

## mREC Grand av

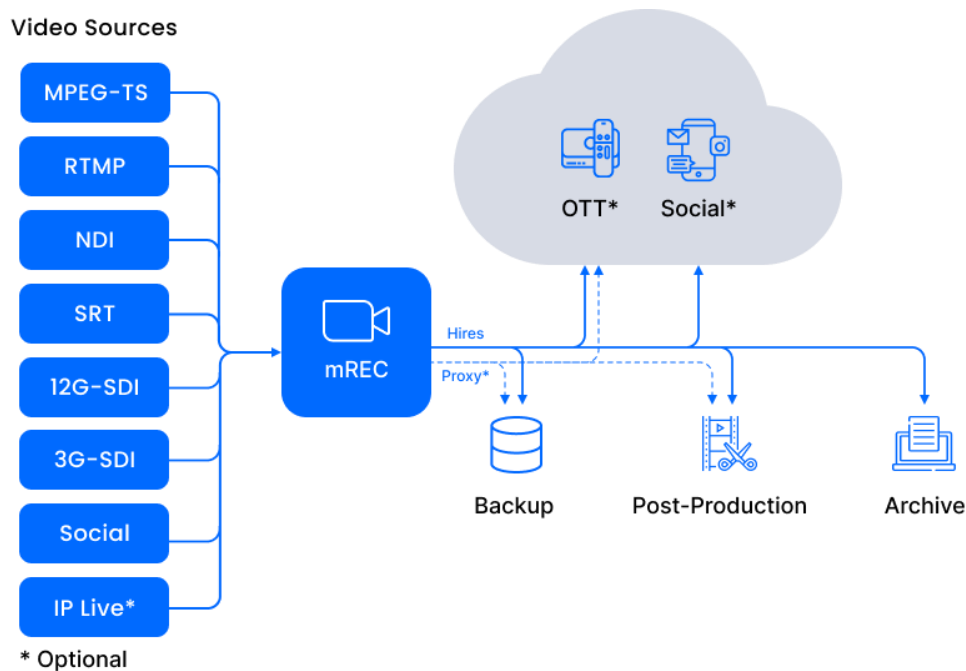


### Overview

mREC Grand av is a powerful and flexible multi-format recording appliance with additional XAVC & AVC-Ultra hardware encoder accelerator.

Optimize media creativity for enterprise, digital media, sports, and broadcast markets with a streamlined file-based capture system, with full support for recording 4K UHD and HDR live video channels in different file formats.

mREC Grand av supports simultaneous media operations that can be a combination of recording and previewing files. Additionally, it can be pre-configured to support IP Live workflows.



### Highlights

- **mSWITCH** - Remote live switching and compositing
- **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
- **mTALK** - Audio communication between users
- Full featured remote and local user interface
- Multi-configuration metadata management
- Flexible file naming engine
- Enable edit while ingest

### Specially Designed For

- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports
- Film/TV Studio/Scripted
- Digitalization
- Post-Production
- Broadcast/Digital News
- 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
<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
Loop record support
Extend a playlist's maximum duration in a Loop Record workflow
Perform Loop record captures through automatic jobs
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
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
<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
- 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

### 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
- Independent audio encoder for hires and proxy
- Individually map your audio by output target
- Record audio only streams
- Playout 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

## Features

### 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
- 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 Playout

### Scheduler (Calendar View)

- Schedule a Record operation
- Schedule Gang Captures
- Schedule Playouts
- 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 a MOG S1000
- Perform captures from an Airspeed 5000
- Perform captures from a Softron Movie Recorder

### 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
- 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 a MOG S1000
- Selectable MOG S1000 capture profiles
- Perform captures from an Airspeed 5000
- Perform captures from a Softron Movie Recorder
- 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

## Features

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

### 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

NDI audio and video synchronized mechanism

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

Stream ID support

Configurable latency settings

Configurable overhead bandwidth

Configurable passphrase

### 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

Timecode and metadata overlaying on SDI out

### Playout

Print to tape

## Features

### 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

### mTALK

- Communicate via audio between two or more users
- QR code implementation
- WebApp (requires Android smartphone)
- Toggle Mode

### 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
- 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
- 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 Cluster Configuration while displaying running services per node

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

- 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)
- 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

- Configurable web interface access port
- Embeddable Dashboards/Widgets
- Web-Based Interface with video preview
- Dashboards based experience where users can create their own personalized view

**Features**

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
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 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 Live Inputs

**Inputs**

<b>Live</b>	<b>SD/HD/FHD-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

**Inputs**

<b>Live</b>	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
	<b>IP Live *Optional</b>
	ST2022-6
	ST2022-7
	ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31
ST2110-40	
ST2110 - NMOS IS-04 and IS-05 support	

**Supported Live Outputs**

**Outputs**

<b>Live</b>	<b>Vizzi</b>
	Live Output
	<b>Social Media *Optional</b>
	Facebook
	Twitch
	X (Twitter)
	Vimeo
	YouTube
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>

**Supported File Outputs**

**Outputs**

<b>OnPrem</b>	Avid ISIS / 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
	<b>Cloud</b>
	<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>	



**Outputs**

<b>Cloud</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

**Formats**

**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)
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

**Output Video Formats**

- 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 GOP 4:2:2
- H.265/HEVC 10 Mbps GOP
- H.265/HEVC 25 Mbps GOP
- H.265/HEVC 50 Mbps GOP
- H.265/HEVC 100 Mbps GOP
- H.265/HEVC 4K 25 Mbps GOP
- H.265/HEVC 4K 50 Mbps GOP
- NDI HX H.264 - High Profile
- NDI HX H.265 - High Profile
- MPEG VVC/H266 Main Profile
- ProRes 422 (SQ/HQ/LT)
- ProRes 4444
- ProRes 4444XQ
- JPEG 2000 (Full HD)
- JPEG 2000 (4K)
- Google® VP6 / VP7 / VP8
- Uncompressed UYVY 422 / V210 / RGBA
- AOMedia Video 1 (Full HD)
- AOMedia Video 1 (4K)
- IMF (JPEG 2000 @ Full HD)
- IMF (JPEG 2000 @ 4K)

**Proxy Formats \***

**Output Proxy Formats**

- XAVC GOP 25 / 35 Mbps
- AVC Ultra (GOP 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

\* Optional output

**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

### Output OTT 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 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, PAM, DAM	Newtek NDI	Lumen
AVID Media Composer	eMAM Media Asset Management	Haivision SRT	Fastly
AVID Media Central UX	Telestream: Masstech	Zixi	Akamai Technologies
AVID Media Central Cloud UX	AVID Interplay	<b>Consumer Cloud Storages</b>	Microsoft Azure
Apple Final Cut Pro X	AVID Media Central UX	Dropbox	Cloudflare
Edius: Pro 8, Workgroup 9	AVID Media Central Cloud UX	Google Drive	Limelight Networks
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Microsoft One Drive	Amazon CloudFront
Autodesk: Flame	Editshare Flow	Apple I Cloud Drive	BootstrapCDN
<b>Storage</b>	MOG Vizzi	<b>VTR Decks</b>	StackPath
AVID ISIS Storage	Medialoopster MAM	XDCAM HD: Disc (PDW 1500)	KeyCDN
AVID Nexis Storage	<b>Professional Cloud Storages</b>	XDCAM HD: Disc (PDW HD1500)	Rackspace
Avid Unity™ MediaNetwork	Adobe Creative Cloud	XDCAM HD: Disc (PDW F70)	Alibaba Cloud Content Delivery Service
Dynamic Drive Pool SAN Storage	Amazon EC2	XDCAM Station (XDS1000)	CacheFly
Facilis Terrablock	Amazon S3	<b>Cameras</b>	Verizon
Harmonic MediaGrid	Amazon S3 Glacier	Panasonic PTZ Cameras	<b>Hypervisors</b>
Quantum: Storenext	Microsoft Azure Storage	NewTek PTZ3 UHD Camera	Microsoft HyperV
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Virtual Machines	NewTek PTZ3 Camera	VMWare ESX
Editshare EFS	Tencent: Cloud Storage	<b>Social Media *Optional</b>	<b>Peripheral Devices</b>
EMC: Isilon	Lucidlink Cloud NAS	Facebook	Countour Shuttle Pro V2
QNAP	Google Cloud Storage	Twitch	Elgato Stream Deck
Studio Network Solutions: EVO	IBM Cloud Object Storage	X (Twitter)	<b>Audio</b>
Oracle Storage	Generic S3	YouTube	Dante *Negotiated separately
Netapp		Vimeo	

## Server Options

Features		Specs	
System	Platform	Dell R750	
	GPU	2x Nvidia A2	
	Video IO	2x DeckLink 8K Pro	
	AVC Hardware Encoder	2x Matrox	
	Operating System Drive	480GB RAID 1	
	Operating System	Windows 10 Enterprise (LTSC)	
Connectivity	Networking	1Gb Ethernet Port	2
		10Gb Ethernet Port SFP+	2
	Video	VGA Out	1
	USB	2.0	1
		3.0	1
	BNC 12G In		8
	Ref. In		2
Power Requirements		Dual 1100W	
Extended Connectivity	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 mREC 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, file preview, live channel switching, and intercom.

mREC Grand av 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	File Preview	Live Switch	Intercom
Up to 16 live channels	Up to 5 files preview	Up to 1 operation	Up to 1 operation

**Note:** when using operations dependent on SDI video inputs, the physical limit of the video cards 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

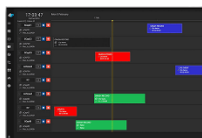
Part Number	Product	Description
mrgrav	mREC Grand av	Video file record appliance of up to 16 combined media operations

## Available Options

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

### Production Tools

Tool for 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
mpla1c	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
grpa	Proxy generation	Simultaneous proxy creation
groa	OTT live ingest	Multiple output resolutions for OTT
grsa	Social media sharing	Simultaneous social media shares

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

### Plugins

Complement any media production and distribution workflow with turnkey plugins and extensions.



#### Screen-m

Quickly capture and deliver your screen contents to your production environment.

Easily record your screen in its entirety or choose one of the open windows. You can even enable the capture of a microphone and the mouse cursor to make it easier to explain any presentation.

Part Number	Product	Description
scpi	Screen-m plugin	Screen capture & Delivery

**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
-	IP live card*	Add up to 4 UHD IP channels into your media production infrastructure

\* Each Live IP card effectively replaces 8 SDI input channels. Therefore, when integrating a Live IP card, all existing SDI inputs will be seamlessly replaced.

**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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