

**Camera Link for VIVOTEK Camera**  
**User Guide**

Version 1.0.0



## 1. Instruction

Camera Link is a feature that enables VIVOTEK PTZ cameras to automatically zoom onto pre-set locations and start tracking an object when the alarm is triggered by the “spotter” camera within the same surveillance system.

Camera Link’s connection between cameras does not require a VMS system. At points of interest, alarms and actions can be set up in the “spotter” camera, typically a fixed IP camera. When the spotter camera detects an event at the point of interest, it will notify the PTZ camera to zoom in on that event and capture more details.

Take a construction site for example. Considering the large floor space up to hundreds of thousands of square meters, deploying dozens of cameras for entry/exit surveillance and security is reasonable.

Depending on the VMS system there may be some latency because all video recordings and action commands have to be processed by the VMS. On the contrary, with Camera Link’s inter-camera communication, once the spotter camera detects a suspicious person entering the premises, it directly triggers an alarm and directs the PTZ cameras nearby to track and record the intruder. Commands are sent directly to PTZ cameras for immediate and detailed results, thus lag time from spotter camera to PTZ cameras is minimized. Furthermore, if there is no VMS then Camera Link can save all recordings to the camera SD cards.

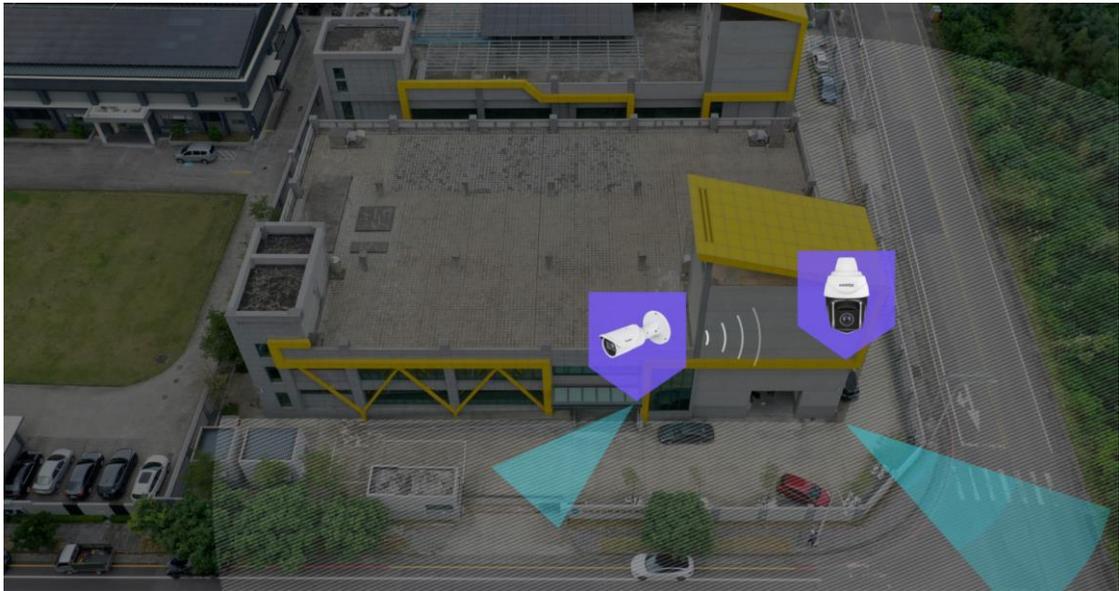
Camera Link is also great for situations where cameras are installed far away from the VMS workstation. This could be a temporary portable building on a school campus, city park, or sports field.

In a typical Camera Link setup, a spotter camera is used for wide coverage surveillance. The spotter camera delivers assigned action



commands to the PTZ camera. The PTZ camera receives the assigned action commands from the spotter camera and goes to the event, capturing more details than the spotter camera alone can obtain.

Camera Link allows a spotter camera to link with up to 3 PTZ cameras. After PTZ cameras go to the assigned pre-set location, they can track the object with smart tracking advanced. With Camera Link, surveillance systems can reduce the reliance on system operators to track events and maximize the likelihood of capturing and recording a critical event, enhancing operation efficiency.



## 2. Getting Started

Requirements: A spotter camera and a action camera and with FW Major 2103 and above version (ex. 2.2103.34.01d)

### VIVOTEK Camera Supported List

| Product Category | Models   |
|------------------|--|
| Box Cameras      | IP9165-HT-v2, IP9165-LPC-v2, IP9165-LPR-v2 Kit (Street), |



|                          |  |
|--------------------------|--|
|                          | IP9181-HT-v2*, IP9181-LPC-v2*,<br>IP9181-LPC-v2 (Kit)*, IP9191-HT-v2*,<br>IP9191-LPC-v2*   |
| Bullet Cameras           | IB9365-EHT-v2, IB9367-EHT-v2,<br>IB9369, IB9389-EH-v2, IB9389-EHT-v2,<br>IB9391-EHT-v2, IB9387-LPR-v2*   |
| Fixed Dome Cameras       | FD9167-HT-v2, FD9365-EHTV-v2,<br>FD9367-EHTV-v2, FD9369,<br>FD9189-H-v2, FD9189-HT-v2,<br>FD9389-EHV-v2, FD9389-EHTV-v2,<br>FD9391-EHTV-v2<br><br>IT9389-H-v2<br><br>CD9381-HNTV, CD9381-HNVF2 |
| 180° Cameras             | MS9390-HV-v2*  |
| 360° Cameras             | FE9382-EHV-v2, FE9191-H-v2*,<br>FE9391-EHV-v2  |
| Multi-Sensor Cameras     | MA9322-EHTVL   |
| Mobile Dome Cameras      | MD9582-H, MD9584-H   |
| Speed Dome Cameras       | SD9161-H-v2, SD9368-EHL,<br>SD9384-EHL   |
| Split-type Camera System | VC9101   |

\* Models with an asterisk will be available later.

### 3. Step by step guide on action PTZ camera

3.1 Before configuring the Smart Tracking, go to configuration > PTZ settings to configure several PTZ preset positions of your interest, and *make sure a few of them matched to the ROI of spotter camera*. Move your PTZ camera lens to the areas of your interest and save them as

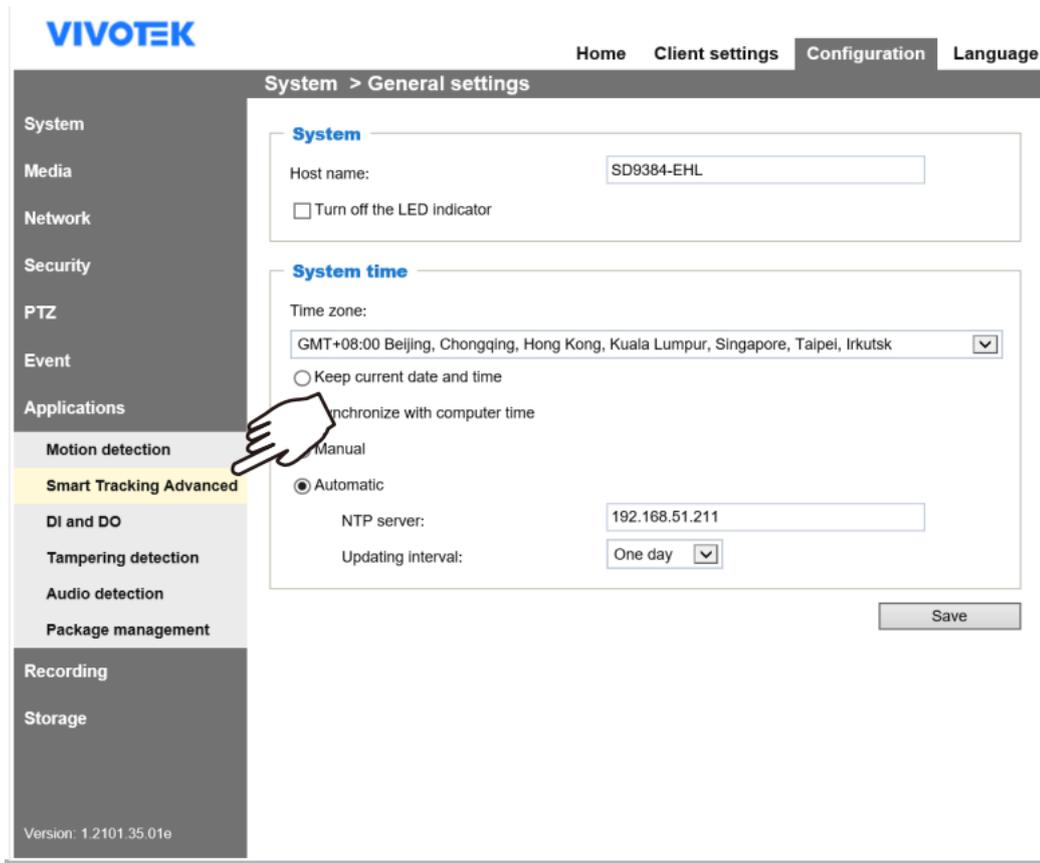


## PTZ Presets.

The screenshot shows the VIVOTEK web interface for PTZ settings. The top navigation bar includes 'Home', 'Client settings', 'Configuration', and 'Language'. The left sidebar lists various system settings: System, Media, Network, Security, PTZ, PTZ settings, Calibrate, Event, Applications, Recording, and Storage. The main content area is titled 'PTZ > PTZ settings' and features a live camera feed of a building. To the right of the feed are controls for Home, Zoom, Focus, and speed settings (Pan, Tilt, Zoom, Focus, Auto pan) with dropdown menus. Below the feed are 'Home location settings' with buttons for 'Set current position as home' and 'Restore home position to default'. A 'Patrol list' table is shown with columns for Name, Status, Mode, and a Delete button. The table contains two entries: 'presets' (ON, Preset) and 'preset\_four' (OFF, Preset). Below the table are buttons for 'Add a recorded patrol' and 'Add a preset patrol'. The 'Misc settings' section includes 'PTZ control panel operation mode' (Continuous move), 'Focus mode' (Auto), and checkboxes for 'Enable digital zoom', 'Freeze image during patrol', 'Zoom factor display', and 'Apply previous action' (if the camera idles for 5 seconds). A 'Save' button is at the bottom right.

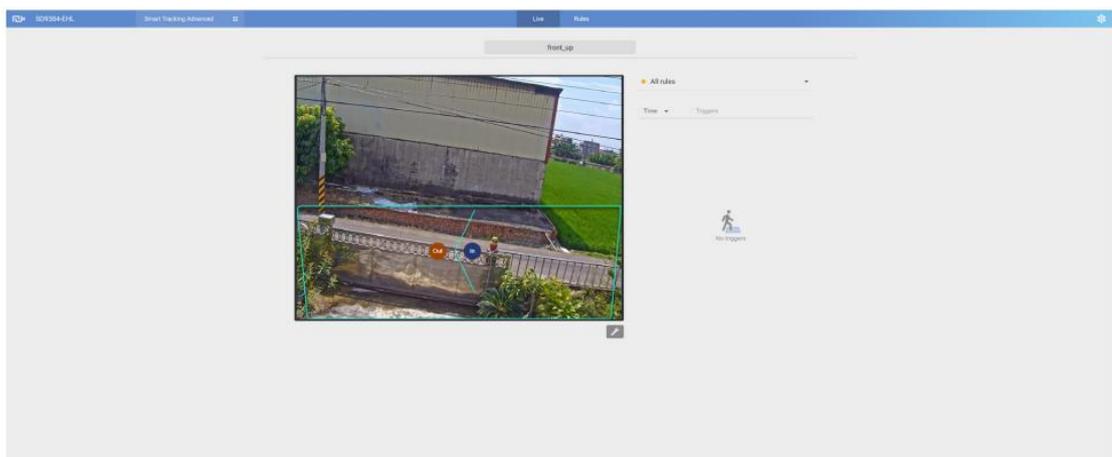
3.2 Open a web console to the camera using the Chrome browser. Enter the Configuration > Applications > Smart Tracking Advanced. Click on Smart Tracking Advanced to open the monitoring and configuration page.





3.3 The utility defaults to the Live page. Click on the Settings 

button on the upper-right corner to enter the Settings page.

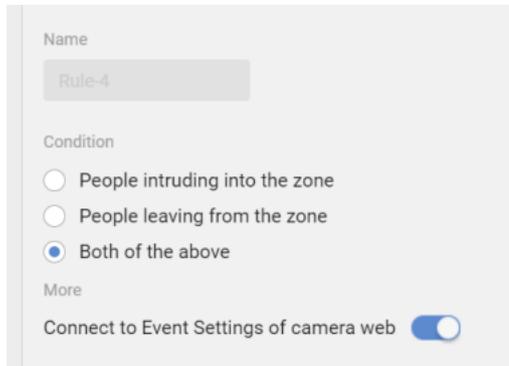


3.4 Refer to the [Smart tracking advanced user's manual](#) to setup smart tracking advanced with appropriate detection rules. Below are



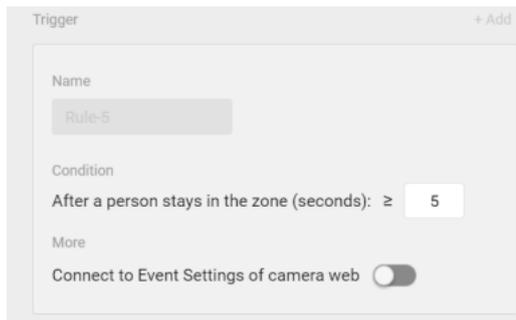
the common options for the rule types:

3.4.1 Intrusion detection: You can select people entering or leaving a zone, or both actions as a trigger.



The screenshot shows a configuration window for a rule named "Rule-4". Under the "Condition" section, there are three radio button options: "People intruding into the zone", "People leaving from the zone", and "Both of the above". The "Both of the above" option is selected. At the bottom, there is a toggle switch for "Connect to Event Settings of camera web" which is currently turned on.

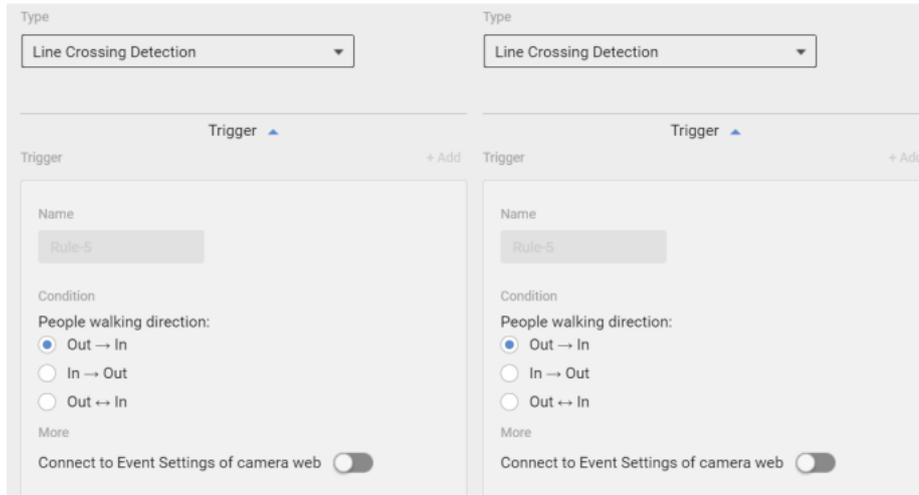
3.4.2 Loitering detection: You can select the duration of stay before the actions is considered as a trigger.



The screenshot shows a configuration window for a rule named "Rule-5". Under the "Condition" section, there is a text input field that reads "After a person stays in the zone (seconds): ≥ 5". At the bottom, there is a toggle switch for "Connect to Event Settings of camera web" which is currently turned off.

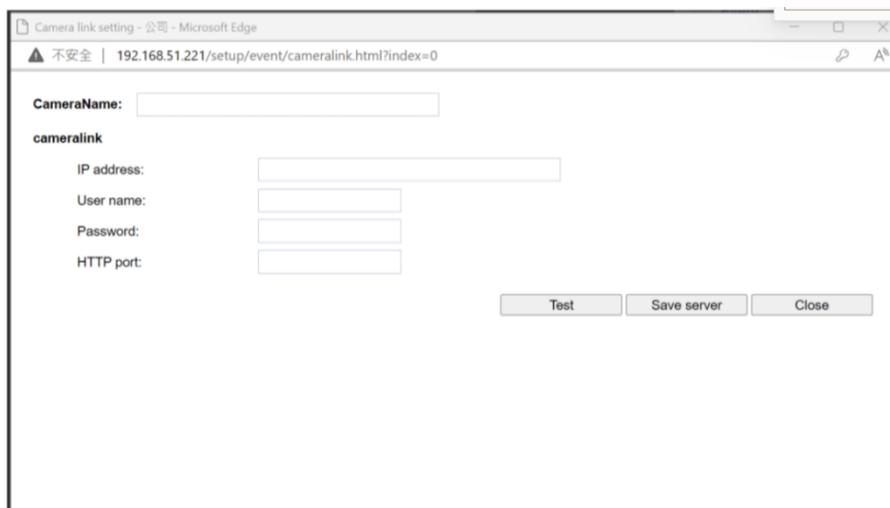
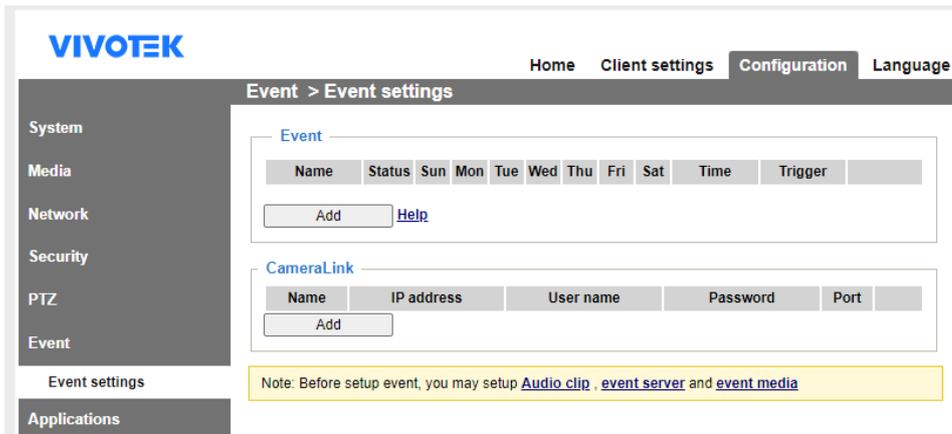
3.4.3 Line-crossing detection: You can designate which direction can trigger an alarm or select both directions. A detection line will appear. You can manually move the detection line on the screen.



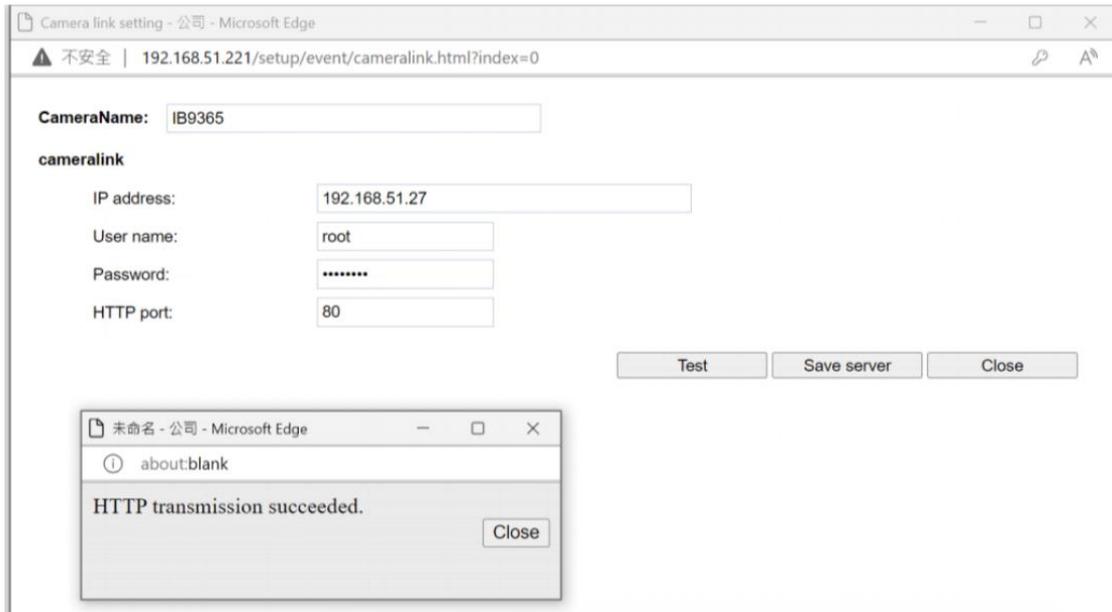


#### 4. Step by step guide on spotter camera

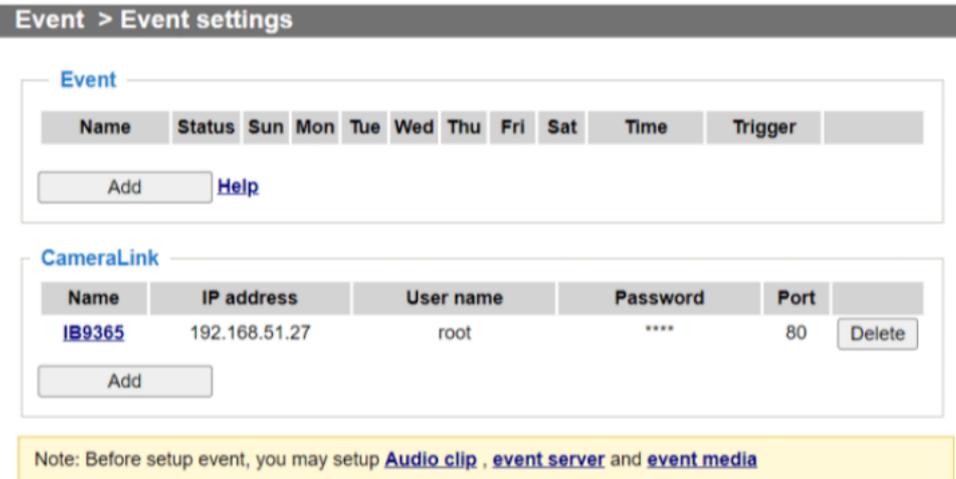
##### 4.1 Open a configuration window by clicking the Configure camera link.



4.2 Enter the address, credentials of the peer camera. You can click Test to test the connection.



The connected camera will appear.



4.3 On the Action window, the Camera link action option will appear.



Enable this event

Priority: Normal

Detect next motion detection or digital input after  second(s).

**1. Schedule**

↓

**2. Trigger**

↓

**3. Action**

**Action**

Trigger digital output for  seconds

Backup media if the network is disconnected

Trigger track : -----None----- [Configure Smart Tracking Advanced](#)

Trigger patrol : -----None----- [Configure Patrol list](#)

Play audio clip : -----None----- [Configure Audio clips](#)

Move to preset location: -----None----- [Configure Preset locations](#)

Configure [CameraLink](#)

| Name                                | IP address           | Action                                       |
|-------------------------------------|----------------------|--|
| <input checked="" type="checkbox"/> | IB9365 192.168.51.27 | <a href="#">Configure Camera link action</a> |

| Server                        | Media                       | Extra parameter                                       |
|-------------------------------|-----------------------------|---|
| <input type="checkbox"/> SD   | <span>-----None-----</span> | <a href="#">SD test</a>                               |
| <input type="checkbox"/> NAS0 | <span>-----None-----</span> | Note: Please configure <a href="#">NAS management</a> |

[Add server](#) [Add media](#)

[Save event](#) [Close](#)

4.4 You can then configure the action to take effect when a trigger occurs on the current camera.

Camera link action setting - Google Chrome

Not secure | 192.168.51.221/setup/event/cameralink\_action.html?index=0

**Camera link action:**

**cameralink**

CameraName:

IP:

User name:

Password:

Port:

**Action**

Trigger digital output 1 for  seconds

Move to preset location: 2 [Test preset](#)

Trigger Smart Tracking Advanced: 4 [Test preset](#)

[Save server](#) [Close](#)

## 5. Q&A

5.1 How many cameras could I configure for one spotter camera?

Camera Link allows a spotter camera to link with up to 3 PTZ cameras.

