

AVer TR320/530 and PTZ310/330 Camera Integration

with Echo360 Platform

Steps to integrate the Aver TR and PTZ Cameras with Echo360 (March 2020)

AVer Pro-AV has high quality image Cameras (TR320/530 and PTZ310/330) that will integrate with Echo360 workflows for peak performance and ease of use. We will show the configuration process for both the TR and PTZ Camera lines and Echo360 software.

Echo360 combines video management with lecture capture and active learning to increase student success. They have Recording and Streaming, Video management, Video Learning and Engagement, and Analytic capabilities.

AVer Cameras with Echo360

The workflow from the AVer cameras is seamless; there are three main environments to which the cameras can be configured as a capture device.

- Echo360 Pro
- Echo360 Pod
- Legacy SafeCapture HD (SCHD)

The AVer PTZ310/330(N) and TR320/530 cameras have various video output capabilities; here is a brief overview of each.

PTZ 310/330 Camera



PTZ310/330 Camera (continued)

• AVer PTZ310/330/N Camera and accessories.



- (1) Camera lens
- (2) IR sensor (3) Power indicator
- (4) Kensington lock
- (6) RS232 port (7) RS422 port (8) Audio IN

(9) micro-USB port (10) HDMI port (11) 3G-SDI port (12) DC Power jack

TR 520/530 Camera



Camera	Audio PCM, AAC-LC, G.711	Output resolution Auto, 1080p/60, 1080p/50, 1080i/60, 1080i/50, 1080p/30, 720p/60	Panoramic camera (Ful
Output interface		Video output capability	Output resolution
3G-SDI*2 HDMI*1	ID (R 1/15)	Up to 1080P/60	Auto. 1080p/60. 1080p/30. 7

 Interface/Streaming/Protocol

 Network protocol
 IP video streaming

 RTSP, RTMP, ONVIF
 Dual video streaming (PTZ and panoramic view)

Device Connections



AVer PTZ 310/330 Camera integration with Echo360

The following are the steps needed to configure the AVer Camera with the Echo360 platform. The PTZ camera has various outputs for video; the Echo360 can support any one of these video connections.

They are:

- HDMI
- 3G-SDI (Coaxial connection, SMPTE 424M)
- USB (Micro USB connection, Echo360 Pod only)
- IP Network RTSP (RJ45 network connection)

We can combine the outputs into 2 main groups of emphasis:

- 1. HDMI/SDI/USB connection type
- 2. IP/Streaming connection type

PTZ Camera HDMI/SDI/USB Output to the Echo360 System Input

1. Type the IP address of the camera in your Chrome browser (Setup on same subnet) and you should now see the login to the PTZ310/330 camera shown below.

ign in					
ttp://192.10 our connec	58.0.106 tion to this	site is not p	orivate		
semame					
assword					
				Sign in	Cancel

2. The default Username/password is "administrator".

*Note: If this is the first time accessing the PTZ330 camera via the Web login it may ask you to change the Username/Password.

3. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.

AV er		1
O Live View		
Camera Settings		E Start
🖏 Video & Audio		
器 Network		
Advanced Settings		ALCON C
-vv- System	Camera Control	Preset
		[AF]

4. Next, after selecting the *Video & Audio* setting, verify the Video Mode you are in. In this setup you should *NOT* be in NDI and *Stream Only* Video Mode, as it will disable the USB output.

*Note: Some servers require a minimum bitrate of 2.5Mbps for their environment.

AV er	Video Mode	• •	
O Live View	Stream Only USB Only	USB + Streaming NDI	
Camera Settings	Stream Video Output	Bitrate	Encoding Type
Video & Audio	1920x1080	16Mbps 512Kbps 1Mbps	H 264 MUPEG
Retwork	30	2Mbps 4Mbps 8Mbps	O ● VBR CBR
Advanced Settings	Audio Input Type	32Mbps Audio Volume 5	
-v- System	Line In MIC In	0 10	
	Encoding Type	Sampling Rate	
	O ● AAC G.711	48K •	

The PTZ Camera will have an SDI/HDMI output in ALL modes.

	Stream Only	USB Only	USB + Streaming	NDI
	(Various)	(Various)	(Various)	(1080p/60)
SDI Output	\checkmark	\checkmark	\checkmark	\checkmark
HDMI Output	✓	\checkmark	\checkmark	\checkmark
USB Output	x	\checkmark	\checkmark	X
RTSP Output	✓	X	\checkmark	\checkmark

PTZ Camera HDMI/SDI/USB connection to Echo360

When connecting the camera to an Echo360 platform the PTZ310/330 provides HDMI, SDI, and USB output. If you are using a desktop with a video card, they can typically have a direct HDMI input connection with high performance data transfer.

If you are using a laptop to capture video, a portable HDMI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.

Two Likely Scenarios:

- HDMI or USB direct connection from PTZ camera
- HDMI / SDI connection using an AVer Media converter to USB connection



Echo360 Pro

The Echo360 capture appliance has a default configuration which can be edited for each individual device as necessary.

To configure the Pro device defaults:

- 1. Log into Echo360 as an administrator.
- 2. Click the *Settings* icon in the upper right corner of the page (gear icon).
- 3. Select *Configurations* from the settings menu.
- 4. From the left side of the Configurations page, select *Device default configurations*.
- 5. From the options across the top, select *Echo360 Pro.*
- Channel 1 and Channel 2 sections of the configuration page are identical and allow you to select which device to use for display and video based on connection type. Each Channel supports up to four connected devices, one of each of the following types:

HDMI / VGA / Composite / 3G-SDI

Channel 1			
Display input		Video input	
VGA	~	HDMI	~
Aspect Ratio		Aspect Ratio 4:3 Capture HDMI audio	
Channel 2			
Display input		Video input	
3G-SDI	~	Composite	~
Aspect Ratio		Video Standard	

- 7. Use the *Channel 1 Video Input* list to identify the connected device type that will that will be capturing the video feed.
- 8. If you are using the HDMI output from the PTZ camera direct, enable or disable the *Capture HDMI audio* slider for each selected HDMI device.

9. Next, enable or disable the access to the Administration menu on the front panel of the Pro appliance.



10. Next, select the *Input sources* and *Quality* settings for the One-Touch recording profile.



- 11. Next, see also the **Echo360 Pro FAQ's** and **How To's** for additional information on the One touch profile.
- 12. Next, when finished click *Save*, then click the Common Settings tab at the top of the page, to complete device configuration for download to a USB drive.

Echo360 Pod

The back of the Echo360 Pod has a USB port into which users can plug in a USB camera.

The Pod supports any UVC (USB video class) camera that provides 1280x720 resolution and 30fps and MJPEG.



- 13. Connect the PTZ camera to the Echo Pod via a USB cable or, if using HDMI/SDI output from camera, using an AVer converter (BU110 / BU111).
 - *Note: There are (2) USB ports on the back of Pod and 2 cameras could be plugged in, the Pod will only recognize 1 of them.
- 14. Next, check the Pod screen, when a supported USB camera is plugged in, the screen below will appear.



15. If there is problem with the connection or the USB camera is not supported, the screen will show a red line through the device.



16. For more information on this topic see *Echo360's Pod FAQ's and How To's*

Echo360 Legacy SafeCapture HD (SCHD)

The Echo360 SafeCapture HD is a dedicated, all-in-one capture appliance, capable of capturing either standard or high definition video input, along with display and audio. The SCHD is no longer in active production.



To connect the PTZ camera to the SCHD you would need a converter from (HDMI to DVI) or (SDI to DVI) or an HDMI to DVI cable.



Echo360 Legacy SafeCapture HD (SCHD)

To configure the SCHD device defaults:

- 1. Log into Echo360 as an administrator.
- 2. Click the *Settings* icon in the upper right corner of the page (gear icon).
- 3. Select *Configurations* from the settings menu.
- 4. From the left side of the Configurations page, select *Device default configurations*.
- 5. From the options across the top, select SCHD.
- 6. The *Primary Display/Secondary Video* and *Secondary Display/Primary Video* selections of the configuration page are identical, and allow you to select which device to use for display and video inputs based on connection type. Each channel supports up to two connected devices, one of each of the following types:

• DVI-	-1		
• Com	posite		
Primary Display / Seconda	ry Video		
DVI-I	DVI - I type DVI-A ~	Aspect Ratio	Type Video 🗸
Composite	Video Standard PAL	~	
Secondary Display / Prima	ry Video		
DVI-I	DVI - I type DVI-A	Aspect Ratio	Type Display 🗸
Composite	Video Standard PAL	~	

- 7. Use the *Primary Display/Secondary Video* input sliders to identify the connected device types that will be capturing the feed to this channel. This is the visual input that will appear on the LEFT side, if there are multiple graphical inputs selected.
- 8. Where DVI-I is enabled, select the *DVI type* and **Aspect Ratio** for the feed, as well as whether this input device is capturing **Video** or **Display**.
- 9. Where Composite is enabled, select the Video Standard for the input device: **PAL** or **NTSC**.
- 10. Repeat these steps for the connected devices capturing the Secondary Display/Primary Video.
- 11. When finished, click **Save**, then click the Common Settings tab at the top of the page, to complete device configuration for download to a USB drive.

IP/STREAMING (RTSP)

PTZ Camera RTSP Output to the Echo360 System Input

 Connect the PTZ330 camera via RJ45 Network Cat5E (or better) connection; verify IP address of Camera in order to connect via Web browser. If IP address is not known, locate the remote, select the "Menu" icon and navigate to the "Network->DHCP->" setting, verify DHCP is set to "On" in order to grab an available IP address. If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.

Go to **Network > DHCP > On**.

Camera				
Video Output				
Network	DHCP	On	Off	
Advanced Setting	Static IP		On	
System				

After turning DHCP on, go to **System > Information** to view the IP address.

Camera				
Video Output				
Network				
Advanced Setting				
System	Camera Selector			
	Status OSD	On		
	Language	English		
	Information		Model Name	PTZ310
	Factory Default		Version	0.0.0000.32
			IP Address	192.168.0.100
			MAC	50:33:8b:9a:94:38

2. Another way to find the Camera IP address (On same Subnet) is to use the AVer IPCam Utility to find the camera. AVer software can be found here:

https://www.aver.com/download-center.

choir bene	e		-	Logn				
itel(R) Ether	net Connection (6) I219-V 🔹	Search	User	ID	Passy	word	
twork Settin	Date/Time Se	tting Maintena	ince Import/Export	Confin				
Search Result	t	cong Maintena	nice mpord Expore	coming [
Select A	a							
No.	Status	Progress	Model Name	Device Name	FW version	IPv4 Address	MAC Address	IPvé
	Working		Tracking Camera	Tracking Camera	0.0.1000.41	10.10.0.165:80	00:18:1a:04:b5:4d	[]:8
2	Working		PTZ330	PTZ330	0.0.0000.55	10.10.0.46:80	00:18:1a:04:a4:30	[]:8
<								
Settings								
Device Nam	ne:			Start IP Address:				
				End IP Address:				
C DHCP				Subnet Mask:				
C DHCP Static IP	,							
C DHCP Static IP				Gateway:				
OHCP Static IP *Auto sear	o ch wil start after	settings change	di	Gateway: Primary DNS:				

3. Once you have the IP address setup, type the IP address in your Chrome browser (Setup on same subnet) and you should now see the login to the PTZ330 camera shown below.

Sign in			
http://192.1 Your connec	58.0.106 tion to this site is not private		
Usemame			
Password			
		Sign in	Cancel

4. The default Username/password is "administrator".

*Note: If this is the first time accessing the PTZ330 camera via the Web login it may ask you to change the Username/Password.

5. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.

AVer		
O Live View		
Camera Settings		
Video & Audio		The second se
A Network		
Advanced Settings		
-v~ System	Camera Control	Preset
		AE

Next, after selecting the *Video & Audio* setting, verify that you have either "Stream Only" selected or "USB + Streaming" selected. Select your Stream Video Output, Bitrate, Framerate, Encoding, etc. ***Note:** Some servers require a minimum bitrate of 2.5Mbps for their environment.

AV er	Video Mode	•••	
Live View	Stream Only USB Only	USB + Streaming NDI	
Camera Settings	Stream Video Output	Bitrate	Encoding Type
Video & Audio	1920x1080 ▼ Framerate	16Mbps T 512Kbps 1Mbps	H 264 MUPEG
Retwork	30 🔻	2Mbps 4Mbps 8Mbps	O ● VBR CBR
Advanced Settings	Audio Input Type	32Mbps Audio Volume 5	
-vv- System	O Line In MIC In	0 10	
	Encoding Type	Sampling Rate	
	AAC G.711	48K *	

Here are some example bit rates (Target/Maximum) from the Echo360 platform and what can be expected for video throughput:

Capture component (quality)	Target rate (kbps)	Maximum rate (kbps)	Frames per second
Audio (medium)	32	32	
Audio (high)	128	128	
SD Video (480p) Composite or DVI, all ratios	600	800	12.5 (PAL) 15 (NTSC)
HD Video (720p) Composite (NTSC or PAL)	1062	1593	30 (NTSC) 25 (PAL)
HD Video (720p) DVI 4:3	1770	2655	25
HD Video (720p) DVI 16:9	2360	3540	25
HD Video (1080p) DVI 4:3	3540	5310	15 (SCHD) 30 (PRO)
HD Video (1080p) DVI 16:9	4720	7080	15 (SCHD) 30 (PRO)

6. Next, select the "*Network*" setting, set the "RTSP Security" to "On/Off", depending on if you are requiring a "Username/Password".

AVer	DHCP	
	O O On Off	
Cive view	IP Network	
Camera Settings	192.168.0.106 255.255.255	0
Video & Audio	Galeray DNS	
品 Network	192.168.0.1	Confirm
E Advanced Settings	RTMP Settings RTSP Security	
-vv- System	Server URL rtmp://1_v	Dn Off
	Stream Key	1
	Start Stream STOP	

7. This concludes the AVer PTZ camera setup, now we need to configure the Echo360 side of things.

Echo360 System Input

- Next, go to the Echo360 software and login as Administrator. Select "Settings", then select "Configurations".
- 2. Next, select "Add Configuration" to begin the IP Camera setup.

echo Dashboard Captures	Roms Courses Users ImportoRiports Hernah Perly = 🔅 - 🧿
Configurations	IP camera configurations
LMS configurations	Addies as IB Pawara reeferanties will make 3 auditable as an inst control for all Universit Protoco destroe
IP camera configurations	Houry on in- Camera Conguration in interent one and intercoperation of contraction capture centres
Device default configurations	Add Configuration
Closed captioning	
PingOne configuration	
API client configurations	
Zoom Configurations	

- 3. Next, enter a unique ID which is used to identify the camera on the *Rooms Configuration Screen*.
- 4. Next, enter the "RTSP Address" of the PTZ camera, the following syntax is used for the **PTZ310/330 RTSP feed**:

"rtsp://*Camera IP*:554/live_st1", where *Camera IP* is the actual IP address of the PTZ camera.

	ID		
Duplicate	Unique ID		
	RTSP Address		
	rtsp://		
	Resolution		
	Select		•
Save	Username	Password	
Delete	username	password	Show Password
	Assigned To:		

- 5. Next, select the default resolution of the camera.
- 6. You have the OPTION to enter a username and password.
- 7. Next, select "Save".

Echo360 System Adding PTZ IP Camera to a Room

- 1. Navigate to the ROOMS page.
- 2. Use the filtering drop-down lists and/or Search text box to find the room containing the Universal Capture device.
- 3. Next, hover your mouse over the Room tile to show the menu arrow in the top-right corner of the tile.

Room Manageme	nt						Manage Campuses & Buildings Imp	ort Rooms ADD ROOM
Search	Q,	All	~	QA Campus	∽ Building	~	Classroom Capt 🗸	:= :
Jaike's Win 7 CCAP QA Campus - QA Building		* 0/	Configure	Ť	* 8:1 JAYCAP QA Campus - Capture QA		★ Jaike's Win 10 ClassroomC QA Campus - Capture QA	
			Edit Disconnect Device					
Ð	⇒	Ð	Delete	-	Ð	⇒	t) ti	

- 4. Next, click the menu arrow and select "Configure".
- 5. Next, select *IP Camera* as the Video input selection.
- 6. Next, find and select the ID of the desired IP Camera for use in that Room.
 *Note: Optionally, you can choose to capture audio from the camera.

Video			
Video-1 🔽 🗌	IP Camera V	Test	
	Capture IP Camera audio	Scott's Amcrest	
Video-2		Test UC Mac Amcrest	
Local administrator login			

- 7. Next, select "Save".
- 8. This concludes the PTZ camera integration with Echo360.

AVer TR 320/530 Camera integration with Echo360

Here are the steps to configure the AVer Camera while using the Echo360 platform.

The TR camera has various outputs for video and an audio Line-in; the Echo360 can support any one of these audio/video connections.

They are:

- HDMI
- 3G-SDI (x2) (Coaxial connection, SMPTE 424M)
- IP Network RTSP (RJ45 network connection)
- Audio Line-In (Use with Powered Mic or Audio Mixer, 1vrms)

We can combine the outputs into 2 main groups of emphasis:

- 1. HDMI/SDI/USB connection type
- 2. IP/Streaming connection type

TR Camera HDMI/SDI/USB Output to the Echo360 System Input

If you are using a laptop to capture video, a portable HDMI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.

 Connect the TR530 camera via RJ45 Network Cat5E (or better) cable; verify IP address of Camera in order to connect via Web browser. If IP address is not known, locate the remote, select the "Menu" icon and navigate to the "Camera->DHCP->" setting, verify DHCP is set to "On" in order to grab an available IP address. If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.





After turning DHCP on, go to **Information** to view the IP address.

Tracking	Off		
Camera	>		
Video Format	>		
Advanced Setting	>		
Preset	>		
Language	>		
Profile	>		
Factory Default	>		
Information	>	Firmware Version	0.0.1000.38
Display	>	IP Address	10.100.93.34
		MAC	

- Another way to find the Camera IP address (On same Subnet) is to use the AVer IPCam Utility to find the camera. AVer software can be found here: <u>https://www.aver.com/download-center</u>.
- 3. Next, type the IP address in your Chrome browser (Setup on same subnet) and you should now see a login to the TR320/530 camera shown below.



- 4. The default password is "admin".
- 5. Next, you should now see the main login screen with a "Live View" of the TR Camera.



6. Next, select the settings gearbox **even**, then select **Video & Audio setting**, this is where

you can select the Video Output of the TR320/530.

4	ver			
	•	ø	Video Output Audio Input	
PTZ	PTZ camera		3G-SDI 1/ HDMI:PTZ Camera 1080P/60	
P.	Video & Audio s	etting	3G-SDI 2 Panoramic - 1080P/60 🗹 G711 AAC	
뮮	Network setting		IP Streaming Mode	
۲	Tracking setting		Mode 1 Mode 2	
ø	Preset setting		Mode 1	
Po	Advanced settin	g	PTZ Panoramic	
1	Profile setting		Select PTZ or Panoramic for streaming	
-~-	System setting		PTZ camera	
ø	Factory default		Resolution/fps tooorroo room/oo room/oo room/oo bps (Bits per second) 6M 4M 2M	
			Save Ca	incel

7. Next, selecting 3G-SDI / HDMI will open the following window, allowing you to choose which video standard or the ability to set it to *Auto*.

3G-S	DI 1/ HDMI:PTZ Camera	:
	Auto	
	1080P/60	
	1080P/50	
	1080i/50	
	1080P/30	
	1080i/60	
	720P/60	

*Note: Only the standards listed are currently available, no 29.97/59.94 selection.

TR320/530 Camera HDMI/SDI/USB connection to Echo360

The TR camera does not offer a direct USB output, like the PTZ camera does. If the PC you are using happens to have an HDMI Input connection, you can direct connect to it. If there is no HDMI Input and you are using a laptop to capture video, a portable HDMI/SDI to USB dongle like the AVer Media BU110 and BU111 provides a high speed, high quality connection.

Likely Scenario:

• HDMI / SDI connection using an AVer Media converter to USB



Echo360 Pro

The Echo360 capture appliance has a default configuration which can be edited for each individual device as necessary.

To configure the Pro device defaults:

- 1. Log into Echo360 as an administrator.
- 2. Click the *Settings* icon in the upper right corner of the page (gear icon).
- 3. Select *Configurations* from the settings menu.
- 4. From the left side of the Configurations page, select *Device default configurations*.

- 5. From the options across the top, select *Echo360 Pro.*
- Channel 1 and Channel 2 sections of the configuration page are identical and allow you to select which device to use for display and video based on connection type. Each Channel supports up to four connected devices, one of each of the following types:

HDMI / VGA / Composite / 3G-SDI

Channel 1			
Display input VGA Aspect Ratio 4:3 ~	~	Video input HDMI Aspect Ratio 4:3 V	~
Channel 2		Capture HDMI audio	
Display input 3G-SDI	~	Video input Composite	~
Aspect Ratio		Video Standard NTSC V	

- 7. Use the *Channel 1 Video Input* list to identify the connected device type that will that will be capturing the video feed.
- 8. If you are using the HDMI output from the TR camera direct, enable or disable the *Capture HDMI audio* slider for each selected HDMI device.
- 9. Next, enable or disable the access to the Administration menu on the front panel of the Pro appliance.



10. Next, select the *Input sources* and *Quality* settings for the One-Touch recording profile.



- 11. Next, see also the **Echo360 Pro FAQ's** and **How To's** for additional information on the One touch profile.
- 12. Next, when finished click *Save*, then click the Common Settings tab at the top of the page, to complete device configuration for download to a USB drive.

Echo360 Pod

The back of the Echo360 Pod has a USB port into which users can plug in a USB camera.

The Pod supports any UVC (USB video class) camera that provides 1280x720 resolution and 30fps and MJPEG.



- 13. Connect the TR camera to the Echo Pod via a USB cable with an HDMI/SDI output from the camera, using an AVer converter (BU110 / BU111).
 - *Note: There are (2) USB ports on the back of Pod and 2 cameras could be plugged in, the Pod will only recognize 1 of them.
- 14. Next, check the Pod screen, when a supported USB camera is plugged in, the screen below will appear.



15. If there is problem with the connection or the USB camera is not supported, the screen will show a red line through the device.



16. For more information on this topic see Echo360's Pod FAQ's and How To's

Echo360 Legacy SafeCapture HD (SCHD)

The Echo360 SafeCapture HD is a dedicated, all-in-one capture appliance, capable of capturing either standard or high definition video input, along with display and audio. The SCHD is no longer an active production.





To connect the TR camera to the SCHD you would need a converter from (HDMI to DVI) or (SDI to DVI) or an HDMI to DVI cable.



Echo360 Legacy SafeCapture HD (SCHD)

To configure the SCHD device defaults:

- 12. Log into Echo360 as an administrator.
- 13. Click the *Settings* icon in the upper right corner of the page (gear icon).
- 14. Select *Configurations* from the settings menu.
- 15. From the left side of the Configurations page, select *Device default configurations*.
- 16. From the options across the top, select SCHD.
- 17. The *Primary Display/Secondary Video* and *Secondary Display/Primary Video* selections of the configuration page are identical, and allow you to select which device to use for display and video inputs based on connection type. Each channel supports up to two connected devices, one of each of the following types:
 - DVI-I
 - Composite

Primary Display / Second	ary Video
DVI-I	DVI - I type Aspect Ratio Type DVI-A 4:3 Video
Composite	Video Standard VAL V
Secondary Display / Prim	ary Video
DVI-I	DVI - I type Aspect Ratio Type DVI-A 4:3 Display
Composite	Video Standard PAL V

- 18. Use the *Primary Display/Secondary Video* input sliders to identify the connected device types that will be capturing the feed to this channel. This is the visual input that will appear on the LEFT side, if there are multiple graphical inputs selected.
- 19. Where DVI-I is enabled, select the *DVI type* and **Aspect Ratio** for the feed, as well as whether this input device is capturing **Video** or **Display**.
- 20. Where Composite is enabled, select the Video Standard for the input device: **PAL** or **NTSC**.
- 21. Repeat these steps for the connected devices capturing the Secondary Display/Primary Video.
- 22. When finished, click **Save**, then click the Common Settings tab at the top of the page, to complete device configuration for download to a USB drive.

IP/RTSP STREAMING from TR320/530 (Tracking) Camera to Echo360

 Connect the TR530 camera via RJ45 Network Cat5E (or better) cable; verify IP address of Camera in order to connect via Web browser. If IP address is not known, locate the remote, select the "Menu" icon and navigate to the "Camera->DHCP->" setting, verify DHCP is set to "On" in order to grab an available IP address. If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.

Go to Camera > DHCP > DHCP > On.

Tracking	Off					
Camera	>	Camera ID	>			
Video Format	>	DHCP	>	DHCP 10.100.93.34	On	On
Advanced Setting	>	Static IP				Off
Preset	>	PTZ Camera	>			
Language	>					
Profile	>					
Factory Default	>					
Information	>					
Display	>					

After turning DHCP on, go to **Information** to view the IP address.

Tracking	Off		
Camera	>		
Video Format	>		
Advanced Setting	>		
Preset	>		
Language	>		
Profile	>		
Factory Default	>		
Information	>	Firmware Version	0.0.1000.38
Display	>	P Address	10.100.93.34
		MAC	00:18:1A:00:54:87

- Another way to find the Camera IP address (On same Subnet) is to use the AVer IPCam Utility to find the camera. AVer software can be found here: https://www.aver.com/download-center.
- 3. Next, type the IP address in your Chrome browser (Setup on same subnet) and you should now see a login to the TR320/530 camera shown below.



- 4. The default password is "admin".
- 5. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.



6. Next, select the settings gearbox

, then select Video & Audio setting, this is where

you can select Video Output, Audio, and the type of Streaming mode to use and Streaming video standard. ***Note:** This *IP Streaming Mode* is used for RTSP Streaming.

Ö

A	Ver	
	O	Video Output Audio Input
PTZ	PTZ camera >	3G-SDI 1/ HDMI:PTZ Camera 1080P/60 Image: Marcology and M
~***	Network setting	IP Streaming Mode
۲	Tracking setting	Mode 1 Mode 2
ø	Preset setting	Mode 1
P.	Advanced setting	PTZ Panoramic
1	Profile setting	Select PTZ or Panoramic for streaming
-^-	System setting	PTZ camera
ø	Factory default	Resolution/fps 1080/H0 1080/H0 720/H0 480/H0 bps (Bits per second) 6M 4M 2M
		Save Cancel

Mode 1: You will use either the PTZ Camera OR Panoramic Camera view for your stream with varying video selections.

Mode 2: There will be 2 simultaneous streams from PTZ and Panoramic views set to (1080p/30) with adjustable **bps** (bits per second) if selected.

IP Streaming Mode			
	Mo	de 1	
Mode 2			
PTZ camera			
Resolution	1080P/30		
bps (Bits per second)	6.0M	3.0M	1.5M
Panoramic camera			
Resolution/fps	1080P/30		
bps (Bits per second)	6.0M	3.0M	1.5M

7. Next, select *Network Setting*. You should now see the following information displayed.

ver								
•	\$	Network						
PTZ camera	>	DHCP enable		Netmask				
Video & Audio s	setting			255	255 255			
Network setting	t -			1200				
Tracking setting	1	Gateway		DNS				
Preset setting		10	•	10 .	· · · ·			Apply
Advanced settir	ıg	RTMP Server (PTZ)						
Profile setting		Server URL		Str	eam Key			
System setting		rtmp://a.rtmp			••••••			Connect
Factory default		RTSP (PTZ camera: rtsp://Camera	IP:554/live_st1; I	Panoramic cam	era: rtsp://Camera IP	:8554/live_st2)		
		Password Confirmation						
	PTZ camera Video & Audio s Network setting Tracking setting Advanced settin Profile setting System setting Factory default	Image: Constraint of the setting PTZ camera PTZ camera Video & Audio sotting Network setting Tracking setting Profile setting System setting Factory default	Video & Audio setting DHCP enable Image: Comparison of the setting Video & Audio setting Image: Comparison of the setting Image: Comparison of the setting Tracking setting Image: Comparison of the setting Image: Comparison of the setting Profile setting RTMP Server (PTZ) Profile setting Server URL System setting Image: Comparison of the setting Factory default RTSP (PTZ camera: rtsp:///camera	Ver PTZ camera Video & Audio setting Video & Audio setting Tracking setting Preset setting Advanced setting Profile setting System setting Factory default Network DHCP enable IP address Joint Intracking setting Profile setting System setting Factory default Network DHCP enable IP address Joint Intracking setting Profile setting System setting Factory default Network DHCP enable IP address Joint Gateway Intracking Setting Profile setting Server URL Server URL Server URL Profile setting Profile setting	Video & Audio setting PTZ camera Video & Audio setting Tracking setting Preset sotting Advanced setting Profile setting System setting Factory default Network DHCP enable IP address III IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Ver Video & Audio setting Video & Audio setting Tracking setting Preset setting Advanced setting Profile setting System setting Factory default	Ver PTZ camera Video & Audio setting Tracking setting Preset setting Advanced setting Profile setting System setting Factory default Network DHCP enable Profile setting System setting Factory default Network DHCP enable Profile setting System setting Factory default Network Network DHCP enable Profile setting System setting Factory default Network Network Difference Profile setting System setting Factory default RTSP (PTZ camera: rtsp://Camera IP:554/live_st1, Panoramic camera: rtsp://Camera IP:8554/live_st2) Password Confirmation	Ver PTZ camera PtZ camera Video & Audio setting Preset setting Preset setting Yold o setting Profile setting System setting Factory default Network Network DHCP enable Profile setting System setting Factory default Network Network DHCP enable Profile setting Stream Key mmp://a.rtmp RTSP (PTZ camera: rtsp://Camera IP:8554/live_st2) Password Confirmation

RTSP feed: This where you will configure the *Stream* information into Echo360.
 "rtsp://*Camera IP*:554/live_st1", where *Camera IP* is the actual IP address of the TR camera.

Echo360 System Input

- 1. Next, go to the Echo360 software and login as Administrator. Select "Settings", then select "Configurations".
- 2. Next, select "Add Configuration" to begin the IP Camera setup.

echo Dashboard Captures	Rooms Courses Users Imports/Exports Honrah Petry = 🔅 - 🧿
Configurations	IP camera configurations
LMS configurations	Artino an IP Camera confinention will make it available as an inst notion for all Universal Camera Review
P camera configurations	maaring an in "seamen weing analer im interes is benimmen as an interest system for an end of the an second system seamen."
Device default configurations	Add Configuration
Closed captioning	
PingOne configuration	
API client configurations	
Zoom Configurations	

- 3. Next, enter a unique ID which is used to identify the camera on the *Rooms Configuration Screen*.
- 4. Next, enter the "RTSP Address" of the TRACKING camera, the following syntax is used for the TR320/530 RTSP feed:

You can select either the PTZ or Panoramic view for the stream.

PTZ: "rtsp://Camera IP:554/live_st1", where Camera IP is the actual IP address of the TR camera.

Panoramic: "rtsp://Camera IP:8554/live_st2", where Camera IP is the actual IP address of the TR camera. ***Note:** Although there is a *Panoramic* stream available, the main purpose of this view is for the capture of information for the tracking algorithms. The quality of the PTZ camera is of better quality and recommended.

	ID	
Duplicate	Unique ID	
	RTSP Address	
	rtsp://	
	Resolution	
	Select 👻	
Save	Username Password	
Delete	username password	Show Password
	Assigned To:	

- 5. Next, select the default resolution of the camera.
- 6. You have the OPTION to enter a username and password.
- 7. Next, select "Save".

Echo360 System Adding IP Camera to a Room

- 1. Navigate to the ROOMS page.
- 2. Use the filtering drop-down lists and/or Search text box to find the room containing the Universal Capture device.
- 3. Next, hover your mouse over the Room tile to show the menu arrow in the top-right corner of the tile.

Room Managemei	nt				Manage Campuses 8	& Buildings Import Rooms	ADD ROOM
Search	Q, All	V QA C	ampus 🗸 Build	ling v C	Classroom Capt 🗸	Clear All	:= 🔡
Jaike's Win 7 CCAP QA Campus - QA Building	* 0	Configure	A Campus - Ca	pture QA	Jaike's Win 10 Classr QA Campus - Capture QA	roomC	
		Edit Disconnect Device Delete		OFFLINE			
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- 4. Next, click the menu arrow and select "Configure".
- 5. Next, select *IP Camera* as the Video input selection.
- 6. Next, find and select the ID of the desired IP Camera for use in that Room.
 *Note: Optionally, you can choose to capture audio from the camera.

Video			
Video-1 🔽 🗌	IP Camera V	Test	
	Capture IP Camera audio	Scott's Amcrest	
Video-2		Test	
		UC Mac Amcrest	
Local administrator login			

- 7. Next, select "Save".
- 8. This concludes the TR camera integration with Echo360.