API

Application Programming Interface

User Manual
Updated September, 2025
API Release 4.1x

Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries that may be included with this product and/or accessories should never be exposed to open flame or excessive heat. Always dispose of used batteries according to the instructions.

Operating Notes

- The ZyPer Management Platform includes the ZMP web interface. The following browsers are supported:

  ► Google Chrome version 55.0.2883 or greater

- Refer to the Support page on the ZeeVee web site to download the latest firmware.

Support

Contact us for installation and technical support, repairs, and warranty service:

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Features

- Pre-configured Linux O/S is maintenance-free and includes upgrades and support.
- Plug & Play operation will discover and enable labeling and control of any number of ZyPer4K, ZyPerUHD, ZyPerUHD60 or KDS-17 encoders and decoders.
    - Note: Release 2.3.x was the final release to support the ZyPerHD
- Interface allows the independent routing of video, audio and control signals.
- The feature-rich API makes ZyPer4K / ZyPerUHD / ZyPerUHD60 / KDS-17 the perfect add-on to existing distribution systems without the time and dollars usually required for custom programming.
- Presets enable signal routing and scheduling of saved, pre-defined source-display settings for easy duplication and recall.
- Real time system monitoring includes generating alerts for offline or disconnected ZyPer4K / ZyPerUHD / ZyPerUHD60 / KDS-17 devices, sources and displays.
- Auto detection/discovery of additional encoders and decoders make system scaling a snap.
- Easily create and manage video walls of any pattern or configurations up to a 15 x 15 array.
- Create and manage Multi-view displays with up to 19 sources. (ZyPer4K only)

New Features 4.1

- KVM Roaming (ZyPer4K-XS/XSE/XR only)
- AES67 Support (ZyPerUHD60 only)
- Active Directory Lightweight Directory Services (ADLDS)
- Support for Kramer KDS-17 (Compatible with ZyPerUHD60)

New Features 4.0

- Support for ZyPer4K-XSE units added
- Ability to disable Icron USB in ZyPer4K-XSE added to 4.0.3.x
- Zones features updated
- Commands for ZyPer V.A.M. added (Visualization, Analysis, Monitoring Tool) Note this feature is Beta. (Not supported on ZyPerUHD60-2EMP)
- Transport Layer Security updates
- 802.1X Support added (ZyPer4K-XS/XSE/XR only)
- Multicast discovery enabled for ZyPer4K endpoints.
- Update Dante IP address (ZyPerUHD60-2EA and 2DA only)

New Features 3.2

- Added support for ZyPerUHD60 2E, 2EA, 2D, 2DA
- Added specific commands related to Dante enabled UHD60 encoders and decoders

New Features 3.1

- Added support for ZyPer4K 12G SDI Encoder

New Features 3.0

- Many account and security related features
- Flash LED lights from GUI
- Set Low Power mode from GUI
- See Icron USB IP addresses in Display/Source Grid
- Set Server IP address from GUI

New Features 2.3 / 2.4

- Additional Multiview preset patterns. (ZyPer4K only)
- Clock added to Preset Calendar.
- Copy/Clone command added for Multiview. (ZyPer4K only)
- License count only applies to ZyPer4K units. Non ZyPer4K units do not count against license limit.
- Channel up/down command added for Multiview windows. (ZyPer4K only)
- Update ZyPerUHD "No Source Found" background from ZMP GUI.
- Ability to enable or disable viewing of IP address and firmware version in ZyPerUHD "No Source Found" screen. (Release 2.3.37261 and newer)
- Updated help search features for API
- Release 2.4 includes update to Linux version 20.04 on the new NUC-E form factor Management Platform. (See hardware specifications in Section 1)

New Features 2.5

- Update ZyPerUHD "No Source Found" background from ZMP API.
- Maximum supported video wall size increased to 15x15 for ZyPerUHD
- Ability to disable 5V HDMI line on ZyPer4K-XS/XR decoders when no video routed to the decoder.
- Ability to issue a channel up or channel down command to ZyPer4K decoder via a ZeeVee IR remote control or ZyPer Trigger. Requires ZV IR RX unit.

New Features 2.5.3

- Support for the new ZyPerUHD60

ethernetManagementPort changed to utilityPort

The 1Gb port on ZyPer4K units was referred to as the ethernetManagementPort in previous releases of the API. With release 2.3 this is now changed to utilityPort.

New/Updated Commands 4.1 (See API Command Listing)

- add ldap
- convertPid
- create kvm
- delete kvm
- delete ldap
- redundancy add server
- redundancy delete server
- rename kvm
- set device dante
- set kvm
- set ldap mode
- set ldap server
- set ldap type
- set server isolationMode
- show kvm config
- show kvm swapped
- show ldap
- show server managedDevices
- start kvm
- stop kvm

New/Updated Commands 4.0 (See API Command Listing)

- add snmp netNode
- delete snmp netNode
- generate tls csr
- load tls device
- rename zone
- set decoder analogAudioOut
- set decoder danteAudioOut
- set decoder hdmiAudioOut
- set decoder lowLatency
- set device dante ip
- set device optionCard
- set device usbType
- set device utilityPort
- set encoder analogAudioOut
- set server api lineWrap
- set server contact
- set server discoverMode
- set server ftp mode
- set server hostName
- set server location
- set server redundancy
- set server security
- set snmp netNode
- show device names
- show snmp netNode

New/Updated Commands 4.0 (See API Command Listing)

- show server config
- show server info
- show snmp netNode
- show tls device summary
- show tls ca pem
- show tls device pem
- show tls server pem

New/Updated Commands 3.2 (See API Command Listing)

- help
- join
- join dante
- set encoder danteAudioOut
- set decoder danteAudioOut
- set device security (ZyPer4K-XS/XR only)
- set device utilityPort
- set device videoPort

New/Updated Commands 3.0 (See API Command Listing)

- authenticate username
- create account
- delete account
- delete role
- generate tls
- help
- load account
- load tls
- logout
- set account
- set decoder autoAudioConnections hdmiAudioFollowVideo
- set multiview allowMainStream
- set role
- set server security
- set server timezone
- set tls
- show account
- show device config
- show files
- show logs
- show server ip duplicates
- show tls
- sign tls
- troubleReport

Support for older ZMP NUC Devices

- ZMP NUC-D Version devices are not supported for the 4.1 release. These are Intel NUC devices with a single Ethernet port. These devices are running an incompatible version of the Linux Operating System and were last shipped from ZeeVee in early 2022. They look like the image below:

- First generation ZMP NUC devices are not supported with the 3.0 release of ZMP API. These devices are running an incompatible version of the Linux Operating System and were last shipped by ZeeVee back in 2017. These units can be easily identified as they have the brand name "GigaByte" written on the underside of the unit.
- Customers using an older NUC that wish to upgrade to the 4.1 or newer ZMP API release should contact the Kramer sales team (ZV_sales_team@kramerav.com) to purchase an updated ZMP Hardware device.

These API Commands have been removed

- join dante
- set server ssh password
- set device control authorization

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1 Application Programming Interface

Accessing the API

Using Telnet

Telnet is a popular protocol that can be used on both Windows® and Mac OS® operating systems to connect to the programming shell. On a Windows operating system, a Telnet client, such as "PuTTY", must be installed. From a Unix or Mac OS command line, use the `telnet` command followed by the IP address of the Management Platform:

```
telnet 192.168.0.22
```

> Instead of specifying the IP address of the Management Platform, the following identifier can also be used: `zyper.local`
>
> *Example:* `telnet zyper.local`

Telnet will use port 23 by default and once connected, the API prompt will be displayed:

```
Zyper$
```

Getting Help

To make it easier to find commands, help now supports groups.

- `help` – lists all options
- `help byConcept`-- lists commands within a concept

  Note: The same command may appear in more than one concept.
- `help all bySubsystem` – lists all commands in subsystem
- `help all alphabetical` – list all commands in alphabetical order

Help is available in two forms. Typing `help` or `?` at the prompt will list all available commands:

```
Zyper$ help all alphabetical

 Help All Commands Alphabetical
    add device ipAddress <ip>
    add snmp trapServer v2cTrap ipAddress <address:ip> community
    <string>
    ...
    ...
    update device <deviceNamePart>|all|encoders|decoders <filename>
    update server <filename>
Success
Zyper$
```

```
Zyper$ help

 Help commands:
    help
    help all alphabetical
    help all byConcept
    help all bySubsystem
    help all byAccessLevel
    help concept <helpConcepts>
    help subsystem <helpSubsystems>
    help accessLevel <helpAccessLevels>
    help search string <keyWord:string>
    <command> help
    <command> ?
    ?

** NOTE: Use <tab> to complete a command **

Success
```

In addition, a partial list of commands can be listed by specifying the first word of each command. The first part of the command must be specified before the `help` command. For example, the following will only list command with the join prefix.

```
Zyper$ join help
join help
join <encoderMac|encoderName>|none <decoderMac|decoderName|zoneNa
me[.zoneName]> analogAudio|danteAudio
join <encoderMac|encoderName>|videoSource|none <decoderMac|decoderN
ame|zoneName[.zoneName]> hdmiAudio
join <multiviewName>|none <decoderMac|decoderName> multiview
join <encoderMac|encoderName>|none <decoderMac|decoderName|zoneNa
me[.zoneName]> video|fastSwitched|genlocked|genlockedScaled
join <encoderMac|encoderName>|none <wallName> videoWall
join <encoderMac|encoderName>|none <decoderMac|decoderName>|none
usb
join <encoderMac|encoderName>|none <decoderMac|decoderName> window
viewportSource <x:int> <y:int> <sizeX:int> <sizeY:int> viewportDest
<x:int> <y:int> <sizeX:int> <sizeY:int>
join none all video|analogAudio|hdmiAudio
Zyper$
```

In addition, help can be searched by keyword. help search string <string>

```
Zyper$ help search string layer
set multiview <multiviewName> windowNumber <int> encoderName
<encoderName>|none percentPositionX <float> percentPositionY <float>
percentSizeX <float> percentSizeY <float> layer <int>
set multiview <multiviewName> windowNumber <int> encoderName
<encoderName>|none pixelPositionX <int> pixelPositionY <int>
pixelSizeX <int> pixelSizeY <int> layer <int>
set multiview <multiviewName> windowNumber <int> layer <int>
Success

Zyper$ help search string wall
add zoneDisplay <zoneName[.zoneName]> <decoderMac|decoderName|wall
Name>
create videoWall <newWallName>
delete videoWall <wallName>
delete zoneDisplay <zoneName[.zoneName]> <decoderMac|decoderName|wa
llName>
join <encoderMac|encoderName>|none <wallName> videoWall
set role rolename <rolename> subsystem all|netmap|device|preset
|zone|account|role|videowall|log|multiview|server|snmpagent|tls
maxAccess none|view|join|config|admin
set videoWall <wallName> newName <newWallName>
set videoWall <wallName> decoder <deviceMac|deviceName>|none row
<int> column <int>
set videoWall <wallName> size rows <int> columns <int> topBezel
<int> bottomBezel <int> leftBezel <int> rightBezel <int>
show videoWalls
Success

Zyper$ help search string create
create account <newUsername> password <string>|*
create account <newUsername> tempInitialPassword
create multiview <newMultiviewName>
create presetNew <newPresetName> commands existingConnections|empty
create presetSchedule <presetName> schedule <newPresetScheduleName>
create role <newRolename> allSubsystems maxAccess
none|view|join|config|admin
create videoWall <newWallName>
create zone <[zoneName.]newZoneName>
Success
```

Setting the Time Zone

The Management Platform can use the Network Time Protocol (NTP) to set the date and time. However, the time zone will need to be specified. Alternately the date and time can be set manually.

1. Telnet to the Management Platform.

```
telnet 192.168.0.22
```

2. After the connection has been established, use the `set server timezone` command to set the time zone.

> The time zone must be specified in POSIX format and is case-sensitive.
> Refer to the following link for more information:
>
> http://wikipedia.org/wiki/List_of_tz_database_time_zones.

```
Zyper$ set server timezone America/New_York
Success
Zyper$
```

3. To set date/time manually use the `set server timezonedate manual` command.

```
Zyper$ set server date manual  month 4 day 1 year 2021 hour 15
minute 1
Success
Zyper$
```

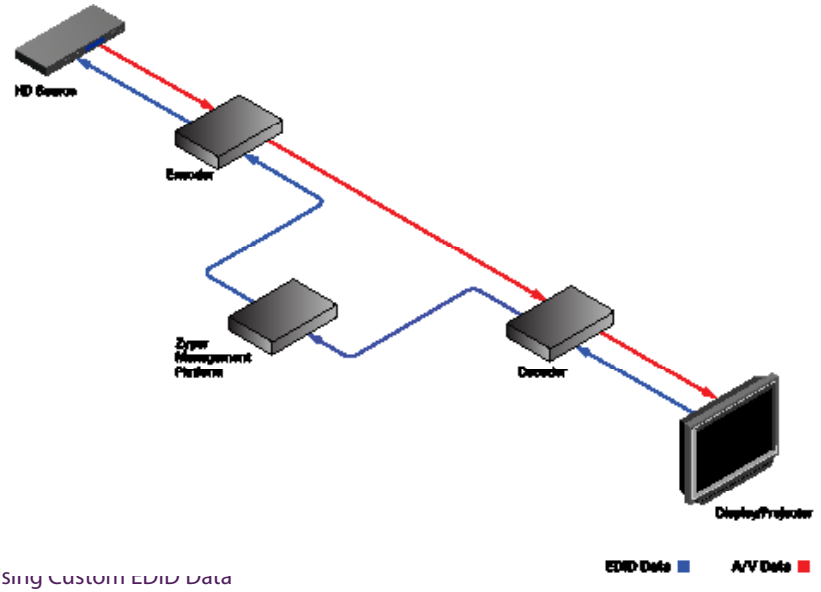
Use the `show server info` command to verify the correct time zone has been set.

```
Zyper$ show server info
server(192.168.0.22);
  server.gen; hostname=zyper.local, serverType=NUC-D, version=3.2.39285,
 previousVersion=3.2.39280, master=true
  server.gen; uptime=2d:1h:23m:58s, freeMem= 6.43GB, sdvoeVersion=3.5.0.0,
 bootCount=11, serialNumber=ZZM1K400011D
  server.gen; macAddress=94:c6:91:a0:47:fc, managementMacAddress=
  server.ipActive; ipServerAddr=192.168.0.22, ipManagementAddr=192.168.0.22,
 gatewayAddr=192.168.0.1, dnsAddr=0.0.0.0
  server.ipActive; managementGatewayAddr=0.0.0.0, managementDnsAddr=0.0.0.0
  server.time; time="Thu Oct  5 11:25:02 2023", timezone=America/New_York
  server.license; productID=F9188182-AF72-C6C8-92C6-94C691A047FC,
 license=none
  server.license; Zyper4KLimit=24, Zyper4KDevices=7, allDevices=19,
 allDevicesUp=8, Zyper4KDevicesExceeded=0
  server.deviceUpdates; active=0
  server.activeDeviceVersions; num_1.7.15.0=1, num_1.7.23.0=2,
 num_1.7.24.0=4, num_1.7.4.0=1
lastChangeIdMax(165);
Success
```

EDID Management

Auto EDID Mode

By default, Auto EDID mode is enabled. This means that the Management Platform will compare the encoder EDID with the decoder EDID. If they are different, then the EDID from the decoder (sink) will be used by the encoder (source). Setting the EDID Mode affects all join modes: fast-switched, genlocked, and video-wall. Refer to the `join` command in the API Command Listing (page 101) section for more information.



Using Custom EDID Data

There may be some instances where a custom EDID is desired. One example is when using a single encoder with multiple displays, such as a video wall. In such a case, follow the steps below to save and load a custom EDID to the Management Platform.

1. Telnet to the Management Platform.

   ```
   telnet 192.168.0.22
   ```

2. Disable Auto EDID mode by entering the following command:

   ```
   zyper$ set server auto-edid-mode disabled
   ```

3. Use the `save deviceEdid` command to save the EDID of the sink device (attached to the decoder) to the Management Platform, using the following convention:

   ```
   save device-edid [id] [filename]
   ```

   Make sure to replace `[id]` with the identifier of the sink device containing the EDID you wish to capture. You can specify either a MAC address or a name identifier. Follow the identifier with the name of the EDID file. For example:

   ```
   zyper$ save device-edid SonyXBR4 myEDID
   ```

4. After executing this command, two files will be created under the following directory:

   ```
   /srv/ftp/files/myEDID
   /srv/ftp/files/myEDID.txt
   ```

   `myEDID` is a binary EDID data file in standard format. `myEDID.txt` contains the decoded EDID in standard ASCII text.

   These files must remain in this directory when disabling Auto EDID mode.

5. To force a ZyPer encoder to use the saved EDID you need to have the MP load the binary EDID file onto the desired encoder.

   ```
   zyper$ load encoder-edid [id] saved [filename]
   ```

   Make sure to replace `[id]` with the identifier of the source device you want to load the EDID onto. You can specify either a MAC address or a name identifier. Follow the identifier with the name of the EDID file. For example:

   ```
   zyper$ load encoder-edid BlueRay1 saved myEDID
   ```

6. To return to Auto EDID mode, for any reason, enter the following command at the prompt:

```
zyper$ load encoder-edid BlueRay1 auto
```

or

```
zyper$ set server auto-edid-mode enabled
```

Using AJAX/JSON

The AJAX/JSON programming interface allows developers to control the Management Platform within browser-based applications. All calls to the server are asynchronous post/receive operations using Javascript and do not require any specific HTML or CSS code. We will present two examples in this section: Login authentication and command request/response.

Login Authentication

There are two methods to authenticate with the server. The first and recommended method is to pass the username and password to `rcLogin.php`. The second method is to pass the username and password in every AJAX request.

Once the server accepts the username and password, it will generate a secure cookie called "userToken". This cookie will expire one hour after the last AJAX command is received by the server. After the cookie expires, all other AJAX requests will result in a failed authentication until `rcLogin.php` is called again. The following code excerpt is from the `zyperLogin()` function within `zyper.html`:

```
...
...
xmlhttp=new XMLHttpRequest();
xmlhttp.onreadystatechange = function(){
   if (xmlhttp.readyState == 4 && xmlhttp.status == 200){
      procLoginResp(xmlhttp.responseText);
      }
   }
postdata = "";
postdata += encodeURIComponent("serverSocketName") + '=' +
            encodeURIComponent(socketName) + '&' +
            encodeURIComponent("username") + '=' +
            encodeURIComponent(username) + '&' +
            encodeURIComponent("password") + '=' +
            encodeURIComponent(password) + '&';
xmlhttp.open("POST", url, true);
xmlhttp.setRequestHeader("Content-Type", "application/x-www-form-
urlencoded");
xmlhttp.send(postdata);
}
```

The response is a string value. The variable `resp` can be "Success", "Failed", or "Server not running".

```
function procLoginResp(jsonData) {
       var resp = JSON.parse(jsonData);
...
...
```

Command Request / Response

After login, any further commands are sent to the rcCmd.php

The following code excerpt sends an AJAX request to list all ZyPer encoders and decoders:

```
function zt(){
  xmlhttp = new XMLHttpRequest();
  xmlhttp.open("POST", url, true);
  xmlhttp.setRequestHeader("Content-Type", "application/x-www-form-
urlencoded");
  xmlhttp.onreadystatechange = function(){
     if (xmlhttp.readyState == 4 && xmlhttp.status == 200){
        procResp(xmlhttp.responseText);
     }
  }
xmlhttp.send(encodeURIComponent("commands:show device-status
all"));
}
```

In this example, the `encodeURIComponent` function has two parts: The request type, which is `commands` and the command `show device-status all`. Refer to the `show device status` command for more information. Currently, `commands` is the only request type that is supported and only a single command can be suppplied for each request.

Here, we handle the AJAX response:

```
function procRespTest(jsonData){
   var jsData = JSON.parse(jsonData);
   # jsData.status may have the values:
   # "Success"
   # "Request failed authentication"
   # "Server not running"
   # "no commands provided"
   #
   if (jsData.status == "Success"){
      var element = document.getElementById("responseError");
      element.innerHTML = jsData.responses[0].error;
      element = document.getElementById("responseWarning");
      element.innerHTML = jsData.responses[0].warning;
      element = document.getElementById("numObjectsInResponse");
      element.innerHTML = jsData.responses[0].text.length;
   }
   else{
      // Failed authentication
   }
}
```

The JSON data is decoded using the `JSON.parse()` method. In this example, information about the response data is displayed on the web page (HTML code not shown).

The JavaScript object that is returned is:

```
var jsObj = {
   status: true | false;
   responses: [ {error: "errorText",
                 warning: "warningText",
                 text: [ { param1: "val1", parmN: "paramN" } ]
                 }
              ]
   };
```

The return value is an object that contains two members: `status` and `responses`. If the `status` member is not equal to "Success", then the `responses` member is not valid. If the request fails authentication, then the `status` value will be "Request failed authentication". Note that there may be other web-server level failures that can be returned in the `status` string.

The second member in the returned object, `responses`, which is an array of objects. Each of these objects contains three members: `error`, `warning`, and `text`. The `error` and `warning` members are strings. The `text` member is an array of objects with the desired parameters and values. If the `error` string is non-null, then the `warning` and `text` members will be null. If `text` is non-null, then the `warning` string may still be valid.

Currently, the `responses` member is always an array size of 1.

Note: ZeeVee provides a file zyper.html provides an example of all web-access commands.

From Browser the file can be accessed using IP Address of the ZMP.

http://<ipAddr>/zyper.html

Fast-Switched vs. Genlocked Mode

The ZyPer4K provides two uniquely different modes for joining video/audio between a source (encoder) and display (decoder). The chart below details the differences between these two modes.

Feature	Fast-Switched	***Genlocked***
Latency	1-frame of latency. (16-33ms depending on frame rate of source video)	0 frames of latency. Less than 100µs
Transition Appearance	Instantaneous if switching between sources at same resolution and frame rate	Visible blanking of display when switching between sources
Scaling	Automatic scaling up or down to preferred resolution of the display (As determined by display EDID)	Source is not scaled. What comes in at source is presented to display exactly as input. (Note: Special Genlock-scaled mode is available)
HDR	HDR input is automatically reduced to 8-bits at output	HDR input is maintained exactly as input at the output
Color Space	Output from decoder is always RGB	Output from decoder matches the input at encoder
Encoded Audio	AC3 or other encoded audio formats are passed from encoder to decoder	AC3 or other encoded audio formats are passed from encoder to decoder
Video Wall	Video walls are technically not supported in Fast-Switched mode. (Join command for walls defaults to Genlock-scaled)	Video walls are technically always in Genlock-scaled mode
Multiview	Multiview is supported in Fast-Switch mode	Multiview is not supported in Genlocked mode
Video Disconnect	Disconnecting video (Join None) will maintain a black screen output. (Video is not technically disconnected)	Disconnecting video (Join None) will disconnect the video stream entirely. No video output from decoder
USB, IR, RS232	None of these items are associated with Fast-Switched or Genlocked mode	

Notes: Video Disconnect refers to the existing join between encoder and decoder. If existing join is Fast-Switched then a "Join None" command simply puts out a fully black video output from the decoder. If the existing join is Genlocked, then a "Join None" command disconnects the video stream and nothing is output from the decoder. This can be verified by looking at the VID light on the ZyPer4K decoder.

API Command Listing

Command	Description
add device	Manually adds a device to Management Platform
add ldap	Add LDAP Group
add snmp	Add new snmp user or trap server
add snmp netNode	Used to add Netnode. (VAM feature)
add zoneDisplay	Adds a display or Video wall to an existing zone.
authenticate username	Used by browser to authenticate users
channel	Cycles up/down through encoders. Used to change channels.
clone multiview	Used to clone an existing multiview.
convertPid	Used to manually update Product Identification code on 12G SDI model encoders. (ZyPer4K family only)
create account	create a new user account with password
create kvm	create a new kvm
create multiview	Creates a new multiview display (ZyPer4K family only)
create presetNew	Creates a new preset
create presetSchedule	Creates schedule for existing preset
create role	Create a new role with specified access level
create videoWall	Creates an empty 2x2 video wall.
create zone	Creates a new empty zone.
dataConnect	Used Creates a TCP port connection between devices for IR or RS232
delete account	delete a user account
delete allConfiguration	Deletes all encoder/decoder and server information from the Management Platform
delete device	Used Deletes the specified encoder or decoder from the Management Platform database.
delete kvm	Deletes the specified kvm from the Management Platform database
delete ldap	Delete LDAP Group
delete multiview	Deletes the specified multiview from the Management Platform database. (ZyPer4K family only)
delete multiviewWindow	Deletes a specific window from an existing multiview (ZyPer4K family only)
delete preset	Used to delete a preset, preset runlog or preset schedule
delete role	Delete an existing role
delete snmp	Delete SNMP user or trap server

Command	Description
delete snmp netNode	Delete SNMP Netnode (VAM feature)
delete videoWall	Deletes the specified video wall from the Management Platform database.
delete zone	Deletes an existing zone
delete zoneDisplay	Removes a display from an existing zone
diagnostics device	Used Runs a set of diagnostics on device
dumpusb	Outputs information about USB devices
events	Causes the event mode to be entered
factoryDefaults device	Sets the specified encoder/decoder to factory-default settings.
flashLeds	Plysically identifies the specified encoder/decoder on the network using LED flashes.
generate tls ca privKeyPass	Used to generate a local Transport Layer Stream Certificate Authority private key.
generate tls server/device csr privKeyPass	Used to generate a local Transport Layer Stream server Certificate Signing Request private key.
help	Brings up various help options
join	Switches audo and/or video from source to display or video wall
join videoSource	Selects audio feed to follow a video join
load account	Sets GUI pre and post login images and warning text
load encoderEdid	Uploads an EDID file to the specified encoder
load idleImage	Uploads an image to use as UHD background when no video streamed to decoder (ZyPerUHD only)
load tls	Used to load TLS certifications and keys
logging	Used to set logging level and add notes to the log
logout	Used to logout current session or force logout of any active session
previewStream	Used to turn on/off the preview stream viable in the Management Platform GUI (ZyPer4K, ZyPerUHD60 and ZyPerUHD only)
redundancy add server ip	
redundancy delete downServers	Removes no longer present servers from list of redundant servers
redundancy delete server ip	
redundancy switchover	Swap Management Platform Master and Slave
rename kvm	Used to change the name of a KVM
rename zone	Used to change the name of a Zone
restart device	Restarts the specified encoder/decoder
restore server database	Restores a saved database

Command	Description
revert server	Switch to a previously installeed version of the API
save deviceEdid	Saves the EDID from a decoder to a local file
save server database	Saves current server database to file
save system config	Saves current system configuration to a file
script	Executes the specified AJAX/JSON or text script.
send	Sends an IR, CEC or RS232 string to the specified device
set account	Sets various security features
set decoder connectionMode	Changes current connection to decoder to fastSwitched, genlocked or genlockedScaled. (ZyPer4K family only)
set decoder displayMode	Sets defaults decoder output to crop, stretch or box
set decoder displayResolution	Used to set decoder output size to auto or manual resolution. (Width, Height, FPS)
set decoder analogAudioOut source	Sets the source of Analog audio output for specified decoder
set decoder danteAudioOut	Sets source for audio to put on Dante network
set decoder edidPreferMode	Sets the preferred resolution from the display EDID
set decoder hdmiAudioOut source	Sets the source of HDMI audio output for specified decoder
set decoder hdmi5vControl	Enables or disables HDMI 5V line (ZyPer4K-XS/XSE and ZyPer4K-XR only)
set decoder lowLatency	Enables or disables low latency mode on ZyPerUHD60 (ZyPer4UHD60 only)
set decoder osdStatusMode	Enables or disables OSD feature (ZyPerUHD and ZyPerUHD60 only)
set decoder powerSave	Enables or disables power-save feature (ZyPerUHD and ZyPerUHD60 only)
set device general name	Sets the name for the specified device.
set device ip dhcp linkLocal	Sets the specified device to DHCP or Link-Local mode (ZyPer4K family only)
set device ip static	Sets the device to static mode (ZyPer4K family and ZyPerUHD only)
set device dante port	Sets the device Dante port to Utility or Video (ZyPer4K-XSE family and ZyPerUHD60-2EA/2DA only only)
set device dante ip dhcp linkLocal	Sets the specified device dante core to DHCP or Link-Local mode (ZyPerUHD60-2EA/2DA only)
set device dante ip static	Sets the device dante core to static mode (ZyPerUDH60-2EA/2DA only)
set device dante vlan mode	Configured Dante VLAN mode and ID (KDS-17 family only)

Command	Description
set device irProcessing	Configures decoder to process incoming IR commands to issue Channel up/down command (ZyPer4K family white boxes only)
set device rs232	Sets the RS232 settings for the specified device
set device optionCard	Manually set ZyPer4K extended input encoder functionality
set device security	Enables security between server and device (ZyPer4K-XS/ XSE and ZyPer4K-XR only)
set device sendIpMcastRange	Sets allowable range of multicast addresses for selected devices (ZyPer4K family only)
set device sourceDisplay location	Sets the location name for the specified device.
set device sourceDisplay manufacturer	Sets the manufacturer name for the specified device.
set device sourceDisplay model	Sets the model name for the specified device
set device sourceDisplay serialNumber	Sets the serial number name for the specified device
set device usbFilter	Allows restrictions to USB use on selected device (ZyPer4K family only)
set device usbType	Enable or disable Icron USB (ZyPer4K-XSE only)
set device utilityPort	Enables or disables the 1G Ethernet utility port for the specified device (ZyPer4K and UHD60 family only)
set device videoPort	Selects active input port for ZyPer4K units with multiple inputs (ZyPer4K family only)
set encoder analogAudioOut source	Sets the source of Analog audio output for specified encoder (ZyPer4K and UHD60 family only)
set encoder edid audio	Sets allowable input audio formats
set encoder hdcpMode	Sets the HDCP compatibility at the encoder side
set kvm	Configure kvm positions, USB source and Hot Keys
set ldap mode	Enable or disable LDAP support
set ldap server address	Set the domain name of LDAP server
set ldap server	Controls LDAP settings
set ldap type	Sets LDAP to either openLdap or ActiveDirectory
set multiview	Assigns source to a position and size within a multiview display (ZyPer4K family only)
set multiview allowMainStream	Determines if main unscaled stream can be used in a multiview (ZyPer4K family only)
set multiview audioSource windowNumber	Selects the input source to provide Audio for multiview display (ZyPer4K family only)
set multiview canvasSize	Specifies Multiview canvas for multiview creation. (ZyPer4K family only)

Command	Description
set multiview newEncoderName	Used to specify a new encoder for existing multiview window. Can also set to “none”
set preset commands	Specifies commands to be used for a preset
set preset description	Sets a description for the preset
set preset schedule eventColor	Sets the color to be used for a preset schedule in the GUI calendar
set preset schedule month	Sets the schedule month/day/time to run preset
set responses rs232TermChars	Specifies the RS232 termination string
set role	Sets permisison levels for a specific role.
set server api lineWrap	Sets number of characters before API command line interface starts a new line
set server autoEdidMode	Sets the EDID mode
set server contact	Sets server contact information
set server dataTunnelMode	Sets server transfer mode to raw or telnet
set server date	Used to set server date manually or via ntp server
set server discoverMode	Used to set how server discovers ZyPer endpoints. Broadcast or Multicast
set server encoderDefault edid audio	Sets the default encoder audio format for HDMI audio input.
set server ftp mode	Enables or Disables FTP access to Management Platform
set server hostName	Sets server Hostname
set server isolationMode	Used to enable/disable auto discovey of endpoints and servers
set server ip	Sets the IP address of the Management Platform
set server isaac address	Sets the domain name of the Isaac server
set server isaac subsystemId	Sets the subsystem ID of the Isaac server
set server license	Sets server license. (Controls max endpoints)
set server location	Sets server location
set server redundancy	Set a virtual IP address/mask for Master and Slave Management Platforms
set server security	Set server device Security Key. (ZyPer4K-XS/XSE and ZyPer4K-XR only)
set server telnet mode	Used to enable or disable telnet access
set server telnet password	Used to set telnet password
set server timezone	Sets the time zone

Command	Description
set terminal output	Select either normal or JSON format output from API
set tls	Used to enable web server TLS mode
set snmp netNode	Used to change netNode settings of Nodes previously added. (VAM feature)
set snmp netNode ipAddress	Used to change netNode settings of Nodes previously added. (VAM feature)
set videoWall	Modifies an existing wall
set videoWall Decoder	Assigns the specified decoder to a position within the video wall
show account	Shows information about accounts
show dataTunnels	Shows what rs232 or IR data relay ports are opened on the server.
show device capabilities	Shows detailed capabilities of specified device or devices
show device config	Shows detailed configuration information for specified device or devices
show device connections	Shows encoder connections to decoders
show device names	Shows device names, MAC address, IP address and current state
show device status	Provides detailed status information for specified device or devices
show device userAdded	Will show a list of all ZyPer endpoints that have been manually added with the add device command
show multiviews config	Lists all created multiviews with source, position and size info (ZyPer4K family only)
show multiviews status	Lists all created multiviews with source, datarate and multicast address info (ZyPer4K family only)
show files	Show various types of files currently stored on Management Server. (EDID, Firmware, Icons, Idle Images)
show kvm config	Shows a listing of configured kvms
show kvm swapped	Shows a listing of current kvm status
show ldap groupIdToRole	r
show ldap server	Shs
show logs commands	Shows a listing of last commands send to the Management Server
show logs authentications	Shows listing of recent logon/logoff events
show preset	Shows information and configuration details for a preset
show previewStreams	Lists names of encoders currently generating a preview stream. (ZyPer4K family and ZyPerUHD family)

Command	Description
show responses	Displays the lastChangeId for the specified device
show role	Shows information about a specific role or all roles
show server config	Displays the IP address and EDID mode of the Management Platform
show server info	Displays Management Platform information
show server ip duplicates	Shows cases were an IP address has been duplicated in the system. (Issue needs to be resolved)
show server redundancy	Displays information about Master and Slave Management Platforms
show server managedDevices	
show snmp	Displays information related to SNMP
show snmp netNode	Shows information related to netNodes used with VAM feature
show tls ca pem	Show TLS Private Enhanced Mail details
show tls device summary	Show TLS Device summary
show tls summary	Show Transport Layer Security summary
show values	Shows information related to encoder, decoder, server and multiviews
show videoWalls	Displays a list of all created video walls
show zones	Displays a list of zone and displays contained within
shutdown server	Shuts down or reboots the Management Platform
sign tls	Used with CSR to create signed certifiate
sleep	Sets a time delay, in milliseconds
start encoder	Start a specified stream (ZyPer4K family only)
start kvm	Start a specified kvm (ZyPer4K XS/XSE/XR only)
stop encoder	Stop a specified stream (ZyPer4K family only)
stop kvm	Start a specified kvm (ZyPer4K XS/XSE/XR only)
switch	Switches IR or RS-232 between devices
troubleReport	Generates a trouble report
update device	Updates the individual encoder or decoder units
update server	Updates the Mangement Platform software. See Updating the Software (page 287) for more information

add device

Used to manually add a device to the ZyPer Management Platform that are located on a different VLAN/Subnet than the ZMP itself. Also used to add devices to ZMP when in Isolation Mode.

A qualified network engineer should be involved in making these configuration updates and the network switch provider may need to be consulted to ensure support of needed features.

Syntax

```
add device ipAddress ip
```

Parameters

i

Type: IP Address

The IP address of the device

Example

```
add device ipAddress 192.168.10.81
Success
```

Detailed Example

The ZyPer4K Endpoints are located on VLAN 10 and the 192.168.10.X subnet. The ZyPer Management Platform is on VLAN 20 and the 192.168.20.X subnet.

The ZMP will automatically discover any ZyPer4K endpoints located on VLAN 20. The ZMP will NOT automatically discover any ZyPer4K endpoints located on VLAN 10. However, given the proper circumstances, the ZyPer4K endpoints on VLAN 10 can be manually added to the ZMP for control.

For this to work, the network MUST be configured to route traffic between VLAN 10 and VLAN 20. How to configure the network to allow routing between VLANs is beyond the scope this document and should be done by a qualified network engineer. A simple test to confirm routing is that a device in VLAN 10 can ping a device in VLAN 20.

The ZyPer4K endpoints need to have a known IP Address. The IP Address should either be assigned by a DHCP server or assigned statically.

ZyPer4K endpoints need to be added one at a time.

You can get a listing of all "user added" devices with the "show device userAdded" command.

add ldap

Adds new Lightweight Directory Access Protocol (LDAP) group ID and assigns it a role name. (Tech or Admin)

Syntax

```
add ldap ldapGroudID id mapto rolename name
```

Parameters

id

Type: INTEGER

Group ID number for the LDAP (Range from 1 to 65535)

name

Type: STRING

Role Name

Example

```
add ldap ldapGroupId 4569 mapto roleName admin
Success

add ldap ldapGroupId 6596 mapto roleName Tech
Success
```

Related Commands

```
delete ldap
set ldap mode
show ldap server
```

add snmp

Creates an new SNMP user or trap server. (Please see Section 5 of this manual for additional details on SNMP support)

Syntax

```
add snmp arg name
```

Parameters

arg

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
`trapServer vc2Trap ipAddress <address> community <comm>`	Add new trap server at the specified IP Address
`user v2c accessLevel readOnly community`	Add new SNMP user
`user v3 accessLevel readOnly auth MD5 encrypted no username <name> password <password>`	Add new SNMP user

name

Type: STRING

IP address of trapserver or name of new SNMP user (Password must be 8 to 127 characters)

Example

```
add snmp user v3 accessLevel readOnly auth MD5 encrypted no
username john password abc12345
Success

add snmp trapServer v2cTrap ipAddress 192.168.0.231 community john
Success
```

Related Commands

```
delete snmp
show snmp
```

add snmp netNode (v3)

Adds new SNMP netNode for use with the ZeeVee Visualization, Analysis and Monitoring tool (VAM).

Syntax

```
add snmp netnode ipAddress ipaddr snmp v3 authType auth username
name password pass
```

Parameters

ipaddr

Type: STRING

IP Address of the new netNode (IP Address of switch on the network)

auth

Type: STRING

argument	Description
sha1	Use SHA-1 Hash
sha512	Use SHA-512 Hash

name

Type: STRING

Username

pass

Type: STRING

Password.

Example

```
add snmp netNode ipAddress 192.168.0.1 snmp v3 authType sha512
username admin password netgear96
Success
```

Related Commands

```
delete snmp netNode
set snmp netNode
show snmpNode
```

add snmp netNode (v2c)

Adds new SNMP netNode for use with the Visualization, Analysis and Monitoring tool (VAM).

Syntax

```
add snmp netnode ipAddress ipaddr snmp v2c communityName name
```

Parameters

ipaddr

Type: STRING

IP Address of the new netNode (IP Address of switch on the network)

name

Type: STRING

Community Name

Example

```
add snmp netNode ipAddress 192.168.0.55 snmp v2c communityName home
Success
```

Related Commands

```
delete snmp netNode
set snmp netNode
show snmpNode
```

add zoneDisplay

Adds a display or video-wall to an existing zone.

Care should be taken that individual displays found within walls are not added to a Zone. This would result in the same display being in a zone more than once.

Syntax

```
add zoneDisplay name id
```

Parameters

name

Type: STRING

The name of the zone. Names are case-sensitive. ("All" is an option to add selected id to every current zone)

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Example

```
add zoneDisplay Zone1 Decoder5
Success

add zoneDisplay All Decoder2
Success
```

Related Commands

```
create zone
delete zone
delete zoneDisplay
show zones
```

authenticate username

Used by browsers to authenticate users accessing ZMP.

Note: This command is not intended to be run directly from the API command line interface.

Syntax

`authenticate username` *`user`* `password` *`pwd`* `token` *`tkn`* `newPasword` *`npwd`*

Parameters

`user`

Type: STRING

The name of the user. Names are case-sensitive.

`pwd`

Type: STRING

Password. Passwords are case-sensitive

`tkn`

Type: STRING

Token.

`npwd`

Type: STRING

New Password.

channel

Will cycle through all encoders (of the same type as the decoder) that have a number (channel) suffix, "_nnn", where nnn is an integer (channel).

If there are encoders with names: enc_1, enc_100, enc_50, then a decoder will cycle through them in the order: enc_1, enc_50, enc_100, then back to enc_1.
If there are no encoders (of the same type as the decoder) with the channel suffix, an error is returned.

Only fastSwitch connection types is supported. If there was already a connection of some other type, it is changed to fastSwitched.

If the decoder has no connection, the encoder with the lowest channel suffix will be connected using fast-switch.

If the decoder has a connection to an encoder that does not have the channel suffix, then it will connect to the encoder that has the lowest channel suffix.

Note: In fastSwitch mode the join videoSource <decoder> command must be used to set audio to follow video join. Otherwise audio will not follow the video during channel up/down command.

Syntax

```
channel direction <decoder-id>
```

Parameters

direction
Type: STRING

argument	Description
up	cycle to next higher numbered encoder
down	cycle to next lower numbered encoder

decoder-id
Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

Example

```
channel up MyDecoder
Channel changed to Channel_2
Success
```

Related Commands

`join videoSource`

clone Multiview

Used to create a copy of an exisitng multiview. (ZyPer4K only) Once created, the new multiview will be listed under the Multiview menu within the built-in ZMP.

Use the `set multiview` command to set a source encoder to a specified location and size within the multiview.

Refer to Creating a Multiview Screen (page 45) for information on managing multiview displays in the built-in ZMP.

Syntax

```
clone multiview name to newmvname
```

Parameters

name

Type: STRING

The name of the existing multiview to be cloned. Names are case-sensitive.

newmvname

Type: STRING

The name of the new multiview. The name of the multiview cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
clone multiview mv2x2 to newmv2x2
Success
```

Related Commands

```
delete multiview
delete multiviewWindow
set multiview
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

convert PID 12G SDI Devices

Used to update the Product Identification Code for ZyPer4K 12G SDI Encoders. (ZyPer4K only).

This command typically woudl only be run once and only under the direction of the Kramer/ZeeVee support team. PID update file to be obtained from support team.

Syntax

```
convertPID ZyPer4K sdi12g toNewPid|toOldPid filename
```

Parameters

Pid Direction

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
`toNewPid`	Update all 12G SDI encoder to new Product Identification Code
`toOldPid`	Revert all 12 SDI encoders to old Product Identification Code

filename

Type: STRING

The name of the file located on the ZMP to setting new/old Product Identification Code. File to be obtained from Kramer/ZeeVee support team.

Example

```
convertPid Zyper4K sdi12g toNewPid semtech_blueriver_4.1.2.9_
build3943-zeevee-PLUS_12GSDI.apz
Success
```

create account

Creates a new user account with assigned password.

Syntax

```
create account name passwordOption
```

Parameters

name

Type: STRING

The name of the account The name of the account cannot exceed 255 characters in length. Names are case-sensitive.

passwordOption

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
password	Enter the password to be used by this account.
tempInitialPassword	System will generate a temporary one time use password that will expire after the first use.

Examples

```
create account bartender tempInitialPassword
result: password=ovmOH;arZasuHS, expires=immediate
Success

create account bartender password 12345
Success
```

Related Commands

```
delete account
```

create kvm

Creates a new kvm in the database on the Management Platform. (ZyPer4K-XS/XSE/XR only)

Syntax

```
create kvm name
```

Parameters

name

Type: STRING

The name of the kvm. Names are case-sensitive.

Example

```
create kvm ControlRoom
Success
```

Related Commands

```
delete kvm
rename kvm
set kvm
show kvm
start kvm
stop kvm
```

create Multiview

Creates an empty multiview display. (ZyPer4K only) Once created, the new multiview will be listed under the Multiview menu within the built-in ZMP.

Use the `set multiview` command to set a source encoder to a specified location and size within the multiview.

Refer to Creating a Multiview Screen (page 45) for information on managing multiview displays in the built-in ZMP.

Syntax

```
create multiview name
```

Parameters

name

Type: STRING

The name of the multiview. The name of the multiview cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
create multiview myMultiview
Success
```

Related Commands

```
delete multiview
delete multiviewWindow
set multiview
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

create presetNew

Creates a new preset. Once created, the new preset will be listed under the Preset menu within the built-in ZMP.

Syntax

```
create presetNew name commands connections
```

Parameters

name

Type: STRING

The name of the preset. The name of the preset cannot exceed 255 characters in length. Names are case-sensitive.

connections

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
`empty`	This preset has no commands or connections associated with it.
`existingConnections`	Use the current connections to generate the preset

Example

```
create presetNew EveningShutDown commands existingConnections
Success
```

Related Commands

`create presetSchedule`
`delete preset`
`run preset`
`set preset`
`show preset`

create presetSchedule

Inserts an existing preset into the schedule calendar Once created, the item must be assigned months/days/time to execute. By default without further setting, the preset will be schedule to occur every hour of every day.

Use the `set preset zoneDisplay` command to assign description, commands and schedule to the new schedule.

Syntax

`create presetSchedule` *`presetname`* `schedule` *`name`*

Parameters

`presetname`
Type: STRING

The name of an existing preset.

`name`
Type: STRING

The name of the schedule. The name of the schedule cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
create presetSchedule EveningShutDown schedule GoHome
Success
```

Related Commands

`create presetNew`
`delete preset`
`run preset`
`set preset`
`show preset`

create role

Creates a account role with specified access level.

Syntax

```
create role name allSubsystems maxAccess accessLevel
```

Parameters

name

Type: STRING

The name of the role The name of the role cannot exceed 255 characters in length. Names are case-sensitive.

accessLevel

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
admin	Role has full administration privileges. No restrictions.
config	Role is able to configure existing items (endpoints, multiview, walls etc..) but cannot create/delete items.
join	Can only issue join commands
none	No access. Can only view the Help tab.
view	Role can only view. Cannot perform any actions.

Examples

```
create account bartender tempInitialPassword
result: password=ovmOH;arZasuHS, expires=immediate
Success

create account bartender password 12345
Success
```

Related Commands

delete role

create videoWall

Creates an empty 2x2 video wall. Once created, the new video wall will be listed under the Display Config menu within the built-in ZMP.

Use the `join videoWall`command to assign a source encoder to the wall. To modify the size of the video wall and/or control bezel parameters, use the `set videoWall` command.

Refer to Creating Video Walls (page 36) for information on managing video walls in the ZMP.

Syntax

```
create videoWall name
```

Parameters

name

Type: STRING

The name of the video wall. The name of the video wall cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
create videoWall myWall
Success
```

Related Commands

```
delete videoWall
set videoWall size
```

create zone

Creates an empty zone Once created, the new zone will be listed under the Zones menu within the built-in ZMP.

Use the `add zoneDisplay` command to assign decoders or video walls to the zone.

Syntax

```
create zone name
```

Parameters

name

Type: STRING

The name of the zone. The name of the zone cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
create zone Zone1
Success
```

Related Commands

```
add zoneDisplay
delete zone
delete zoneDisplay
show zones
```

dataConnect

Connects two devices for IR or RS232 communication over a specified TCP port. (Note TCP port only valid for connection between device and server. Not valid for connection between 2 devices)

The feature of dataConnect was added to allow a third party to connect to the ZMP server with a specific port and pass raw or telnet API commands (depending on the mode) to the server and port which is designated for a particular encoder or decoder.

Syntax

```
dataConnect id1 id2 mode tunnelPort port
```

Parameters

id1

Type: STRING

The name of the first device. String names are case-sensitive.

id2

Type: STRING

The name of the second device or server. String names are case-sensitive. Note: Connection to server only supported for ZyPer4K. ZyPerUHD and ZyPer4K-XS/XR are not supported for this function.

mode

Type: STRING

ir or rs232

port

Type: INTEGER

TCP-Port #. Integer range from 1,024 to 49,152

Example

```
dataConnect MediaPlayer server rs232 tunnelPort 2345
tunnel TCP port = 2345; telnet handshake mode
Success
```

Related Commands

```
show dataTunnels
set server dataTunnelMode
```

Notes on Tunnel Ports

There is a very convenient way to get RS232 data: TUNNELS.

```
Zyper$ dataConnect Decoder_1 server rs232
Dynamically assigned tunnel TCP port = 4100; telnet handshake mode
Success
Zyper$
Zyper$ show dataTunnels
data-sessions(d8:80:39:9b:9:a2);
  device: name=Decoder_1
  rs232Tunnel: port=4100
  rs232Tunnel-connections: none
Success
Zyper$
```

You can then connect to that tunnel port using TCP. Whatever is sent is forwarded to the device. Whatever the device returns is received on that TCP connection.

In the easiest case, you can just use telnet to connect to the tunnel.

```
You can specify the port number as well:
Zyper$ dataConnect Decoder_1 server rs232 tunnelPort 4101
tunnel TCP port = 4101; telnet handshake mode
Success
Zyper$
```

You can set the default TCP connection mode: raw|telnet (defaults to telnet).

```
Zyper$ set server dataTunnelMode raw|telnet
```

When in telnet mode the IAC commands are sent/received. Although most telnet clients will also work fine in raw mode.

delete account

Deletes the specified account from the Management Platform database.

Syntax

```
delete account id
```

Parameters

id

Type: STRING

The name of the account. String names are case-sensitive.

Example

```
delete account bartender1
Success
```

Related Commands

`create account`

delete allConfiguration

Deletes all device and server information from the Management Platform. The network configuration is preserved.

Syntax

```
delete allConfiguration action
```

Parameters

action

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
reboot	Unit is automatically rebooted
restart	The ZyPer server service is restarted
shutdown	Unit is shutdown

Example

```
delete allConfiguration restart
delete allConfiguration reboot
```

Related Commands

`factoryDefaults device`

delete device

Deletes the specified device from the Management Platform database.

Note that if the deleted device remains on the network, then it will be rediscovered by the Management Platform and reposted to the database. (Unless in Isolaiton Mode) To permanently remove a device from the database, physically disconnected it and execute the `delete device` command.

Syntax

```
delete device id
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Example

```
delete device myDevice
Success

delete device 0:1e:c0:f6:42:a1
Success
```

Related Commands

`factoryDefaults device`

delete kvm

Deletes the specified kvm from the database on the Management Platform. (ZyPer4K-XS/XSE/XR only)

Can also be used to delete a specific location from a configured KVM using Row/Column location.

Syntax

```
delete kvm name

delete kvm name row <int> col <int>
```

Parameters

name

Type: STRING

The name of the kvm. Names are case-sensitive.

Example

```
delete kvm ControlRoom
Success

delete kvm ControlRoom row 2 col 1
Success
```

Related Commands

```
create kvm
delete kvm
rename kvm
show kvm
start kvm
stop kvm
```

delete ldap

Deletes the specified Lightweight Directory Access Protocol (LDAP) from the database on the Management Platform.

Syntax

```
delete ldap ldapGroupID id
```

Parameters

id

Type: INTEGER

LDAP Group ID of the LDAP to be deleted

Example

```
delete ldap ldapGroupId 6596
Success
```

Related Commands

```
add ldap
set ldap
show ldap
s
```

delete multiview

Deletes the specified multiview from the database on the Management Platform.
(ZyPer4K family only)

Syntax

```
delete multiview name
```

Parameters

name

Type: STRING

The name of the multiview. Names are case-sensitive.

Example

```
delete multiview myMultiview
Success
```

Related Commands

```
create multiview
delete multiviewWindow
set multiview
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

delete multiviewWindow

Deletes the specified window from an existing multiview. (ZyPer4K family only)

Syntax

```
delete multiviewWindow name window arg
```

Parameters

name

Type: STRING

The name of the multiview. Names are case-sensitive.

arg

Type: INTEGER

Window number to remove. Integer range from 1 to 9

Example

```
delete multiviewWindow myMultiview window 5
Success
```

Related Commands

```
create multiview
delete multiview
set multiview
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

delete preset

Deletes the specified preset, preset runlog or preset schedule from the system.

Note: Runlog is history of when the preset has been executed. Deleting the runlog does not impact the preset itself or the schedule.

Syntax

```
delete preset name
delete preset name runLog
delete preset name schedule schname
```

Parameters

name

Type: STRING

The name of the preset. Names are case-sensitive.

schname

Type: STRING

The name of the preset schedule. Names are case-sensitive.

Examples

```
delete preset lunch runLog
Success

delete preset lunch schedule eat
Success
```

Related Commands

```
create preset
run preset
set preset
show preset
```

delete role

Deletes the specified role from the Management Platform database.

Syntax

```
delete role id
```

Parameters

id

Type: STRING

The name of the role. String names are case-sensitive.

Example

```
delete role bartender
Success
```

Related Commands

`create role`

delete snmp

Deletes an existing SNMP user or trap server. (Please see Section 5 of this manual for additional details on SNMP support)

Syntax

```
delete snmp arg name
```

Parameters

arg

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
`trapServer vc2Trap ipAddress <address> community <comm>`	Delete trap server at the specified IP Address
`user v2c`	Delete SNMP user
`user v3`	Delete SNMP user

name

Type: STRING

IP address and community of trapserver or name of new SNMP user

Example

```
delete snmp trapServer v2cTrap 192.168.0.231 community john
Success

delete snmp user v3 username john
Success
```

Related Commands

```
add snmp
show snmp
```

delete snmp netNode

Deletes the specified netNode associated with the ZeeVee Visualization, Analysis, Monitoring tool (VAM)

Syntax

```
delete snmp netNode arg ident
```

Parameters

arg

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
byName	Name of the Netnode
byId	ID of the Netnode

ident

Type: STRING or INTEGER

Name of the Netnode for the numeric ID of the Netnode

Example

```
delete snmp netNode byId 3
Success

show snmp netNode all general
netNode(1);
  netNode.gen; name="myZMPserver", chassisId=54:b2:03:f0:ee:99,
type=NA, portErrors=0, ip=192.168.0.21, state=up,
uptime=0d:1h:4m:9s
  netNode.gen; make=zeevee, descr="ZyPer Management Platform",
version=" 3.3.39589", location="Wiring closet"
netNode(2);
  netNode.gen; name="NA", chassisId=8c:3b:ad:68:6b:34,
type=bridge+router, portErrors=1, ip=192.168.0.1, state=up,
uptime=3d:4h:31m:12s
  netNode.gen; make=netgear, descr="M4300-8X8F ProSAFE 8-port
10GBASE-T and 8-port 10G SFP+", version=" 12.0.17.13",
location="NA"
Success
```

Related Commands

```
add netNode
show netNode
```

delete videoWall

Deletes the specified video wall from the database on the Management Platform.

Syntax

```
delete videoWall name
```

Parameters

name

Type: STRING

The name of the video wall. Names are case-sensitive.

Example

```
delete videoWall myWall
Success
```

Related Commands

```
create videoWall
set videoWall size
```

delete zone

Deletes the specified zone from the database on the Management Platform.

Syntax

```
delete zone name
```

Parameters

name

Type: STRING

The name of the zone. Names are case-sensitive.

Example

```
delete zone zone1
Success
```

Related Commands

```
add zoneDisplay
create zone
delete zoneDisplay
show zones
```

delete zoneDisplay

Deletes the specified display from an existing zone.

Syntax

```
delete zoneDisplay name id
```

Parameters

name

Type: STRING

The name of the zone. Names are case-sensitive.

id

Type: STRING or MAC Address

The name or MAC address of the decoder/display. String names are case-sensitive.

Example

```
delete zoneDisplay myzone mydisplay1
Success
```

Related Commands

```
add zoneDisplay
create zone
delete zone
show zones
```

diagnostics device

Runs a set to test diagnostics on the specified device

Syntax

```
diagnostics device id
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Possible Results

Decoder/Encoder:

error, Device is down
warning, Device has no HDMI link
warning, Device rebooted %d times in the last minute
warning, Device rebooted %d times in the last hour
warning, Device rebooted %d times in the last day

Decoder:

error, HDMI Audio stream connection without video connection.
warning, HDCP is forced on, but may not be supported by display device (however it is unlikely)
error, Decoder has never received a valid EDID
warning, Decoder resolution exceeds display EDID maximum -- very likely this will not work
warning, Decoder using encoder resolution, which may not be display's preferred based on its EDID
warning, Decoder using encoder resolution AND ignoring display EDID, which may allow resolution to exceed display capability
warning, Decoder using user-defined resolution, which may allow resolution to exceed display capability
error, Encoder down
warning, Encoder hdmi down
error, Encoder has multiview conflict with genlock
warning, Encoder stream disabled
warning, Video stream interrupted %d times in the last minute, indicating likely network problem
warning, Video stream interrupted %d times in the last hour, indicating likely network problem
warning, Video stream interrupted %d times in the last day, indicating possible network problem
warning, Encoder and decoder fps are not equal -- will result in very bad video
warning, Encoder and decoder fps are not equal -- will result in very bad video
warning, Encoder and decoder fps are not equal, but multiple of 2; this may still produce bad video
warning, Encoder and decoder HDCP versions are not the same
info, Encoder HDCP is disabled; this will prevent copyrighted material from display
info, Encoder HDCP is set to version 1.4; this may prevent copyrighted material from display

Encoder:

info, HDCP is disabled; this will prevent copyrighted material from display
info, HDCP is set to version 1.4; this may prevent copyrighted material from display

Examples

```
diagnostics device Top-Right
device(d8:80:39:9a:7f:ec);
  device.diags.summary; status=complete, error=0, warning=0, info=0
Success

diagnostics device ABC
device(d8:80:39:9a:96:7);
  device.diags.info.1; message=HDCP is disabled; this will prevent
copyrighted material from display
  device.diags.summary; status=complete, error=0, warning=0, info=1
Success

diagnostics device encoder1
device(34:1b:22:80:26:2a);
  device.diags.warning.1; message=Device has no HDMI link
  device.diags.summary; status=complete, error=0, warning=1, info=0
Success

diagnostics device MyEncoder
device(34:1b:22:80:63:9c);
  device.diags.error.1; message=Device is down
  device.diags.summary; status=complete, error=1, warning=0, info=0
Success


diagnostics device MeetingRoom6
device(34:1b:22:80:57:7d);
  device.diags.error.1; message=Device is down
  device.diags.info.1; message=No video connection
  device.diags.warning.1; message=HDCP is forced on, but may not be
supported by display device (however it is unlikely)
  device.diags.error.2; message=Decoder has never received a valid
EDID
  device.diags.summary; status=complete, error=2, warning=1, info=1
Success
```

dumpusb

Outputs details about USB devices found in ZyPerUHD, ZyPerUHD60 and/or ZyPer4K units. Information includes MAC address and ICRON IP_address if ICRON USB found in ZyPer4K unit.

Syntax

```
dumpusb
```

Example

```
dumpusb
Encoders/Decoders usb reported mac
  device UHDdec(UHDdec), usb mac 34:1b:22:80:57:df
  device UHDenc2(UHDenc2), usb mac 34:1b:22:80:7f:3d
  device Z4Kdec1(Z4Kdec1), usb mac 0:1b:13:1:1f:79
  device Arts_Encoder_1(Arts_Encoder_1), usb mac 0:1b:13:1:1e:90
Icrons reported info
  owner Arts_Encoder_1(80:1f:12:4d:9b:6b), deviceType local,
icronMac 0:1b:13:1:1e:90, ipAddr 169.254.4.123, fwRev
1.9.4, pairedInfoRcvd yes, numPairedMacs 1, 0:1b:13:1:1f:79
Z4Kdec1(Z4Kdec1)
  owner Z4Kdec1(80:1f:12:4d:2c:ff), deviceType remote, icronMac
0:1b:13:1:1f:79, ipAddr 169.254.4.125, fwRev 1.9.4, pairedInfoRcvd
yes, numPairedMacs 1, 0:1b:13:1:1e:90 Arts_Encoder_1(Arts_
Encoder_1)
Success
```

Note: This is a hidden command and will not appear in HELP

events

Causes the events mode to be entered.

Syntax

```
events
```

Server sends initial events and new events as they occur to the telnet session. Any character entered to the server causes the mode to exit back to the API prompt.

See Section 4 of this document for additional details on the events feature.

factoryDefaults device

Set the specified device to the factory-default settings.

Syntax

```
factoryDefaults device id
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Example

```
factoryDefaults device Airshow
Success

factoryDefaults device 0:1e:c0:f6:a8:c3
Success
```

Related Commands

`delete allConfiguration`

flashLeds

Physically identifies the specified device on the network. When this command is executed, the LED indicators on the device will flash for 5 seconds.

Syntax

```
flashLeds id
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Example

```
flashLeds myEncoder
Success

flashLeds 0:1e:c0:f6:59:13
Success
```

generate tls ca privKeyPass

Used to generate a local Transport Layer Security Certificate Authority private key.

Syntax

```
generate tls ca privKeyPass privKey country country state state
locality local organization org organizationUnit orgunit email
email

Enter passphrase: passphrase
```

Parameters

privKey
: Type: STRING | *

  Private key phrase. String. If * used; will be prompted for passphrase at the end.

country
: Type: STRING

  2 character string representing Country. Example "US"

state
: Type: STRING

  2 character string representing State. Example "MA"

local
: Type: STRING

  String representing local town/city. Example "Billerica"

org
: Type: STRING

  String representing organization. Example "ZeeVee"

orgunit
: Type: STRING

  String representing organization units. Example "money"

email
: Type: STRING

  String representing email address. Example "aweeks@zeevee.com"

passphrase

Type: STRING

Private phrase used in generation of the tls key. Prompted if * used earlier in command.

Example

```
generate tls ca privKeyPass * country US state MA locality
Billerica organization ZeeVee organizationUnit money email aweeks@
zeevee.com
Enter passphrase: ******
Success
```

Related Commands

```
generate tls server csr privKeyPass
show tls pem ca privKey

show tls pem ca privKey
pemData:
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-256-CBC,ADB163FA01562B533B617FA5792AB7F1

........

-----END RSA PRIVATE KEY-----
Success
```

generate tls device csr privKeyPass

Used to generate a local Transport Layer Security server Certificate Signing Request private key for a device.

Syntax

```
generate tls device csr privKeyPass privKey fqdn domain
country country state state locality local organization org
organizationUnit orgunit email email

Enter passphrase: passphrase
```

Parameters

privKey
: Type: STRING | *

  Private key phrase. String. If * used; will be prompted for passphrase at the end.

domain
: Type: STRING

  String representing fully qualified domain name. Example "zeevee.com"

country
: Type: STRING

  2 character string representing Country. Example "US"

state
: Type: STRING

  2 character string representing State. Example "MA"

local
: Type: STRING

  String representing local town/city. Example "Billerica"

org
: Type: STRING

  String representing organization. Example "ZeeVee"

orgunit
Type: STRING

String representing organization units. Example "money"

email
Type: STRING

String representing email address. Example "aweeks@zeevee.com"

passphrase
Type: STRING

Private phrase used in generation of the tls key. Prompted if * used earlier in command.

Example

```
generate tls device csr privKeyPass * fqdn zeevee.com country US
state MA locality Billerica organization ZeeVee organizationUnit
money email aweeks@zeevee.com
Enter passphrase: ******
Success
```

Related Commands

```
generate tls ca privKeyPass
show tls pem server csr
show tls pem server privKey

show tls pem server csr
pemData:
-----BEGIN CERTIFICATE REQUEST-----
.................
-----END CERTIFICATE REQUEST-----
Success
```

generate tls server csr privKeyPass

Used to generate a local Transport Layer Security server Certificate Signing Request private key.

Syntax

```
generate tls server csr privKeyPass privKey fqdn domain
country country state state locality local organization org
organizationUnit orgunit email email

Enter passphrase: passphrase
```

Parameters

privKey
: Type: STRING | *

  Private key phrase. String. If * used; will be prompted for passphrase at the end.

domain
: Type: STRING

  String representing fully qualified domain name. Example "zeevee.com"

country
: Type: STRING

  2 character string representing Country. Example "US"

state
: Type: STRING

  2 character string representing State. Example "MA"

local
: Type: STRING

  String representing local town/city. Example "Billerica"

org
: Type: STRING

  String representing organization. Example "ZeeVee"

orgunit
Type: STRING

String representing organization units. Example "money"

email
Type: STRING

String representing email address. Example "aweeks@zeevee.com"

passphrase
Type: STRING

Private phrase used in generation of the tls key. Prompted if * used earlier in command.

Example

```
generate tls server csr privKeyPass * fqdn zeevee.com country US
state MA locality Billerica organization ZeeVee organizationUnit
money email aweeks@zeevee.com
Enter passphrase: ******
Success
```

Related Commands

```
generate tls ca privKeyPass
show tls pem server csr
show tls pem server privKey

show tls pem server csr
pemData:
-----BEGIN CERTIFICATE REQUEST-----
.................
-----END CERTIFICATE REQUEST-----
Success
```

generate tls radius csr privKeyPass

Used to generate a local Transport Layer Security server Certificate Signing Request private key.

Syntax

```
generate tls radius csr privKeyPass privKey fqdn domain
country country state state locality local organization org
organizationUnit orgunit email email

Enter passphrase: passphrase
```

Parameters

privKey
Type: STRING | *

Private key phrase. String. If * used; will be prompted for passphrase at the end.

domain
Type: STRING

String representing fully qualified domain name. Example "zeevee.com"

country
Type: STRING

2 character string representing Country. Example "US"

state
Type: STRING

2 character string representing State. Example "MA"

local
Type: STRING

String representing local town/city. Example "Billerica"

org
Type: STRING

String representing organization. Example "ZeeVee"

orgunit
Type: STRING

String representing organization units. Example "money"

email
Type: STRING

String representing email address. Example "aweeks@zeevee.com"

passphrase
Type: STRING

Private phrase used in generation of the tls key. Prompted if * used earlier in command.

Example

```
generate tls radius csr privKeyPass * fqdn zeevee.com country US
state MA locality Billerica organization ZeeVee organizationUnit
money email aweeks@zeevee.com
Enter passphrase: ******
Success
```

Related Commands

```
generate tls ca privKeyPass
show tls pem server csr
show tls pem server privKey

show tls pem server csr
pemData:
-----BEGIN CERTIFICATE REQUEST-----
.................
-----END CERTIFICATE REQUEST-----
Success
```

help

Provides a listing of API commands grouped or sorted in various ways.

Syntax Options

```
help
    help all alphabetical
    help all byConcept
    help all bySubsystem
    help all byAccessLevel
    help concept <helpConcepts>
    help subsystem <helpSubsystems>
    help accessLevel <helpAccessLevels>
    help search string <keyWord:string>
```

Example

```
help

 Help commands:
    help
    help all alphabetical
    help all byConcept
    help all bySubsystem
    help all byAccessLevel
    help concept <helpConcepts>
    help subsystem <helpSubsystems>
    help accessLevel <helpAccessLevels>
    help search string <keyWord:string>
    <command> help
    <command> ?
    ?

** NOTE: Use <tab> to complete a command **

Success
```

join

Joins the specified decoder (display) with the specified encoder (source). The *mode* parameter must be specified and defines the type of join to execute.

- analogAudio
  Embeds analog audio stream from the encoder on the output of the decoder. The audio is from the (analog) Audio jack on the encoder. Will force UHD60 Dante enabled encoder into Dante Transmit mode.
  In order to control what type of audio is being output from the decoder, refer to the `set decoder analogAudioOut` command.

- danteAudio
  Will force UHD60 Dante enabled encoder into Dante Receive mode. This allows a received Dante audio stream to be transmitted as regular UHD60 audio to any UHD60 decoder.

- fastSwitched
  Allows the joining of an encoder and decoder with no video dropout. In order to make use of this feature, the resolution and frame rate of the "new" encoder must be the same as the previous encoder.

- genlocked
  This mode provides a very low-latency, all-purpose method of joining an encoder and decoder. (ZyPer4K family only)

- genlockedScaled
  This mode provides a very low-latency, all-purpose method of joining an encoder and decoder that includes scaling up or down at the decoder/display.

- hdmiAudio
  Embeds hdmi-downmix audio from an encoder to specified decoder.

- multiview
  Join the configured multiview to a display (decoder) (ZyPer4K family only)

- video
  Joins video only from encoder to decoder. No audio.

- videoWall
  Join the encoder to the named video-wall

- window
  Join any portion of a source to any portion of a display

- usb
  Creates USB connection between encoder and decoder. Note that multiple connections are valid.

- none
  Special command to disconnect existing connections (joins) Example: join none decoder fastSwitched

Syntax

```
join enc dec mode
join none dec fastSwitched
```

Parameters

enc

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

dec

Type: STRING or MAC Address

The name or MAC address of the decoder. Can also be name of existing video-wall String names are case-sensitive.

zone

Type: STRING

The name of an existing zone. String names are case-sensitive.

mode

Type: STRING

Supply one of the following arguments before executing this command.

argument	Description
analogAudio	Embed audio from the specified encoder. Force Dante enabled UHD60 encoder into Dante transmit mode.
danteAudio	Force UHD60 Dante enabled encoder into Dante receive mode. (Z4K-XS units will be both send and receive)
fastSwitched	Join in "fast-switched" mode
genlocked	Low-latency join mode (ZyPer4K family only)
genlockedScaled	Low-latency with scale up/down (ZyPer4K family only)
hdmiAudio	Join hdmi-audio to either hdmi-out or analog-out. Note this command will cause hdmiAudioFollowVideo=False for specified decoder. See join videoSource command on next page.
multiview	Join a multiview to a display (ZyPer4K family only)
videoWall	Join a source to a video-wall
video	Join video only (audio not joined)
window	Join any portion of a source to any portion of a display (ZyPer4k family only)
usb	Establish USB connection
"none"	Disconnect existing joins

Notes:
Multiviews cannot be joined to a zone.
USB cannot be joined to a zone.

Examples

```
join myEncoder1 myDecoder2 fastSwitched
Success

join myEncoder1 myDecoder2 hdmiAudio
Success
(Note: If Dante Encoder currently set to Receive mode, this will set the
Encoder to Dante Transmit mode and force a reboot of the encoder)

join myMultiview2 Display4 multiview
Success

join myEncoder1 myWall videoWall
Success

join none myDecoder1 fastSwitched

join myEncoder1 myDecoder2 danteAudio
(Sets myEncoder1 to Dante Receive mode.  Will force reboot of UHD60 encoder
if not already in Dante Receive mode)
```

Window Example

```
join myEncoder1 myDecoder2 window viewportSource 0 0 1920 1080
viewportDest 500 500 500 500

(ViewportSource parameters are starting X/Y coordinates of the
source and desired X/Y size)

(ViewportDest parameters are starting X/Y coordinates in the
display and desired X/Y size)
```

join videoSource

Tells a decoder to automatically join corresponding audio from a source encoder whenever a join command is used to join video.

Syntax

```
join videoSource dec mode
```

Parameters

dec

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

mode

argument	Description
audio	automatically join audio from connected encoder (ZyPerUHD only)
hdmiAudio	automatically join hdmi-audio from connected encoder (ZyPer4K family only)

Example

```
join videoSource MyDecoder hdmiAudio
Success
```

Related Commands

`join hdmiAudio`

load account

Uploads text and/or images to be displayed prior to and after the login screen. Can be used a warning or any other purpose.

Syntax

```
load account all PrePost Arg file
```

Parameters

PrePost

argument	Description
preLoginBanner	Specified text or image will appear before login
postLoginBanner	Specified text or image will appear after login

Arg

argument	Description
terminal	Provides pre or post login message when using SSH to access the API command line interface. Note: This feature does not work when using Telnet to access the API command line interface.
webText	Text that will appear before/after ZMP-GUI login
webImage	Image that will appear before/after ZMP-GUI login

file

Type: STRING

The name of the file to load. Text or .PNG

Examples

```
load account all preLoginBanner webImage DOD-Seal.png
Success

load account all preLoginBanner webText securePre.txt
Success

load account all postLoginBanner webImage mickey.png
Success
```

load encoderEdid

Uploads an EDID file to the specified encoder.

Important Note: Auto-EDID mode should be disabled when loading a specific EDID to an encoder. Otherwise the loaded EDID will immediately get replaced by the Auto-EDID option.

Syntax

`load encoderEdid` *`enc mode file`*

Parameters

`enc`

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

`mode`

argument	Description
`auto`	use whatever EDID information is provided by connected decoder
`builtIn`	use one of the EDID files provided by ZeeVee. Many options available covering various 4k settings. See list below.
`default`	use default EDID with maximum capabilities of the encoder
`saved`	use a file that user has previously saved to the system with the save device-edid command

`file`

Type: STRING

The name of the file to load.

Built in EDID options

zyper-default
zyper4k25
zyper4k30

Built in EDID options continued

zyper4k50
zyper4k50-420
zyper4k50-420_hdmi14
zyper4k50-hbraudio
zyper4k50-hd-hdr
zyper4k50-hdr
zyper4k50-hdr-bt2020
zyper4k50-hdr-bt2020-hbraudio
zyper4k50-hdr-hbraudio
zyper4k60
zyper4k60-420
zyper4k60-420_hdmi14
zyper4k60-hbraudio
zyper4k60-hd-hdr
zyper4k60-hdr
zyper4k60-hdr-bt2020
zyper4k60-hdr-bt2020-hbraudio
zyper4k60-hdr-hbraudio
zyperHd50
zyperHd60
zyperPc
zyperUhd25
zyperUhd25-hbraudio
zyperUhd30
zyperUhd30-hbraudio
zyperUhd50
zyperUhd50-420
zyperUhd50-420_hdmi14
zyperUhd50-hbraudio
zyperUhd50-hd-hdr
zyperUhd50-hdr
zyperUhd50-hdr-bt2020
zyperUhd50-hdr-bt2020-hbraudio
zyperUhd50-hdr-hbraudio
zyperUhd60
zyperUhd60-420
zyperUhd60-420_hdmi14
zyperUhd60-hbraudio
zyperUhd60-hd-hdr
zyperUhd60-hdr
zyperUhd60-hdr-bt2020
zyperUhd60-hdr-bt2020-hbraudio
zyperUhd60-hdr-hbraudio

Examples

```
load encoderEdid myEncoder saved myEDID.bin
Success

load encoderEdid myEncoder builtIn zyper4k60
Success
```

Related Commands

```
save deviceEdid
set server autoEdidMode
```

load idleImage

Uploads an image to use at ZyPerUHD background when no video source streamed to the decoder.

Syntax

```
load idleImage dec filename file
```

Parameters

dec

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

file

Type: STRING

The name of the file to load. (Must already exist on ZMP in Files directory)

Examples

```
load idleImage myDecoder filename background.jpg
Success
```

Notes:

```
Image must be in .JPG format
Image must be 1280 x 720 in size
(Will output from decoder at this resolution)

Image file must be previously copied onto ZMP into the Files
directory using FTP.  Alternately file can be loaded via the GUI.
See Display Grid "Config" tab.
```

Related Commands

```
save deviceEdid
```

load tls ca cert

Options for loading Transport Layer Security Certifiate Authority certification

Syntax

```
load tls ca cert fromInput *

load tls ca cert fromFile filename
```

Parameters

input

Type: STRING

String representing the Certficiate Authority. The system will prompt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls ca cert fromInput *
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE-----
MIIF1TCCA72gAwIBAgIBADANBgkqhkiG9w0BAQsFADB9MRswGQYJKoZIhvcNAQkB
..............RDz+0llBNWe2
-----END CERTIFICATE-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

```
load tls ca privateKey privKeyPass
show tls summary
```

load tls ca privateKey

Options for loading Transport Layer Security Certifiate Authority Private Key

Syntax

```
load tls ca privateKey privKeyPass * fromInput *

load tls ca privateKey privKeyPass * fromFile filename
```

Parameters

input

Type: STRING

String representing the Private Key. The system will promt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls ca privateKey privKeyPass * fromInput *
Enter passphrase: ******
Enter PEM text (ctr-d to end):
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-256-CBC,16DD663CF1D9875E1B8102AD2C020A37

bQVUu4Bp9XrsudbAc2iYGl9cgSplbSD5mAsC3rsc/5XUi+Fe31nhXZKgIHfIui
2v.....................................................
f/NuPpeZ3KLUJGcpUGN4t393aaRXyoidSo4ekgUARJgnt/QND86zCyxJHyd7TmQS
-----END RSA PRIVATE KEY-----

Success
```

Notes:

```
File must be previously copied onto ZMP into the Files directory
using FTP.
```

Related Commands

```
load tls ca cert
show cls summary
```

load tls device caIntermediates

Options for loading Transport Layer Security server Certifiate Authority Intermediates

Syntax

```
load tls device caIntermediates fromInput none|*

load tls device caIntermediates fromFile filename|none
```

Parameters

input

Type: STRING

String representing the Certficiate Authority Intermediates. The system will prompt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls device caIntermediates fromInput *
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE-----
MIIF1TCCA72gAwIBAgIBADANBgkqhkiG9w0BAQsFADB9MRswGQYJKoZIhvcNAQkB
..............RDz+0llBNWe2
-----END CERTIFICATE-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

`show tls summary`

load tls device cert

Options for loading Transport Layer Security server certification

Syntax

```
load tls device cert fromInput *

load tls device cert fromFile filename
```

Parameters

input

Type: STRING

String representing the server certification. The system will prompt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls device cert fromInput *
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE-----
MIIF1TCCA72gAwIBAgIBADANBgkqhkiG9w0BAQsFADB9MRswGQYJKoZIhvcNAQkB
..............RDz+0llBNWe2
-----END CERTIFICATE-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

`load tls server privateKey privKeyPass`
`show tls summary`

load tls device privateKey

Options for loading Transport Layer Security server Private Key

Syntax

```
load tls device privateKey privKeyPass * fromInput *

load tls device privateKey privKeyPass * fromFile filename
```

Parameters

input

Type: STRING

String representing the Private Key. The system will promt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls device privateKey privKeyPass * fromInput *
Enter passphrase: ******
Enter PEM text (ctr-d to end):
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-256-CBC,16DD663CF1D9875E1B8102AD2C020A37

bQVUu4Bp9XrsudbAc2iYGl9cgSplbSD5mAsC3rsc/5XUi+Fe31nhXZKgIHfIui
2v.....................................................
f/NuPpeZ3KLUJGcpUGN4t393aaRXyoidSo4ekgUARJgnt/QND86zCyxJHyd7TmQS
-----END RSA PRIVATE KEY-----

Success
```

Notes:

```
File must be previously copied onto ZMP into the Files directory
using FTP.
```

Related Commands

```
load tls server cert
show tls summary
```

load tls server caIntermediates

Options for loading Transport Layer Security server Certifiate Authority Intermediates

Syntax

```
load tls server caIntermediates fromInput none|*

load tls server caIntermediates fromFile filename|none
```

Parameters

input

Type: STRING

String representing the Certficiate Authority Intermediates. The system will prompt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls server caIntermediates fromInput *
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE-----
MIIF1TCCA72gAwIBAgIBADANBgkqhkiG9w0BAQsFADB9MRswGQYJKoZIhvcNAQkB
..............RDz+0llBNWe2
-----END CERTIFICATE-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

`show tls summary`

load tls server cert

Options for loading Transport Layer Security server certification

Syntax

```
load tls server cert fromInput *

load tls server cert fromFile filename
```

Parameters

input

Type: STRING

String representing the server certification. The system will prompt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls server cert fromInput *
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE-----
MIIF1TCCA72gAwIBAgIBADANBgkqhkiG9w0BAQsFADB9MRswGQYJKoZIhvcNAQkB
..............RDz+0llBNWe2
-----END CERTIFICATE-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

load tls server privateKey privKeyPass
show tls summary

load tls server privateKey

Options for loading Transport Layer Security server Private Key

Syntax

```
load tls server privateKey privKeyPass * fromInput *

load tls server privateKey privKeyPass * fromFile filename
```

Parameters

input

Type: STRING

String representing the Private Key. The system will promt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
load tls server privateKey privKeyPass * fromInput *
Enter passphrase: ******
Enter PEM text (ctr-d to end):
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-256-CBC,16DD663CF1D9875E1B8102AD2C020A37

bQVUu4Bp9XrsudbAc2iYGl9cgSplbSD5mAsC3rsc/5XUi+Fe31nhXZKgIHfIui
2v.....................................................
f/NuPpeZ3KLUJGcpUGN4t393aaRXyoidSo4ekgUARJgnt/QND86zCyxJHyd7TmQS
-----END RSA PRIVATE KEY-----

Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

```
load tls server cert
show cls summary
```

logging

Used to set the level of detail captured by Trouble Reports and manually add text notes into log for Trouble report. To be used at direction of ZeeVee support team to aid in troubleshooting of issues.

Syntax

```
logging level arg
```

Parameters

arg

Type: INTEGER

Logging Level. Integer range from 1 to 4

Example

```
logging level 2
Success
```

Syntax

```
logging note string
```

Parameters

string

Type: text

String with length from 1 to 132 characters

Example

```
logging note "my inserted text"
Success
```

logout

Used to logout of the current session for force the logout of any other active session.

Syntax

```
logout force sessionId num
```

Parameters

num

Type: INTEGER

Session ID. Integer range from 1 to X, where X is the number is the session you wish to force a logout.

Examples

```
logout
Connection closed by foreign host.
```

```
logout force sessionId 2
Success
```

previewStream

Used to turn on/off a small thumbnail size preview stream that is viewable in the ZyPer Management Platform GUI. (ZyPer4K, ZyPerUHD60 and ZyPerUHD only) Note: Preview streams are not supported by the ZyPer4K-XS/XSE and ZyPer4K-XR

Syntax

`previewStream` *`enc arg comp`* `width` *`size`*

Parameters

`enc`

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

`arg`

argument	Description
`stop`	used to manually stop the preview stream. Note that it can turned back on from the GUI
`start`	used to manually start the preview stream.

`comp`

argument	Description
`hls`	set the format of the preview stream to HLS
`jpeg`	set the format of the preview stream images to JPEG

`size`

Type: Integer

Width of the preview stream in pixels. (180 to 400)

Example

```
previewStream MyEnc start hls width 300
BWG: After Start Preview Streams running = 3
Success


previewStream MyEnc stop
Success
```

HLS Notes

A maximum of 20 preview streams may be enabled at a single time.

ZyPer4K devices must be on firmware release 4.0.1.0 or newer for this feature to work.

The HLS stream can be viewed by any HLS capable viewer such as a browser. The path needed is shown below:

http://mp_ip_address/media/encoder_mac_address.m3u8

mp_ip_address is the IP address of the ZyPer Management Platform
encoder_mac_address is the MAC address of the Z4K encoder

Example

http://192.168.0.78/media/d8:80:39:eb:1c:ee.m3u8

JPEG Notes

JPEG images cannot be viewed in the ZyPer Management Platform GUI. This feature is intended for 3rd party control systems to grab individual JPEG images. (1 per second)

The JPEG images can be viewed by any JPEG capable viewer such as a browser. They can also be directly downloaded to a system. The path needed is shown below:

http://mp_ip_address/media/encoder_mac_address.jpeg

mp_ip_address is the IP address of the ZyPer Management Platform
encoder_mac_address is the MAC address of the Z4K encoder

Examples

http://192.168.0.78/media/d8:80:39:eb:1c:ee.jpeg

curl http://192.168.0.78/media/80:1f:12:4d:bb:11.jpeg > preview.jpg

redundancy add server ip

Adds new ZMP server for use in Redundancy configuration.

Syntax

```
redundancy add server ip ip
```

Parameters

ip

Type: STRING

IP Address of the server being added to the system for redundancy

Example

```
redundancy add server ip 172.16.6.125
Success
```

Related Commands

```
set server redundancy
redundancy switchover
redundancy delete downServers
redundancy delete server ip
```

redundancy delete downServers

Cleans up and removes any redundant servers from server list that are no longer available in the system.

Syntax

```
redundancy delete downServers
```

Parameters

none

Example

```
redundancy delete downServers
Success
```

Related Commands

```
set server redundancy
redundancy switchover
```

redundancy delete server ip

Deletes ZMP server for use in Redundancy configuration.

Syntax

```
redundancy delete server ip ip
```

Parameters

ip

Type: STRING

IP Address of the server being added to the system for redundancy

Example

```
redundancy delete server ip 172.16.6.125
Success
```

Related Commands

```
set server redundancy
redundancy switchover
redundancy delete downServers
redundancy add server ip
```

redundancy switchover

If there is an active slave, this command causes the existing master to become the slave and the existing slave to become the master. The server does not restart or re-initialize any other state, including any existing video and audio connections.

The IP address that is always assigned to the master. If the active slave becomes the master, this IP address will then terminate at that system. Note that any existing TCP connection will terminate and have to be reopened (to the new master).

Syntax

```
redundancy switchover
```

Parameters

none

Example

```
redundancy switchover
Success
```

Related Commands

```
set server redundancy
redundancy delete downServers
```

rename kvm

Changes the name of an existing kvm. (ZyPer4K-XS/XSE/XR family only)

Syntax

```
rename zone kvmname newName newkvmname
```

Parameters

kvmname
Type: STRING

The name of the existing kvm. String names are case-sensitive.

newkvmname
Type: STRING

The new name of the kvm. The name of the zone cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
Zyper$ rename kvm SouthWall newName NorthWall
Success
```

Related Commands

```
create kvm
delete kvm
show kvm
start kvm
stop kvm
```

rename zone

Changes the name of an existing zone

Syntax

```
rename zone zonename newName newzonename
```

Parameters

zonename

Type: STRING

The name of the existing zone. String names are case-sensitive.

newzonename

Type: STRING

The new name of the zone. The name of the zone cannot exceed 255 characters in length. Names are case-sensitive.

Example

```
Zyper$ rename zone FirstFloor newName SecondFloor
Success
```

Related Commands

```
create zone
delete zone
```

restart device

Restarts the specified device.

Syntax

```
restart device id
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Examples

```
restart device myEncoder2
Success

restart device 0:1e:c0:f6:cb:76
Success
```

Related Commands

```
shutdown server reboot
```

restore server database

Restores a stored server database from file. (Stored on the ZyPerMP hardware)

Important Note: Saved database to be restored MUST have been created using the exact same version of API that is currently running.

Syntax

```
restore server database name
```

Parameters

name

Type: STRING

The name of the stored database. Names are case-sensitive.

Example

```
restore server database jan16_2019
Loaded database jan16_2019; restarting server
Success
```

Related Commands

`save server database`

revert server

Returns to a previously installed version of the API and device database.

This feature can be used to go back to a previous software version and database version in case of a failed software upgrade. Primarily used to recover previous state if something goes wrong.

Syntax

```
revert server
```

Note: The show sever info command will identify the Previous Version that will be restored to the system.

Example

```
revert server
Reverting from update_nuc_1.8.34605.zyper to update_nuc_2.0.34928.
zyper
Success
```

Related Commands

`show server info`

run preset

Manually executes an existing preset

Syntax

```
run preset name
```

Parameters

name

Type: STRING

The name of the existing preset. Names are case-sensitive.

Example

```
run preset lunch
Success

run preset closing
Success
```

Related Commands

```
create preset
delete preset
set preset
show preset
```

save deviceEdid

Saves the EDID of the downstream sink to the `srv/ftp/files` folder on the Management Server. Executing this command will generate two file types: `.bin` and `.txt`. The `.bin` file is the EDID is standard format. The `.txt` file is the decoded EDID data.
See Using Custom EDID Data (page 6) for more information on using this command.

Syntax

```
save deviceEdid id file
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder that is connected to the sink device. String names are case-sensitive.

file

Type: STRING

The name of the EDID file. Two files will be created using the *file* name: `.txt` and a file with no extension.

Example

```
save deviceEdid 0:1e:c0:f6:a5:2f myEDID
Success
```

Related Commands

`load encoderEdid`
`set server autoEdidMode`

save server database

Saves the current MP database to a file. (Stored on the ZyPerMP hardware)

Syntax

```
save server database name
```

Parameters

name

Type: STRING

The name of the database. Names are case-sensitive.

Example

```
save server database jan16_2019
Saved database to jan16_2019
Success
```

Related Commands

`restore server database`

save system config

Saves the current system configuration to a file. (Stored on the ZyPerMP hardware)

Syntax

```
save system config name
```

Parameters

name

Type: STRING

The name of the file. Names are case-sensitive.

Example

```
save system config march24
Saved config to /srv/ftp/files/march24
Success
```

Related Commands

```
save server database
restore server database
```

script

Executes the specified script. The script must exist in the `/srv/ftp/files` folder. Use the optional `loop` argument to place the script in a loop. The script will continue running until a key is pressed on the keyboard.

Syntax

```
script file [loop]
```

Parameters

file

Type: STRING

The name of the script file.

Example

```
script myScript
Success
```

Related Commands

`sleep`

send

Sends an IR, RS232 or CEC string to the specified device. Use the *type* parameter to specify an IR, RS232 or CEC code.

Syntax

```
send id type text
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device.

type

Type: STRING

Specifies IR, CEC or RS232 command

argument	Description
ir	The string must be the hex representation of the binary data. (Pronto code) The maximum length for a string is 1024 characters. (ZyPer4K family only)
cec	on | off (Used to turn a device on or off)
cec hexString	hex-numerals-no-delimiters (ZyPer4K and ZyPerUHD60 families only)
rs232	The string is ASCII and must not exceed 256 characters in length. Spaces and the following control characters are supported as a portion of the string: \n New line \r Carriage return \t Tab \\ Slash \xnn Hex value, where nn is a two-digit hex value, including leading zeros

text

Type: STRING

The string to send. See the table, above, for restrictions.

Example

```
send myDecoder2 ir 0000006900000015005f00170030001700300017003000
700300017001700170030001700170017001700170030001700170017003000170
030001700170017003000170017001700170017001700170030001700300017003
00200
Success

send myDecoder2 rs232 ZeeVee_support_is_the_greatest\r\n
Success

send myDecoder2 cec on
Success

send myDecoder2 cec off
Success
```

Important Notes

CEC is not supported on ZyPerHD

CEC functionality on the ZyPer4K is only supported with hardware firmware version 3.5.2 and newer.

CEC hexString command is not supported on ZyPerUHD

Related Commands

`set device rs232`

set account all

Sets various security features for all accounts

Syntax

```
set account all option
```

Parameters

option

Type: STRING

The security feature to configure

argument	Description
authMode	Sets telnet or web authorization. (telnet oldAuth|fullAuth), (web backend|browser)
concurrentSessionsMax	Maximum number of sessions allowed. <int>|unlimited
idleLogout minutes	Number of idle minutes before a logout is forced. <int>|unlimited (Note: authMode web must be set to "backend" to use this feature.)
onThreeFailures	What to do if login attempt fails 3 consecutive times. lockoutMinutes <int>|none disableAccount true|false
password	Set complexity or duration of passwords. complex enabled|disabled minLen <int> duration initialExpire enabled|disabled minDays <int> maxDays <int>|unlimited

Examples

```
set account all authMode telnet oldAuth
Success
set account all authMode web backend
Success
set account all concurrentSessionsMax 5
Success
set account all idleLogout minutes unlimited
Success
set account all onThreeFailures lockoutMinutes none disableAccount
false
Success
set account all onThreeFailures lockoutMinutes 1 disableAccount
true
Warning:(6) You set both actions for onThreeFails. Only setting
disableAccount true
Success
set account all password complex disabled minLen 8
Success
```

set account password

Used to change existing accounts password

Syntax

```
set account password existing currentpass |* newpass
```

Parameters

option

Type: STRING

The account feature to configure

argument	Description
currentpass	Current password (Case sensitive) Can also use wildcard * to be prompted for password
newpass	New password (Case sensitive)

Examples

```
set account password existing redsox new yankees
Success

set account password existing * new redsox
Existing password: *******
Success
```

set account username

Sets various features associated to a specific account

Syntax

```
set account username option
```

Parameters

option

Type: STRING

The account feature to configure

argument	Description
2fa	Enable or disable 2 factor authorization (enabled|disabled)
expirePassword	Set password to expire or not (enabled|disabled)
lock	Lock a specific account
password new	Set a new password for an account (<string>|*)
role	Assign an existing role to this account (<rolename>)
unlock	Unlock a specific account

Examples

```
set account username ArtW 2fa enabled
2fa-secret: GOCE5AMI6ZP7NNVZTWUK2375UQ
Success
set account username ArtW 2fa disabled
Success
set account username ArtW expirePassword enabled
Success
set account username ArtW lock
Success
set account username ArtW unlock
Success
set account username ArtW role admin
Success
```

set decoder

Sets the audio output type and video timing details for the specified decoder.

Syntax

```
set decoder id mode type
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

mode

Type: STRING

argument	Description
`analogAudioOut`	Audio output from the Audio port on the decoder. (ZyPer4K and ZyPerUHD60 family only)
`connectionMode`	Sets/changes current connection mode to decoder. (Options are fast-switched, genlocked and genlocked-scaled) (ZyPer4K family only)
`displayAdvancedTiming`	Set advanced features, Front porch, sync width, sync polarity and total size
`displayMode`	Set display to box, crop or stretch input stream within display resolution
`displayResolution`	Set display resolution manually (pixels) or automatically based on EDID.
`hdcpMode`	Allows user to force HDCP protection at level 1.4 or 2.2 on previously unprotected content. (ZyPerUHD and ZyPerUHD60 only) Will cause decoder to reboot.
`hdmiAudioOut`	Audio output from the HDMI port on the decoder. (ZyPer4K and ZyPerUHD60 family only)

type

Type: STRING

HDCP options. (Note: Valid with ZyPerUHD and ZyPerUHD60 only) Used to minimize connection time.

argument	Description
`auto`	Maintain existing HDCP level. None if none
`forceVersion1.4`	Apply HDCP 1.4 protection to output stream
`forceVersion2.2`	Apply HDCP 2.2 protection to output stream

The audio mode (analog out or HDMI out).

argument	Description
`source analogAudio`	Uses the audio output created with the join command. (ZyPer4K only)
`source hdmiAudio`	Uses the HDMI stream (HDMI audio-out only) Use if video in Fast-Switch mode. (ZyPer4K only)
`source hdmiPassthroughAudio`	Used if video is in Genlock mode. (ZyPer4K only)
`source hdmiAudioDownmix`	Uses the HDMI-downmix stream
`danteAudio`	Use stream that Decoder is receiving from encoder that was in Dante format. (ZyPer4K-XSE only) (Outside Dante Source routed to Encoder then routed to Decoder)
`directDanteAudio`	Use Dante Audio Stream routed to Decoder from outside Dante source.

Display timing, aspect ratio, mode, size.

argument	Description
`syncFrontPorch`	Synchronization mode.
`syncWidth`	Synchronization width
`hsyncPolarity`	Horizontal sync polarity (auto, negative, positive)
`vsyncPolarity`	Vertical sync polarity (auto, negative, positive)
`totalSize`	Horizontal and vertical size (Pixels or auto)
`box`	Box image within display. (Smaller source to larger display)
`crop`	Crop image within display (Larger source to smaller display)
`stretch`	Scale image to fill display. (Scale up or down) (Default Setting)
`pixelsHoriz`	Width in pixels or auto
`pixelsVert`	Height in pixels or auto
`fps`	Frames per second
`source`	Match decoder resolution to source input size
`auto`	automatically based on EDID

Command Description: Override output display size and fps

set decoder <Decoder_Name or MAC> displayResolution activeSize <int> pixelsHoriz <int> pixelsVert <int> fps <int>|source

This command allows an override of EDID parameters supplied by the display. Regardless of what the supplied EDID indicates, the decoder will generate a stream with specified overall size and frame rate parameters.

Note that in "genlock-scaled" mode, the frame rate parameter is ignored – it must be the same as the encoder frame rate. This does mean care must be taken when setting this parameter if the source stream is 60fps (e.g. 720p60fps) and scaled to 4K. That only works if the display supports 4K60.

If configured resolution specification in these parameters that exceed the displayed maximum resolution, the display will black out with no indication to the user.

Example command:
Zyper$ set decoder Dec1 displayResolution activeSize 3840 2160 fps 60

Command Description: Output display size determined by received EDID

Command Syntax
set decoder <Decoder_Name or MAC> displayResolution auto

The command causes the decoder to set output display size to the "preferred" value in the EDID received from the display.

Command Description: Override detailed video parameters

Command Syntax
set decoder <decoderMac|decoderName> displayAdvancedTiming activeSize <pixelsHoriz:int> <pixelsVert:int> fps <float> total-size <pixelsHoriz:int> <pixelsVert:int> syncFrontPorch <pixelsHoriz:int> <pixelsVert:int> syncWidth <pixelsHoriz:int> <pixelsVert:int> syncPolarity hPositive|hNegative vPositive|vNegative

This command allows an override of EDID parameters supplied by the display. Regardless of what the supplied EDID indicates, the decoder will generate a stream with specified detailed timing parameters.
If configured resolution specification in these parameters that exceed the displayed maximum resolution, the display will black out with no indication to the user.

Example command:
Zyper$ set decoder Dec1 displayAdvancedTiming activeSize 1920 1080 fps 60 totalSize 2200 1200 syncFrontPorch 88 4 syncWidth 44 5 syncPolarity hPositive vPositive

set decoder autoAudioConnections hdmiAudioFollowVideo

Tells the decoder to automatically join Audio associated with connected Video stream or not.

Syntax

```
set decoder id autoAudioConnections hdmiAudioFollowVideo arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Audio will follow video automatically
`disabled`	Audio will not follow video automatically

Example

```
set decoder myDecoder autoAudioConnections hdmiAudioFollowVideo
enabled
Success
```

set decoder danteAudioOut

Sets the ZyPerUHD60 Dante enabled decoder to either Transmit or Receive mode. (Note that unit will reboot after making a change). Also will select what received audio stream to convert to Dante when in Transmit mode.

Syntax

```
set decoder id danteAudioOut source arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
joinedAudio	Makes the UHD60 a Dante Transmitter (ZyPerUHD60 only)
none	Makes the UHD60 a Dante Receiver (ZyPerUHD60 only)
analogAudio	Convert analog audio to Dante format (ZyPer4K-XS only)
hdmiAudioDownmix	Convert HDMI downmix audio to Dante format (ZyPer4K-XS only)
DanteAudio	Use the Dante audio stream that is received from Encoder (ZyPer4K-XS only)

Examples

```
set decoder MyDecoder1 danteAudioOut source none
Warning:(36) Device has been restarted
Success

set decoder myDecoder danteAudioOut source joinedAudio
Warning:(36) Device has been restarted
Success
```

set decoder edidPreferMode

Sets the preferred resolution from the display EDID

Syntax

```
set decoder id mode type
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

mode

Type: STRING

argument	Description
`edidPreferMode`	Select preferred EDID mode

type

Type: STRING

HDCP options. (Note: Valid with ZyPerUHD only) Used to minimize connection time.

argument	Description
`max`	Default mode. Selects the largest resolution defined in the EDID.
`strict`	Selects the Preferred resolution as stated in the display EDID

"max" – Default mode. Selects the largest resolution defined in the EDID. This has been the operating mode prior to this command. In almost all cases, this is the native resolution of the display. However, some displays can accept a resolution above the native (and scale down). In this case, it is better to use the "strict" mode.

"strict" – The Preferred Resolution is selected as defined in the EDID 1.3 specification. EDID 1.3 specifies that the first Detailed Timing Descriptor in the Standard Timing Information block is always the preferred resolution, although it is only the native resolution if the native-resolution flag is set. If the native-resolution flag is not set, then the maximum resolution will be chosen (falls back to "max" mode).

Note: All comparisons of "resolution" actually mean comparisons of the associated Pixel Clock. The Pixel Clock represents the entire resolution definition: horizontal and vertical size, fps, bit-depth and color decimation (RGB/4:4:4, 4:2:2, 4:2:0).

The command will immediately reanalyze the active EDID and if needed change the preferred resolution and reconnect to the encoder.

The reason for the "max" mode, and for it being the default, is that many displays do not follow the EDID 1.3 specification, claiming a native, Preferred Resolution below the display's actual native resolution. It is fairly common for a UHD display to have an HD resolution as the specified preferred resolution.

Note: ZyPer4K and ZyPerUHD, depending on mode, may support only a limited set of output resolutions, particularly when the scaler is enabled. ZMP will choose the active resolution based decoder capability, scaler mode and preferred resolution. However, the display's Preferred Resolution is displayed regardless of what the decoder ultimate actually uses. The active resolution is displayed in the decoder status as well.

Overriding Preferred Resolution Selection

It should rarely be required. But if the EDID supplied by the display is not correct, or for some reason ZMP chooses a Preferred Resolution that is not desired, the following command will force the decoder to a specific output resolution:

```
        set decoder <decoder> displayResolution activeSize <int>
<int> fps <float>
```

When set, the decoder output resolution will remain as specified without exception.

Note: When in this mode, it is very possible that no video will be displayed, and with no warning from ZMP. It is up to the user to ensure that the output settings are valid for the display.

Scaler Control

ZyPer4K, ZyPerUHD60 and ZyPerUHD decoders have output scaling. Besides the obvious benefit of supporting HD-only displays with a UHD source, the other major benefit is faster switching times. With ZyPer4K, there is virtually no delay. With ZyPerUHD it is less than a one second.

However, there are some cases where disabling the scaler produces a better image. Of course, if the scaler is disabled and the source provides a resolution greater than the display's ability, it will be black. To solve this problem, we have a new mode that disables the scaler, but only if the display can handle the source resolution.

The decoder display-resolution command now has an option called "source".

```
set decoder <decoder> display-resolution source
```

When in "source" mode the scaler is disabled if the display can handle the received resolution. Otherwise it is automatically enabled (e.g. if the source is 480 and the Preferred Resolution is 1080 then the scaler is disabled, but if source is UHD and the Preferred Resolution is 1080, then the scaler is enabled).

The downside to this mode: switching time between non-scaled resolutions is about 3 seconds. Switching time between scaled and non-scaled resolutions is closer to 4s.

Active Output Resolution Selection

Selecting the correct output resolution for a decoder is, unfortunately, a fairly complicated endeavor. Clearly depends on the display (Preferred Resolution), but also on the decoder capability and the source resolution.

Remember: All comparisons of "resolution" actually mean comparisons of the associated Pixel Clock. The Pixel Clock represents the entire resolution definition: horizontal and vertical size, fps, bit-depth and color decimation (RGB/4:4:4, 4:2:2, 4:2:0).

Also, setting "edidPreferMode" only affects which Preferred Resolution is chosen. It does not affect when that Preferred Resolution is used (or if it is used). Although the chosen Preferred Resolution is always reported in the decoder status output (as is the chosen active output resolution).

ZyPer4K HDMI 2.0 Devices

Presently, the decoder active resolution is limited to a number of resolutions: 4096x2160, 3840x2160, 1080x1920 or 1280x720. The closest lower resolution is used.

There are a number of exceptions to the operation.
• Scaler always converts to 8bit 444/RGB. That means UHDp60 4:2:0 is converted to UHDp60 4:4:4. UHDp60 YUV 4:2:0 bit rate is lower than HDM 1.4. But UHDp60 4:4:4 is not. In this case, the output FPS is divided by 2.
• If in genlockScaled, videoWall or window mode, decoder FPS must equal encoder FPS
    o Means 1080p60 scaling to UHD must be UHDp60, which won't work if display is only UHDp30 capable.
    o If UHDp60 > decoder Preferred Resolution, then the output is left at 1080p60.
• If source is 1080i
    o Output must be input FPS * 2
    o If decoder resolution > 1080, it is set to 1080.

displayResolution = auto

When in this mode, the output resolution will always be the Preferred Resolution. There really is no reason not to use this mode with the Z4K Charlie and will produce the lowest switching times.

displayResolution = source

When in this mode, the output resolution will always be the encoder resolution, unless the source resolution greater than the encoder resolution (same case as displayResolution auto).

This mode may provide better video at or below the preferred resolution of the display. However, the switching time is somewhat slower (~3.3s).

displayResolution = sourceIgnoreEdid

Same operation as displayResolution = auto, but effectively using a manually entered Preferred Resolution. Generally only used if the EDID is incorrect.

ZyPerUHD

The ZyPerUHD scaler scales up fine (source resolution lower than display preferred). However, it can only scale down from UHD to 1080.

Even with this limitation, the vast majority of installations will be fine. The exception comes with PC-based resolutions. For example a case that will not work well:
• 1080-only display and source resolution of 1920x1200

For the cases where VESA/PC resolutions such as 1920x1200, 2560x1440 and 2560x1600 are needed, all displays must be at least that resolution or greater. For example, a 1920x1200 display can handle all resolutions up to 1920x1200 and it can also handle UHD, since the decoder will output UHD scaled down to 1080 (which is fine for a 1920x1200 display).

And, clearly, all of those resolutions will be fine if the displays are UHD capable (scaling up works, plus, the new mode "display-size source" can be used).

If a configuration that causes downscaling that is not handled well, likely generating poor video, a warning will be generated.

displayResolution = auto

When in this mode, the output resolution will always be the Preferred Resolution, unless the source resolution greater than the preferred resolution.

This mode provides the fastest switching time (less than 1 second). However, there may be some cases where video quality is less than when using display-resolution = source.

If source is greater than decoder Preferred Resolution, then decoder output will be 1920x1080 (unless the display does not support it) with the preferred FPS. As noted, the only case this normally works for is when the source is 3840x2160.

displayResolution = source

When in this mode, the output resolution will always be the encoder resolution, unless the source resolution greater than the encoder resolution (same case as displaySize auto).

This mode may provide better video at or below the preferred resolution of the display. However, the switching time is somewhat slower (~3.3s).

displayResolution = sourceIgnoreEdid

Same operation as displayResolution = auto, but effectively using a manually entered Preferred Resolution. Generally only used if the EDID is incorrect.

set decoder hdmi5vControl

Enables or disables 5V HDMI line of the decoder. (ZyPer4K-XS, ZyPer4K-XSE and ZyPer4K-XR only)

When decoder is not receiving a video stream the decoder will disable the 5V HDMI line.

Syntax

```
set decoder id hdmi5vControl arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	5V HDMI line will disable when no video streamed ot the decoder.
`disabled`	5V HDMI line is never disabled. (Default)

Example

```
set decoder myDecoder hdmi5vControl enabled
Success
```

If you attempt to run this command on a decoder that is not XS/XSE/XR or not on correct firmware you get the following error.

```
Error:(29) Device myDecoder does not support or cannot change:
videoPort with value hdmi5vControl.
```

Notes

ZyPer4K-XS or ZyPer4K-XR must be updated to firmware version 1.3.2.4 or newer for this command to work.

The connection before disconnecting video from the decoder must be "genlocked" to fully disable video and cut the 5V line.

set decoder lowLatency

Enables or disables low latency mode for the ZyPerUHD60 decoder. (ZyPerUHD60 only)

Syntax

```
set decoder id lowLatency arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	enable low latency mode. (Default)
`disabled`	disable low latency mode.

Example

```
set decoder myDecoder lowLatency enabled
Success
```

Notes

There may be instances where the user will want to disable low latency mode. Example: We have found a compatiblity issue with a Crestron HD-DA4-4KZ-E splitter that requires low latency mode disabled in order to properly recognise the input from ZyPerUHD60 decoder.

set decoder osdStatusMode

Enables or disables on-screen-display feature of the decoder. (ZyPerUHD and ZyPerUHD60 only)

When decoder is not receiving a stream the decoder will display a "No Source Found" screen. In the lower corner of this screen is displayed the following information:

Firmware version and date
IP address of the decoder
Remote IP: (Encoder it is attempting to get stream from if any)
MAC Address

The osdStatusMode command will make this information visible or not.
Note, changing status with the command will force the decoder to reboot.

Syntax

```
set decoder id osdStatusMode arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	OSD feature enabled.
`disabled`	OSD feature disabled.

Example

```
set decoder myDecoder osdStatusMode enabled
Warning:(36) Device myDecoder has been restarted
Success
```

set decoder powerSave

Enables or disables power save feature of the decoder. (ZyPerUHD and ZyPerUHD60 only)

When decoder is not receiving a stream the decoder will enter a low power mode and the display will go black.

Syntax

```
set decoder id powerSave arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Power save feature enabled.
`disabled`	Power save feature disabled.

Example

```
set decoder myDecoder powerSave enabled
Success
```

set device dante port

Sets port for Dante activity. (ZyPerUHD60-2EA/2DA and ZyPer4K-XSE units only)

Used to set the Dante port to either Video Port or Utility Port.

Syntax

```
set device id dante port arg boot
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`video`	Sets Dante to the Video Port and LAN
`utility`	Sets Dante to the Utility Port and LAN

boot

Type: STRING

Supply one of the following arguments.

argument	Description
`reboot`	Reboot the endpoint
`noReboot`	No not reboot the endpoint

Example

```
set device UHD60-2EA dante port utility reboot dhcp
Success
```

Related Commands

```
set device dante ip
set device dante ip static
```

set device dante ip

Sets DHCP mode for the specified device. (ZyPerUHD60-2EA and 2DA only)
Note only applies when ZyPerUHD60-2EA/2DA using using Dante on the Utility Port.
(Separate LAN from primary AV network)

In future this command will also support Dante enabled ZyPer4K-XS units.

Syntax

```
set device id dante ip arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
dhcp	IP address assigned by DHCP server
linkLocal	IP address self assigned Link-Local

Example

```
set device UHD60-2EA dante ip dhcp
Success
```

Related Commands

```
set device general name
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device dante ip static

Sets static mode for the specified device. The IP address, subnet mask, and gateway must be supplied. (ZyPerUHD60-2EA and 2DA only)

Note only applies when ZyPerUHD60-2EA using using Dante on the Utility Port. (Separate LAN from primary AV network)

In future this command will also support Dante enabled ZyPer4K-XS units.

Syntax

```
set device id  ip static addr mask gateway
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

addr

Type: IP Address

The desired IP address for the device.

mask

Type: IP Address

The desired subnet mask for the device.

gateway

Type: IP Address

The desired gateway for the device.

Example

```
set device UHD60-2EA dante ip static 10.5.68.121 255.255.255.0
10.5.64.1
Success
```

set device dante vlan mode

Sets Dante VLAN. (KDS-17 units only)

Used to enable/disable Dante VLAN and set VLAN ID if enabled.

Syntax

```
set device id dante vlan mode arg vlanId LANid boot
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Enable Dante VLAN mode
`disabled`	Disable Dante VLAN mode

LANid

Type: Integer from 1 to 4000

VLAN ID for Dante.

boot

Type: STRING

Supply one of the following arguments.

argument	Description
`reboot`	Reboot the endpoint
`noReboot`	No not reboot the endpoint

Example

```
set device KDS17-Dec1 dante vlan mode enabled vlanId 3 reboot
Warning:(36) Device has been restarted
Success
```

Related Commands

```
set device dante ip
set device dante ip static
```

set device general name

Sets the name for the specified encoder or decoder.

Syntax

```
set device id  general name str
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

Important Note: The following characters are not valid for device names.

Colon :
Quotes "
Blank Spaces

str

Type: STRING

The name for the device.

Example

```
set device myDecoder5 general name Samsung-55
Success
```

Related Commands

```
set device ip
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device ip

Sets DHCP mode for the specified device.

Syntax

```
set device id ip arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
dhcp	IP address assigned by DHCP server
linkLocal	IP address self assigned Link-Local

Example

```
set device ABC ip dhcp
Success
```

Related Commands

```
set device general name
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device ip static

Sets static mode for the specified device. The IP address, subnet mask, and gateway must be supplied.

Syntax

```
set device id  ip static addr mask gateway
```

Parameters

id
: Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

addr
: Type: IP Address

The desired IP address for the device.

mask
: Type: IP Address

The desired subnet mask for the device.

gateway
: Type: IP Address

The desired gateway for the device.

Example

```
set device ABC ip static 10.5.68.121 255.255.255.0 10.5.64.1
Success
```

Related Commands

```
set device general name
set device ip
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device irProcessing

Configures ZyPer4K endpoint to process input IR commands to issue channel up or channel down API command.

ZyPer Remote is and IR remote control. Part number: ZVREMOTE
Hitting Up or CH+ button will issue channel up API command.
Hitting Down or CH- button will issue channel down API command.

ZeeVee IR Receiver is required to be plugged into Decoder IR input port.
Part number: Z4KIRRX

ZyPer Trigger is a device to connect a "button" to the ZeeVee decoder IR ports.
Part number: Z4KIRTRIGTX

Syntax

```
set device id irProcessing arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`zyperTrigger`	Process button press from ZyPer Trigger device
`zyperRemote`	Process up/down button press from ZeeVee IR remote control
`none`	Do not process IR inputs

Example

```
set device Z4KDec irProcessing zyperRemote
Success
```

Related Commands

`set device general name`
`set device ip static`

set device optionCard

Manually forces option card type for ZyPer4K extended box Encoders (ZyPer4K only).

Typically extended box encoders will automatically identify themselves to the ZMP. However in some cases using the "auto" setting, the expansion/option card is not detected. Manually setting the feature forces correct operation. Note you must select the correct setting based on the ZyPer4K encoder hardware you have. For example 12G SDI hardware cannot be set to Display Port.

Syntax

```
set device id optionCard type arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
auto	ZMP will automatically detect the proper setting. Note issue above.(default)
hdsdi	Force setting to HD-SDI
displayPort	Force setting to DisplayPort
analog	Force setting to Analog
hdmiOptionalIn	Force setting to Dual HDMI input with loopout
sdi12g	Force setting to 12G SDI input

Example

```
set device ABC optionCard type sdi12g
Success
```

Related Commands

```
set device general name
set device ip static
```

set device rs232

Sets the RS232 settings for the specified device.

Syntax

```
set device id rs232 baud data stop parity
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

baud

Type: INTEGER

The baud rate for the device. Supply one of the following values from the table below.

argument		
2400	9600	19200
38400	57600	115200

data

Type: INTEGER

The data bit setting for the device. Supply one of the following values from the table below.

argument
7-bits
8-bits

stop

Type: INTEGER

The stop bit setting for the device. Supply one of the following values from the table below.

argument
1-stop
2-stop

parity

Type: STRING

The parity setting for the device. Supply one of the following values from the table below.

argument
even
odd
none

Example

```
set device decoderNumber2 rs232 57600 8-bits 1-stop none
Success
```

Related Commands

```
send
set device general name
set device ip
set device ip static
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device security

Mechanism to enable security over Semtech's server-device communication. First, there has to be an overall key associated with the server (deviceSecurityKey). Then, each device has to enable the security. Provides authentication and encryption. This only works with ZyPer4K-XS/XSE and ZyPer4K-XR devices. Once a device has been enabled for a specific server, it will not work with any server without the same key. Redundancy automatically sets the same key on both servers. If the key is lost, devices have to be hardware factory defaulted

Syntax

```
set device id security arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Feature enabled.
`disabled`	Feature disabled.

Example

```
set device Encoder_1 security enabled
Success
```

Related Commands

`set server security deviceSecurityKey`

set device sendIpMcastRange

Sets allowable range of multicast addresses for selected devices. (ZyPer4K family only)

Syntax

```
set device id sendIpMcastRange first:ip last:ip
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive. Can all use "all" or "encoders" as an ID option.

first:ip / last:ip

Type: Multicast Address

Supply the starting and ending multicast addresses in the allowable range.

Note: Allowable range is from 224.1.1.1 to 239.255.255.255

Example

```
set device encoders sendIpMcastRange 224.1.1.25 224.1.2.125
```

Related Commands

```
set device general name
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device sourceDisplay iconImageName

Assigns an icon to the desired device. The icon will be displayed within the ZMP to identify the device.

Syntax

```
set device id sourceDisplay iconImageName fname
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder. String names are case-sensitive.

fname

Type: FILENAME

The full filename of the icon to be used. The filename is case-sensitive.

argument	Description
abc	ABC network icon
cbs	CBS network icon
nbc	NBC network icon
fox	Fox network icon
xbox	Xbox game console icon
golf	Golf channel icon
espn	ESPN network icon
tennis	Tennis channel icon
cnn	CNN network icon
ps3	PlayStation game console icon
DVD	DVD player icon
BluRay	BluRay icon
VCR	VCR icon
CableBox	Cable box icon
Laptop	Laptop icon
BroadcastCamera	Broadcast camera icon
SecurityCamera	Security camera icon

Example

```
set device Encoder1 sourceDisplay iconImageName cbs
Success
```

Related Commands

```
set device general name
set device ip
set device ip static
set device rs232
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device sourceDisplay location

Assigns a location description for the specified device.

Syntax

```
set device id sourceDisplay location loc
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

loc

Type: STRING

The location description of the device (e.g. "Conference_Rm", "Den", etc.). Do not use quotes when specifying this string value.

Example

```
set device myDecoder3 sourceDisplay location VideoWall-1
Success
```

Related Commands

```
set device general name
set device ip
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device sourceDisplay manufacturer

Assigns a manufacturer description for the specified device.

Syntax

```
set device id sourceDisplay manufacturer mfg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

mfg

Type: STRING

The manufacturer description of the device (e.g. "Sony", "Panasonic", etc.). Do not use quotes when specifying this string value.

Example

```
set device myDecoder3 sourceDisplay manufacturer Sony
Success
```

Related Commands

```
set device general name
set device ip
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device sourceDisplay model

Assigns a model description for the specified device.

Syntax

```
set device id sourceDisplay model model
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

model

Type: STRING

The manufacturer's model number of the device.
Do not use quotes when specifying this string value.

Example

```
set device myDecoder3 sourceDisplay model DVPSR210P
Success
```

Related Commands

```
set device general name
set device ip
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay serialNumber
```

set device sourceDisplay serialNumber

Assigns the manufacturer serial number for the specified device.

Syntax

```
set device id sourceDisplay serialNumber serial
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

serial

Type: STRING

The manufacturer serial number of the device.

Example

```
set device myDecoder3 sourceDisplay serialNumber 123456789
Success
```

Related Commands

```
set device general name
set device ip
set device ip static
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
```

set device usbFilter

Allows restrictions to USB use on selected device. (ZyPer4K with Icron only. Not supported on ZyPer4K-XS or ZyPer4K-XR units)

Syntax

```
set device id usbFilter arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder. String names are case sensitive

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`none`	No restrictions on USB port
`exceptHid`	Only HID devices will work
`storage`	Allows any USB device except Storage devices

Example

```
set device myDecoder2 usbFilter none
Success
```

Related Commands

```
set device general name
set device ip
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device usbType

Used to select the USB function on ZyPer4K-XSE units. (ZyPer4K-XSE units with EAU or DAU suffix only)

ZyPer4K-XSE units with EAU or DAU suffix have the ability to operate with either the built in HID USB feature from Semtech or the full USB 2.0 feature from Icron. Both cannot function at the same time. This command toggles between the two options. This can be important to ensure compatibility between other ZyPer4K family endpoints. For example the White Box ZyPer4k units with USB only have the Icron option. The ZyPer4K-XS units and ZyPer4K-XSE units without EAU/DAU suffix only have the Semtech option.

Syntax

```
set device id usbType arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder or decoder. String names are case sensitive

arg

Type: STRING

Supply one of the following arguments.

argument	Description
full	Use the Full USB 2.0 option from Icron
hid	Use the HID only option from Semtech

Example

```
set device myDecoder2 usbType full
Success
```

Note: Can only change between full and hid mode if no active USB connection between encoder and decoder

```
set device XSE_Enc usbType full
Error:(226) Existing USB connection; cannot change usb type
```

Related Commands

set device usbFilter

USB Interoperability Chart

			Decoders						
			Z4K-XS	Z4K-XSE	Z4K-XSE Dante+Icron	Z4KXS-WallPlate	Z4KXS-WallPlate Icron	Z4K-Icron	Z4K-XR
	USB Routing	Applicable Models	Z4KDECC3XS Z4KDECF3XS	Z4KCXS-D Z4KFXS-D Z4KC2XS-D Z4KF2XS-D	Z4KCXS-DAU Z4KFXS-DAU Z4KC2XS-DAU Z4KF2XS-DAU	Z4KDECC3XS-WPUS	Z4KDECC3XS-WPUS-I	Z4KDECF3U Z4KDPDECF3U Z4KDECC3U Z4KDPDECC3U	Z4KDECC3XR Z4KDECFSXR Z4KDECFLXR
Encoders	Z4K-XS	Z4KENCC3XS	Yes	Yes	Yes (Disable Icron)	Yes	No	No	Yes
		Z4KENCF3XS							
	Z4K-XSE	Z4KC2XS-E	Yes	Yes	Yes (Disable Icron)	Yes	No	No	Yes
		Z4KF2XS-E							
	Z4K-XSE Dante+Icron	Z4KC2XS-EAU	Yes (Disable Icron)	Yes (Disable Icron)	Yes	Yes (Disable Icron)	Yes	Yes	Yes (Disable Icron)
		Z4KF2XS-EAU							
	Z4KXS-WallPlate	Z4KENCC3XS-WPUS	Yes	Yes	Yes (Disable Icron)	Yes	No	No	Yes
	Z4KXS-WallPlate-Icron	Z4KENCC3XS-WPUS-I	No	No	Yes (USB 2.0 only)	No	Yes	Yes	No
	Z4K-Icron	Z4KENCF3U	No	No	Yes (USB 2.0 only)	No	Yes	Yes	No
		Z4KENCC3U							
		Z4K12GSDIENCF3U							
		Z4K12GSDIENCC3U							
		Z4KDPENCF3U							
		Z4KDPENCC3U							
		Z4KANLENCF3U							
		Z4KANLENCC3U							
		Z4KHDMIENCC3U							
		Z4KHDMIENCF3U							
	Z4K-XR	Z4KENCC3XR	Yes	Yes	Yes (Disable Icron)	Yes	No	No	Yes
		Z4KENCF3XR							
		Z4KENCFLXR							

USB not supported between devices
USB HID supported between devices (may need Icron to be disabled on XSE)
Full USB 2.0 supported between devices
USB Host port does not support direct connection to a USB 3.0 port. USB Hub is required between encoder and PC

set device utilityPort

Enables or disables the 1Gb Utility Ethernet port on the specified encoder or decoder. (ZyPer4K and ZyPerUHD60 only)

Syntax

```
set device id utilityPort arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Ethernet port is enabled.
`disabled`	Ethernet port is disabled (ZyPer4K only)
`onlyDanteAudio`	Ethernet port is enabled as a sepate LAN with Dante TX/RX. (ZyPerUHD60-2EA and ZyPerUHD-2DA only)

Example

```
set device myDecoder5 utilityPort disabled
Success
```

Related Commands

```
set device general name
set device ip
set device rs232
set device sourceDisplay iconImageName
set device sourceDisplay location
set device sourceDisplay manufacturer
set device sourceDisplay model
set device sourceDisplay serialNumber
```

set device videoPort

Selects active input port for ZyPer4K units with multiple inputs. (ZyPer4K and ZyPerUHD60 only)

Syntax

```
set device id videoPort arg
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
hdmi	Use the HDMI input (Z4K Located to the right) "HDMI IN1" on UHD60
hdmiOptionalIn	Use the HDMI input (Located to the left). "Primary Input" Z4K Dual input HDMI only. "HDMI IN2" on UHD60
usbc	Use the USB-C input.
auto	Use whatever port has an active input if only one source is connected. Note this is only valid for DisplayPort and Dual-HDMI options. Does not work with SDI or Analog inputs. Please see ZyPer4K User Guide for details on what port is used if both ports have an active input.
displayPort	Use the Display-Port input
hdsdi	Use the SDI input port
12gsdi	Use the 12G SDI input port
component	Use component input. (Requires ZeeVee Hydra cable)
composite	Use composite input (Requires ZeeVee Hydra cable)
s-video	Use s-video input (Audio not supported)
vga	Use vga input. (Requires ZeeVee VGA cable)

Example

```
set device myEncoder1 videoPort displayPort
Success
```

set encoder analogAudioOut

Sets the analog audio output source type for the specified encoder. (ZyPer4K and ZyPerUHD60 family only)
Also used to configure the port as an input.

Syntax

```
set encoder id analgoAudioOut source type
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

type

Type: STRING

The audio mode (analog or HDMI).

argument	Description
`none`	No analog audio output from the encoder. Port is configured for analgo audio input in this case.
`hdmiAudioDownmix`	Uses downmixed audio from input HDMI stream
`directDanteAudio`	Uses Dante audio that has been routed from another Dante Source to the encoder. (Only valid if Encoder as supporting Dante hardware installed) ZyPer4K-XSE Family only

Examples

```
set encoder Myencoder1 analogAudioOut source hdmiAudioDownmix
Success
set encoder Myencoder1 analogAudioOut source none
Success
set encoder MyDanteEncoder analogAudioOut source directDanteAudio
Success
```

set encoder danteAudioOut

Sets the audio input source source type for the specified encoder. (ZyPerUHD60 Dante Enabled Encoders only)

Only used when UHD60 Encoder is configured as a Dante Tranmitter

Syntax

```
set encoder id danteAudioOut source mode
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

mode

Type: STRING

The audio output to use.

argument	Description
analogAudio	Place the input Analog Audio from 5-pin phoenix connector onto Dante Network
hdmiAudioDownmix	Place the Downmix HDMI audio from HDMI connector onto Dante Network

Example

```
set encoder Myencoder1 danteAudioOut source hdmiAudioDownmix
Success
set encoder Myencoder1 danteAudioOut source analogAudio
Success
```

Related Commands

`set decoder danteAudioOut`

set encoder edid audio

Sets the allowable audio input formats at the encoder.

Detailed Background

ZeeVee added a feature that will allow compressed formats to be passed down in an encoder EDID file. This EDID will be then forwarded to the source device to determine the type of audio sent to the encoder.

This enhancement was to provide fast-switched connections the "compressed audio" options in the EDID file. Prior to this version with the fast-switched connection, ZeeVee modified the EDID passed from the decoder to the encoder and removed all compression formats. This left just LPCM as the only option under the "Audio data block" in the edid file.

```
>>> Audio data block <<<
  Linear PCM, max channels 8
    Supported sample rates (kHz): 192 176.4 96 88.2 48 44.1 32
    Supported sample sizes (bits): 24 20 16
```

The information provided to the Video Source device (such as BluRay Player or Media player) increases the possibility of compression being a chosen audio format. However it is still up to the device to choose uncompressed or compressed formats. It is important to know that some devices such as the Apple 4K TV requires the audio output type to be set (even if the audio format is available in the EDID). Compression will need to be set manually on these types of devices.

In addition any downmixed stream internal to ZyPer devices will not process compressed audio, so you will not hear compressed audio on these connections.

Syntax

```
set encoder id edid audio mode
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

mode

Type: STRING

The supported input audio mode

argument	Description
`onlyPcm`	Force PCM audio format at encoder. Does not allow compressed formats such as AC3.
`allowCompressed`	Passes the decoders edid with unmodified audio information and thus allows compression options to be seen.
`serverDefault`	Follows the server setting

Example

```
set encoder Cuba edid audio allowCompressed
Success
```

Related Commands

`set server encoderDefaultAudioFormat`

Additional Information

In an attempt to properly Identify the Audio Streams used under the product the following changes were also made along with some modification to the API commands.

Product	Old Audio Stream Name	New Stream Name
ZyPer4K	hdmi (used in genlocked mode)	hdmiPassthroughAudio
ZyPer4K	hdmi-audio-downmix	hdmiAudio
ZyPer4K	analog-audio	analogAudio
ZyPerUHD	audio	hdmiAudio
ZyPerUHD	analog-audio	analogAudio
ZyPerUHD60	none	hdmiAudio
ZyPerUHD60	none	analogAudio

The ZyPer4k can have analog and digital audio streams going to the decoder at the same time and routing either way.

So:

join <enc> <dec> hdmiAudio

is simply used to route ‘standard’ HDMI audio from encoder to decoder.

Which port it goes out is based on defaults or the set command.

```
Zyper$ set decoder z4k_dec_desk_58 analogAudioOut source
    analogAudio
    hdmiAudioDownmix
```

or

```
Zyper$ set decoder z4k_dec_desk_58 hdmiAudioOut source
    analogAudio
    hdmiAudio (For HDMI out only)
    hdmiAudioDownmix
    hdmiPassthroughAudio (This is for genlockonly)
```

set encoder hdcpMode

Sets the hdcp mode for the specified encoder.

Syntax

```
set encoder id mode type
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

mode

Type: STRING

The hdcp mode to use

argument	Description
hdcpMode	HDCP mode of the Encoder.

type

Type: STRING

Enable or Disable

argument	Description
enabled	encoder will accept HDCP 1.4/2.2 compatible streams. Also will accept unencrypted inputs.
enabled1_4	encoder will accept HDCP 1.4 compatible streams. Also will accept unencrypted inputs.
disabled	encoder will reject HDCP 1.4/2.2 compatible streams. Will only accept unencrypted inputs.

Example

```
set encoder Myencoder1 hdcpMode disabled
Success
```

Notes

```
Useful when user does not want Source such as Apple Macbook to
provide HDCP protected content to the Encoder.
```

set kvm

Configure kvm parameters. Decoders, Encoders, Multiviews and USB Source. (ZyPer4K-XS/XSE/XR only)

Syntax

```
set kvm name row <int> column <int> arg id
```

Parameters

name

Type: STRING

The name the kvm. String names are case sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
decoder	You are specifying a decoder for the kvm setup
encoder	You are specifying an encoder for the kvm setup
multiview	You are specifying an existing multiview for the kvm setup
usbSource	You are specifying the usb source for the kvm setup

id

Type: STRING

The name the decoder, encoder or multiview. String names are case sensitive.

Examples

```
set kvm ControlRoom row 1 col 1 decoder LargeSony
Success

set kvm ControlRoom row 2 col 1 multiview 2x2Grid
Success

set kvm ControlRoom row 1 col 1 usbSource
Success
```

set kvm hotkey

Sets the hotkey "base" for all kvm. (ZyPer4K-XS/XSE/XR only)

Syntax

```
set kvm all hotkeyBase option
```

Parameters

option

Type: STRING

Supply one of the following arguments.

argument	Description
ctrl-ctrl	Double Control Key activates Hotkey
shift-shift	Double Shift Key activates Hotkey
alt-alt	Double ALT Key activates Hotkey
scroll-scroll	Double SCROLL Key activates Hotkey
print-print	Double PRINT Key activates Hotkey

Example

```
set kvm all hotkeyBase alt-alt
Success

set kvm all hotkeyBase shift-shift
Success
```

How to Use

To activate a hot key function you first press the base keys. Example ctrl-ctrl. Then you press the corresponding key for the action you want to take

Key: S Action: Swap the window the mouse is in with the home position
Key: R Action: Reset all windows the settings in the saved configuration

Related Commands

```
create kvm
delete kvm
show kvm
start kvm
stop kvm
```

set ldap mode

Enables or disables Lightweight Directory Access Protocol (LDAP) mode.

Syntax

```
set ldap mode mode
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
`disabled`	Disables ldap mode.
`enabled`	Enables ldap mode.

Example

```
set ldap mode disabled
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set ldap server address

Sets the Lightweight Directory Access Protocol (LDAP) server domain.

Syntax

```
set ldap server address domain
```

Parameters

domain

Type: STRING

Domain of the LDAP server.

Example

```
set ldap server address zeevee.com
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set ldap server baseSearchDn

Sets the Lightweight Directory Access Protocol (LDAP) server base search distinguished name.

The Base DN (also called Search Base) defines the location within the directory hierarchy where LDAP searches should start. It limits the search scope to a specific branch of the LDAP directory tree.

Syntax

```
set ldap server baseSearchDn name
```

Parameters

name

Type: STRING

base Dn of the LDAP server.

Example

```
set ldap server baseSearchDn employees
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set ldap server bindDn username

Sets the Lightweight Directory Access Protocol (LDAP) server username.

The bindDN username in LDAP is the Distinguished Name (DN) of the account used by an application or client to authenticate (bind) to the LDAP server.

Used to log in to the LDAP server so the application can search or modify directory entries.

Often paired with a password for authentication.

Syntax

```
set ldap server bindDn username
```

Parameters

username

Type: STRING

username of the LDAP server.

Example

```
set ldap server bindDn username uid=jdoe,ou=people,dc=demo,dc=org
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set ldap server bindDn password

Sets the Lightweight Directory Access Protocol (LDAP) server password.

Associated with the bindDN username in LDAP is the Distinguished Name (DN) of the account used by an application or client to authenticate (bind) to the LDAP server.

Used to log in to the LDAP server so the application can search or modify directory entries.

Syntax

```
set ldap server bindDn password
```

Parameters

password

Type: STRING

password of the LDAP server.

Example

```
set ldap server bindDn password admin123
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set ldap type

Set the Lightweight Directory Access Protocol (LDAP) type to either openLDAP or ActiveDirectory

Syntax

```
set ldap type type
```

Parameters

type

Type: STRING

Supply one of the following arguments.

argument	Description
`openLdap`	Sets to openLdap.
`activeDirectory`	Sets to ActiveDirectory.

Example

```
set ldap type openLdap
Success
```

Related Commands

```
add ldap
delete ldap
show ldap
set ldap server address
```

set multiview

Assigns source to a position and size within a multiview display. (ZyPer4K family only)

Syntax

```
set multiview id windowNumber wn encoderName enc position
percentPositionX posx percentPositionY posy percentSizeX sx
percentSizeY sy layer ly

set multiview id windowNumber wn encoderName enc position
pixelPositionX posx pixelPositionY posy pixelSizeX sx pixelSizeY sy
layer ly
```

Parameters

id
Type: STRING

Name of previously created multiview. String names are case-sensitive.

wn
Type: Integer

Window number within the multiview (1-19)

enc
Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

percentPositionX
Type: Integer

X coordinate in percentage of multiview canvas. Upper left corner of window. (0-99)

percentPositionY
Type: Integer

Y coordinate in percentage of multiview canvas. Upper left corner of window. (0-99)

pixelPositionX
Type: Integer

X coordinate of multiview in multiview canvas. Upper left corner of window.

pixelPositionY
Type: Integer

Y coordinate of multiview in multiview canvas. Upper left corner of window.

`pixelSizeX`
Type: Integer

Size/Length of multiview window. Number of pixels in multiview canvas.

`pixelSizeY`
Type: Integer

Size/Height of multiview window. Number of Pixels in multiview canvas

`percentSizeX`
Type: Integer

Size/Length of multiview window. As a percentage of X dimension of multiview canvas. (0-99)

`percentSizeY`
Type: Integer

Size/Height of multiview window. As a percentage of Y dimension of multiview canvas. (0-99)

`ly`
Type: Integer

Window Layer. Value from 1-9 with layer 1 being the bottom layer and 9 being the top.

Examples

Using Percentages

```
set multiview myMview1 windowNumber 1 encoderName myEnc1
percentPositionX 50 percentPositionY 50 percentSizeX 25
percentSizeY 25 layer 3
```

Using Pixel Values

```
set multiview myMview1 windowNumber 1 encoderName myEnc1
pixelPositionX 1920 pixelPositionY 1080 pixelSizeX 800 pixelSizeY
600 layer 3
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

set multiview (layer, position, size)

Allows user to change a multiview window layer, position or size without specifying other parameters. (ZyPer4K family only)

Syntax

```
set multiview id windowNumber wn positionX posx positionY posy
sizeX sx sizeY sy layer ly
```

Parameters

`id`
Type: STRING

Name of previously created multiview. String names are case-sensitive.

`wn`
Type: Integer

Window number within the multiview (1-19)

`percentPositionX`
Type: Integer

X coordinate in percentage of multiview canvas. Upper left corner of window. (0-99)

`percentPositionY`
Type: Integer

Y coordinate in percentage of multiview canvas. Upper left corner of window. (0-99)

`pixelPositionX`
Type: Integer

X coordinate of multiview in multiview canvas. Upper left corner of window.

`pixelPositionY`
Type: Integer

Y coordinate of multiview in multiview canvas. Upper left corner of window.

`pixelSizeX`
Type: Integer

Size/Length of multiview window. Number of pixels in multiview canvas.

pixelSizeY
Type: Integer

Size/Height of multiview window. Number of Pixels in multiview canvas

percentSizeX
Type: Integer

Size/Length of multiview window. As a percentage of X dimension of multiview canvas. (0-99)

percentSizeY
Type: Integer

Size/Height of multiview window. As a percentage of Y dimension of multiview canvas. (0-99)

ly
Type: Integer

Window Layer. Value from 1-9 with layer 1 being the bottom layer and 9 being the top.

Examples

```
set multiview myMview1 windowNumber 2 layer 4
Success

set multiview myMview1 windowNumber 2 size percentSizeX 50 percentSizeY
50
Success

set multiview mv1 windowNumber 1 size pixelSizeX 500 pixelSizeY 400
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
set multiview audioSource windowNumber
show multiviews config
show multiviews status
```

set multiview allowMainStream

Controls if the main unscaled video stream from an encoder can be used in a multiview.
(ZyPer4K family only)

Syntax

```
set multiview id allowMainStream arg
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled (default)`	Unscaled stream is allowed
`disabled`	Unscaled stream is not allowed

Example

```
set multiview myMview1 allowMainStream enabled
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set multiview audioSource windowNumber

Selects the input source to provide Audio for multiview display. (ZyPer4K family only)

Syntax

```
set multiview id audioSource windowNumber arg
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

arg

Type: STRING / Integer

Supply one of the following arguments.

argument	Description
`Integer`	Integer from 1-19 identifying source to use for audio
`none`	Set no audio for the multiview

Example

```
set multiview myMview1 audioSource window number 4
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set multiview windowNumber channel up/down

Cycles the encoder source up/down for a specified multiview window. (ZyPer4K family only)

Syntax

```
set multiview id windowNumber channel arg
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

arg

Type: STRING

Supply one of the following arguments.

argument	Description
up	Will cycle the encoder source in the speficied multiview window to next higher numbered encoder. Will cycle around to lowest encoder number when maximum value is reached.
down	Will cycle the encoder source in the speficied multiview window to next lower numbered encoder. Will cycle around to highest encoder number when minimum value is reached.

Examples

```
set multiview mv3x3 windowNumber 3 channel up
Channel changed to Z4Kenc_2
Success

set multiview mv3x3 windowNumber 3 channel up
Channel changed to Arts_Encoder_1
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set multiview canvasSize

Selects the canvas size for creating multiview windows. (ZyPer4K family only)

Helpful feature to control bandwidth of scaled streams for a multiview. Default canvas size is 3840x2160. This can create case where datarate from encoder is greater than 9.5Gb limit.(Full size stream plus scaled stream.) Reducing the canvas size will reduce required size and datarate of scaled stream used for multiview.

Syntax

```
set multiview id canvasSize pixelsHoriz pixelVert
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

pixelsHorz

Type: Integer

Horizontal width of the multiview canvas. (640 to 8192)

pixelsVert

Type: Integer

Vertical height of multiview window. (480 to 8192)

Note: Maximum canvas pixels is 8,847,360

Example

```
set multiview MyView1 canvasSize 1920 1080
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set multiview newEncoderName

Assigns a new encoder to an existing multiview window. (ZyPer4K family only)

Syntax

```
set multiview id windowNumber wn newEncoderName encName|none
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

wn

Type: Integer

Window number within existing multiview. (1 to 19)

encName

Type: STRING / STRING

The name or MAC address of the encoder. String names are case sensitive. None is also an option to remove existing encoder and replace with nothing.

Example

```
set multiview mv2x2-Art windowNumber 3 newEncoderName ABC
Success

set multiview mv2x2-Art windowNumber 3 newEncoderName none
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set multiview title

Used to create a text overlay in a multiview window. (ZyPer4K family only)

Important note: This feature is not supported on ZyPer4K-XS, ZyPer4K-XR or ZyPer4K-XSE encoders. The ZyPer4K decoder is not relevant. All versions supported.

Create a string of text to be overlayed somewhere in a multiview window. Color of text and color of background can be specified. Size of text can be specified. Transparency of text and background can be specified. Note that 100% transparent setting is not fully transparent.

Syntax

```
set multiview id windowNumber wn title textString title

set multiview id windowNumber wn title text-size ts

set multiview id windowNumber wn title transparency text tt
background bt

set multiview id windowNumber wn title color text tc background bc
```

Parameters

id

Type: STRING

Name of previously created multiview. String names are case-sensitive.

wn

Type: Integer

Window number within the multiview (1-19)

ts

Type: Integer

Size of text (1-10)

tt

Type: Integer

Text Transparency. Percentage (0-100)

bt

Type: Integer

Background Transparency. Percentage (0-100)

tc

Type: STRING

Text color. Can be any of the following options: black, blue, brown, cyan, darkBlue, gray, green, lightBlue, lightGray, lime, magenta, maroon, olive, orange, purple, red, silver, white, yellow.

bc

Type: STRING

Background color. Can be any of the following options: black, blue, brown, cyan, darkBlue, gray, green, lightBlue, lightGray, lime, magenta, maroon, olive, orange, purple, red, silver, white, yellow.

title

Type: STRING

Any text string to be associted and displayed in the selected multiview window. Strings contains spaces must be enclosed in quotations.

Examples

```
set multiview MyView1 windowNumber 1 title textString "Window #1"
Success

set multiview MyView1 windowNumber 1 title textSize 10
Success

set multiview MyView1 windowNumber 1 title transparency text 0
background 100
Success

set multiview MyView1 windowNumber 1 title color black background-
color green
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
show multiviews status
```

set preset commands auto

Used to update an existing preset

Syntax

```
set preset id commands auto connections
```

Parameters

id

Type: STRING

The name of the preset. String names are case-sensitive.

connections

Supply one of the following arguments.

argument	Description
existingConnections	Uses the existing set of connections to create the command list
empty	Creates an empty set of commands. No connections

Example

```
set preset morning commands auto existingConnections
Success

set preset morning commands auto empty
Success
```

Related Commands

```
create preset
delete preset
run preset
show preset
```

set preset commands blob

Used to update an existing preset commands

Syntax

```
set preset id commands blob connections
```

Parameters

id

Type: STRING

The name of the preset. String names are case-sensitive.

connections

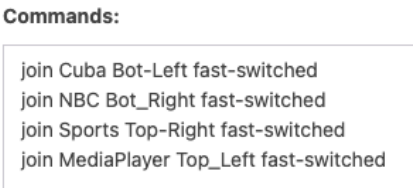
Type: STRING

Manually enter a list of commands contained within quotations. Insert a semi-colon between commands. Maximum character limit is 4096.

Example

```
set preset morning commands blob "join Cuba Bot-Left fast-
switched;join NBC Bot_Right fast-switched;join Sports Top-Right
fast-switched;join Media Player Top_Left fast-switched"
```

Below is image from ZMP GUI showing these commands in the Preset window:



Related Commands

```
create preset
delete preset
run preset
show preset
```

set preset description

Used to update an existing preset description

Syntax

```
set preset id description description
```

Parameters

id
Type: STRING

The name of the preset. String names are case-sensitive.

description
Type: STRING

Updated description of the preset

Example

```
set preset morning description "Open for business"
Success
```

Related Commands

```
create preset
delete preset
run preset
show preset
```

set preset schedule eventColor

Used to update an existing preset schedule color in the calendar.

Syntax

```
set preset id schedule scname eventColor color
```

Parameters

id

Type: STRING

The name of the preset. String names are case-sensitive.

scname

Type: STRING

Name of the schedule.

color

Type: STRING

Name of the new color. Options include the following: aqua, aquamarine, black, blue, brown, coral, cyan, darkBlue, darkSlateGray, deepPink, deepSkyBlue, fuchsia, gray, green, hotPink, khaki, lightBlue, lightGray, lightSeaGreen, lightSlateGray, lime, magenta, maroon, mistyRose, olive, orange, pink, purple, red, silver, teal, web-hex-color starting with # (e.g. #22ffee), white, yellow, zvGreen, zvPurple

Example

```
set preset morning schedule opentime zvGreen
Success
```

Related Commands

```
create preset
delete preset
run preset
show preset
```

set preset schedule month

Used to update an existing preset schedule month/day/time to run

Syntax

```
set preset id schedule scname month month dayOfMonth day dayOfWeek
day hour hour minute minute
```

Parameters

id

Type: STRING

The name of the preset. String names are case-sensitive.

scname

Type: STRING

Name of the schedule.

month

Type: STRING

Months to run this preset: Options are all, jan, feb, mar, apr, may, jun, jul, aug, oct, nov, dec

dayOfMonth

Type: Integer

Days of the month to run this preset. Enter an integer date or "all"

dayOfWeek

Type: STRING

Days of week to run this preset: Options are all, sunday, monday, tuesday, wednesday, thursday, friday, saturday, weekday, weekend. (Note: Weekday = M-F, Weekend = Sat+Sun)

hour

Type: String

Hour to run this preset. Enter an integer time (24 hour format) or "all"

minute

Type: Integer

Enter the minute (0-59) for this preset to run.

Example

```
set preset test1 schedule LateLunch month all dayOfMonth all
dayOfWeek weekday hour 14 minute 30
Success
```

Related Commands

```
create preset
delete preset
run preset
show preset
```

set responses rs232TermChars

Specifies the termination character for an RS232 string. The default string is "\n\r". Any character in the termination string causes the response-string to terminate and be placed into the response-string ring buffer.

This string is optional. If it is not specfied, then the string is empty and each low-level response is handled as a separate response.

Syntax

```
set responses id chr
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

chr

Type: STRING

The specified string.

Example

```
set responses decoder2 rs232TermChars "\r"
Success
```

Related Commands

`set device rs232`

set role

Sets permisison levels for a specific role. Note that the role must have been previously created.

Syntax

```
set role rolename rolename subsystem subinfo maxAccess accessLevel
```

Parameters

rolename

Type: STRING

String names are case-sensitive.

subinfo

Type: STRING

Supply one of the following arguments

argument	Description
account	Abiltiy of this role to modify accounts
all	Set all priority fields with a single setting
device	Ability of this role to modify devices
ldap	Ability of this role to modify ldap
log	Abiltiy of this role to access logs
multiview	Ability of this role to modify/create multiviews
netmap	Abiltiy of this role to modify netmaps
preset	Ability of this role to modify/create presets
role	Ability of this role to modify/create other roles
server	Ability of this role to modify server settings
snmpagent	Ability of this role to modify/view snmp
tls	Ability of this role to modify/view tls settings
videowall	Ability of this role to modify/create videowalls
zone	Ability of this role to modify/create zones

accessLevel

Type: STRING

Supply one of the following arguments

argument	Description
admin	Full unlimited access/control
config	Ability to configure
join	Ability to join (only applies to certain items such as multiviews)
none	No permissions
view	Ability to view only

Examples

```
set role rolename admin subsystem all maxAccess admin
Success

set role rolename junior subsystem all maxAccess admin
Success

set role rolename junior subsystem account maxAccess config
Success

set role rolename junior subsystem role maxAccess view
Success

set role rolename junior subsystem videowall maxAccess none
Success
```

Related Commands

```
create role
delete role
show role
```

set server api lineWrap

Sets the number of characters the API will display in the Command Line Interface before wrapping to a new line.

Syntax

```
set server api lineWrap wrap
```

Parameters

wrap

Type: INTEGER

Integer value from 100 to 512

Example

```
set server api lineWrap 200
Success
```

set server autoEdidMode

Sets the EDID mode for the Management Platform. By default, Auto-EDID mode is enabled.

Syntax

```
set server autoEdidMode mode
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
disabled	Disables auto-EDID mode.
enabled	Enables auto-EDID mode.

Example

```
set server autoEdidMode disabled
Success
```

Related Commands

```
set server timezone
```

set server contact

Assign a server contact name.

Syntax

```
set server contact name
```

Parameters

name

Type: STRING

The name of the contact (String length from 1 to 256 characters)
Note use of Quotes “” is name includes a space character.

Example

```
set server contact “Art Weeks”
Success

show server info
server(192.168.0.21);
  server.gen; hostname=zyper.local, serverType=NUC-E,
version=3.3.39589, previousVersion=3.2.39546, master=true,
location=Wiring closet, contact=Art Weeks
  server.gen; uptime=2d:20h:42m:32s, freeMem= 3.05GB,
sdvoeVersion=3.6.0.1, bootCount=20, serialNumber=ZZM1MC00001A
  server.gen; macAddress=00:0e:c6:8e:38:6f, managementMacAddress=54
:b2:03:f0:ee:99
  server.ipActive; ipServerAddr=192.168.0.21,
ipManagementAddr=0.0.0.0, gatewayAddr=0.0.0.0, dnsAddr=0.0.0.0
  server.ipActive; managementGatewayAddr=0.0.0.0,
managementDnsAddr=0.0.0.0
  server.time; time=”Mon Jan  8 10:03:11 2024”, timezone=America/
New_York
  server.license; productID=367d8850-f6f2-cd73-fbb1-54b203f0ee99,
license=none
  server.license; Zyper4KLimit=24, Zyper4KDevices=2, allDevices=10,
allDevicesUp=9, Zyper4KDevicesExceeded=0
  server.deviceUpdates; active=0
  server.activeDeviceVersions; num_1.7.24.0=2, num_1.7.26.0=1,
num_1.7.31.0=1, num_2.0.0.0=2, num_2.0.4.18=1, num_4.1.2.9=2
lastChangeIdMax(964);
```

set server dataTunnelMode

Sets the transfer mode for the Management Platform.

Syntax

```
set server dataTunnelMode mode
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
raw	Sets raw communication mode.
telnet	Sets telnet communication mode.

Notes

Telnet is a way of passing control information about the communication channel. It defines line-buffering, character echo, etc, and is done through a series of will/wont/do/dont messages when the connection starts.

Raw is a TCP stream with no telnet escape sequences.

Telnet is an application layer protocol while TCP is a transport layer protocol. Telnet uses TCP in order to transmit data. That is a big fundamental difference between Telnet and TCP.

Example

```
set server dataTunnelMode telnet
Success
```

Related Commands

`set server timezone`

set server date

Used to set server date manually or via ntp server. Note: NTP Server must be IPV4

Syntax

```
set server date mode

set server date ntpServer address <domainName>

set server date manual month <int> day <int> year <int> hour <int>
minute <int>
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
`manual`	Sets date/time manually
`ntpServer`	Sets date/time via ntp server. Must provide valid IP address for an ntp Server.

Example

```
set server date manual month 4 day 1 year 2021 hour 15 minute 1
Success

set server date ntpServer address 129.6.15.28
Success
```

Link to NTP Servers:

https://tf.nist.gov/tf-cgi/servers.cgi

Related Commands

```
set server timezone
show server config
show server info
```

set server discoverMode

Sets how ZyPer endpoints are discovered by the Management Server on the network

Syntax

```
set server discoverMode all mode
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
broadcast	Sets discovery mode to broadcast (Default)
multicast	Sets discovery mode to multicast
none	Will not learn devices (ZyPerUHD/UHD60 only)

Notes

Allows the server to discover ZyPer endpoints using multicast across subnets when multicast routing is enabled. When in multicast mode there must be a igmp querier running – usually that would be the multicast router querier.

Example

```
set server discoverMode all multicast
Success
```

Related Commands

```
set server timezone
```

set server encoderDefault audio

Sets the default encoder audio format for HDMI audio input.

Detailed Background

ZeeVee added a feature that will allow compressed formats to be passed down in an encoder EDID file. This EDID will be then forwarded to the source device to determine the type of audio sent to the encoder.

This enhancement was to provide fastSwitched connections the "compressed audio" options in the EDID file. Prior to this version with the fast-switched connection, ZeeVee modified the EDID passed from the decoder to the encoder and removed all compression formats. This left just LPCM as the only option under the "Audio data block" in the edid file.

```
>>> Audio data block <<<
  Linear PCM, max channels 8
    Supported sample rates (kHz): 192 176.4 96 88.2 48 44.1 32
    Supported sample sizes (bits): 24 20 16
```

The information provided to the Video Source device (such as BluRay Player or Media player) increases the possibility of compression being a chosen audio format.
However it is still up to the device to choose uncompressed or compressed formats.
It is important to know that some devices such as the Apple 4K TV requires the audio output type to be set (even if the audio format is available in the EDID). Compression will need to be set manually on these types of devices.

In addition any downmixed stream internal to ZyPer devices will not process compressed audio, so you will not hear compressed audio on these connections.

Syntax

```
set server encoderDefault edid audio mode
```

Parameters

mode

Type: STRING

Supply one of the following arguments.

argument	Description
`allowCompressed`	Passes the decoders edid with unmodified audio information and thus allows compression options to be seen.
`onlyPcm`	Forces the EDID modification described above

Example

```
set server encoderDefault edid audio allowCompressed
Success
```

Related Commands

`set encoder edid audio`

Additional Information

In an attempt to properly Identify the Audio Streams used under the product the following changes were also made along with some modification to the API commands.

Product	Old Audio Stream Name	New Stream Name
ZyPer4K	hdmi (used in genlocked mode)	hdmiPassthroughAudio
ZyPer4K	hdmi-audio-downmix	hdmiAudio
ZyPer4K	analog-audio	analogAudio
ZyPerUHD	audio	hdmiAudio
ZyPerUHD	analog-audio	analogAudio
ZyPerUHD60	none	hdmiAudio
ZyPerUHD60	none	analgoAudio

set server ftp mode

Used to enable to disable FTP access to the Management Server.

Syntax

```
set server ftp mode arg
```

Parameters

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`enabled`	Enable FTP access to the Management Server
`disabled`	Disable FTP access to the Management Server

Examples

```
set server ftp mode enabled
Success

set server ftp mode disabled
Success
```

Related Commands

`set server timezone`

set server hostname

Assign a server hostname. (Default is zyper.local)

Syntax

```
set server hostname name
```

Parameters

name

Type: STRING

The updated hostname (String length from 1 to 128 characters)
Note use of Quotes “” is name includes a space character.

Example

```
set server hostName myZMPserver
Success

show server info
server(192.168.0.21);
  server.gen; hostname=myZMPserver, serverType=NUC-E,
version=3.3.39589, previousVersion=3.2.39546, master=true,
location=Wiring closet, contact=Art Weeks
  server.gen; uptime=2d:20h:49m:51s, freeMem= 3.04GB,
sdvoeVersion=3.6.0.1, bootCount=20, serialNumber=ZZM1MC00001A
  server.gen; macAddress=00:0e:c6:8e:38:6f, managementMacAddress=54
:b2:03:f0:ee:99
  server.ipActive; ipServerAddr=192.168.0.21,
ipManagementAddr=0.0.0.0, gatewayAddr=0.0.0.0, dnsAddr=0.0.0.0
  server.ipActive; managementGatewayAddr=0.0.0.0,
managementDnsAddr=0.0.0.0
  server.time; time=”Mon Jan  8 10:10:30 2024”, timezone=America/
New_York
  server.license; productID=367d8850-f6f2-cd73-fbb1-54b203f0ee99,
license=none
  server.license; Zyper4KLimit=24, Zyper4KDevices=2, allDevices=10,
allDevicesUp=9, Zyper4KDevicesExceeded=0
  server.deviceUpdates; active=0
  server.activeDeviceVersions; num_1.7.24.0=2, num_1.7.26.0=1,
num_1.7.31.0=1, num_2.0.0.0=2, num_2.0.4.18=1, num_4.1.2.9=2
lastChangeIdMax(968);
Success
```

set server ip

Sets the IP Address of the Management Platform. For MP hardware with multiple Network Interfaces this command is used to set the IP Address of each interface independently.

Syntax

```
set server ip id mode address IP Address mask Mask gateway Gateway
dns DNS-Server reboot
```

Parameters

id

Type: STRING

Supply one of the following arguments.

argument	Description
`videoPort`	Select the "Video" network. (ZyPer Network)
`managementPort`	Select the "Management" network. (Non-ZyPer Network)

mode

Type: STRING

Supply one of the following arguments.

argument	Description
`static`	Manually select/assign IP Address
`dhcp`	Allow DHCP server to automatically assign IP Address

Example

```
set server ip videoPo dhcp reboot
Success

set server ip videoPort static address 172.16.16.111 mask
255.255.255.0 gateway 172.16.6.1 dns none reboot
Success

set server ip managementPort static address 192.160.20.2 mask
255.255.255.0 gateway 192.168.20.1 dns none reboot
Success
```

Related Commands

`set server timezone`

set server isaac address

Sets the domain name of the isaac server.

Syntax

```
set server isaac address domainname
```

Parameters

domainname
Type: STRING

domainname of the Isaac server

Example

```
set server isaac address
Success
```

Related Commands

`set server isaac subsystemId`

set server isaac subsystemId

Sets the subsystemID on isaac server.

Syntax

```
set server isaac address subsystemId
```

Parameters

subsystemID
Type: STRING

Subsystem ID of the Isaac server

Example

```
set server isaac subsystemId Wallyworld
Success
```

Related Commands

`set server isaac address`

set server isolationMode

When in isolationMode, the server will not auto-discover other servers for redundancy (although it will keep the ones it already has discovered). And "set server discover mode none" will not discover devices (but will also keep the ones it already discovered). So... an existing site can transition to isolation mode very easily by using those two commands..

Syntax

```
set server isolationMode arg
```

Parameters

arg

Type: STRING

Supply one of the following arguments.

argument	Description
enabled	Enable Isolation Mode
disabled	Disable Isolation Mode

Examples

```
set server isolationMode enabled
Warning:(75) Disabling discover mode presently only supported for
UHD devices
Warning:(84) Existing auto-discovered devices and MPs added to
manual-add list
Success


set server isolationMode disabled
Success
```

Related Commands

```
set server discoverMode
show server managedDevices
add device
delete device
```

Isolation Mode use cases

Case 1: Existing 2xMP (call them 1.1 and 1.2) in redundancy mode, not in isolation mode ==> change to isolation mode.

- Issue isolation mode from master
- Both MPs will be in isolation mode
- Both will only manage existing devices
- If a new device is added, must be manually added on the master
- Important: there is no functional change at the end of this process.
- The MPs still know about each other and all existing devices will be managed by them

Case 2: Existing MP1.1, MP1.2 in redundancy mode AND in isolation mode ==> add new single isolated MP-2.1

- Bring up MP-2.1 on physically separate network
- Set MP-2.1 to isolation mode
- Move MP-2.1 to active network along with MP1.1/1.2
- MP2.1 will not see MP1.1/MP1.2, and MP1.1/MP1.2 will not see MP2.1
- MP2.1 will not discover any devices
- Manually add devices to MP2.1 (ones not managed by MP1.1/MP1.2)

Case 3: Existing MP1.1/MP1.2 in redundancy mode and in isolation mode; MP2.1 in isolation mode ==> Add MP2.2 as redundant to MP2.1

- Bring up new MP2.2 on physically separate network
- Set MP2.2 to isolation mode
- Manually add MP2.1 to MP2.2
- Manually add MP2.2to MP2.1
- Move to MP2.2 to active network
- Strongly recommend shutting MP2.2 down, connecting to active network, bring up
- This will ensure it will become the slave, and the DB on MP2.1 will not be lost
- Now, there are two isolated MP redundant pairs!

set server license

Sets the license for the Management Platform. This controls the maximum number of endpoints supported by the Management Platform.

Syntax

```
set server license key
```

Parameters

key

Type: STRING

License key obtained from ZeeVee that sets maximum number of endpoints

Example

```
set server license QDZV-AYYA-0048-303D-5C0E-BD5D-56AA-154D-976C-
BCE3-BAC4
Success
```

Related Commands

`set server autoEdidMode`

set server location

Assign a server location.

Syntax

```
set server location name
```

Parameters

name

Type: STRING

The updated location (String length from 1 to 256 characters)
Note use of Quotes "" is name includes a space character.

Example

```
set server location "Art's Dining Room"
Success

show server info
server(192.168.0.21);
  server.gen; hostname=myZMPserver, serverType=NUC-E,
version=3.3.39589, previousVersion=3.2.39546, master=true,
location=Art's Dining Room, contact=Art Weeks
  server.gen; uptime=2d:20h:52m:56s, freeMem= 3.03GB,
sdvoeVersion=3.6.0.1, bootCount=20, serialNumber=ZZM1MC00001A
  server.gen; macAddress=00:0e:c6:8e:38:6f, managementMacAddress=54
:b2:03:f0:ee:99
  server.ipActive; ipServerAddr=192.168.0.21,
ipManagementAddr=0.0.0.0, gatewayAddr=0.0.0.0, dnsAddr=0.0.0.0
  server.ipActive; managementGatewayAddr=0.0.0.0,
managementDnsAddr=0.0.0.0
  server.time; time="Mon Jan  8 10:13:35 2024", timezone=America/
New_York
  server.license; productID=367d8850-f6f2-cd73-fbb1-54b203f0ee99,
license=none
  server.license; Zyper4KLimit=24, Zyper4KDevices=2, allDevices=10,
allDevicesUp=9, Zyper4KDevicesExceeded=0
  server.deviceUpdates; active=0
  server.activeDeviceVersions; num_1.7.24.0=2, num_1.7.26.0=1,
num_1.7.31.0=1, num_2.0.0.0=2, num_2.0.4.18=1, num_4.1.2.9=2
lastChangeIdMax(970);
Success
```

set server redundancy mode

Used to enable or disable the reduncancy feature of a server when two servers are located in the same system.

Syntax

```
set server redundancy mode arg
```

Parameters

arg

Type: STRING

argument	Description
`enabled`	Enable redundancy feature (DEFAULT)
`disabled`	Disable redundancy feature

Note: The default setting for this feature is Enabled. Redundancy commands can be ignored in systems using only a single ZMP Server.

Examples

```
set server redundancy mode enabled
Success

set server redundancy mode disabled
Success
```

set server redundancy

Sets a virtual IP address and Mask for the Master and Slave Management Platforms in the system. (See Appendix for additional Redundancy Configuration Instructions)

Syntax

```
set server redundancy serv_id virtualIp address IP_Address
networkInterface video|management
```

Parameters

serv_id

Type: STRING

The servers to apply Virtual-ID to.

argument	Description
`allServers`	All Management Platforms on the Network. (Master and Slave)
`thisServer`	The specific server (Master or Slave) currently logged into.
`server IP Address`	Manually enter IP address of a specific Management Platform. (Master or Slave)

IP_Address and Mask

Type: STRING

Virtual IP address with Subnet Mask

argument	Description
`IP Address`	Virtual IP address to use for designated servers: Example: 192.168.0.25
`networkInterface`	Selects either the Video or Management interface for MP units with Dual Network Interfaces

Note: The virtual address has to be accessible within the subnet already defined for the interface. So, if the "video network", aka the original interface has 172.6.2.22/24, then the virtual address has to be 172.16.2.xxx.

Examples

```
set server redundancy allServers virtualIp address 192.168.0.25
networkInterface video
Success

set server redundancy thisServer preferredMaster true
preferredSlave false
Success

set server redundancy 192.168.1.202 preferredMaster false
preferredSlave true
Success
```

set server security deviceSecurityKey

Part of the mechanism to enable security over Semtech's server-device communication. First, there has to be an overall key associated with the server (deviceSecurityKey). Then, each device has to enable the security. It's authentication and encryption. This only works with ZyPer4K-XS/XSE and ZyPer4K-XR devices. Once a device has been enabled for a specific server, it will not work with any server without the same key. Although redundancy automatically sets the same key on both servers. If the key is lost, devices have to be hardware factory defaulted.

Syntax

```
set server security deviceSecurityKey key
```

Parameters

key

Type: STRING

Server security key. Text from 8 to 64 characters in length

Example

```
set server security deviceSecurityKey patriotsrule
Success
```

Notes

To change the server key; all devices (encoder and decoders) must have the security feature disabled first. Then change the key and re-enable the security feature on the devices.

Related Commands

`set server device security`

set server telnet password

Sets the password for Telnet. If a password is not provided, then the current password will be deleted. In this case, no password prompt will be displayed.

By default Telnet has no password.

Syntax

```
set server telnet pass
```

Parameters

pass

Type: STRING

The desired password.

Example

```
set server telnet password biGB055
Success
```

Notes

To reset system to no telnet password:
FTP the empty file named "defaultPasswords" to the /files directory of the MP (no file extension)
Power cycle the MP within 1 minute, when it comes back the passwords will be defaulted.

This provides the very secure requirement of having physical access to the MP in order to reset the password.

Related Commands

```
set server autoEdidMode
set server telnet mode
set server timezone
```

set server telnet mode

Used to enable or disable telnet access to the server.

Syntax

```
set server telnet mode mode
```

Parameters

mode
Type: STRING

Supply one of the following arguments.

argument	Description
enabled	Telnet access is enabled
disabled	Telnet access is disabled

Example

```
set server telnet mode disabled
Success
```

Example trying to access via Telnet once disabled

```
telnet 192.168.0.78
Trying 192.168.0.78...
telnet: connect to address 192.168.0.78: Connection refused
telnet: Unable to connect to remote host
```

Related Commands

```
set server autoEdidMode
set server telnet password
set server timezone
```

set server timezone

Sets the time zone for the Management Platform. The time zone must be specified in POSIX format.

Syntax

```
set server timezone zone
```

Parameters

zone

Type: STRING

The time zone in POSIX format.

Example

```
set server timezone America/New_York
Success
```

Link to list of POSIX format timezones:

https://en.wikipedia.org/wiki/List_of_tz_database_time_zones

Related Commands

```
set server autoEdidMode
set server date ntpServer address <domainName>
set server date manual month <int> day <int> year <int> hour <int>
minute <int>
show server info
show server config
```

set terminal output

Set terminal output options between normal and JSON format.

The web interface has always been "JSON encoded responses" (computer friendly). The major benefit for this is for a web app to easily process the response. The downside is that it's not at all "human friendly".

There are two output format options from the API. One over telnet and ssh that is human friendly, and one over http that's computer friendly.

This new command allows users to select the format of responses from the API.

Syntax

```
set terminal output normal|json echo yes|no prompt yes|no
```

Parameters

normal | json - allows user to select between these two options

echo - allows characters/commands to be seen while typing in telnet/ssh session

prompt - provides "ZyPer$" prompt as que for entering commands in telnet/ssh session

Examples

```
set terminal output normal echo yes prompt yes
Success

set terminal output json echo yes prompt yes
[   114]{"status":"Success","text":[],"errors":[],"warnings":[],"co
mmand":"set terminal output json echo yes prompt yes "}

set terminal output json echo no prompt yes
[   112]{"status":"Success","text":[],"errors":[],"warnings":[],"co
mmand":"set terminal output json echo no prompt yes"}
```

Warning

Removing echo feature from a normal Telnet or SSH session can be challenging as the user would no longer be able to see the commands being typed into the Telnet or SSH window. Copy/paste the first example above to return to normal operation.

set snmp netNode (v3)

Updates SNMP netNode for use with the ZeeVee Visualization, Analysis and Monitoring tool (VAM).

Syntax

```
set snmp netnode nameId version v3 authType auth username name
password pass
```

Parameters

nameId

Type: STRING or INTEGER

Name or NetNode ID Number of the NetNode

auth

Type: STRING

argument	Description
sha1	Use SHA-1 Hash
sha512	Use SHA-512 Hash

name

Type: STRING

Username

pass

Type: STRING

Password.

Example

```
set snmp netNode Arts_8x8 version v3 authType sha512 username admin
password netgear96
Success
```

Related Commands

```
delete snmp netNode
set snmp netNode
show snmpNode
```

set snmp netNode (v2c)

Updates SNMP netNode for use with the ZeeVee Visualization, Analysis and Monitoring tool (VAM).

Syntax

```
set snmp netnode nameID snmp v2c communityName name
```

Parameters

nameID

Type: STRING or INTEGER

Name or NetNode ID Number of the NetNode

name

Type: STRING

Community Name

Example

```
set snmp netNode myZMPserver version v2c communityName ZeeVee
Success
```

Related Commands

```
delete snmp netNode
set snmp netNode
show snmpNode
```

set snmp netNode ipAddress

Used to update or change ipAddress of SNMP netNode for use with the ZeeVee Visualization, Analysis and Monitoring tool (VAM).

Syntax

```
set snmp netnode ipaddr ipAddress newipaddr
```

Parameters

ipaddr
Type: STRING

Current IP Address of the SNMP NetNode

newipaddr
Type: STRING

New/Updated IP Addressof the SNMP NetNode

Example

```
set snmp netNode 192.168.0.222 ipAddress 192.168.0.1
Success
```

Related Commands

```
delete snmp netNode
set snmp netNode
show snmpNode
```

set tls server mode

Used to enable web server TLS mode.

Syntax

```
set tls server mode mode
```

Parameters

mode
Type: STRING

Supply one of the following arguments.

argument	Description
enabled	Telnet access is enabled
disabled	Telnet access is disabled

Example

```
set tls server mode enabled
Success

set tls server mode disabled
Success
```

Related Commands

```
show tls summary
show tls pem ca signedCert
```

set tls server fqdn

Used to set server Fully Qualified Domain Name. Either manually entered by user or contained in Certification file.

Syntax

```
set tls server fqdn domain | fromCert
```

Parameters

domain
Type: STRING

Full domain name

Examples

```
set tls server fqdn www.zeevee.com
Success

set tls server fqdn fromCert
Success
```

Related Commands

```
show tls summary
show tls pem ca signedCert
```

set videoWall size

Changes the size of the specified video wall and bezel parameters. Bezel values are measured in pixels.

> Setting bezel values will affect a resolution change to the display. If the resolution is not supported by the display, then the display will have no picture. If this is the case, try assigning a different bezel pixel value.

Syntax

```
set videoWall id size rows rows columns cols topBezel bezt
bottomBezel bezb leftBezel bezl rightBezel bezr
```

Parameters

id

Type: STRING

The name of the video wall. String names are case-sensitive.

rows

Type: INTEGER

The number of rows. (Maximum 15 for ZyPer4K, ZyPerUHD or ZyPerUHD60. Maximum 4 for ZyPerHD)

cols

Type: INTEGER

The number of columns. (Max 15 for ZyPer4K, ZyPerUHD or ZyPerUHD60. Max 4 for ZyPerHD)

bezt

Type: INTEGER

The top bezel pixel value.

bezb

Type: INTEGER

The bottom bezel pixel value.

bezl

Type: INTEGER

The left bezel pixel value.

bezr

Type: INTEGER

The right bezel pixel value.

Note: Bezel adjustment only supported on ZyPer4K family

Example

```
set videoWall Mywall1 size rows 5 columns 5 topBezel 0 bottomBezel
0 leftBezel 0 rightBezel 0
Success
```

Related Commands

```
create videoWall
set videoWall decoder
show videoWalls
join videoWall
set videoWall newName
```

set videoWall decoder

Assigns the specified decoder, to the desired row and column, on the specified video wall.

Syntax

```
set videoWall wallid decoder id row col
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive. If `none` is passed as the argument, then any existing display is disconnected from that position in the video wall.

wallid

Type: STRING

The name of the video wall. String names are case-sensitive.

row

Type: INTEGER

The row of the specified video wall.

col

Type: INTEGER

The column of the specified video wall.

Example

```
set videoWall myVideoWall decoder myDecoder row 2 column 3
Success
```

Related Commands

```
create videoWall
set videoWall size
show videoWalls
join videoWall
```

set videoWall newName

Changes the name of an existing video wall

Syntax

```
set videoWall id newName name
```

Parameters

id

Type: STRING or MAC Address

The name of the video wall. String names are case-sensitive.

name

Type: STRING

The updated name of the video wall.

Example

```
set videoWall myWall2 newName yourWall2
Success
```

Related Commands

```
create videoWall
set videoWall size
show videoWalls
join videoWall
```

show account

Displays information about accounts

Syntax

```
show account select [since]
```

Parameters

select

Type: STRING

Supply one of the following arguments.

argument	Description
`active users`	Used to show information about currently active users logged into the system
`allConfig`	Shows account settings that apply to all accounts
`list`	Shows information about accounts including security settings and status
`login banner filenames`	Shows currently used banner image filenames
`login banner text webPreLogin`	Shows currently used login banner Pre login text
`login banner text webPostLogin`	Shows currently used login banner Post login text.

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Examples

```
show account active users all
session(1);
  session.status; user=admin, type=Telnet, extId=none,
start=12/21/22T13:55:10-0500, lastActive=12/21/22T14:07:04-0500
session(2);
  session.status; user=admin, type=Web, extId=Qf,lebMNNAn,
start=12/21/22T14:00:10-0500, lastActive=12/21/22T14:04:30-0500
lastChangeIdMax(19478);
Success

show account allConfig
allAccounts(192.168.0.22);
  allAccounts.gen; idleLogoutMins=unlimited, concurrentSesionsMax=5
  allAccounts.password; complexity=disabled, minLen=NA,
initialExpire=disabled, minDays=0, maxDays=unlimited
  allAccounts.onThreeFailures; lockoutMins=none, disable=false
  allAccounts.authMode; telnetFullAuth=oldAuth, webFullAuth=noAuth
lastChangeIdMax(9);
Success

show account list all
account(admin);
  account.gen; role=admin, lastLogin=12/21/22T14:00:17-0500,
twoFactor=disabled
  account.status; locked=disabled, passwordExpires=never
account(zyper);
  account.gen; role=admin, lastLogin=none, twoFactor=disabled
  account.status; locked=disabled, passwordExpires=never
account(sftp);
  account.gen; role=none, lastLogin=none, twoFactor=disabled
  account.status; locked=disabled, passwordExpires=never
lastChangeIdMax(9);
Success

show account login banner filenames
allAccounts(192.168.0.22);
  allAccounts.webBanners; preLoginText=none,
postLoginText=securePre.txt, preLoginImage=none,
postLoginImage=mickey.png
  allAccounts.terminalBanners; preLoginText=securePre.txt,
postLoginText=securePost.txt
lastChangeIdMax(9);
Success

show account login banner text webPostLogin
allAccounts(192.168.0.22);
  allAccounts.bannerText; webPostLogin=”You are about enter a
secure site.\nIf you do not have authorization, do not proceed.”
lastChangeIdMax(17);
Success
```

show dataTunnels

Shows what rs232 or IR data relay ports are opened on the server.

The feature of data-relays was added to allow a third party to connect to the ZMP server with a specific port and pass raw or telnet API commands (depending on the mode) to the server and port which is designated for a particular encoder or decoder.

Syntax

```
show dataTunnels
```

Parameters

none

Example

```
show dataTunnels
dataSessions(d8:80:39:9a:96:7);
  device: name=Cuba
  irTunnel: port=1234
  irTunnel-connections: none
Success
```

Related Commands

dataConnect
set server dataTunnelMode

show device capabilities

Displays device capabilities for the specified device(s).

Syntax

```
show device capabilities id select [since]
```

Parameters

id

Type: STRING or MAC Address

The identifier of the device. Either the full or portion of a string name or MAC address can be supplied.

select

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays configuration information for all available devices.
`encoders`	Only encoders are displayed.
`decoders`	Only decoders are displayed.

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show device capabilities MyEnc1 since 20
device(d8:80:39:eb:1:cb);
  device.gen; lastChangeId=28
  device.CapabilitiesVersion; values=1
  device.analogAudioPort; values=none:hdmiAudioDownmix
  device.colorDepth; values=fastSwitchDeepColor:multiviewDeepColor
  device.colorEncoding; values=fastSwitchSubsample:multiviewSubsam
ple
  device.edid; values=save:load
  device.edidAudioFormat; values=onlyPcm:allowCompressed:serverDef
ault
  device.ethernetManagementPortMode; values=enabled:disabled
  device.factoryDefaults; values=supported
  device.firmwareUpdate; values=...apz
  device.flashLeds; values=supported
  device.hdcpMode; values=enabled:enabled1.4:disabled
  device.hdmiStatus; values=link:hdcp:resolution:fps
  device.ipMode; values=dhcp:static
  device.ipStaticGateway; values=supported
  device.ir; values=device:server:none
  device.joinAudio; values=analogAudio:hdmiAudio
  device.joinUsb; values=false
  device.joinVideo; values=fastSwitched:genlocked:genlockedScaled:m
ultiview:window
  device.multiview; values=title
  device.previewStream; values=enabled:disabled
  device.rs232; values=device:server:none
  device.sendMulticasts; values=settable
  device.streamMcastSettable; values=video:analogAudio:hdmiAudio
  device.streamModeSettable; values=video:hdmiAudio:videoScaled:ana
logAudio
  device.streamsSupported; values=video:hdmiAudio:videoScaled:analo
gAudio
  device.temperature; values=main
  device.usbFilter; values=none
  device.videoPort; values=hdmi:auto
  device.videoWall; values=maxSize(15):bezelsSupported
lastChangeIdMax(29);
Success
```

Related Commands

`show device status`
`show device config`

show device config

Displays device information for the specified device(s).

Syntax

```
show device config id [since]
```

Parameters

id

Type: STRING or MAC Address

The identifier of the device. Either the full or portion of a string name or MAC address can be supplied. Can also enter in one of the arguments below.show

argument	Description
`all`	Displays configuration information for all available devices.
`commands`	Shows all the commands used to configure every device, multiview, video wall in the system. (Can be a lot of output)
`encoders`	Only encoders are displayed.
`decoders`	Only decoders are displayed.

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show device config XSdec
device(0:16:c0:4d:e3:12);
  device.gen; model=Zyper4KXS, type=decoder, virtualType=none,
name=XSdec, state=Up, lastChangeId=173
  device.gen; productCode=Z4KDECFXS, productDescription=Fiber
Decoder - HDMI 2.0, pid=0xd
  device.gen; controlAuthenticationMode=disabled
  device.gen; firmware=1.3.2.4
  device.gen; ethernetManagementPortMode=disabled
  device.optionalPorts; video=none, usb=hid, analogAudio=yes,
rs232=no, ir=no
  device.hdmi; hdcpMode=auto, 5vControl=disabled
  device.ports; videoPort=auto
  device.ip; mode=dhcp, address=169.254.19.227, mask=255.255.0.0,
gateway=NA
  device.display; iconImageName=GenericDisplay, manufacturer=none,
model=none, location=none, serialNumber=none
  device.edid; preferMode=strict
  device.display; mode=stretch
  device.displayResolution; allParameters=auto
  device.displayTiming; allParameters=auto
  device.connectedEncoder; macAddr=0:16:c0:4d:e3:67, name=XSenc_1,
connectionMode=fastSwitched
  device.audioConnections; analogSourceMac=none,
analogSourceName=none, hdmiAudioSourceMac=0:16:c0:4d:e3:67,
hdmiAudioSourceName=XSenc_1
  device.autoAudioConnections; hdmiAudioFollowVideo=false
  device.audioOutSourceType; analogOutSourceType=hdmiAudioDownmix,
hdmiOutSourceType=hdmiAudio
  device.usb; filter=none, internalIpAddress=none
  device.usbUplink; macAddr=none, name=none
lastChangeIdMax(176);
lastDeleteIdMax(3);
Success
```

Related Commands

```
show device status
show device capabilities
show device connections
```

show device connections

Shows encoder connections to decoders

Syntax

```
show device connections
```

Parameters

none

Example

```
show device connections
encoder.GalapogosHD; BotLeftHD
encoder.RaptorsHD; SamsungHD
encoder.MuralsHD; BotRightHD
encoder.Soccer4K; TopRight, BotLeft
Success
```

Related Commands

```
show device status
show device capabilities
show device config
```

show device names

Displays status information for the specified device(s). This command functions the same as the `show device config` command.

Syntax

```
show device names
```

Parameters

id

Type: STRING or MAC Address

Supply one of the following arguments.

argument	Description
`all`	Displays configuration information for all available devices.
`encoders`	Only encoders are displayed.
`decoders`	Only decoders are displayed.

Example

```
show device names all
name=Z4K-XS-Dec, mac=00:16:c0:4d:e3:12, ip=192.168.0.12, state=Down
name=Z4K-Enc-XS, mac=00:16:c0:4d:e3:67, ip=192.168.0.3, state=Down
name=UHD60-1D, mac=00:1c:d5:01:09:65, ip=192.168.0.52, state=Down
name=UHD60-0EA, mac=00:1c:d5:01:0a:a3, ip=192.168.0.63, state=Down
name=UHD60-2EA, mac=00:1c:d5:01:13:bd, ip=192.168.0.75, state=Up
name=UHD60-1EA, mac=00:1c:d5:01:13:c0, ip=192.168.0.66, state=Up
name=UHD60-0E, mac=34:1b:22:81:f9:81, ip=192.168.0.61, state=Up
name=UHD60-1DA, mac=34:1b:22:81:f9:88, ip=192.168.0.54, state=Up
name=XSE-Enc-Combo, mac=6c:df:fb:00:03:9e, ip=192.168.0.14,
state=Up
name=XSE-Dec-Combo, mac=6c:df:fb:00:03:a0, ip=192.168.0.9, state=Up
name=XSE-Decoder, mac=6c:df:fb:00:03:c2, ip=192.168.0.8, state=Up
name=XSE-Encoder, mac=6c:df:fb:00:03:c6, ip=192.168.0.7, state=Up
name=Z4K-Dec2, mac=d8:80:39:59:f0:36, ip=192.168.0.6, state=Down
name=Z4K-Enc2, mac=d8:80:39:9a:95:2f, ip=192.168.0.7, state=Down
Success
```

Related Commands

```
add device
show device status
show device capabilities
show device config
```

show device status

Displays status information for the specified device(s). This command functions the same as the `show device config` command.

Syntax

```
show device status id [since]
```

Parameters

id

Type: STRING or MAC Address

The identifier of the device. Either the full or portion of a string name or MAC address can be supplied.

Supply one of the following arguments.

argument	Description
`all`	Displays configuration information for all available devices.
`encoders`	Only encoders are displayed.
`decoders`	Only decoders are displayed.

since

This parameter is optional and can be specified to display units based on the number of changes. Supply this argument followed by the desired value to query.

argument	Description
`since`	Required when using this parameter.

Example

```
show device status Cuba
device(d8:80:39:9a:96:7);
  device.gen; model=Zyper4K, type=encoder, name=Cuba, state=Up,
uptime=4d:1h:57m:24s, lastChangeId=78
  device.temperature; main=59C
  device.firmwareUpdate; status=idle, loadingFile=none, percentComplete=0
  device.hdmiInput; cableConnected=connected, hdcp=inactive,
hdcpVersion=none, hdmi2.0=yes, horizontalSize=1280, verticalSize=720,
fps=60.000, interlaced=no
  device.hdmiInput; hTot=1650, hBlank=370, hFront=110, hSync=40,
hSyncPol=positive
  device.hdmiInput; vTot=750, vBlank=30, vFront=5, vSync=5, vSyncPol=positive
  device.hdmiInput; pixelClock=74.250, colorEncoding=YCBCR_444, colorDepth=8,
colorSpace=BT709, colorQuantRange=limited, timingStandard=CEA-861-F VIC-4
  device.edid; sourceType=file, sourceFilename=George.edid
  device.edid; edidStatus=valid, edidMonitorName=SyncMaster
  device.edid; firstDescriptorPreferredResolution=yes
  device.edid; maxFps=75.00, maxPixelClockMhz=170.00,
maxDeepColorPixelClockMhz=0.00, rgbColorDepth=8, yuv420ColorDepth=0
  device.edid; only420=none, also420=none, yuvQuantRange=default,
rgbQuantRange=default
  device.edid.audio.PCM; channels=2, sampleRates=48Khz-44.1Khz-32Khz,
sampleBits=16-20
  device.edid.preferredResolution; pixelClockMhz=148.50, sizeX=1920,
sizeY=1080, fps=60.00
  device.edid.maxResolution; pixelClockMhz=148.50, sizeX=1920, sizeY=1080,
fps=60.00
  device.videoStream; inputFps=60.00, inputDatarate=1451Mbps,
compressionFactor= 1.00, streamFps=60.00, streamDatarate=1451Mbps
  device.videoScaledStream; inputFps=60.00, inputDatarate=1451Mbps,
streamFps=30.00, streamDatarate=0Mbps
  device.previewStream; status=down, recvData=false
lastChangeIdMax(78);
Success
```

Related Commands

`show device config`

show device userAdded

Shows devices that have been manually added to the Management Platform using the add device command.

Syntax

```
show device userAdded
```

Parameters

none

Example

```
show device userAdded
device(d8:80:39:eb:1c:ee);
device.gen; model=Zyper4K, type=encoder, name=London, state=Up,
uptime=0d:18h:32m:36s, lastChangeId=55
device.ip; address=192.168.10.79
device(d8:80:39:59:f1:ff);
device.gen; model=Zyper4K, type=decoder, name=Right, state=Up,
uptime=0d:18h:32m:36s, lastChangeId=52
device.ip; address=192.168.10.81
device(d8:80:39:59:af:be);
device.gen; model=Zyper4K, type=decoder, name=Left, state=Up,
uptime=0d:18h:30m:5s, lastChangeId=56
device.ip; address=192.168.10.82
Success
```

Related Commands

```
add device
show device status
show device capabilities
show device config
```

show files

Shows files currently stored on the Managment Server. (EDID, Firmware, Icons and Idle Images)

Syntax

```
show files type
```

Parameters

type

Type: STRING

Supply one of the following arguments.

argument	Description
all	Show all files. (EDID, Firmware, Icons and Idle Images)
edid	Show EDID files.
firmware	Show Firmware files.
icon	Show Icon files.
idleImage	Show Idle Image files (ZyPerUHD and ZyPerUHD60 use)

Examples

```
show files icon
server(192.168.0.22);
  files.encoderIcon; names=SatelliteReceiver.png:BluRay.png:ps3.
png:SecurityCamera.png:FlatPanelDisplay.png:Laptop.png:cbs.
png:BroadcastCamera.png:fox.png:abc.jpg:DVD.png:xbox.png:DesktopPC.
png:MediaPlayer.png:tennis.png:espn.png:VCR.png:cnn.jpg:nbc.
png:foxSports.png:CableBox.png:golf.png:nflNetwork.jpg
  files.decoderIcon; names=FlatPanelDisplay.png:Projector.png:vw.png
  files.savedIcon; names=none
lastChangeIdMax(1);
Success

show files idleImage
server(192.168.0.22);
  files.idleImage; names=001Rupdated.jpg:IPD5000-B70_idle_image_
v1.0.jpg:SLupdated.jpg:test720.jpg
lastChangeIdMax(1);
Success
```

show kvm config

Shows all kvms and complete configuration settings. (ZyPer4K-XS/XSE and XR only)

Syntax

```
show kvm config [since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes. Supply this argument followed by the desired value to query.

argument	Description
since	Required when using this parameter.

Example

```
show kvm config
kvm(all);
  kvm.gen; hotkeyBase=shift-shift, swapHomeHotkey=shift-shift-s,
resetHomeHotkey=shift-shift-r
kvm(2x2wall);
  kvm.gen; started=false
  kvm.gen; usbSourceRow=1, usbSourceCol=2, homePositionRow=1,
homePositionCol=2
  kvm.position.1.1; decoder=Top_Left, encoder=Fenway_5
  kvm.position.1.2; decoder=Top_Right, encoder=Canada_6
  kvm.position.2.1; decoder=Bot_Left, encoder=Airshow_7
  kvm.position.2.2; decoder=Bot_Right, encoder=London_8
kvm(Multiview);
  kvm.gen; started=false
  kvm.gen; usbSourceRow=1, usbSourceCol=1, homePositionRow=1,
homePositionCol=2
  kvm.position.1.1; decoder=Top_Left, multiview=kvmMV
  kvm.position.1.2; decoder=Top_Right, encoder=London_8
lastChangeIdMax(73);
Success
```

Related Commands

```
create kvm
delete kvm
set kvm
start kvm
stop kvm
```

show kvm swapped

Shows all kvms with encoder/decoder settings. (ZyPer4K-XS/XSE and XR only)

Syntax

```
show kvm swapped [since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes. Supply this argument followed by the desired value to query.

argument	Description
since	Required when using this parameter.

Example

```
show kvm swapped
kvm(2x2wall);
  kvm.gen; started=false
  kvm.position.1.1; decoder=Top_Left, encoder=Fenway_5
  kvm.position.1.2; decoder=Top_Right, encoder=Canada_6
  kvm.position.2.1; decoder=Bot_Left, encoder=Airshow_7
  kvm.position.2.2; decoder=Bot_Right, encoder=London_8
kvm(Multiview);
  kvm.gen; started=false
  kvm.position.1.1; decoder=Top_Left, multiview=kvmMV
  kvm.position.1.2; decoder=Top_Right, encoder=London_8
lastChangeIdMax(49);
Success
```

Related Commands

```
create kvm
delete kvm
set kvm
start kvm
stop kvm
```

show ldap

Shows LDAP server info or Group ID info.

Syntax

```
show ldap type
```

Parameters

type

Type: STRING

Supply one of the following arguments.

argument	Description
`server`	Show LDAP server information
`groupIdToRole`	Show LDAP ID's and associated Roles

Examples

```
show ldap groupIdToRole
ldapGroupId(1234);
  ldapGroupId.gen; role=Tech
ldapGroupId(4569);
  ldapGroupId.gen; role=admin
ldapGroupId(6789);
  ldapGroupId.gen; role=admin
Success

show ldap server
ldapServer(172.16.6.111);
  ldap.gen; mode=enabled, type=openLdap, status=updating
  ldap.gen; serverAddress=zeevee.com, baseSearchDn=”employees”
  ldap.gen; bindDnUsername=”uid=admin,ou=people,dc=zeevee,dc=com”
lastChangeIdMax(31);
Success
```

Related Commands

```
add ldap
delete ldap
set ldap server bindDn username
set ldap server bindDn password
```

show logs authentications

Shows a listing of server login/logout events ordered from newest to oldest.

Syntax

```
show logs authentications max quantity
```

Parameters

quantity
Type: INTEGER

Number of past authentications to display

Example

```
show logs authentications max 5
log(192.168.0.22);
  log.msg.1; dt=Dec-16-22-12:47:02, user=system, sid=0, msg="EVENT
for server; Login -- account=admin, sessionId=1"
  log.msg.2; dt=Dec-16-22-12:47:00, user=system, sid=0,
msg="EVENT for server; Logout -- account=admin, sessionId=1,
reason=remoteClose"
  log.msg.3; dt=Dec-16-22-12:46:43, user=system, sid=0, msg="EVENT
for server; Login -- account=admin, sessionId=1"
  log.msg.4; dt=Dec-16-22-12:46:40, user=system, sid=0,
msg="EVENT for server; Logout -- account=admin, sessionId=1,
reason=remoteClose"
  log.msg.5; dt=Dec-16-22-12:46:40, user=system, sid=0, msg="EVENT
for server; Logout -- account=admin, sessionId=1, reason=User"
Success
```

Related Commands

```
show logs commands
```

show logs commands

Shows a listing of last commands send to the Management Server.

Syntax

```
show logs commands max quantity
```

Parameters

quantity
Type: INTEGER

Number of past commands to display

Example

```
show logs commands max 5
log(192.168.0.22);
  log.msg.1; dt=Dec-16-22-12:43:38, user=admin, sid=1,
msg="CommandLine: show logs commands max 5"
  log.msg.2; dt=Dec-16-22-12:43:36, user=admin, sid=2,
msg="Error:(29) Device Z4KDante does not support or cannot change:
joinUsb with value true."
  log.msg.3; dt=Dec-16-22-12:43:36, user=admin, sid=2,
msg="CommandLine: join Enc1 Z4KDante usb"
  log.msg.4; dt=Dec-16-22-12:43:36, user=admin, sid=2,
msg="Error:(29) Device Z4KDante does not support or cannot change:
joinUsb with value true."
  log.msg.5; dt=Dec-16-22-12:43:36, user=admin, sid=2,
msg="CommandLine: join none Z4KDante usb"
Success
```

Related Commands

```
show logs authentications
```

show multiviews config

Shows configuration information on all multiview displays. (ZyPer4K family only)

Syntax

```
show multiviews config
```

Parameters

none

Example

```
show multiviews config
multiview(Ltest1);
  multiview.audio; sourceWindow=none;
  multiview.window1; encoder-name=Airshow4K, percentPosX=40,
percentPosY=5, percentSizeX=55, percentSizeY=55, layer=1;
  multiview.window2; encoder-name=Soccer4K, percentPosX=5,
percentPosY=5, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window3; encoder-name=Wildlife4K, percentPosX=5,
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window4; encoder-name=Soccer4K, percentPosX=65,
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window5; encoder-name=USA4K, percentPosX=5,
percentPosY=35, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window6; encoder-name=USA4K, percentPosX=35,
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
multiview(MView4k);
  multiview.audio; sourceWindow=1;
  multiview.window1; encoder-name=Airshow4K, percentPosX=0,
percentPosY=0, percentSizeX=50, percentSizeY=50, layer=1;
  multiview.window2; encoder-name=USA4K, percentPosX=0,
percentPosY=50, percentSizeX=50, percentSizeY=50, layer=1;
  multiview.window3; encoder-name=Soccer4K, percentPosX=50,
percentPosY=0, percentSizeX=50, percentSizeY=50, layer=1;
  multiview.window4; encoder-name=Wildlife4K, percentPosX=50,
percentPosY=50, percentSizeX=50, percentSizeY=50, layer=1;
multiview(LBar);
  multiview.audio; sourceWindow=none;
  multiview.window1; encoder-name=Soccer4K, percentPosX=5,
percentPosY=5, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window2; encoder-name=Wildlife4K, percentPosX=5,
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window3; encoder-name=USA4K, percentPosX=35,
```

```
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window4; encoder-name=Soccer4K, percentPosX=65,
percentPosY=65, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window5; encoder-name=USA4K, percentPosX=5,
percentPosY=35, percentSizeX=30, percentSizeY=30, layer=1;
  multiview.window6; encoder-name=Airshow4K, percentPosX=35,
percentPosY=5, percentSizeX=60, percentSizeY=60, layer=1;
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews status
```

show multiviews status

Shows status information for all multiview displays. (ZyPer4K family only)

Syntax

```
show multiviews status
```

Parameters

none

Example

```
show multiviews status
multiview(mv1);
  multiview.gen; totalDatarate=0Mbps
  multiview.window1; encoderName=MediaPlayer,
encoderMac=d8:80:39:eb:1:cb, streamType=none, datarate=0Mbps,
multicast=0.0.0.0, titleStatus=none, status=inactive, reason=no
decoder joined
  multiview.window2; encoderName=Curved,
encoderMac=d8:80:39:9a:e6:d, streamType=none, datarate=0Mbps,
multicast=0.0.0.0, titleStatus=none, status=inactive, reason=no
decoder joined
  multiview.window3; encoderName=Cuba,
encoderMac=d8:80:39:9a:96:7, streamType=none, datarate=0Mbps,
multicast=0.0.0.0, titleStatus=none, status=inactive, reason=no
decoder joined
  multiview.window4; encoderName=Camera2,
encoderMac=d8:80:39:9a:af:a3, streamType=none, datarate=0Mbps,
multicast=111.117.114.99, titleStatus=none, status=inactive,
reason=no decoder joined
Success
```

Related Commands

```
create multiview
delete multiview
delete multiviewWindow
show multiviews config
```

show multiviews titles

Shows title information for all multiview displays. (ZyPer4K family only)

Syntax

```
show multiviews titles arg
```

Parameters

arg

Type: STRING

Supply one of the following arguments.

argument	Description
config	Displays title configuration information for multiview.
text	Displays text configuration information for multiview.

Examples

```
show multiviews titles text
multiview(mv1);
  multiview.gen; audioSourceWindow=none, canvasWidth=3840,
canvasHeight=2160
  multiview.window1; title=Window1
  multiview.window2; title=Window2
  multiview.window3; title=none
  multiview.window4; title=none
Success

show multiviews titles config
multiview(mv1);
  multiview.gen; audioSourceWindow=none, canvasWidth=3840,
canvasHeight=2160
  multiview.window1; position=bottomCenter, textSize=8,
textColor=lightGray, backgroundColor=black, textTransparency=0,
backgroundTransparency=80
  multiview.window2; position=bottomCenter, textSize=8,
textColor=lightGray, backgroundColor=black, textTransparency=0,
backgroundTransparency=80
  multiview.window3; position=bottomCenter, textSize=8,
textColor=lightGray, backgroundColor=black, textTransparency=0,
backgroundTransparency=80
  multiview.window4; position=bottomCenter, textSize=8,
textColor=lightGray, backgroundColor=black, textTransparency=0,
backgroundTransparency=80
Success
```

show preset

Shows information about a preset

Syntax

```
show preset name arg since
```

Parameters

name

Type: STRING

The name of the preset

arg

Type: STRING

Supply one of the following arguments.

argument	Description
commandBlob	Displays command list in "blob" format. Commands separated by semi-colons.
commands	Shows current list of preset commands
config	Shows preset description
runLog	Shows information about last time preset was run
schedule	Shows schedule details for the preset
status	Displays text configuration information for multiview.

Examples

```
show preset test1 schedule all
preset(test1);
  preset.schedule.today; mode=enabled, color=#652d90, month=all,
dayOfMonth=all, dayOfWeek=weekday, hour=14, minute=30
lastChangeIdMax(92);
Success

show preset test1 runLog since 0
preset(test1);
lastChangeIdMax(92);
Success
```

Examples

```
show preset test1 config since 0
preset(test1);
  preset.gen; description=Playing with preset
lastDeleteIdMax(3);
lastChangeIdMax(90);
Success

show preset test1 commands since 0
preset(test1);
  preset.line1; cmd=join MediaPlayer Bot_Right fastSwitched
  preset.line2; cmd=join none Bot_Right analogAudio
  preset.line3; cmd=join videoSource Bot_Right hdmiAudio
  preset.line4; cmd=set decoder Bot_Right hdmiAudioOut source
hdmiAudio
  preset.line5; cmd=join mv2x2-Art Top-Right multiview
  preset.line6; cmd=join none Top-Right analogAudio
  preset.line7; cmd=join videoSource Top-Right hdmiAudio
  preset.line8; cmd=join mv3x3-Art Top_Left multiview
  preset.line9; cmd=join none Top_Left analogAudio
  preset.line10; cmd=join videoSource Top_Left hdmiAudio
  preset.line11; cmd=join mv4x4-Art Bot-Left multiview
  preset.line12; cmd=join none Bot-Left analogAudio
  preset.line13; cmd=join videoSource Bot-Left hdmiAudio
lastChangeIdMax(94);
Success

show preset test1 commandBlob since 0
preset(test1);
  preset.cmdBlob; cmdBlob=join MediaPlayer Bot_Right
fastSwitched;join none Bot_Right analogAudio;join videoSource
Bot_Right hdmiAudio;set decoder Bot_Right hdmiAudioOut source
hdmiAudio;join mv2x2-Art Top-Right multiview;join none Top-Right
analogAudio;join videoSource Top-Right hdmiAudio;join mv3x3-Art
Top_Left multiview;join none Top_Left analogAudio;join videoSource
Top_Left hdmiAudio;join mv4x4-Art Bot-Left multiview;join none Bot-
Left analogAudio;join videoSource Bot-Left hdmiAudio
lastChangeIdMax(94);
Success
```

Related Commands

```
create preset
delete preset
run preset
set preset
```

show responses

Displays response strings from the specified device.

Syntax

```
show responses id type param3
```

Parameters

id

Type: STRING or MAC Address

The name or MAC address of the device. String names are case-sensitive.

type

Type: STRING

Supply one of the following arguments.

argument	Description
`ir`	Displays IR response strings.
`rs232`	Displays RS232 response strings.

param3

Supply one of the following arguments.

argument	Description
`last`	Displays the last received response, based on the argument supplied for the *type* parameter.
`lastChangeId`	Displays the **`lastChangeId`** of the most recently received response.
`since`	Displays only new response data. Follow this argument with desired value to query.

Example

```
show responses 0:1e:c0:f6:b0:8a rs232 since 10
lastChangeId(0);
Success

show responses 0:1e:c0:f6:b0:8a ir lastChangeId
lastChangeId(0);
Success

show responses 0:1e:c0:f6:b0:8a ir last
lastChangeId(0);
Success

show responses UHDdec1 rs232 last
device(34:1b:22:80:64:68);
  device.rs232Response.19; string=”Yes ZeeVee Support is the
Greatest\x0D”
lastChangeId(20);
Success

Zyper$ show responses UHDdec1 rs232 since 19
device(34:1b:22:80:64:68);
  device.rs232Response.19; string=”Yes ZeeVee Support is the
Greatest\x0D”
  device.rs232Response.20; string=”Really, still the greatest!\x0D”
lastChangeId(21);
Success
```

show role

Shows information about a specific role or all roles.

Syntax

```
show role rolename|all maxAccess[since]
```

Parameters

role

Type: STRING

The name of the role

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Examples

```
show role admin maxAccess since 0
role(admin);
  role.account; maxAccess=admin
  role.device; maxAccess=admin
  role.log; maxAccess=admin
  role.multiview; maxAccess=admin
  role.netmap; maxAccess=admin
  role.preset; maxAccess=admin
  role.role; maxAccess=admin
  role.server; maxAccess=admin
  role.snmpagent; maxAccess=admin
  role.tls; maxAccess=admin
  role.videowall; maxAccess=admin
  role.zone; maxAccess=admin
lastChangeIdMax(12);
Success
```

```
-------------------------------------------------------------

show role all maxAccess
role(admin);
  role.account; maxAccess=admin
  role.device; maxAccess=admin
  role.log; maxAccess=admin
  role.multiview; maxAccess=admin
  role.netmap; maxAccess=none
  role.preset; maxAccess=admin
  role.role; maxAccess=admin
  role.server; maxAccess=admin
  role.snmpagent; maxAccess=admin
  role.tls; maxAccess=admin
  role.videowall; maxAccess=admin
  role.zone; maxAccess=admin
role(Jr.Tech);
  role.account; maxAccess=view
  role.device; maxAccess=join
  role.log; maxAccess=view
  role.multiview; maxAccess=none
  role.netmap; maxAccess=none
  role.preset; maxAccess=join
  role.role; maxAccess=none
  role.server; maxAccess=none
  role.snmpagent; maxAccess=none
  role.tls; maxAccess=none
  role.videowall; maxAccess=join
  role.zone; maxAccess=view
lastChangeIdMax(2281);
Success
```

Related Commands

```
create role
delete role
set role rolename
set account username role
```

show server config

Displays configuration information for the Management Platform.

Syntax

```
show server config [since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show server config
server(192.168.0.21);
  server.gen; autoEdidMode=enabled, redundancy=enabled
  server.ipServerAddress; mode=static, address=192.168.0.21,
mask=255.255.255.0, gateway=0.0.0.0, dns=0.0.0.0
  server.ipManagementAddress; mode=static, address=192.168.20.2,
mask=255.255.255.0, gateway=0.0.0.0, dns=0.0.0.0
  server.ntpServer; address=pool.ntp.org
  server.telnetAccess; mode=enabled
  server.ftpAccess; mode=enabled
  server.encoderDefault.edid; audio=onlyPcm
  server.dataTunnelMode; telnet=telnetHandshakeMode
  server.logging; level=1
  server.isaac; address=none, subsystemId=none
  server.discover; mode=broadcast
lastChangeIdMax(543);
Success
```

Related Commands

`show server info`

show server info

Displays information for the Management Platform, including IP settings, uptime, and license level.

Syntax

```
show server info [since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show server info
server(192.168.0.21);
  server.gen; hostname=zyper.local, serverType=NUC-E,
 version=3.3.40029, previousVersion=3.2.39797, master=true,
 location=Wiring closet, contact=ZeeVee
  server.gen; uptime=3d:0h:45m:32s, freeMem= 2.60GB,
sdvoeVersion=3.6.0.1, bootCount=19, serialNumber=ZZM1MC00001A
  server.gen; macAddress=00:0e:c6:8e:38:6f,
managementMacAddress=54:b2:03:f0:ee:99
  server.ipActive; ipServerAddr=192.168.0.21,
ipManagementAddr=0.0.0.0, gatewayAddr=0.0.0.0, dnsAddr=0.0.0.0
  server.ipActive; managementGatewayAddr=0.0.0.0,
managementDnsAddr=0.0.0.0
  server.time; time="Mon Apr  8 09:38:06 2024", timezone=America/
New_York
  server.license; productID=367d8850-f6f2-cd73-fbb1-54b203f0ee99,
 license=none
  server.license; Zyper4KLimit=24, Zyper4KDevices=8, allDevices=14,
allDevicesUp=9, Zyper4KDevicesExceeded=0
  server.deviceUpdates; active=0
  server.activeDeviceVersions; num_1.7.24.0=4, num_1.7.31.0=1,
num_2.0.0.0=2, num_2.1.0.0=2
lastChangeIdMax(535);
Success
```

Related Commands

`show server config`
`revert server`

show server ip duplicates

Shows if there any duplicate IP addresses in the system. Can include encoders, decoders, ICRON or Dante units

Syntax

```
show server ip duplicates [since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show server ip duplicates
server(192.168.0.22);
lastChangeIdMax(88);
Success
```

Related Commands

`show server config`

show server managedDevices

Shows a listing of all devices currently under managment by this Management Server. Use this command with set server isolationMode and set server discoverMode.

Syntax

```
show server managedDevices all[since]
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show server managedDevices all
Success
```

Related Commands

```
show server ip duplicates
set server isolationMode
set server discoverMode
```

show server redundancy

Displays information about master and slave Management Platforms

Syntax

```
show server redundancy
```

Parameters

since

This parameter is optional and can be specified to display units based on the number of changes, using the `lastChangeId` value on each device. However, if used, a lastChangeId value must follow. Supply the `since` argument before the providing the `lastChangeId` value.

argument	Description
`since`	Required when using this parameter.

Example

```
show server redundancy
server(172.16.6.111);
  server.status; state=master, version=2.1.1.36527, wasMaster=true,
wasSlave=true
  server.config; preferredMaster=true, preferredSlave=true
  server.virtualIp; address=0.0.0.0, networkInterface=video
Success
```

Related Commands

```
set server redundancy
redundancy switchover
```

show snmp

Displays information related to SNMP. (Please see Section 5 of this manual for additional details on SNMP support)

Syntax

```
show snmp arg
```

Parameters

type

Type: STRING

Supply one of the following arguments.

argument	Description
`trapServers`	Displays snmp trap servers.
`users`	Displays snmp users.

Example

```
show snmp trapServers
snmp(172.16.6.111);
Success

show snmp users
snmp(172.16.6.111);
Success
```

Related Commands

`add snmp`
`delete snmp`

show snmp netNode

Displays information related to SNMP NetNodes use with the ZeeVee Visualization, Analysis and Monitoring (VAM) tool.

Syntax

```
show snmp ident arg
```

Parameters

ident

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays info for all netNodes.
`Name`	Name of specific netNode

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`general`	Basic information
`snooping`	Snooping and Querier information
`warnings`	Warnings associated with setup/ configuration
`justChanges since <lastChangeID : lastChangeNumber>`	Changes to netNodes sinces a given changeID. (Command only valid if "ident" = all)

Examples

```
show snmp netNode all snooping
netNode(1);
  netNode.snooping; mode=NA, proxyQuerier=NA
netNode(4);
  netNode.snooping; mode=enabled, proxyQuerier=disabled
Success
```

```
show snmp netNode all general
netNode(1);
  netNode.gen; name="myZMPserver", chassisId=54:b2:03:f0:ee:99,
type=NA, portErrors=0, ip=192.168.0.21, state=up,
uptime=0d:1h:27m:12s
  netNode.gen; make=zeevee, descr="ZyPer Management Platform",
version=" 3.3.39589", location="Wiring closet"
netNode(4);
  netNode.gen; name="Arts_8x8", chassisId=8c:3b:ad:68:6b:34,
type=bridge+router, portErrors=1, ip=192.168.0.1, state=up,
uptime=3d:6h:48m:38s
  netNode.gen; make=netgear, descr="M4300-8X8F ProSAFE 8-port
10GBASE-T and 8-port 10G SFP+", version=" 12.0.17.13",
location="Dining Room"
Success

show snmp netNode all warnings
netNode(1);
netNode(4);
  netNode.warning.1; message=Port-level proxy querier is enabled;
it will cause issues in a multi-switch network
  netNode.warning.2; message=VLAN-level proxy querier is enabled;
this will cause capacity issues on inter-switch trunks
Success
```

Related Commands

```
add snmp netNode
delete snmp netNode
```

show snmp netNode vlan

Displays information related to SNMP NetNodes use with the ZeeVee Visualization, Analysis and Monitoring (VAM) tool.

Syntax

```
show snmp ident vlan arg snooping
```

Parameters

ident

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays info for all netNodes.
`Name`	Name of specific netNode

arg

Type: STRING or INTEGER

Supply one of the following arguments.

argument	Description
`VLAN Number`	Number of the VLAN. Example "2"
`all`	all VLANs

Example

```
show snmp netNode all vlan all snooping
netNode(1);
netNode(4);
  netNode.vlan.1; snooping=enabled, agingSeconds=600,
fastLeave=enabled, proxyQuerier=enabled
Success
```

Related Commands

```
add snmp netNode
delete snmp netNode
```

show snmp netNode port

Displays information related to SNMP NetNodes use with the ZeeVee Visualization, Analysis and Monitoring (VAM) tool.

Syntax

```
show snmp ident port arg detail
```

Parameters

ident

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays info for all netNodes.
`Name`	Name of specific netNode

arg

Type: STRING or INTEGER

Supply one of the following arguments.

argument	Description
`Port Number`	Number of the Port. Example "2"
`all`	all Ports

arg

Type: STRING or INTEGER

Supply one of the following arguments.

argument	Description
`state`	Displays status of given port
`peer`	Detailed information on given port including peerSlot and peerPort
`snooping`	Snooping status including fastLeave, Querier, mrouter, aging and flooding of unregistered multicasts
`vlan`	Shows VLAN IDs
`stats`	Shows MTU, link speeds, data in/out rates

Example

```
show snmp netNode all port all state
netNode(1);
  netNode.port.state;++       state bandwidth
  netNode.port.state;;;       ----- ---------
  netNode.port.state.0.2;     down  ok
  netNode.port.state.0.1;     up    ok
  netNode.port.state;--
netNode(4);
  netNode.port.state;++       state bandwidth
  netNode.port.state;;;       ----- ---------
  netNode.port.state.0.1;     down  ok
  netNode.port.state.0.2;     down  ok
  netNode.port.state.0.3;     down  ok
  netNode.port.state.0.4;     down  ok
  netNode.port.state.0.5;     down  ok
  netNode.port.state.0.6;     down  ok
  netNode.port.state.0.7;     down  ok
  netNode.port.state.0.8;     down  ok
  netNode.port.state.0.9;     up    ok
  netNode.port.state.0.10;    up    ok
  netNode.port.state.0.11;    down  ok
  netNode.port.state.0.12;    down  ok
  netNode.port.state.0.13;    up    ok
  netNode.port.state.0.14;    up    ok
  netNode.port.state.0.15;    up    ok
  netNode.port.state.0.16;    up    ok
  netNode.port.state;--
Success
```

Related Commands

```
add snmp netNode
delete snmp netNode
```

show snmp netNode multicastForwardingDb

Displays information related to SNMP NetNodes use with the ZeeVee Visualization, Analysis and Monitoring (VAM) tool.

Syntax

```
show snmp ident multicastForwardingDb
```

Parameters

ident

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays info for all netNodes.
`Name`	Name of specific netNode

Related Commands

`add snmp netNode`
`delete snmp netNode`

Example

```
show snmp netNode all multicastForwardingDb
netNode(1);
netNode(4);
  netNode.mfdb;++   group              encoder              stream      portsOut
  netNode.mfdb;;;   ------------------ -------------------- ----------- ----------------
----
  netNode.mfdb.1;   1:0:5e:0:0:12      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.2;   1:0:5e:0:0:e6      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.3;   1:0:5e:0:0:e7      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.4;   1:0:5e:0:0:e9      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.5;   1:0:5e:0:0:fb      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.6;   1:0:5e:0:1:81      unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.7;   1:0:5e:0:1:bc      unknown              unknown     [0.9]
  netNode.mfdb.8;   1:0:5e:11:13:bd    unknown              unknown     [0.10]
  netNode.mfdb.9;   1:0:5e:11:13:c0    unknown              unknown     [0.10]
  netNode.mfdb.10;  1:0:5e:11:1c:84    unknown              unknown     [0.10]
  netNode.mfdb.11;  1:0:5e:1:0:0       unknown              unknown     [0.10]
  netNode.mfdb.12;  1:0:5e:1:0:1       unknown              unknown     [0.10]
  netNode.mfdb.13;  1:0:5e:1:1:6       XSE_Enc_Combo        hdmiAudio   [0.13]
  netNode.mfdb.14;  1:0:5e:1:1:7       XSE_Enc_Combo        danteAudio  [0.13]
  netNode.mfdb.15;  1:0:5e:1:1:fd      unknown              unknown     [0.14-0.15]
  netNode.mfdb.16;  1:0:5e:1:1:fe      unknown              unknown     [0.13,0.16]
  netNode.mfdb.17;  1:0:5e:21:13:bd    UHD60-2EA            video       [0.10]
  netNode.mfdb.18;  1:0:5e:21:13:c0    UHD60-1EA            video       [0.10]
  netNode.mfdb.19;  1:0:5e:21:1c:84    UHD60-Wallplate      video       [0.10]
  netNode.mfdb.20;  1:0:5e:21:21:21    unknown              unknown     [0.9]
  netNode.mfdb.21;  1:0:5e:2:0:0       unknown              unknown     [0.9]
  netNode.mfdb.22;  1:0:5e:31:13:bd    UHD60-2EA            hdmiAudio   [0.10]
  netNode.mfdb.23;  1:0:5e:31:13:c0    UHD60-1EA            hdmiAudio   [0.10]
  netNode.mfdb.24;  1:0:5e:31:1c:84    UHD60-Wallplate      hdmiAudio   [0.10]
  netNode.mfdb.25;  1:0:5e:41:13:bd    unknown              unknown     [0.10]
  netNode.mfdb.26;  1:0:5e:41:13:c0    unknown              unknown     [0.10]
  netNode.mfdb.27;  1:0:5e:41:1c:84    unknown              unknown     [0.10]
  netNode.mfdb.28;  1:0:5e:41:d1:bc    unknown              unknown     [0.10]
  netNode.mfdb.29;  1:0:5e:51:13:bd    unknown              unknown     [0.10]
  netNode.mfdb.30;  1:0:5e:51:13:c0    unknown              unknown     [0.10]
  netNode.mfdb.31;  1:0:5e:51:1c:84    unknown              unknown     [0.10]
  netNode.mfdb.32;  1:0:5e:61:f9:88    unknown              unknown     [0.10]
  netNode.mfdb.33;  1:0:5e:71:13:bd    unknown              unknown     [0.10]
  netNode.mfdb.34;  1:0:5e:71:13:c0    unknown              unknown     [0.10]
  netNode.mfdb.35;  1:0:5e:71:1c:84    unknown              unknown     [0.10]
  netNode.mfdb.36;  1:0:5e:7f:2d:d8    unknown              unknown     [0.10,0.15]
  netNode.mfdb.37;  1:0:5e:7f:ff:fa    unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.mfdb.38;  1:0:5e:7f:ff:ff    unknown              unknown     [0.10,0.13,0.15]
  netNode.mfdb.39;  91:e0:f0:1:0:0     unknown              unknown     [0.9-0.10,0.13-
0.16]
  netNode.port.mfdb;--
Success
```

show tls ca pem

Shows Transport Layer Security information for the Certificate Authority

Syntax

```
show tls ca pem arg
```

Parameters

type

Type: STRING

Supply one of the following arguments.

argument	Description
cert	Displays the certificate
privKey	Displays the RSA Private Key
signedCert	Display the signed certificate

Examples

```
show tls ca pem cert
pemData:
-----BEGIN CERTIFICATE-----
..................
-----END CERTIFICATE-----
Success

show tls ca pem privKey
pemData:
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: AES-256-CBC,10E7EB7C47A3B07D64608BC1D4A63F5F
..................
-----END RSA PRIVATE KEY-----
Success

show tls ca pem signedCert
pemData:
-----BEGIN CERTIFICATE-----
..................
-----END CERTIFICATE-----
Success
```

Related Commands

`show tls summary`

show tls device pem

Shows Transport Layer Security information for the Server or Device

Syntax

```
show tls device pem target arg
```

Parameters

target

Type: STRING

Supply one of the following arguments.

argument	Description
device	show Device information
radius	show Radius information
server	show Server information

arg

Type: STRING

Supply one of the following arguments.

argument	Description
csr	Displays certificate signing request
cert	Displays the certificate (Device and Server only)
privKey	Displays RSA private key
caIntermediates	Displays chain of certificates between root cert and your cert. Used when cert received from trusted certificate authority such as Verisign. (Device and Server only)

Example

```
show tls device pem server csr
pemData:
-----BEGIN CERTIFICATE REQUEST-----
.............
-----END CERTIFICATE REQUEST-----
Success
```

show tls summary

Shows a summary of Transport Layer Security settings.

Syntax

```
show tls summary
```

Parameters

none or

argument	Description
ca	show Certificate Authority information
radius	show Radius information
server	show Server information

Examples

```
show tls ca summary
server(192.168.0.21);
  ca.tls.caCert; status=valid, C=US, CN=caCert, L=Billerica,
 O=ZeeVee, OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  ca.tls.caCert; issuer=caCert
  ca.tls.caCert; fingerprint=8A783DC9351E8877BBE5D0C1E7A913336B15
0F68
  ca.tls.caCert; expires=01/09/34T13:55:55-0500
  ca.tls.signed; status=valid, C=US, CN=zeevee.com, O=ZeeVee,
 OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  ca.tls.signed; issuer=caCert
6Dca.tls.signed; fingerprint=44CD6AB55BAB13AF3B7A76E453A307761FDBCB
  ca.tls.signed; expires=01/11/25T13:58:19-0500
Success


show tls radius summary
server(192.168.0.21);
  radius.tls.csr; status=valid, C=US, CN=zeevee.com, O=ZeeVee,
 OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
Success
```

```
show tls summary
server(192.168.0.21);
  server.tls.server; tlsMode=disabled, fqdnMode=fromCert, fqdn=NA
  server.tls.csr; status=invalid
  server.tls.serverCert; status=invalid
  server.tls.caChainCert; status=invalid
  ca.tls.caCert; status=valid, C=US, CN=caCert, L=Billerica,
 O=ZeeVee, OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  ca.tls.caCert; issuer=caCert  ca.tls.caCert; fingerprint=8A783DC93
51E8877BBE5D0C1E7A913336B150F68
  ca.tls.caCert; expires=01/09/34T13:55:55-0500
  ca.tls.signed; status=valid, C=US, CN=zeevee.com, O=ZeeVee,
 OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  ca.tls.signed; issuer=caCert
6Dca.tls.signed; fingerprint=44CD6AB55BAB13AF3B7A76E453A307761FDBCB
  ca.tls.signed; expires=01/11/25T13:58:19-0500
  device.tls.csr; status=valid, C=US, CN=zeevee.com, O=ZeeVee,
 OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  device.tls.deviceCert; status=valid, C=US, CN=zeevee.com,
 O=ZeeVee, OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  device.tls.deviceCert; issuer=caCert
  device.tls.deviceCert; fingerprint=44CD6AB55BAB13AF3B7A76E453A3077
61FDBCB6D
  device.tls.deviceCert; expires=01/11/25T13:58:19-0500
  device.tls.deviceCaChainCert; status=valid, C=US, CN=zeevee.com,
 O=ZeeVee, OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
  device.tls.deviceCaChainCert; issuer=caCert
  device.tls.deviceCaChainCert; fingerprint=44CD6AB55BAB13AF3B7A76E4
53A307761FDBCB6D
  device.tls.deviceCaChainCert; expires=01/11/25T13:58:19-0500
  radius.tls.csr; status=valid, C=US, CN=zeevee.com, O=ZeeVee,
 OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
Success
```

Related Commands

```
show tls server pem privKey
show tls ca pem privKey
load tls ca cert
load tls ca privateKey
load tls server
generate tls ca privKeyPass
generate tls server csr privKeyPass
```

show tls device summary

Shows a summary of Transport Layer Security settings for Device

Syntax

```
show tls device summary
```

Parameters

none

Examples

```
show tls device summary
server(192.168.0.21);
  device.tls.csr; status=valid, C=US, CN=zeevee.com,
 O=ZeeVee, OU=Money, ST=MA, emailAddress=aweeks@zeevee.com
device.tls.deviceCert; status=invalid
  device.tls.deviceCaChainCert; status=valid, C=US, CN=caCert,
 L=Billerica, O=ZeeVee, OU=Money, ST=MA,
emailAddress=aweeks@zeevee.com
  device.tls.deviceCaChainCert; issuer=caCert
  device.tls.deviceCaChainCert;
fingerprint=A7C444401F258372BEB6E015EE1FC4E357AB4E89
  device.tls.deviceCaChainCert; expires=01/06/34T15:24:05-0500
  device.tls.deviceCaCert; status=invalid
Success
```

Related Commands

```
show tls server pem privKey
show tls ca pem privKey
load tls ca cert
load tls ca privateKey
load tls server
generate tls ca privKeyPass
generate tls server csr privKeyPass
```

show values

Shows all possible information/values associated with encoders, decoders, servers or multiviews.

Syntax

```
show values arg
```

Parameters

arg

Type: STRING

Supply one of the following arguments.

argument	Description
`all`	Displays all values encoders, decoders, servers and multiviews. (Status, Config, Info, Redundancy)
`encoder status`	Shows values associated with encoder status
`encoder config`	Shows values associated with encoder config
`decoder status`	Shows values associated with decoder status
`decoder config`	Shows values associated with decoder config
`server info`	Shows values associated with server info
`server config`	Shows values associated with server config
`server redundancy`	Shows values associated with server redundancy
`multiview status`	Shows values associated with multiview status
`multiview config`	Shows values associated with multiview config

Examples

```
show values server config
values(serverConfig);
  server.ipServerAddress.mode; values=dhcp|static
  server.ipManagementAddress.mode; values=none|dhcp|static
  server.telnetAccess; values=enabled|disabled
  server.encoderDefault.edid.audio; values=onlyPcm|allowCompressed
  server.dataTunnelMode; values=telnet|raw
  server.logging; values=<integer 1-5>
Success
```

Examples

```
show values encoder config
values(encoderConfig);
  device.gen.ethernetManagementPortMode; values=enabled|disabled
  device.gen.controlAuthenticationMode; values=enabled|disabled
  device.gen.name; values=<string 1-256>
  device.ip.mode; values=dhcp|static|linkLocal
  device.ip.address; values=<IPv4Address>
  device.ip.mask; values=<IPv4Mask>
  device.ip.gateway; values=<IPv4Address>|NA
  device.rs232.baud; values=2400|9600|19200|38400|57600|115200
  device.rs232.parity; values=none|even|odd
  device.ports.videoPort; values=auto|initializing|unknown|hd
mi|displayPort|hdmiOptionalIn|usbc|vga|component|composite|s-
video|analogNone|hdsdi|12gsdi
  device.analogAudioStream.mode; values=enabled|disabeld
  device.audioOutSourceType.analogOutSourceType; values=analogAudio
|hdmiAudioDownmix
  device.edid.loadMode; values=auto|file
  device.edid.audio; values=onlyPcm|allowCompressed|serverDefault
  device.hdmi.hdcpMode; values=enabled|disabled|enabled1.4
  device.hdmiAudioStream.mode; values=enabled|disabeld
  device.previewStream.mode; values=enabled|disabeld
  device.previewStream.type; values=hls|jpeg
  device.previewStream.width; values=auto|<integer 180-400>
  device.usb.filter; values=none|exceptHid|storage
  device.videoStream.mode; values=enabled|disabeld
  device.videoScaledStream.mode; values=enabled|disabeld
Success
```

show videoWalls

Displays all video walls that have been created and all associated information.

Syntax

```
show videoWalls
```

Parameters

```
none
```

Example

```
show videoWalls
videoWall(wall1);
  videoWall.gen; videoSourceMac=none, numDisplayRows=2,
numDisplayCols=2
  videoWall.bezel; top=0, bottom=0, left=0, right=0
  videoWall.decodersRow1; col1=Top_Left, col2=Top-Right
  videoWall.decodersRow2; col1=Bot-Left, col2=Bot_Right
Success
```

Related Commands

```
create videoWall
set videoWall size
```

show zones

Displays all zones that have been created and all associated information.

Syntax

```
show zones
```

Parameters

none

Example

```
show zones
  1stfloor; Top-Right, Top_Left
  1stfloor.1stfloorroom2; empty
Success
```

Related Commands

```
add zoneDisplay
create zone
delete zone
delete zoneDisplay
```

shutdown server

Performs a shutdown of the Management Platform.

Syntax

```
shutdown server
```

Parameters

none

Example

```
shutdown server
Success
Connection closed by foreign host.
```

sign tls csr caPrivateKeyPass

Use the CSR to create signed TLS certificate

Syntax

```
sign tls csr caPrivateKeyPass * fromInput *

sign tls csr PrivateKeyPass * fromFile filename
```

Parameters

input

Type: STRING

String representing the Private Key Password. The system will promt for a string input. This should be the PEM data.

filename

Type: STRING

The name of the PEM data file to load. (Must already exist on ZMP in Files directory)

Example

```
sign tls csr caPrivateKeyPass * fromInput *
Enter passphrase: ******
Enter PEM text (ctr-d to end):
-----BEGIN CERTIFICATE REQUEST-----
.............
-----END CERTIFICATE REQUEST-----
Success
```

Notes:

File must be previously copied onto ZMP into the Files directory using FTP.

Related Commands

```
show cls summary
show tls pem ca signedCert
```

sleep

Specifies a sleep duration in milliseconds. This command is sometime required when executing a series of commands within a web page, using AJAX. Often times, a pause must occur in order for a device or the Management Platform to change states before another command is executed.

Syntax

```
sleep ms
```

Parameters

ms

Type: INTEGER

The duration in milliseconds.

Example

```
sleep 500
Success
```

Related Commands

script

start encoder

Used to start a specific encoder multicast stream. This command only has affect if at least one decoder has been "joined" to the encoder and the "encoder stop" command has been used to override the enabling of the encoder stream. In effect, this command removes a previously entered "encoder stop" command – it returns stream control to normal operation based on existing "join" configuration. The command will immediately restore stream operation based on existing join configuration. No further join commands are required. (ZyPer4K family only)

Syntax

```
start encoder id stream arg
```

Parameters

id

Type: STRING or MAC Address

The identifier of the device. Either the full or portion of a string name or MAC address can be supplied.

arg

Supply one of the following arguments.

argument	Description
analogAudio	analog audio multicast stream.
hdmiAudio	downmix audio multicast stream
video	full scale video stream
videoScaled	downscaled video stream (for multiview)

Example

```
start encoder Myencoder1 stream video
Success
```

Related Commands

stop encoder

start kvm

Used to start a specific kvm. (ZyPer4K XS/XSE/XR only)

Syntax

```
start kvm name
```

Parameters

name

Type: STRING

The name of the kvm. String names are case-sensitive.

Example

```
start kvm ControlBoard
Success
```

Related Commands

```
create kvm
delete kvm
set kvm
show kvms
stop kvm
```

stop encoder

Used to stop a specific encoder multicast stream. This command only has affect if at least one decoder has been "joined" to the encoder. In effect, this command overrides any existing "join" command – either present or future. (ZyPer4K family only)

When stopping a "scaled-video" stream, any multiview window receiving that stream will go black. The rest of the multiview will be unaffected.

Syntax

```
stop encoder id stream arg
```

Parameters

id

Type: STRING or MAC Address

The identifier of the device. Either the full or portion of a string name or MAC address can be supplied.

arg

Supply one of the following arguments.

argument	Description
analogAudio	analog audio multicast stream.
hdmiAudio	downmix audio multicast stream
video	full scale video stream
videoScaled	downscaled video stream (for multiview)

Example

```
stop encoder Myencoder1 stream videoScaled
Success
```

Related Commands

`start encoder`

stop kvm

Used to stop a specific kvm. (ZyPer4K XS/XSE/XR only)

Syntax

```
stop kvm name
```

Parameters

name

Type: STRING

The name of the kvm. String names are case-sensitive.

Example

```
stop kvm ControlBoard
Success
```

Related Commands

```
create kvm
delete kvm
set kvm
show kvms
stop kvm
```

switch

This command is used in conjunction with the IR and RS232 switching commands. Both the `rs232` and the `ir` argument specify unidirectional connection between two devices. When switching data to the server, use the `show responses` command to retrieve the data.

Syntax

`switch` *`txid rxid type`*

Parameters

`txid`

Type: STRING or MAC Address

The name or MAC address of the encoder. String names are case-sensitive.

`rxid`

Type: STRING or MAC Address

The name or MAC address of the decoder. String names are case-sensitive.

`type`

Type: STRING

Supply one of the following arguments.

argument	Description
`ir`	Specifies a IR connection. (ZyPer4K family and ZyPerUHD only)
`rs232`	Connection to another device or the server. Set *`rxid`*= `none` to pass data to an arbitrary IP host.

Example

```
switch Wildlife SonyXBR4 rs232
Success
```

Related Commands

`send`

troubleReport

Generates capture logs and system state information and is used by the ZeeVee support team for troubleshooting purposes. This unencrypted file is in `.tgz` format and is written to the `/srv/ftp/files` folder on the Management Platform.

If using password option; the encrypted file is in `.gpg` format and written to the same location.

Syntax

```
troubleReport
troubleReport password pw
```

Parameters

pw

Type: STRING

Password to open the encrypted Trouble Report file.

Note the password is optional feature and will create an encrypted trouble report file.

Examples

```
troubleReport password 1234
Clean up files
Creating Trouble Report
Saving device status and configuration...
Saving SQL database...
Saving system files...
Saving device EDIDs...
Saving device specific information; this may take a few seconds...
Success

troubleReport
Clean up files
Creating Trouble Report
Saving device status and configuration...
Saving SQL database...
Saving system files...
Saving device EDIDs...
Saving device specific information; this may take a few seconds...
Success
```

update device

Updates the firmware on the encoder and/or decoder units. The firmware update file uses the `.apz or .zip` extension.

Syntax

```
update device arg file
```

Parameters

arg

Supply one of the following arguments.

argument	Description
`id`	Encoder or Decoder name. Names are case-sensitive
`all`	All encoders and decoders in the system
`encoders`	All encoders in the system
`decoders`	All decoders in the system

file

Type: STRING

The full filename of the software file.

Example

```
update device all Z4K_Firmware_HDMI2.0_v4_1_2_9.apz
Warning:(18) Firmware updating started, use 'show device status' to
monitor progress
Success
```

update server

Updates the Management Platform software. The server software file uses the `.zyper` extension. Refer to Updating the Software (page 287) for more information on using this command.

Syntax

```
update server file
```

Parameters

file

Type: STRING

The full filename of the software file.

Example

```
update server new-sofware-file.zyper
Success

Server rebooting; connection will end
```

Important Note:

The ZyPer MP update file will be available in five, platform-specific versions. Please use the correct version for the hardware platform being updated.

ZyPerMP Single NIC NUC computer: update_nuc_4.0.xxxxx.zyper
ZyPerMP Dual NIC NUC computer: update_nuc2004_4.1.xxxxx.zyper
ZyPerMP Proserver: update_proserver_4.1.xxxxx.zyper
ZyPerMP VMware: update_vm_4.1.xxxxx.zyper
ZyPerUHD60-EMP: update_zemp_4.1.xxxxx.zyper

2 Modules / Plug-Ins

Disclaimers

ZeeVee control offerings

ZeeVee provides modules / plug-ins for third-party control systems as a courtesy to our channel partners to speed development time. In addition to the modules/drivers, our fully documented ZyPer Management Platform API allows our customers to connect to nearly any control system.

ZeeVee support for control products

The ZeeVee support team is available to assist you in getting your new ZyPer encoders, decoders, and management system working correctly and providing direction with API calls for desired functionality.

ZeeVee limitation

Given the variety of capabilities across various control products, ZeeVee cannot commit to deep-rooted knowledge that would allow us to address all support requests. Further, the drivers provided may not include all commands needed for a particular solution that your organization has devised.

How you can prepare

While ZeeVee provides modules/drivers and the API, your organization will need expertise on the chosen control system and may require technical support from the control system vendor.

Where to find documentation

All ZeeVee and ZyPer documentation can be found on our website here: https://www.zeevee.com/documentation/

ZeeVee Control Modules / Plug-Ins

ZeeVee Modules / Plug-Ins

ZeeVee provides many different control options for the ZyPer family of products. (ZyPer4K, ZyPerUHD60, ZyPerUHD). This includes the availability of modules or built in support directly for the following 3rd party control systems.

Support

Modules / Plug-Ins for 3rd party control systems are provided as a courtesy to developers in an effort to reduce development time. They are provided "as-is" from ZeeVee with no additional support provided other than the accompanying documentation. See Disclaimers section at the beginning of this document.

Module / Plug-In Basics

A module or driver is an interface between the primary controller (Kramer Control, Crestron, RTI, Control4 etc..) and the ZeeVee Management Platform (ZMP). Think of the module or driver as a translator. It will translate commands from the primary control system into the appropriate commands that can be understood by the ZyPerMP.

Note: Not all ZyPerMP API commands are supported by the module/driver. Our goal has been to support the most common and basic commands to allow routing of video from any source to any destination as well as some special features such as multiview and video walls.

Configuration Tips

Documentation

You will need to know the ZyPer Management Platform API commands to perform actions that are not provided by the module / plug-in. (The first part of this document).

Basic Setup

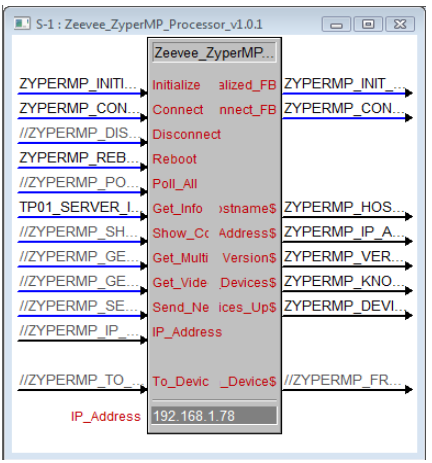
Regardless of the control system used to control the ZyPer equipment, it is a requirement that the ZyPer Management Platform (ZMP) must be present.

1. The ZMP IP address should be configured either via DHCP or given a static address.
2. The ZMP IP address MUST be on the same network as the primary hardware controller. (Kramer Control Brain, Crestron 4-Series controller, Control4 EA1, EA3, EA5, DTVGameControl iPad)
3. All ZyPer endpoints should be configured using either the ZMP Graphical User Interface (GUI) or via the ZMP API (Telnet or SSH).
   a. Assign all endpoints a logical name (Encoders and Decoders)
   b. Design/create any video walls and give them logical names
   c. Design/create any multiview displays and give them logical names (ZyPer4K only)

Module / Plug-In Setup

Every control system is different but will have some common features when it comes to basic setup and configuration.

1. The IP address of the ZMP must be provided so that the primary controller can communicate with the ZMP.
   a. Where the IP address is provided will vary based on the control system. Below are some examples
      i. Crestron – SIMPL Windows under IP_Address field for the ZeeVee_ZyPerMP_Processor logic module. See image below:



2. The names of the endpoints must be provided. Similar to the IP address detailed above.

3. The names of Multiview's (ZyPer4K only) need to be provided.

   a. Crestron – SIMPL Windows in the appropriate Multiview logic module.

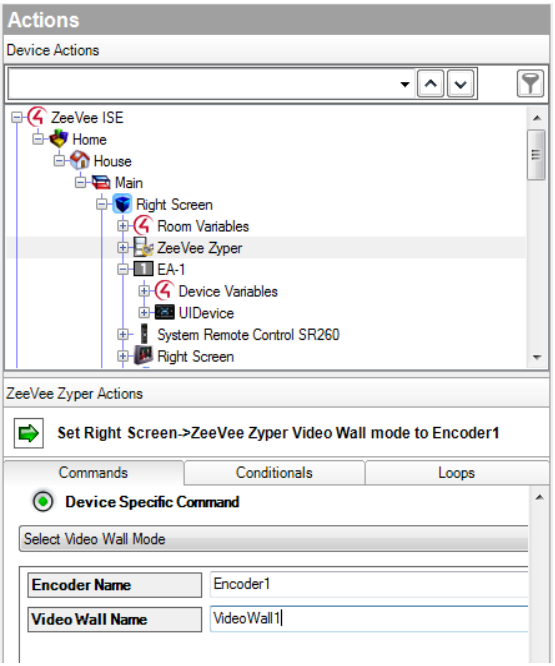
   b. Control4 – Create a "virtual" encoder and assign it appropriate multiview name and set the "Input Join Type" to multiview.

Video Walls

Video walls are configured differently depending on the control system.

a. Crestron – Similar to IP address and multiview. SIMPL Windows in the appropriate Video Wall logic module.

b. Control4 – Video walls need to be assigned to a special programmed command. For example, a Red Button press on the SR260 remote control. In Composer highlight the room, select Programming and Commands. Select the "Red Button". Then in the Actions window select ZeeVee ZyPer, scroll down to Device Specific Command. Enter the Encoder and Video Wall Names. (See image below)



Serial / RS-232

The ZyPer Management Platform (ZMP) must first be linked to the specific endpoint to send RS232 information. This can be done with either the dataConnect or switch command.

Examples:

dataConnect Dec1 server rs232 tunnelPort 1234

switch Dec1 server rs232

Note: The feature of dataConnect was added to allow a third party to connect to the ZMP server with a specific port and pass raw or telnet API commands (depending on the mode) to the server and port which is designated for a particular encoder or decoder.

Important Note: Issuing the dataConnect or switch command can cause the ZyPer endpoint to reboot to enable the link. Disconnecting the link can also cause the endpoint to reboot. The link should only be established once and then left alone to prevent undesired endpoint reboots.

When using any control system; that system is communicating with our ZMP and not to any specific endpoint.

When sending RS232 commands to an endpoint via the ZMP you must follow very specific syntax.

The ZeeVee command is: send <decoder_name> rs232 text

Here are examples on this. (Assume decoder name is Dec1)

Input command: send Dec1 rs232 Hello
Received at Dec1: Hello (Note, no line feed or carriage return)

Input command: send Dec1 rs232 Hello\r\n
Received at Dec1: Hello (with carriage return and line feed)

Input command: send Dec1 rs232 Hello World
Received at Dec1: Nothing. You get an error. Bad syntax. You cannot have a space between Hello and World.

Input command send Dec1 rs232 Hello_World
Received at Dec1: Hello_World (Note, no line feed or carriage return)

Input command send Dec1 rs232 “Hello World”
Received at Dec1: Hello World (Note, no line feed or carriage return)

Input command send Dec1 rs232 "Hello World"\r\n
Received at Dec1: Nothing. You get an error. Bad syntax. Token \r\n is invalid.

You need to contain the line feed and carriage return symbols inside the quotes in this case.

Input command send Dec1 rs232 "Hello World\r\n"
Received at Dec1: Hello World (with carriage return and line feed)

Text can also be Hexadecimal Code as shown below:

Input command:

send Dec1 rs232 \x48\x65\x6c\x6c\x6f\x20\x57\x6f\x72\x6c\x64\x0A\x0D
Received at Dec1: Hello World (with carriage return and line feed)

The ZyPer Management Platform also has the ability to receive RS232 communications that were input into a ZyPer endpoint. To view any such RS232 string, you use the "show responses" command.

Example:

Zyper$ show responses DEC1 rs232 since 0

device(d8:80:39:59:bf:57);

device.rs232Response.0; string="Have a great day!\x0D"

device.rs232Response.1; string="\x0A"

lastChangeId(2);

Success

Important Crestron Note

When using Crestron as the control system, you may need to append an extra \ symbol before the Carriage return symbol. Otherwise carriage return may not work.

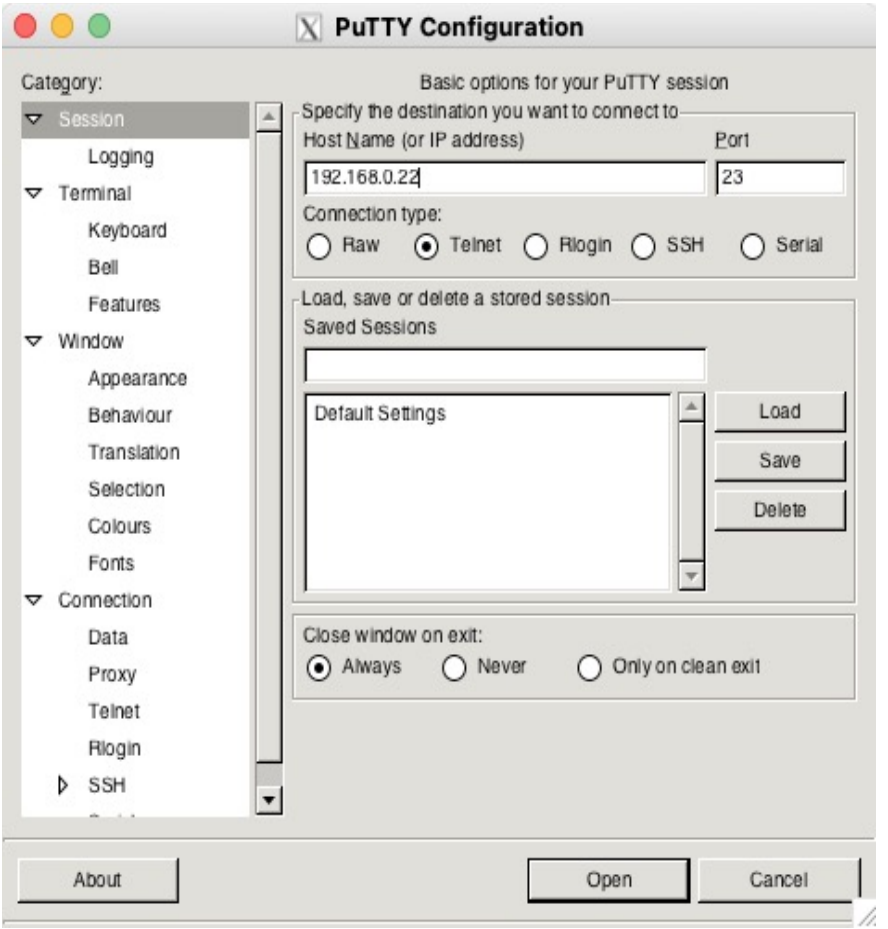
Example using Crestron to turn on/off LG display.

LG TV
ON
send DecoderName rs232 \x6B\x61\x20\x30\x30\x20\x30\x31\\x0D
OFF
send DecoderName rs232 \x6B\x61\x20\x30\x30\x20\x30\x30\\x0D

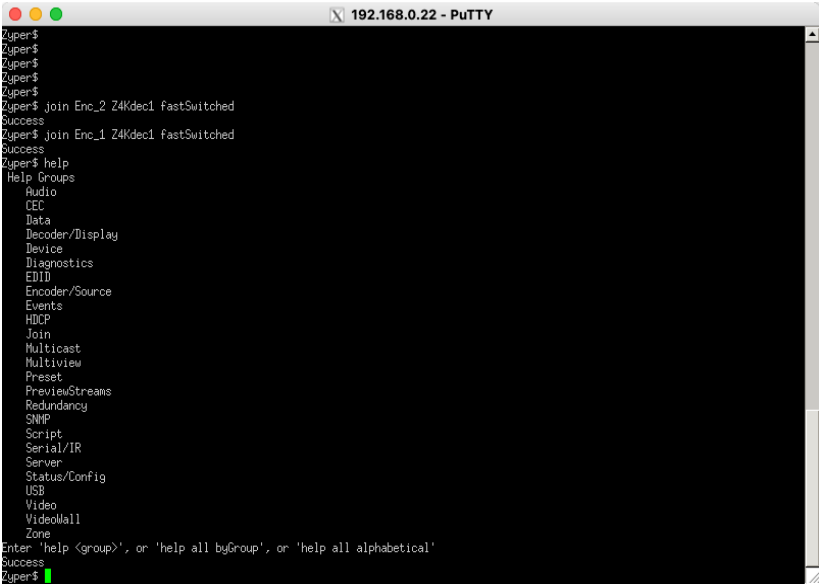
Troubleshooting Tips

If a command issued from a 3rd party control system is not working, the first thing to do is confirm the command works when issued directly in the API. To do this you should Telnet or SSH into the API using a tool such as Putty.

Once the Telnet or SSH session is open, you can issue any API command to the ZyPer Management Platform manually. You can also use the HELP feature of the API to learn the correct API commands and syntax.



Once the command is working via Telnet directly to the ZMP, copy the exact syntax as needed into the 3rd party control system.



3 Appendix

Updating the Software

Using Mac OS X

1. Make sure the Management Platform is powered and is working correctly.

2. Download the latest software from the ZeeVee website. Make note of the location of where the software was downloaded.

3. Launch the Terminal app, found under the Applications > Utilities folder. By default, the current directory will be the Home directory.

```
Last login: Tue Mar 22 14:24:08 on console
Andrews-MacBook-Pro:~ Andrew$
```

4. Change the directory to the location of the downloaded software file. For example, if the software was downloaded to the Desktop, then change to the Desktop folder, as shown:

```
Last login: Tue Mar 22 14:24:08 on console
Andrews-MacBook-Pro:~ Andrew$ cd desktop
Andrews-MacBook-Pro:desktop Andrew$
```

5. Use the FTP protocol to login to the Management Platform. At the terminal prompt, type the following and press the [ENTER] key.

```
Andrews-MacBook-Pro:desktop Andrew$ ftp 192.168.1.6
```

6. Enter the user name and password. Use anonymous for the user name and use guest for the password. The password will not be echoed to the screen.

```
Andrews-MacBook-Pro:desktop Andrew$ ftp 192.168.1.6
Connected to 192.168.1.6
220 (vsFTPd 3.0.2)
Name (192.168.1.6:Andrew): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

7. Type `cd files` at the ftp prompt to change to the /files directory.

```
ftp> cd files
250 Directory successfully changed.
ftp>
```

8. Enter and run the `put` command, followed by the full name of the software file, as shown. Make sure to replace [version] with the version of the filename you are using. For example:

```
ftp> put update_nuc_3.0.38847.zyper
```

9. Press the [ENTER] key. Information similar to the following will be displayed.

```
local: update_nuc_3.0.38847.zyper remote: update_nuc_3.0.38847.
zyper
229 Entering Extended Passive Mode (|||35257|).
150 Ok to send data.
100% |**********************************|  6830 KiB   94.30
MiB/s    00:00 ETA
226 Transfer complete.
6994519 bytes sent in 00:00 (92.30 MiB/s)
```

10. Type the `exit` command to exit FTP.

```
ftp> exit
Andrews-MacBook-Pro:desktop Andrew$
```

11. Telnet to the Management Platform, as shown.

```
$ telnet 192.168.1.6
Trying 192.168.1.6...
Connected to 192.168.1.6
Escape character is '^]'.
zyper$
```

12. Use the `update` command to update the Management Platform. Once entered, the Management Platform will reboot and the software will be updated. Note that the connection will be lost, temporarily, during the update process.

```
zyper$ update server update_nuc_3.0.38847.zyper
Success

Server rebooting; connection will end
```

Using Windows

1. Make sure the Management Platform is powered and is working correctly.
2. Download the latest software from the ZeeVee website. Make note of the location of where the software was downloaded.
3. Open Chrome and enter the IP address of the Management Platform using the FTP protocol. For example:

   ```
   ftp://169.254.185.207
   ```

4. The /files folder will be displayed.
5. Drag-and-drop the latest software file to the /files folder.
6. Use the Telnet protocol to access the Management Platform API.
7. Use the `update` command to update the Management Platform. Once entered, the Management Platform will reboot and the software will be updated. Note that the connection will be lost, temporarily, during the update process.

   ```
   zyper$ update server update_nuc_3.0.38847.zyper
   Success

   Server rebooting; connection will end
   ```

Using ZyPer Management Platform

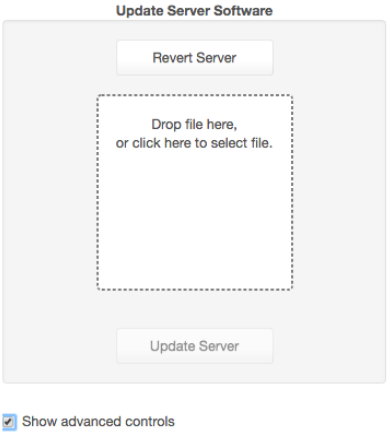
1. Make sure the Management Platform is powered and is working correctly.

2. Download the latest software from the ZeeVee website. Make note of the location of where the software was downloaded.

3. Login to the ZyPer Management Platform. Refer to Accessing ZyPer Management Platform (page 11) for more information.

4. Click the Server option at the left of the page.

5. Scroll down within the Server pain until you see the option to Update Server Software. Drag the latest software into the box and press Update Server to begin process. (Note: You can also revert the server to the previously installed version of software by clicking the Revert Server button) "Show advanced controls" must be enabled to use this option.



Important Notes:

The ZyPer MP update file will be available in five, platform-specific versions. Please use the correct version for the hardware platform being updated.

ZyPerMP Single NIC NUC computer: update_nuc_4.1.xxxxx.zyper
ZyPerMP Dual NIC NUC computer: update_nuc2004_4.1.xxxxx.zyper
ZyPerMP Proserver: update_proserver_4.1.xxxxx.zyper
ZyPerMP VMware: update_vm_4.1.xxxxx.zyper
ZyPerUHD60-EMP: update_zemp_4.1.xxxxx.zyper

- First generation ZMP NUC devices are not supported with the 3.0 release of ZMP API. These devices are running an incompatible version of the Linux Operating System and were last shipped by ZeeVee back in 2017. These units can be easily identified as they have the brand name "GigaByte" written on the underside of the unit.

- Customers using this older NUC that wish to upgrade to the 3.0 or newer ZMP API release should contact the ZeeVee sales team (zv_sales@kramerav.com) to purchase an updated ZMP Hardware device.

Redundancy Configuration Instructions

To configure redundancy, follow the steps below. The secondary server must be running for the redundancy fields to be visible in ZMP or the API.

Configuring redundancy through the API

Configuring the IP Address

1) Login to the main ZMP, or Master through telnet/ssh.

2) Issue the "set server redundancy all-servers" command to configure redundancy

IE: set server redundancy all-servers virtual-ip address 172.16.5.239 network-interface video

3) Use the "show server redundancy" command to review the redundancy configuration and confirm the changes

4) Login to the Secondary server, or Slave,through telnet.

5) Use the "show server redundancy" command to review the redundancy configuration and confirm the changes

Configure the preferred roles

1) Login to the Master ZMP through telnet/ssh.

2) Issue the "set server redundancy this-server" command to set the preferred master and slave states on the server.

IE: set server redundancy this-server preferred-master true preferred-slave false

3) Use the "show server redundancy" command to review the redundancy configuration and confirm the changes

4) Login to the Slave ZMP through telnet.

5) Use the "show server redundancy" command to review the redundancy configuration and confirm the changes

Configuring redundancy through ZMP

1) Login through you Master ZMP GUI with Chrome.

2) Open the Server Panel

3) Scroll down to the Redundancy fields

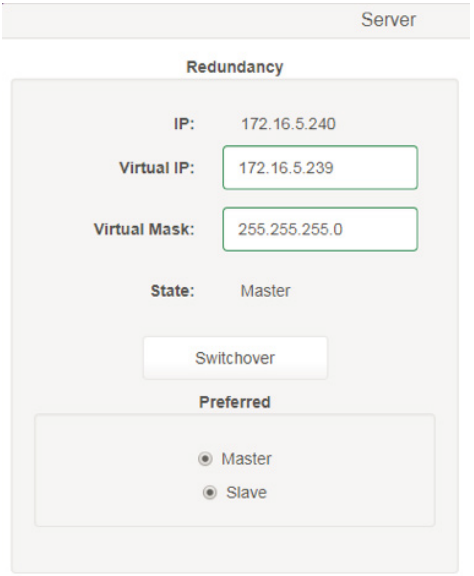
4) Set the fields listed below.

Virtual IP: The IP address that the Master and Slave servers will use. This IP address must be unique and available on the network as it will be used for telnet access for the API as well as ZMP.

Virtual Mask: The subnet mask for the virtual interface, must be correct for the IP address listed above and not it should not conflict with the main eth0 interface.

Preferred Roles Radio Button: The preferred roles for the server. This field is used to decide the Master or Slave upon both servers initializing at the same time. Although rare, this can occur.

State: The current role of the current Server connected to.



After configuration is complete on the Master, the information should populate to the Slave server. The preferred roles for the Slave server will still need to be configured. This can be done by logging into ZMP using the Slave server IP address and modifying the Preferred roles.

The "State" field will reflect the servers current state.

5) After the configuration changes are made, login into ZMP with the Virtual IP address configured above.

The server panel should show the correct redundancy information.

Note: The "switchover" button above will allow the servers to swap roles as needed.

Virtual interface on the ZMP.

Below is an example of the output of the "ifconfig" from the ZMP showing the virtual IP configured on the current master server.

```
eth0      Link encap:Ethernet  HWaddr 40:8d:5c:32:46:0e
          inet addr:172.16.5.240  Bcast:172.16.5.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX bytes:36015816 (36.0 MB)  TX bytes:31515642 (31.5 MB)

eth0:ZMP  Link encap:Ethernet  HWaddr 40:8d:5c:32:46:0e
          inet addr:172.16.5.239  Bcast:0.0.0.0  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1

eth0:avahi Link encap:Ethernet  HWaddr 40:8d:5c:32:46:0e
          inet addr:169.254.4.58  Bcast:169.254.255.255  Mask:255.255.0.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX bytes:4873342 (4.8 MB)  TX bytes:4873342 (4.8 MB)
```

Important Note Regarding the Virtual Interface on the ZMP

If the Master ZMP goes offline the Slave ZMP will take over and become the new Master. There is a brief period of between 10 and 20 seconds where the Virtial IP address may not be availalbe on the network. This is due to the ARP Age Time parameter setting of the associated network.

Please consult your network switch documentation regarding this parameter and set it to the lowest setting possible.

Hardware Specifications (Older Intel NUC version)

CPU	• Intel® Pentium® Processor J5005
Operating System	• Linux Ubuntu 16.04
Internal Storage	• 64 GB SSD
Graphics	• Intel® HD Graphics 600
LAN	• Gigabit LAN
Internal Memory	• 8 GB DDR4
Power Supply	• Input: 100 ~ 240 V AC • Output: 19V DC, 3.42 A
I/O	• 2 x HDMI 2.0a • 4 x USB 3.0, Type- A, female • 1 x RJ45 • 1 x 19V DC • 1 x Kensington lock slot • 2 x 3.5mm headset jacks (Not used)
Operating Temperature	• 0 ºC to +40 ºC
Storage Temperature	• -20 ºC to +60 ºC
VESA	• VESA Bracket included Supports 75 x 75 and 100 x 100 mm
Dimensions (W x H x D)	• 4.55 in x 2.01 in x 4.57 in (115 mm x 51 mm x 111 mm)

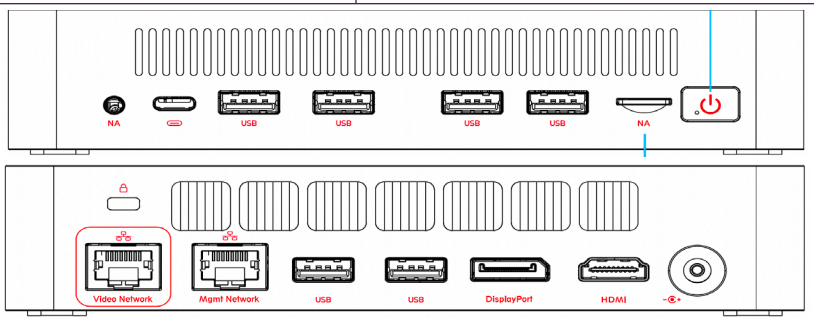
Hardware Specifications (NUC-E version Feb 2022 to Mid 2025)

CPU	• Intel® Celeron® Processor N3350
Operating System	• Linux Ubuntu 20.04
Internal Storage	• 64 GB SSD
Graphics	• Intel® HD Graphics 500
LAN	• 1x 100mb LAN (Eth0), 1x Gigabit LAN (Eth1)
Internal Memory	• 4 GB DDR4
Power Supply	• Input: 100 ~ 240 V AC • Output: 19V DC, 3.42 A
I/O	• 2 x HDMI 2.0a • 3 x USB 3.0, Type-A, female • 2 x USB 2.0, Type-A, female • 2 x RJ45 • 1 x 19V DC • 1 x Kensington lock slot • 1 x 3.5mm headset jacks (Not used)
Operating Temperature	• 0 ºC to +40 ºC
Storage Temperature	• -20 ºC to +70 ºC
VESA	• VESA Bracket included Supports 75 x 75 and 100 x 100 mm
Dimensions (W x H x D)	• 6.06 in x 1.25 in x 4.25 in (154 mm x 32 mm x 108 mm)

Ethernet Port 0 = Video Port. DHCP default IP Address (Side with USB only)
Video Port connected to same network with ZyPer Endpoints
Ethernet Port 1 = Management Port. (Side with HDMI ports)
Management Port connected to other network (if used)
Static IP Address 192.168.20.2 Subnet Mask = 255.255.255.0

Hardware Specifications (NUC-F version Q4 2025 and beyond)

CPU	• Intel® Alder-N Lake N100
Operating System	• Linux Ubuntu 22.04
Internal Storage	• 128 GB SSD
Graphics	• Intel® UHD Graphics
LAN	• Dual Gigabit LAN
Internal Memory	• 8 GB DDR4
Power Supply	• Input: 100 ~ 240 V AC • Output: 12V DC, 3A
Power Use	• 24W Peak, 18W Normal operation
I/O CE RoHS FC	• 1 x HDMI 2.0a • 1 x DisplayPort • 4 x USB 3.0, Type-A, female • 2 x USB 2.0, Type-A, female • 2 x RJ45 • 1 x 12V DC • 1 x Kensington lock slot • 1 x 3.5mm headset jack (Not used) • 1 x MicroSD Card Slot (Not used)
Operating Temperature	• 0 ºC to +45 ºC
Storage Temperature	• -20 ºC to +70 ºC
VESA	• VESA Bracket included Supports 75 x 75 and 100 x 100 mm
Dimensions (W x H x D)	• 6.85 in x 1.42 in x 5.04 in (174mm x 36 mm x 128 mm)



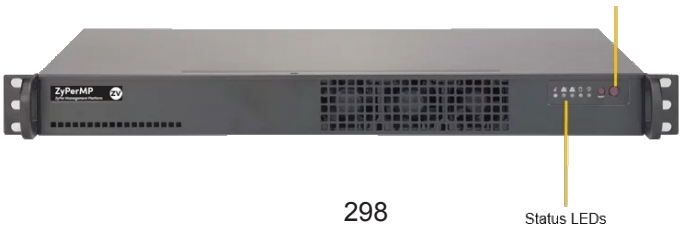
Ethernet Port 0 = Video Port. DHCP default IP Address
Video Port connected to same network with ZyPer Endpoints
Ethernet Port 1 = Management Port.
Management Port connected to other network (if used)
Static IP Address 192.168.20.2 Subnet Mask = 255.255.255.0

Important Note: The Power/Reset button will reset the unit when button is released. Not when it is pressed. Do not press and hold the button in. Just give a quick press.

Hardware Specifications (Enterprise Grade Rack Mount)

CPU	• Intel® Xeon E3-1200 v5
Operating System	• Linux Ubuntu 16.04
Internal Storage	• 64 GB SSD
Graphics	• ASPEED AST2400 BMC
LAN	• Dual Gigabit LAN
Internal Memory	• 8 GB DDR4
Power Supply	• 200W Low-Noise AC-DC power supply. Fan speed dynamically adjusts for load and environment.
I/O	• 1 x VGA (15-pin D-sub) • 2 x USB 2.0, Type-A, female • 2 x RJ45 (LAN) (Video Network and Management Network) • 1 x RS232 (9-pin D-sub)
Operating Temperature	• +10 °C to +35 °C
Storage Temperature	• -40 °C to +70 °C
Dimensions (W x H x D)	• 17.2 in x 1.7 in x 11.3 in • (437 mm x 43 mm x 287 mm)
Ambient Noise	• Measurement point was 1M distant, straight in front of unit • 43.5 db(A) - Startup and peak load condition • 32.8 - 34.4 db(A) - Expected range during typical load • 31.7 db(A) - Idle and very lightly loaded or cooler ambient conditions
Weight	• 8.45 lbs, (3.83 kg)

Ethernet Port 0 = Video Port. DHCP default IP Address
Video Port connected to same network with ZyPer Endpoints
Ethernet Port 1 = Management Port.
Management Port connected to other network (if used)
Static IP Address 192.168.20.2 Subnet Mask = 255.255.255.0



Hardware Specifications (VMware Virtual Machine)

CPU	• Dual CPU's
Server Platform	• VMware ESXi 6.0 or later
Internal Storage	• 64 GB or greater
LAN	• Gigabit LAN
Internal Memory	• 8 GB or greater

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AV Over IP Made Easy

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