ONVIF Support Procedure

Dear Partners:

We have put in place two methods to integrate IP devices through ONVIF standard with our recorders. Base on our experience, a strict verification phase must present in order to ensure successful ONVIF integration. Please refer to the below instructions and provide us with the information requested for integration.

For ONVIF partner, NUUO only guarantee camera video connection (1st stream) with ONVIF test report.

For further feature support, we will suggest to standard camera integrate process.
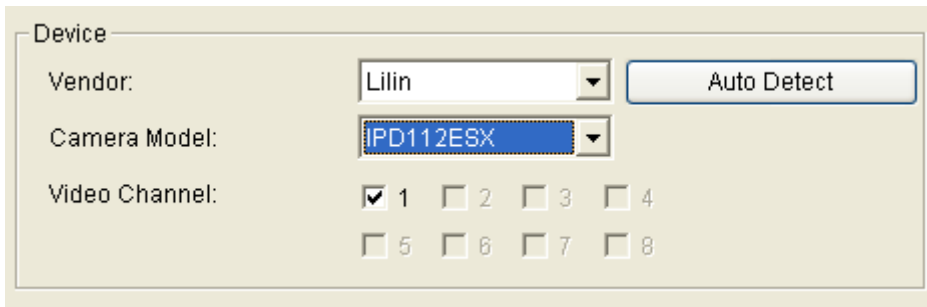NUUO ONVIF camera support list:
Mainconsole(IP+):http://www.nuuo.com/mktmaterials/Device%20Pack/Onvif.html
Titan NVR: http://www.nuuo.com//mktmaterials/Titan/ONVIF.html
NVRmini2: http://www.nuuo.com//mktmaterials/NVS/ONVIF.html

Note:
1. After provide Onvif testing report and still no video display (1st stream) then will go to technical process.
2. Onvif support function except video (1st stream) will not list on technical issue.
3. If partner want to list on NUUO support list, please request camera integration via NUUO Regional Sales.
4. Onvif v2.0 please contact with NUUO Regional Sales for camera integration.
5. Onvif Product line support: Titan(v1.02), Mini2(v1.02), Mini (v1.01) and Mainconsole(v1.02)

ONVIF support types:

[Type 1] Displaying your camera brand and models on our software (using ONVIF protocol).

Request camera integration via NUUO Regional Sales

Required items:

- Device Pack-Partner Integration Appendix
- Device samples or remote links (with correct ID/PW)

  Note: If any of the requested camera models are not received, NUUO will not support them. Camera link can only integrate video and PTZ, if need to integrate video, I/O, Motion, audio and PTZ need to provide camera sample.
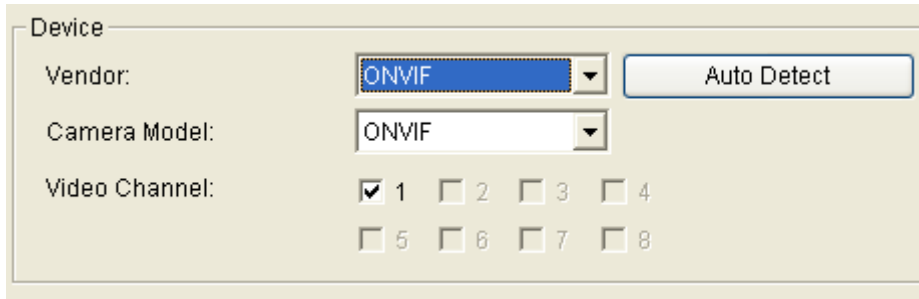
- ONVIF test report (Must pass all items of ONVIF official test tool)
- CGI document
- Certificate of Identity _A_revised(Support by design)/ Certificate of Identity _B_revised(Test by manufacturer)

  Note: A camera share same CGI with 2 I/O, B camera share same CGI with 4 I/O then you can not use certification. C camera share same CGI with 1 audio microphone in and 1 audio line out and D camera share same CGI with no audio support then you can not use certification.

  Note: NUUO will provide the test case to requesting party after receiving the signed Certificate of Identity B.

- Camera Specification Sheet
- Camera brand RD contact window

[Type 2] Display as ONVIF brand and ONVIF model on our software

a. **Tuned/Tested by camera manufacturer, required items:**

Camera manufacturer can test the integration by itself by signing the Certificate of Identity B. (Tested by manufacturer).

Camera manufacturer's technical support must follow NUUO's integration schedule to prevent any delay.   If there are any problems regarding ONVIF integration issues, please send to onvifsupport@nuuo.com once the requests are confirmed by NUUO.

➢ Device Pack-Partner Integration Appendix

➢ Device samples or remote links (with correct ID/PW)

Note: If any of the requested camera models are not received, NUUO will not support them. If any of the requested camera models are not received, NUUO will not support them. Camera link can only integrate video and PTZ, if need to integrate video, I/O, Motion, audio and PTZ need to provide camera sample.

➢ ONVIF test report (Must pass all items of ONVIF official test tool)

➢ CGI document

➢ The Certificate of Identity B(Tested by manufacturer)

Note: NUUO will provide the test case to requesting party after receiving the signed Certificate of Identity B.

➢ Camera Specification Sheet

➢ Camera brand RD contact window

Test Case for NUUO ONVIF support

ONVIF 1.02

Official test tool version - ONVIF 1.01.1.26

MUST

Device Management Test Cases

    NVT ALL CAPABILITIES

    NVT DEVICE CAPABILITIES

    NVT SYSTEM COMMAND DEVICE INFORMATION

Media Configuration Test Cases

    NVT MEDIA PROFILE CONFIGURATION

    NVT DYNAMIC MEDIA PROFILE CONFIGURATION

    NVT MEDIA STREAM URI – RTP/UDP UNICAST TRANSPORT

    NVT MEDIA STREAM URI – RTP/RTSP/HTTP TRANSPORT

Real Time Viewing Test Cases

    NVT MEDIA CONTROL – RTSP/TCP

    NVT MEDIA STREAMING – RTSP KEEPALIVE

    NVT MEDIA STREAMING – RTP/UDP UNICAST TRANSPORT

    NVT MEDIA STREAMING – RTP/RTSP/HTTP TRANSPORT

Test Case for NUUO ONVIF support

ONVIF 1.02

Official test tool version - ONVIF 1.02.3.5

MUST

MUST if implemented

Device Management - Capabilities

6.1.2 NVT ALL CAPABILITIES

Device Management - Network

6.2.22 NVT NETWORK PROTOCOLS CONFIGURATION

Device Management - System

6.3.9 NVT SYSTEM COMMAND DEVICE INFORMATION

Media Configuration – Media Profile

7.1.1 NVT MEDIA PROFILE CONFIGURATION

7.1.2 NVT DYNAMIC MEDIA PROFILE CONFIGURATION

Media Configuration – Video Configuration

7.2.1 NVT VIDEO SOURCE CONFIGURATION

7.2.2 NVT VIDEO ENCODER CONFIGURATION

7.2.3 NVT JPEG VIDEO ENCODER CONFIGURATION

7.2.4 NVT MPEG4 VIDEO ENCODER CONFIGURATION

7.2.5 NVT H264 VIDEO ENCODER CONFIGURATION

Real Time Streaming – Video Streaming

8.1.1 NVT MEDIA CONTROL – RTSP/RTP

8.1.2 NVT MEDIA STREAMING – RTSP KEEPALIVE

8.1.3 NVT MEDIA STREAMING – JPEG (RTP-Unicast/UDP)

8.1.4 NVT MEDIA STREAMING – JPEG (RTP-Unicast/RTSP/HTTP/TCP)

8.1.5 NVT MEDIA STREAMING – JPEG (RTP/RTSP/TCP)

8.1.6 NVT MEDIA STREAMING – MPEG4 (RTP-Unicast/UDP)

8.1.7 NVT MEDIA STREAMING – MPEG4 (RTP-Unicast/RTSP/HTTP/TCP)

8.1.8 NVT MEDIA STREAMING – MPEG4 (RTP/RTSP/TCP)

8.1.10 NVT MEDIA STREAMING – H264 (RTP-Unicast/UDP)

8.1.11 NVT MEDIA STREAMING –H264 (RTP-Unicast/RTSP/HTTP/TCP)

8.1.12 NVT MEDIA STREAMING –H264 (RTP/RTSP/TCP)

Test Case for NUUO ONVIF support

ONVIF 1.02

Official test tool version - v1.02.4

MUST

MUST if implemented

Device Management - Capabilities

    DEVICE-1-1-2 ALL CAPABILITIES

Device Management - Network

    DEVICE-2-1-22 GET NETWORK PROTOCOLS CONFIGURATION

Device Management - System

    DEVICE-3-1-9 SYSTEM COMMAND DEVICE INFORMATION

Media Configuration – Media Profile

    MEDIA-1-1-1 MEDIA PROFILE CONFIGURATION

    MEDIA-1-1-2 DYNAMIC MEDIA PROFILE CONFIGURATION

Media Configuration – Video Configuration

    MEDIA-2-1-1 VIDEO SOURCE CONFIGURATION

    MEDIA-2-1-2 NVT VIDEO ENCODER CONFIGURATION

    MEDIA-2-1-3 NVT JPEG VIDEO ENCODER CONFIGURATION

    MEDIA-2-1-4 NVT MPEG4 VIDEO ENCODER CONFIGURATION

    MEDIA-2-1-5 NVT H264 VIDEO ENCODER CONFIGURATION

Real Time Streaming – Video Streaming

    RTSS-1-1-1 MEDIA CONTROL – RTSP/RTP

    RTSS-1-1-2 MEDIA STREAMING – RTSP KEEPALIVE

    RTSS-1-1-4 MEDIA STREAMING – JPEG (RTP-Unicast/UDP)

    RTSS-1-1-5 MEDIA STREAMING – JPEG (RTP-Unicast/RTSP/HTTP/TCP)

    RTSS-1-1-6 MEDIA STREAMING – JPEG (RTP/RTSP/TCP)

    RTSS-1-1-7 MEDIA STREAMING – MPEG4 (RTP-Unicast/UDP)

    RTSS-1-1-8 MEDIA STREAMING – MPEG4 (RTP-Unicast/RTSP/HTTP/TCP)
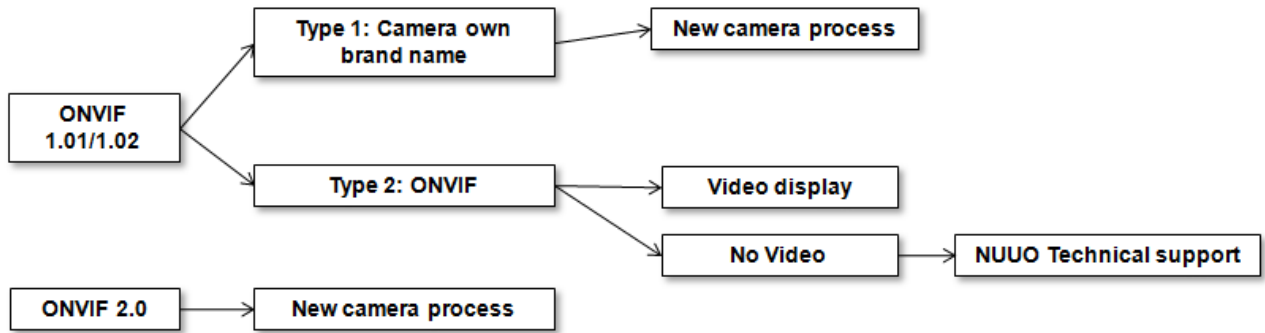
    RTSS-1-1-9 MEDIA STREAMING – MPEG4 (RTP/RTSP/TCP)

    RTSS-1-1-11 MEDIA STREAMING – H264 (RTP-Unicast/UDP)

    RTSS-1-1-12 MEDIA STREAMING –H264 (RTP-Unicast/RTSP/HTTP/TCP)

    RTSS-1-1-13 MEDIA STREAMING –H264 (RTP/RTSP/TCP)

NUUO ONVIF Process Flow

v 1.0

```
                    Type 1: Camera own  ───────►  New camera process
                        brand name

ONVIF
1.01/1.02

                    Type 2: ONVIF       ───────►  Video display

                                        ───────►  No Video  ───────►  NUUO Technical support

ONVIF 2.0  ───────►  New camera process
```

Note: For New camera process please contact with NUUO Regional Sales