GV Grass Valley
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IBC 2022

September 9-12

Enterprise Agreements
App Store
Content Exchange

Commercial Solutions

Integrated Hardware
Enterprise Applications
IP/SDI Infrastructure

GV Connected Solutions

Switching
Graphics
Playout & Delivery
Image/Audio Processing
Record & Replay

Elastic APPs

Connected Solutions
Native Applications
Professional Services

Alliances

AMPP
Agile Media Processing Platform

Agile Management Tools

Elastic Platform Services

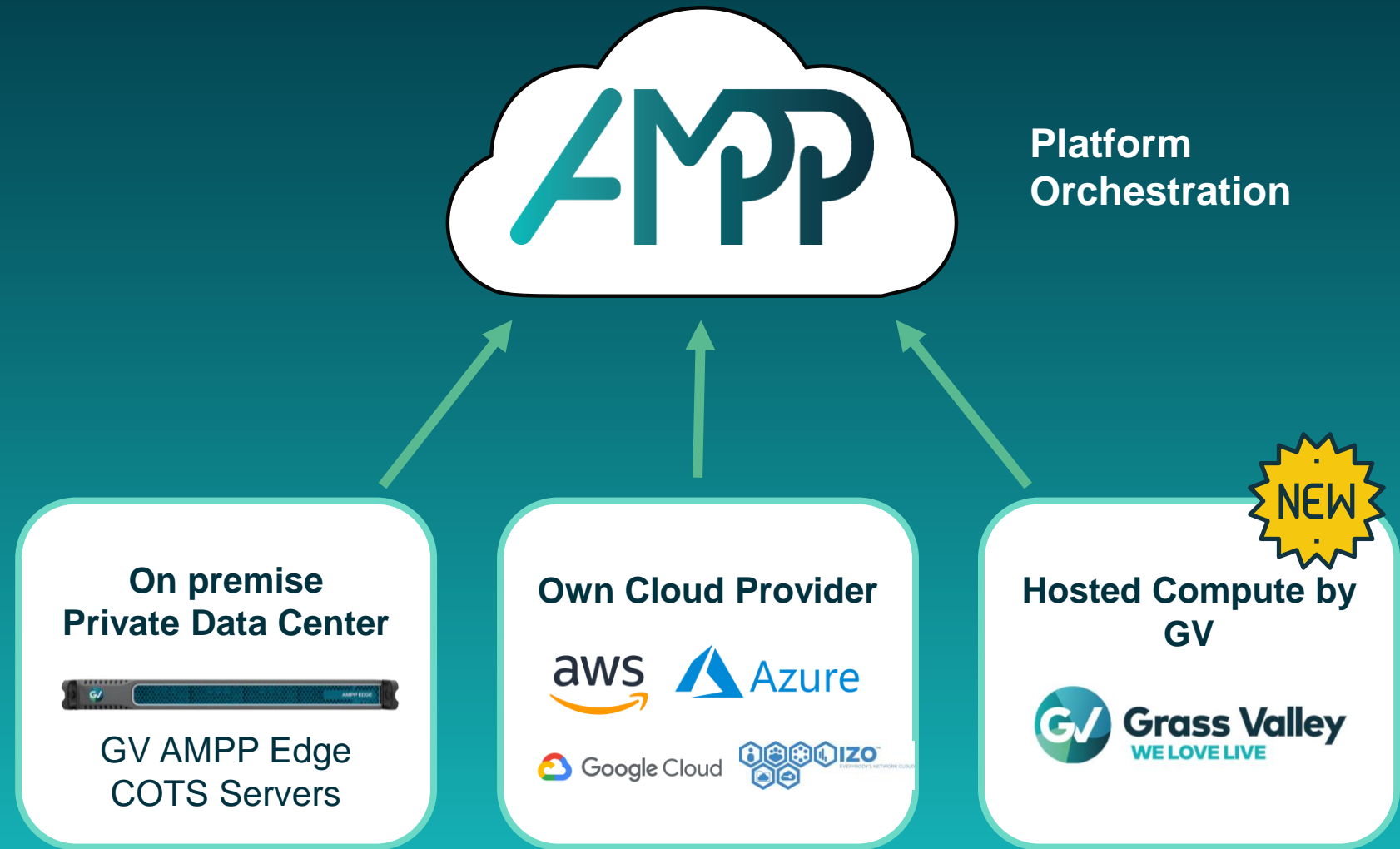**Universal Deployment**

Intelligent Media Services

AMPP HOSTING OPTIONS

- GV hosts the platform (aka control plane) in all cases through a SaaS model

- For the applications (aka data plane) processing several options are available

  - Bring your own
    - On-premise servers or private datacenter
    - Cloud provider (AWS, GCP, Azure, IZO)

  - GV provided
    - On-premise AMPP Edge servers **NEW**
    - GV Hosted Compute **NEW**

Platform Orchestration

On premise Private Data Center

GV AMPP Edge COTS Servers

Own Cloud Provider

aws Azure

Google Cloud IZO

Hosted Compute by GV

NEW

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AMPP
Новые приложения

NEW

MOSAIC

VIDEO SCOPE

CHANGEOVER

UPDATED

AUDIO MIX X ENHANCEMENTS

Noise Reduction
- Uses AI to automatically remove common background noise like "hums", "buzz" or "fan noise"
- Quickly fix background noise problems with no setup

Noise Gate
- Reduces gain when input is under threshold level
- Enables auto-mixing when combined with new Rules Engine and AMPP Control

NEW

ALCHEMIST X PORTFOLIO

Alchemist X Enterprise
- Highest Quality FRC Conversion
- UHD/HD/SD and HD/SD only options
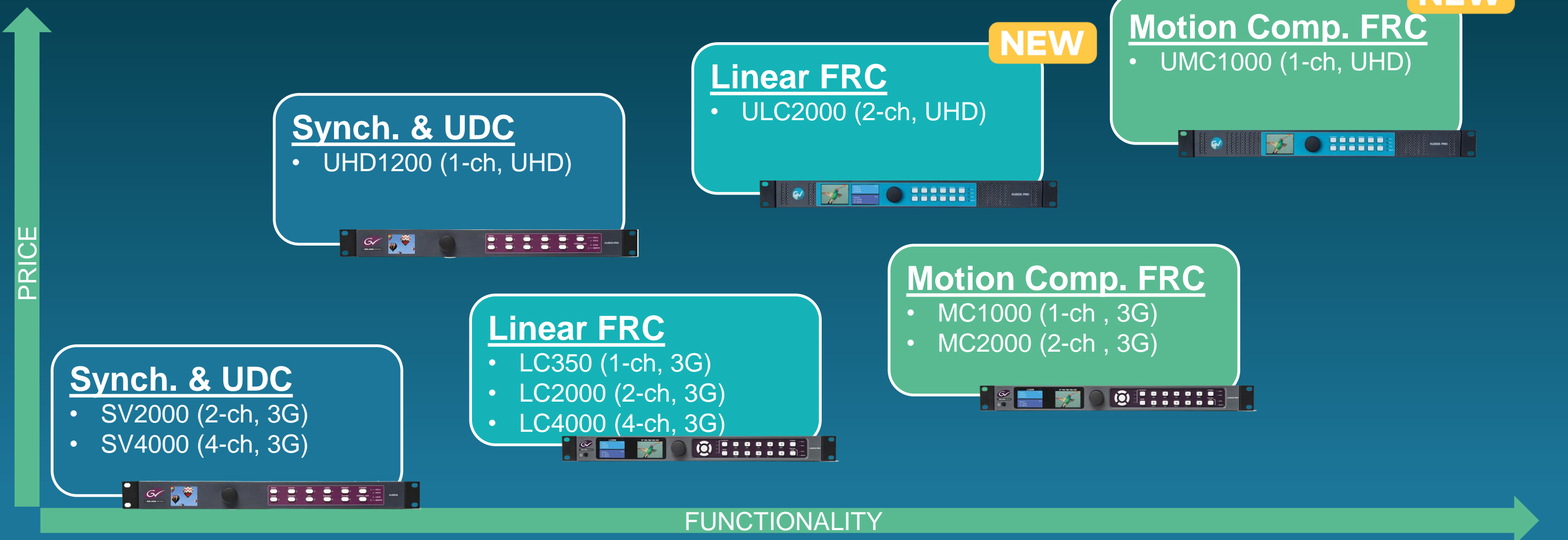- All utility and value add features

Alchemist X Professional
- Mid tier FRC Conversion
- UHD/HD/SD and HD/SD only options
- Video and Audio Proc features

Value Options
- Alchemist X Essential
  - Value FRC Conversion
- Alchemist X UDC
  - UDC & HDR Conversion
- Alchemist X HDR
  - HDR & Color space conversion

PRICE

FUNCTIONALITY

KUDOS PRO

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NEW

KUDOS PRO PORTFOLIO

PRICE

FUNCTIONALITY

Motion Comp. FRC **NEW**
- UMC1000 (1-ch, UHD)

Linear FRC **NEW**
- ULC2000 (2-ch, UHD)

Synch. & UDC
- UHD1200 (1-ch, UHD)

Motion Comp. FRC
- MC1000 (1-ch , 3G)
- MC2000 (2-ch , 3G)

Linear FRC
- LC350 (1-ch, 3G)
- LC2000 (2-ch, 3G)
- LC4000 (4-ch, 3G)

Synch. & UDC
- SV2000 (2-ch, 3G)
- SV4000 (4-ch, 3G)

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NEW

COMPACT ROUTER PORTFOLIO

SCR 6464-12G **NEW**
- 64x64 Video Router
- SD / HD / 3G / 12G

CR3232-3GIG
- 32x32 Video Router
- SD / HD / 3G

CR1602-3GIG-CQX
- 16x8 Clean & Quiet
- SD / HD / 3G

SCR 3232-12G **NEW**
- 32x32 Video Router
- SD / HD / 3G / 12G

SCR 1616-12G **NEW**
- 16x16 Video Router
- SD / HD / 3G / 12G

PRICE

FUNCTIONALITY

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12

NEW
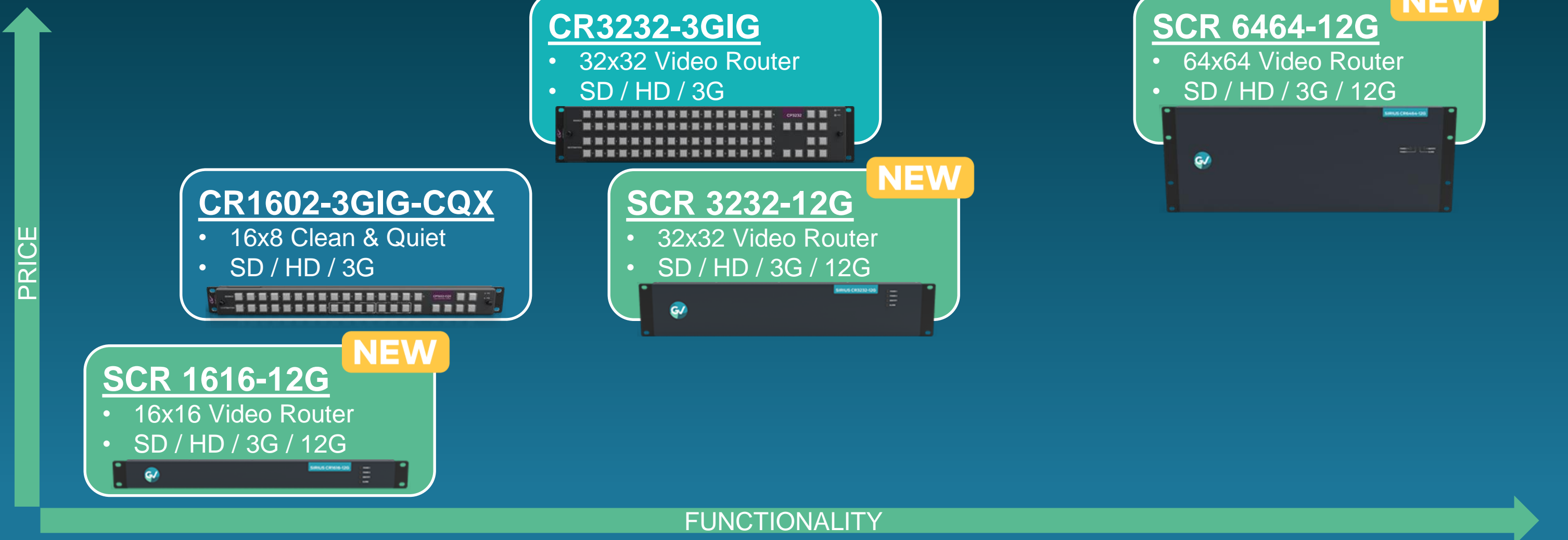
KALEIDO-IP PORTFOLIO

Kaleido-IP X240

NEW

- SD / HD / 3G / UHD
- Up to 96+ HD ST2110-20
- **Up to 56-64 3G ST2110-20**
- Up to 8+ UHD ST2110-20
- Up to 4 Heads

Kaleido-IP X330

- SD / HD / 3G / UHD
- Up to 96 HD ST2110-20
- Up to 48 3G ST2110-20
- **Up to 16 UHD ST2110-20**
- Up to 4 Heads

Kaleido-IP X130

- SD / HD / 3G / UHD
- Up to 96 HD ST2110-20
- Up to 48 3G ST2110-20
- Up to 8 UHD ST2110-20
- Up to 4 Heads

PRICE

FUNCTIONALITY

KALEIDO-IP X240

o Technical refresh of Kaleido-IP
o New more powerful server, CPU's, GPU, and NICs in 1RU
o Increasing input capacity to 56-64 1080P inputs with full 2022-7 support
o 4x HDMI outputs
o 4x ST2110 single stream outputs (2x UHD)

DENSITÉ MODULAR

XIP-3901-ASI

- o Very high density
    - o 16 gateways / card
    - o 192 gateways / 4 RU Densite 3+ frame
- o Main and backup pairing, with automatic change-over switching
- o SMPTE2022-1 FEC support and hitless ST2022-7 Class A redundancy
- o ETSI TR 101 290 Pri 1 transport stream monitoring and reporting back to the orchestration system
- o HTML 5 GUI & Rest API
- o Complete integration with GV Orbit

Convert legacy ASI devices to IP by taking CBR/VBR DVB-ASI (coax) to SMPTE2022-2/3 CBR/VBR TS over IP

UCP-3901-MD

- Up to 16 MADI signals (8 in & 8 out) over dual 10/25 GbE
- Optional MADI link redundancy
- Audio delay per IP output stream of up to 128 ms
- Uncompressed PCM audio transport using SMPTE ST 2110-30
- Audio tone generator for MADI channels
- Audio channel selection per IP stream from 1-64 channels
- Packet time selection of 125 μs, 250 μs, 500 μs, 1 ms and 4 ms
- Source/Destination audio channel shuffling

Convert legacy MADI audio to IP

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CAMERAS

NEW

CAMERA PORTFOLIO

PRICE

FUNCTIONALITY

PTX-35x HD

Xensium FT

LDX (C)92
- Best in class HD
- 720P, 1080i, 1080P, HDR
- Up-converted UHD

Xensium FT

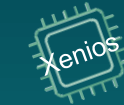**LDX (C)96**
- Sports HD
- HDR, up to 6x 1080P
- Up-converted UHD

Xensium HAWK

LDX (C)98
- News UHD, Sports HD
- HDR, up to 6x 1080P

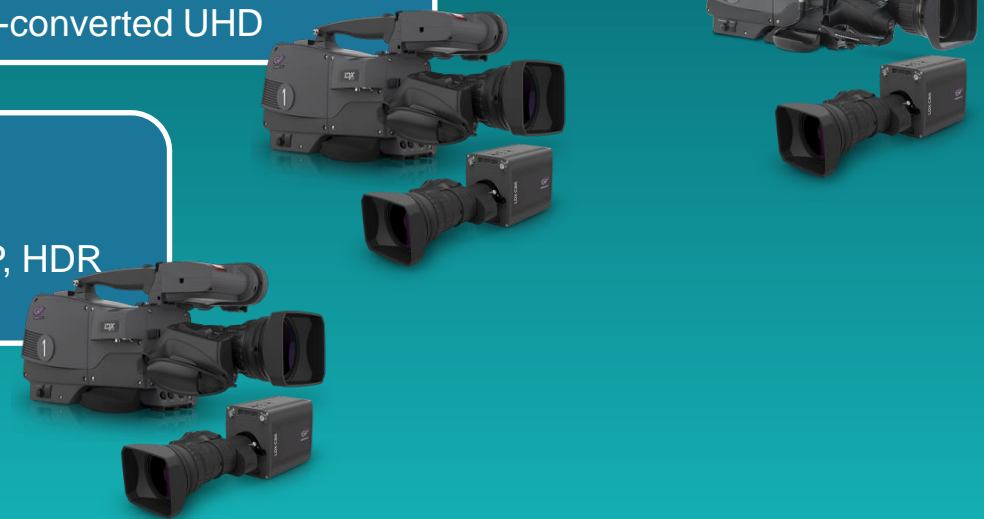*Xenios*

LDX 135
- Studio/Sport single speed UHD & Native IP
- Global Shutter

NEW

Xenios

LDX 150
- Sports UHD & Native IP
- Up to 3x UHD
- Global Shutter

NEW

LDX 135

o **New single-speed version of the LDX 150**

o **UHD support as standard**

o **Other LDX 100 series options available**

Improved handgrip
Closer positioning of the two user-programmable buttons to the zoom controller, making it easier to use the two controls simultaneously

Improved shoulder pad
Wider support on the shoulder, thus less punctual pressure and more comfortable working with the camera even over a longer period of time
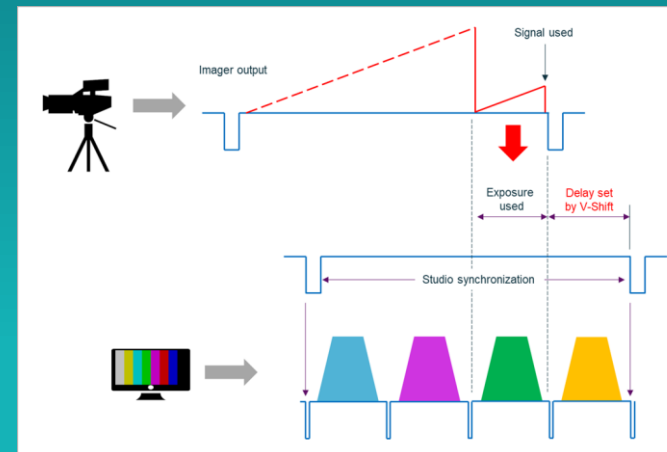
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UPDATED

LDX SOFTWARE

New functions and features provided by software updates

o V-Shift functionality
o Clean scan control with higher resolution
o LUT simulations
o Traditional SDR controls
o 3x 3G/HD plus 3G/HD live operation with NativeIP and XCU
o 3x 3G/HD plus 4K/UHD live operation with NativeIP
o Audio IP-streams shuffling
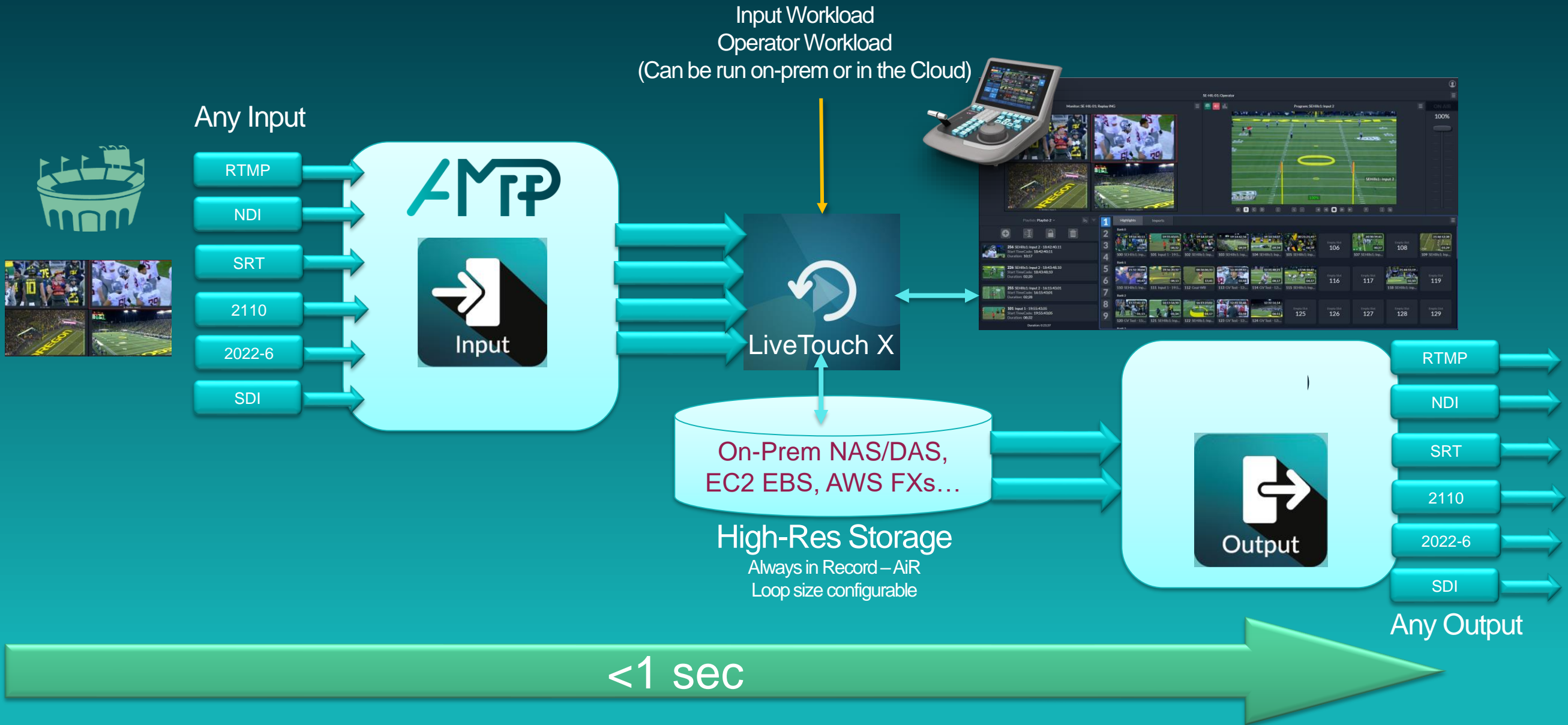o Dissolve transition between scene files

...and many more

LIVE TOUCH X

LiveTouch X - Workflow

Input Workload
Operator Workload
(Can be run on-prem or in the Cloud)

Any Input

RTMP
NDI
SRT
2110
2022-6
SDI

AMP
Input

LiveTouch X

On-Prem NAS/DAS,
EC2 EBS, AWS FXs…

High-Res Storage
Always in Record – AiR
Loop size configurable

Output

RTMP
NDI
SRT
2110
2022-6
SDI

Any Output

<1 sec

Kula IP with GV Kombine

o The ability to control multiple processing frames switching as a single meshed entity with a single surface control
o More I/O and M/Es for 4K (2SI) 1080p productions

o Benefits
- GV Kombine's orchestration layer will enable multiple frames to be controlled by a single control surface and appear as a single entity
- GV Kombine will utilize current GV Kula IP switcher hardware
- The user experience and interaction with building… loading… punching shows has the feel of a standard production on Kula
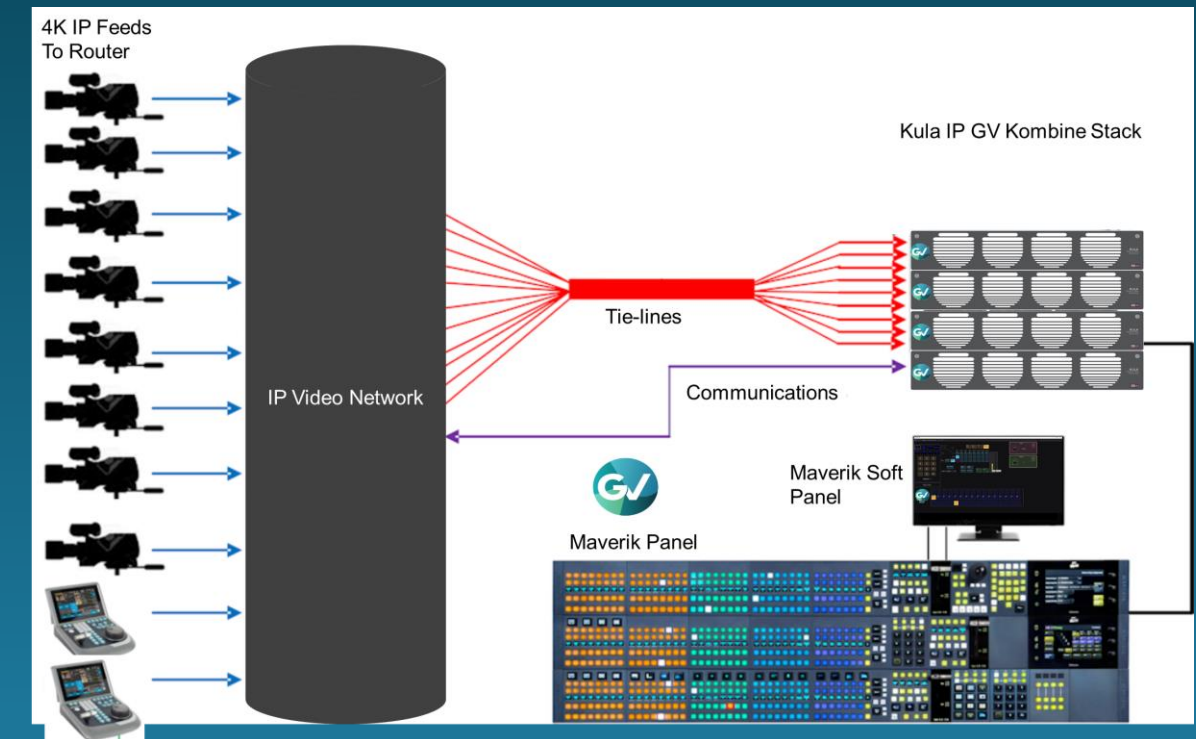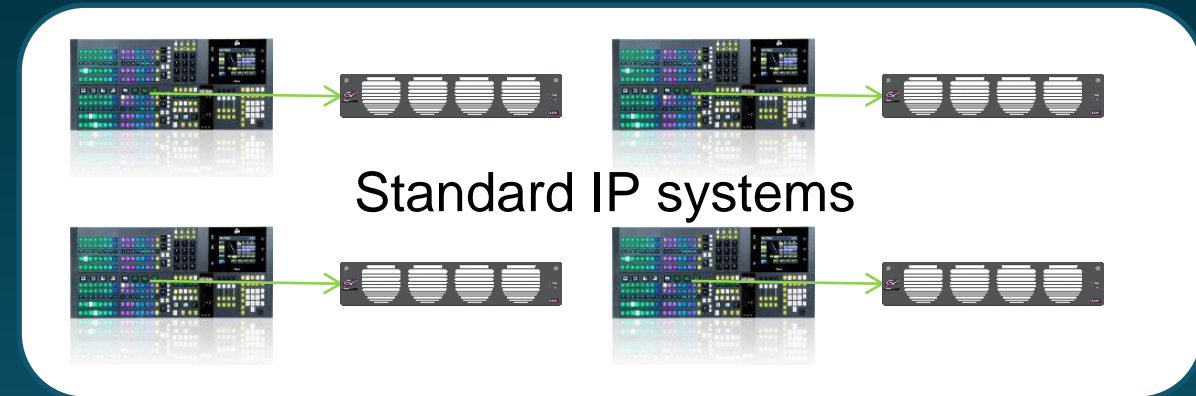
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NEW

Kula IP with GV Kombine

Mesh-switching across frames with single surface control

- o Enable multiple IP switcher frames to be controlled by a single control surface and appear as a single entity
- o The Maverik Soft Panel (MSP) will be utilized to enable the Maverik panels to control multiple frames.
- o Each frame will require a **GV-LIC-KOMBINE-FRM** license
- o Stacking frames enables customers to expand their switcher resources to meet a particular event's demand; then return them to individual productions
- o Stacking frames affords larger I/O and M/E counts for resource heavy UHD shows
- o GV Kombine removes the individual frame hardware limitations allowing customers to exactly match their production requirements
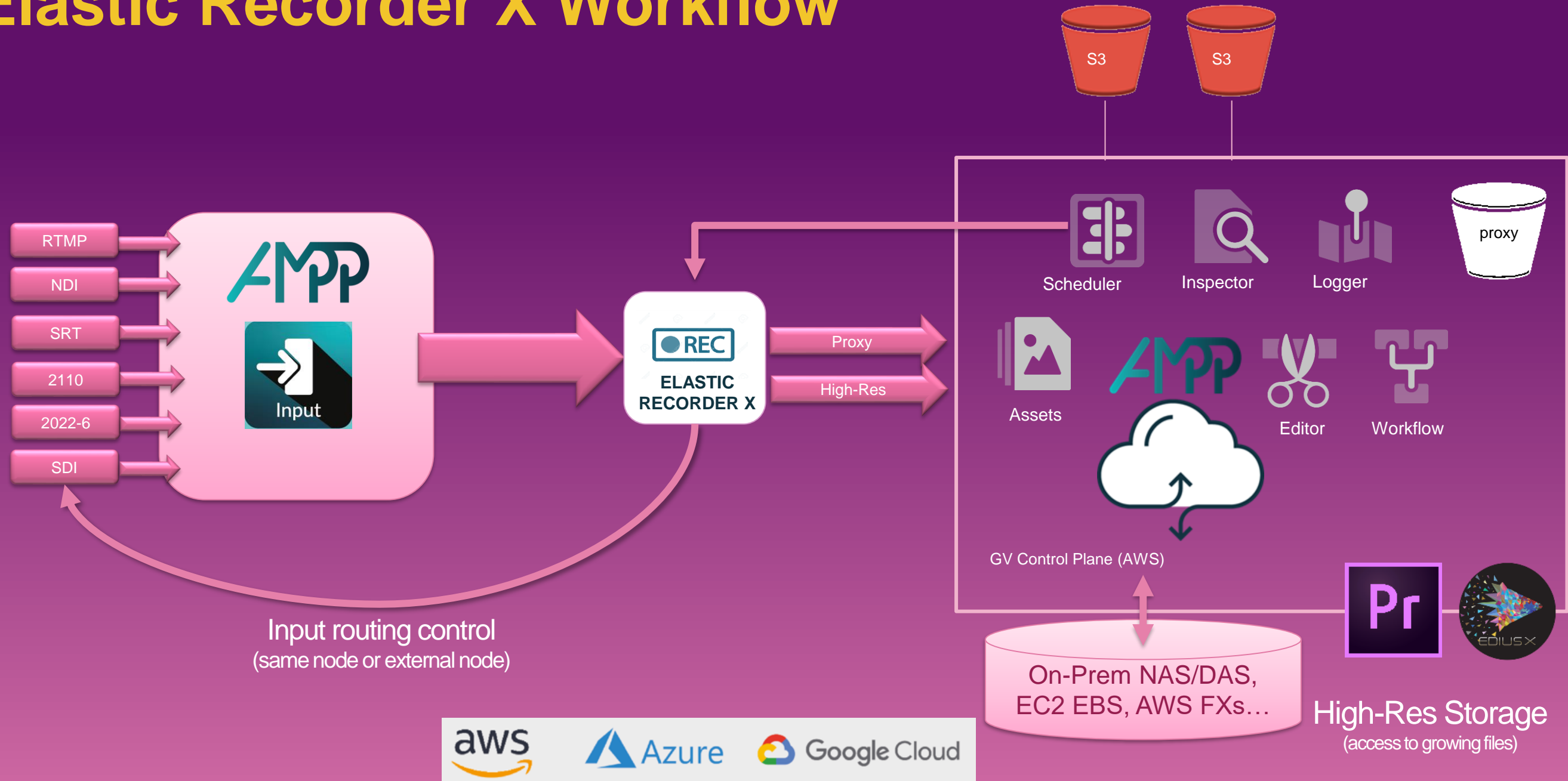
Standard IP systems

4K IP Feeds
To Router

Kula IP GV Kombine Stack

Tie-lines

Communications

IP Video Network

Maverik Soft
Panel

Maverik Panel

Maximum 16 M/Es in UHD or HD

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Elastic Recorder X Workflow

GV PLAYOUT X

FREE PLAYOUT

Included

GV PLAYOUT X PLAYER INSTANCE

ASSET REGISTRATION & PLAYBACK

DUAL LIVE INPUTS

UNCOMPRESSED OUTPUTS

TRANSITIONS

LOGOS

AFD/ARC

EMBEDDED AUDIO PASSTHROUGH

VOICE OVERS

ALC

CC / SUBTITLES PASSTHROUGH

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Options

SYNCRONIZED REDUNDANCY

UHD SUPPORT

HDR SUPPORT

DOLBY PROCESSING

ADVANCED AUDIO PROCESSING

SIDECAR, LIVE & DVB SUBS

SCTE SUPPORT

AUDIO WATERMARKING

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FREE PLAYOUT

Included

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AMPP APPS

MONITORING

COMPRESSED OUTPUTS

ELASTIC RECORDER X

EXTENDED FRAMELIGHT X WORKFLOWS & LICENCES

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ELASTIC RECORDER X

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= TOTAL FLEXIBILITY