



NITRO

VIDEO SERVERS

The most versatile video servers in the market

Workflowlabs Nitro series of video servers brings industry leading channel density and flexibility for reliable channel playout and ingest functionality. Leveraging the advantages of commercially off the shelf hardware (COTS) along with the rock solid Linux platform Nitro servers delivers an unparalleled return on investment and support.

Each port of the video server can be configured to work as News/Studio playout for A/B roll or MCR/Conti playout with branding, additionally, the ports can also be modified to work as ingest or preview ports. This versatility ensures that servers can be used for multiple use cases and a variety of workflow needs. Play and ingest from storage are supported with certified storage solutions.

Nitro video servers support automated up and down conversion of SD, HD, and 4K clips enabling back to back playout of a variety of codecs and wrappers. Last minute changes to the playlists are seamless as the cued clip can be modified as close as upto 3 seconds to playout.

The inbuilt high performance graphics engine supports a variety of graphic elements such as multiple animated logos, ticker, lower thirds, L-Band, coming up and backin bugs, clock and more...



Smooth multilayer graphics with text and DVE effects

Highlights

- Unparalleled flexibility for handling everything from SD to HD, 2K and 4K
- Pure Linux based server designed for extreme stability and robustness.
- Cross-platform client application runs on Windows, Mac and Linux
- Extremely compact package in a 1RU with upto 8 Bidirectional ports
- Edit and play while ingest support for quick turnaround time
- Supports third party automation control using API
- Delayed playout capability for multiple time zone transmission
- Frame accurate mirrored playout operations for mission critical workloads
- High performance memory configurations to support 24x7 media operations.
- GPU assisted processing options for advanced media and IP workflow requirements.
- Linux based deployment option for stable and reliable broadcast operations.
- High speed media networking options including 25G and 10G connectivity.
- IP workflow ready architecture for modern broadcast environments.
- Support for SMPTE ST 2110 based workflows
- Support for IP media redundancy and discovery workflows such as ST 2022 6/7 and NMOS.
- Support for PTP based timing in IP media environments.
- Designed to support HD workflow handling including 1080i and 1080p operations.

Nitro video servers also come with automated AD/content replacement functionality based on SCTE-104 & SCTE 35 and TCP-IP triggers. Multiple AD/content replacement playlists can be run in an automated way from a single server ensuring huge manpower savings and reduced operating expenses. In addition to this Nitro servers supports delayed content playout capabilities for upto 24 hours.



Nitro servers come with comprehensive API support opening a multitude of integration opportunities. The API supports control of channel playout and graphic elements with an option to push dynamic data to the graphic templates.

FAST TV

Together, Nitro Engine and PI Automation power fast, seamless ad insertion for FAST TV channels, supporting both cloud and on-prem environments.



Specifications

Model	1100/1100G	1200/1200G	1300/1300G	1400/1400G	1500/1500G	1600/1600G	1700/1700G	1800/1800G
Bidirectional HD ports	1	2	3	4	5	6	7	8
Bidirectional 4K ports	-	-	-	1	1	2	2	4
Internal storage	Upto 30TB		Upto 60TB					
In hours @ 50Mbps	Upto 1000		Upto 2000					
Storage type	SSD,NVME (Optional)		SSD,NVME (Optional)					
Graphic ports[G Series only]	1	2	2	2	4	4	8	8
4K Support	X	X	X	✓	✓	✓	✓	✓
Power supply	Dual Hot plug power supply							
Network adapter	Dual 1G	Dual 1G & 10G SFP+ (Optional 10G base-T) Optional Dual 25G SFP+ Optional dual 100G						
Codec support	DV 25, DVC PRO, XD-CAM HD, MPEG 2, H264, H265, AVC INTRA, HEVC, PRORES							
Wrapper support	MXF, MOV, Mp4							
IP Support(Optional)	SMPTE2110 HLS SRT RTMP NDI® UDP							
Data throughput	>100MBps		>1000MBps					
Power consumption(W)	600		800			1300		
Standards support	SMPTE 292M, SMPTE 259M , ITU-R BT 709, ITU-R BT 601, HDTV 1920x1080p, HDTV 1920x1080i , 625/50i							
Reference	BB 1080i/50 Hz, HDTV Tri-level sync,			Audio		Audio: AES/EBU, 48KHz		
Time code	VITC in BB and LTC							

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