

User Guide

Wired Camera Web Interface

This guide uses the InSight S345ZI web page for demonstration. Features and pictures may differ from your actual product.

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About This Guide

This User Guide provides information for using and managing VIGI cameras via a web browser. It explains functions of VIGI cameras and shows you how to configure them.

Conventions

When using this guide, notice that:

- Features available in VIGI cameras may vary due to your region, device model, and firmware version.
 All images, steps, and descriptions in this guide are for demonstration purposes only and may not reflect your actual experience.
- The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute the warranty of any kind, express or implied. Users must take full responsibility for their application of any products.
- This guide uses the specific formats to highlight special messages. The following table lists the conventions that are used throughout this guide.

Underlined	Indicates hyperlinks. You can click to redirect to a website or a specific section.
Teal	Indicates contents to be emphasized and texts on the web page, including the menus, tabs, buttons and so on.
>	The menu structures to show the path to load the corresponding page.
() Caution	Reminds you to be cautious, and ignoring this type of note might result in device damage or data loss.
Note	Indicates information that helps you make better use of your device.

More Information

- For technical support, the latest version of the User Guide and other information, please visit https://www.vigi.com/us/support.
- The Quick Installation Guide can be found where you find this guide or inside the package of the product.
- To ask questions, find answers, and communicate with TP-Link users or engineers, please visit https://community.tp-link.com to join TP-Link Community.



Login

This chapter guides you on how to log in to the web UI of the VIGI camera:

- Connect the Camera to Network
- Log in to the Web Interface

After the cameras are added to network, multiple methods are provided for you to monitor and manage cameras. You can manage and monitor the cameras remotely via the VIGI app, and you can also directly monitor and manage your camera via a web browser. Check the support page of the product for more manuals at https://support.vigi.com/.

1.1 Connect the Camera to Network

The camera works with an NVR for easier batch access and management. You can add cameras to network via an NVR.

- 1. Connect your cameras to the same network as your NVR (as shown below).
- 2. Power on your cameras.
- 3. Follow the NVR manual to add and activate your cameras.

Note: You can follow the Quick Start Guide included in the package to mount and add cameras to your network.



✤ 1.2 Log in to the Web Interface

With an intuitive user interface, it is easy to configure and manage the camera via a web browser. Follow the steps below to log in to the web UI of the camera for the first time.

- 1. Find the camera's IP address on your router's client page.
- 2. On your local computer, open a web browser and enter https://camera's IP address (https://192.168.0.60 by default).

3. Select your Country/Region and Time Zone.



4. Set a password to activate the camera. Click Next.

Initialize IPC			
🚺 Set	2 Set Password	3 Password Protection	
Please set a password password recovery.	to activate the IPC and	enter the email for	
User Name			
Password	•••••		
Confirm Password			
		Next	

Now, you can log in to the camera using the password set here.

5. Set Password Protection. If you forget password, you can reset it with your security questions or recovery email.

Select your security questions and input your answer.

Enter your email address to receive the verification code during the recovery operation process.

	Initialize IPC	
1 Set	2 Set Password	Password Protection
Security Question		
Security Question 1	Your father's name	
Answer		
Security Question 2	Your mother's name	
Answer		
Security Question 3	Your head teacher's na	ame in s 🔻
Answer		
Recovery Email		

Note:

- 1. For future logins, use the default username **admin** and the password you set for this camera.
- 2. If you forgot the password, click **Forgot password?** and follow the web instructions to reset the password.



Live View

You can monitor the camera in real time and respond to abnormal conditions with quick operations, such as zooming in the image and capturing screenshots.

This chapter introduces the live view parameters and function icons.

- 1. Find the camera's IP address on your gateway's client page.
- 2. On your local computer, open a web browser and enter https://camera's IP address (https://192.168.0.60 by default).
- 3. Log in with the default username admin and the password you set for this camera.
- 4. You can view the live video on the Preview page.

Note: This is for demonstration only.



Select the aspect ratio.

1x refers to the original window size.



4:3 refers to 4:3 window size. 16:9 refers to 16:9 window size.

100% refers to self-adaptive window size.

Click to change the stream type.

Main Stream stands for the best stream performance the device supports. It usually offers the best resolution and frame rate the device can do. But high resolution and frame rate usually means larger storage space and higher bandwidth requirements in transmission.

Substream usually offers comparatively low-resolution options, which consumes less bandwidth.

Ø	Screenshot: Click to capture a screenshot.
Ð	Digital Zoom: Click to see more details of any area in the image.
<u>.</u>	Alarm : (Only for certain cameras) Click to trigger the sound alarm and lasts about 10 seconds.
- u q x	Volume: (Only for certain cameras) Click to adjust the volume of the speaker.

25	Full Screen: Click to change the live view image to the entire screen.
٩	Zoom Out: (Only for certain cameras) Click to zoom out the live image.
4	Zoom In: (Only for certain cameras) Click to zoom in the live image.
	Focus -: (Only for certain cameras) Shorten the focal length.
Ð	Focus +: (Only for certain cameras) Increase the focal length.
22	Lens Initialization: (Only for the camera with motorized lens) Click to reset lens when long time zoom or focus results in blurred image.
િં	Auxiliary Focus: (Only for the camera with motorized lens) Click to focus automatically.



View Device Information

This chapter introduces how to check the system logs and view your device information on the web UI. This chapter contains the following sections:

- View System Logs
- View Device Information

✤ 3.1 View System Logs

The camera uses logs to record, classify, and manage system and device messages. You can search, view, and export the logs.

- 1. Go to Settings > Information > System Log > System Log.
- 2. Specify search conditions, including the Start Time, End Time, and Log Type, and click **Search**. The filtered logs that match the search conditions will appear in the table.

System Log							
Start Time		2024-11-18	<u> </u>	14 : 29 : 18	G		
End Time		2024-11-25	Ħ	14 : 29 : 18	9		
Log Type						Sea	arch
Current Log Type:							
	Recordir	ng Time		Event			
	2024-11	-25 14:29:16		[INFO][NSD][CLOUDC	OM]TCP req,		
	2024-11-25 14:29:10		[ERR][NSD][CLOUDCO	OM]server(0):-901			
	2024-11-25 14:29:05		[INFO][NSD][CLOUDC	OM]TCP req,			
	2024-11-25 14:28:59		[ERR][NSD][CLOUDCO	OM]server(0):-901			
	2024-11	-25 14:28:54		[INFO][NSD][CLOUDC	OM]TCP req,		
	2024-11	-25 14:28:48		[ERR][NSD][CLOUDCO	OM]server(0):-901		
	2024-11-25 14:28:43		[INFO][NSD][CLOUDC	OM]TCP req,			
	2024-11	-25 14:28:37		[ERR][NSD][CLOUDC	OM]server(0):-901		
Clear Logs				Total: 755	≪ ≪ 1/95 ► ►► Page 1		

Start/End Time	Specify a time range to filter the logs based on the recording time.
Log Type	Select a type from the drop-down list to filter the logs.
	All: All types of logs.
	Alarm: Alarms triggered by events, such as tampering, line crossing, and area intrusion.
	Exception : Abnormal events that may influence the camera's functions, such as video signal loss and hard drive errors.
	Operation : Actions that take place on the camera, such as login and upgrade.
	Information: Informational messages, such as device information.
Clear Logs	Click to delete all logs.
Export Logs	Click to save log files to your computer.

✤ 3.2 View Device Information

You can view basic information about the camera, including device model, firmware version, network information, stream information, and device QR code.

Go to Settings > Information > Device Information > Device Information.

Device Information	
Device Information	
Current System Time	2024-11-25 14:36:17
Device Model	VIGI C345ZI
Device Name	VIGI C345ZI 1.0_C960
Firmware Version	1.0.3 Build 241029 Rel.62460n
Network Information	
IP	192.168.0.60
MAC	
Stream Information	
Resolution	2688*1520
Frame Rate	25
Device QR Code	
EE0	
ALC: N	
Contrast of the second	



Change Camera Settings

This chapter introduces how to change the camera display settings and camera streams settings. It contains the following sections:

- Camera Display Settings
- <u>Camera Stream Settings</u>

✤ 4.1 Camera Display Settings

You can adjust image features according to your needs.

4.1.1 Image Settings

- 1. Go to Settings > Camera > Display > Image.
- 2. Configure the following parameters.

Camera	~	Image	OSD	Privacy Mask
► Display Stream		2 9 4-11-25	Mon. 14:41:51	α
Event				ď
Storage				
Network Settings				
Cloud Service		VIGI C3452	1 1.0 C960	
System Settings		Rotation		Mirror Off
Information		General Se	ettings	Hide 🔺
		Power Line	Frequency	50Hz 🔻
		Night Vision	Mode	Auto Color 🔹
		Switch Day	/ and Night Se	Show -
		lmage Adju	ustment	Show +
		Exposure	Settings	Show +
		Backlight S	Settings	Show 🔻
		White Bala		Show 🔻
		Image Enh	ancement	Show ¥
		Illuminator	Settings	Show 👻
				Restore

Rotation	Choose to turn the live view image by 0, 90 or 270 degrees on your display.
	When you select Off , the image displays normally.
Mirror	Select the mirror mode as needed.
	When you select Off , the image displays normally.
	By choosing Left-Right, you mirror the image on the vertical axis.
	By choosing Up-Down , you flip the image on the horizontal axis.
	By choosing Central , you rotate the image by 180 degrees around its center.

General Settings	
Power Line Frequency	Set the Power line frequency consistent with local utility settings to eliminate image flickering associated with fluorescent lights.
Night Vision Mode	Human/Vehicle Triggered Full-Color: The camera switches to the full-color mode once it detects a person or vehicle.
	Auto Color : The camera turns on or off the white supplement light according to the light condition of the environment.
	Auto IR : The camera turns on or off the IR supplement light according to the light condition of the environment.
	White LED Always On: White supplement light is on.
	IR Always On: IR supplement light is on.
	Off: Supplement light is off.
	Custom: Select it to configure Day/Night Switch and Illuminator.
Switch Day and N	light Settings

 Day/Night
 Select a method to switch the image settings of day and night.

 Switch
 Support the image settings of day and night.

Unified: The camera applies the same image settings throughout a day.

Scheduled: The camera switches the image mode of day and night at your specified time. If you select this method, adjust the slide bar to specify the switch time.

06:00		18:00		
			Day 🛑	
	n			

Auto: The camera switches the image mode of day and night automatically according to the light condition of the environment.

Image Adjustment		
Brightness	Increasing the value will lighten the image.	
Contrast	Increasing the value will increase the difference between the brighter and darker parts.	
Saturation	Increasing the value will enrich the color of the image.	
Sharpness	Increasing the value will sharpen the image.	

Exposure Settings		
Exposure	Select the exposure mode as needed.	
	Auto: The camera adjusts the exposure automatically.	
	Manual : The image exposure is fixed. If you select Manual , adjust the slide bar of Gain to specify its value, and select a shutter speed. Higher gain and slower shutter speed result in brighter images.	
	Anti-flicker: This function minimizes influences caused by flickering.	
Backlight Setting	gs	
BLC Area	BLC (Backlight Compensation) optimizes the camera to increase light exposure for darkened areas and helps you to see details more clearly.	
	Select an area to compensate light.	
	If you select Custom , draw a blue rectangle on the live view image as the BLC area.	
WDR	WDR (Wide Dynamic Range) can improve the image quality under high- contrast lighting conditions where both dimly and brightly lit areas are present in the field of view.	
	If you select On , the camera balances the light of the brightest and darkest areas automatically. You may set the gain value, or the sensor's sensitivity, manually.	
HLC	HLC (Highlight compensation) can compensate for brighter parts of your image, maintaining detail in brighter parts of the image that would otherwise be blown out.	
White Balance		
White Balance	White balance is a process of removing unrealistic color casts, so that objects which appear white in person are rendered white in the image.	
	Auto: The camera adjusts the color temperature automatically.	
	Locked: The camera keeps the current color settings all the time.	
	Daylight/Natural Light/Incandescent/Warm Light : The camera adjusts the color temperature to remove the color casts caused by the corresponding light.	
	Custom : Drag the slide bar to configure the color temperature, and the camera keeps the settings all the time. You may specify the red/blue gain values separately. The higher the value is, the more intense the red/blue color is.	

Image Enhancer	Image Enhancement		
Prevent overexposure to infrared light	Select the standard mode or enhanced mode or manually adjust the brightness of image.		
	Standard Mode : In this mode, the brightness of the infrared light will be automatically adjusted to prevent overexposure. The brighter the environment, the dimmer the infrared supplement light.		
	Enhanced Mode : This mode intensifies its protection against overexposure, by darkening the bright areas of the image.		
	Manual: Manually adjust the brightness of image. The higher the value is, the dimmer the image gets.		
Illuminator Setti	ngs		
Illuminator	Select a mode to decide the usage of white supplement light. The available options vary due to the mode set in Night Vision Mode and Day/Night Switch .		
	Auto : The camera turns on the white light once it detects the environment gets dark, and keeps the light off in a sufficiently lit environment. You can customize the values in Sensitivity and Delayed Switch .		
	Scheduled: Specify the time to turn on and off the white light.		
	Always On/Off: The white light is on/off all the time.		
Sensitivity	Decide the ambient light intensity that can trigger the switch of the white light. The lower the value is, the easier it is to trigger the white light.		
Delayed Switch	Decide how long the camera waits to turn on or off the white light when the ambient light reaches the threshold to trigger the switch.		
Lighting Mode	Infrared Lighting: The infrared supplement light is on all the time.		
	Human/Vehicle Trigger Full-Color: The camera turns on the full-color mode once it detects a person or vehicle.		
	White Light Illumination: The white supplement light is on all the time. With this selected, you may customize White Light Intensity parameters.		
White Light Intensity	Smart White Light-Standard : The camera illuminates a white light when detecting a target.		
	Smart White Light-Soft : The camera illuminates a warmer white light when detecting a target.		
	Manual: Drag the slide bar to manually adjust the intensity of the white light. The light gets brighter when the value increases.		

Always Full- Color at Live View	The camera will automatically turn on Full-Color Night Vision when you stream Live Video.
Restore	Click to restore to factory default settings.

4.1.2 OSD Settings

You can configure OSD (On Screen Display) to edit the information displayed in Live View and recordings.

Follow the steps below to configure OSD settings.

- 1. Go to Settings > Camera > Display > OSD.
- 2. Configure the following parameters, and click **Save** to save your settings.



Date	Check to display the date on the image.
Week	Check to display the week on the image.
Channel Name	Check to display the channel name on the image. You can also check Custom and specify a text to display.
Display Effect	Set the display effect of the image.

Font Size	Set the font size.
Font Color	Set the font color.
Restore	Click to restore to factory default settings.

4.1.3 Privacy Mask

Privacy Mask conceals parts of the image from view and protects your privacy. The area you set cannot be recorded and monitored.

Follow the steps below to configure Privacy Mask.

- 1. Go to Settings > Camera > Display > Privacy Mask.
- 2. Enable **Privacy Mask**. Draw the privacy area on the preview screen (the blue square in the picture below). Drag the area to adjust its size and location. For Mask Type, you may choose **Solid Black** or **Mosaic**, which determines the display effect of the area.



- 3. To remove a certain privacy area, select it and click Delete.
- 4. To remove all privacy areas, click Clear.
- 5. Click Add to automatically add an area on the center of the screen.
- 6. Click Save.

✤ 4. 2 Camera Stream Settings

In Stream Settings, you can configure video stream levels, change the audio output settings and ROI (Region of interest) level.

Video stream levels decide the video quality in Live View and recording, and you can adjust the video quality of certain area by specifying the ROI level.

4. 2. 1 Video Settings

Follow the steps below to configure video settings.

- 1. Go to Settings > Camera > Stream > Video.
- 2. Configure the following parameters, and click **Save**.

	Video A		ROI ,	Advance	e Settings
	Stream Type	Ma	n Stream		
	Video Encoding	H2	64+		
	Resolution	268	8*1520		
	Video Frame Rate	ie 25			
	Bit Rate Type	VB			
	Image Quality		medium		jh
	Max Bit Rate	614	4		kbps
	·				
					Restore Save
Stream Type	ľ t t	Main St the hig than su	ream is nest vie bstrea	s the deo m.	e primary video feed used for recording and provides quality. It has higher definition and higher bandwidth
	()	Substreviewing	eam is from c	a se com	econdary video feed that is used mainly for remote puters from outside the network.
Video Encodin	g ç	Select saves t	he end he ban	codii dwic	ng type of the stream. H.265 reduces the file size and dth better than H.264.
Resolution		The scr	een dis	splay	ys images more clearly when the resolution increases.
Video Frame R	ate	The vid	eo is m	ore	fluent when the rate increases.

Bite Rate Type	VBR: The bit rate changes with the image within Maximum Bit Rate. CBR: The bit rate is Maximum Bit Rate all the time.
Image Quality	When VBR selected as the bit rate type, set the video quality as high, medium, or low.
Max Bit Rate	When VBR selected as the bit rate type, specify the upper limit of bit rate. When CBR selected as the bit rate type, specify the bit rate.
Restore	Click to restore to factory default settings.

4. 2. 2 Audio Settings (Only for some models)

Follow the steps below to configure video settings.

- 1. Go to Settings > Camera > Stream > Audio.
- 2. Configure the following parameters, and click **Save**.

Video	Audio	ROI	Advance Settings
Audio out	put settings		
5			
Audio Outp	ut	Line Out	
Mute		Off	
Output Volu	ume	•	80
System Vol	lume		● 100
Audio inp	ut settings		
Audio Codi	ng	G711A-law	
Audio Input		MicIn	
Input Volun	ne	•	08
Noise Filter	ring	On	
Audio Swite	ch	On On	
			Restore Save

Mute	Toggle to mute the speaker of the camera.
Output Volume	Adjust the volume of the speaker.
System Volume	Adjust the volume of the sound alarm.

Audio Coding	Select the encoding type of the audio.
Audio Input	Select audio input device.
Input Volume	Adjust the volume of the input device.
Noise Filtering	Enable noise filtering to remove the noise from the video.
Audio Switch	Turn on the microphone.
Restore	Click to restore to factory default settings.

4. 2. 3 ROI

ROI (region of interest) concentrates on delivering high quality video from interested region. In ROI, you can configure the interest level of a specified area in each channel. The level 1–6 is ranked from low to high. The higher the ROI level, the better image quality.

- 1. Go to Settings > Camera > Stream > ROI.
- 2. Select the stream type and enable ROI. Draw an area on the preview screen (the blue square in the picture below). Drag to adjust its size and location. Specify the ROI level and click **Save**.



4. 2. 4 Advanced Settings

In Advanced Settings, you can set QoS and SRTP.

QoS (Quality of Service) can help improve the network delay and network congestion by setting the priority of data sending.

SRTP (Secure Real-time Transport Protocol) is a Real-time Transport Protocol (RTP) internet protocol, intended to provide encryption, message authentication and integrity, and replay attack protection to the RTP data in both unicast and multicast applications.

1. Go to Settings > Camera > Stream > Advanced Settings.

Video		ROI	Advance Settings	
QoS				
Video/Audio D	SCP 0			
SRTP Setting	gs			
When enabled, recommended t	RTSP video data that you use the o	a will be encrypte device together v Off	ed and you may be unable to play the video using third-party clients or NVRs. It is with a VIGI NVR.	
		-		
				Save

2. Set Video/Audio DSCP.

Network can identify the priority of data transmission. The bigger the DSCP value is, the higher the priority is.

- 3. Enable SRTP if needed. When enabled, RTSP video data will be encrypted and you may be unable to play the video using third-party clients or NVRs. It is recommended that you use the device together with a VIGI NVR.
- 4. Click Save.



This chapter guides you on how to configure the event settings and alarm actions when your cameras detect different types of events. VIGI camera monitors your pre-defined areas and you'll be automatically alerted to any suspicious activity in your home and office. This chapter includes the following sections:

- Arming Schedule and Linkage Method
- Motion Detection
- Camera Tampering
- Scene Change Detection
- Line Crossing Detection
- Intrusion Detection
- Region Entering Detection
- Region Exiting Detection
- Loitering Detection
- Object Abandoned/Removal Detection
- Abnormal Sound Detection
- Vehicle Detection
- Human Detection
- LPR (Only for some models)
- Exception Event
- Smart Frame
- Light Alarm (Only for some models)
- Sound Alarm (Only for some models)
- Alarm Server
- Alarm Input
- Alarm Output

✤ 5.1 Arming Schedule and Linkage Method

Arming schedule is a customized time period in which the device performs certain tasks. Linkage is the response to the detected certain incident or target during the scheduled time. This configuration is optional.

1. Go to **Settings** > **Event**, and locate Arming Schedule and Linkage Method in the related event interface.



2. Drag the time bar to draw desired valid time.

Note:

- Each cell represents one hour.
- The default setting is 24/7.
- Up to six time periods can be configured for a day.
- 3. Move your mouse to the right of a day's blocks and an edit button will appear. Click and enter the pop-up window to finetune the Start Time and End Time (with an accuracy of a minute) and check Set. You may copy a schedule for a day to any other days. Click OK when you are done.

Edit				Monday
No.	Start Time		End Time	Set
	00:00 🕒		24:00 🕒	
	00:00 🕒		00:00 🕒	~
	00:00 🕒		00:00 (~
	00:00 🕒		00:00 (~
	00:00 🕒		00:00 🕒	
	00:00 🕒		00:00 ^(C)	
Copy Schedule to	Select All			
🗌 Monday 📄 Tuesd	ay 🗌 Wednes	sday 🗌 Thursday	🗌 Friday 🗌 Saturda	ay 🗌 Sunday
		Cancel OK		

4. Set linkage methods as needed.

Linkage Method		Hide 🔺
Record	The device will start recording when an event is detected.	
Upload Capture to FTP	The device will upload capture picture or video to FTP server when an event is dete	cted.
Alarm Output	The external device will trigger the alarm when an event is detected.	
Push notifications	The device will send a message to the TP-Link VIGI app when an event is detected.	
Active Defence - Sound Alarm	The alarm on the camera will be triggered when an event is detected.	
Active Defence - Light Alarm	The light on the camera will flash when an event is detected.	
Email Alarm	When an event is triggered, the camera will send an alarm email to the user-defined mailbox.	

✤ 5.2 Motion Detection

Motion detection allows cameras to detect the moving objects in the monitored area and triggers alarm actions. You can customize the motion detection settings, set the alarm schedule, and select the triggered actions. Follow the steps below to finish the configuration.

 Go to Settings > Event > Basic Event > Motion Detection. Click the toggle to turn on Motion Detection.



2. Draw quadrilaterals for motion detection on the preview screen. The whole screen is selected by default. You may drag the corners to change the shape of the area and drag the whole area to move it. You may delete a selected area, clear all areas, expand the selected areas to the full screen, or add another area. Then configure the motion detection settings.

Note: You may customize up to four areas.

3. In Area Settings section, you may modify the following parameters:

Area Settings	
Sensitivity	• 50
Object Width Filter	Min. 0 %,events triggered by narrower object will be filtered.
	Max. 100 %, events triggered by wider object will be filtered.
Object Height Filter	Min. 0 %, events triggered by shorter object will be filtered.
	Max. 100 %, events triggered by higher object will be filtered.
Object Classification: Human/Vehicle	✓ Human Detection ✓ Vehicle Detection
	An event will be triggered only when a specific object enters the area.
Object Classification Confidence	Medium 🔻

Sensitivity	Adjust the value of sensitivity. The higher the value is, the easier it is to trigger an alarm.
Object Width Filter	Set the minimum and maximum object width to filter the corresponding events.
Object Height Filter	Set the minimum and maximum object height to filter the corresponding events.
Object Classification: Human/Vehicle	Choose whether you want to detect humans only, vehicles only, or both. The function is available only for cameras which support human detection and vehicle detection.
Object Classification Confidence	Select the detection type from High, Medium, and Low. The function is available only for the cameras which support human detection and vehicle detection.

- 4. Refer to Arming Schedule and Linkage Method for settings if needed.
- 5. Click Save.

✤ 5.3 Camera Tampering

Camera tampering triggers alarm actions when an area of camera's lens is purposely blocked, obstructed or vandalized. You can customize the video tampering settings, select the triggered actions and set the alarm schedule for cameras. Follow the steps below to finish the configuration.

1. Go to Settings > Event > Basic Event > Camera Tampering.

Motion Detection	Camera Tampering	Scene Change Detection
Camera Tampering	On	
Parameter Settings		
Sensitivity	50	

- 2. Enable Camera Tampering.
- 3. Set the sensitivity of video tampering. A higher value can trigger the alarm actions more easily.
- 4. Set the Linkage Method. Note that the options vary by model.

Linkage Method	
Record	The device will start recording when an event is detected.
Upload Capture to FTP	The device will upload capture picture or video to FTP server when an event is detected.
Alarm Output	The external device will trigger the alarm when an event is detected.
Push notifications	The device will send a message to the TP-Link VIGI app when an event is detected.
Active Defence - Sound Alarm	The alarm on the camera will be triggered when an event is detected.
Active Defence - Light Alarm	The light on the camera will flash when an event is detected.
Email Alarm	When an event is triggered, the camera will send an alarm email to the user-defined mailbox.

- 5. Refer to Arming Schedule and Linkage Method for settings if needed.
- 6. Click Save.

✤ 5. 4 Scene Change Detection

Scene change detection function detects the change of video security environment affected by the external factors, such as intentional rotation of the camera. Certain actions can be taken when the alarm is triggered. Follow the steps below to finish the configuration.

- 1. Go to Settings > Event > Basic Event > Scene Change Detection.
- 2. Click the toggle to turn on Scene Change.



3. Specify Sensitivity. The higher the value is, the more easily the change of the scene can be detected.

4. Refer to Arming Schedule and Linkage Method for settings if needed.

Linkage Method	
	The device will start recording when an event is detected
Record	The device will start recording when an event is detected.
Upload Capture to FTP	The device will upload capture picture or video to FTP server when an event is detected.
	The external device will trigger the alarm when an event is detected.
Push notifications	The device will send a message to the TP-Link VIGI app when an event is detected.
Active Defence - Sound Alarm	The alarm on the camera will be triggered when an event is detected.
Active Defence - Light Alarm	The light on the camera will flash when an event is detected.
Email Alarm	When an event is triggered, the camera will send an alarm email to the user-defined mailbox.

5. Click Save.

◆ 5.5 Line Crossing Detection

Line crossing detection triggers alarm actions when cameras detect that moving objects cross a customized virtual line. Follow the steps below to finish the configuration.

- Line Crossing Detection 24-11-26 Tue. 11:58:39 ď ď Ð Δ В Ð 13 0 VIGI C345ZI 1.0_C960 0 Boundary 1 Boundary 1 Sensitivity **Object Width Filter** %, events triggered by narrower object will be filtered. %, events triggered by wider object will be filtered. **Object Height Filter** %, events triggered by shorter object will be filtered. Min. %, events triggered by higher object will be filtered. Object Classification: Human/Vehicle
- 1. Go to Settings > Event > Smart Event, select Line Crossing Detection from the drop-down list, and click the toggle to turn it on.

2. Draw lines on the preview screen. Select the line and configure its settings.

Medium

Object Classification

Confidence

Note: You can draw up to four lines and need to configure settings for each line.

Human Detection

The higher the value is, the easier it is to detect a target that crosses Sensitivity the line.

Vehicle Detection

Direction	Choose the direction from which the target crosses the line.
	A->B: Only the target crossing the configured line from the A side to the B side can be detected.
	B->A: Only the target crossing the configured line from the B side to the A side can be detected.
	A<->B: The target going across the line from both sides can be detected and alarms are triggered.
Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Height Filter	Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Classification: Human/Vehicle	Choose whether you want to detect humans only, vehicles only, or both. The function is available only for cameras which support human detection and vehicle detection.
Object Classification Confidence	Select the detection type from High, Medium, and Low. The function is available only for the cameras which support human detection and vehicle detection.

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.6 Intrusion Detection

Intrusion detection is used to detect objects entering and loitering in a predefined virtual region. Once it happens, the camera will take linkage actions. Follow the steps below to finish the configuration.

 Go to Settings > Event > Smart Event, select Intrusion Detection from the drop-down list, and enable it.



2. Draw intrusion areas on the preview screen. Select the area and configure the settings.

Note: You may draw up to four areas and need to configure settings for each area.

Sensitivity	The higher the value is, the more easily an intrusion action can be detected.
Percentage	Set the percentage of intrusion detection. When an object takes up the specific percentage of the area, the alarm actions will be triggered.

Intrusion Time	Intrusion time stands for the threshold a target loiters in the area. Any stay longer than the intrusion time will trigger the linkage action.
Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Height Filter	Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Classification: Human/Vehicle	Choose whether you want to detect humans only, vehicles only, or both. The function is available only for cameras which support human detection and vehicle detection.
Object Classification Confidence	Select the detection type from High, Medium, and Low. The function is available only for the cameras which support human detection and vehicle detection.

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.7 Region Entering Detection

Region entering detection triggers alarm actions when cameras detect moving objects enter the specified regions. You can customize the region settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.
Go to Settings > Event > Smart Event. Select Region Entering Detection from the drop-down list and enable it.



2. Draw shapes for area entrance detection on the preview screen.

Note: You may draw up to four areas and need to configure settings for each area.

Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.

Object Height Filter	Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object	Choose whether you want to detect humans only, vehicles only, or
Classification:	both. The function is available only for cameras which support human
Human/Vehicle	detection and vehicle detection.
Object	Select the detection type from High, Medium, and Low. The function
Classification	is available only for the cameras which support human detection and
Confidence	vehicle detection.

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.8 Region Exiting Detection

Region exiting detection triggers alarm actions when cameras detect moving objects exit the specified regions. You can customize the region settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

1. Go to Settings > Event > Smart Event, select Region Exiting Detection from the drop-down list, and enable it.



2. Draw shapes for area exiting detection on the preview screen.

Note: You may draw up to four areas and need to configure settings for each area.

Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.

Object Height Filter	Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object	Choose whether you want to detect humans only, vehicles only, or
Classification:	both. The function is available only for cameras which support human
Human/Vehicle	detection and vehicle detection.
Object	Select the detection type from High, Medium, and Low. The function
Classification	is available only for the cameras which support human detection and
Confidence	vehicle detection.

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.9 Loitering Detection

Loitering detection triggers alarm actions when a moving object remains in a predefined area for a specific amount of time. You can customize the area settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

 Go to Settings > Event > Smart Event, select Loitering Detection from the drop-down list, and enable it



2. Draw shapes for area exiting detection on the preview screen.

Note: You may draw up to four areas and need to configure settings for each area.

Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
Loitering Time	It stands for the threshold for the time of the object loitering in the region. If the time that one object stays exceeds the threshold, the alarm is triggered.

Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Height Filter	Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.
Object Classification: Human/Vehicle	Choose whether you want to detect humans only, vehicles only, or both. The function is available only for cameras which support human detection and vehicle detection.
Object Classification Confidence	Select the detection type from High, Medium, and Low. The function is available only for the cameras which support human detection and vehicle detection.

- 3. Refer to <u>Arming Schedule and Linkage Method</u> for settings if needed.
- 4. Click Save.

✤ 5.10 Object Abandoned/Removal Detection

Object abandoned/removal detection triggers alarm actions when cameras detect objects are left behind or taken away in the specified areas. You can customize the area settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

- Object Abandoned/Removal Detection 24-11-26 Tue. 14:03:59 ď at Ð ð 0 VIGI C345ZI 1.0_C960 Ô Area 1 Sensitivity • **Detection Type** Time Threshold **Object Width Filter** %, events triggered by narrower object will be filtered. %, events triggered by wider object will be filtered. **Object Height Filter** %, events triggered by shorter object will be filtered. %, events triggered by higher object will be filtered.
- 1. Go to Settings > Event > Smart Event, select Object Abandoned/Removal Detection from the drop-down list, and enable it.

2. Draw shapes for area exiting detection on the preview screen.

Note: You may draw up to four areas and need to configure settings for each area.

Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
Detection Type	Select the detection type.
Time Threshold	Set how long the object is left behind or taken away to trigger the event.
Object Width Filter	Set the minimum and maximum width for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.

Object Height Filter

Set the minimum and maximum height for the target to be detected. Only targets with sizes between the maximum and minimum value will be detected.

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.11 Abnormal Sound Detection

Abnormal sound detection identifies uncommon or irregular sounds and triggers alarm actions. You can select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

 Go to Settings > Event > Smart Event, select Abnormal Sound Detection from the drop-down list, and click the toggle to turn it on.



- 2. Adjust the value of sensitivity and alert threshold. The higher the sensitivity and the lower the threshold, the easier it gets to trigger linkage methods.
- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5.12 Vehicle Detection

Vehicle detection triggers alarm actions when cameras detect vehicles are moving in the specified areas. You can customize the area settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

 Go to Settings > Event > Smart Event, select Vehicle Detection from the drop-down list, and click the toggle to turn it on.



2. Draw shapes for area exiting detection on the preview screen.

Note: You may draw up to four areas.

- 3. Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
- 4. Refer to Arming Schedule and Linkage Method for settings if needed.
- 5. Click Save.

✤ 5.13 Human Detection

Human detection triggers alarm actions when cameras detect persons are moving in the specified areas. You can customize the area settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

 Go to Settings > Event > Smart Event, select Human Detection from the drop-down list, and click the toggle to turn it on.



- 2. Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
- 3. Refer to <u>Arming Schedule and Linkage Method</u> for settings if needed.
- 4. Click Save.

✤ 5.14 LPR (Only for some models)

LPR, or license plate recognition, captures and analyzes vehicle license plates in real time. Follow the steps below to finish the configuration.

1. Go to Settings > Event > LPR and click the toggle to turn it on.



- 2. Define detection area (marked by blue) and trigger area (marked by white) by drawing shapes. Detection area specifies where you wish to detect motion; trigger area specifies where you wish to trigger alarm responses.
- 3. Click Save.

✤ 5.15 Exception Event

Set the maximum login attempts to protect the security of your camera. The camera will be locked for 30 minutes if you enter the wrong password more than the specified attempts. Follow the steps below to finish the configuration.

1. Go to Settings > Event > Exception Event.

Access Exception		
Login Error Detection	On On	
Max Login Attempts	10 Times(3-10)	

- 2. Enable Login Error Detection to limit the login attempts:
- 3. Set the maximum login attempts. The number should between 3 and 10
- 4. Click Save.

Note: To unlock the camera and try to log in again, power the camera off and then power it on.

✤ 5.16 Smart Frame

Smart frame is an AI-powered function that can precisely mark and capture detected movement, people, or vehicle objects on the screen.

Click the toggles to specify the type of detection: motion, human, or vehicle. You may enable more than one types. Click **Save**.



✤ 5. 17 Light Alarm (Only for some models)

With Light Alarm enabled, the light on the camera will flash when an event is detected. Follow the steps below to finish the configuration.

- 1. Go to Settings > Event > Active Defence > Light Alarm.
- 2. Enable Active Defence Light Alarm.

Light Alarm					id A																			
Active Defen Alarm		Ligł					Or																	
Arming Sch	hedi	ule																					de	
Light alarm v	vill b	e tri	gger	red	only	/ du	ring	l sbe	ecific	: pei	riod						Clea	ar sc	hedi	ules	Ō			
											9) 21) 21		23	24			
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								
Sunday																								

- 3. Refer to Arming Schedule and Linkage Method for settings if needed.
- 4. Click Save.

✤ 5. 18 Sound Alarm (Only for some models)

Enable Sound Alarm, then the alarm on the camera will be triggered when an event is detected.

- 1. Go to Settings > Event > Active Defence > Sound Alarm.
- 2. Enable Active Defence Sound Alarm, select the Alarm Type, and click Test.

Light Alarm	S	ound Ala	ırm							
Active Defend Alarm	ce - Sound		On							
Sound Type			n Tone							
Audio outpu	ıt settings									
Mute			Off							
Sustem Volur	-			•						
System volu	lie			• 100)					
Arming Sch	edule									Hide 🔺
Sound alarm	will be trigg	jered only	r during sp	ecific per	iod.			Clear sch	edules 面	
						12 13				
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

- 3. Under Audio Output Settings, click the toggle to mute or drag the slide bar to set the system volume.
- 4. Refer to Arming Schedule and Linkage Method for settings if needed.
- 5. Click Save.

✤ 5. 19 Alarm Server

The device can send alarms to destination IP address or host name through HTTP, HTTPS, or ISUP protocol. The destination IP address or host name should support HTTP, HTTP, or ISUP data transmission.

1. Go to Settings > Event > Alarm Server.

2. Click Add.

Alarm Server				
Host IP				Test
Add Delete the !				
	Host IP/Domain			
	URL			
	Protocol	нттр		
	Port			
	Attach Image	Off		

3. Enter Host IP/Domain, URL, and Port, and select Protocol. Enable Attach Image if needed.

Note: HTTP and HTTPS are selectable. It is recommended to use HTTPS, as it encrypts the data transmission during communication.

4. Click Save.

✤ 5.20 Alarm Input

Alarm signal from the external device triggers the corresponding actions of the current device. Before you start, make sure the external alarm device is connected. See <u>https://www.tp-link.com/hk/support/faq/4227/</u> for cable connection.

1. Go to Settings > Event > Alarm Device > Alarm Input.



- 2. Select an Alarm Input Number.
- 3. Check Enable This Alarm Input.
- 4. Edit the Alarm Name.

- 5. Select the Alarm Type from the dropdown list. Open Type means that under normal conditions, the circuit is open and no current passes through the device. When the alarm is triggered, the current passes through the device and the device alarms. Close Type means that normally the circuit is closed, and the device will alarm in case of a circuit fault or alarm trigger.
- 6. Refer to Set Arming Schedule for setting scheduled time. Refer to Linkage Method Settings for setting linkage method.
- 7. Click Save.

✤ 5. 21 Alarm Output

If the device has been connected to an alarm output device, and the alarm output No. has been configured, the device sends alarm information to the connected alarm output device when an alarm is triggered. Before you start, make sure the external alarm device is connected. See <u>https://www.tp-link.</u> <u>com/hk/support/faq/4227/</u> for cable connection.

1. Go to Settings > Event > Alarm Device > Alarm Output.

Alarm Input	Alarm Output	
Alarm Input Number:	AO1	•
Alarm Output Device		Off
Alarm Name	A01	
Alarm Duration	5s	•

- 2. Select the Alarm Output Number according to the alarm interface connected to the external alarm.
- 3. Enable the Alarm Output Device.
- 4. Edit the Alarm Name.
- 5. Select the Alarm Duration from the dropdown list.
- 6. Click Save.



Smart Settings

This chapter guides you on how to configure settings about human or vehicle analysis on your camera. Some features require an NVR that has Smart Analysis compatibility. This chapter includes the following sections:

- Configuration
- Object Attribute Analysis

✤ 6.1 Configuration

In the Configuration section, you may choose between the Smart Event Mode and Object Attribute Analysis Mode. The former enables the basic event and smart event features, while the latter can capture the human face or vehicle detected in the surveillance video and send it to the NVR for analysis and processing.

Please be advised that the Object Attribute Analysis Mode requires an NVR that supports the feature.

1. Go to Settings > Smart > Configuration.



- 2. Select either Smart Event Mode or Object Attribute Analysis Mode. Note that only when Object Attribute Analysis Mode is enabled can you proceed with the Object Attribute Analysis feature.
- 3. Click Save.

✤ 6.2 Object Attribute Analysis

In Object Attribute Analysis, you can choose whether to send human or vehicle images to the NVR for analysis.

1. Go to Settings > Smart > Object Attribute Analysis.



- 2. Enable People Attribute Analysis and/or Vehicle Attribute Analysis.
- 3. Click Save.



Recording and Storage

This chapter guides you on how to view and configure recording and storage settings on your camera. VIGI camera allows you to set your own recording schedules and parameters. This chapter includes the following sections:

- Recording Schedule
- Storage Management

✤ 7.1 Recording Schedule

Recording schedule section provides convenience and flexibility for the daily monitoring of your camera. You can customize the recording schedules. You can set different schedules for each day. In Advanced Settings page, you can set the pre-recording time and delay time for recording.

1. Go to Settings > Storage > Recording Schedule.

Recording Schedule	
Recording Schedule On	
Continuous Recording Event Record	ting Clear schedules 📆
0 1 2 3 4 5 6 7 8 9	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Advanced Settings	
Pre-recording Time 4 Seconds	(The actual pre-recording time is slightly adjusted with the bit rate)
Delay Time 10 Seconds	(0-180)
To facilitate recording management, the duration of e	each recording clip should not exceed 3 minutes.
	Cancel Save

2. Enable **Recording Schedule**, select Continuous Recording or Event Recording, then select the time period.

Continuous Recording	The camera will record continuously.
Event Recording	The camera will record when an event is detected.
Pre-recording Time	The time is set for cameras to record before the scheduled time or event. For example, the schedule for continuous recording starts at 10:00. If you set the pre-recording time as 5 seconds, the camera starts to record at 9:59:55.
Delay Time	The time is set for cameras to record after the scheduled time or event. For example, if you set the post-record time as 5 seconds, it records till 11:00:05 as motion detection ends at 11:00.

3. Move your mouse to the right of a day's blocks and an edit button will appear. Click and enter the pop-up window to finetune the Start Time and End Time (with an accuracy of a minute). Select

Event Recording or Continuous Recording for each time period and check Set. You may copy a schedule for a day to any other days. Click **OK** when you are done.

Edit								
No.	Start T	ïme			End Tir	ne	Туре	Set
	00:00	Θ			24:00	Θ	Event Recording	
	00:00	Θ			00:00	٩	Continuous Recording	
	00:00	Θ			00:00	Θ	Continuous Recording	
	00:00	Θ			00:00	٩	Continuous Recording	
	00:00	Θ			00:00	٩	Continuous Recording	
	00:00	G			00:00	٢	Continuous Recording	
Copy Schedule to Select All Monday Tuesday Wednesday Thursday Friday Saturday Sunday								

4. Click Save.

✤ 7.2 Storage Management

In Storage Management, you can view the parameters and configure the properties and disk group of SD card. You can also enable the camera to overwrite the earlier recording files when the SD card is full.

1. Go to Settings > Storage > Storage Management.

HDD Managemer	nt				
Disk Number	Туре	Attributes	Capacity/Remaining	Status	
1	Local	Read and Write	237.40GB/236.60GB	Normal	
Advanced Setting	ļS				
Record Stream	Mair	n Stream 🔹 🔻			
Circular write of Disl	k 💽	On			
Record Audio		On			
Recording Expiratio	n 💽	Off			
Expired Time		Day(s)			
					Save

2. Click Format to initialize the memory card.

When the Status of memory card turns from Uninitialized to Normal, the memory card is ready for use.

3. Specify advanced settings.

	Select the stream type for recording.
Record Streams	Main Stream stands for the best stream performance the device supports. It usually offers the best resolution and frame rate the device can do. But high resolution and frame rate usually means larger storage space and higher bandwidth requirements in transmission.
	Substream usually offers comparatively low resolution options, which consumes less bandwidth
Circular Write of Disk	Enable Circular Write of Disk to overwrite the video records when the storage space is full. Otherwise the camera cannot record new videos.
Record Audio	Enable to record audio and video simultaneously.
Recording Expiration	Enable Recording Expiration to delete recordings when they exceed the expired time. Note that once the recordings are deleted, they cannot be recovered.
Expired Time	Set the time when recordings will be automatically deleted.

5. Click Save.



Network Management

With proper network configurations, you can connect your camera to the internet, build up mapping between internal and external ports. This chapter contains the following sections:

- Internet Connection
- <u>Port</u>
- Platform Access
- Email
- Port Forwarding
- IP Restriction
- <u>Multicast</u>
- Server
- Upload
- <u>ONVIF</u>
- <u>SNMP</u>
- DDNS

✤ 8.1 Internet Connection

In Internet Connection, you can view the connection status and configure the camera to obtain a dynamic or static IP address.

Follow the steps below to configure the network settings.

1. Go to Settings > Network Settings > Connect.

Internet Connection		
Status		
Basic Settings		
IPv6 Enable	Off	
IPv4 Mode	Static IP	
IPv4 Address	192.168.0.60	
IPv4 Subnet Mask	255.255.255.0	
IPv4 Gateway	192.168.0.1	
Preferred DNS	8.8.8.8	
Alternative DNS	8.8.4.4	
Advanced Settings		
MTU	1480	
Adaptive IP	Off	

Status

Displays the current internet status.

IPv6 EnableEnable to configure IPv6 settings. IPv4 and IPv6 are both
supported. Both versions can be configured simultaneously
without conflicting to each other.

Three IPv6 modes are available.

Router Advertisement: The IPv6 address is generated by combining the route advertisement and the device Mac address. Note that this mode requires the support from the router that the device is connected to.

DHCP: The IPv6 address is assigned by the server, router, or gateway.

Manual: Input IPv6 Address, IPv6 Subnet Mask, and IPv6 Gateway. Consult the network administrator for required information.

IPv4 Mode	Configure the camera to obtain a dynamic or static IP address.
IPv4 Address	Specify an IP address for the camera. The IP address should be in the same segment as the gateway; otherwise, the camera cannot connect to the internet.
IPv4 Subnet Mask	Enter the subnet mask.
IPv4 Gateway	Enter the IP address of the gateway device to which the data packets will be sent. This IP address should be in the same segment as the camera's IP address.
Preferred / Alternative DNS	Enter the IP address of the DNS server.
MTU	Specify MTU (Maximum Transmission Unit) to decide the largest size of data unit that can be transmitted in the network. A larger unit can improve the efficiency with more data in each packet, but it may increase the network delay because it needs more time to transmit. Therefore, if you have no special needs, it is recommended to keep the default value.
Adaptive IP	Enable this option if you want to set the camera's IP to change according to the network topology.

Note: The cameras should be in the same segment with the NVR, so that the NVR can discover and manage them.

2. Click Save.

♥ 8.2 Port

In Port, you can configure the HTTPS port and service port of devices that can be used to access the camera through the network. When managing and monitoring the devices via VIGI Security Manager or the VIGI app, the ports configured here are used for communications of corresponding protocols.

1. Go to Settings > Network Settings > Port.

Port			
HTTPS	443		
RTSP	554		
Video Service	8800		
Web Stream	8443		

2. Specify HTTPS port and service po

HTTPS	Specify a port for HTTPS protocol.
	Specify a port for RTSP (Real Time Streaming Protocol) protocol.
	RTSP is an application layer protocol for connecting, transferring, and streaming media data in real time from IP cameras connected to the network.
	rtsp://username:password@ip:port/streamNo
DTCD	ip – IP of the Camera.
RTSP	port – Default port is 554. This can be skipped.
	streamNo – Stream number. Stream1 refers to the main stream; stream2 refers to the substream.
	Example URL: rtsp://admin:123456@192.168.1.60:554/stream1
	This will display the main stream of the camera, where admin is the user name and 12345 is the password.
Video Service	Specify a port for protocols of video services.
Web Stream	Specify a port to access the camera's live streaming web interface.

3. Click Save.

✤ 8.3 Platform Access

VIGI VMS is an application that streamlines batch device management via a single interface, integrating real-time video monitoring, an alarm center, and advanced features for effortless, robust security. You can access VIGI VMS with the Platform Access enabled.

1. Enable Access to VIGI VMS.

Platform Access		
Access to VIGI VMS		
Connection Status		
IP Address		
Port	10123	

2. Enter the IP Address and the Port number.

3. Click Save.

♥ 8.4 Email

When the email is configured and enabled as a linkage method, the device sends an email notification to all designated recipients if an alarm event is detected.

Email Setting	10				
Email Setting	5				
Sender					
Sender Email					
SMTP Server					
SMTP Port		25			
	mago				
	mage				
Interval					
	tion				
	uon				
Username					
Password					
\bigcirc		Recipient	Recipient Email		
0				Test	Edit
				Test	Edit
					E un
				Test	Edit
Delete					
				Restore	

- 1. Input the sender's email information, including the Sender's name, Sender Email, SMTP Server, and SMTP Port.
- 2. Enable SSL/TLS if needed and emails will be sent after encrypted.
- 3. Check Attached Image to receive notification with alarm pictures. The notification email has a certain number of attached alarm pictures about the event with configurable image capturing interval.
- 4. If your email server requires authentication, check Authentication and input your username and password to log in to the server.
- 5. Input the recipient's information, including the recipient's name and address.
- 6. Click Test to see if the function is well configured.
- 7. Click Save.

✤ 8.5 Port Forwarding

Port Forwarding is used to establish the mapping between the internal port and external port. When Port Forwarding is enabled, you can access the device and watch the videos when accessing the external port remotely.

Note: The cameras should be connected to the internet, and Port Forwarding should be enabled on the gateway.

Follow the steps below to configure Port Forwarding.

- 1. Go to Settings > Network Settings > Port Forwarding.
- 2. Enable Port Forwarding and specify a mapping type. If you select **Auto** as the mapping type, the mappings are established automatically. If you select **Manual** as the mapping type, click **Edit** to specify the external port.

Port Forwarding					
Port Forwarding	() 0				
Mapping Type	Manual				
Port Type	Internal Port	External Port	Internal IP	Status	
HTTPS	443	443	192.168.0.60	Disabled	Edit
RTSP	554	554	192.168.0.60	Disabled	Edit
Video Service	8800	8800	192.168.0.60	Disabled	Edit
Stream	8443	8443	192.168.0.60	Disabled	Edit
				Restore	Save

Port Type	Displays the protocol type.
Internal Port	Displays the port of the camera to be converted.
External Port	Displays the external port opened by the gateway.
Internal IP	Displays the IP address of the camera that needs to be converted.
Status	Displays the status of mapping.
Restore	Click to restore the settings to default factory settings.

3. Click Save.

With Port Forwarding enabled, you can remotely watch the videos with the URL rtsp://A.B.C.D:Port/ streamN, for example, rtsp://10.0.1.47:28736/stream1. A.B.C.D is the WAN IP address of the gateway, and Port is the number of RTSP external port. N can be number 1 or 2 that indicates the stream, 1 for main stream and 2 for substream.

✤ 8.6 IP Restriction

When IP Restriction is enabled, you can add IP addresses to the deny list or allow list to restrict the access to the camera. The IP address in the deny list cannot access the camera, while only the IP addresses in the allow list can access the camera.

Follow the steps below to configure IP Restriction.

- 1. Go to Settings > Network Settings > IP Restriction.
- 2. Enable IP Restriction and specify the restriction rule. If you select **Deny List**, the devices with the IP addresses specified in the table will not be able to access the camera. If you select **Allow List**, only the devices with the IP addresses specified in the table can access the camera.

IP Restriction				
IP Restriction		On		
Restriction Rule		Deny List - Block the IP addresses on the list.		
		Allow List - Allow only the IP addresses on the list.		
Description		IP Address		
Delete the Selected	Add			
			Restore	Save

3. Click Add to add the desired IP address, give a description to identify this IP address, then click Save.

:	Set IP
Description IP Address	
Cance	Save

4. Click Save.

✤ 8.7 Multicast

When Multicast is enabled, you can watch videos using the multicast address and port.

Follow the steps below to configure Multicast.

- 1. Go to Settings > Network Settings > Multicast.
- 2. Select the stream type, then enable Multicast.

Multicast			
Stream Type	Main Stream 🔻		
Enable Multicast	\checkmark		
Multicast Address		(224.0.1.0~239.255.255.255)	
Multicast Port		(1025~65535)	
Random IP Port			
			Save

- 3. Disable Random IP Port and specify a static address and port, or enable Random IP Port.
- 4. Click Save.

After Multicast enabled, you can watch the video with the URL rtsp://A:B:C:D/multicastStreamN, for example, rtsp://192.168.0.3/multicastStream1. A.B.C.D is the IP address of the camera, and N can be number 1 or 2 that indicates the stream, 1 for main stream and 2 for substream.

♥ 8.8 Server

You can configure the FTP server to save images which are captured by events.

1. Go to Settings > Network Settings > FTP Settings > Server.

Server Upl		
Enable Server	FTP	
Please make sure ther	e is enough bandwidth to ensure a	stable connection to the FTP server.
Server Address	0.0.0	
Port	21	\supset
Anonymous		
Username		
Password		
Confirm password		
Upload path and edit name	the Save to the root	•
		Test Restore Save

- Check Enable Server. FTP and SFTP are selectable. The files uploading is encrypted by using SFTP protocol.
- 3. Enter Server Address and Port. They stand for the FTP server address and corresponding port.
- 4. Set Username and Password and confirm the password. The FTP user should have the permission to upload pictures.

5. If the FTP server supports picture uploading by anonymous users, you can check Anonymous to hide your device information during uploading.

Note: Anonymous login is not supported when SFTP protocol is selected.

- 6. Select the saving path of images uploaded in the dropdown box of Upload Path and Edit the Name.
- 7. Click Test to verify the FTP server.
- 8. Click Save.

✤ 8.9 Upload

You can configure the parameters of videos and images to be uploaded to the FTP server.

1. Go to Settings > Network Settings > FTP Settings > Upload.

Server Uploa	1	
Recording Schedule	On On	
Arming Schedule		Show •
Parameter Settings		
Upload Video	On	
Stream Type	Main Stream 🔹	
Record Audio	On On	
Pre-recording Time	4 Seconds (The actual p	re-recording time is slightly adjusted with the bit rate)
Delay Time	10 Seconds	(0-600)
Max Size of a Single File	256 MB	
Upload Capture	On On	
Capture Interval	6 Seconds	
Capture Number		

- 2. Enable Recording Schedule and follow the steps in <u>Recording Schedule</u>..
- 3. Enable Upload Video and Upload Capture as needed.
- 4. Configure the following parameters:

Select the stream type for recording.

Stream Type

Main Stream stands for the best stream performance the device supports. It usually offers the best resolution and frame rate the device can do. But high resolution and frame rate usually means larger storage space and higher bandwidth requirements in transmission.

Substream usually offers comparatively low resolution options, which consumes less bandwidth

Record Audio	Enable to record audio and video simultaneously.
Pre-recording Time	The time period you set to record before the scheduled time. For example, the schedule for continuous recording starts at 10:00. If you set the pre-recording time as 5 seconds, the camera starts to record at 9:59:55.
Delay Time	The time is set for cameras to record after the scheduled time or event. For example, if you set the post-record time as 5 seconds, it records till 11:00:05 as motion detection ends at 11:00.
Max Size of a Single File	Set the size limit of a single file.
Capture Interval	The camera takes the capture when it reaches the capture interval.
Capture Number	The number of captures taken during one interval.

5. Click Save.

◆ 8.10 ONVIF

ONVIF, or Open Network Video Interface Forum, aims to provide a standard for the interface between different IP-based physical security devices. ONVIF specifications provide a consistent way for devices from multiple manufacturers to work together

Enable ONVIF if you need to use third-party management devices. Go to Settings > Network Settings > Advanced > ONVIF.

For firmware version 1.6 and onwards, ONVIF uses port 80 and 2020 by default for communication; for earlier versions, the default port for ONVIF is 2020.

ONVIF	SNMP	DDNS	
Open Network	Video Interface	On On	
			Save

♥ 8.11 SNMP

You can set the SNMP, or Simple Network Management Protocol, to get device information in network management.

1. Go to Settings > Network Settings > Advanced > SNMP.

ONVIF	SNMP	DDNS	
SNMP v2c		Off	
Read SNMP Co	mmunity		
Trap Address			
Trap Port		162	
SNMP Port			
			ave

- 2. Enable SNMP v2c.
- 3. Enter the SNMP community name. Note that the access is Read only, meaning that the network management system can only view but not modify parameters of the specified view.
- 4. Configure the following parameters.

Trap Address	IP Address of SNMP host.
Trap Port	Port of SNMP host. The value is by default 162 and can range from 1 to 65535.
SNMP Port	An SNMP communication endpoint that identifies SNMP data transfers. By default the SNMP port is 161.

5. Click Save.

✤ 8.12 DDNS

You can use the Dynamic DNS (DDNS) for network access. The dynamic IP address of the device can be mapped to a domain name resolution server to realize the network access via domain name. Registration on the DDNS server is required before configuring the DDNS settings of the device.

1. Go to Settings > Network Settings > Advanced > DDNS.

ONVIF	SNMP	DDNS		
Service Provider		NO-IP	Go to register	
Enable				
Address		dynupdate.no-ip.com		
Domain Name				
Username				
Password				
Confirm passwor	ď			
Status				
				Save

- 2. Select the type of Service Provider for domain name resolution.
- 3. Enter the domain name information, and click **Save**.



Cloud Service

After connecting your camera to the internet, you can manage it remotely via Cloud Services.

The camera supports remote management with the support of TP-Link Cloud Services. With a TP-Link ID bound, you can remotely monitor your areas on multiple platforms, including computers and mobile phones.

Follow the steps below to bind your TP-Link ID to the camera and download the VIGI app.

- 1. Go to Settings > Cloud Service.
- 2. Click Go to Bind. Enter your TP-Link ID and password and click Bind. If you do not have a TP-Link ID, click Sign Up to register.

	Bind		8
TP-Link ID			
	Forgot password?	<u>Sign Up</u>	
	Cancel Bind		

3. After binding your TP-Link ID, download the VIGI app on your mobile phone by scanning the QR code below. Log in with your TP-Link ID. Then you can monitor the live view and manage the camera remotely on your computer or mobile phone.





System Settings

This chapter guides you to configure the basic and advanced settings of your camera, export and import settings. You can create and modify administrator accounts based on your needs. This chapter includes the following sections:

- Configure Basic Settings
- Modify System Time
- Manage User Accounts
- System Management
- Upgrade Firmware
- <u>Reboot Device Regularly</u>
✤ 10.1 Configure Basic Settings

- 1. Go to Settings > System Settings > Basic Settings.
- 2. View and change the name of your camera.
- 3. Specify the Web Session Timeout. You will be logged out when you make no operation (not including viewing live image) to the device via web browser within the set timeout period.

Basic Settings		
Device Name	VIGI C345ZI 1.0_C960	minuto(s) (40,4000)
Web Session Timeout		minute(s) (10-1000)

✤ 10.2 Modify System Time

You can select the time zone and set the time synchronization mode to Manual or NTP mode for the camera.

1. Go to Settings > System Settings > Basic Settings > Date.

Basic Settings	Date		
Time Zone	(UTC+08:00) Taipei		
Device Time	2024-11-27 15:26:29		
Time Settings			
Server Address	Auto	▼ (Optional)	
Interval		minute(s)	
DST	Auto		
	The Time Zone you selected do	not have DST	

- 2. Select your time zone.
- 3. Configure your time settings.

Network Time Protocol (NTP) is a protocol designed to time-synchronize a network of machines. NTP runs on User Datagram Protocol (UDP), which in turn runs on IP, or you can manually set the system time. If you do not want to expose your camera to the network, you can choose Manual. You may also click **Synchronize with computer** to synchronize the time settings of your camera with that of your PC.

	Set Time	2025-01-05				
		22 : 30 : 47	Θ			
		Synchronize with con	nputer			
Server address	Enter the IP add	ress of the NTP server.				
	Time interval be	tween the two synchror	nizing actions with NTP server.			
Interval	Note: The interv value is 60 minu	Note: The interval can be set from1 to 10080 minutes, and the default value is 60 minutes.				

4. (Optional) Set DST (daylight saving time) parameters.

DST is the practice of setting the clocks forward one hour from standard time during the summer months, and back again in the fall. DST Bias is the difference in minutes between standard time and daylight-saving time for a specific time zone.

You can select Auto at the dropdown list. Note that to update the time automatically with the DST, internet connection is required.

Or you can select Manual and specify the date/time of the DST period.

DST	Manual		T			
Start Time	Mar	Last		Sun	01:00	
End Time	Oct	Last		Sun	02:00	
DST Bias	30 mins					

Note:

1. In some time zones, DST is not observed.

2. If the camera is connected to an NVR, you only need to configure NTP and DST settings on the NVR, which will be synchronized with the camera.

5. Click Save.

✤ 10.3 Manage User Accounts

You can modify the default user account (admin) based on your needs. The Administrator user name is admin and the password is set when you set up your camera for the first time.

1. Go to Settings > System Settings > User Management.

User Mar	nagement				
				Password Prot	ection
0		Group Name	Remark		
	admin	Administrator			Edit
			Add	Delete the Sele	cted

2. Click Add. Enter Username, select User Group, and enter Password. Assign remote permission to users based on needs.

Note: The system pre-defines a default user group: administrator, which has all the permission of the system. You can click Edit to view the details and operations. The permission list of the administrator cannot be edited.

(
	Add New User	
Username		
User Group	Operator 🔹	
Event	Camera	
●PTZ	Network	
System	Storage	
Password		
Confirm Password		
Remark		
	Cancel Save	

Administrator	The administrator has the authority to all operations and can add users and operators and assign permission.
Operator	Operators can be assigned all permission except for operations on the administrator and creating accounts.
User	Users can be assigned permission of viewing live video, setting PTZ and event parameters, and changing their own passwords, but no permission for other operations.

3. (Optional) After adding the role, you can do one or more of the following:

- Set the permission for the user. Under the Permission List, check the accesses you grant to the user.
- Add a remark for the user. Enter your personalized notes in the Remark field.

	Edit User
Username	
User Group	
Change Password	
Remark	
	Cancel Save

4. Click **Password Protection** for account security settings. You can reset the password by setting the security question or email. You can click Forget Password and answer the security question

to reset the admin password when access the device via browser. After setting the email, you can receive the verification code during the recovering operation process.

	Account Security	
Password		
Security Question		
Security Question 1	Your father's name	
Answer		
Security Question 2	Your mother's name	
Answer		
Security Question 3	Your head teacher's name in s	
Answer		
Recovery Email		
	Cancel Save	

✤ 10.4 System Management

You can reset the camera to factory default settings, import and export the configuration file of your camera. To configure these settings, go to Settings > System Settings > System Management.

System Management	Upgrade Firmware	Reboot Device
Reset to Factory Default	Reset	
Restore Except Network	Restore	
Export configuration file	Export	
Import configuration file		Browse Import

To reset all the parameters to the factory default, click Reset.

To reset device parameters, excluding network settings, to the factory default, click Restore.

Note: After you click Restore, the port number you set in Network Settings will change.

To export the configuration file, click Export.

To import the configuration file, click **Browse** to select your file, then click **Import**.

✤ 10.5 Upgrade Firmware

TP-Link aims at providing better network experience for users. We will inform you through the web management page if there's any update firmware available for your camera. Also, the latest firmware will be released at the TP-Link official website www.tp-link.com, and you can <u>download</u> it for free.

Note:

- 1. Backup your camera configuration before firmware upgrade.
- 2. Do NOT power off the camera during the firmware upgrade.

10.5.1 Online Upgrade

- 1. Go to Settings > System Settings > System Management > Upgrade Firmware.
- 2. Click Check for Update to see whether the latest firmware is released.

System Management	Upgrade Firmware	Reboot Device			
Current Hardware Version	VIGI C345ZI 1.0				
Current Firmware Version					
ISP Version					
Online Update	Check for Update				
Local Update		Browse Update			
Please download the firmware at TP-Link's official website. <u>Download Center</u>					

- 3. Navigate to the Online Upgrade section, and click Upgrade if there is new firmware.
- 4. Wait a few minutes for the upgrade and reboot to complete.

10.5.2 Local Upgrade

- 1. Download the latest firmware file for the camera from www.tp-link.com.
- 2. Go to Settings > System Settings > System Management > Upgrade Firmware.
- 3. Click Browse to locate the downloaded new firmware file, and click Update.
- 4. Wait a few minutes for the upgrade and reboot to complete.

✤ 10.6 Reboot Device Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the camera.

- 1. Go to Settings > System Settings > System Management > Reboot Device.
- 2. Enable Scheduled Reboot.
- 3. Select the day and time and specify the Float Range. When Fixed Time is selected, the camera will reboot at exactly the time you set in the Reboot Schedule. You may select 1 to 60 minutes. Then your camera will reboot some time before or after the time you set in the Reboot Schedule.
- 4. Click Save.

System Management	Upgrade Firmware	Reboot Device	
Reboot Device	Reboot Now		
Scheduled Reboot			Hide 🔺
Scheduled Reboot	On		
Reboot Schedule	Every Sunday	▼ 03:00:00 ()	
Float Range	Fixed Time		
			Save

Note: You can click Reboot Now to reboot the camera immediately.