

2013 May

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 ONVIF 2.0 includes a lot of profiles (ex: storage, camera, AC)  
NUUO support Profile S (streaming profile) which is video and audio stream device like IP camera. Profile S is forward compatibility, which means also support Onvif previous version.

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.pdf>

Titan NVR: <http://www.nuuo.com/mktmaterials/NVS/ONVIF.pdf>

NVRmini2: <http://www.nuuo.com/mktmaterials/NVS/ONVIF.pdf>

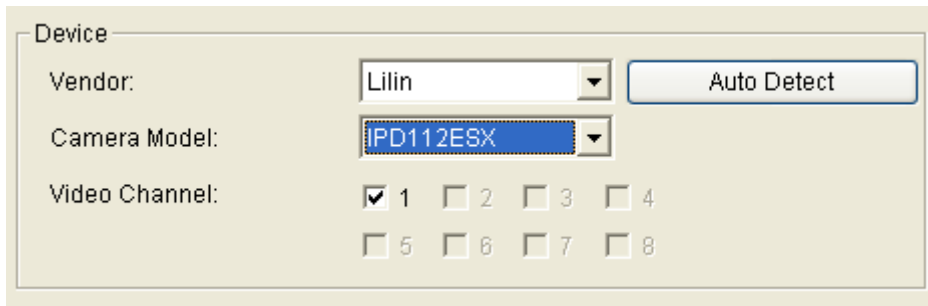
NVRsolo: <http://www.nuuo.com/mktmaterials/NVS/ONVIF.pdf>

Note:

1. After provide Onvif testing report and still no video display (1<sup>st</sup> stream) then will go to technical process.
2. Onvif support function except video (1<sup>st</sup> 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 Product line support: Titan(Profile S v12.06), Mini2(Profile S v12.06), Mini (Onvif v1.01), Solo(Profile S v12.06) and Mainconsole(Profile S v12.06)
5. ONVIF test report sample: [Doc Link](#)

## ONVIF support types:

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



Device

Vendor: Lilin

Camera Model: IPD112ESX

Video Channel:  1  2  3  4  
 5  6  7  8

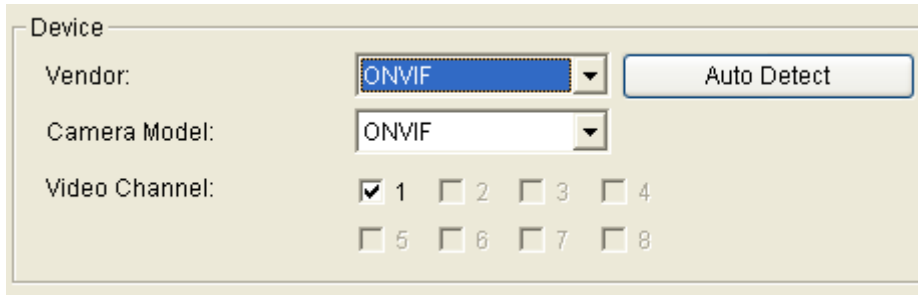
Request camera integration via NUUO Regional Sales

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)
- **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.**
- Camera Specification Sheet
- Camera brand RD contact window

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



The screenshot shows a configuration window titled "Device". It contains the following fields and controls:

- Vendor:** A dropdown menu with "ONVIF" selected and a button labeled "Auto Detect".
- Camera Model:** A dropdown menu with "ONVIF" selected.
- Video Channel:** A set of eight checkboxes labeled 1 through 8. Checkboxes 1 and 2 are checked, while checkboxes 3, 4, 5, 6, 7, and 8 are unchecked.

a. **Tuned/Tested by camera manufacturer**

Camera manufacturer can test the integration by itself. NUUO only guarantee camera video connection (1st stream) with ONVIF test report.

**If there are any problems regarding ONVIF integration issues, please contact with NUUO Regional Sales.**

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)

Test Case for NUUO ONVIF support  
ONVIF Profile S  
Official test tool version - v12.06

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 VIDEO ENCODER CONFIGURATION

MEDIA-2-1-3 JPEG VIDEO ENCODER CONFIGURATION

MEDIA-2-1-4 MPEG4 VIDEO ENCODER CONFIGURATION

MEDIA-2-1-5 H.264 VIDEO ENCODER CONFIGURATION

Media Configuration – Metadata Configuration

MEDIA-5-1-1 METADATA CONFIGURATION

Real Time Streaming – Video Streaming

RTSS-1-1-1 MEDIA CONTROL – RTSP/RTP

RTSS-1-1-2 MEDIA STREAMING – RTSP KEEPALIVE (SET\_PARAMETER)

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 – H.264 (RTP-Unicast/UDP)

RTSS-1-1-12 MEDIA STREAMING –H.264 (RTP-Unicast/RTSP/HTTP/TCP)

RTSS-1-1-13 MEDIA STREAMING –H.264 (RTP/RTSP/TCP)

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Real Time Streaming – Notification Streaming Interface

RTSS-4-1-1 **NOTIFICATION STREAMING**

Event Handling – Event Properties

EVENT-1-1-2 **GET EVENT PROPERTIES**