ZyPer Management Platform Release Notes

Software 2.5.37610

June 15, 2022

Revision History

Date	Version	Fixes/Changes
May 25, 2022	2.5.37604	General Availability release
June 15, 2022	2.5.37610	Labeling Fix for EDIDs and new info on 5Volts
July 12, 2022	2.5.37610	Added Utility Port fix under Issues Resolved

Contents

1. Supported platforms

ZyPer Management Platform

- VMWare ESXi appliance on Ubuntu v14.04.2
- VMWare ESXi appliance on Ubuntu v16.04
- ProServer on Ubuntu v16.0.4
- Gigabyte NUC (Generation 1 Rev A) on Ubuntu v14.04.2
- Intel NUC (Generation 2 Rev C and Generation 3 Rev D) on Ubuntu v16.0.4
- Simply NUC (Rev E) on Ubuntu v20.04

ZyPer Management Platform GUI web interface

- Google Chrome

Encoders and decoders

- ZyPer4K HDMI 2.0 encoders and decoders
- ZyPerXR HDMI 2.0 encoders and decoders
- ZyPerXS HDMI 2.0 encoders and decoders
- ZyPer4K Netgear Module encoders
- ZyPerUHD encoders and decoders
- ZyPerUHD wallplate encoders
- ZyPerUHD Dante encoders
- ZyPerHD encoders and decoders (Last Release supporting ZyPerHD units)
    - **NOTE:** Version 2.3.x was the last version ZyPerHD devices were supported in the ZyPer Management Platform. If after updating you are no longer able to manage the ZyPerHD device, please revert the ZyPer Management Platform to the previous version.
- ZyPerXS HDMI 2.0 – 1.3.2.4
- ZyPerXR HDMI 2.0 – 1.3.2.4
- ZyPerUHD – 1.18 (New firmware process)
    - All hardware versions are now updated with the unified *.UP1 file
- ZyPerUHD Dante Encoder – 1.18 (New firmware process)
- ZyPer4K HDMI 2.0 - 4.1.2
- ZyPer Netgear Module Encoders - 4.0.0.6

Please note For ZMP versions before 2.5 please read the following:

For second-generation UHD devices, use the firmware update file with the ".bin2" file extension. First-generation and second By un-joining generation hardware can be determined by the device MAC address.

- For MAC addresses that begin with: 34:1b:22 - use the file extension .bin

- For MAC addresses that begin with: 6c:df:fb - use the file extension .bin2

In addition, the "ZyPerUHD Dante encoders" will still use the first-generation firmware updates.

2. New features

MP Server

- Enhanced Support for ZyPerNG
- Added Support for ZyPerXR
- Cross Platform Redundancy
- 5 Volt Control added to ZyPerXS/XR (Requires Endpoint Firmware 1.3.2.4
- 5 Volt Control for ZyPer4K Display Port Decoders (Toggle enabled/disabled available)

MP GUI

- Support for ZyPerXR
- Breakout of ZyPerNG to its own platform
- Support for ZyPerXR Join Config
- ZyPerUHD Idle Screen Upload
- ZyPerUHD Universal Firmware Updates

Bug Fixes in this release

- Resolved multiple issues in this version see section 3 "Issues resolved"

End of ZyPerHD support

Reminder: As of the 2.3.x release

- Release 2.3.x will be the final release to support ZyPerHD

Reminder: As of the 2.2 release

- ZyPer Management Platform Mobile mode (no longer supported)
- ZyPerUSB is no longer supported as a device (removed for this version)

3. Issues resolved

Component	Issue	Other
MP Server	Multicast address allocation crash fix	
MP Server	cURL not-really-thread-safe workarounds	
MP Server	Utility Port settings were misread, causing Disable commands to be ignored. As a upgrade note, ZyPer4K Utility ports could become inaccessable as the MP will now enforce the disabled settings.	
ZyPerUHD V1&V2	ZyPerUHD Firmware update brick fix	
ZyPer4K/XR/XS	hdmiAudio status is not correct when no video connection	
MP GUI	Zone display mix of Z4K and XS (and XR)	
ZyPerUHD V1&V2	Down device issue ZyPerUHD causes rcServer to crash	

ZyPer4K/XR/XS	HDMI disconnect on encoder does not change the decoders video state	

4. Issues Outstanding

Component	Issue	Workaround
ZyPer4K HDMI 2.0	Fast Switched joins at 480I/576I display video in an improper ratio horizontally	No workaround is available at this time.
ZyPer4K HDMI 2.0	ZyPer4K Charlie - Encoder - Incorrect FPS status (cosmetic) under 420 color formats	No workaround is available at this time.
ZyPer4K HDMI 2.0 Dual HDMI	ZyPer4K Encoder Dual HDMI input - Using an Apple 4K source, I found that UHD 60 YUV 420 8bit video is not seen on the loop out or on the decoder display	No workaround is available at this time.
ZyPer4K HDMI 2.0 Analog Expansion	If there is an active HDMI connection to the encoder and nothing is connected to the S-video port, the analog cable status shows connected and with the last S-video resolution.	No workaround is available at this time.
ZyPerUHD	ZyPerUHD - HDCP is not reported on the UHD encoders. Also, it allows video traffic to flow to devices that do not support the HDCP version used.	Restart or reboot the encoder to gain the correct information.
ZyPerUHD	ZyPerUHD - Decoder - UHD 60 8 bit 420 - When connecting a UHD60 encoder to a Decoder with a display that has only 1080 support, when rebooting the device, it does not always return video	After about two minutes the video comes back.
ZyPerUHD	There is a known issue with ZyPerUHD video walls above 3X3. Changes to an active video wall of sizes larger than 3X3 cause fluctuations in the video under all screens of the wall for up to 5 minutes before stabilizing.	This only happens on a modification to the video wall configurations. Unjoining all screens of the video wall with the disconnect to the video wall clears all the video. Then changes to the wall's config can be made, followed by a rejoining of the encoder to the wall.
ZyPerHD	In the ZMP GUI under the config of the encoder, the ZyPerHD Encoder shows it supports the new compressed audio option for the EDID. This feature is not supported on the ZyPerHD.	Feature if selected will do nothing as the devices have a hard-coded EDID.
MP - Server	Encoder videoScaledStream stays enabled even when it was not used in Multiview mode	By un-joining all the other video connections involving the encoder that you are trying to connect with will clear this state. Then re-join the encoder to the same decoder in fast-switched mode.
MP – NUC	Power off via Shutdown command on the 1st generation NUCs does not shut down the server.	Manual power off on the NUC power button is required to shut it off.
Multiview	When removing an encoder that is assigned to multiple Multiview windows in the same configuration, the video will not be removed	Deleting the window will need to be done in the API to remove the video from the proper display window.

	until the encoder is removed from all windows	
ZMP GUI – ZyPerUHD - Analog Audio	Cannot join HDMI audio separately in the GUI for ZyPerUHD devices. Instead of a Join, the GUI sends a disconnect for analog audio for the device.	Use the API to set audio separately.
ZMP GUI - Multiview	Encoder Window, sound, and status are not indicated under the ZMP GUI Multiview config. The icon for the sound source of the Multiview does not show active sound if the window is selected for sound source and saved.	Checking the API is required to see the sound source for the Multiview config.
ZMP GUI - Multiview	Edit menu- The pattern button still resizes when you click on the bottom 3rd of the button when in a Multiview single panel	Click the resized button to access the drop down menu.
ZMP GUI - Source	On occasion, the custom config containing "disconnect" actions will show no actions after saving the config.	Close the browser and restart it if this gets into this state.
ZMP GUI - Upgrade - ZUHD	When you first upgrade from 1.7.4 or 1.8 the ZyPerUHD shows the Join config for Fast switched without the Audio. In 2.0 and 2.1 this is now required to get Audio to connect when using the GUI	Edit the Join config for the fast switch and add the audio to the configuration or select to reset to defaults to receive the new join config.
ZMP Downgrade - Video Wall	If a downgrade from 2.3 to 2.2 is done, decoders assigned to video walls will be unassigned.	Use Revert if a downgrade is needed to 2.2
Preview	The preview video has vertical lines in the video on some encoders.	No workaround is available at this time.
Save System config	Some system configurations like presets are not saved out of the system config.	No workaround is available at this time.
Save System config	Some commands are saved out of order like Multiview "create" and "set" commands	No workaround is available at this time.
MP – Does not obtain DHCP IP	If the MP is powered on and is set for DHCP but the Switch or Switch connection is not up, the server will fail to get the DHCP address once it comes back online	A reboot of the server will allow it to get the DHCP address.

5. Known limitations

ZyPerXS HDMI 2.0

Component	Limitation	Workaround
Encoder	No Overlay is available for this product.	Working as Designed
Encoder - Decoder	HID USB is available only on this product, USB is not compatible with ZyPer4K HDMI 2.0 units.	Working as Designed
Encoder - Decoder	If the ZyPer encoder or decoder is connected to the MP system network before the upgrade, the units will show up as decoders after the upgrade to 2.2 and above.	Delete the device and the units will be added back in properly. This is true for Decoders as well to gain full functionality.

ZyPer4K HDMI 2.0

Component	Limitation	Workaround
Decoder	When swapping HDMI from ZyPer4K decoders with the HDMI unplugged for less than 5 seconds, the decoder fails to read the new EDID.	When power cycling or unplugging, wait 5 seconds before plugging the unit back in.
Decoder - Display port board variant	When Display port connections to a Monitor or TV that are set to 3840 X 2160 60 FPS 8 bit 444, the video has been seen to stop and start again after a link training has been established. It is not every time and in testing varies depending on particular environment variables as up to 1 out of every 5 link training events. The event itself is specific to a disconnect of the Display Port connection or power event of the end points.	To work around this problem, the following guidelines must be implemented to obtain reliable 3840 X 2160 60 FPS during these particular instances of fault. For Genlocked connection, sources must be using reduced blanking timing, limiting pixel clock to 550MHz. Fast-switched connections may also be used as the method of joining the Encoder to the Decoder. The advanced timing command must be used to configure the decoder for use: set decoder *decoder_name*|*decoder_mac* display-advanced-timing sync-front-porch 48 2 sync-width 32 5 hsync-polarity auto vsync-polarity auto total-size 4000 2222

Encoder – SDI board variant	**Genlocked mode –** Audio is limited to 2 channel supports	None
Encoder - Analog Board variant	During connections using the VGA port on the expansion board, audio may not be available for the connection. This occurs one out of every 15 to 20 connects using the VGA port on this device.	We have found that resetting the port to HDMI and then back to VGA does resolve the issue.
Multiview	Resolution of 2560 X 1440 is not supported for the Multiview window	None
Multiview	Custom Multiview containing two windows above 2048x1080 fails to join window to the decoder	None

ZyPerUHD

Component	Limitation	Workaround
Decoders	When the UHD Decoder is downscaling from UHD 3840 X 2160 60 420 8 bit to 1080P 60 on a display, if a reboot (power cycle or restart command) occurs to the Decoder the Display will not return video.	To recover from this state the device needs to be rejoined to display video once more.
Decoders - CEC off|on	It has been found that on some Samsung displays, the CEC "on" command will not return the monitor to an active state. One monitor that experienced this issue was a Samsung 4K UN40JU6500. To activate the TV after encountering this event, a power on must be done.	A power Cycle of the TV is required
Decoders - Sleep mode	In addition, when using the sleep mode feature to set the display to sleep (regardless of the decoder connections) displays require a 10-second window if the user wants to disable this mode.	A power reset of the Decoder will be required
Encoder	HDCP, interlacing state, Bit sample, Color Space, and Color Format states may not report correctly on UHD encoders • HDCP status – May not report correctly • Interlacing State – Will always show "no" • Color Space – Will always report 444 • Color Format – Will Always report RGB Color bit depth –always reports 8 bit	None
Encoder	Under the Encoder information output the EDID used for the encoder may not match the decoder it is joined to. This is part of the design, as the system will load an EDID that it feels is most compatible. This could be an EDID that is either stored in its database or from an	Working as designed

	active decoder that shares the encoder's connection.	
Independent Audio routing	Joins of Audio between the encoder and the decoders or changes in the audio to the decoder will cause a 1 to 2 second video interruption. This is because of an internal modification of this connection.	None
Audio Limitation	The audio for the Decoder's HDMI and Analog out port is limited to only one source of the Encoder's audio.	None
Independent IR routing	Due to the implementation of independent IR joins from device to device. We are no longer able to receive IR from the device to the server.	None
Resolution Support	Resolution Support for ZyPerUHD does not support 4096 resolutions and will not produce resolutions at 3840 X 2160 50 FPS/60 FPS. The ZyPerUHD encoder will not recognize any video above 3840 X 2160 60 FPS YUV 420, 8 bit (in either bit rate or color format).	None
RS232 Configuration and routing	Changes to the RS232 configuration to support the endpoint-to-endpoint communication require the devices to be restarted. Changes to the baud rate, connection endpoints, and other rs232 communication will restart the device.	It is no longer required to reset the endpoint for device-to-device communication, only when going to or from device to server does the device reset. RS232 config changes still reboot the device when made.

ZyPer GUI

Component	Limitation	Workaround
After Upgrade	After upgrading to 2.3, the connection tooltips under the Display Panel Icons show only video connected.	A refresh of the GUI will show all connections on the Display Panel Icons
Thumbnail	When starting Thumbnail videos, sometimes the icons show a pinwheel instead.	A stop and start of the thumbnail video by clicking on the Icon will remedy this issue. Alternatively, a refresh of the GUI will show all the videos enabled.
Video wall	If a name of a Decoder is changed and the video wall that contains said decoder is then opened for editing, the Decoder will no longer be present under the configuration.	After the Decoder name is changed but before the video wall is opened for edit, a refresh can be done. Then the video wall will contain the Decoder with the changed name.

ZMP Redundancy and VMWare

Component	Limitation	Workaround
ZMP with dual NICs	Setting the Management Interface (eth1) on a ProServer or a dual NIC NUC ZMP device to an IP not accessible to the originating ZyPer Management Platform Source machine could cause an inability to access the Management port after it is set.	To correct this, the user should enter the ZyPer Management Platform under the "Video-Network" IP from a device on that network and correct the Management NIC interface address.

ZyPer Management Platform – VMWare updates	Starting in the upgrades to 1.8, VM Hosted ZMPs require the use of the update_vm to upgrade to 1.8 and beyond. Reverting to 1.7X and 1.6 versions are possible through the use of the standard update_nuc file if needed.	None
VMware Redundancy Support	There is no support for virtual machines hosting the ZMP image under 1.8, only single-server deployments are supported.	None

6. Current device firmware

Device	File version
ZyPer4K HDMI2.0	4.1.2
ZyPerXS HDMI2.0	1.3.2.4
ZyPer Netgear Encoder Module	4.0.0.6
ZyPer4K HDMI1.4	2.10.x
ZyPerUHD Encoders and Decoders	1.18
ZyPerUHD Wallplate Encoders	1.18
ZyPerUHD Dante Encoders	1.18
ZyPerHD* Encoders	2.12.3
ZyPerHD* Decoders	2.12.4

* Release 2.3.x will be the final release to support ZyPerHD

Firmware capability

Endpoint Firmware	MP 1.8	MP 2.1	MP 2.1.1	MP 2.2	MP 2.3	MP 2.3.1	MP 2.4	MP 2.5
ZyPer4K 3.5.2	X							
ZyPer4K 4.0.0.X	X	X	X					
ZyPer4K 4.0.1.0		X	X					
ZyPer4K 4.1.0				X	X	X	X	X
ZyPer4K 4.1.2					X	X	X	X
ZyPerNG 4.0.0.6				X	X	X	X	X
ZyPerXS/XR 1.2.0.2					X	X	X	X
ZyPerXS/XR 1.3.2.0								X
ZyPerXS/XR 1.3.2.4								X
ZyPerUHD up1.1.5	X	X	X					
ZyPerUHD up1.1.6	X	X	X					
ZyPerUHD up1.1.7	X	X	X					
ZyPerUHD up1.1.8		X	X					
ZyPerUHD up1.1.9		X	X	X				
ZyPerUHD up1.1.10		X	X	X				
ZyPerUHD up1.1.11				X				
ZyPerUHD up1.1.12				X				
ZyPerUHD up1.1.13				X				
ZyPerUHD up1.1.14				X				

ZyPerUHD up1.1.15				X	X	X	X	
ZyPerUHD up1.1.16				X *	X *	X *	X *	X
ZyPerUHD up1.1.17				X *	X *	X *	X *	X
ZyPerUHD up1.1.18								X
* Hot Fix Only								

Note: 1.13 is the minimum level that should be applied to ZyPerUHD2 hardware due to hardware changes that will not be compatible with lower firmware versions.

7. API Additions, changes, and deletions

Additions

ZyPerNG and ZyPerXS/XR productCode and productDescription

In this release, the NG and XS/XR devices are officially labeled under the Product and Model fields under the device Config and Status output.

Status and Config Output

- **NG Encoder**
  - device.gen; productCode=Z4KNGENC4, productDescription=HDMI 4-Port Netgear M4300, pid=0xa
- **XS Copper Encoder**
  - Product ID 14
  - device.gen; productCode=Z4KENCCXS, productDescription=Copper Encoder - HDMI 2.0, pid=0xe
- **XR Copper Encoder**
  - Product ID 24
  - device.gen; productCode=Z4KENCCXR, productDescription=Copper Encoder - HDMI 2.0, pid=0x18
- **XR Fiber Encoder Short Range**
  - Product ID 20
  - device.gen; productCode= Z4KENCFSXR, productDescription=SR Fiber Encoder - HDMI 2.0, pid=0x14
- **XR Fiber Encoder Long Range**
  - Product ID 22
  - device.gen; productCode= Z4KENCFLXR, productDescription=LR Fiber Encoder - HDMI 2.0, pid=0x16
- **XS Copper Decoder**
  - Product ID 15
  - device.gen; productCode=Z4KDECCXS, productDescription=Copper Decoder - HDMI 2.0, pid=0xf
- **XR Copper Decoder**
  - Product ID 25
  - device.gen; productCode=Z4KDECCXR, productDescription=Copper Decoder - HDMI 2.0, pid=0x2
- **XR Fiber Decoder Short Range**
  - Product ID 21
  - device.gen; productCode= Z4KDECFSXR, productDescription=SR Fiber Decoder - HDMI 2.0, pid=0x15
- **XR Fiber Decoder Long Range**
  - Product ID 23
  - device.gen; productCode= Z4KDECFLXR, productDescription=LR Fiber Decoder - HDMI 2.0, pid=0x17

Changes

Fixed receiving video and receiving audio status outputs

In this release there are changes to the receivingVideoFromEncoder and receivingAudioFromEncoder fields under the ZyPer4K/XS/XR Decoders.

receivingVideoFromEncoder

In prior versions, this field would remain "yes" if the encoder that was connected to this decoder lost its HDMI connection. The result would be seen on the ZMP GUI Display Tab which would show the Decoder in question remains in a Green State.

In this version, we have corrected this behavior and if the connected Encoder loses its HDMI signal the Corresponding Decoders will reflect the proper state under the receivingVideoFromEncoder field of "no" and the ZMP GUI Display will show in a yellow state.

receivingAudioFromEncoder

In the prior version, if hdmipassthrough audio was connected without video, this field would show "no" This was under the ZyPer4K/XS/XR Decoders.

In this version, we have corrected this to show "yes" under this configuration.

Misc

Factory Default changes for RS232– Through the versions of ZMP 1.8 to 2.1, when ZyPerUHD devices are reset to default the following default baud rates will be applied.

- In 1.8 the default is 38400
- In 2.0 the default is 9600
- In 2.1 or later the default is 115200

Deletions

- No API command deletions in this release.

For more information on API command changes introduced in the ZMP v2.5 release, please see page 17 of this document.

8. Upgrading and Downgrading

Unique update files are required for each platform

Starting with release v1.8, the ZyPer MP update file will be available in three, platform-specific versions. Please use the correct version for the hardware platform being updated.

File name examples:

- ZyPerMP NUC computer: update_nuc_2.5.37604.zyper
- ZyPerMP Proserver: update_proserver_2.5.37604.zyper
- ZyPerMP VMware: update_vm_2.5.37604.zyper
- ZyPerMP Simply NUC: update_nuc2004_2.5.37604.zyper

Known issues with upgrading and downgrading

Affected Versions	Issue	Affected Hardware	Workaround
Moving to 1.7.4 from prior versions	The ZMP Generation 2 can only be upgraded through the service rcServer update command	ZMP NUC generation 2	The process is shown below From the ZMP OS command line perform the below commands. sudo service rcServer stop sudo service rcServer update /srv/ftp/files/update_...
Moving back to 1.7.4 after being upgraded	The ZMP Generation 3 comes installed with 1.7.4.33922 pre-installed and is upgradable. However, in a downgrade scenario after an upgrade, it cannot be downgraded to anything less than 1.8.34961	ZMP NUC generation 3	If downgrading, you will need to go to 1.8.34961
Downgrading to 1.7.1	Downgrading to the 1.7.1X version of the software will require the user to clear the cache to see the "Roles or Users" panel.	ZMP NUC generations 1 and 2	Clearing the browser Cache
Upgrading from a version prior to 1.6	There is reduced support for downgrading due to the extensive additions to the newer versions. In particular, the 1.3 to 1.4 versions require additional steps to recover from the change in database tables, fields, and features that are not present at the time of the original version.	ZMP NUC generations 1 and 2	1.3 and 1.4 versions should be upgraded to 1.6 before upgrading to the new releases
Upgrading to 1.6 and above	1.5.2 cannot upgrade to releases above 1.7.X through the GUI due to the file size limitations of the new release.	ZMP NUC generations 1 and 2	Upgrading to 1.6 first will allow GUI upgrades. Alternatively upgrading using the API will work as well.
Downgrading to 1.6 or 1.5.2	If downgrading to 1.5.2 or 1.6, you may have to clear the browser cache before logging back into the MaestroZ – An error may occur in the browser alerting you to a cert error, this was	ZMP NUC generations 1 and 2	Clearing the browser cache

	actually due to the login to the REST server (which is not present on versions prior 1.7.X), the browser may maintain this login path on the next login until the cache is cleared.		
Downgrading to 1.6 or 1.5.2	If downgrading to either 1.5.2 or 1.6, the user in MaestroZ will not be able to add zones. This is due to the "datetime" format change in the zone table when Maria DB replaces MySQL. Reverting keeps Maria DB thus the command sent to create the zone fails because of the format mismatch of the datetime.	ZMP NUC generations 1 and 2	N/A
Upgrading to 2.2	If ZyPer4K units exist on the network and are available to the MP before upgrading to 2.2, these devices will show up as decoders only and not contain all functionality.	All Platforms	Deleting these devices in the API or GUI will allow the system to discover them properly.
Upgrading to 2.2	When adding ZyPerXS units to an existing system it is necessary to set the Join Config to factory defaults in order to generate a valid Join Config for the XS units.	All Platforms	Resetting the Join config to factory defaults – will need to do this on a ZyPer4K Source Icon.
Downgrading to 2.2 from 2.3 GA	There is a known issue where the video wall decoders will become unassigned	All Platforms	Using the revert function to go back to 2.2 will avoid this issue. Use of revert is always preferred.

Other Notes: Beginning in 1.7.4 there is a saved file that includes the export from the database before an update. This file can be used to restore the database to the state it was in before the upgrade. The file is called: zyper.*zyperversion*.sql and resides on the ZMP under the folder: /srv/ftp/files. Where "zyperversion" is the version, the system was on before the upgrade.

For versions prior to 1.8, please follow the below upgrade path

Starting Version	Jump 1	Jump 2	Jump 3	Jump 4	Jump 5	Jump 6
1.1.X	1.3	1.6	1.7.4	2.1	2.3.1	2.5
1.2.X	1.3	1.6	1.7.4	2.1	2.3.1	2.5
1.3.X	1.6	1.7.4	2.1	2.3.1	2.5	
1.4.X	1.6	1.7.4	2.1	2.3.1	2.5	
1.5.2.X	1.6	1.7.4	2.1	2.3.1	2.5	
1.6.X	1.7.4	2.1	2.3.1	2.5		
1.7.4.X	2.1	2.3.1	2.5			
1.8	2.1	2.3.1	2.5			
2.0	2.1	2.3.1	2.5			
2.1	2.3.1	2.5				
2.1.1	2.3.1	2.5				
2.2	2.5					
2.3	2.5					
2.3.1	2.5					
2.4	2.5					

Upgrade and downgrade support for the following platforms of the management server

- ZMP Generation 1
- ZMP new Generation 2 and 3
- VMware
- ProServer

Interface IP type and internet state

- Interface IP Mode: Defines how the interface acquired its IP
- Internet Access Available? Defines whether the server can reach the outside internet

- **ZMP GigByte NUC (Generation 1)**

Version Prior Upgrade	Interface IP Mode	Internet Access available?	Result of upgrade and downgrade to and from this release
2.2.36791	DHCP	Yes	Passed
2.2.36791	DHCP	No	Passed
2.2.36791	STATIC	Yes	Passed
2.2.36791	STATIC	No	Passed
2.2.36791	Link Local	No	Passed
2.3.37103	DHCP	Yes	Passed
2.3.37103	DHCP	No	Passed
2.3.37193	STATIC	Yes	Passed
2.3.37103	STATIC	No	Passed
2.3.37103	Link Local	No	Passed
2.3.1.37395	DHCP	Yes	Passed
2.3.1.37395	DHCP	No	Passed
2.3.1.37395	STATIC	Yes	Passed
2.3.1.37395	STATIC	No	Passed
2.3.1.37395	Link Local	No	Passed

- **INTEL NUC Celeron ZMP (Base Installed Version is 1.7.4.33922) Generation 2**

(In the prior release notes this generation 2 was labeled Pentium, this was a type-o as this generation was a Celeron processor)

Version prior upgrade	Interface IP Mode	Internet Access Available?	Result of upgrade and downgrade to and from this release
2.2.36791	DHCP	Yes	Passed
2.2.36791	DHCP	No	Passed
2.2.36791	STATIC	Yes	Passed
2.2.36791	STATIC	No	Passed
2.2.36791	Link Local	No	Passed
2.3.37103	DHCP	Yes	Passed
2.3.37103	DHCP	No	Passed
2.3.37193	STATIC	Yes	Passed
2.3.37103	STATIC	No	Passed
2.3.37103	Link Local	No	Passed

2.3.1.37395	DHCP	Yes	Passed
2.3.1.37395	DHCP	No	Passed
2.3.1.37395	STATIC	Yes	Passed
2.3.1.37395	STATIC	No	Passed
2.3.1.37395	Link Local	No	Passed

- **INTEL NUC Pentium ZMP (Base Installed Version is 1.7.4.33922) Generation 3**

Version prior upgrade	Interface IP Mode	Internet Access Available?	Result of upgrade and downgrade to and from this release
2.2.36791	DHCP	Yes	Passed
2.2.36791	DHCP	No	Passed
2.2.36791	STATIC	Yes	Passed
2.2.36791	STATIC	No	Passed
2.2.36791	Link Local	No	Passed
2.3.37103	DHCP	Yes	Passed
2.3.37103	DHCP	No	Passed
2.3.37193	STATIC	Yes	Passed
2.3.37103	STATIC	No	Passed
2.3.37103	Link Local	No	Passed
2.3.1.37395	DHCP	Yes	Passed
2.3.1.37395	DHCP	No	Passed
2.3.1.37395	STATIC	Yes	Passed
2.3.1.37395	STATIC	No	Passed
2.3.1.37395	Link Local	No	Passed

- **SIMPLY NUC Celeron ZMP (Base Installed Version is 2.4.37311) Generation 4**

Version prior upgrade	Interface IP Mode	Internet Access Available?	Result of upgrade and downgrade to and from this release
2.4.37311	DHCP	Yes	Passed
2.4.37311	DHCP	No	Passed
2.4.37311	STATIC	Yes	Passed
2.4.37311	STATIC	No	Passed
2.4.37311	Link Local	No	Passed

- **ProServer (Base Installed Version is 1.8.34703)**

Version prior upgrade	Interface IP Mode	Internet Access available?	Result of upgrade and downgrade to and from this release
2.2.36791	DHCP	Yes	Passed
2.2.36791	DHCP	No	Passed
2.2.36791	STATIC	Yes	Passed
2.2.36791	STATIC	No	Passed

2.2.36791	Link Local	No	Passed
2.3.37103	DHCP	Yes	Passed
2.3.37103	DHCP	No	Passed
2.3.37193	STATIC	Yes	Passed
2.3.37103	STATIC	No	Passed
2.3.37103	Link Local	No	Passed
2.3.1.37395	DHCP	Yes	Passed
2.3.1.37395	DHCP	No	Passed
2.3.1.37395	STATIC	Yes	Passed
2.3.1.37395	STATIC	No	Passed
2.3.1.37395	Link Local	No	Passed

VMWARE ESXi 14.04

- **VMWare ESXI Rev2 for 16.04 – (2.2 Initial Release)**

Version prior upgrade	Interface IP Mode	Internet Access available?	Result of upgrade and downgrade to and from this release
2.2.36791	DHCP	Yes	Passed
2.2.36791	STATIC	Yes	Passed
2.3.37103	DHCP	Yes	Passed
2.3.37103	STATIC	Yes	Passed
2.3.1.37395	DHCP	Yes	Passed
2.3.1.37395	STATIC	Yes	Passed

Appendix A New Features

The following new features were added to the 2.5.37604 release to enhance several areas valued to our customers.

This Appendix provides a basic overview of the new features for this release, there is an explanation of most of the command set for each newly added item(s). However, for further details on these new features and a full listing of the command's subset, please reference the "ZyPer Management Platform User Manual" for the 2.5.37604 GA release.

New Device Support and Device Enhancements

Support for ZyPerXR devices

Components: ZyPerXR Devices, Firmware, ZyPer Management Platform API, and GUI

Overview: In this version, we have added official support for ZyPerXR copper, fiber SR (short range), and fiber LR (long range) units. This is the latest hardware which is designed for rugged use and offers the same capabilities as the ZyPerXS product.

Changes include:

- New Product Identification under config and status outputs
- Added API capabilities to correspond with the ZyPerXR components
- GUI support for ZyPerXR features and functions
- GUI Display Icons will be labeled "XR" for the corresponding units
- A Set of Default Join Configs for the ZyPerXR

For more information on the ZyPerXR, please visit the below link for more information

https://www.zeevee.com/products/av-over-ip/encoders-decoders/zyper4k-xr/

Enhancements to break out Netgear modules to their own product group ZyPerNG

Components: ZyPer Management Platform API and GUI

Overview: In this version, we have broken out the ZyPerNG out from under the ZyPer4K platform so that the capabilities of the device are defined specifically for the ZyPerNG encoders.

Changes include:

- New Product Identification under config and status outputs
- Refined Capabilities to correspond with the ZyPerNG
- GUI Breakout of the Units to specific Source and Display Icon Labeling "NG"
- A Set of Default Join Configs for the ZyPerNG

- Refined Join Configuration settings to Prevent Analog Audio input and USB/RS232 connections from the ZyPerNG

Appearance:

Product Code

device.gen; productCode=Z4KNGENC4, productDescription=HDMI 4-Port Netgear M4300, pid=0xa

GUI Icon

Default Join Configs

ZyPerUHD Image Upload GUI Support

ZyPerUHD Idle Image load

Components: GUI

Overview: In this release, we support the ability to upload to the ZyPerUHD Decoder an idle image. This process replaces the Standard Zeevee Idle Screen of the UHD decoder with a custom Idle screen that the user can define. This is done in the Display Grid, under the Config tab, selecting the "IdleImage" field and populating it with the custom jpg file. When the upload is completed, the device will reset and the new idle screen will be available.
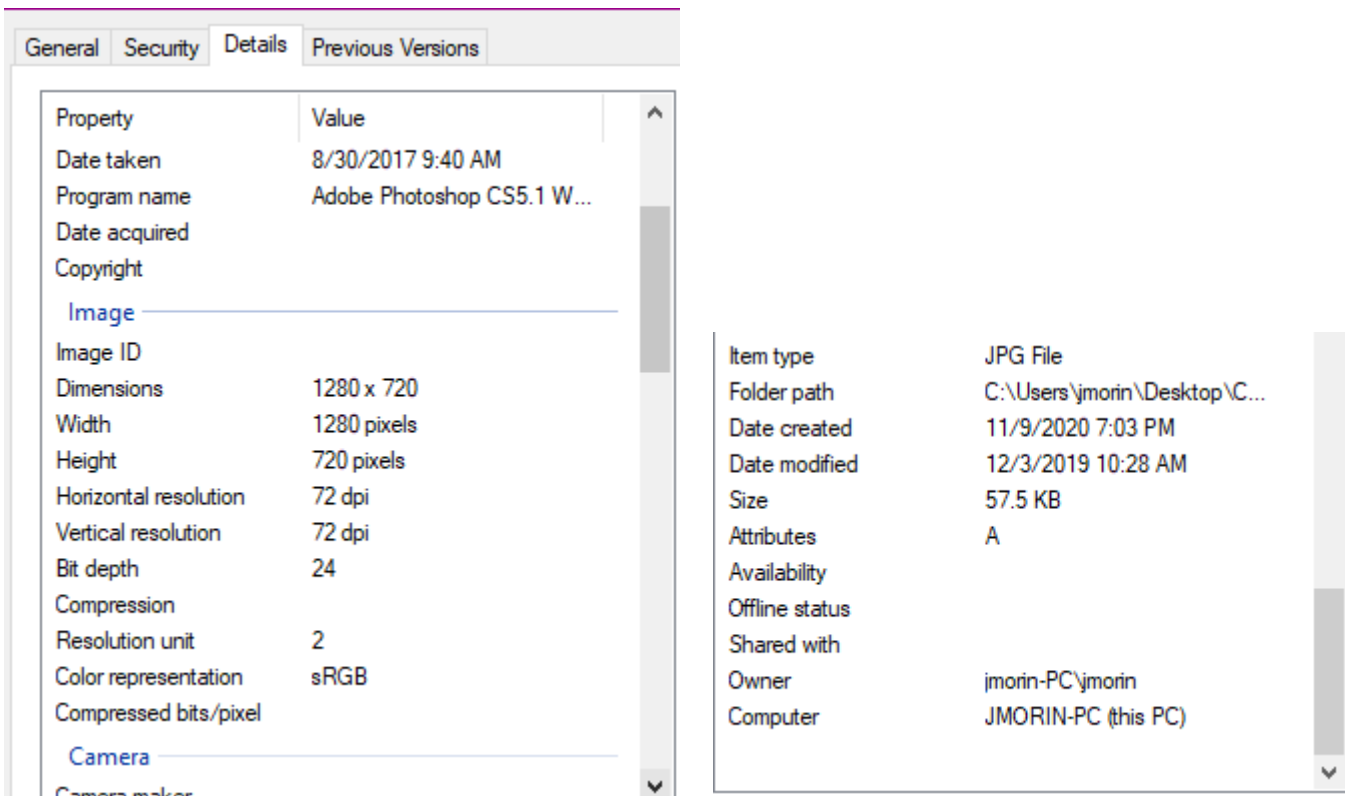
Operation: To upload a new idle image follow the below steps

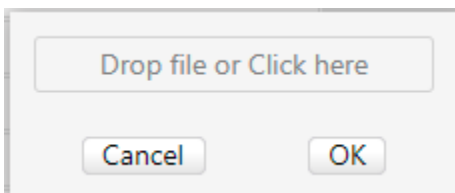**File requirements are as follows**

- jpg format

Image maximum size

- 1280 Pixels Length
- 720 Pixels Height

1) Log in to the GUI
2) Open the Display Grid Panel
3) Select the "Config" tab
4) Select the "IdleImage" Drop down on the Decoder you want to replace the image

5) Select an Upload file
6) Drag and Drop or Browse to the file you want to upload.

7) Select "OK"
8) Click on "Apply"

The idle image should load and the decoder will reboot.

Standard Idle Image

Custom Idle Image

ZyPerUHD Universal Firmware Versioning

Components: Server API, GUI

Overview: In this version, we are introducing a new firmware versioning for ZyPerUHD version 1 and Version 2 devices. The versioning will contain a set of endpoint firmware for Version 1 and Version 2 Encoders and Decoders in a single package. We have created 18 packages to start with to span the supported combinations of Encoders and Decoders. The up1. package will replace the standard .bin and .bin2 formats, which will no longer be able to be loaded from the server to the endpoints. Updating can be done using the package under the same processes used prior to this version (GUI Source/Display Details, Device Grid Firmware Tab, or from the API with the "update device" command).

The breakdown of these versions and supported ZMP revisions are listed in section 6 under Firmware Capability.

Operation:

Updating the ZyPerHD devices can be done in the following ways

Example of the update file format: update_zuhd_1.18.up1 ← 1.18 is the version that will show under the API Config output and under the GUI Firmware version.

API:

- update device deviceName|deviceMAC packageName

GUI

- Drag and drop or Browse - Source/Display - Device Details – Actions – Update Device Firmware
- Drag and drop or Browse - Source/Display Grid – Firmware tab

Appearance:

Zyper$ show device config 2a
device(34:1b:22:f1:23:2a);
  device.gen; model=ZyperUHD, type=decoder, virtualType=none, name=34:1b:22:f1:23:2a, state=Up, lastChangeId=10802
  device.gen; productCode=ZUHDDEC, productDescription=Copper Decoder - HDMI 1.4, pid=0x0
  device.gen; firmware=1.18
  device.optionalPorts; video=none, usb=full, analogAudio=yes, rs232=yes, ir=yes
Success

GUI Status

Status	
State:	Up
Cable:	Connected
HDCP:	Active
Horizontal Resolution:	1920
Vertical Resolution:	1080
Refresh Rate:	30.000
Multicast Address:	234.32.46.176
Firmware:	1.18

Device Grid Status

ZUHDDEC	1.16	Update	▼	active	update_zuh	39
ZUHDDEC	1.18	Update	▼	idle	none	0

Additional API commands:

Packagelist – Prints contents of the most up to date packageList.txt

Zyper$ packagelist
ActivePackageName: , ActivePackageVersion:
1.18

v1Dec: IPD5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v1Enc: IPE5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v2Dec: IPD5000_v3.0.3.bin2: v3.0.3
v2Enc: IPE5000_v3.0.3.bin2: v3.0.3

Packagerevs - prints all device internal revs

Zyper$ packagerevs
34:1b:22:80:51:4d: v2.0.4
34:1b:22:80:7c:f1: v2.0.4.18
34:1b:22:f0:0:87: v2.0.4.18
34:1b:22:f0:0:88: v2.0.4.18
34:1b:22:f1:23:19: v2.0.4.18
34:1b:22:f1:23:2a: v2.0.4.18
6c:df:fb:0:2:91: v2.0.2
6c:df:fb:0:2:a3: v1.2.2
6c:df:fb:0:2e:b0: v3.0.3
6c:df:fb:0:2f:da: v1.1.5
6c:df:fb:0:3f:1e: v1.1.9
6c:df:fb:0:46:db: 1.2.0.2
6c:df:fb:0:47:1b: 1.3.2.0
6c:df:fb:0:48:3b: 1.2.0.2
6c:df:fb:0:49:93: 1.3.2.4
6c:df:fb:0:51:96: v3.0.3
6c:df:fb:0:52:60: v3.0.2
6c:df:fb:0:69:b7: 1.3.2.4
6c:df:fb:0:75:5b: v3.0.2

Example of the most current Package List file
#
version: 1.18
v1Enc: IPE5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v1Dec: IPD5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v2Enc: IPE5000_v3.0.3.bin2: v3.0.3
v2Dec: IPD5000_v3.0.3.bin2: v3.0.3

version: 1.17
v1Enc: IPE5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v1Dec: IPD5000_upgrade_v2.0.4.18.bin: v2.0.4.18
v2Enc: IPE5000_v2.0.2.bin2: v2.0.2
v2Dec: IPD5000_v1.2.2.bin2: v1.2.2

version: 1.16
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc: IPE5000_v2.0.2.bin2: v2.0.2
v2Dec: IPD5000_v1.1.12.bin2: v1.1.12

version: 1.15
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc: IPE5000_v2.0.0.bin2: v2.0.0
v2Dec: IPD5000_v1.1.10.bin2: v1.1.10

version: 1.14
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4

v2Enc: IPE5000_v1.1.9.bin2: v1.1.9
v2Dec: IPD5000_v1.1.9.bin2: v1.1.9

version: 1.13
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc: IPD5000_v1.1.8.bin2: v1.1.8
v2Dec: IPE5000_v1.1.8.bin2: v1.1.8

version: 1.12
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc: IPE5000_v1.1.6.bin2: v1.1.6
v2Dec: IPD5000_v1.1.6.bin2: v1.1.6

version: 1.11
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc: IPE5000_v1.1.5.bin2: v1.1.5
v2Dec: IPD5000_v1.1.5.bin2: v1.1.5

version: 1.10
v1Enc: IPE5000_upgrade_v2.0.4.bin: v2.0.4
v1Dec: IPD5000_upgrade_v2.0.4.bin: v2.0.4
v2Enc:
v2Dec:

version: 1.9
v1Enc: IPE5000_upgrade_v1.2.2.b1.bin: v1.2.2.b1
v1Dec: IPD5000_upgrade_v1.2.2.b1.bin: v1.2.2.b1
v2Enc:
v2Dec:

version: 1.8
v1Enc: IPE5000_upgrade_v1.1.2.bin: v1.1.2
v1Dec: IPD5000_upgrade_v1.1.2.bin: v1.1.2
v2Enc:
v2Dec:

version: 1.7
v1Enc: IPE5000_upgrade_v0.10.10.p2.bin: v0.10.10.p2
v1Dec: IPD5000_upgrade_v0.10.10.p2.bin: v0.10.10.p2
v2Enc:
v2Dec:

version: 1.6
v1Enc: IPE5000_upgrade_v0.10.10.bin: v0.10.10
v1Dec: IPD5000_upgrade_v0.10.10.bin: v0.10.10
v2Enc:
v2Dec:

version: 1.5
v1Enc: IPE5000-B70_upgrade_v0.10.3.bin: v0.10.3
v1Dec: IPD5000-B70_upgrade_v0.10.2.bin: v0.10.2
v2Enc:
v2Dec:

version: 1.4
v1Enc: IPE5000-B70_upgrade_v0.10.1.bin: v0.10.1
v1Dec: IPD5000-B70_upgrade_v0.10.1.bin: v0.10.1
v2Enc:
v2Dec:

version: 1.3
v1Enc: IPE5000-B70_upgrade_v0.9.5.bin: v0.9.5
v1Dec: IPD5000-B70_upgrade_v0.9.5.bin: v0.9.5
v2Enc:
v2Dec:

version: 1.2
v1Enc: IPE5000-B70_upgrade_v0.9.4.bin: v0.9.4
v1Dec: IPD5000_upgrade_v0.5.5.bin: v0.5.5
v2Enc:
v2Dec:

version: 1.1
v1Enc: IPE5000_upgrade_v0.6.1.bin: v0.6.1
v1Dec: IPD5000_upgrade_v0.5.5.bin: v0.5.5
v2Enc:
v2Dec:

version: 1.0
v1Enc: IPE5000_upgrade_v0.5.2.bin: v0.5.2
v1Dec: IPD5000_upgrade_v0.5.5.bin: v0.5.5
v2Enc:
v2Dec:

Important Notes:

1) Devices will show "unknown" if the endpoint device has a newer version of the software that is not included under the current site's package list.
2) Devices that receive updates that are already on an internal version included in the package will just update the version.
3) If a single device is updated, only that device will show the updated version.

Cross Platform Redundancy Support

Components: Server Qualification

Overview: In this release, we now support Cross Platform redundancy across all server platform types. An extensive testing period was designated during this QA cycle to certify the redundancy platforms on all types of servers.

The below servers are supported in the following modes.

Primary Server Type	Secondary Server Type	Single NIC (Server Port Only)	Dual NIC (Management Port)
NUC Rev A	NUC Rev A	Yes	No
NUC Rev A	NUC Rev C/D	Yes	No
NUC Rev A	NUC Rev E	Yes	No
NUC Rev A	ProServer	Yes	No
NUC Rev A	VMware MP	Yes	No
NUC Rev C/D	NUC Rev A	Yes	No
NUC Rev C/D	NUC Rev C/D	Yes	No
NUC Rev C/D	NUC Rev E	Yes	No
NUC Rev C/D	ProServer	Yes	No
NUC Rev C/D	VMware MP	Yes	No
NUC Rev E	NUC Rev A	Yes	No
NUC Rev E	NUC Rev C/D	Yes	No

NUC Rev E	NUC Rev E	Yes	Yes
NUC Rev E	ProServer	Yes	Yes
NUC Rev E	VMware MP	Yes	Yes
ProServer	NUC Rev A	Yes	No
ProServer	NUC Rev C/D	Yes	No
ProServer	NUC Rev E	Yes	Yes
ProServer	ProServer	Yes	Yes
ProServer	VMware MP	Yes	Yes
VMware	NUC Rev A	Yes	No
VMware	NUC Rev C/D	Yes	No
VMware	NUC Rev E	Yes	Yes
VMware	ProServer	Yes	Yes
VMware	VMware MP	Yes	Yes

To Qualify each server, redundancy failure was simulated with Power failure, Ethernet Loss, and with the use of a manual Switchover command. All Devices were retested upon failover and verification of functionality was performed after each event.

Limitations: During testing of the Ethernet Loss event there is a limitation found that when the Ethernet was restored to the Primary server, it would resume as the Primary role (unless the Preferred master flag is set to false). This is because from the Primary server's point of view the loss to the other server was seen. So, it remains the Primary server under these circumstances.

5 Volt HDMI Control ZyPerXS/XR Decoder, ZyPer4K Display Port Decoder

Components: ZyPerXS/XR Decoders, ZyPer4K Display Port Decoders, API Server

Overview: In this release we have added the ability to toggle the 5Volts on the HDMI output for ZyPerXS/XR and ZyPer4K Display Port Decoders. This feature takes effect if the HDMI is removed from the connected Encoder. The Decoder will detect this condition and automatically turn off the 5Volts on its HDMI output.

Special Note: For ZyPerXS/XR it is required that firmware be updated to 1.3.2.4

Operation: To enable this feature for the above-mentioned hardware, the below commands can be run in the command API. The default behavior for these Decoders is a "disabled" setting, therefor if the HDMI cable is pulled from the encoder the decoder will not adjust the 5Volts.

Zyper$ set decoder decoderMAC|decoderName hdmi5vControl

    disabled

    enabled

Appearance: Under the device config output there is a new field for 5Volt toggle.

Disabled (default) State

ZyPer4K Display Port Decoder

device(80:1f:12:4c:20:e8);
  device.gen; model=Zyper4K, type=encoder, virtualType=none, name=80:1f:12:4c:20:e8, state=Up, lastChangeId=70
  device.gen; productCode=Z4KENCF3, productDescription=Fiber Encoder - HDMI 2.0, pid=0x2

  device.gen; firmware=4.1.2.0
  device.gen; ethernetManagementPortMode=disabled
  device.optionalPorts; video=none, usb=none, analogAudio=yes, rs232=yes, ir=yes
  <mark>device.hdmi; hdcpMode=enabled, 5vControl=disabled</mark>

ZyPerXS Decoder

Zyper$ show device config db
device(6c:df:fb:0:46:db);
  device.gen; model=Zyper4KXS, type=decoder, virtualType=none, name=6c:df:fb:0:46:db, state=Up, lastChangeId=121
  device.gen; productCode=Z4KDECCXS, productDescription=Copper Decoder - HDMI 2.0, pid=0x0
  device.gen; firmware=1.3.2.4
  device.gen; ethernetManagementPortMode=disabled
  device.optionalPorts; video=none, usb=hid, analogAudio=yes, rs232=no, ir=no
  <mark>device.hdmi; hdcpMode=auto, 5vControl=disabled</mark>

Enabled State

ZyPer4K Display Port Decoder

device(80:1f:12:4c:20:e8);
  device.gen; model=Zyper4K, type=encoder, virtualType=none, name=80:1f:12:4c:20:e8, state=Up, lastChangeId=70
  device.gen; productCode=Z4KENCF3, productDescription=Fiber Encoder - HDMI 2.0, pid=0x2
  device.gen; firmware=4.1.2.0
  device.gen; ethernetManagementPortMode=disabled
  device.optionalPorts; video=none, usb=none, analogAudio=yes, rs232=yes, ir=yes
  <mark>device.hdmi; hdcpMode=enabled, 5vControl=enabled</mark>

ZyPerXS Decoder

Zyper$ show device config db
device(6c:df:fb:0:46:db);
  device.gen; model=Zyper4KXS, type=decoder, virtualType=none, name=6c:df:fb:0:46:db, state=Up, lastChangeId=121
  device.gen; productCode=Z4KDECCXS, productDescription=Copper Decoder - HDMI 2.0, pid=0x0
  device.gen; firmware=1.3.2.4
  device.gen; ethernetManagementPortMode=disabled
  device.optionalPorts; video=none, usb=hid, analogAudio=yes, rs232=no, ir=no
  <mark>device.hdmi; hdcpMode=auto, 5vControl=enabled</mark>

Appendix B New CamelCase Replaces Hyphenated Formatting (Introduced in ZMP v2.2 release)

Overview

A major effort has been made in 2.2 to make the API more consistent, both input commands and resulting output.
Backward compatibility was a critical goal of this effort whenever possible. There are two main mechanisms implemented to assist with backward compatibility:

- Deprecated commands: they will continue to work in 2.2 but will not be included in help or auto-complete.
- CamelCase or hyphenated commands: all commands can be entered either as camelCase or hyphenated. Only camelCase commands are in help and auto-complete.

The result is that all but a very few commands (e.g. *load encoderEdid* and audio-related parameters) from 2.1 will work in 2.2.

However, there is some API output that has changed. While this is minimal, it may require some changes to third-party applications processing the output.

CamelCase Commands – 100% Backward Compatible

Commands in 2.1 are mostly hyphenated. A major change in 2.2 is to "default" all command tokens to camelCase. *However, all commands changed to camelCase are 100% backwardly compatible*:

- API Help will show only camelCase command syntax
- API autocompletion will only complete camelCase syntax
- But: API input will still accept the hyphenated commands as defined in 2.1

For example, the following versions of the same command are accepted in 2.2:

```
set decoder dec1 display-size auto set decoder dec1 displaySize auto
```

CamelCase Show Output

Most of the output in 2.1 is already camelCase. However, to make the interface as consistent as possible, there are a few tokens that changed to camelCase in 2.2. In most cases, they are fairly obscure output but may require changes in third-party applications.

For more information on the updated CamelCase formatting, please reference the latest version of the ***ZyPer Management Platform User Guide*** found on our website's documentation page.

https://www.zeevee.com/documentation/