



ST 2110 over WAN

Andy Rayner, Chief Technologist

Nevion

IBC Hall 1 Stand B71



IP SHOWCASE THEATRE AT IBC - SEPT. 14-18, 2018



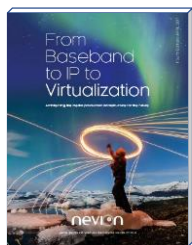
VideoIPPath

Management & Orchestration



Virtuoso

Software-defined media node



Back here on Sunday at 4:30pm



Come and see us: Hall 1 Stand B71

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SMPTE2110 – facility connectivity

The diagram illustrates the components of SMPTE2110 facility connectivity. It features eight circular icons arranged in two rows. The top row includes: SYSTEM (blue circle with a monitor icon), VIDEO (purple circle with a video camera icon), AUDIO (red circle with a speaker icon), and ANC DATA (green circle with a data icon). The bottom row includes: TIMING! (light blue circle with a clock icon), AES3-32 bit (light blue circle with a speaker icon), 2022-8 (blue circle with a video camera icon), and COMPRESSED VIDEO (purple circle with a video camera icon). Below the icons is the SMPTE logo, which consists of a globe with the text 'SMPTE' and a film strip graphic.


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WAN interconnect


The diagram illustrates a Wide Area Network (WAN) interconnect between two sites. At the top, a satellite icon is connected by dotted lines to two yellow rounded rectangles labeled 'PTP GM'. Below these, two 3D cityscape icons represent the sites. Each site is connected to a blue padlock icon, which is connected to the other padlock icon by a dashed line, representing a secure fiber connection. The neviON logo is at the bottom left.

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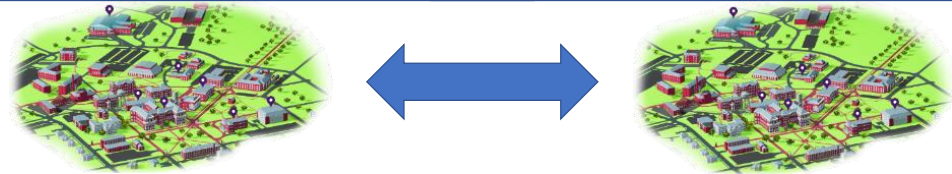




Timing on the facility edge

- PTP TIMING
- DEVICE DISCOVERY & CTL
- MEDIA FLOW IP ADDRESSING
- ESSENCE FLOWS
- PROTECTION TERMINATION




- ALTERNATIVE TIMING DOMAINS
- RESTRICTED/PROXY CTL
- DIFFERENT IP ADDRESSING(NAT)
- ESSENCE OR COMPOSITE FLOWS
- PROTECTION TERMINATION







ST2110 over WAN for inter-facility & OBs




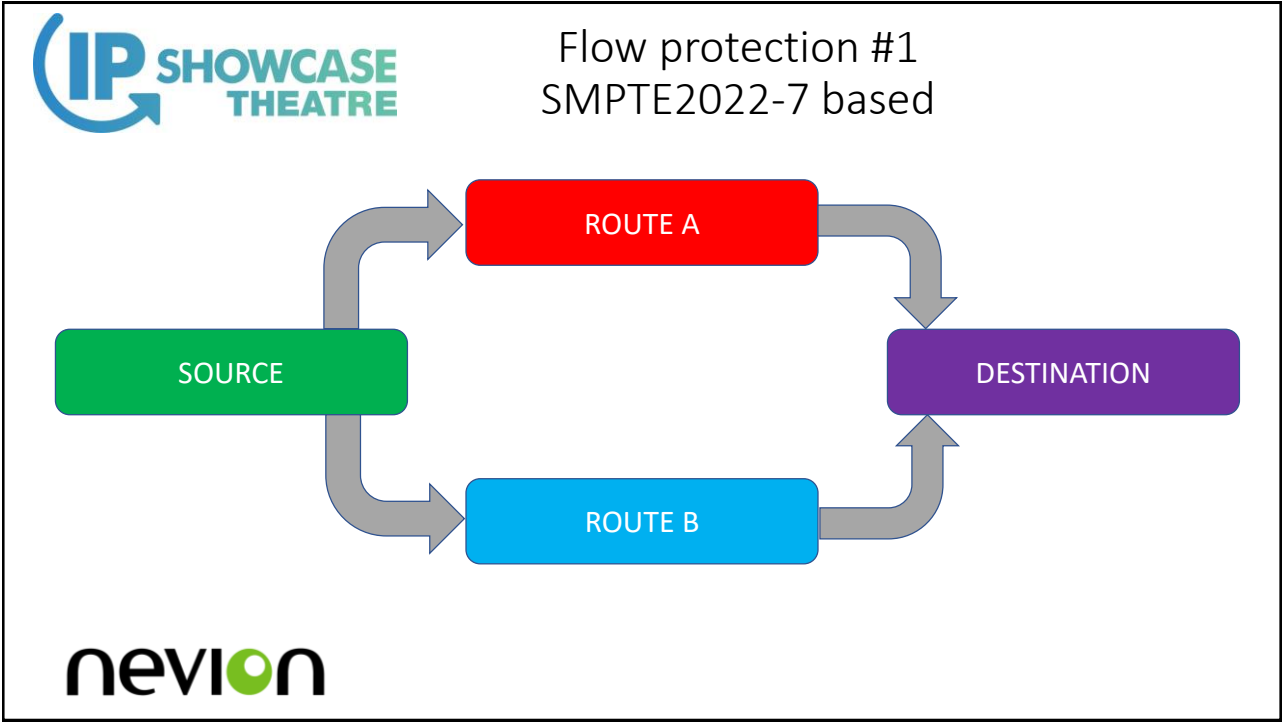
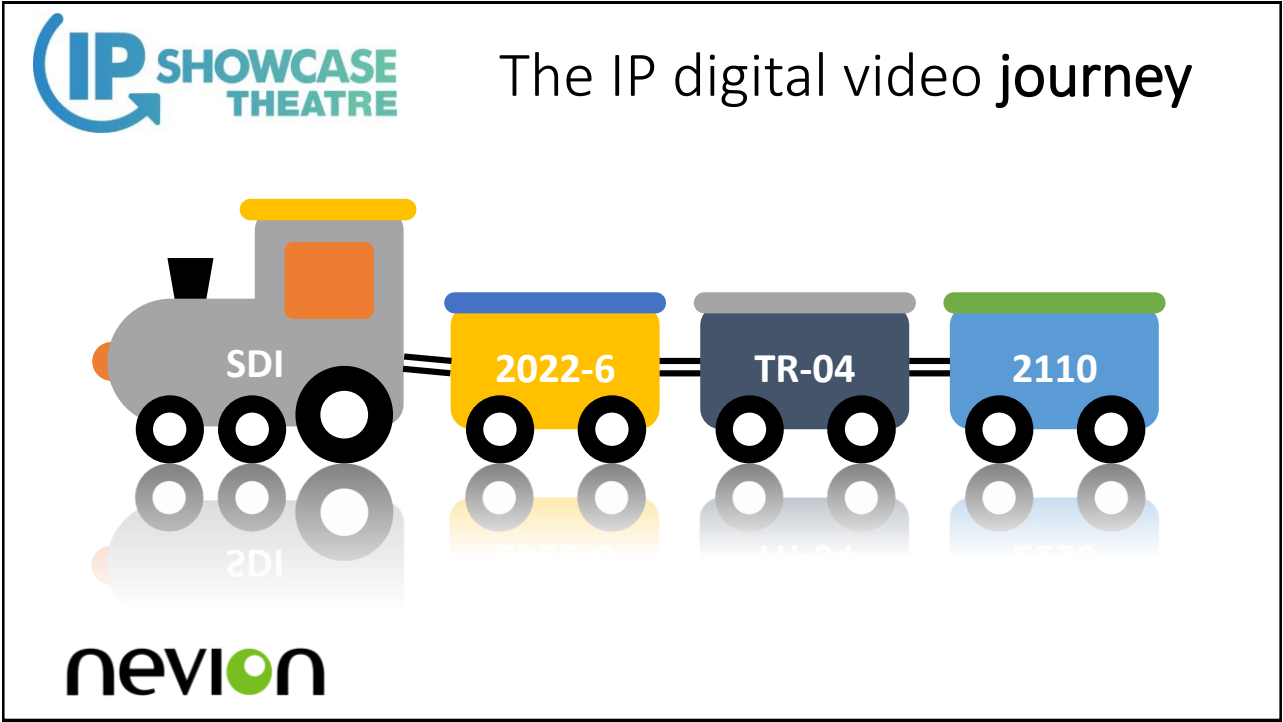
- Flow protection
- Flow trunking
- Essence alignment
- Low latency handling
- Format conversion
- Compression

- Protection of other data flows
- Security
- PTP trunking
- Wan timing
- Associated control (NMOS) filtering and border proxying



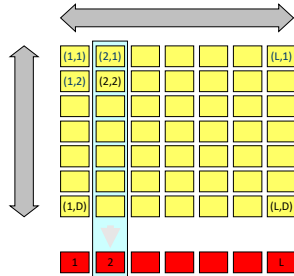
New activity group
Autumn 2018 onwards
Get involved: vsf.tv







Flow protection #2 - FEC



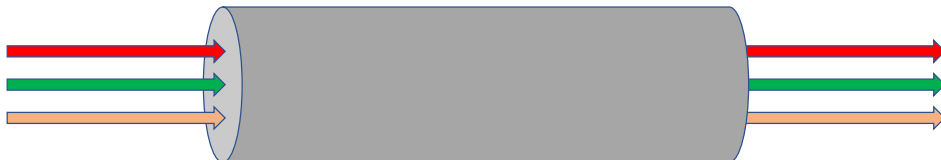
n	n+1	n+2	n+3
n+4	n+5	n+6	n+7
n+8	n+9	n+10	n+11
n+12	n+13	n+14	n+15
n+16	n+17	n+18	n+19
n+20	n+21	n+22	n+23
n+24	n+25	n+26	n+27
n+28	n+29	n+30	n+31
n+32	n+33	n+34	n+35
n+36	n+37	n+38	n+39
n+40	n+41	n+42	n+43



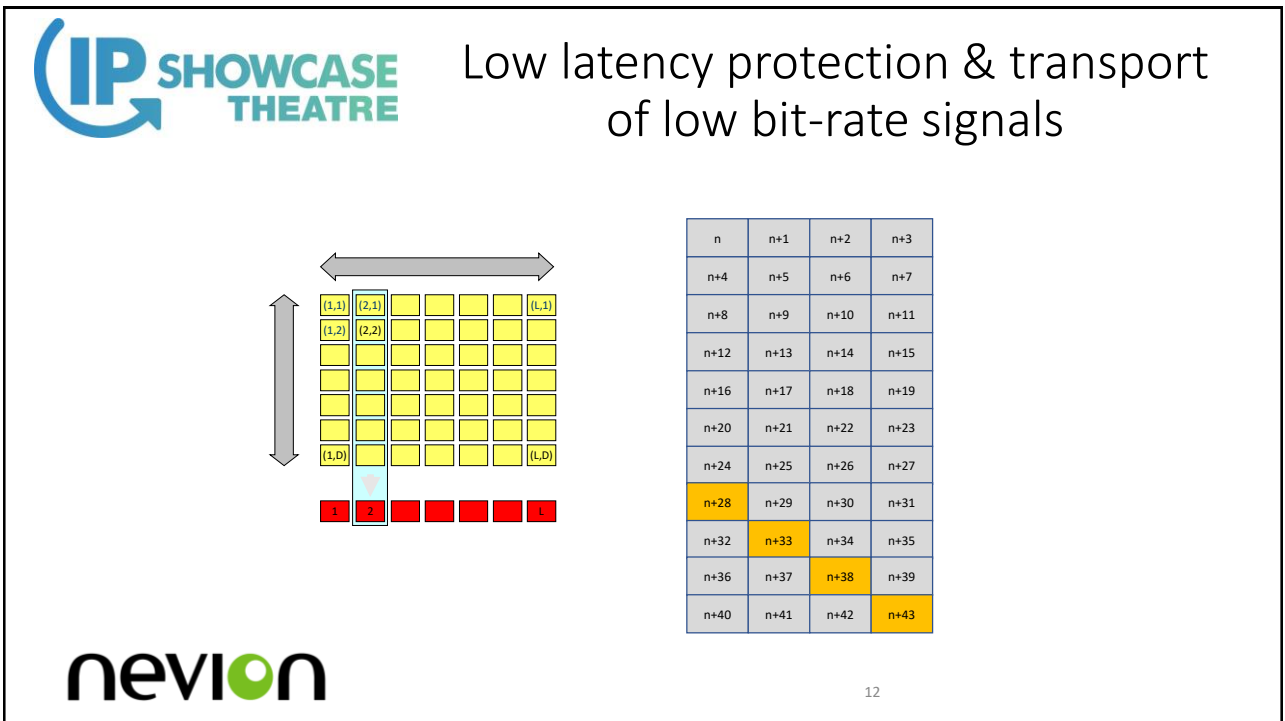
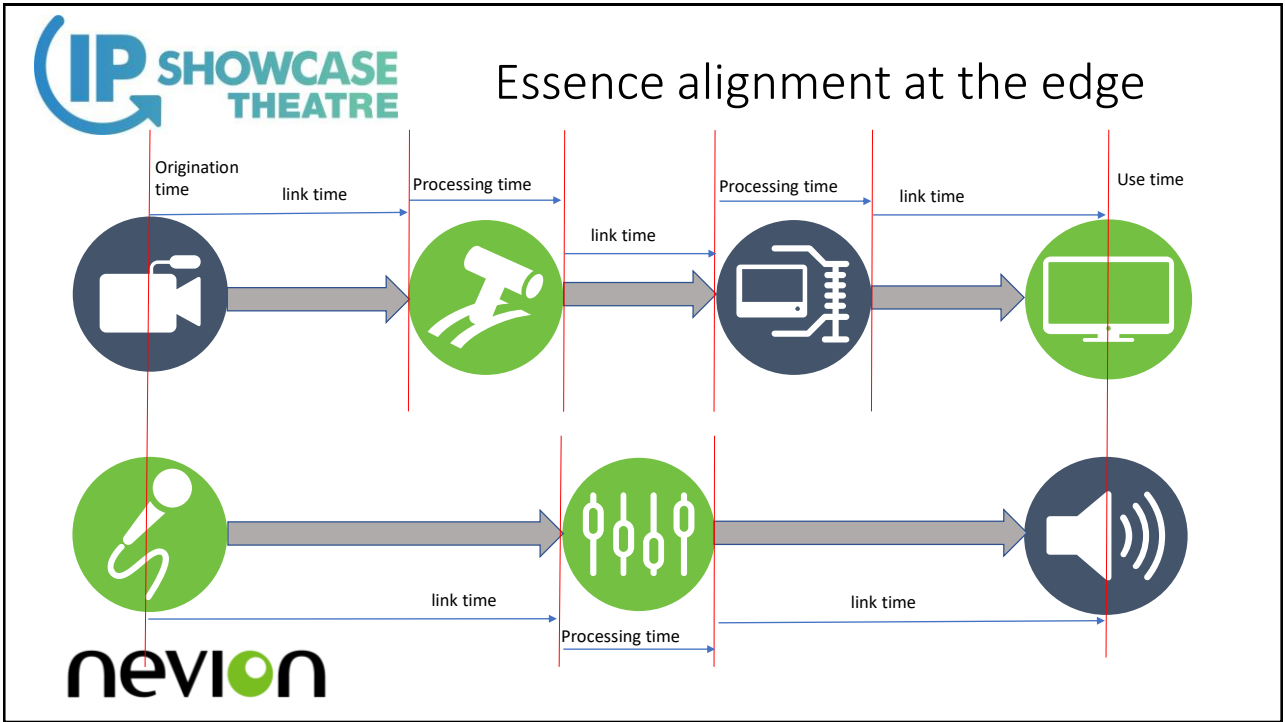
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Flow trunking



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IP SHOWCASE THEATRE Transcapsulation

The diagram illustrates the transcapsulation process. It features a central blue rounded square containing three interlocking gears. To the left of this central box is a blue double-headed arrow pointing towards the center, labeled "ST 2110". To the right is another blue double-headed arrow pointing away from the center, labeled "ST 2022-6 or ST 2110".

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IP SHOWCASE THEATRE Compression

The diagram illustrates the compression process. It features a central green rounded square containing three interlocking gears. To the left of this central box is a green double-headed arrow pointing towards the center, labeled "LAN uncompressed". To the right is another green double-headed arrow pointing away from the center, labeled "WAN compressed".

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IP SHOWCASE THEATRE Protection of other data

LAN data

WAN protected

WAN protected

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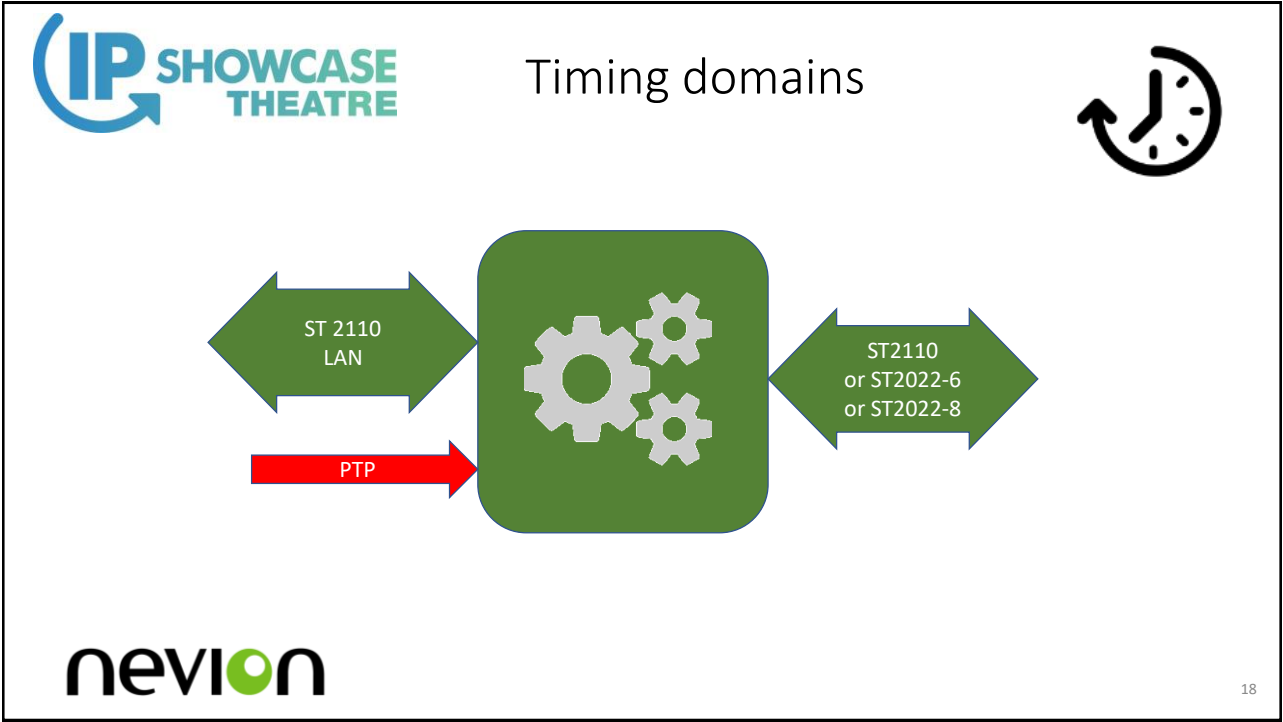
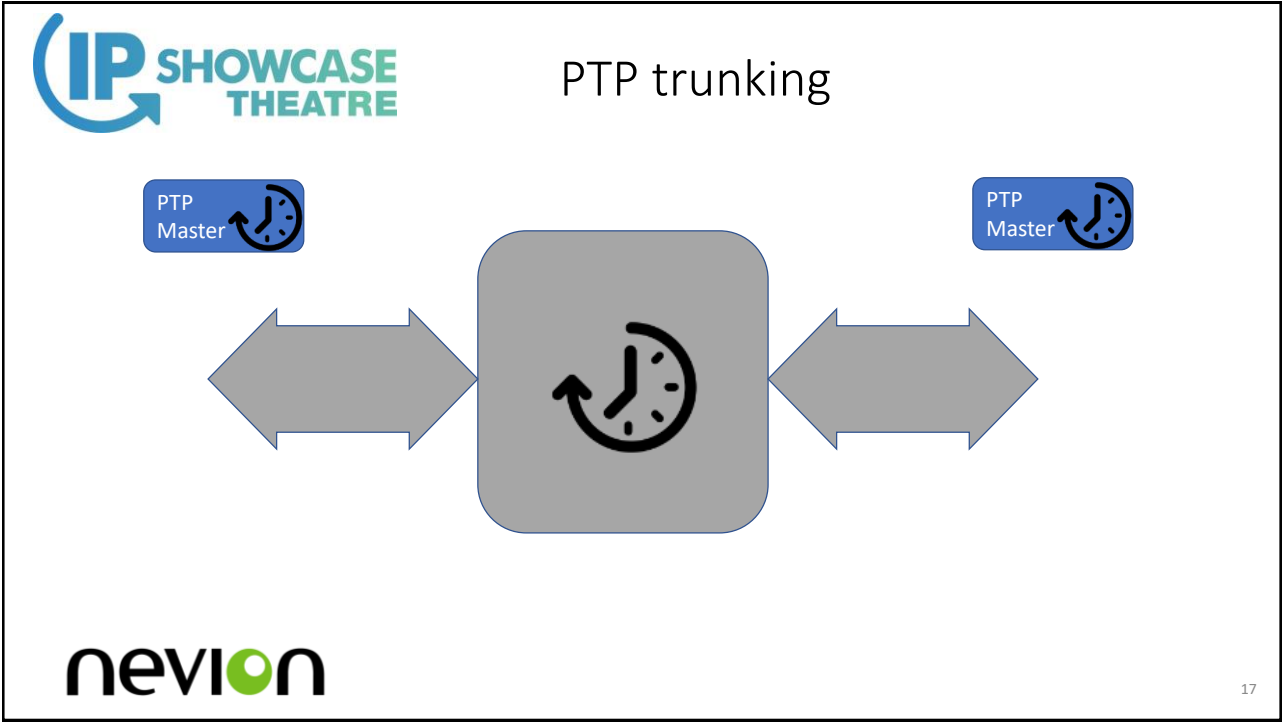
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Security

Connectivity Security

Content Security

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IP SHOWCASE THEATRE Discovery & control - filtering & proxy

The diagram illustrates a central cloud (grey) connected to various production equipment. On the left, there are icons for two cameras, two microphones, and a control panel with four sliders. On the right, there are icons for a server rack, another server rack, and a camera with two microphones. A grid icon is also present above the second server rack.

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The diagram shows a grey cylindrical fiber optic cable with four colored strands (red, green, blue, orange) entering from the left and exiting on the right.

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VSF
VIDEO SERVICES FORUM

New activity group
Autumn 2018 onwards
Get involved: vsf.tv

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Please get involved



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Friends, please come over
and join us for the best
cup of tea at the show!





Thank You

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