NOS V16.5.36 User Guide

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**About This Guide** 



Thank you for choosing from the 10ZiG Technology series of Zero Clients, which are designed for an array of different users in many different office environments. They feature a powerful, yet simple and affordable solution to virtual desktop computing in a fashionable and sleek design.

In this User Guide, you will find everything you need to quickly begin using your new device. Please be sure to verify with your network administrator that your network is prepared for the configuration of your new device.

#### **Declaration of Conformity**

It is hereby declared that this device is in conformity with the essential requirements, and other relevant provisions of the CE and the FCC.







#### **CE Mark Warning**

This is a class B device, in a domestic or office environment. This product may cause radio interference, in which case the user may be required to take adequate measures.

#### Waste Electrical and Electronic Equipment (WEEE) Warning

To potentially avoid adverse effects on the environment, and human health, as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do NOT dispose of WEEE as unsorted municipal waste as municipalities must collect WEEE separately.



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# **Getting Started**

## **Packing List**

### The following components are included in the package:

- Zero Client Device
- Stand
- 12v DC Power Adapter with Cord

### Optional equipment that may be included:

- USB Wheel Mouse
- USB to PS2 Adapter
- SVGA to DVI Adapter
- Monitor Mount Kit (may include optional video cable)
- SVGA and DVI splitter cable
- Wireless Network Adapter and Antenna
- Quick Installation Guide & Management Software CD

Check this list before installation to ensure that you have received each item ordered. If you are missing any items, please contact technical support.

# **Initial Hardware Setup**

### To setup the device for initial use:

- Attach the Stand (if desired)
- Connect a Keyboard, Monitor and Mouse
- Connect to a Network and a Power Source



# **Support**

If you require support for your Linux-based Zero Client, please contact your region's nearest Technical Support Center. While 10ZiG Technology does provide technical support for its Linux-based Zero Clients, it does not provide support for the Linux operating system or application components that are obtained from the open source community and that may be included as part of the software image installed.

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For more information, FAQs, and helpful hints, please browse to

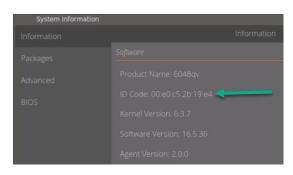
https://www.10zig.com/resources/support faq



#### **ID Code**

Each Thin client has a unique **ID CODE**: which is the **MAC address** of the unit. The sticker with this information may be found either on the side, bottom, near the video output port or on a slide out tab on the back of the unit, depending on which model you have. Please have this number available when contacting 10ZiG Technology's Technical Support for assistance. You can also find this number against the Thin Client in the 10ZiG Manager Web Console or inside the Control Panel and System Information of the Thin Client OS, as shown by the arrows in the pictures below.

#### **Control Panel – System Information**



**The Device's Information Sticker** 





# Introduction

This guide provides the user with instructions for the hardware configuration of the Linux-based Zero Client and explains the various utilities used to accomplish these tasks. Typically, a Zero Client is configured locally and then used as a template to configure other units. These saved configuration templates can then be pushed out to additional Zero Clients using the optional "10ZiG Manager", which can be found at <a href="http://www.10zig.com/manager">http://www.10zig.com/manager</a>.

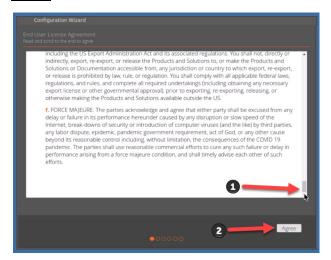


# **Initial Setup**

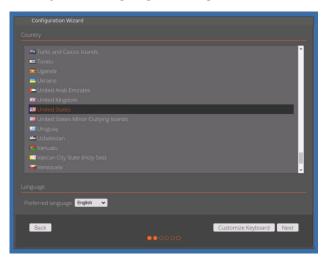
Upon Initial boot up you will be taken to the first of several "Configuration Wizard" screens, where you'll be prompted to accept the "End User License Agreement" (EULA), select your country, keyboard settings, time zone, and set the time and date.

To accept the EULA, read and scroll down to the bottom of the agreement 1 and click "Agree" 2

#### **EULA**



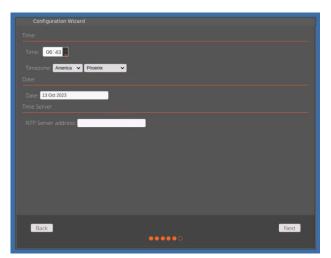
## **Country and Language settings**



#### **Keyboard settings**



## **Time and Date settings**

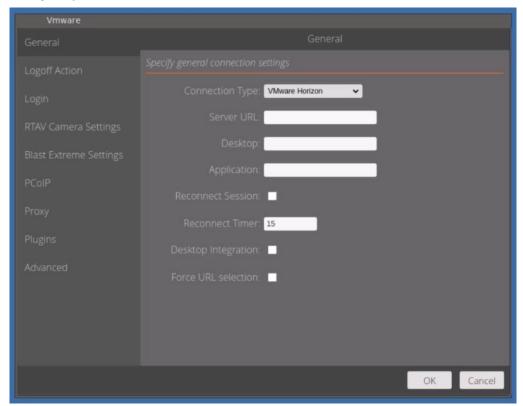




## **NOS for VMware NOS-V**

#### General

After the initial setup you will be taken to the "VMware Horizon Settings" screen, where you can begin to configure your Horizon connections.



- Connection type: The type of connection you wish to set up, either a "VMware Horizon" or "VMware Workspace One", that can be selected in the drop-down list. Contact your system administrators for information on which is applicable to you.
- **Server URL**: Network address for your VMware server environment.
- Desktop: The name of the published VMware desktop you would like to connect to by default.
- **Application**: The name of the published VMware applications you would like to connect to by default.
- Reconnect Session: Enable for automatic reconnection when session is disconnected.
- Reconnect Timer: The interval you would like the session attempt to reconnect (in seconds).

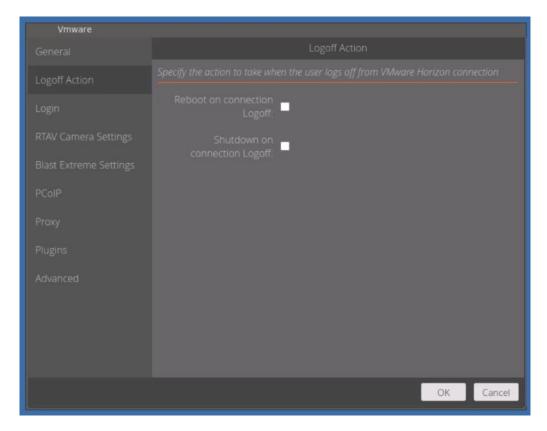


- **Desktop Integration**: Enabling this, separates VMware's message prompts that usually display as a banner within the Horizon client, to a local dialog box instead. This can useful when users are prone to entering wrong credentials the horizon client will reprompt for an incorrect password, but usually grays out the username. With this enabled, instead you get a local dialog box that status unknown username or password and brings you back to the NOS launchpad.
- **Force URL selection**: When multiple server addresses are defined in the Server URL field (comma separated), the default behavior is to use the first URL listed. To force users to select which server to connect to, enable this option.



# **Logoff Action**

Allows you to control the behavior of the NOS-V Zero Client, following disconnect and logoff from VMware remote session.



- Reboot on connection Logoff: This will shut down and reboot the Zero Client, following logoff.
- **Shutdown on connection logoff**: This will physically power off the Zero Client, following logoff.



## Login

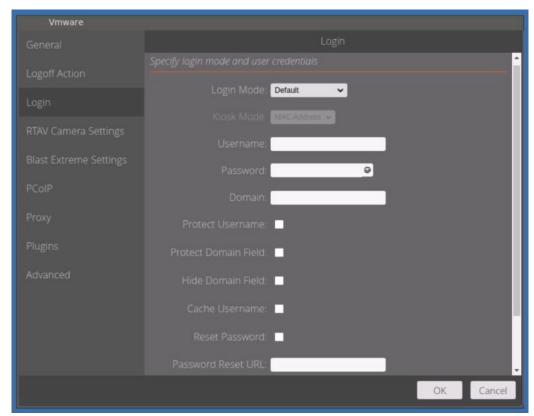
In this section of VMware Horizon Settings, you have the ability to fully customize the way that you want your users to login to their specific VMware environment that we configured earlier.

 Login Mode: There are several ways that you can configure the NOS-V Zero Client, when it comes to logging in to your VMware sessions. These are:-

Default, 2-Factor, Anonymous, Kiosk, SCLogin(Smart Card) and SAML(Security Assertion Markup Language).

Choosing SCLogin, will present your users with a login screen that asks for a smart card as shown below.







- **Protect Username**: If you have selected "Login Mode" to be "SCLogin" for smart card use, the username will be greyed out at the connect screen.
- **Protect Domain Field**: Ticking this option will disable editing of the DOMAIN field on the main login screen.
- Hide Domain Field: Ticking this option will hide the DOMAIN field on the main login screen.
- Cache Username: Enabling this, will ensure that the last logged on user is remembered for next login.
- Reset Password and Password Reset URL: If you tick this box and type in the
  address of a password reset URL in the box below it, this will be made available as a
  "keylock" clickable link on the login box, as pointed to by the red arrow in the image
  below.



Most URLs will work here, as it launches a browser and can fulfill other use cases.

• Parse Token Username: Where 2-Factor mode is selected under VMware settings and 'Parse Token Username' option is enabled, the following should be transmitted at point of login.

Vmware-view --serverURL='horizonservername' -q --userName='username' --passcode='password'

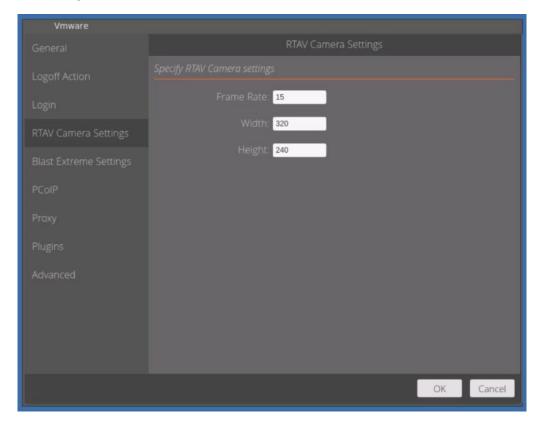
Note: The following commands are used in place of a 'Default' login. The usage in this scenario of --userName vs --tokenUserName causes the VMware client to cache the username field, so that the user is only required to enter their username once during login. Where as in scenario #1, the user is required to enter the username twice.

- --passcode replaces --password as used in 'Default' login scenario.
- **Clear browser cache**: This prevents caching of details in password reset browser window.



## RTAV(Real Time Audio and Video) Camera Settings

In this section of Vmware Horizon Settings, you have the ability to customize and set thresholds for the Video being passed from the 10ZiG Zero client to the remote Vmware VDI desktop.

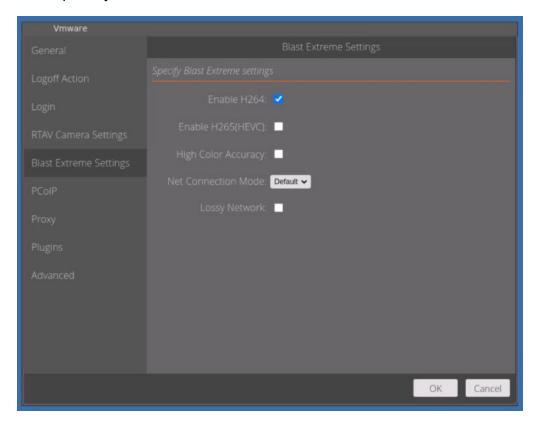


- Frame Rate: The number of frames per second that RTAV will transmit to the virtual desktop. The example above shows the client transmitting video at a rate of 15 frames per second (FPS). RTAV is a VMware virtual channel for transmitting Audio/Video. This allows you to control the Frame rate for the video feed. VMware only supports a maximum of 25 FPS, and it is limited to what the webcam can actually offer, as well as the endpoint and what the resolution of the webcam is set to.
- **Width and Height**: Changing these settings will determine the quality of the video being transmitted to the virtual VMware desktop.



## **Blast Extreme Settings**

In this section you have the ability to customize options for the Blast Extreme display protocol. This enables you to tweak the protocol to take best advantage of your user's operating environment, especially where network conditions are less than favorable.



- Enable H264: This is set by default and should ideally be left as enabled, as it's an
  industry standard in video compression, and delivers a quality video compression that's
  more than adequate for most use cases.
- Enable H265(HEVC): If your infrastructure has limitations regarding bandwidth but requires a more improved, lossless video stream, then consider switching this on, as it has higher compression rates without visible deterioration of video quality.

<u>Note:</u> that this option requires the appropriate NVIDIA hardware on the server side and equivalent client side (6048qv/6148v). Consult NVIDIA documentation for further information.



• **High Color Accuracy**: If your users require certain text and images to be delivered with greater clarity, then they can switch HCA on.

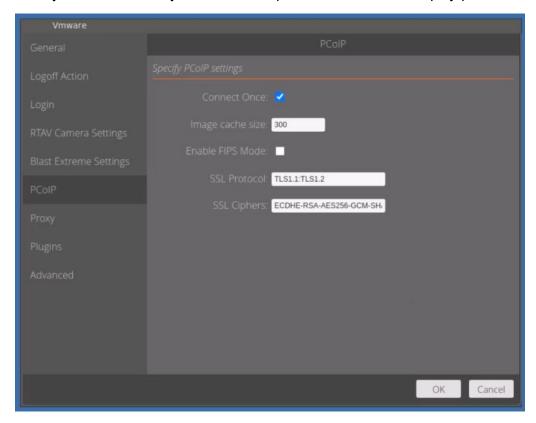
<u>Note:</u> This option is decoded via CPU and hardware decoding is not supported. This is generally not recommended on lower powered hardware. The 6048qv or more powerful hardware is required as a minimum.

- **Net Connection Mode**: Unless you require a specific mode for a particular use case, leave this as default, as Blast Extreme will then determine the best mode for efficient and accurate delivery of data.
- Lossy Network: Enable this feature when packet loss on the network is 20% or greater.



#### **PCoIP**

In this section you have the ability to customize options for the PCoIP display protocol.

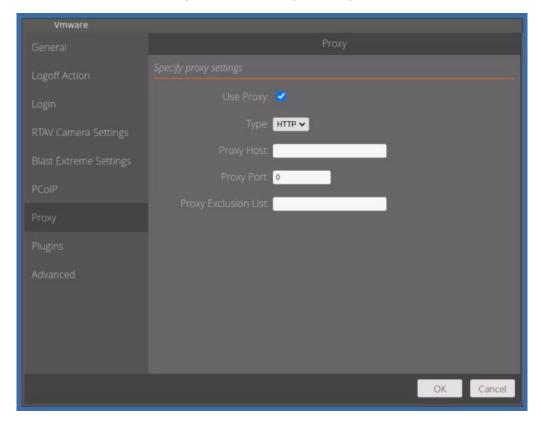


- **Connect Once**: On session logoff or password error/expiry, the VMware Client is closed automatically where this option is enabled.
- Image cache size: PCoIP client-side image caching stores image content on the
  client to avoid retransmission. This feature is enabled by default to reduce bandwidth
  usage. Physical system memory should be taken into consideration when changing
  this setting.
- **Enable FIPS Mode**: You can enable FIPS (Federal Information Processing Standard) Compatible mode so that the client uses FIPS-compliant cryptographic algorithms when communicating with remote desktops.
- SSL Protocol: Use this to set the SSL protocols to be used by the PCoIP connection. The defaults are TLS1.1 and TLS1.2
- **SSL Ciphers**: Use this to modify the list of SSL ciphers that you want to include in your secure SSL connection strings for authentication.



### **Proxy**

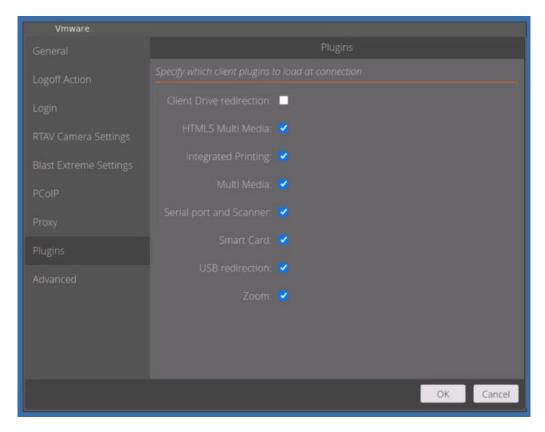
If your network is set to use a Proxy, here is where you will type in the connection information.



- Use Proxy: Enables Proxy connection.
- Type: Defaults to HTTP
- **Proxy Host:** Type in the proxy host IP or hostname.
- **Proxy Port:** Assign port number.
- **Proxy Exclusion List:** If you have multiple sites or addresses that you wish to bypass the proxy, then type them in here and use a comma to separate the list of exclusions.



# **Plugins**



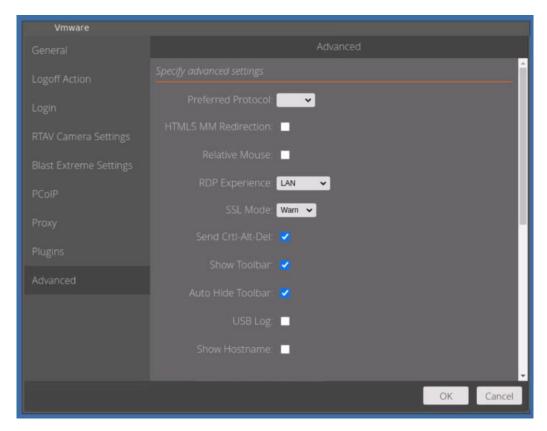
 Plugins (various): This tab gives administrators the ability to enable (default) or disable the various plugins or virtual channels the VMware horizon client can utilize.

Although, many of these can be enabled/disabled on the agent side, it can be useful to disable it on the client side, if users are connecting to multiple environments that don't' have the same policies applied or weren't configured the same.



#### **Advanced**

The Advanced section of the "VMware Horizon Settings" allows additional customization to be carried out.



 Preferred Protocol: You can specify the communication protocol you use to connect to your VDI. Setting the protocol on the client should take precedence over the default protocol set for the desktop pool because the pool setting in horizon administrator console must allow the user to select which protocol they wish to use.

Easily confirm the protocol selected, by launching VMware Horizon Performance Tracker on the desktop you connected to, and the protocol should show either PCoIP, Blast or RDP.





• **HTML5 MM Redirection**: With HTML5 Multimedia Redirection, if an end user uses the Google Chrome or Microsoft Edge browser in a remote desktop, HTML5 multimedia content is sent to the client system, which reduces the load on the ESXi host. The client plays the multimedia content, and the user has a better audio and video experience.

Consult VMware Horizon documentation for further guidance on enabling this functionality Agent side.

• **Relative Mouse**: If you use the Blast display protocol or the PCoIP display protocol when using 3D applications in a remote desktop, mouse performance improves when you enable the relative mouse feature.

In most circumstances, if you are using applications that do not require 3D rendering, the Horizon Client transmits information about mouse pointer movements by using absolute coordinates. Using absolute coordinates, the client renders the mouse movements locally, which improves performance, especially if you are outside the corporate network.

For work that requires using graphics-intensive applications, such as AutoCAD, or for playing 3D video games, you can improve mouse performance by enabling the relative mouse feature, which uses relative, rather than absolute, coordinates.

- **RDP experience**: This sets the session quality relative to the network performance when using RDP as the protocol.
- SSL Mode: Used for verifying/bypassing the connection server certificate.
   Accept This will ignore server certificate validation (This is least secure and not recommended)

Warn – When connecting to a server with a self-signed certificate will prompt to connect, view certificate, or cancel.

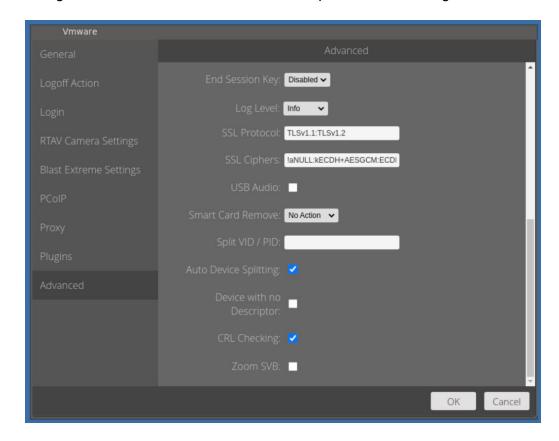
If connecting to a server with a certificate signed by a CA, it will proceed if the signing CA certificates are installed on the client system, or it will present an SSL error stating the connection is untrusted and the user will be unable to connect. (default)

Reject – signing CA certificates must be installed on the endpoint device or an SSL error will be present, and the user will be unable to connect. (This is the most secure option)

- Send Ctrl-Alt-Del: If enabled, when the user presses CTRL ALT DEL on the Zero Client, it will send the key combination to the Windows virtual desktop and present the windows security screen. When disabled, it will present the user with the options to: Send CTRL ALT DEL, Disconnect, or Cancel. This option is enabled by default.
- Show Toolbar: This allows you to show the VMware menu bar dropdown when in the session. The VMware tool bar will be accessible in session, pinned at the top of the screen.



- **Auto Hide Toolbar**: Auto Hide the toolbar when enabled. The VMware toolbar will automatically be unpinned (hidden) while in session.
- USB log: Enable USB Tracing
- Show Hostname: Enabling this option will display the host name of the client inside the VMware Authentication login screen. It is useful for end users who can provide 10ZiG Manager administrators with the hostname required for shadowing their session.



- End Session Key: Allows you to configure a hotkey to disconnect the session. Set this option to CTRL-F12 to give users the ability to quickly disconnect their VDI session. This will also close the VMware broker, regardless of whether the "Connect Once" option is enabled or not.
- **Log level**: Configure the logging level for the VMware Horizon Client. Options are All, Trace, Debug, Info, Warning, Error and Fatal.
- SSL Protocol: Supported versions of SSL protocol that are used.
- **SSL Ciphers**: Supported Cyphers used by the Horizon Client connection



- **USB Audio**: Enabling this option disables RTAV and allows the redirection of USB audio devices via USB Redirection. This option should only be enabled by system administrators and is generally advised by 10ZiG not to enable it.
- Smart Card remove: Can be configured to "No Action" or "Disconnect" depending on the desired behaviour. Used with smart card login (see Smart Card Service applet > Advanced > Enable Smart Card Login). However, the setting on the Horizon Connection Server takes precedence.
- Split VID / PID: Allows for the splitting of USB Composite devices which have multiple interfaces on the same VID/PID. In general, USB redirection is not needed for standard functionality such as audio, video, HID input, etc. However, in some special circumstances, a device may need to be redirected into a VDI session for full functionality, or if it requires a specific driver to function. Further information can be found under VMware Horizon documentation under the section 'Configuring Device Splitting Policy Settings for Composite USB Devices' <a href="https://docs.vmware.com/en/VMware-Horizon/2212/horizon-remote-desktop-features/GUID-16FA160C-475A-42A8-A4A1-33096BC41FC9.html">https://docs.vmware.com/en/VMware-Horizon/2212/horizon-remote-desktop-features/GUID-16FA160C-475A-42A8-A4A1-33096BC41FC9.html</a>
- Auto Device Splitting: If enabled, this attempts to perform as above in "Split VID/PID", automatically without user input.
- **Device with no Descriptor**: This allows the device to be redirected even if the Horizon Client fails to get the device descriptors.
- CRL checking: This allows the device to check for a CRL or Certificate Revocation List from a Certificate Authority(CA), to prove that any existing certificates are still valid or have been revoked before they are due to expire. It's a recommendation to disable this option where CRL checking is not possible. For example, behind a private or air gapped network without access to public CRL's.
- Zoom SVB: Enable the override to allow for the use of Smart Virtual Backgrounds with Zoom Optimization inside the virtual desktop. Only recommended for performance devices due to the resources this requires.



# Saving your settings

Once you're comfortable with all the settings for your 10ZiG NOS-V Zero Client, just click the "OK" button and you'll be taken back to the Horizon login screen.





# **Editing your connection settings**

If you need to go back into your settings for your client connection at any time, then just click the "Gear" icon in the bottom left of the login screen, indicated here with the "red arrow" below.



Once inside the "Control Panel", just click the "VMware Global Settings" icon and you'll be taken back into the "Settings" console again.





## **VMware Horizon Connection Examples**

Here are a few examples of what your connection box might look like, along with the settings required to enable them.

#### **Keyed-in credentials**

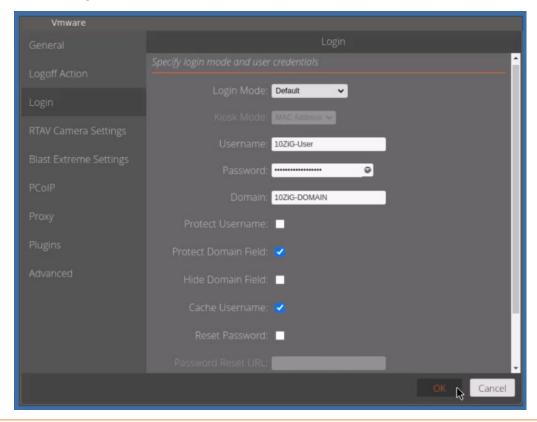
Here, we just key in the credentials and click "Connect".



## Caching credentials and protecting the domain

Go into the "VMware Global Settings" inside the "Control Panel", select login on the left menu and then key in the Username, Password and Domain.

Once you've done that, tick "Protect Domain Field", "Cache Username", click "OK" and then close the "Control Panel".





The login box should look something like below :-



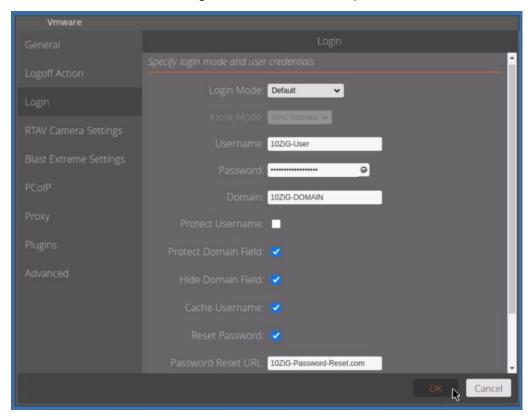
Notice that the Domain field is now presented as a drop down selection and cannot be typed into.

### **Enabling Password reset link and hiding the domain**

Go into the "VMware Global Settings" inside the "Control Panel", select login on the left menu and then click "Hide Domain Field".

Once you've done that, tick the box named "Reset Password" and then type in the URL of your company's reset password page as shown.

Click "OK" to save then changes and exit the control panel.





Notice that the login box now has a new keylock icon on there. Pointed to by the "Red Arrow" below.

Clicking this will open the site that you completed above in the "Password Reset URL".

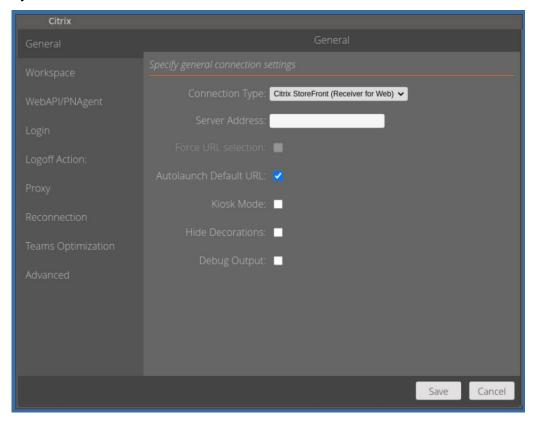




#### **NOS for Citrix NOS-C**

#### General

After the initial setup you will be taken to the "Citrix Settings" screen, where you can begin to configure your Citrix connections.



• **Connection type:** You have several ways in which to connect to your Citrix environment, these are listed in the dropdown. Options available are :-

Citrix Workspace, Citrix Storefront Receiver for web(default) and Citrix Storefront WebAPI/PNAgent.

Contact your system administrators for information on which is applicable to you.

- **Server Address:** Type in the IP or FQDN(Full Qualified Domain Name) server address of the Citrix server.
- **Force URL Selection**: When multiple server addresses are defined in the Server URL field (comma separated), the default behavior is to use the first URL listed. To force users to select which server to connect to, enable this option.

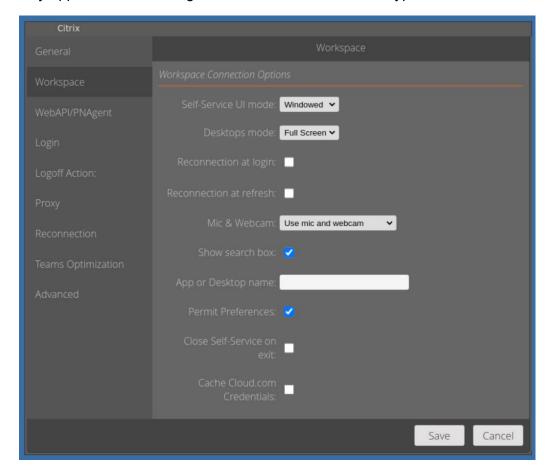


- Autolaunch Default URL: Default URL can be specified in the Server Address Box.
  Disabling this will present the user with the choice of URL to select. You can have
  multiple URL's for different Citrix environments separated by a comma in the server
  address field.
- **Kiosk Mode**: Enabling this option hides the local Zero Client desktop launchpad. This option should only be used with "Receiver for Web". Verify the launchpad is hidden when enabled. Note: Administrators can bring the launchpad back by pressing CTRL+ALT+M
- **Hide Decorations**: Enabling this feature hides the quit option from the Web Browser, when using "Receiver for Web" connection type. Verify the top bar and quit button are not shown when using the "Receiver for Web" connection.
- **Debug Output**: Enabling this option displays a live debug Window in the Citrix session top right hand corner and provides live metrics from the session. Not available with "Citrix Workspace(Self-Service)" connection type.



## Workspace

This section enables you to customize the session setup for your Citrix Workspace connections and are only applicable when using the "Self-Service" connection type defined under "General".



- **Self-Service UI mode**: The two options when connecting in "Self-Service" mode are Windowed(default) or Full screen.
- **Desktops mode**: This option lets you determine if the Citrix desktops will be opened in a window or full screen.
- **Reconnection at login**: This will reconnect to your previous existing session when logging back in to Citrix.
- **Reconnection at refresh**: When refreshing the desktops, re-launch the disconnected Citrix session.
- Mic and Webcam: This option allows you to pass through the Mic and Webcam to the Citrix desktops once connected.

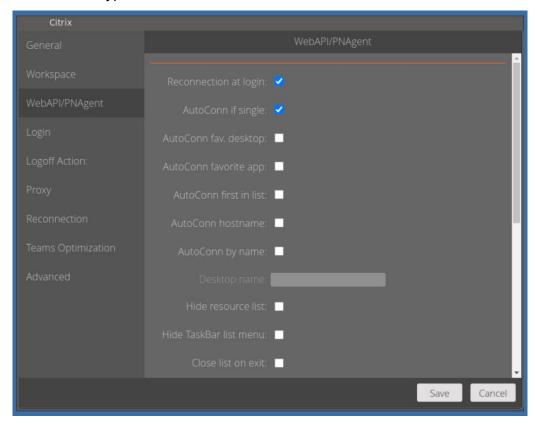


- **Show search box**: Enabling this feature will display a search box when logged in to Citrix to search for desktops/applications available to the user.
- **App or Desktop name**: This is the name of the default app or desktop that you wish to launch when the Citrix session starts.
- **Permit Preferences**: Permit Citrix Workspace App preferences. When enabled and logged into the Citrix Workspace App go to cog icon (workspace app settings) and select Preferences the preferences window should open.
- Close Self-Service on exit: This will close the list of available Desktops/Applications when the user disconnects/logs off the session.
- Cache Cloud.com Credentials: Enable this option to cache the last logged on user's
  credentials when connecting to a Citrix cloud environment. Cached credentials will
  persist following a reboot and won't require the user to reauthenticate, based on the
  timeout policy set in the Citrix cloud admin console. This option is disabled by default,
  credentials are not cached, and users need to authenticate each time they launch the
  Citrix Workspace App (Self Service Connection).



## WebAPI/PNAgent

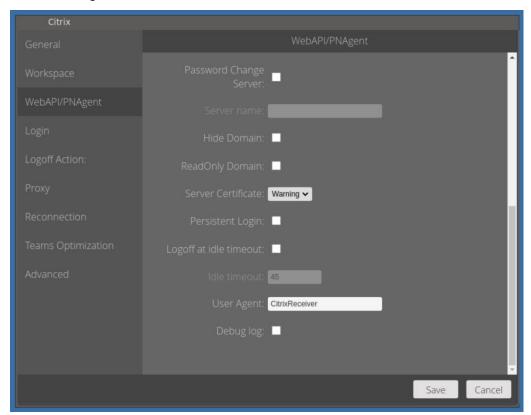
This section enables you to customize the session setup for your Citrix Storefront(WebAPI/PNAgent) connections and is only applicable to this particular Citrix Storefront connection type as defined in "General".



- **Reconnect at login**: Switching this option, will enable automatic session reconnection after StoreFront/PNAgent authentication.
- AutoConn if single: Switching this option, will enable automatic connection if just one
  desktop is assigned to the logging in user.
- AutoConn fav. desktop: Switching this option on, will enable automatic connection to the first favorite desktop assigned to the logging in user. (StoreFront WebAPI only)
- **AutoConn favorite. app**: Switching this option on, will enable automatic connection to the first favorite application assigned to the logging in user. (StoreFront WebAPI only)
- AutoConn first in list: Switching this option on, will enable automatic connection to the first desktop in the list of assigned desktops to the logging in user.
- AutoConn hostname: This will enable automatic connection to the desktop with a
  description that matches the Zero Client hostname.



- **AutoConn by name**: This will enable automatic connection to the first desktop with a description that matches the specific string in the "Desktop name" field below it.
- **Desktop name**: This is the name of the desktop that will be matched against when ticking the "AutoConn by name" field above it. Wildcards allowed in this field are \* and ?.
- Hide resource list: This will hide the desktop and app resource icon container after authentication has taken place. To be used with one of the AutoConn options above (otherwise you log in and nothing happens)
- Hide Taskbar list menu: To be used with SideBar/TaskBar. After logging in through WebAPI/PNAgent, Citrix has an extra icon in SB/TB which can be clicked to access a menu. Verify with this enabled that the menu icon in the SB/TB is hidden after logging in.
- Close list on exit: This will close the desktop and app resource icon container after disconnect/logoff.



- Password Change Server: Enabling this will enable use of a direct ICA connection to change the user password.
- **Server name**: This is the password change server name that was enabled to point to in the "Password Change Server" field above.

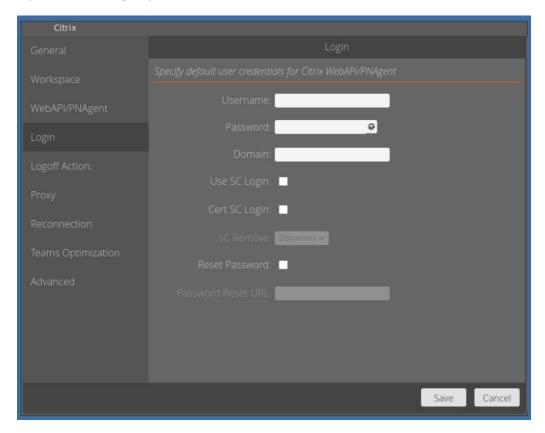


- **Hide Domain**: Enabling this will hide the domain field from the authentication window.
- ReadOnly Domain: Enabling this will show the domain name but won't allow for its
  modification in the authentication window.
- **Server Certificate**: This dropdown list determines the behavior of the connection if a Certificate Authentication error occurs. Options are "Accept", "Warning" or "Reject".
- Persistent Login: This leaves the list of available Apps/Desktops open when exiting a Citrix Session.
- **Logoff at idle timeout**: Enabling this will logoff the user from the connected Citrix desktop following the period of inactivity that is set in the "Idle timeout" field below it.
- **Idle timeout**: This is the amount of idle time before desktop logoff in minutes. The "Logoff at idle timeout" field above needs to be enabled for this to be available.
- **User Agent**: Used to rewrite the User Agent of the Client browser. This field is used to route the client to the appropriate Storefront stores/sites by means of a profile (setup on the server side). The default User Agent field value is 'CitrixReceiver' but can be changed to another value such as 'iPad' (or some other User Agent value defined on the NetScaler) to route those users/devices to the proper store/site.
- **Debug log:** Enabling this will write log information to /tmp/tzstorefront.log



## Login

In this section you can customize the way that you want your users to login to their Citrix Storefront(WebAPI/PNAgent) connection.



- **Username, Password and Domain**: These are the credentials that match your specific environment.
- **Use SC Login**: Enable this setting to allow use of Smart Card login. This option will not work when using an actual smart card with user certificates installed (if your smartcard requires a PIN to access the user certs then this option is not correct use the Cert SC login option instead).
- Cert SC login: Enable this setting to allow use of Certificate based Smart Card login. A PIN is required to access the user certs.
- **SC remove**: If you intend to use Cert-based SC login, then you have the option to choose what happens when the smart card is removed from the reader. The choices available are to take "No Action" or "Disconnect" the session.



 Reset Password and Password Reset URL: Ticking this box, will enable you to then specify a password reset URL in the box below.

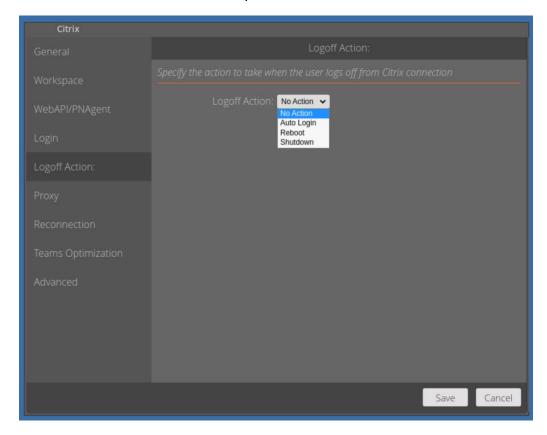
If you do specify a "Password Reset URL", this will then be made available as a keylock clickable link on the login box, as pointed to by the yellow arrow in the image below.





# **Logoff Action**

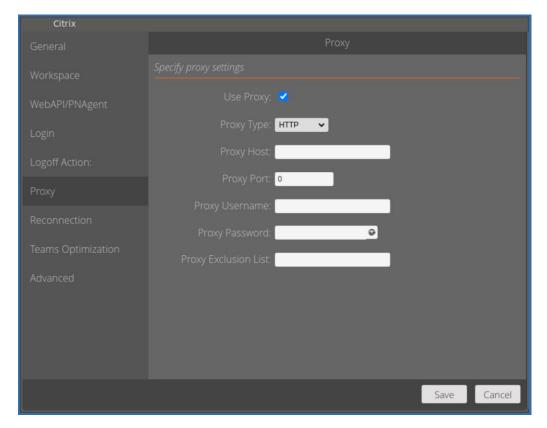
There are 4 options available when logging off from the active Citrix session, "Auto Login" again, Reboot" the Zero Client or "Shutdown" and power off the device or "No Action".





## **Proxy**

If your network is set to use a Proxy, here is where you will type in the connection information.

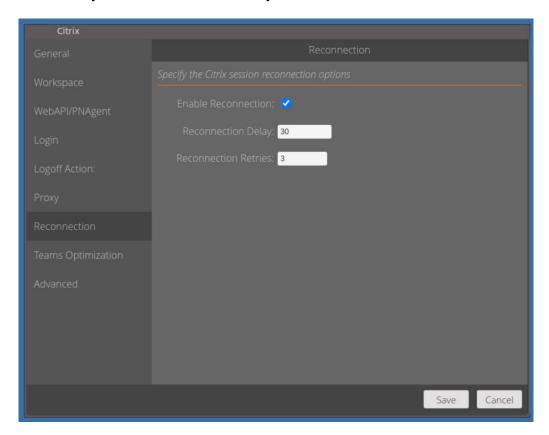


- Use Proxy: Enables Proxy connection.
- Type: Options are HTTP and SOCKS v5.
- **Proxy Host:** Type in the proxy host IP or FQDN hostname.
- **Proxy Port:** Assign port number.
- **Proxy Exclusion List:** If you have multiple sites or addresses that you wish to bypass the proxy, then type them in here and use a comma to separate the list of exclusions.



### Reconnection

This section allows you to set reconnections if your session disconnects for whatever reason.

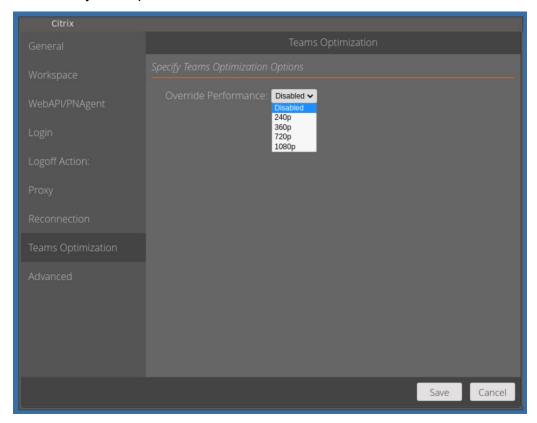


- Enable Reconnection: This switches automatic reconnection on.
- Reconnection Delay: The amount of time taken following disconnection, that a
  reconnect will be attempted. In this example above, after 30 seconds of being
  disconnected, the reconnect will be attempted.
- Reconnection Retries: This is the maximum number of retry attempts. This example will try 3 times to reconnect before it stops trying.



## **Teams Optimization**

This section allows you to optimize Microsoft Teams sessions inside the VDI.



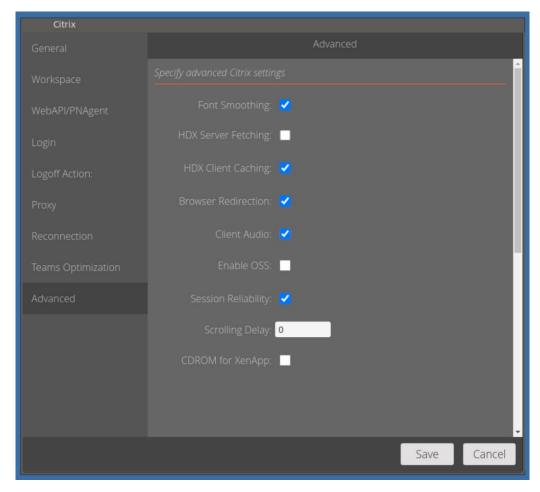
 Override Performance: This allows you to select the webcam encoding size on the Zero Client, ready for the VDI. The maximum resolution currently supported is 720p. However, this is dependent on the hardware being used and must be adjusted with caution, accordingly.

If this is disabled, Citrix Workspaces App(CWA) will use the platform estimator to determine the "Teams" webcam encoding rate and size.



#### **Advanced**

The Advanced section of "Citrix Settings" allows additional customization to be carried out.

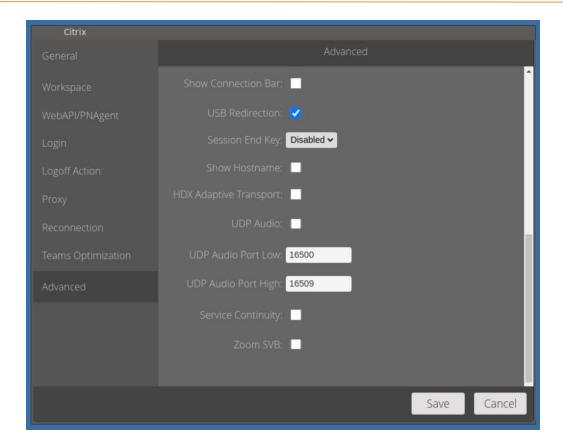


- **Font Smoothing:** Enables the quality of displayed fonts beyond that available through traditional font smoothing or anti-aliasing.
- **HDX Server Fetching:** Enables server-side Content Fetching to be carried out. This is particularly useful if the content is stored internally on the corporate network, and the Zero Clients are not permitted access over the network directly.
- **HDX Client Caching:** Content obtained through server-side fetching is cached on the user device and stored from session to session.
- Browser Redirection: Allows for the redirection of client browser viewport content directly to the Zero Client and thus reducing overhead inside. This feature uses Citrix Workspace app to instantiate a corresponding rendering engine on the client side, which fetches the HTTP and HTTPS content from the URL. Note: This is available on "Citrix Receiver for Linux" minimum version 13.9



- Client Audio: Allows for the configuration of client audio within an ICA session. In the desktop session, when this setting is disabled, the speaker-icon on the taskbar will have a red-X and show "No Audio Output device is installed". When enabled, the speaker will not have a red-X and the Citrix HDX Audio volume slider will be adjustable.
- **Enable OSS:** Allows off-screen drawing surfaces to be used when constructing the image to be displayed. This reduces flicker.
- **Session Reliability:** Establishes an ICA session on TCP port 2598 (instead of port 1494) when connecting to Presentation Server. When connected to the VDI, open a cmd prompt and run: "ctxsession /v". If you have session reliability turned on you should see port 2598 used rather than 1494.
- **Scrolling Delay:** Set scrolling delay in msec. Set to a larger value to prevent over scrolling.
- Disable XRender: Disables XRender.
- CDROM for XenAPP: Allow automatic connection of CD-ROM drives.





- Show Connection Bar: Enable to show connection bar at the top of the VDI session.
- USB Redirection: This makes locally attached USB devices appear as generic USB devices inside the virtual desktop on the VDI's OS. With this enabled, plug in a USB device and find the device name in USB Devices applet and set it to Include. Verify it shows as a USB device in the VDI session. For example, verify USB webcam can be used in session by setting its device class to Include.
- **Session End Key**: This is a hot key that can be used to end a current running session. Keys available are F9, F10, F11, F12 or disabled.
- Show Hostname: If you wish for the Zero Client hostname to appear on the "Launchpad", then enable this option. This is useful for end users who can provide 10ZiG Manager administrators with the hostname required for shadowing their session.
- HDX Adaptive Transport: Set this to enabled to take advantage of EDT, Enlightened
  Data Transport. EDT improves data throughput for all ICA virtual channels on potentially
  unreliable networks, providing a better and more consistent user experience.
- **UDP Audio:** Enable this option to allow audio transport over UDP for a better audio experience in low-bandwidth situations.



- **UDP Audio Ports Low and High range:** The Audio UDP port range specifies the range of port numbers that the Windows VDA uses to exchange audio packet data with the user device. By default, the range is 16500 through 16509.
- Service Continuity: Service continuity removes or minimizes dependence on the
  availability of components involved in the connection process. Users can launch their
  Citrix DaaS apps and desktops regardless of the cloud services health status.
- **Zoom SVB(Smart Virtual Background):** Enable the override to allow for the use of Smart Virtual Backgrounds with Zoom Optimization inside the virtual desktop. Only recommended for performance devices due to the resources this requires.

## Saving your settings

Once you're comfortable with all the settings for your 10ZiG NOS-C Zero Client, just click the "OK" button and you'll be taken back to the Citrix login screen.



# **Editing your connection settings**

If you need to edit your connection settings again, then click the "Gear" icon in the bottom left of the "Login" screen as shown by the "yellow arrow" below.



You'll be taken back into the "Control Panel", where you can click the "Citrix Workspace" icon in the top left and then make changes as outlined in the previous sections of this guide.

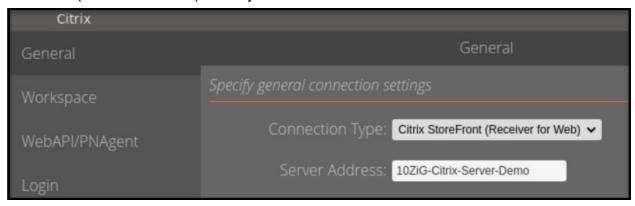




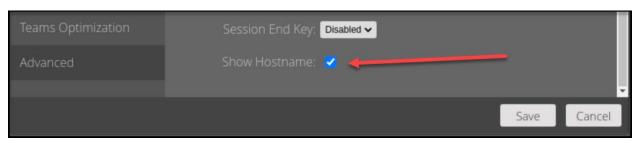
## **Citrix Connection Examples**

Here are a few of the switches enabled in various settings sections and what your connection box might look like.

Inside the settings menu, select "General" menu option, select the "Connection type" to be Citrix StoreFront(Receiver for Web) and key in the Server Address.



Next, we're going to enable the client hostname to be displayed on the "Launchpad". Click on the "Advanced" menu option and then scroll down to "Show Hostname" setting, as shown by the red arrow below.



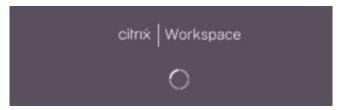
Tick this box, click "SAVE" in the bottom right and then close the "Control Panel". Your login box should now display the hostname of your Zero Client as below.





If you click the login button in the top right corner of the "Launchpad" then you'll see a typical "StoreFront" login process as follows :-





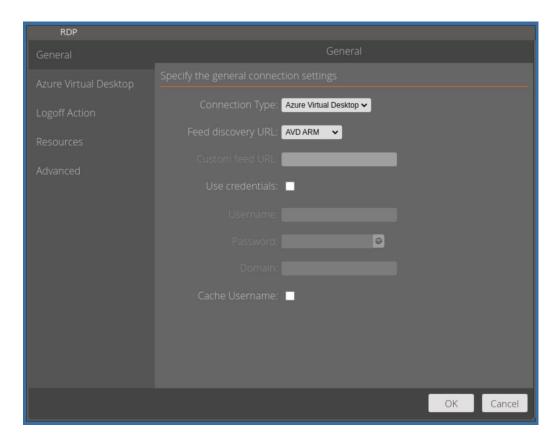




## **NOS for Microsoft NOS-M**

# **Azure Virtual Desktop(AVD)**

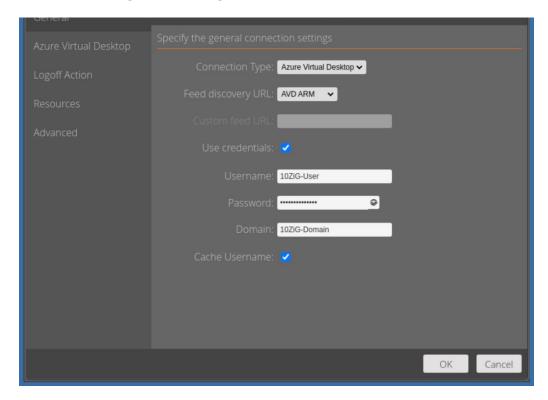
#### General



- Connection Type: There are 3 available that include Azure Virtual Desktop(AVD) that
  also includes connections to Windows 365 Cloud PC, RDWeb webfeed and Direct RDP
  and all the configuration features inside the different types will be referenced in the
  following screens.
- Feed discovery URL: There are 4 URLs that can be supplied, "AVD ARM" (Default) –
  Spring 2020 Update, supporting Azure Resource Manager, "AVD Classic" Fall 2019
  Update, "AVD US Gov" and "Custom".
- **Use Credentials:** If you enable this, then the credentials fields below it will be used at login until changed or disabled.

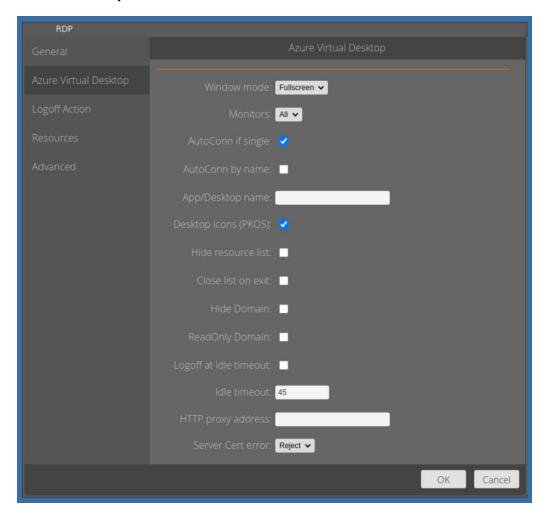


- Cache Username: Caching the username will remember the last logged in user on the Zero Client.
- Example of using and caching credentials.





## **Azure Virtual Desktop**



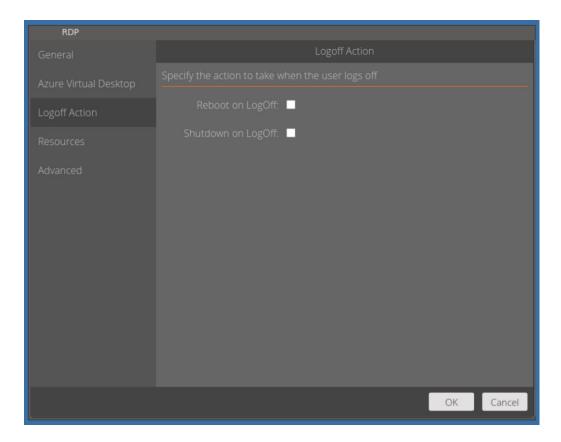
- Window mode: Set to Fullscreen (Default), Windowed or Maximized as required.
- **Monitors:** Set the monitor topology as required. By default, desktops and applications display to "All" monitors.
- **Autoconn if single:** Following user authentication to Azure Virtual Desktop or Windows 365 Cloud PC, if the user has access to just a single desktop or application, then this automatic connection will be performed where this option is enabled.
- Autoconn by name: As an alternative option, it is possible to auto connect to desktops
  or applications by name and define that application or desktop name in the field below it.



- **Desktop icons(PKOS)**: If you're using a PKOS operating system, once authenticated to AVD, the available resources will be added as shortcuts to the PKOS desktop.
- Hide resource list: Following user authentication, the resource list containing desktops and applications can be hidden to the user by enabling this option.
- Close list on exit: Where the user connects to a desktop or application, the resource list
  can be automatically closed when logging out of them. This is useful in hotdesking
  scenarios.
- **Hide Domain**: When this is enabled, the domain field is hidden to the user during login. This is useful in scenarios where you do not want to expose the Domain name / Tenant name to the users during authentication. When "ReadOnly Domain" is enabled, this prevents the user from editing the Domain name / Tenant name during login.
- **ReadOnly Domain**: When "ReadOnly Domain" is enabled, this prevents the user from editing the Domain name / Tenant name during login.
- **Logoff at idle timeout**: Enable this option to log users off from their Azure Virtual Desktop session automatically where idle timeout occurs.
- **Idle timeout**: Specify the idle timeout in minutes.
- HTTP proxy address: The address of your proxy server in the format of "host:port", for example 192.165.177.211:443
- Server Certificate: Sets the level of cert validation to "Accept" or "Reject".



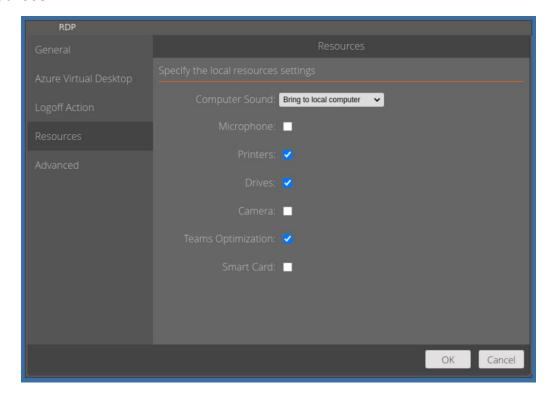
# **Logoff Action**



- **Reboot on LogOff**: Enabling this option will reboot the Zero Client once your user has logged off their current AVD session.
- Shutdown on LogOff: Enabling this will shut down and power off the Zero Client.



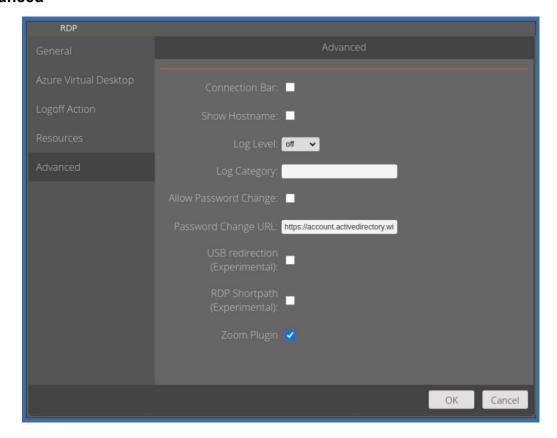
#### Resources



- **Computer Sound**: You have 3 options regarding sound settings and redirection. You can choose to "Bring to local computer", "Do not play" or "Leave at remote computer".
- Microphone: Enable this option for bidirectional audio. The audio device can be configured under the Control Pane, in the Audio section.
- **Printers**: Enable this option to bring printers from this device to the virtual desktop.
- Drives: Enabling this option will enable Client Drive Redirection (Mass Storage Only).
- **Camera**: Enable this to redirect webcams to your virtual desktop. Use the frame rate option to specify the fps when delivering camera content to the VM.
- **Teams Optimization**: Enable this option to optimize Microsoft Teams inside the VDI and redirect audio and video to the Zero Client. You can check if this is active inside the "Teams" app in the VDI by going into the profile menu, selecting "About" and "Version". You will see the "AVD Media Optimized" in the version banner text.
- Smart Card: Enable this option for redirection of Smart Cards into your Azure Virtual Desktops.



#### Advanced



- Connection Bar: Enable this option to display a connection bar which is displayed whilst connecting to desktops and applications. This is a useful feature in combination with the Sidebar / Taskbar. See <a href="Sidebar / Taskbar">Sidebar / Taskbar</a> for further details.
- **Show Hostname**: Enable this option to display the endpoint hostname at the Microsoft Remote Desktop Authentication login screen. This is useful for end users who can provide 10ZiG Manager administrators with the hostname required for shadowing their session.
- Log Level: Enable debug logging here, see <u>Troubleshooting & Debug</u> for further information.
- Allow Password Change: Enable this option to allow users to change their password when required and also on demand.
- Password Change URL: The Password Change URL is contacted using a kiosk based secure browser but can be changed here. The default address it connects to is 'https://account.activedirectory.windowsazure.com/changepassword.aspx'.



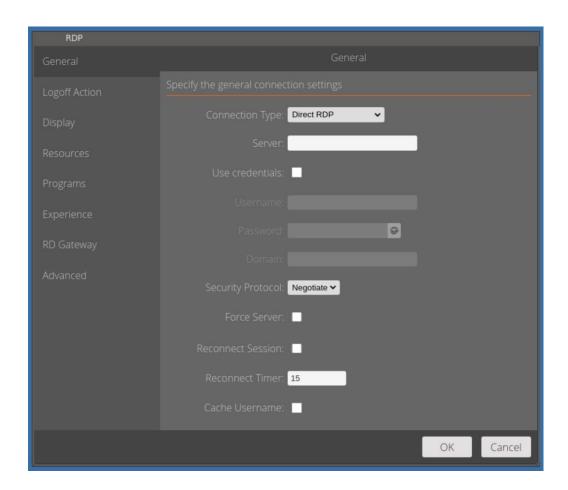
- **USB redirection (Experimental)**: Enable this option, at user discretion to redirect your USB devices through to the VDI. Note: This is an experimental feature and as such may produce differing results.
- RDP Shortpath (Experimental): RDP Shortpath is a feature of Azure Virtual Desktop that establishes a direct UDP-based transport between a supported Windows Remote Desktop client and session host. This article shows you how to configure RDP Shortpath for managed networks and public networks. For more information, see this article below:

  Configure RDP Shortpath Azure Virtual Desktop | Microsoft Learn
- **Zoom Plugin**: Enable this is option for Zoom VDI Optimization. This can be used if the matching plugin is installed to the Windows desktop.



### **Direct RDP**

### General



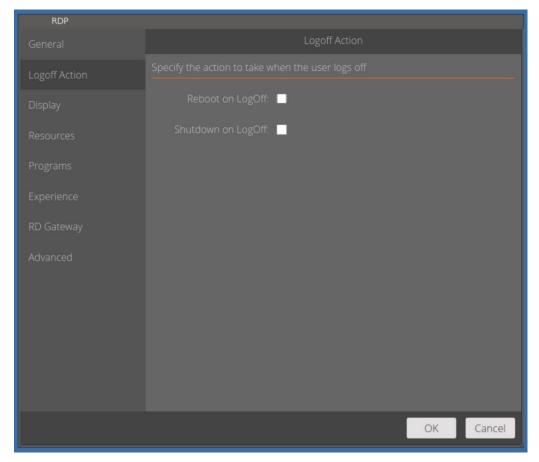
- Server: This is where you can enter a single server or multiple URL addresses of the remote desktop connection broker. If multiples are used, then they should be comma separated.
- **Use Credentials:** If you enable this, then the credentials fields below it will be used at login until changed or disabled.
- **Hide Domain:** When enabled, the domain field on the launchpad should be hidden. If a domain is populated with the domain field above then, that should still be present.



- **Security Protocol**: This is where you can specify a level of Network Authentication for the protocol type. Options are "Negotiate", "RDP", "NLA", or "TLS".
- **Force Server**: If you enter multiple server URLs in the "Server URL" field, comma separated, a drop-down menu is added to launchpad and forces the user to select the server before connecting.
- **Reconnect Session**: When set, this should automatically attempt to reconnect after logging off or disconnecting from a session.
- **Reconnect Timer**: Set the timeout for the reconnect prompt, following disconnection.
- Cache Username: Caching the username will remember the last logged in user on the Zero Client.



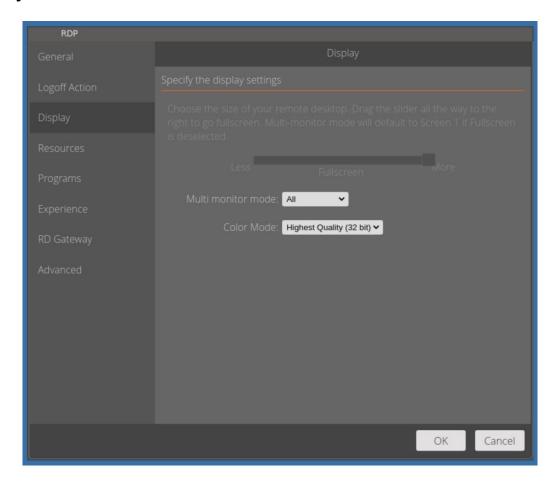
# **Logoff Action**



- Reboot on LogOff: Enabling this option will reboot the Zero Client once your user has logged off their current AVD session.
- Shutdown on LogOff: Enabling this will shut down and power off the Zero Client.



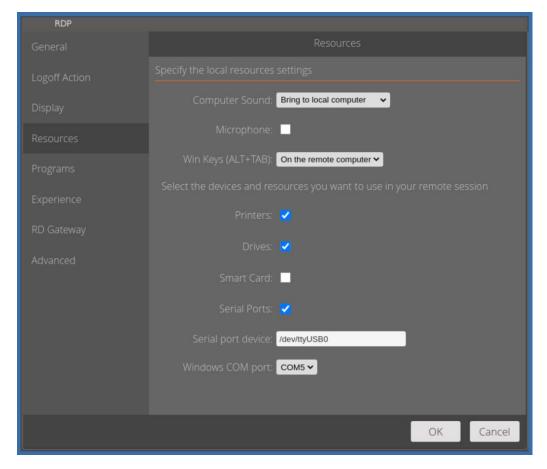
# **Display**



- Multi Monitor Mode: Options are for display on monitor 1, 2, 3 or all together.
- **Color Mode:** Changes the color options to suit the particular connection performance. This ranges from 256 colors to "Highest Quality(32 bit)".



#### Resources



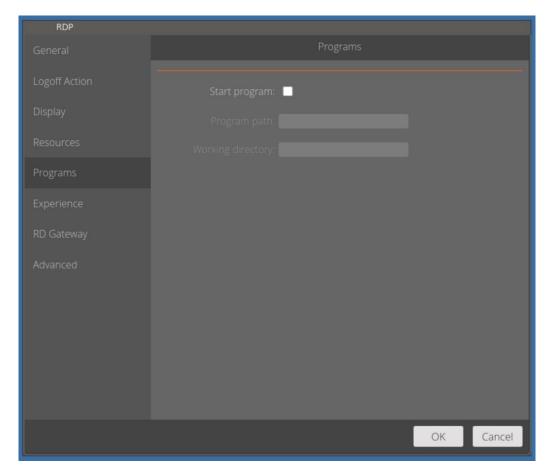
- **Computer sound:** You have 3 options regarding sound settings and redirection. You can choose to "Bring to local computer", "Do not play" or "Leave at remote computer".
- **Microphone:** Verify the VDI session receives audio input from the Zero Client's local mic.
- Win Keys(ALT+TAB): With these options enabled, verify ALT+TAB operates in the VDI session or on the Zero Client.
- **Printers:** Enabling this option will enable you to attach a local printer to the Zero Client and then print to it from within the VDI desktop.
- Drives: This passes USB mass storage devices to the VDI session.



- Smart Card: This option, when enabled will pass the smart card through to the VDI desktop.
- Serial Ports: Tick this option to gain access to serial port configurations below.
- **Serial Port:** If you connect a USB foot to the 10ZiG 6000q, then serial port device "/dev/ttyUSB0" is made available to the VDI.
- **Windows COM port:** With the USB foot attached, you can specify what COM port number will be passed to the VDI.



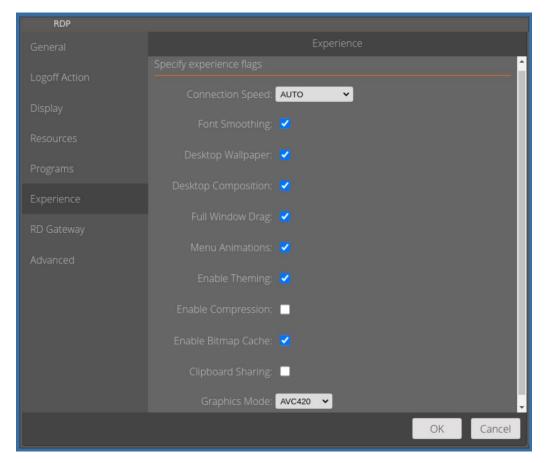
# **Programs**



- **Start program:** When enabled, the Program path, and Working directory fields are available to be set below this field.
- **Program path:** Add a program path, such as C:\Windows\System32\notepad.exe. After you establish an RDP connection to a Remote Desktop you will see the "Notepad" program launches.
- Working directory: This is the working directory in which the program name above will be launched from.



## **Experience**



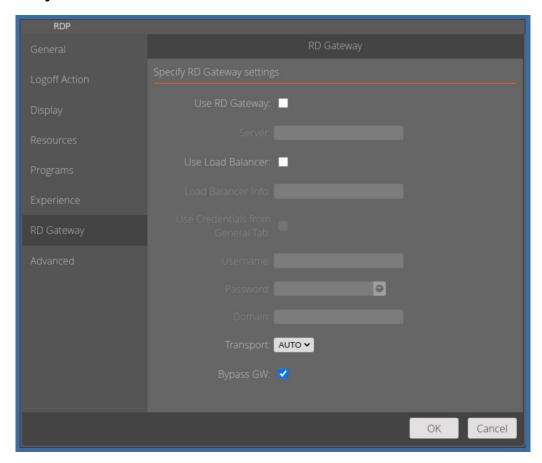
- Connection speed: You can adjust this value to suit your individual performance needs, or just leave it as "Auto" to negotiate the best speed available.
- **Font Smoothing:** Enables the quality of displayed fonts beyond that available through traditional font smoothing or anti-aliasing.
- **Desktop Wallpaper:** Verify when enabled, the remote desktop shows the wallpaper and when disabled the remote desktop's wallpaper should not be shown.
- **Desktop Composition:** This option either enables or disables the "Aero" effects content of the remote Windows desktop.
- **Full window drag :** When the option is enabled, dragging the remote desktop window should show its content, when disabled, the content will be blank.



- **Menu Animations:** When enabled, the right-click context menus show their animations when opening and closing. Disabled, the right-click context menus show no animation.
- **Enable Theming:** Determines whether themes are permitted when you log on to the remote computer.
- **Enable Compression:** Determines whether bulk compression is enabled when it's transmitted by RDP to the local computer.
- **Enable Bitmap Cache:** Determines whether bitmaps are cached on the local Zero Client (disk-based cache). Bitmap caching can improve the performance of your remote session.
- **Clipboard Sharing:** When enabled, you can copy and paste text from the local client to the remote Windows desktop session and from the remote session to the local client.
- Graphics Mode: This feature lets you specify which codec to use during the RDP session. Available options are RDP, RemoteFX, AVC420(Default) and AVC444.



## **RD Gateway**



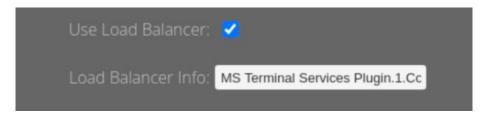
- Use RD Gateway: A RD Gateway allows you to establish a RDP connection to a Windows system but tunneled through a HTTPS connection.
- Server: The address of your RD Gateway Server.
- Load Balancer Info: This is the address of your load balancer server within your corporation.

To obtain the address of your load balancer server, follow the steps below :-

- On Windows 10 or later PC, open up a web browser and type the address below. <a href="https://YourRDWebBrokerHostName/rdweb">https://YourRDWebBrokerHostName/rdweb</a> (Where YourRDWebBrokerHostName is the server name hosting the RD Web Broker role) which should take you to the RD web access page.
- 2. When prompted, log in using valid credentials, and you'll be taken to a page which lists all of your available apps and desktops.



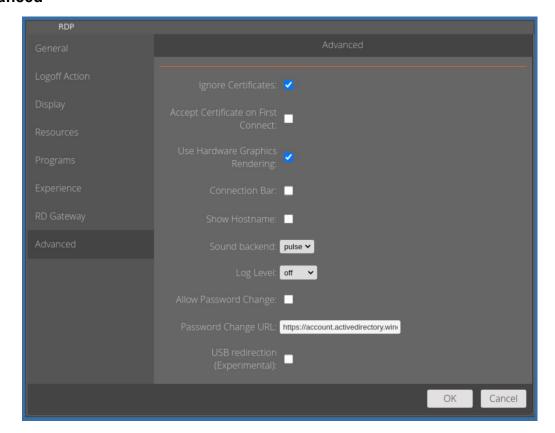
- 3. Single click on one of the apps/desktops that is a part of your broker collection, this should then download a ".rdp" file (if clicking it tries to launch the session instead, try using a different browser).
- 4. To get the relevant information needed, right click the ".rdp" file and select "Open with..." and select an editor such as "Notepad".
- 5. Once opened, look towards the bottom of the file and you should see a line that starts "loadbalanceinfo:s:tsv://". The rest of the string after this point will be unique to each environment, copy or make note of everything that appears after "tsv://" and head back to the thin client. For this example, let's assume the load balancer info we copied following the "tsv://" is MS Terminal Services Plugin.1.CollectionName
- 6. Inside the RD Gateway configuration screen again on your 10ZiG NOS-M Zero Client, tick the box named "Use Load Balancer" and just type or paste the copied value into the "Load Balance Info:" field. See below, using our assumed example.



- Use Credentials from General Tab: Tick this box to use the credentials supplied at the time of connection or the credentials stored in the "General" tab which will be used both to authenticate to the gateway server and to the remote desktop.
- Username, Password, Domain: Enter the username, password, and domain to use for authentication to the remote desktop gateway server. These parameters should be used when Use GW Credentials is enabled.
- **Transport:** This sets the transport protocol to be used by the connection to the RD Gateway. Possible values are "AUTO" (Default), "PC" and "HTTP".
- **Bypass GW:** This option is enabled by default, verify when checked that the gateway settings set are bypassed.



#### **Advanced**



#### Ignore Certificates:

This option will allow you to ignore server certificates checking when connecting to your RDP server. If you tick this option, then the field "Accept Certificate on First Connect" is not available.

• Accept Certificate on First Connect: Accept certificate unconditionally on first connect and deny on subsequent connections if the certificate does not match.

### Use Hardware Graphics Rendering:

Leave this box ticked to take advantage of hardware graphics rendering on your Zero Client where available. This option will offload the video decoding process to the graphical processing unit, rather than in software. In some instances, it can increase performance.

Connection Bar: Determines whether the connection bar appears at the top of the VDI screen in the session.

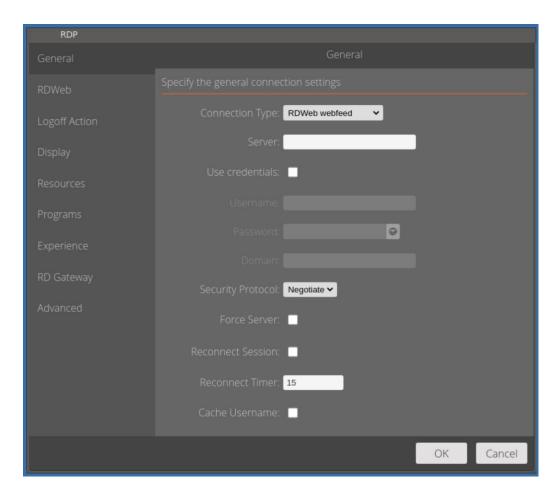


- **Show Hostname:** Enabling this will display the hostname of the Zero Client in the "Launchpad".
- Sound backend: Possible values are to use pulse or alsa sound configurations.
   Select the sound system that is used on the client when redirecting audio from the host machine to the client machine. The recommended and default option is pulse, where certain audio devices are having issues, alsa can be tried to determine if it offers a better user experience.
- Log Level: Sets the level of log information to be captured during the RDP sessions and is set to "off" by default.
- Allow Password Change: When enabled, a padlock icon is added to the launchpad to allow users to click on it to open ZeroWeb to access a self-service password reset web portal.
- **Password Change URL:** Define the self-service password reset URL that is to be used when the password reset icon is clicked on the launchpad.
- USB redirection(Experimental): Enable this option, at user discretion to redirect your USB devices through to the VDI. Note: This is an experimental feature and as such may produce differing results.



## RDWeb webfeed

#### General



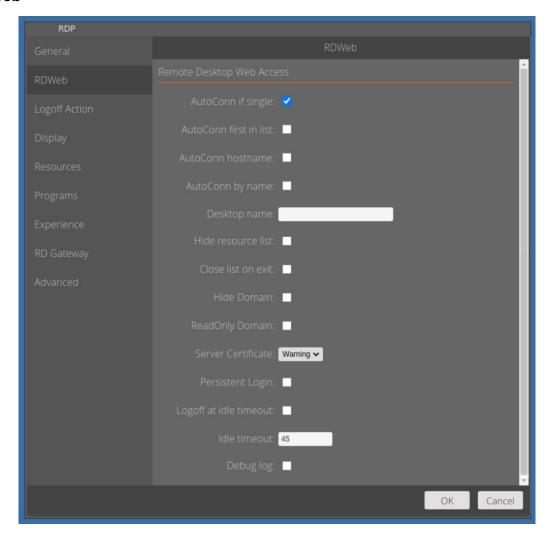
- Server: This is where you can enter a single server or multiple URL addresses of the remote desktop connection broker. If multiples are used, then they should be comma separated.
- **Use Credentials:** If you enable this, then the credentials fields below it will be used at login until changed or disabled.
- **Security Protocol:** This is where you can specify a level of Network Authentication for the protocol type. Options are "Negotiate", "RDP", "NLA", or "TLS".
- Force Server: If you enter multiple server URLs in the "Server URL" field, comma separated, a drop-down menu is added to launchpad and forces user to select the server before connecting.



- **Reconnect Session:** When set, this should automatically attempt to reconnect after logging off or disconnecting from a session.
- Reconnect Timer: Set the timeout for the reconnect prompt, following disconnection.
- Cache Username: Caching the username will remember the last logged in user on Zero Client.



#### **RDWeb**



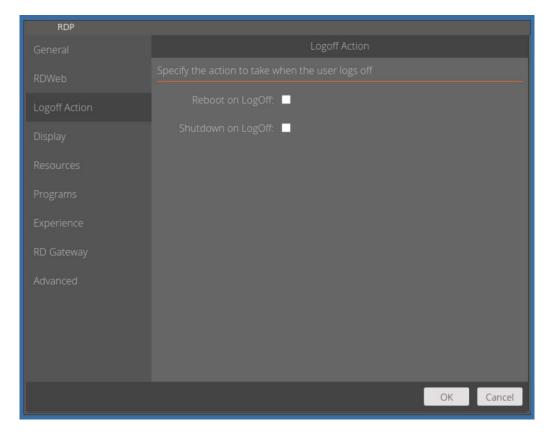
- AutoConn if single: Switching this option, will enable automatic connection if just one
  desktop is assigned to the logging in user.
- **AutoConn first in list**: Switching this option on, will enable automatic connection to the first desktop in the list of assigned desktops to the logging in user.
- **AutoConn hostname**: When enabled, this option will auto connect to a desktop with the same name as the unit hostname.
- **AutoConn by name**: Enabling this option will allow you to specify a desktop name in the following field to auto connect to.
- Hide resource list: This will hide the connection broker.



- Close list on exit: This auto closes the connection broker after disconnecting from a session.
- **Hide Domain:** When enabled, the domain field on the launchpad should be hidden. If a domain is populated with the domain field above then, that should still be present.
- ReadOnly Domain: With this enabled the domain name cannot be edited in the login window.
- **Server Certificate**: This dropdown list determines the behavior of the connection if a Certificate Authentication error occurs. Options are "Accept", "Warning" or "Reject".
- Persistent Login: To be used with auto login. When you save the credentials in the
  configuration, the connection goes straight to showing the user entitled app list
  (Resource List, icon container). When you click "Logoff", the icon container is closed,
  and you return to the login dialog box. When the Persistent Login is unchecked, the
  password is removed from the GUI (security). If you want to keep the password there
  after disconnecting, ready to be used for login, you must check the Persistent Login
  check box.
- Logoff at idle timeout: After enabling this option, verify the timeout can be edited. After
  testing idle timeout, disable this option and verify the session does not disconnect after
  the specified time of inactivity.
- **Idle timeout**: Sets the number to disconnect after inactivity.
- Debug log: Enabling this option creates the log files /tmp/tzrdweb.log and /tmp/tzrdweb.xml



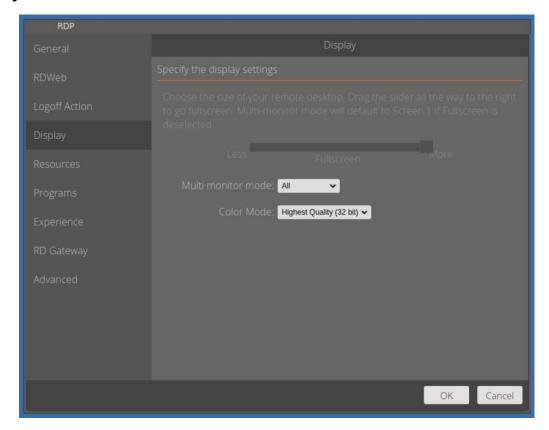
# **Logoff Action**



- **Reboot on LogOff**: Enabling this option will reboot the Zero Client once your user has logged off their current AVD session.
- Shutdown on LogOff: Enabling this will shut down and power off the client.



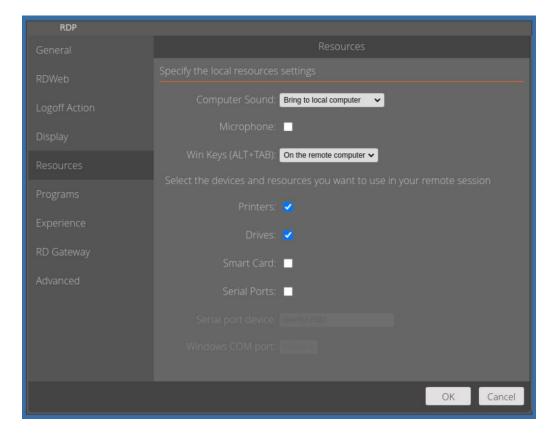
# **Display**



- Multi Monitor Mode: Options are for display on monitor 1, 2 or both together.
- **Color Mode:** Changes the color options to suit the particular connection performance. This ranges from 256 colors to "Highest Quality(32 bit)".



### Resources



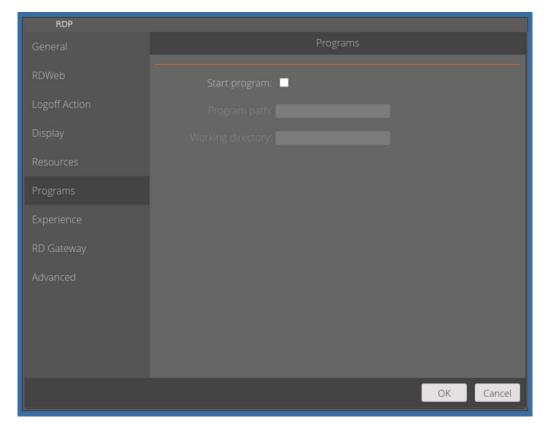
- Computer sound: With "Bring to local computer" enabled, verify the audio from the VDI session can be heard from the Zero Client. Other options include "Do no play" and "Leave at remote computer"
- Microphone: Verify the VDI session receives audio input from the Zero Client's local mic.
- Win Keys(ALT+TAB): With these options enabled verify ALT+TAB operates in the VDI session or on the Zero Client.
- **Drives:** This passes USB mass storage devices to the VDI session.
- **Printers:** Enabling this option will enable you to attach a local printer to the Zero Client and then print to it from within the VDI desktop.
- Smart Card: This option, when enabled will pass the smart card through to the VDI desktop.



- Serial Ports: Tick this option to gain access to serial port configurations below.
- **Serial Port:** If you connect a USB foot to the 10ZiG 6000q, then serial port device "/dev/ttyUSB0" is made available to the VDI.
- **Windows COM port:** With the USB foot attached, you can specify what COM port number will be passed to the VDI.



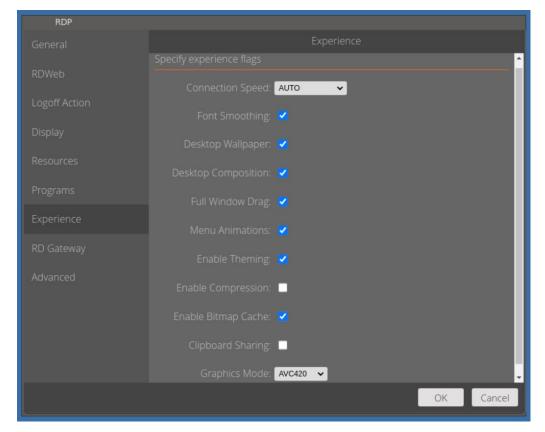
# **Programs**



- **Start program:** When enabled, the Program path, and Working directory fields are available to be set below this field.
- **Program path:** Add a program path, such as C:\windows\system32\notepad.exe. After you establish an RDP connection to a Remote Desktop you will see the "Notepad" program launches.
- Working directory: This is the working directory in which the program name above will be launched from.



### **Experience**



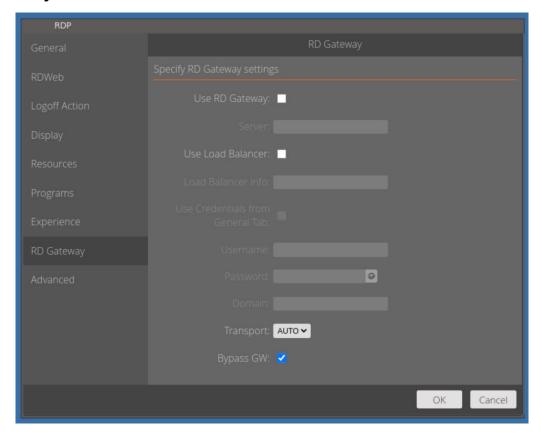
- **Connection speed:** You can adjust this value to suit your individual performance needs, or just leave it as "Auto" for it to negotiate the best speed available.
- **Font Smoothing:** Enables the quality of displayed fonts beyond that available through traditional font smoothing or anti-aliasing.
- Desktop Wallpaper: Verify when enabled, the remote desktop shows the wallpaper and when disabled the remote desktop's wallpaper should not be shown.
- **Desktop Composition:** This option either enables or disables the "Aero" effects content of the remote Windows desktop.
- **Full window drag**: When the option is enabled, dragging the remote desktop window should show its content, when disabled, the content will be blank.
- **Menu Animations:** When enabled, the right-click context menus show their animations when opening and closing. Disabled, the right-click context menus show no animation.



- **Enable Theming:** Determines whether themes are permitted when you log on to the remote computer.
- **Enable Compression:** Determines whether bulk compression is enabled when it's transmitted by RDP to the local computer.
- Enable Bitmap Cache: Determines whether bitmaps are cached on the local Zero
   Client (disk-based cache). Bitmap caching can improve the performance of your remote
   session.
- **Clipboard Sharing:** When enabled, you can copy and paste text from the local client to the remote Windows desktop session and from the remote session to the local client.
- Graphics Mode: This feature lets you specify which CODECS to use during the RDP session. Available options are RDP, RemoteFX, AVC420(Default) and AVC444.



### **RD Gateway**



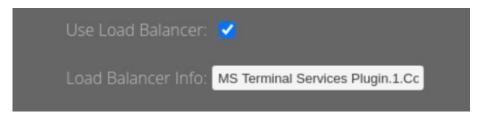
- Use RD Gateway: A RD Gateway allows you to establish a RDP connection to a Windows system but tunneled through a HTTPS connection.
- Server: The address of your RD Gateway Server.
- Load Balancer Info: This is the address of your load balancer server within your corporation.

To obtain the address of your load balancer server, follow the steps below :-

- On Windows 10 or later PC, open up a web browser and type the address below. <a href="https://YourRDWebBrokerHostName/rdweb">https://YourRDWebBrokerHostName/rdweb</a> (Where YourRDWebBrokerHostName is the server name hosting the RD Web Broker role) which should take you to the RD web access page.
- 2. When prompted, log in using valid credentials, and you'll be taken to a page which lists all of your available apps and desktops.



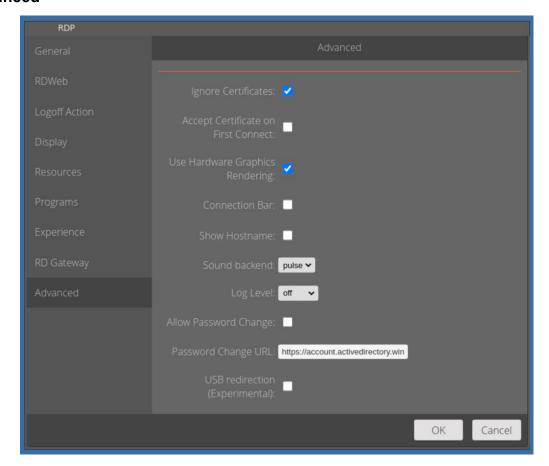
- 3. Single click on one of the apps/desktops that is a part of your broker collection, this should then download a ".rdp" file (if clicking it tries to launch the session instead, try using a different browser).
- 4. To get the relevant information needed, right click the ".rdp" file and select "Open with..." and select an editor such as "Notepad".
- 5. Once opened, look towards the bottom of the file and you should see a line that starts "loadbalanceinfo:s:tsv://". The rest of the string after this point will be unique to each environment, copy or make note of everything that appears after "tsv://" and head back to the thin client. For this example, let's assume the load balancer info we copied following the "tsv://" is MS Terminal Services Plugin.1.CollectionName
- 6. Inside the RD Gateway configuration screen again on your 10ZiG NOS-M Zero Client, tick the box named "Use Load Balancer" and just type or paste the copied value into the "Load Balance Info:" field. See below, using our assumed example.



- Use Credentials from General Tab: Tick this box to use the credentials supplied at the time of connection or the credentials stored in the "General" tab which will be used both to authenticate to the gateway server and to the remote desktop.
- Username, Password, Domain: Enter the username, password, and domain to use for authentication to the remote desktop gateway server. These parameters should be used when Use GW Credentials is enabled.
- **Transport:** This sets the transport protocol to be used by the connection to the RD Gateway. Possible values are "AUTO" (Default), "PC" and "HTTP".
- **Bypass GW:** This option is enabled by default, verify when checked that the gateway settings set are bypassed.



#### Advanced



## Ignore Certificates:

This option will allow you to ignore server certificates checking when connecting to your RDP server. If you tick this option, then the field "Accept Certificate on First Connect" is not available.

• Accept Certificate on First Connect: Accept certificate unconditionally on first connect and deny on subsequent connections if the certificate does not match.

### • Use Hardware Graphics Rendering:

Leave this box ticked to take advantage of hardware graphics rendering on your Zero Client where available. This option will offload the video decoding process to the graphical processing unit, rather than in software. In some instances, it can increase performance.

Connection Bar: Determines whether the connection bar appears at the top of the VDI screen in the session.



- **Show Hostname:** Enabling this will display the hostname of the Zero Client in the "Launchpad".
- Sound backend: Possible values are to use pulse or alsa sound configurations.
   Select the sound system that is used on the client when redirecting audio from the host machine to the client machine. The recommended and default option is pulse, where certain audio devices are having issues, alsa can be tried to determine if it offers a better user experience.
- **Log Level:** Sets the level of log information to be captured during the RDP sessions and is set to "off" by default.
- Allow Password Change: When enabled, a padlock icon is added to the launchpad to allow users to click on it to open ZeroWeb to access a self-service password reset web portal.
- **Password Change URL:** Define the self-service password reset URL that is to be used when the password reset icon is clicked on the launchpad.
- USB redirection(Experimental): Enable this option, at user discretion to redirect your USB devices through to the VDI. Note: This is an experimental feature and as such may produce differing results.



## Saving your settings

Once you're comfortable with all the settings for your 10ZiG NOS-M Zero Client, just click the "OK" button and you'll be taken back to the Microsoft Remote Desktop Authentication screen.



## **Editing your connection settings**

If you need to edit your connection settings again, then click the "Gear" icon in the bottom left of the "Login" screen as shown by the "red arrow" below.



You'll be taken back into the "Control Panel", where you can click the "Microsoft Remote Desktop" icon in the top left and then make changes as outlined in the previous sections of this guide.

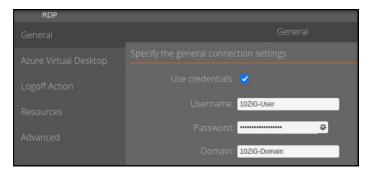




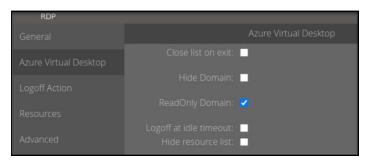
## Azure Virtual Desktop – Connection setting examples

Here are some examples of how to setup your "Microsoft Remote Desktop Authentication" login screen.

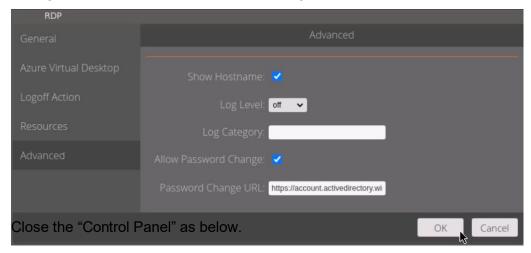
Inside the "Control Panel", click on "Microsoft Remote Desktop" icon, and then the "General" option in the left menu. Tick the "Use credentials" box and key in the "Username", "Password" and "Domain" fields.



Go into the "Azure Virtual Desktop" menu option, scroll down, and tick the "ReadOnly Domain" box.



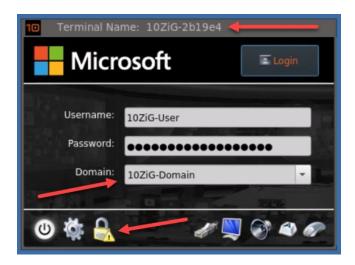
Finally, click on the "Advanced" menu option, tick "Show Hostname" and then "Allow Password Change" boxes. Click "OK" to save the changes.







Your login screen should now look something like below. Notice that the "Password Change" icon is present, the terminal hostname is displayed on the top bar and the domain field is "Read Only", indicated by the red arrows.





# **Control Panel Settings**

From any of the NOS platforms, on the login screen, if you click on "Gear" icon, then you'll be taken into "Control Panel ", where you have the ability to further customize your 10ZiG Zero Client's "Application", "Hardware and "System" settings.





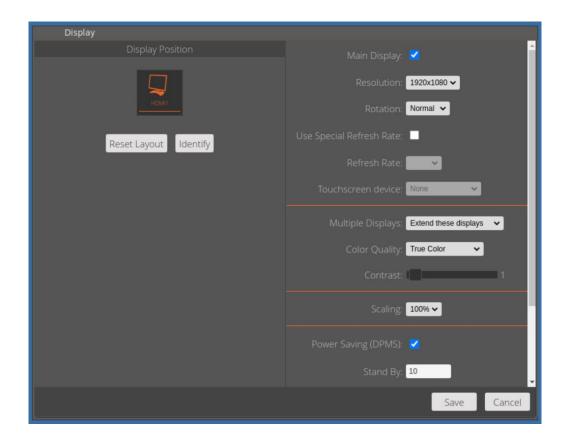


### **Hardware**

# **Display**



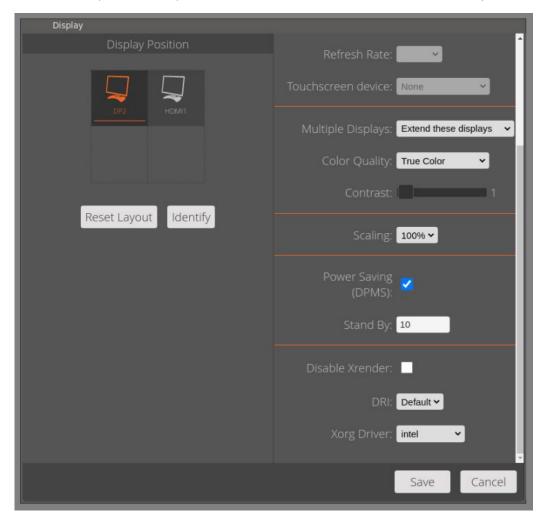
The Display Settings window allows you to configure your screen resolution along with the refresh rate and the color quality. Other options here include rotation and support for multiple displays, if detected.





### **Dual Monitors**

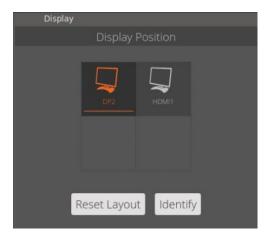
When multiple displays are detected, you will be given the option to select "Main Display" for either HDMI1 or DP2(shown here), and either to duplicate or extend these displays.



You can change the resolution of each monitor by selecting the resolution you want for HDMI1 and DP2.

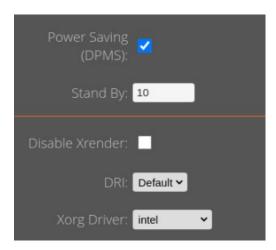


If you choose to extend these displays you can choose the position of the 2<sup>nd</sup> monitor to Right, Left, or Inverted depending on how you wish your display topology to be.



## Power Saving (DPMS)

You can also enable Power Saving(DPMS) settings and also specify how long, in minutes, to wait before going to standby mode.



Xrender is on by default, clicking "Disable Xrender", will disable it, but may affect webcam handling as a result.

DRI Direct Rendering Infrastructure version. Further information can be found here regarding DRI <a href="https://en.wikipedia.org/wiki/Direct Rendering Infrastructure">https://en.wikipedia.org/wiki/Direct Rendering Infrastructure</a>

Enabling "Restart Xorg on hotplug event" will force a refresh of the displays, to make sure any hotplugs are detected correctly.

Please note: This should only be changed under advice from 10ZiG Support.

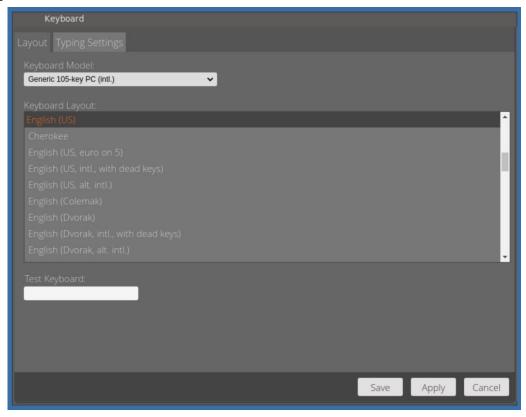


# Keyboard



Opening the **Keyboard** window displays the **Layout Tab** which allows you to select the keyboard model and country layout, as well as test keystroke output in the **Test Keyboard**: dialog box.

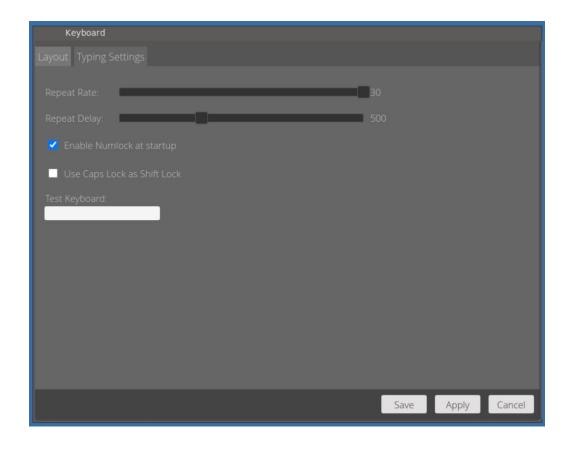
# Layout





# **Keyboard – Typing Settings**

You can also set the keyboard character "Repeat Rate" and "Repeat delay", by moving the slider bars left and right. You also have the ability to "Enable Numlock at startup" and use the "Caps Lock as Shift Lock" by using the checkboxes, as shown below.



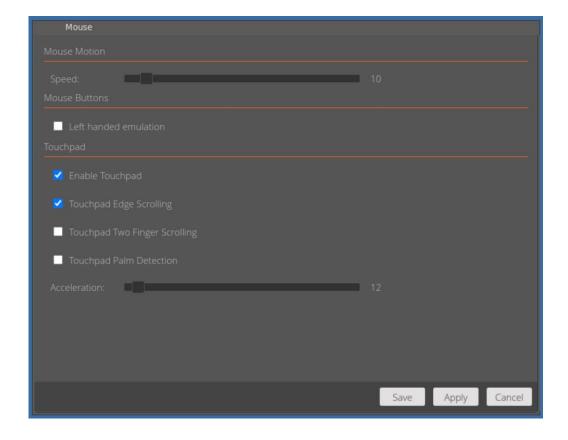


#### Mouse



The Mouse window allows you to set the mouse speed, and acceleration settings. You may also configure the mouse buttons for 3 button emulation or for left-handed users.

If you have a touchpad connected to your Zero Client, then enabling this option will allow you access its scrolling and detection options also.

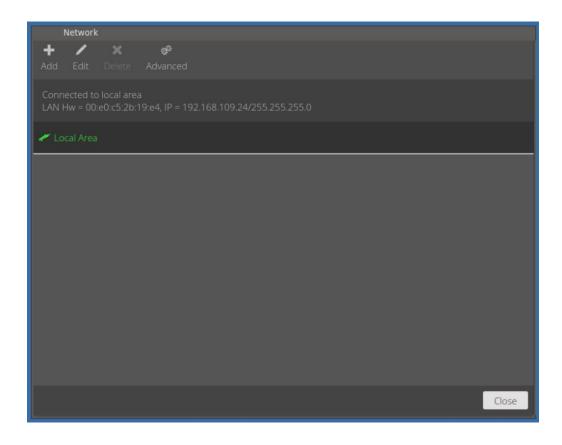




### **Network**



Here you will find options to configure your network settings. If only one type of connection is available, it will be automatically set to **Default**. Highlighted in green below.



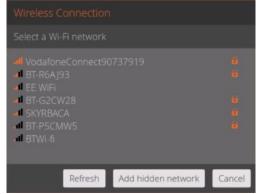


### Wireless Network Connection (Additional Hardware Opt.)

Open the Network Configuration applet by double clicking on the Network Icon, now click the "Add" button and the Wireless Connection properties will open, and you'll see the "Scanning Wireless" message appear and then see a list of Broadcasted SSIDs in your environment, choose the wireless access point you would like to connect to and then click the "OK" button.



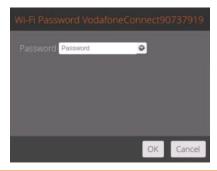




If you don't see the SSID that matches your Wi-Fi network, just click the "Refresh" button and it should appear in the list. Check with you network administrator to make sure that it's not hidden. If it is hidden, then just click the "Add hidden network" button and you'll be able to add it in there. See below.

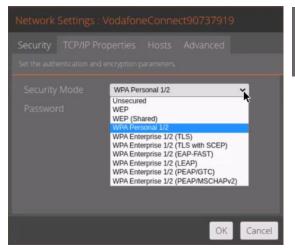


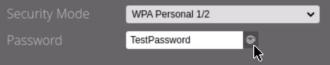
Once you've selected your network, then you'll be prompted to type in your wireless network password as below.



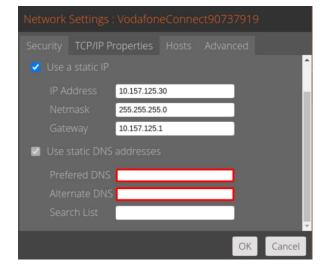


If you highlight your network adapter in the list and then click "Edit", you'll now see the network settings for your wireless device, and additional configuration tabs for it. Inside the security tab choose your "Security Mode" from the dropdown list and type in your passphrase (if applicable to your security mode choice). If you uncheck the box next to passphrase your passphrase will be shown in plain text.



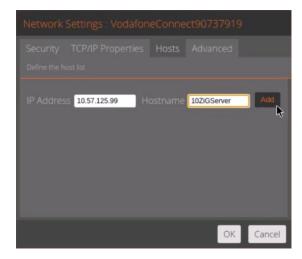


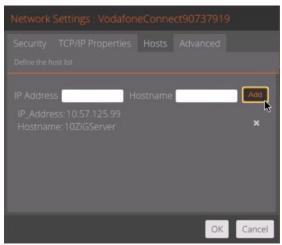
From the "TCP/IP Properties" tab, you can set a **static IP address** if used in your environment, and also use specific **DNS server** addresses.





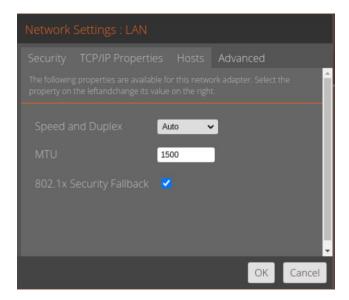
Using the "Hosts" tab you can define the host list for the wireless connection. Just click in the box below "Define the host list. Format: Ip\_Address hostname" and start typing the IP address, followed by its hostname.





If you click on the "Advanced" tab, you'll be able to set the "Speed and Duplex", "MTU" and "802.1x Security Fallback" options for the adapter.

If you need any further information regarding setup of 802.1x and SCEP, 10ZiG have a document titled "SCEP setup v2". Please contact your Technical Support team and they'll be happy to provide you with a copy of the guide.



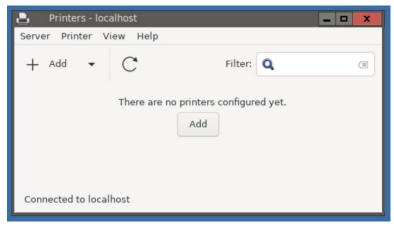


## **Printers**

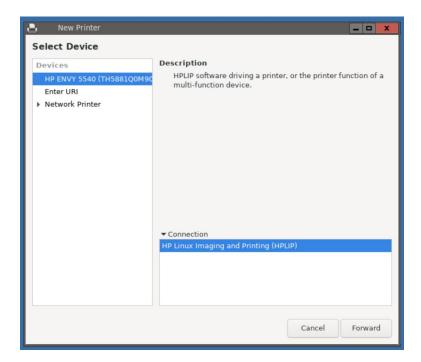


The Printers applet allows you to add a local or network printer and gives you the ability to fully configure it on your client endpoint.

# **Configuring Local USB Printer**



Clicking "Add" inside the applet, will allow you to discover any printers, locally or on your network.

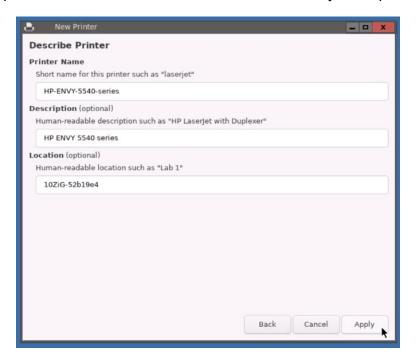




Once you've found your printer, click "Forward" and its drivers will be searched for and then installed locally on your endpoint.



You then have options to describe the device in more detail to suit your requirements as below.



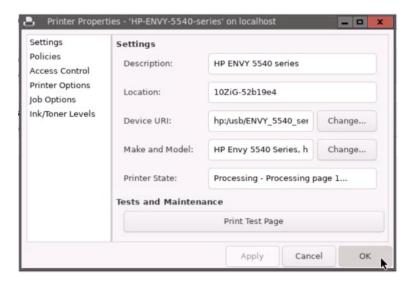
During the setup process, you have the option to "Print Test Page".



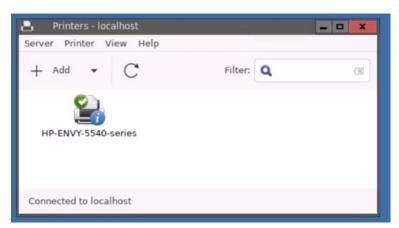


Once the printer is added, further options will become available for configuration such as :-

**Settings Policies Access Control Printer Options Job Options** Ink/Toner Level information



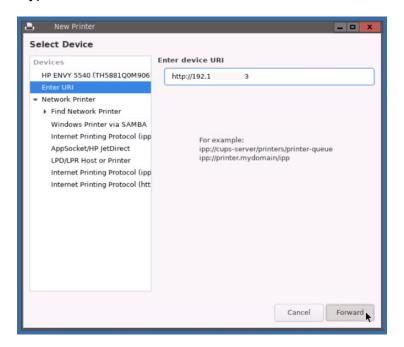
Once complete, your printer will show up in the list of configured devices on your physical client endpoint.



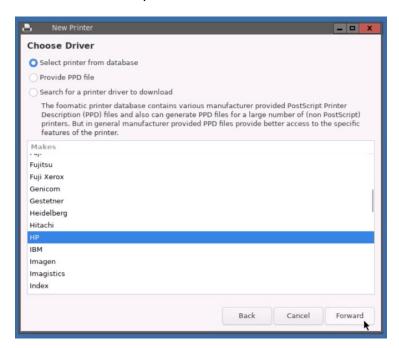


## **Configuring a Network Printer**

If adding a network printer, you can either select the connection type from the "Network" Printer dropdown list or just type in the device URI.

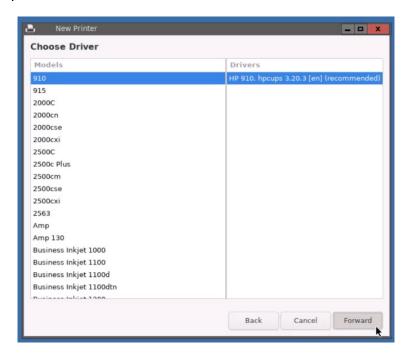


Choose the printer vendor from the list provided.





# Choose the appropriate drivers.

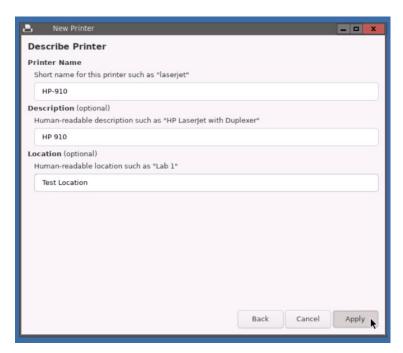


# Select Installable Options.

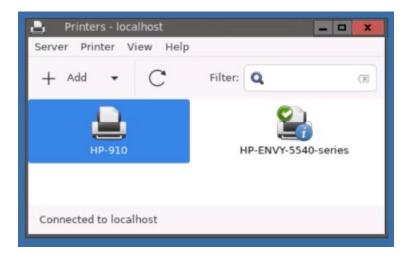




Describe the printer.



The network printer added successfully.



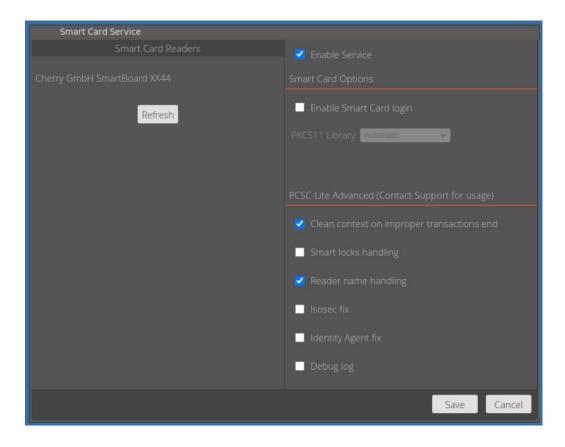


### **Smart Card Service**



This service allows you to Enable or Disable your Smart Card Service and Reader Device.

Unless you require specific settings for your readers, these settings can be left as default. Contact 10ZiG Support for information on advanced setup of your reader.





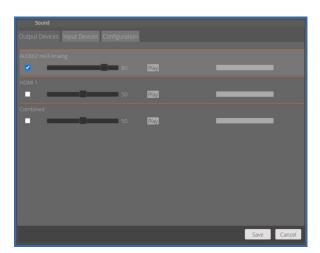
### Sound

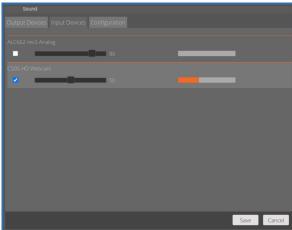


The Sound window allows you to control the speaker (Output:) and microphone (Input:) volumes and also lists the audio devices being used.

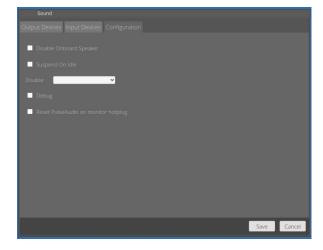
The output devices tab lists all connected output devices and gives you the ability to select your preferred device, set the volume and test its output by clicking the "Play" button.

The input devices tab lists all available input devices and lets you select your preferred device for input. This example below displays the integrated microphone of the C505 HD Webcam.





You also have the ability to configure options such as disabling the onboard speaker if you're using external speakers and also suspend these devices to save power if the client device is idle.

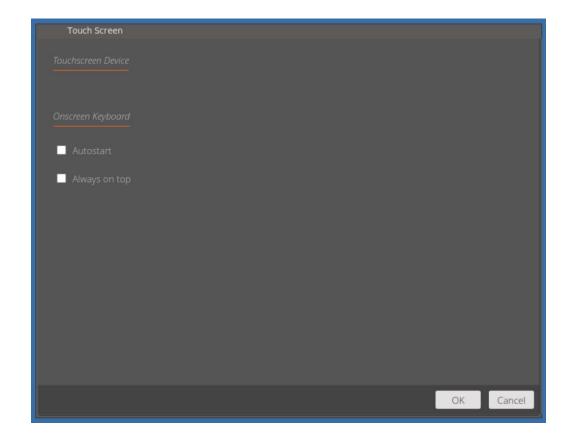




## **Touch Screen**



This is where you can find any touch screen devices that are attached to your Zero Client. You can also set options for the Onscreen keyboard, so that when the screen is plugged in, the onscreen keyboard appears and also that it is "Always on top".





### **USB Devices**

USB Devices for VMware and Citrix can be controlled here. Looking at the screenshot below, you can see a list of categorized device classes listed at the top of the grid and individually attached devices can be seen towards the bottom.

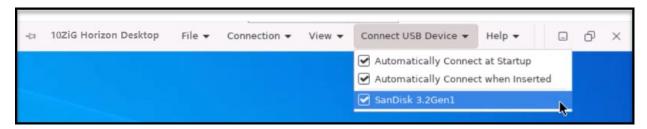
Devices You can include or exclude whole groups of classed devices from being passed to the VDI and also include, exclude, or set individual devices to default. If you set the individual device to default, then it will inherit the state of its parent class above.

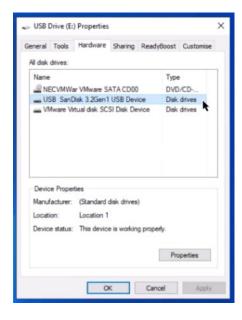
Using the example below, with 2 "Mass Storage" devices attached, we might want to include the whole of the "Mass Storage" device class to be passed to the VDI but then set the "Kingston Technology DataTraveler" to be excluded and leave the "SanDisk" device as default.





If we then launch a VMware Horizon session, we should see only the "SanDisk" inside the Horizon "toolbar" and inside Windows "File Explorer", as it would have inherited the "include" status of its parent class "Mass Storage". The "Kingston" device however is not available, as expected.







# **System**

### **Certificates**

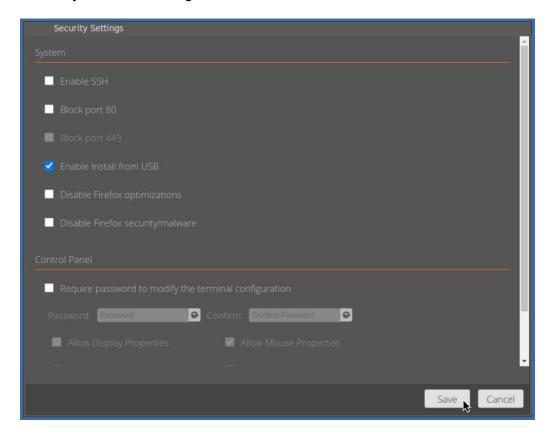


The Certificates applet opens the Certificate Manager and allows administrators to delete or show the certificates that are currently installed on your NOS Unit.

# **Importing Certificates**

You can import Certificates to your units two ways, via USB or the 10ZiG Manager.

In Security Settings click "Enable Install from USB" and click "SAVE" if you intend to import certificates locally from USB storage.



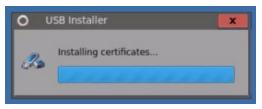


## Importing a Certificate from a USB storage device

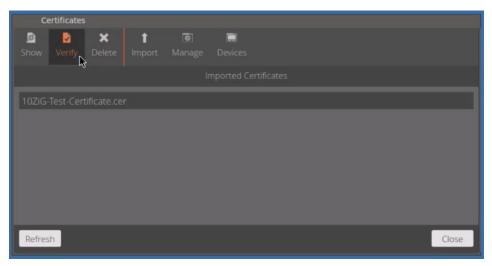
To import a certificate, insert a USB drive (Formatted to FAT32) into the unit that contains the certificate file.

You will see the list of certificates displayed on screen, simply click any that you wish to import and then click "Install", as below. You should see the "Installing certificates" dialog box and then you'll be returned to the "USB Installer" dialog box.





Once the certificates have been installed successfully, close the "USB Installer" dialog box, go into the "Control Panel" and click on the "Certificates" icon under the "System" heading and you'll see the newly imported certificate inside there.



If you highlight the certificate and then click "Verify", the certificate will be checked for its validity and a dialog box will be displayed to indicate this.





# Importing a Certificate from the 10ZiG Manager Web Console

Just as you can import certificates locally on the 10ZiG NOS Zero Client, you can also import them remotely, by using the "10ZiG Manager Web Console".

Open the "10ZiG Manager Web Console", highlight the Zero Client that you wish to update certificates for, right click and select "Configuration" and "Retrieve".



Once retrieved, go in the "Configuration" menu again and select "Edit" this time. Once displayed, double-click the "Certificates" icon under the "System" heading as shown below.



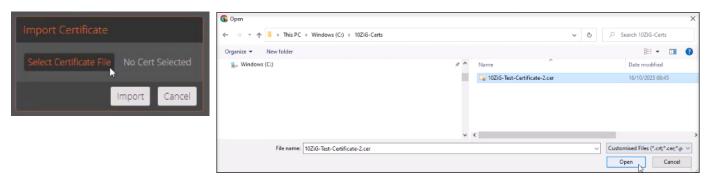
Once the "Certificates" dialog box opens, notice the already installed certificate that we imported locally on the 10ZiG Zero Client earlier.

Click "Import" to locate a new certificate that will be saved on the "10ZiG Manager Server" and sent with the next configuration download to the client.

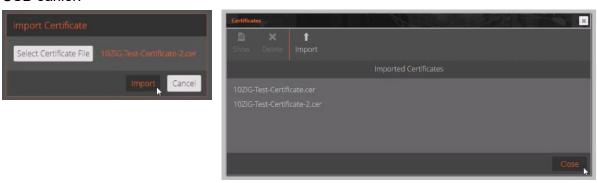




When the "Import Certificate" dialog box appears, just click the "Select Certificate File" button, navigate to the certificate file you wish to import and then click "Open".

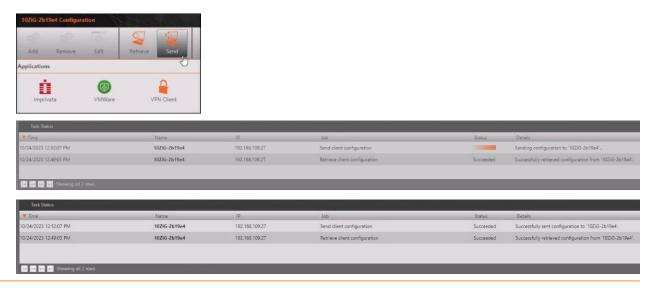


Once the "Import Certificate" dialog show the correct certificate name, just click "Import" and you'll see the newly imported certificate displayed alongside the original one added locally via USB earlier.



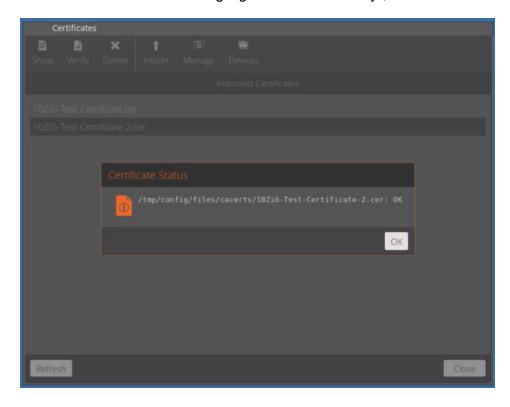
Now that we've added a new certificate to the configuration, we need to send it back down to the 10ZiG Zero Client and then check that it got there successfully.

Whilst still inside the configuration screen for this client, click the "Send" button in the top right of the dialog box and wait for the successful "Send client configuration" message to appear in the "Task Status" window of the Web Console.





On the 10ZiG Zero Client again, if we open "Certificates" inside the "Control Panel", we can see that our recently transmitted configuration successfully imported the certificate named "10ZiG-Test-Certifictae-2" and if we highlight it and click "Verify", it checks out successfully as expected.

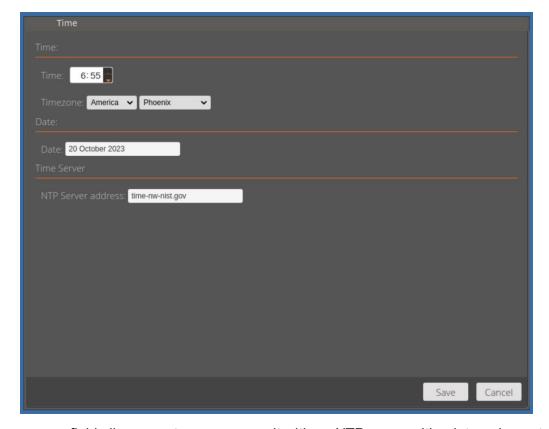




## **Time & Date**



The Date and Time applet allows administrators to set the current time and date, time zone and if an NTP time server will be used.



The time server field allows you to sync your unit with an NTP server either internal or external. (Note: you must have internet access to use an external time server).

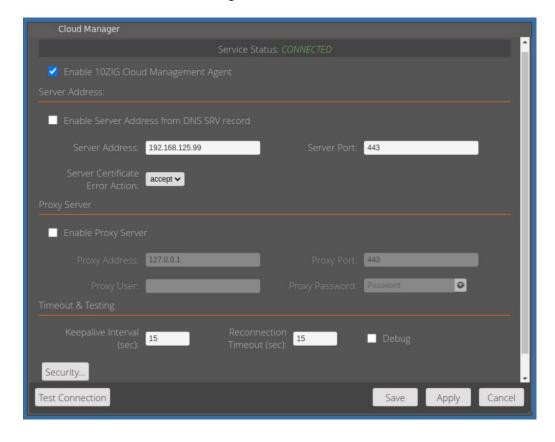


# 10ZiG Cloud Manager

Cloud Manager 10ZiG Cloud Management Agent allows you to use our Cloud Manager technology to manage your devices. By default, the 10ZiG Cloud Management Agent is enabled, but does not contain any address or port information.

If you have a DNS SRV record configured to point to your 10ZiG Manager Server, then this will connect automatically to it.

Alternatively, simply fill in the server and port information and click the "SAVE" button, and the Agent will check in with the 10ZiG Manager.





## System Logs



Selecting a log file from the left hand menu will enable you to view it in the right window.

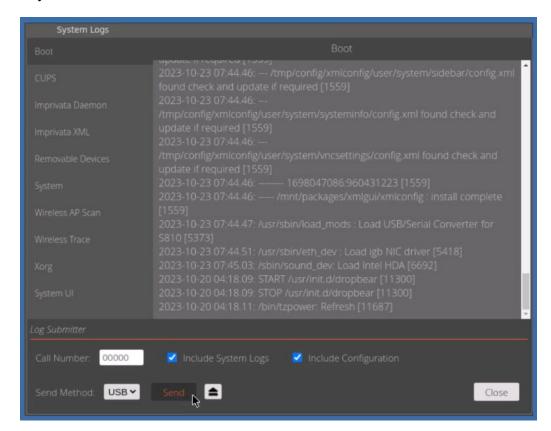
If you wish to send your collated logs to a 10ZiG support technician, you have two ways of doing this, you can either write them to an attached USB device for use later or retrieve them using the "10ZiG Manager Web Console".

If you have already logged a call with technical support and have a call reference, then you can enter that in the "Call Number" field in the bottom left of the screen.

## Collecting Logs via a USB storage device

Once you are viewing the log you would like to send, select, tick either of the "System" or "Configuration" log options and click the "Send" button and it will be saved to your USB storage.

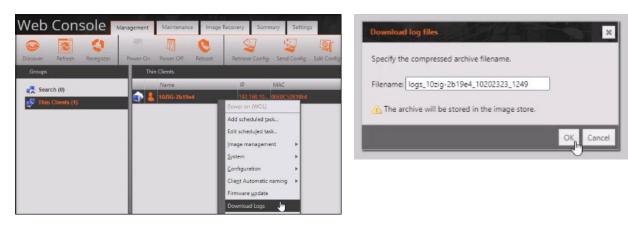
Remember, if you "Send" to USB, always click the "Eject USB" button, to make sure your logs are saved securely.





# Collecting Logs via the 10ZiG Manager Web Console

Inside the Web Console, right click on your Zero Client and click "Download Logs" from the drop-down menu. When the dialog box appears, a default log filename is already completed on the form, but if you prefer, just type in your own filename, and click "OK". Notice that the dialog states that the archive will be stored in the "Image Store" on your 10ZiG Manager Server.



Once the logs have been uploaded, if you navigate to the "Image Store", you'll see the recently created log file inside a sub-folder called "log packages", matching the filename above.



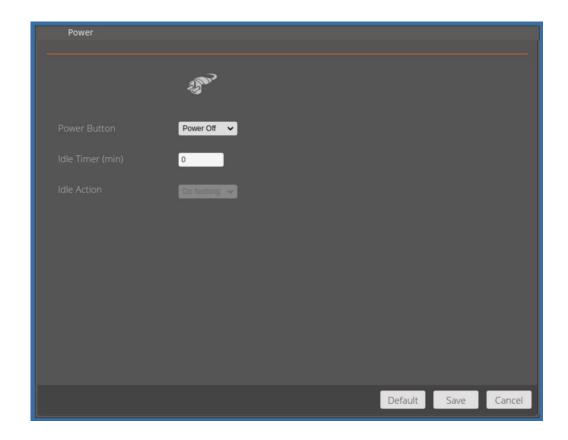


#### **Power**



Inside the "Power Management" screen, you have the ability to decide what the power button does when you depress it on your 10ZiG client. The options available are, "Power Off", "End Session", "Suspend", or "Do nothing".

You also have the option to choose what to do if the device is idle for a specific period of time. Setting the idle timer will then allow you to select the "Idle Action". These actions are the same as the "Power Button" actions above.

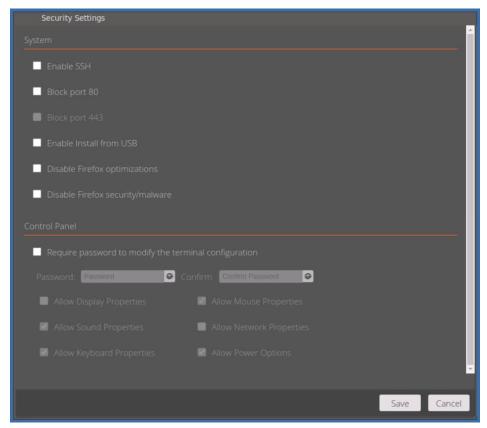




# **Security settings**



Security Settings allows administrators to set a password to be able to modify certain hardware settings. You can also enable installation from USB Mass Storage for thumb drives or external USB drives. This is also where you can enable the SSH Client option.



There are two additional options on this screen, related to behavioral configuration of the Mozilla "Firefox" browser.

The first one is "Disable Firefox optimizations" and ticking this option will disable some of the background network chatter that Firefox creates when launched. It is recommended to enable this option if you experience network issues due to "boot storms" / "login storms" when all units are opening Firefox at the same time. Otherwise, it is recommended to leave it unchecked by default.

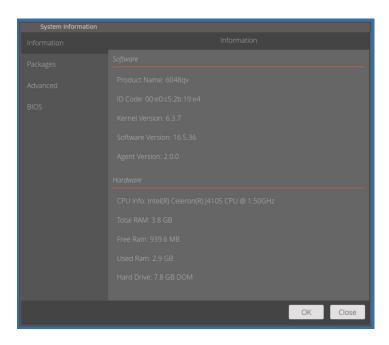
The other "Firefox" configuration option is "Disable Firefox security/malware". Only enable this option to disable remaining Firefox background chatter options which are generally used for security purposes. This option disables important security features from Firefox such as: Malware protection, tracking protection, and TLS/SSL certification revocation check. This option should only be enabled on the advisory of a network administrator that has deemed it necessarily safe and secure to disable this background chatter from Firefox.

# **System Information**



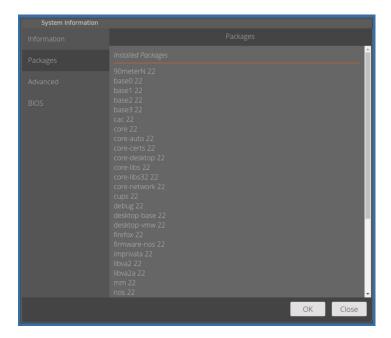
# Information

The General option will allow administrators to identify the product name, the firmware version, the applied template (if any), and the name of the unit. The name can be easily changed by using the Change Name button.



# **Packages**

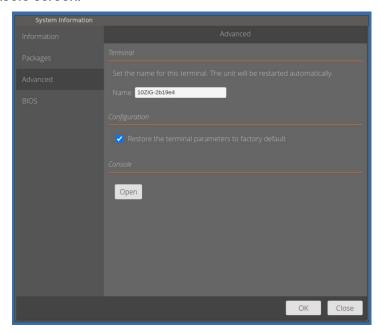
Selecting Packages will show the currently installed Linux packages on the Zero Client.



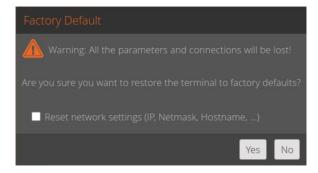


#### **Advanced**

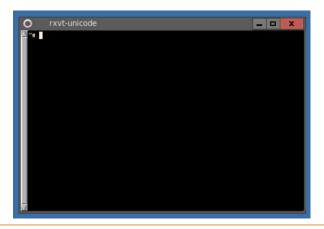
The Advanced options allow you to view more detailed info about the unit. Including CPU, HD size, RAM, Firmware and Kernel. You can also set the unit back to factory defaults, as well as launch a Linux console screen.



# **Factory Default message**



### **Console Screen**



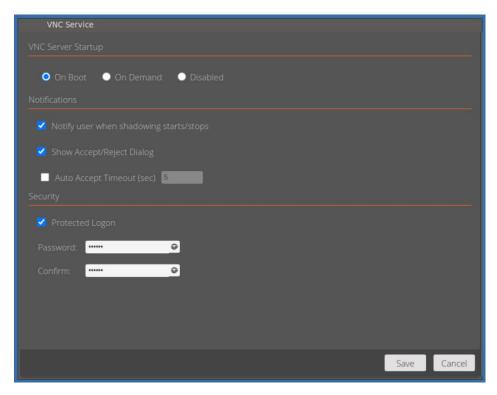


#### **VNC Service**



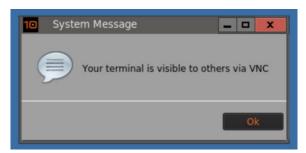
Here, you can edit the settings used to remotely connect to the unit using VNC (Virtual Network Computing). "Start VNC Server" options include "On Boot", so that any VNC client can connect, "On Demand", so only "Cloud Manager" connections are allowed or "Disable", so that no connections are allowed. You can choose to show and accept or reject dialog to the user from the client connection and auto-accept after a timeout period.

You also have the ability to set a password locally, that the client needs in order to gain access to the 10ZiG Zero Client.

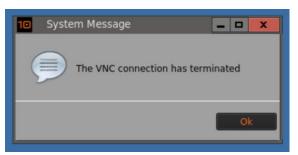


If you switch on the "Notify user when shadowing starts/stops" option, then your user will see the following notification messages when a shadow session starts and end respectively.

## **Start Shadowing**



# **End Shadowing**





## **VPN Client**

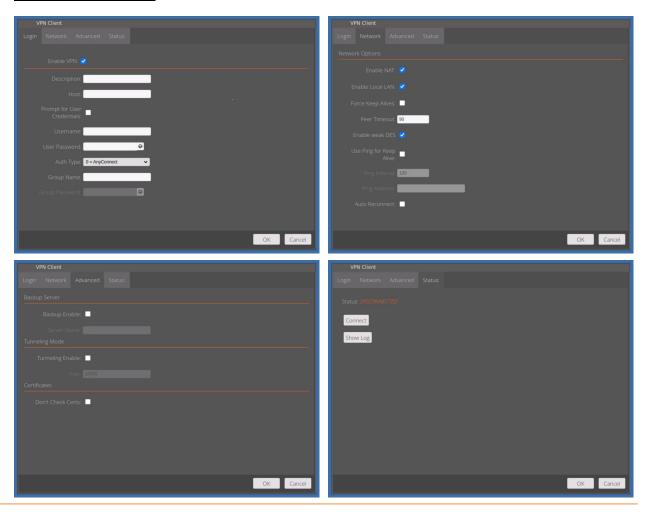


The VPN Client GUI runs on top of "OpenConnect". OpenConnect is a cross-platform multi-protocol SSL VPN client which supports a number of VPN protocols as listed below.

- Cisco AnyConnect
- Array Networks SSL VPN
- Juniper SSL VPN
- Pulse Connect Secure
- Palo Alto Networks GlobalProtect SSL VPN
- F5 Big-IP SSL VPN
- Fortinet Fortigate SSL VPN

Contact your network or systems administrator if you need to set up this VPN client.

### **VPN Client GUI Screens**



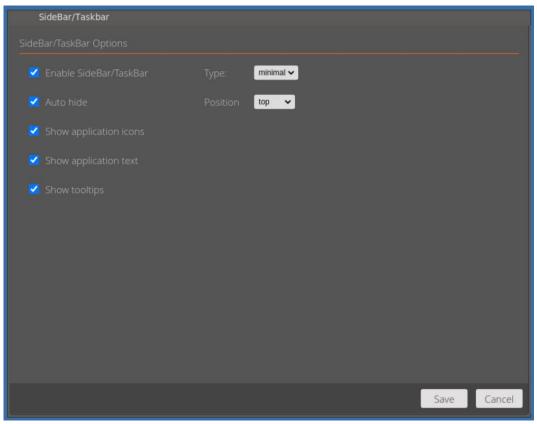


#### SideBar/TaskBar



Enabling the SideBar/Taskbar gives you the ability see the current windowed tasks running on your 10ZiG Zero Client. You have multiple options available, including the type of bar, such as "full" length or "minimal" sized bar. You can also choose where to position it on screen and if you want it to display as icons, text, or both.

If you don't always want visibility of it, then you have the option to "Auto hide" when not required.



Using the settings in the example above, here is the "SideBar/TaskBar" being displayed at the top of the screen, with the "Control Panel" task running.





# For more information, FAQs, and helpful hints, please browse to https://www.10zig.com/resources/support\_faq

**END OF DOCUMENT**