

## mPORT Grand av

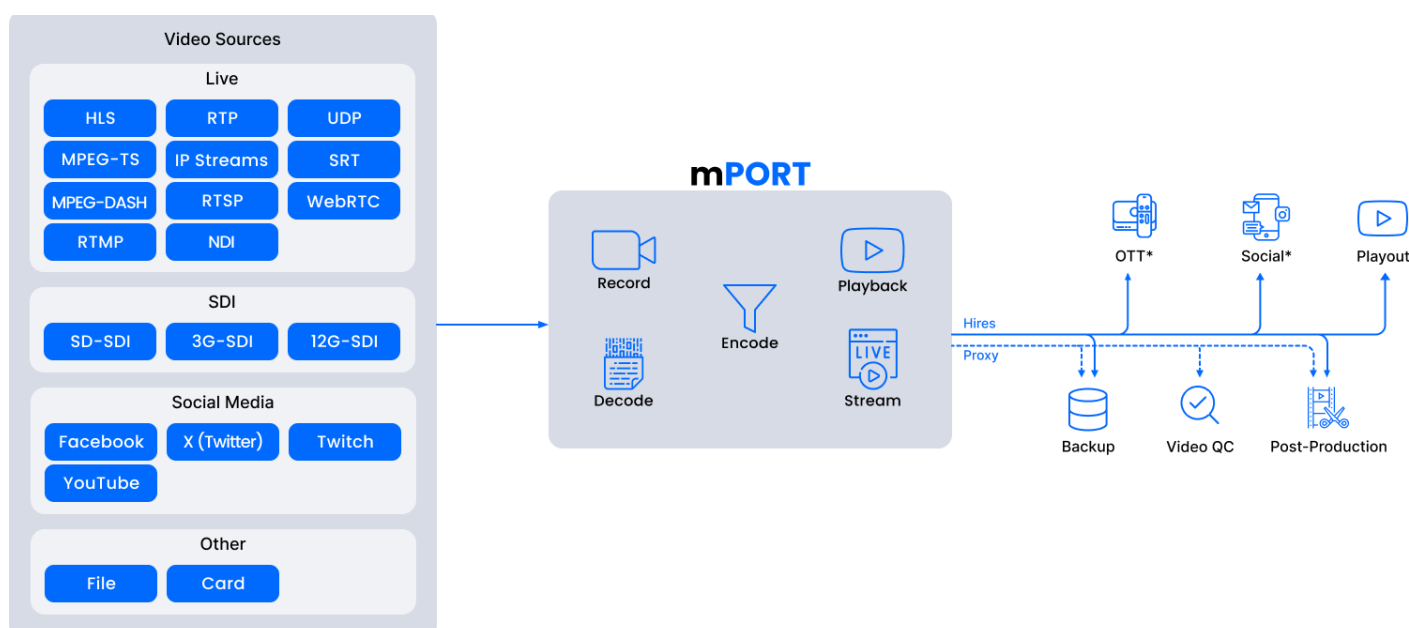


### Overview

Elevate your content production with mPORT Grand av, a robust and versatile multi-format appliance with additional XAVC & AVC-Ultra hardware encoder accelerator optimized for live ingest and playout within an integrated media production ecosystem. This professional solution integrates seamlessly into your existing workflows, offering comprehensive support for UHD, FHD, IP Stream, and NDI workflows to elevate the quality and impact of your content.

Experience a state-of-the-art solution that enhances your media production processes, delivering unmatched flexibility, reliability, and efficiency. mPORT Grand av streamlines your operations, ushering in a new era of multimedia excellence and transforming your content creation workflows.

It supports multiple simultaneous media operations such as recording, playout, live video streams, and file previews, enabling a dynamic and collaborative production environment.



\* Optional

### Highlights

- Baseband ingest - multiple simultaneous recordings: multicamera recording, loop recording, crash recording, schedule recording, batch recording;
- Video server for multiple destinations of any storage, NAS, or SAN
- **Burnt-in options:** text, timecode, overlays (images and videos), and LUT
- **File playback:** multiple simultaneous operations: composition play, loop playback, instant play, schedule play, remote preview
- Encodes and/or decodes contents according to the destination format
- **Playlist management:** add clips, remove clips, reorder clips, export playlist, loop play
- Full featured local and remote user interface (includes quick control through touch screen)
- **Overlays:** clip-name and port-name
- Ideal for multiple feeds of video contribution
- Multi-configuration metadata management
- Flexible file naming engine
- Enable edit while ingest
- **Operation modes:** manual, scheduled, and automatic
- Proxy generation

### Specially Designed For

- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports
- Film/TV Studio/Scripted
- Digitalization
- Post-Production
- Broadcast/Digital News
- OTT & Streaming
- System Integrators/Rentals

## Features

Features
<b>Timecode support</b>
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
<b>Serial Control Protocols</b>
VTR (BVW) - Serial
VTR (VDCP) - Serial
<b>Multiple LIVE and simultaneous records</b>
Crash Record operations
Gang Capture operations
Independent workflow selection in Gang Captures
Unique workflow for gang captures while using clipnaming with counters
Conceal/Hide option for unused Capture Instances
Synchronize (different) Gang Captures
Flexible Gang Capture channel configurations / Choose which channels are present in the gang
Frame Chase editing
Unlimited capture duration support
Growing files support
Growing file support for Grass valley Edius Workgroup v.9 and X
Growing XDCAM MXF OP1a file support on Avid Media Composer <b>*required Nablet AMA Plugin</b>
Automatic Stream Control - Detect input streams and start recording automatically
Continuous recording support
Continuous live stream capture
Recording timer for captures
Abort or force stop a capture or a stream
Frame rate conversion option on Capture workflows
High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
Generate MP4 files as Fragmented MP4 via DCP Packager
Add XML sidecars with WAV file as output while recording
Perform "Run after completion" scripts
Remove source assets after Job completion for all plain sources
Live Probing option
Stream with Closed Captions
Edit a Workflow directly from the Player
Input selection made directly from a dropdown list on the player
Option to start timecode recording from 00:00:00:00
Export in "MOG playlist" format (.XML Sidecar containing information about the chunks of the recorded media)
Batch record support
Deck control through Serial Ports
Pre-roll and post-roll options
LiveU NewsML batch capture
LiveU NewsML metadata import
LiveU NewsML - support XML from devices (Live U, Android and iPhone)
LiveU include subfolder browse
Contribution Web Video Player - Aspect marker, Safe Area Marker, and Center marker
Player Overlay - Center Dot and Cross
Support for Active Format Description (AFD)
Medialoopster Integration in Capture operations
Medialoopster Integration in Batch Capture operations
Measurement of consumption (Number of bytes for input/output "lives")
<b>Video Router Protocols</b>
Quartz
Probel SW-P-08
Jupiter ASCII
Blackmagic Videohub Ethernet Protocol
<b>Operation modes</b>
Automatic
Manual
Scheduled

## Features

### Clipnaming

- Clipnaming based on Metadata Profiles
- Field numeric representation of the day of the week
- Drag and Drop support
- Restore auto numbering on capture abort in naming templates
- "CreationDate" field can refer to a desired Time Zone
- Add the label "\_p" to proxy clips' names

### Multi-Configuration metadata management and enrichment

- Directly manage your assets metadata
- Generate metadata directly through capture operations
- Prevent the overwrite of metadata fields
- Protect metadata fields
- Reset metadata fields
- Delete custom metadata
- Edit group clips metadata
- Edit a file's source metadata based on a configured metadata profile
- "Description" field editable in metadata widget
- Set "Description" field as a column in the Asset Explorer list view
- Forward metadata to Gang Captures
- Favorite metadata fields
- Create custom metadata fields
- Add a "Rating" metadata field
- Update the source metadata directly through the metadata widget
- Add asset tags insertion in preset list
- Re-use lists of possible values
- Update Metadata in Media Central/Interplay using AMT-3 library
- Rename media in Interplay after a capture has begun
- Take field (counter)
- Support for "Reel" metadata field using Apple ProRes Wrapper
- Read metadata from pre-configured cloud storages (Amazon S3 / Google Cloud Storage / Tencent / IBM Cloud Object Storage)
- Preserve specific Arri fields
- Support IMF (Netflix Compliant) output metadata

### Find immediately and learn everything about any asset

- Show or hide proxies on Asset Browser
- Sort, order and search for files on Asset Browser
- Asset Explorer - Resizable thumbnails
- Asset Explorer - Support asset availability
- Search for all assets on Asset Explorer
- Extract thumbnails and posters while indexing on Asset Explorer
- Asset Explorer - Playable thumbnails
- Preview media with interactive Pop-up Players
- Asset Explorer - View the exact duration of files with more than 24 hours
- Asset Selection -View the total duration of the selected assets
- Configure the asset's preview duration
- Asset Selection - Add Numeric Input

### Asset management Check-in

- AVID AAF
- AVID interplay
- XML support
- XSLT transformation - XML sidecar
- Edit share flow
- Vizzi OTT check in
- Support for update on Vizzi OTT check-in

### Audio support

- PCM input and output support
- Dolby E-AC-3, Dolby TrueHD, and DTS input support
- Dolby-E Input and output support
- DTS Coherent Acoustics (DCA)
- Integration with Dante Audio Capture \*Negotiated separately
- PCM 96KHz support
- Independent audio encoder for hires and proxy
- Individually map your audio by output target

## Features

Record audio only streams  
 Payout audio only streams  
 Audio downmixing & upmixing  
 External audio files support (.WAV)  
 MPEG-4 Audio (M4A) audio format as output  
 Ability to mute proxy on the output

### Close captions

CEA/EIA - 608  
 Add sidecar - SubRip (SRT)  
 Add sidecar - Fragmented WebVTT  
 Add sidecar - ISMT/CMFT subtitles  
 Support DVB-S captions in streams  
 Support captioning for OTT (CMFT, SubRip, and WebVTT)  
 Stream with Closed Captions

### Locators

Create locators with shortcut keys  
 Edit the locators' description  
 Insertion and viewing  
 Create and freely customize action fields  
 Insert comments in a marker's widget tab  
 Locators source in markers widget  
 Select multiple subcategories for a single locator  
 Order asset locators by timecode  
 Establish Absolute or Relative timecode for source locators  
 Enter Timecode without the need of entering colons  
 Eject locators using the player eject button  
 Support for locators with AMT captures  
 Send locators directly to Gang Captures  
 Send locators instantly to Payout  
 Preserve Metadata Enhancement locators created by an Automatic Job

### Scheduler (Calendar View)

Schedule a Record operation  
 Schedule a Payout operation  
 Schedule Gang Captures  
 Schedule Payouts  
 Schedule Maintenance Tasks (Reboot, Export Logs, Export Full Backup)  
 Edit individual events  
 Export activity events  
 Allow editing of settings for each occurrence/repetition  
 Set the number of an event's repetitions  
 Check for collisions between events and repetitions  
 Placeholder when editing an occurrence name  
 Enable field event name as AVID Interplay clipname by default  
 Use pre-set naming templates  
 Send the assets to independent targets and multiple outputs  
 Establish a maximum capture duration  
 Configurable number of iterations when using maximum capture duration  
 Use AVID Interplay clip name as event name on crash record events  
 Pre-roll and post-roll options for scheduled events  
 Define events to be triggered on any day, on working days only or only on weekends  
 Set the Calendar Notion option to automatically adjust to daylight time  
 Edit the Start Time field after the first recording  
 Visualize scheduled events in a List View  
 Perform captures from an Airspeed 5000

### Scheduler (Record Grid) - Unifies in a single rollout view all ingest activities \*Optional

Schedule a Record operation  
 Schedule Gang Captures  
 Create new scheduled events directly from the timeline  
 Perform crash record captures directly from the grid view  
 Metadata Insertion availability  
 Use of pre-set naming templates  
 Edit scheduler individual events

## Features

- Edit an event after it has started
- Edit settings for each occurrence/repetition
- Trigger Capture events (Any day, On Working Days or only on Weekends)
- Adjust events by dragging them on the timeline
- Check collision between events with repetitions
- On channel settings assign an Input a workflow a router source and a duration and start recording on the fly
- Change router source cross point from record scheduler during a live event
- Change router source on rollout
- Copy an event's name after it is complete
- Perform captures from an Airspeed 5000
- Pre-roll and post-roll options for scheduled events
- Configure the number of events repetitions
- Define events to be triggered on any day, working days or weekends only
- Set the Calendar Notion option to automatically adjust to daylight time
- Expandable and collapsible views
- Jump to date to seek events by day or in a 7 days period
- Choose between AVID or MOG color schemes
- Confirm a "Stop" action

### **Scheduler (Playout Grid View) - Unifies in a single rollout view all Playout activities \*Optional**

- Grid View for Playout
- Crash Playout directly from the Grid View
- Loop a playlist
- Schedule Clip Lists to be Played out
- Adjust to a desired Time Zone
- Ability to set a pre-determined number of repetitions
- Trigger Playout events (Any day, On Working Days or only on Weekends)

### **Router Control \*Optional**

- Support for Black Magic Video Router
- Support for Grass Valley Sirius Video Router
- Support for Evertz Quartz Video Router
- Support for Jupiter ASCII
- Change router points directly on the player
- Capacity to setup the number of sources and destinations
- Option to choose to make use or not of a source
- Assign a mnemonic to each source
- Ability to provide an alternative name to a router mnemonic
- Assign in the crosspoint tab a source to each router destination
- Lock sources to each router destination
- Configurable connection through IP or host name to the destination router

### **Signal error detection and related recovery actions**

- Detect possible signal errors
- Detect possible drop frames
- Support for timecode breaks
- Configurable capture resume methodology
- Automatic streaming (headless) - Restart capture after stopping/crashing or rebooting

### **Checksum media**

- MD5 hash file
- MDL - Media hash list

### **Live to Live**

- Delete artifacts on abort
- Vizzi OTT Live Output
- Multiple resolutions check-in
- Support Time of Day in input streams (RTMP, MPEG-TS, RTP, SRT, RTSP, HLS, LLDASH, MSS, MPEG-DASH, CMAF)
- Variable Frame Rate Input
- Support IGMPv3 multicast
- Add possibility to change the transport stream segments duration

### **MPEG-TS Support**

- Capture of MPEG-Transport Streams
- Support of MPEG-TS program IDs

### **NDI**

- Native NDI output
- NDI audio and video synchronized mechanism

## Features

NDI discovery mechanism  
 Capture multiple NDI sources  
 Time of day and embedded timecode options in NDI input

### HLS

Configurable HLS segment duration  
 Configurable HLS Playlist segment count

### RTMP

RTMP recording with absolute timecode  
 RTMP Push Mode in input and output  
 RTMP Pull Mode in input and output  
 Native RTMP listener capability  
 Multiple audio channels in RTMP Output  
 HEVC, VP9 and AV1 codec in enhanced RTMP/FLV

### SRT

Input modes: Caller, Listener, and Rendezvous  
 SRT listener mode as stream output  
 Output modes: Caller and Rendezvous  
 Stream ID support  
 Configurable latency settings  
 Configurable overhead bandwidth  
 Configurable passphrase  
 Monitoring input metrics

### WebRTC

h.264 Support  
 VP8 Support  
 VP9 Support

### Burn-In Video options

Graphic burn-in while recording  
 Text (Position, Text color, Box Color, Font Size)  
 Timecode (Position, Text color, Box Color, Font Size)  
 Overlays support (images and videos positioning)  
 LUT (Look-Up Table) - Save particular color grades as a template

### File playback

Simultaneous playback  
 Composition play  
 Instant play  
 Gang Play  
 Replay a group or an individual asset  
 Loop playback  
 Group Loop Playback  
 Gridline (3x5) Overlay  
 Remote preview  
 Support for 10bit  
 Synchronous SDI playback of multiple files  
 Closed captions  
 Cue mode  
 Monitor - support HDR  
 Option to add locators  
 Play assets from cloud storages  
 Preview Editing Decision Lists  
 Preview Clip Lists  
 Playback - 8K UHD  
 Embedded VITC output support  
 Step multiple frames forward and backwards on SDI/gang playback  
 Timecode and metadata overlaying on SDI out  
 Support for growing assets in player  
 Support for spanned assets in player  
 Timecode only monitoring  
 Use of a contour shuttle to control an asset during playback  
 Playback duration showing the remaining time of the clip  
 Remove clips  
 Reorder clips

## Features

- Export playlist
- Create new playlists with the current assets selection
- High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
- High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
- Preview - Possibility to change the playback speed by multiplier factors
- Read Metadata Timecode Package (Auto / Material Package / Source Package)

## Playout

### Playout Preparation

- Build playlists in a Playlist Builder widget
- Create multiple Playlists
- Allow configuring playout clip action while preparing the playlist
- Support visual separators for rPlayout playlists
- Drag and Drop clips to the player for media preparation
- Support insertion of Timecodes without separators ":" in the playlist builder
- Use both types of TC (Relative and Absolute) for Mark-ins and mark-out at playlist builder
- Trim clips to be included in the Playlist
- Editable timecodes of the in and out points
- Re-arrange clips order
- Duplicate Edit Decision Lists
- Export Edit Decision Lists

### Playout Control

- Edit playlist on the fly and while playing
- Playlist countdown and clip countdown
- File and clip list progress bars
- Playout Capture streams through SDI and native window
- Print to tape
- Queue clip on the playlist
- Queue on first frame and last frame
- Queue on first frame the first clip of the playlist
- Bypass action for playout clips
- Pause Playlist
- Playout to stream
- Thumbnail preview of the current clip on the playlist and its remaining time until Playout of the next clip
- On Air - current loaded playlist name
- Loop a playlist
- Loop one or more assets in the playlist
- Drag and Drop Clip List entries in Playout Control
- Multi-channel playout capability
- Schedule Playout
- Choose between Playout Services available - rPlayerSDI or CasparCG
- Mini control bar for use with Playout Control
- Keyboard shortcuts for playout control and associated WEB player
- Autoplay option
- As Run Log's containing Date, Time, Clip name, Time Code In, and Time Code Out
- Prepare the Playout clip actions while preparing the playlist
- Seamless playback without black frames when "jump to" in a playlist

## Input/output social media \*Optional

- Capture to Facebook Live
- Stream to Facebook Live
- Stream to Twitch Live
- Capture to YouTube Live
- File based YouTube Upload
- Capture X (Twitter) Live
- Stream to X (Twitter) Live
- Upload to Vimeo
- Metadata social annotation and enhancement

## Analytics

- Integrate with Google Analytics and Tag Manager
- Enable or disable Analytics
- Keep track of menu events
- Receive video metrics
- Keep track of Job Control widget's events

## Features

Keep track of Asset Explorer widget's events

### Improved security

Support for Windows UAC

Support for HTTP/HTTPS Ingress

HTTPS (Hypertext Transfer Protocol Secure) for REST API

Secure login

User Impersonation

Token based authentication

Two-factor authentication

Remote services, system restart, and settings recovery features

Database replication

Opt to "Keep me signed in"

Send a User Verification through email

Configurable password visibility in logs

### Orchestration

Orchestration View for output workflows

Services Menu that eases Group and Cluser Configuraton while displaying running servicers per node

### Hardware acceleration \*If Hardware is installed or available

Intel QSV

Sony XAVC

Panasonic AVC-Ultra

Nvidia Nvenc

### General Purpose IN/OUT

GPI triggers supported

GPO triggers supported

### Additional Highlights

REST API - allows interaction with RESTful web services

Change Aspect Ratio (4:3 / 16:9 / 1.9:1 / 2:1 or use same as source)

Active Format Description (Option to Preserve, Discard or Override)

Protection against overwriting files

Notify user upon connection lost with the Server

Manage via web interface or REST APIs for integration with automation system

Configurable quality and target latency of the preview stream

Logging - Human readable information on Services logs

Logging - Add user information on flow actions

Logging - Structured Logging

Receive SMTP notifications via e-mail

Support an external Database

Microsoft Edge / Firefox / Safari and Chrome Support

### Unified Interface User Experience

Unified GUI for all services and group of servers in the farm

Configurable web interface access port

Embeddable Dashboards/Widgets

Environment Dashboard which enables an overview of group servers in workgroups

Web-Based Interface with video preview

Dashboards based experience where users can create their own personalized view

Dashboards presets for ease-of-use deployment

Create your own custom dashboard templates

Import and Export Users' Dashboards

Associate a single dashboard to multiple users

LDAP user authentication

User profile management

Users permissions control

Widget based modular interface

Lock/Unlock widgets permission

Choose between multiple interface themes (Midnight, Carbon, Dark or High contrast theme)

Touch screen mode

Monitoring - Advanced metrics

Multi Language Support

User tour

Show/Hide player overlays

Notifications of required actions needed to resume a workflow



Features	
	Monitor Grouped Servers' activity in a Group Activity Widget
	Remove the "quick edit" button from the Job Control Widget
	(Set Permissions to) Activate or Deactivate Settings of a Gang Capture widget
<b>Multiviewer</b>	
	Define the quality and target latency of the preview stream
	Ability to control to up to 8 players in a single dashboard
	Ability to control to up to 4 players in a single dashboard
<b>Maintenance</b>	
<b>Scheduler</b>	
	Reboot host or group
	Export database (backup) as a scheduled task
	Export logs as a scheduled task
<b>Activity</b>	
	Export last activity
	Export all activity
	Export activity from a date range
	Clear all activity
<b>Logs</b>	
	Export logs
<b>Backup</b>	
	Export full backup - A full backup will create an archive of all the files and configurations
	Import full backup
<b>Dashboards</b>	
	Export dashboards from one user or all users
	Import dashboards
<b>Data</b>	
	Clean data usage
	Clean assets, flows and notifications
	Perform a Factory Data Reset
	Erase all data and reset the system
	Force clear cache

Technical Specifications

Supported File Inputs

Inputs	
OnPrem	<b>Plain Files or Structures</b>
	ARRI ALEXA Cameras
	BlackMagic Cameras
	RED Digital Cinema
	Avid Files
	Avid Media Files (standalone or Nexis)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	Generic File Shares
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic CX350 HEVC
	Panasonic AU-EVA1 and GH5 Cameras
	Multi Clip/Spanned XDCAM/XAVC/XDCAM-EX Structure
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	XAVC Structures
	<b>XDCAM EX</b>
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	Sony XQD (MRW E-80, MRW E-90)
	<b>XDCAM HD</b>
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)

## Inputs

OnPrem	<b>Panasonic P2</b>
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XPDI1E / AU-XPDI3EJ
	<b>Network</b>
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	<b>Storage</b>
	Avid Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
Cloud	<b>Social Media</b>
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Consumer Cloud Storages</b>
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive

## Supported File Outputs

### Outputs

OnPrem	Avid Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
	FTP Servers (List on request)
	Generic File Shares

## Outputs

Cloud	<b>Consumer Cloud Storages</b>
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Social Media *Optional</b>
	Facebook
	X (Twitter)
	Vimeo
	YouTube

## Supported Live Inputs

### Inputs

Live	<b>SDI</b>
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI (SMPTE ST-2081/SMPTE ST-2082, SMPTE/2108-1)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10, and 12 bits
	<b>Streams</b>
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	<b>Audio</b>
	Dante audio *Negotiated separately
	<b>Social Media</b>
	Facebook
	Twitch
	X (Twitter)
	YouTube

## Supported Live Outputs

Outputs	
Live	<b>SDI</b>
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI UHD-SDI (SMPTE ST-2081/SMPTE ST-2082)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10, and 12 bits
	<b>Streams</b>
	HLS
	HTTPS Push
	Microsoft Smooth Streaming
	MPEG-DASH
	Low Latency Dash - LL-Dash
	NewTek NDI
	MPEG-TS
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	UDP
	Haivision SRT
	WebRTC
	<b>Vizzi</b>
	Live Output
	<b>Social Media *Optional</b>
	Facebook
	Twitch
	X (Twitter)
	YouTube
	Vimeo
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>

## Formats

### Input Formats

Input Video Formats
ARRI ARRIRAW
Digital Cinema Packages (DCP)
RED Digital Cinema
IMX 30/40/50 Mbps
MPEG2 LGOP 18/25/35 Mbps 4:2:0
MPEG2 LGOP 50/70 Mbps 4:2:2
MPEG2 LGOP 422 50 Mbps
MPEG2 LGOP 420 1440x1080 35 Mbps
MPEG2 LGOP 420 (FULL) 35 Mbps
DVCAM 25 Mbps
XAVC Intra 50 / 100 Mbps
XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps
XAVC LGOP 25 / 35 / 50 Mbps
XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC-Intra 2K422
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
DNxHR (SQ/HQ/HQX/LB)
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile

### Input Video Formats

H.264 2160p 13 - 51 Mbps High Profile (Live)  
 H.264 1440p 6 - 18 Mbps High Profile (Live)  
 H.264 1080p 3 - 9 Mbps High Profile (Live)  
 H.264 720p 1.5 - 6 Mbps High Profile (Live)  
 H.264 480p 0.5 - 2.0 Mbps High Profile (Live)  
 H.264 360p 0.4 - 1.0 Mbps High Profile (Live)  
 H.264 240p 0.3 - 0.7 Mbps High Profile (Live)  
 H.264 L10 10 Mbps  
 H.264 MOG 1Mbps  
 H.265/HEVC 10 Mbps LGOP  
 H.265/HEVC 25 Mbps LGOP  
 H.265/HEVC 50 Mbps LGOP  
 H.265/HEVC 100 Mbps LGOP  
 H.265/HEVC 4K 25 Mbps LGOP  
 H.265/HEVC 4K 50 Mbps LGOP  
 H.265/HEVC 4:2:2 LGOP  
 H.265/HEVC 4K 4:2:2 LGOP  
 ProRes 422 (SQ/HQ/LT)  
 ProRes 4444  
 ProRes 4444XQ  
 Google® VP6 / VP7 / VP8 / VP9 (Full HD)  
 Google® VP9 (4K)  
 Uncompressed UYVY 422 / V210 / RGBA  
 AOMedia Video 1 (Full HD)  
 AOMedia Video 1 (4K)

### Output Formats

### Output Video Formats

IMX 30/40/50 Mbps  
 MPEG2 LGOP 18/25/35 Mbps 4:2:0  
 MPEG2 LGOP 50/70 Mbps 4:2:2  
 MPEG2 LGOP 422 50 Mbps  
 MPEG2 LGOP 420 1440x1080 35 Mbps  
 MPEG2 LGOP 420 (FULL) 35 Mbps  
 DVCAM 25 Mbps  
 XAVC Intra 50 / 100 Mbps  
 XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps  
 XAVC LGOP 25 / 35 / 50 Mbps  
 XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps  
 DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps  
 AVC-Intra 50/100 Mbps  
 AVC-Intra 200 Mbps  
 AVC-Intra 2K422  
 AVC-Intra 4K422  
 AVC Ultra (LGOP 6/12/25/50 Mbps)  
 DNxHD (SQ/HQ/HQX/LB)  
 DNxHR (SQ/HQ/HQX/LB)  
 H.264 2160p 35 - 68 Mbps High Profile  
 H.264 1440p 16 - 24 Mbps High Profile  
 H.264 1080i 35 Mbps High Profile  
 H.264 1080p 8 - 12 Mbps High Profile  
 H.264 720p CBR - 6.5 Mbps High Profile  
 H.264 720p 5 - 7.5 Mbps High Profile  
 H.264 480p 2.5 - 4 Mbps High Profile  
 H.264 360p 1 - 1.5 Mbps High Profile  
 H.264 2160p 13 - 51 Mbps High Profile (Live)  
 H.264 1440p 6 - 18 Mbps High Profile (Live)  
 H.264 1080p 3 - 9 Mbps High Profile (Live)  
 H.264 720p 1.5 - 6 Mbps High Profile (Live)  
 H.264 480p 0.5 - 2.0 Mbps High Profile (Live)  
 H.264 360p 0.4 - 1.0 Mbps High Profile (Live)

### Output Video Formats

H.264 240p 0.3 - 0.7 Mbps High Profile (Live)  
 H.264 1080p CBR 15 Mbps MAIN Profile  
 H.264 480p CBR 2.3 Mbps MAIN Profile  
 H.264 360p CBR MAIN Profile  
 H.264 432p CBR MAIN Profile  
 H.264 576p CBR MAIN Profile  
 H.264 720p CBR MAIN Profile  
 H.264 1080p CBR MAIN Profile  
 H.264 576p CBR - 3 Mbps MAIN Profile  
 H.264 720p CBR - 4 Mbps MAIN Profile  
 H.264 1080p CBR - 5Mbps MAIN Profile  
 H.264 15-30 Mbps MAIN Profile  
 H.264 L10 10 Mbps  
 H.264 WebRTC Baseline  
 H.265/HEVC LGOP 4:2:2  
 H.265/HEVC 10 / 25 / 50 / 100 Mbps LGOP  
 H.265/HEVC 4K 25 / 50 Mbps LGOP  
 NDI HX H.264 - High Profile  
 NDI HX H.265 - High Profile  
 MPEG-5 EVC Main Profile  
 MPEG VVC/H266 Main Profile  
 ProRes 422 (SQ/HQ/LT)  
 ProRes 4444  
 ProRes 4444XQ  
 Google® VP6 / VP7 / VP8

### Proxy Formats

### Output Proxy Formats

XAVC LGOP 25 / 35 Mbps  
 AVC Ultra (LGOP 6/12/25 Mbps)  
 H.264 @ 500 Kbps Flash  
 H.264 @ 486p 1 / 1.5 Mbps Flash  
 H.264 360p @ 1.6 Mbps Flash  
 H.264 720 480p @ 8 / 10 Mbps Flash  
 H.264 720p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash  
 H.264 854 480p @ 8 / 10 Mbps Flash  
 H.264 960 540p @ 3 Mbps Flash  
 H.264 1080p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash  
 H.264 SD @ 4 / 8 / 15 / 20 / 25 Mbps  
 H.264 480p @ 0.5 - 2 Mbps High Profile (Live)  
 H.264 360p @ 0.4 - 1 Mbps High Profile (Live)  
 H.264 240p @ 0.3 - 0.7 Mbps High Profile (Live)  
 ProRes Proxy 1920x1080  
 ProRes Proxy 1280x720  
 ProRes Proxy 960x540  
 ProRes Proxy SD (16:9 Raster)  
 ProRes Proxy SD  
 MPEG-1 (layer 2) @ 1.5 Mbps  
 Avid MPEG-2 (SIF @ 2Mbps)  
 H.264 Interplay Web (SD, 800 Kbps, and 2 Mbps)  
 Sony Proxy AV (MPEG-4 Part-2) @1.5 Mbps

## OTT Formats \*

### Output OTT Formats

H.264 2160p 35 - 68 Mbps High Profile  
H.264 1440p 16 - 24 Mbps High Profile  
H.264 1080i 35 Mbps High Profile  
H.264 1080p 8 - 12 Mbps High Profile  
H.264 720p 5 - 7.5 Mbps High Profile  
H.264 480p 2.5 - 4 Mbps High Profile  
H.264 360p 1 - 1.5 Mbps High Profile  
H.264 2160p 13 - 51 Mbps High Profile (Live)  
H.264 1440p 6 - 18 Mbps High Profile (Live)  
H.264 1080p 3 - 9 Mbps High Profile (Live)  
H.264 720p 1.5 - 6 Mbps High Profile (Live)  
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)  
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)  
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)  
H.264 360p CBR MAIN Profile  
H.264 432p CBR MAIN Profile  
H.264 576p CBR MAIN Profile  
H.264 720p CBR MAIN Profile  
H.264 1080p CBR MAIN Profile  
H.264 576p CBR - 3 Mbps MAIN Profile  
H.264 720p CBR - 4 Mbps MAIN Profile  
H.264 1080p CBR - 5Mbps MAIN Profile  
H.265/HEVC 10 Mbps LGOP  
H.265/HEVC 25 Mbps LGOP  
H.265/HEVC 50 Mbps LGOP  
H.265/HEVC 100 Mbps LGOP  
H.265/HEVC LGOP 4:2:2  
Google® VP9 (Full HD)  
Google® VP9 (4K)

\* Optional output

## Product Integrations

Editing Sytems	MAM / PAM / DAM	Stream	CDN's
Adobe Premiere Pro	CatDV MAM	Newtek NDI	Lumen
AVID Media Composer	CatDV PAM	Haivision SRT	Fastly
AVID Media Central UX	CatDV DAM	Zixi	Akamai Technologies
AVID Media Central Cloud UX	eMAM Media Asset Management	Consumer Cloud Storages	Microsoft Azure
Apple Final Cut Pro X	Telestream: Masstech	Dropbox	Cloudflare
Edius: Pro 8 and Workgroup 9 and 10	AVID Interplay	Google Drive	Limelight Networks
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Microsoft One Drive	Amazon CloudFront
Autodesk: Flame	Editshare Flow	Apple I Cloud Drive	BootstrapCDN
Storage	MOG Vizzi	VTR Decks	StackPath
AVID Nexis Storage	Medialoopster MAM	XDCAM HD: Disc (PDW 1500)	KeyCDN
Avid Unity™ MediaNetwork	Professional Cloud Storages	XDCAM HD: Disc (PDW HD1500)	Rackspace
Dynamic Drive Pool SAN Storage	Adobe Creative Cloud	XDCAM HD: Disc (PDW F70)	Alibaba Cloud Content Delivery Service
Facilis Terrablock	Amazon EC2	XDCAM Station (XDS1000)	CacheFly
Harmonic MediaGrid	Amazon S3	Cameras	Verizon
Quantum: Storenext	Amazon S3 Glacier	Canon: DSLR 5D, DSLR 7D	Social Media *Optional
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Storage	Canon: DSLR C100, C300	Facebook
Editshare EFS	Microsoft Azure Virtual Machines	ARRI: Alexa XT (ARRIRAW)	Twitch
EMC: Isilon	Tencent: Cloud Storage	Panasonic AU-EVA1, GH5 Cameras	X (Twitter)
QNAP	Lucidlink Cloud NAS	Panasonic CX350 HEVC	YouTube
Studio Network Solutions: EVO	Google Cloud Storage	Panasonic PTZ Cameras	Vimeo
Oracle Storage	IBM Cloud Object Storage	Ikegami Gfpack	Video Router Control Protocols
Netapp	IBM Generic S3	JVC: AVC HD camera models	Videohub Ethernet Protocol
Audio	Peripheral Devices	LUMIX DC-S1H	Evertz > SONY HDS-X5800 - Evertz BRC controller (7700R-SC-BRC) (Quartz Protocol)
Dante *Negotiated separately	Countour Shuttle Pro V2	NewTek PTZ3, PTZ3 UHD Camera	Grass Valley > Trinx 5122 - CM4000 GrassValley Router Control (Jupiter ASCII protocol)
Hypervisors	Elgato Stream Deck	RED Digital Cinema	Grass Valley > Sirius 840 - Router Control module 2464 (Probel SW-P-08 Protocol)
Microsoft HyperV		GOPRO	
VMWare ESX			

## Server Options

Features			Specs
System	Platform		Dell R760
	GPU		2x Nvidia A2
	Video IO		4x DeckLink 8K Pro
	AVC Hardware Encoder		2x Matrox
	Operating System Drive		2x 480GB RAID 1
	Operating System		Windows 10 Enterprise (LTSC)
Connectivity	Networking	1Gb Ethernet Port	2
		10Gb Ethernet Port SFP+	4
	Video	VGA Out	1
	USB	2.0	1
		3.0	1
	BNC 12G In		8
	Ref. In		2
Extended Connectivity	Power Requirements		Dual 1400W
	Peripheral Module**	LTC Input	1
		Audio Out	1
		Breakout Connector	1
	Breakout Cable**	RS422	4
		GPO branch with 4 outputs	1
		GPI branch with 4 inputs	1
Other	Dimensions & Weight		2RU, 772x482x86.8mm (D, W, H), ~40 kg
	Delivery Packaging		970x660x310mm (D, W, H), ~45Kg
	Temperature	Storage	-40°C to 65°C (-40°F to 149°F)
		Continuous Operation	10°C to 35°C (50°F to 95°F)
	What is Included	Power Cable	2x C13 to C14
		Other	Static rails for 2/4-post racks

\*\* Not included by default



## Concurrent Media Operations

With mPORT Grand av, it is possible to run different media operations simultaneously, thus guaranteeing a universe of distinct arrangements to meet the challenging media day-to-day activities.

Media operations include recording, ingest, playback, live video streams, and file preview.

It supports up to 16 media operations at the same time. Within this margin, you can combine the operations shown in the table below:

Concurrent Media Operations		
Record / Live Video Stream	Playback	File Preview
Up to 16 live channels being: <b>SDI:</b> 4 UHD/8 FHD <b>IP Stream:</b> 4 UHD/16 FHD	Up to 16 live channels being: <b>SDI:</b> 4 UHD/8 FHD <b>IP Stream:</b> 4 UHD/16 FHD	Up to 5 files preview

**Note:** when using operations dependent on SDI video inputs and outputs, the physical limit of the video card ports must be respected. Thus, the sum of these operations cannot be greater than 8, but when using the AVC encoder, the limit is 4 UHD.

## Product

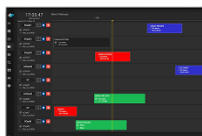
Part Number	Product	Description
mtgrav	mPORT Grand av	Appliance for hybrid workflows of up to 16 combined media operations

## Available Options

Choose from the products below to customize the mPORT Grand av according to your business rules.

### Production Tool

Tool for asset management and workflow orchestration.



#### mPLAN

Setup scheduled events not only from the standard scheduler but through a unique roll out view interface. mPLAN is a tool that maintains a single rollout view of all scheduled events, allowing the management of the ingests process very efficiently. It manages multiple scheduled events across a variety of recording platforms in a multichannel environment using router control cross-points.

Part Number	Product	Description
mgslsb	mPLAN	Scheduler & Router Control per licensed channel

**Note:** Adding optional features might affect the number of simultaneous operations.

### Add-ons

Output options to complement your workflows.

Part Number	Product	Description
cnnsmap	Social media	Simultaneous social media shares
cnnottop	OTT	Multiple OTT output resolutions

**Note:** Adding optional features might affect the number of simultaneous operations.

### Hardware

Customize your solution to your day-to-day media needs.

Part Number	Product	Description
pcbx	Peripheral module	Optional MOG module to expand I/O available with 1x LTC, 1x audio output, 1x GPI, 1x GPO and 4x RS422

**Note:** Adding optional features might affect the number of simultaneous operations.

Contact our sales team at [sales@mog-technologies.com](mailto:sales@mog-technologies.com) to find out how to purchase or in case you need more information.

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