Short FAQs about Pro Convert

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1. What is the transmission latency of Pro Convert encoders?

In the whole process from video capturing, NDI encoding, transport, NDI decoding to rendering, latency is mainly introduced by the network switch, decoder, and display. In an ideal environment, the latency is about 47ms for the1080p60 signal from end to end when Pro Convert is used. For more details, you can refer to the blog.

We recommend that you use hardware switch and display to prevent the latency caused by operating systems. If you use a Magewell Pro Convert decoder, the latency of the overall workflow can be reduced by setting the buffer duration in Web GUI. For details, see the blog.

2. Do all Pro Convert devices support both Full NDI® and NDI®|HX?

Pro Convert encoders support only Full NDI®.

Pro Convert decoders support both Full NDI® and NDI®|HX, as well as RTSP, HTTP, HLS, RTMP Pull/Push, and MPEG-TS over UDP/SRT/RTP.

3. What is the maximum resolution and frame rate supported by Pro Convert?

Pro Convert encoders support up to 4:4:4, 8-bit, 4096x2160, 60fps input and up to 4:2:2, 8-bit, 4096x2160, 60fps NDI® output.

Pro Convert decoders support up to 4:2:2, 8-bit, 4096x2160, 60fps NDI® input and up to 4:4:4, 8-bit, 4096x2160, 60fps output. They also support higher frame rates at a lower resolution, such as 144fps for 1920x1080.

4. Does a Pro Convert device support both encoding and decoding?

No. Pro Convert encoders only support encoding, and Pro Convert decoders only support decoding.

5. What is the network requirement for a Pro Convert device in an NDI-based workflow?

In an NDI-based workflow, you need to set up a dedicated LAN for NDI devices. When the network is DHCP-enabled, Pro Convert can automatically obtain an IP address. When the network does not support DHCP, you can configure a static IP address for your Pro Convert device.

6. What is the bandwidth requirement of Pro Convert devices? How many NDI streams can be simultaneously delivered on a Gigabit network?

For a single 1080p or 4Kp60 input, Pro Convert requires 100Mbps to 250Mbps to deliver an NDI stream. A Gigabit network can deliver 6 to 7 1080p60 streams or 2 to 3 4Kp60 streams while guaranteeing stable transmission.

You can adjust the bitrate ratio of Pro Convert encoders based on your available bandwidth and the images you want to deliver. For details, see the [blog](#).

7. Can Pro Convert encoders control PTZ cameras?

Pro Convert encoders can receive PTZ commands from an NDI® decoding device (decoder supporting NDI-based PTZ control or NDI® decoding software), and convert them to protocols that can be recognized by PTZ cameras for camera control. Pro Convert encoders support 5 PTZ protocols, which are Visca, Visca UDP, Visca UDP2rs232, PELCO-D, and PELCO-P. For details, see the [blog](#).

8. Can Pro Convert devices deliver NDI® streams across different sub networks?

Using the NewTek NDI® Discovery Service, Pro Convert devices can deliver NDI deliver NDI® streams across different sub networks of the same network.

9. Do Pro Convert devices support multicast?

Pro Convert encoders support multicast. When multicast is enabled, IT engineers should configure the IGMP Snooping or Proxy policies on the switch to manage the multicast groups, so as to ensure that multicast group members can receive their requested NDI streams.

For other transport modes, you can refer to the [blog](#).