



Milesight-Troubleshooting

HTTP Notification

Camera Firmware	4x.7.0.77 or above	Update	2021.3.30
Camera Firmware	4x.8.0.1 or above	Update	2022.4.20

1. Introduction

The Hypertext Transfer Protocol (HTTP) is designed to enable communications between clients and servers. A client sends an HTTP request to the server, and then the server returns a response to the client. The response contains status information about the request and may also contain the requested content. The two most common HTTP methods are GET and POST.

1.1 What is GET Method

GET, the most common HTTP methods, is used to request data from a specified resource. Some notes on GET requests:

- GET requests can be cached
- The query string (name/value pairs) is sent in the URL of a GET request. So GET requests should never be used when you deal with sensitive data
- GET requests remain in the browser history
- GET requests can be bookmarked
- GET requests have length restrictions
- GET requests are only used to request data (not modify)

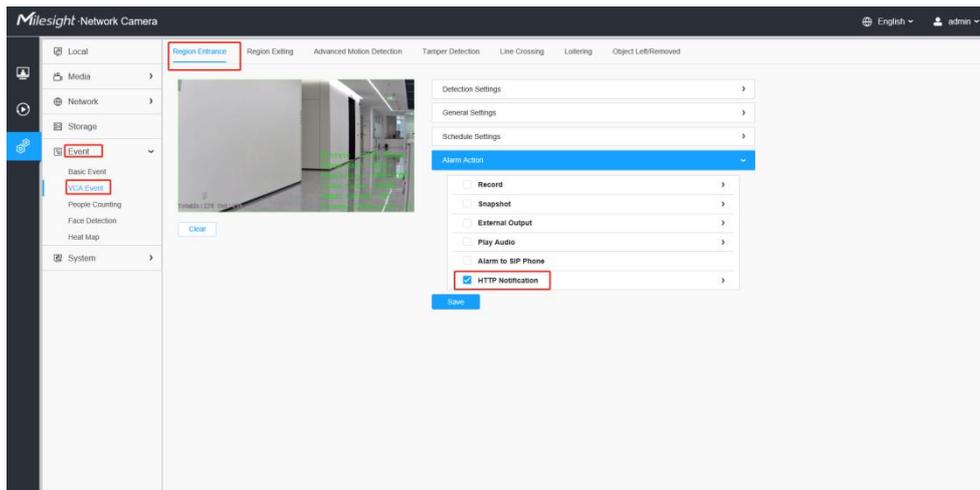
1.2 What is POST Method

POST is used to send data to a server to create/update a resource. Some notes on POST requests:

- The data sent to the server with POST is stored in the request body of the HTTP request:
- POST requests are never cached
- POST requests do not remain in the browser history
- POST requests cannot be bookmarked
- POST requests have no restrictions on data length

2. How to Set HTTP Notification

Enable HTTP Notification in *Alarm Action* before all settings.



Note: HTTP POST Method is currently only available in VCA Event (including people counting), Face Detection Message and LPR Message, while Basic Event has GET Method alone. Before firmware version 4x.7.0.77, only LPR Message supported both POST and GET Method.

2.1 The Get Method

Step 1: Select *Get* in *HTTP Method* and choose one of the three URLs to enable.

Step 2: Set *Trigger Interval* from 0s to 900s. For example, 5s means that if the VCA Alarm is continuously triggered, the camera will communicate with the client by GET Method every 5s.

Step 3: Fill in *URL*, *User Name* and *Password*.

Take an example, the API URL from a VMS is like "http://192.168.7.121:8080/api/CreatEvent?" Fill in the specified URL in camera's web UI (if the VMS requires the authentication, please also fill in) :

The information VMS needs is Resource and Type. Once the VCA event is triggered, the camera will send below URL to VMS:

<http://192.168.7.121:8080/api/CreatEvent?Resource=VCACamera&Type=RegionEntance>

If the alarm information is to be displayed in VMS, the VMS side needs to extract it from the URL.

2.2 The POST Method

Step 1: Select *Post* in *HTTP Method* and choose one of the three URLs to enable.

Step 2: Set *Trigger Interval* from 0s to 900s. For example, 5s means that if the VCA Alarm is continuously triggered, the camera will communicate with the client by POST Method every 5s.

Step 3: Check *Snapshot* if you want to send the snapshot through POST method at the same time.

Step 4: Fill in *URL*, *User Name* and *Password*.

The screenshot shows the 'HTTP Notification' configuration panel. It includes a 'URL' field with three tabs (1, 2, 3) and a text input containing 'https://abc.com'. Below it is an 'Enable' checkbox that is checked. The 'Trigger Interval' is a numeric input set to '5' with a '(0-900) s' label. The 'HTTP Method' is a dropdown menu set to 'Post'. There is an unchecked 'Snapshot' checkbox. At the bottom are empty 'User Name' and 'Password' text input fields.

Take an example, the API URL from a VMS is like "http://192.168.2.24:1234/post". Fill in the specified URL in camera's web UI (if the VMS requires the authentication, please also fill in) :

This screenshot shows the same configuration panel as above, but with example values. The 'URL' field now contains 'http://192.168.2.24:1234/post'. The 'Enable' checkbox remains checked. The 'Trigger Interval' is still '5' seconds. The 'HTTP Method' is 'Post'. The 'Snapshot' checkbox is still unchecked. The 'User Name' field is now filled with the text 'admin', and the 'Password' field is filled with a series of dots, indicating a masked password.

Camera will post the information data in json format to the VMS or NVR in real time when it is triggered.

The content that will be sent is as follows:

```
POST /post HTTP/1.1
User-Agent: httpclient
Host: 192.168.2.24:1234
Content-Type: application/json
Content-Length: 108615

{
  "event": "Region Entrance",
  "device": "Network Camera",
  "time": "2021-03-30 13:51:56",
  "resolution w": 1920,
  "resolution h": 1080,
  "detection_region": 1,
  "coordinate x1": 0,
  "coordinate y1": 220,
  "coordinate x2": 1392,
  "coordinate y2": 1075,
  "snapshot": "/9j/4AAQSkZJRgABAQAAQABAAD/2wDFABALDA4MChAODQ4SERATGCgaGBY... (Image code)"
}
```

Example 1: VCA Event

```
POST /post HTTP/1.1
User-Agent: httpclient
Host: 192.168.2.24:1234
Content-Type: application/json
Content-Length: 44119

{
  "time": "2021-03-30 14:26:05",
  "number": 1,
  "face_data": [{
    "id": 10,
    "blur": 0,
    "plate_image": "/9j/4AAQSkZJRgABAQAAQA... (Image code)"
  }]
}
```

Example 2: Face Detection

```
POST /post HTTP/1.1
User-Agent: httpclient
Host: 192.168.7.30:7001
Content-Type: application/json
Content-Length: 378821

{
  "event": "People Counting",
  "device": "Network Camera",
  "time": "2021-03-30 14:33:48",
  "In": 0,
  "Out": 1,
  "Capacity": 0,
  "Sum": 1,
  "snapshot": "/9j/4AAQSkZJRgABAQA... (Image code)"
}
```

Example 3: People Counting

```

POST /post HTTP/1.1
User-Agent: httpclient
Host: 192.168.2.24:1234
Content-Type: application/json
Content-Length: 46107

{
  "device": "Network Camera",
  "time": "2021-03-30 14:33:48",
  "plate": "S8pK",
  "type": "Visitor",
  "speed": "-",
  "direction": "-",
  "direction region": "-",
  "region": "",
  "direction": "-",
  "resolution width": "1280",
  "resolution height": "720",
  "coordinate x1": "473",
  "coordinate x1": "93",
  "coordinate x1": "676",
  "coordinate x1": "135",
  "confidence": "0.70",
  "plate image": "/9j/4AAQSkZJRgABAQAAQABAAQ/2wDFABgaGBY... (Image code)",
  "plate image": "/9j/4AAQSkZJRgABAQAAQABAAQ/2wDFABgaGBY... (Image code)",
  "full_image": "/9j/4AAQSkZJRgABAQAAQABAAQ/2wDFABgaGBY... (Image code)"
}

```

Example 4: LPR Message

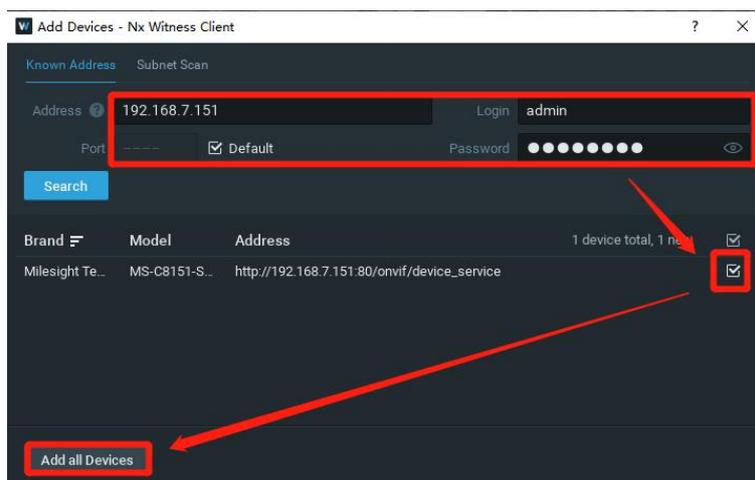
Note: For more details and other ways to push LPR message, please refer to [42.Milesight-Troubleshooting: Integration between LPR Camera and NVR\(VMS\)](#).

3. Specific Example

Some professional VMS has API for HTTP GET Method. We take *Nx Witness* and *Digifort* as examples to show how HTTP Notification works.

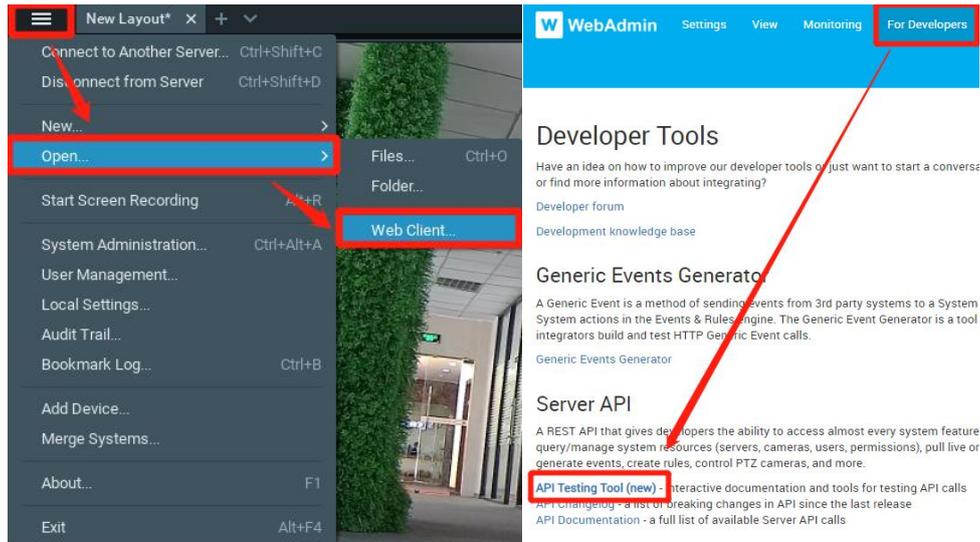
3.1 Nx Witness

Step 1: Do all the preparations before testing, such as adding Milesight Camera in Nx Witness and enabling events that require HTTP Notification in the camera web page.

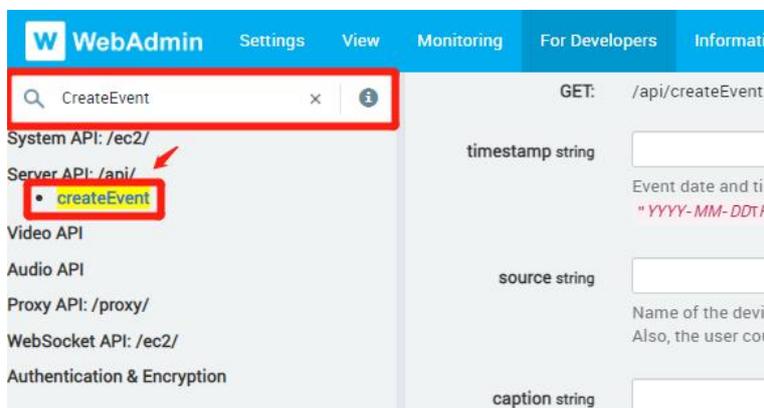


We take Region Entrance here as an example. Enable it on the web page of camera and configure more, such as setting Sensitivity, drawing detection region, scheduling enable time and so on.

Step 2: Open Nx Witness Server Web Client, click the tag *For Developers* after logging into Web Client and then open *API Testing Tools(new)*.



Search "CreateEvent" to quickly find the API we want.



Step 3: The tool will automatically form Requesting URL after you fill in the content. We use three of these commonly used parameters. Fill in the information you want to send to Nx Witness when the Region Entrance is triggered.

source string	MS-C2961-REOPB
caption string	Region Entrance
description string	Someone in the zone
Requesting URL	https://login.password@192.168.7.33:7001/api/createEvent?source=MS-C2961-REOPB&caption=Region%20Entrance&description=Someone%20in%20the%20zone

Copy the Requesting URL.

Step 4: Open web page of the camera. Enable *HTTP Notification* in *Alarm Action*. Select *Get* in *HTTP Method* and choose one of the three URLs to enable. Set Trigger Interval from 0s to 900s. Paste the URL you just copied from API test tool in Nx Witness Server Web Client.

Reform the URL:

<https://login.password@192.168.7.33:7001/api/createEvent?source=MS-C2961-REOPB&caption=Region>

%20Entrance&description=Someone%20in%20the%20zone(Before)

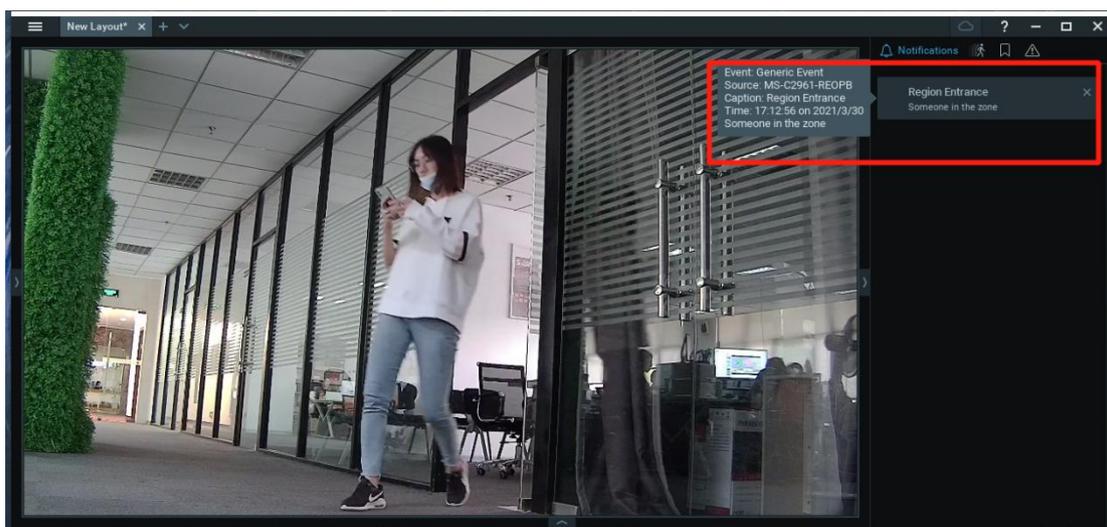
<http://192.168.7.33:7001/api/createEvent?source=MS-C2961-REOPB&caption=Region%20Entrance&description=Someone%20in%20the%20zone> (Now)

Don't forget to finish *User Name* and *Password* (Nx Witness Server's User Name and Password) and click *Save*.

The screenshot shows the 'HTTP Notification' configuration window. It includes the following fields and options:

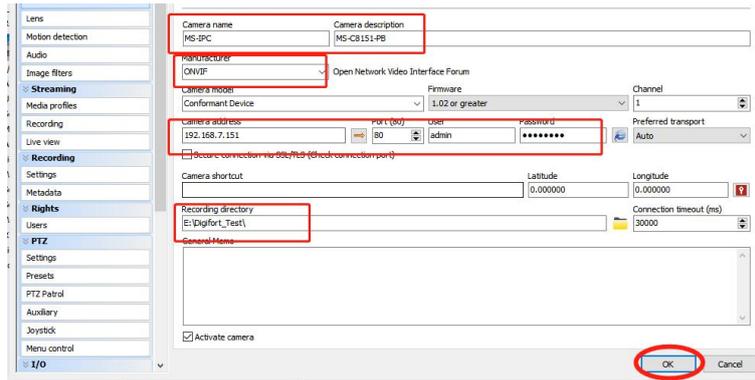
- HTTP Notification:** Checked (indicated by a blue checkmark).
- URL:** Three input boxes labeled '1', '2', and '3'. The first box contains the text ':Someone%20in%20the%20zone'.
- Enable:** Checked (indicated by a blue checkmark).
- Trigger Interval:** A text input box containing '0', with '(0-900) s' to its right.
- HTTP Method:** A dropdown menu set to 'Get'.
- User Name:** A text input box containing 'admin'.
- Password:** A password input box with six dots and an eye icon to toggle visibility.

Result: Once Region Entrance is triggered, Nx Witness will show the Notification.



3.2 Digifort

Step 1: Do all the preparations before testing, such as adding Milesight Camera in Digifort and enabling events that require HTTP Notification in the camera web page.



We take Motion Detection as an example. Enable it on the web page of camera and configure more, such as setting Sensitivity, drawing detection region, scheduling enable time and so on.

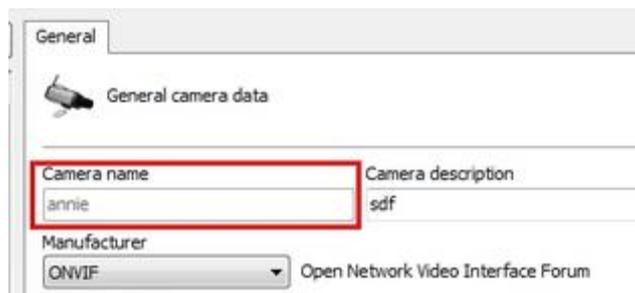
Step 2: Check the *HTTP Notification* as *Alarm Action* and complete the rest of the settings.

URL should be get from Digifort API document. And the Motion Detection API is:

[http://\[IP\]:8601/Interface/Cameras/MotionDetection/Notify?Camera=CameraName](http://[IP]:8601/Interface/Cameras/MotionDetection/Notify?Camera=CameraName)

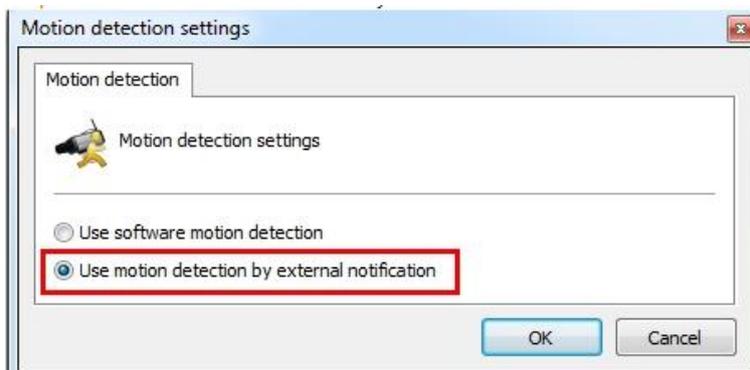
Note :

- [IP] refers to the PC's IP where the Digifort is installed.
- 8601 is the port for Motion signal in Digifort.
- Camera Name is the camera name you set in Digifort VMS, like the picture shown below.



- *User Name*: admin (the user name of your camera)
- *Password*: (the password of your camera)

Step 3: Choose 'use motion detection by external notification'.



Result: If successful, you can see that the device icon turns yellow in the Surveillance when the camera is under Motion Detection Alarm.



END