Dear Partners:

We have supported two methods to integrate IP devices through ONVIF standard with NUUO product. Based 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 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.

The latest ONVIF 2.0 NUUO supports the following features:
● MJPEG, MPEG-4 and H.264 streaming
● Multi-stream setting with correctly reflect the actual settings on camera video stream profiles

For ONVIF partner, NUUO only guarantee above feature with ONVIF test report.
For further feature support, we will suggest go to standard camera integrate process.

NUUO ONVIF camera support list:
Crystal™: Here
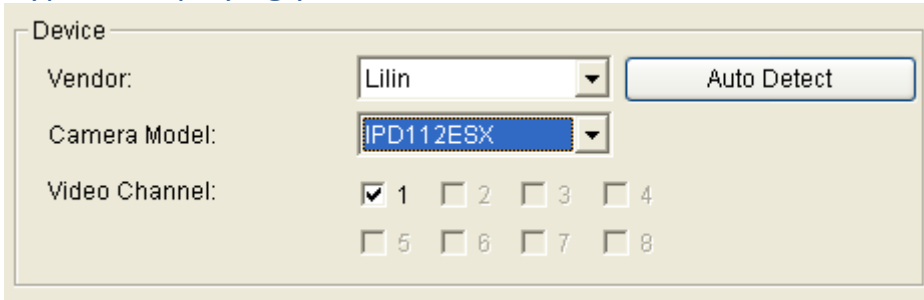Titan NVR: Here
Mainconsole: Here
NVRmini2: Here
NVRsolo: Here

Note:
1. After provide Onvif testing report and still without above feature support then will go to technical process.
2. Onvif support function except above feature will not list as technical issue.
3. Multi-streaming support is implemented. The stream source is selected from user defined profiles specifying the profile's number. The number of profiles created depends on device implementation and each profile is configured separately. After upgrade some ONVIF devices might not work. That is because new version of ONVIF now only shows features that a responding correctly through the ONVIF interface.
4. If partner want to list on NUUO support list, please request camera integration via NUUO Regional Sales.
5. Onvif support:
   Onvif 2.0 Profile S: Crystal™, Titan NVR, NVRmini 2, NVRsolo and Mainconsole
   Onvif 1.01: NVRmini
6. ONVIF test report sample: Doc link

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ONVIF support types:

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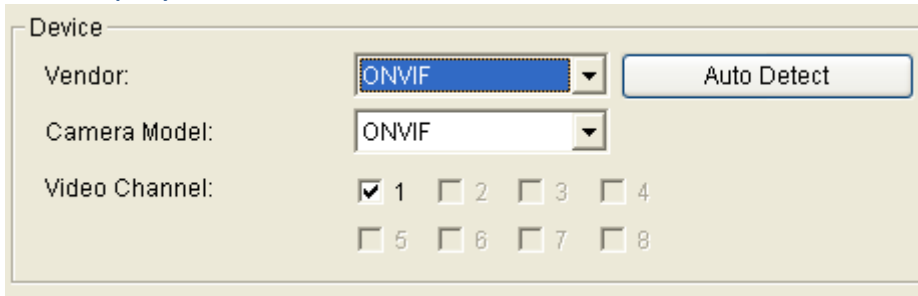

Request camera integration via NUUO Regional Sales
Required items:
- Device Pack-Partner Integration Appendix v1.1
- Device samples or remote links (with correct ID/PW)
  Note: If any of the requested camera models are not received, NUUO will not support them. Camera link can only integrate video and 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)
- Camera Specification Sheet
- Camera target firmware file
- Camera brand RD contact window

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

> ➢ **Tuned/Tested by camera manufacturer**
> Camera manufacturer can test the integration by itself. NUUO only guarantee the feature we support now with ONVIF test report.
> ➢ **If there are any problems regarding ONVIF integration issues, please contact with NUUO Regional Sales.**

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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)

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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)

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Test Case for NUUO ONVIF Multi-streaming Setting 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
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-2-3-10 VIDEO ENCODER CONFIGURATIONUSE COUNT (SET VIDEO ENCODER 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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