**, and **Done**.



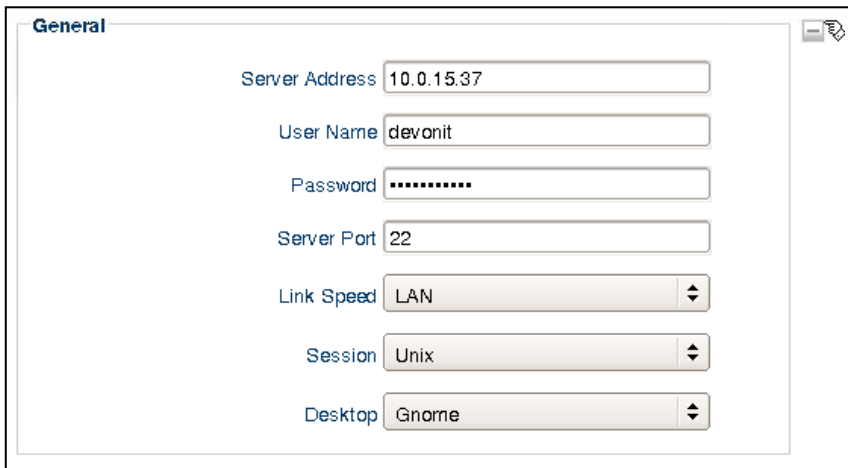
NOTE: To use Kiosk Mode correctly, make sure you have a Starting URL in the requested field. Launching Firefox in Kiosk Mode will automatically launch a Full Screen,

inescapable Firefox session for end-users with Internet-ONLY access. The only way to leave the browser is to shut down the thin client.

No Machines

The following section describes the steps for configuring a No Machine connection on DeTOS.

The General Section



The screenshot shows a window titled "General" with the following fields:

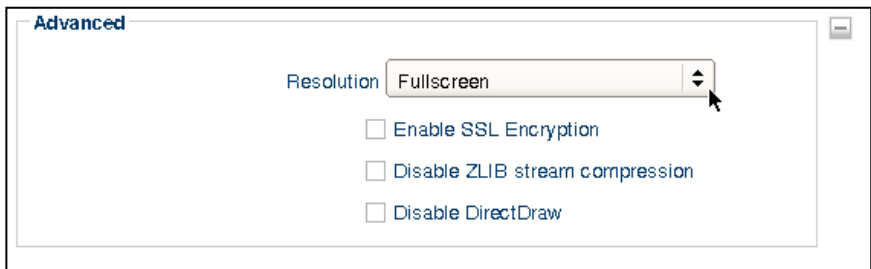
- Server Address:** 10.0.15.37
- User Name:** devonit
- Password:** [Redacted]
- Server Port:** 22
- Link Speed:** LAN
- Session:** Unix
- Desktop:** Gnome

- 1 **Server Address**-Enter the IP Address of your No Machine server.
- 2 **Credentials**-Enter the User Name and Password for your No Machine session.
- 3 **Server Port**-This is the port number needed to connect properly to the No Machine session.
- 4 **Link Speed**-Choose a connection speed (this is optional).
- 5 **Session**-Select the desired session from the following choices:
 - **Unix**- Launch an X11 desktop such as KDE, Gnome, XDM, or CDE. Or you can select **Custom** to launch a specific single application in a window.

- **Shadow**-Attach to and shadow an already running X11 session to see the display or desktop share.
- **Windows**-Run an rDesktop session on a Windows Terminal Server.
- **VNC**-Run a VNC session on a particular VNC server.

Depending on your selected session, another drop box may or may not appear requesting additional information. If launching a Unix session, you will have to confirm which Desktop to connect to. If you are launching a Windows session, you will need to supply an IP address and the Domain name. If you are launching a VNC session, you will need to supply the VNC IP Address and Display Screen. If connecting to a Shadow No Machine connection, you shouldn't have to supply any other information than the fields above.

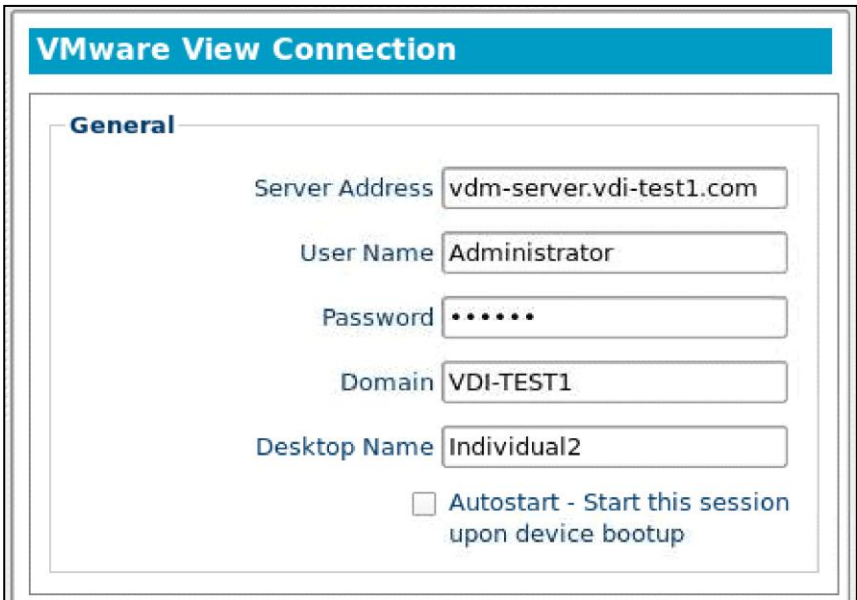
The Advanced Section



- **Resolution**-This dropdown allows you to choose from a **Full Screen** mode or several fixed sizes.
- **Enable SSL Encryption**-By default, this box will be checked. Unchecking this box will disable **SSL Encryption**.
- **Disable ZLIB Stream Connection**-Checking this box disables ZLIB stream compression. This removes the overhead associated with compression VPN network traffic, lowering server processor usage.
- **Disable Direct Draw**-This option is available for the No Machine client for Windows. This disables the use of the DirectDraw engine in favor of the GDI engine. This can resolve later conflicts with other Windows applications that may use DirectDraw. This also results in a much better performance using Windows Vista.

VMware View

The VMware View client allows you to connect to a VMware server, which in turn, provides the end-user with their own virtual desktop session. The following section describes the basic steps for configuring the View Client in DeTOS.



The image shows a screenshot of the VMware View Connection dialog box, specifically the General tab. The dialog has a blue header bar with the text "VMware View Connection". Below the header, the "General" tab is selected. The form contains several input fields and a checkbox:

- Server Address:** vdm-server.vdi-test1.com
- User Name:** Administrator
- Password:** ••••••
- Domain:** VDI-TEST1
- Desktop Name:** Individual2
- Autostart - Start this session upon device bootup**

- 1 **Server Address**-Enter the Hostname or IP address of your VMware View Broker.
- 2 **Credentials**-Specify the User Name and Password of a user account you wish to log on as.
- 3 **Domain**-Specifies the domain to log on to.
- 4 **Desktop Name**-If the user of this thin client should always connect to the same desktop, then you may consider entering its name into this field. If you choose to leave the field empty, then the user will be prompted to

select an available desktop at the time they connect to the VMware View server.

- 5 **Autostart:**-Enable this checkbox to automatically launch this session after the thin client completes its boot procedure.
- 6 **Auto Restart:** Select **Yes** or **Prompt** to automatically restart the connection.
 - **Yes**-Once the session is terminated, the session will automatically restart. There is no way for the user to stop it from occurring.
 - **Prompt**-Once the session is terminated, the user will receive a **YES/NO** prompt asking them if they wish to reconnect to the session.

Troubleshooting Tips for VMView Connection

- If you set your session to full screen but the display covers only a fraction of the entire screen, then your allocated RAM for the virtual desktop may need to be set a little higher.
- If certain features like foreign keymaps, CD-ROM, USB stick, or printer redirection are not passing through to the virtual desktop session, check if your VM is at the correct version. You can download the latest agent software executables at VMware's website at:
<http://www.vmware.com/downloads>.
- If you plan to use USB flash drives within your session, it is best to use sticks formatted in FAT or NTFS. Long delays sometimes occur when using flash drives formatted in FAT32. Other USB troubleshooting tips can be found at the following VMware site:
<http://kb.vmware.com/kb/1026991>.

X11 Connection

The X11 client allows you to connect to an X11 server, which provides the user with their own virtual desktop session. The following section describes the basic steps for configuring the X11 connection in DeTOS.

General

Session Type	X11 SSH App
Server Address	10.0.15.37
User Name	devonit
Password	*****
Application	/usr/bin/xterm
Resolution	1024x768
<input type="checkbox"/> Autostart - Start this session upon device bootup	
Auto Restart	No

- 1 **Session Type**-Choose from the single **SSH App** type or the **XDMCP** connection.
- 2 **Server Address**-Specify which IP address is the X11 server.
- 3 **Credentials**-Specify the User Name and Password of a user account you wish to log on as.
- 4 **Application**-This is the file path of the application if you are planning on launching a single application within DeTOS, using the X11 connection. This is only available when choosing the **SSH App** session type.
- 5 **Resolution**-Choose the resolution for your connection, ranging from full screen to various fixed resolutions.

- 6 **Autostart**-Enable this checkbox to automatically launch this session after the thin client completes its boot procedure.
- 7 **Auto Restart**-Select **Yes** or **Prompt** to automatically restart the connection.
 - **Yes**-Once the session is terminated, the session will automatically restart. There is no way for the user to stop it from occurring.
 - **Prompt**-Once the session is terminated, the user will receive a **YES/NO** prompt asking them if they wish to reconnect to the session.



NOTE: Not all of these fields will be available to you if you chose **XDMCP** as the **Session Type**. You will not be required to supply credentials and there will be no application line. By default, **SSH App** is the **Session Type**.

rDesktop

The General Section

The first section displayed for an rDesktop session, is named General. This form panel will already be expanded for you.

The screenshot shows a window titled "rDesktop Connection" with a blue header. Below the header is a section titled "General" with a scrollable area containing three input fields: "Server Name" with the value "10.0.15.203", "Username" with the value "mricci", and "Domain" with the value "SUPPORT-WGJ0WAJ". A small icon is visible in the top right corner of the scrollable area.

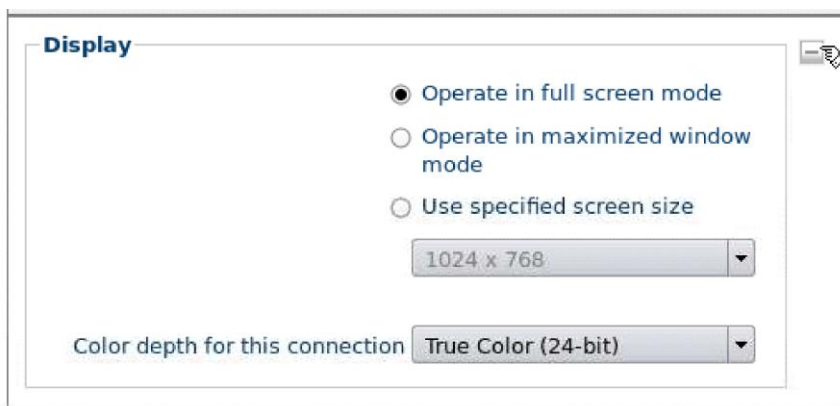
- 1 **Version**- Select whether you want to use RDP 5 or RDP 7.1.



NOTE: RDP.7.1 incorporates Microsoft's RemoteFX technology to provide better visual experiences for the user.

- 2 **Server Name**-Enter the hostname or IP address of the Windows Terminal Server.
- 3 **User Name**-Specifies the name of a user account to log in as. This is optional.
- 4 **Domain**-Specifies the domain to log on to.

The Display Section



The screenshot shows a window titled "Display" with the following options and settings:

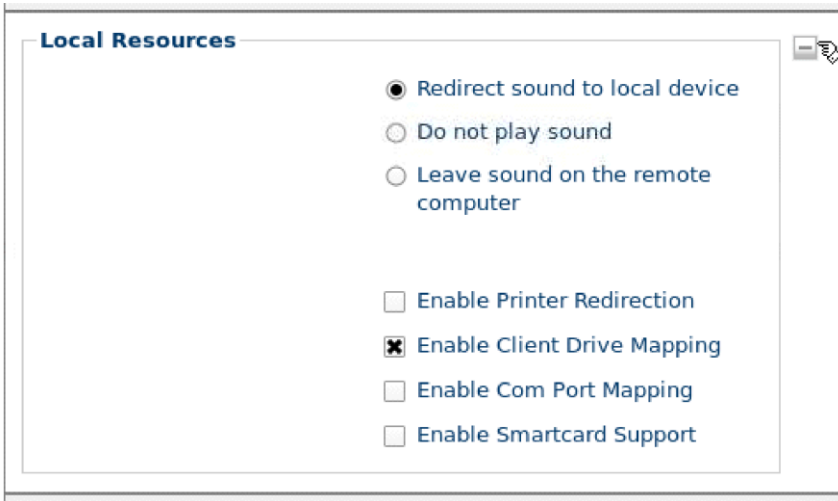
- Operate in full screen mode
- Operate in maximized window mode
- Use specified screen size

Below the radio buttons is a dropdown menu showing "1024 x 768".

At the bottom, there is a label "Color depth for this connection" followed by a dropdown menu showing "True Color (24-bit)".

- **Operate in full screen mode**-The RDP session will take up your entire display and will not allow minimization.
- **Operate in maximized window mode**-This option will display the RDP session in a window within DeTOS. You will be able to maximize and minimize this window if you want.
- **Use specified screen size**-The RDP session will launch in a fixed sized window, specified by the dimensions chosen in the dropdown list below. You can ONLY minimize this window, the fixed size is the MAX size allowed.
- **Color depth for this connection**-Select the desired color depth for this RDP session.

The Local Resources Section



Local Resources

- Redirect sound to local device
- Do not play sound
- Leave sound on the remote computer
- Enable Printer Redirection
- Enable Client Drive Mapping
- Enable Com Port Mapping
- Enable Smartcard Support

- **Sound Redirection Options**-By default, sound from the server will redirect to the local thin client. If you do not want sound to be sent to the local device, then select either the **Do not play sound** or **Leave sound on the remote thin client** radio buttons below **Redirect sound to local device** (selected by default).
- **Enable Printer Redirection**-Mark this checkbox to redirect printing to a printer attached the local terminal.
- **Enable Client Drive Mapping**-Allows the user plug USB Flash Drives locally into the terminal and access the contents of the drive via the RDP session.
- **Enable Com Port Mapping**-Redirects serial devices on your terminal to the server.
- **Enable Smartcard Support**-Specifies whether redirection of Smart Cards is permitted during server authentication.



NOTE: To correctly set up Printing, make sure you have also entered fields in the **Printer Name and Driver Name** fields in the **Control Panel**. This can be found in the **Printer** section, under **System Settings**.

The Start a Program Section



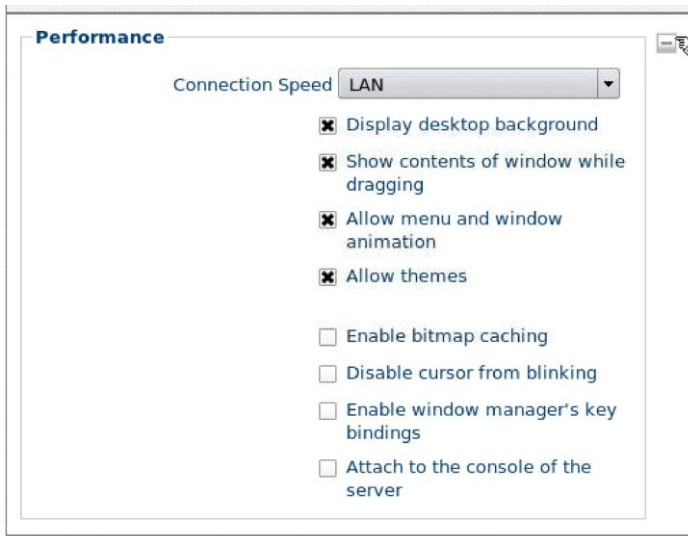
Start a Program

Program path and filename

Working Directory

- **Program path and filename**-Specifies the path of the application on the Terminal server to be automatically launched when the connection is made. This will launch the application in a window within DeTOS, not rDesktop.
- **Working Directory**-Specifies the working directory used for the application.

The Performance Section



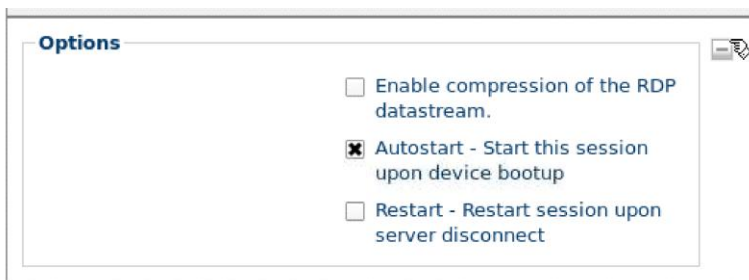
Performance

Connection Speed

- Display desktop background
- Show contents of window while dragging
- Allow menu and window animation
- Allow themes
- Enable bitmap caching
- Disable cursor from blinking
- Enable window manager's key bindings
- Attach to the console of the server

- **Connection Speed**-Specifies the RDP Experience. As you change connection options in this dropdown box, associated behaviors in the checkboxes below will be selected or deselected accordingly.
- **Enable bitmap caching**-Enable caching of bitmaps to disk (persistent bitmap caching).
- **Disable cursor from blinking**-Indicates that *cursor blinking* should be disabled during the RDP session.
- **Enable window manager's key bindings**-By default rDesktop attempts to grab all keyboard input when it is in focus.
- **Attach to the console of the server**-The session will connect to the console of the server (requires Windows Server 2003 or newer).

The Options Section



- **Enable compression of the RDP DataStream**-In an environment where system and client resources are not capable, data compression can be used to decrease the amount of data that must be sent across the network.
- **Autostart**-Enable this checkbox to automatically launch this session after the thin client completes its boot procedure.
- **Auto Restart**-Select **Yes** or **Prompt** to automatically restart the connection.
 - **Yes**-Once the session is terminated, the session will automatically restart. There is no way for the user to stop it from occurring.
 - **Prompt**-Once the session is terminated, the user will receive a **YES/NO** prompt asking them if they wish to reconnect to the session.

Kaviza

Your thin client running DeTOS comes pre-configured with Java Web Start and Citrix that enables users to create connections to Kaviza servers. Since the client does not reside natively on the thin client, you will need a web address that points to your **kavizaclient.jnlp** file.

The General Section

You will need the location of the JNLP (Java Network Launching Protocol) which resides on your remote Kaviza server.

- **JNLP Location**-Type in the appropriate location of the **kavizaclient.jnlp** file. The typical format will look something like the following:
http://10.0.15.79/dt/kavizaclient.jnlp .



The image shows a screenshot of a software configuration window titled "Kaviza Connection". The window has a blue header bar with the title. Below the header is a tabbed interface with the "General" tab selected. Inside the "General" tab, there is a text field labeled "JNLP Location" containing the URL "http://10.0.15.79/dt/kavizaclient.jnlp". Below this field is a checkbox labeled "Autostart - Start this session upon device bootup", which is currently unchecked. At the bottom left of the window is an "Apply" button.

- **Autostart**-Enable this checkbox to automatically launch this session each time the thin client completes its boot procedure.

Getting Help

Contacting Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

- 1 Visit **support.dell.com**.



NOTE: If you do not have an active internet connection, you can find contact information on your purchase invoice, packing slip, or Dell product catalog.

- 2 Click your country/region at the bottom of the page. For a full listing of country/region click **All**.
- 3 Click **All Support** from **Support** menu.
- 4 Select the appropriate service or support link based on your need.
- 5 Choose the method of contacting Dell that is convenient for you.