



4K UHD remote production with J2K

How do you get multiple live 4K UHD and HD camera feeds from the stadiums and venues to the central production location – cost effectively?

Nevion Virtuoso is the answer!

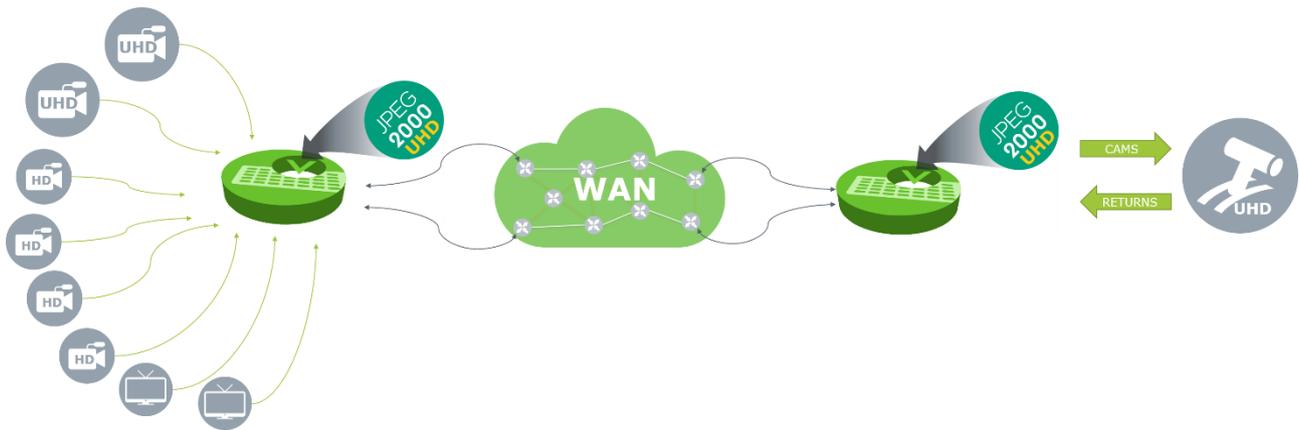
Nevion Virtuoso provides a low latency, reliable and visually lossless way to transport multiple HD and 4K UHD camera feeds, as well as return feeds over a GbE link.

Using JPEG 2000 (J2K) encoding to keep bandwidth costs down, Nevia Virtuoso can scale up to 16 x 3G feeds in either direction, in a single rack unit. Any combination of 3G and 4 x synchronized 3G (for 4K UHD) can be set-up and changed easily, to meet different production requirements.

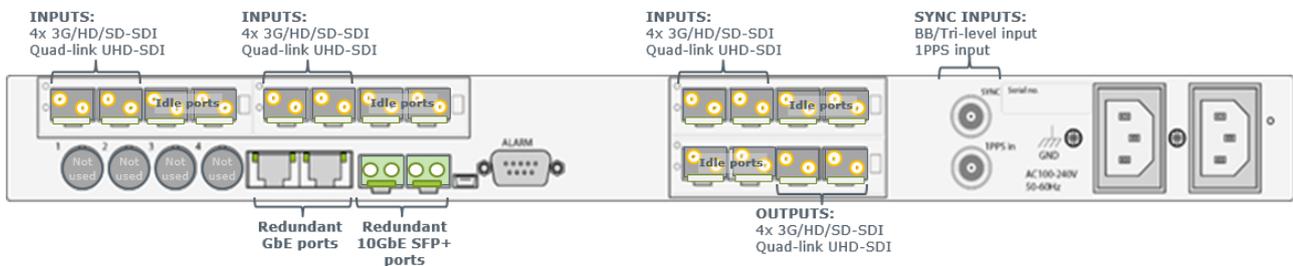
The transport of the feeds can be fully assured with combinations of protection mechanisms, including hitless switching (SMPTE 2022-7), FEC, and launch delay offset (LDO). Virtuoso also provides in-depth monitoring of individual signals (inputs, outputs and transport stream layer), to ensure maximum reliability.

All this makes Virtuoso ideally suited for situations where the production set-up changes, and reliability, high-density and versatility are critical.

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Multi camera UHD remote production example



Backplane setup of 12 inputs feeds and 4 return feeds

Applicable order codes:	Description
VIRTUOSO-HW-1U-M4-AC2 VIRTUOSO-SW-OS-M4	1RU modular Media Server appliance with redundant power supplies holding up to 4 accelerator modules. Virtuoso operating system provides web user interface, alarm handling and logging, configuration and monitoring APIs (HTTP/XML, SNMP), security and user management, maintenance and inventory management, plus IP/Ethernet networking and aggregation (1/10 GigE).
VIRTUOSO-HW-HBR-SFP4	Multi-channel high bitrate Media Accelerator (HW module). 4x SFP ports that can accommodate a combination of 10GE SFP+ and video SFPs.
VIRTUOSO-SW-J2K-HD1	License option enabling one (1) JPEG 2000 encoder/decoder service for SD/HD/3G-SDI. Up to 4 licenses can be installed per VIRTUOSO-HW-HBR-SFP4 card which enables quad-link UHD-SDI support.
VIRTUOSO-SW-TS-PROT1	License option network protection for one (1) stream, enabling SMPTE 2022-7, Seamless IP Protection Switching (SIPS), Forward Error Correction (FEC) and Launch Delay Offset (LDO).
VIRTUOSO-SW-MLS4	License option enabling synchronization of up to 4 channels of J2K for UHD/4K/8K applications, stereoscopic 3D, or super-slow motion contribution. License required on decoder side. Licensed per set of 4 channels.
VIRTUOSO-SW-UNC-HD-MON1	License option enabling advanced monitoring features for SD/HD uncompressed video/audio, including black/ freeze frame and audio silence detection. Licensed per channel.