







**CLOUD AND ON PREMISES** 

**SOURCE TO SCEEN SOLUTIONS** 



# Two Focused Business Units Addressing Gigabit and Streaming Growth





#### CABLE ACCESS



#### **VIDEO**

- Invented and leading virtualized cable access
- Foundational deployments with industry leaders
- Strong cable customer relationships

- · Market leader in premium live video
- Leading live OTT streaming transformation
- Strong media customer relationships

#### GLOBAL SERVICE & SUPPORT

- Service & support plans to fit unique customer needs
- Reputation for world-class service & support
- 365 dedicated global resources
- 5,000+ customers in 110 countries on 6 continents

## **HARMONIC VIDEO SOLUTIONS**









## **Electra X Portfolio**





## Electra X2

- Encoder
- Appliance
- SDI & IP
- Traditional OTT & Broadcast





### Electra X VM

- Encoder
- Software only
- IP
- Datacenter deployments



## Electra X2S

- Encoder & Mux
- Appliance
- SDI, ASI & IP
- Small systems, Standalone uplinks

Same Encoding Feature set, Same VQ

## **ProStream X Key Features**



**VIRTUALIZED SW** 

**SW ON APPLIANCE** 

SW ON BARE METAL

ProStream XVM

ProStream X









#### **GATEWAY**

- 10 Gbps throughput
- 1G/10G networking
- 1000 sockets/2000 services
- ASI ← IP

#### **ADVANCED MUX**

- PSI/SI/PSIP re/generation
- PCR generation/restamping
- Remultiplexing
- TS mirroring
- Slate insertion
- DVB-T2 Gateway\*
- DVB-T MIP Insertion\*

#### **SCRAMBLER**

- Integration with CAS vendors
- BISS, DVB CSAv2 / CSAv3
- AES CBC/ECB
- AES Fixed Key
- Trick mode
- Pandora

#### HIGH-PERFORMANCE STATMUX

- Closed-loop local/remote statmux
- Target bitrate statmux
- DataTrack
- Open-loop w/ OTT content\*

#### SPLICING/ SWITCHING

- Seamless Live to Live programs switching
- Blackout switching
- Ad insertion\*

## ViBE CP9000 – Key features





## **Platform**

- Low depth 1RU server
- Dual AC PSU
- Front panel with LCD
- Up to 2 x Proc. cards

## **Processing**

- Up to 8 x HD or 2 x UHD
- HEVC/AVC 420/422
- MP1 L2, AAC, DD, DD+...
- Low latency
- Multiplexer (SPTS or MPTS)

## Interfaces

- Inputs
  - 3G/12G SDI input
  - SMPTE-2022-6 / 2110\*
- Outputs
  - TS over IP
  - · ZIXI / SRT
  - ASI\*

<sup>\*</sup> Built in HW option

## **RD9000 DECODER - KEY FEATURES**





## **Platform**

- Low-depth server
- Dual AC PSU
- 2 models
- RD9020: UHD up to 80Mbps
- RD9080: UHD up to 160Mbps
- GbE C&C
- Web configuration

## **Processing**

- Up to 4xSD/HD or 1xUHD
- MPEG-2 / H.264 / HEVC
- 4:2:0/4:2:2
- Square Division / 2SI
- Video down conversion
- Up to 8 audio
- MPEG1 LII, AAC, AC3...
- TS player with storage

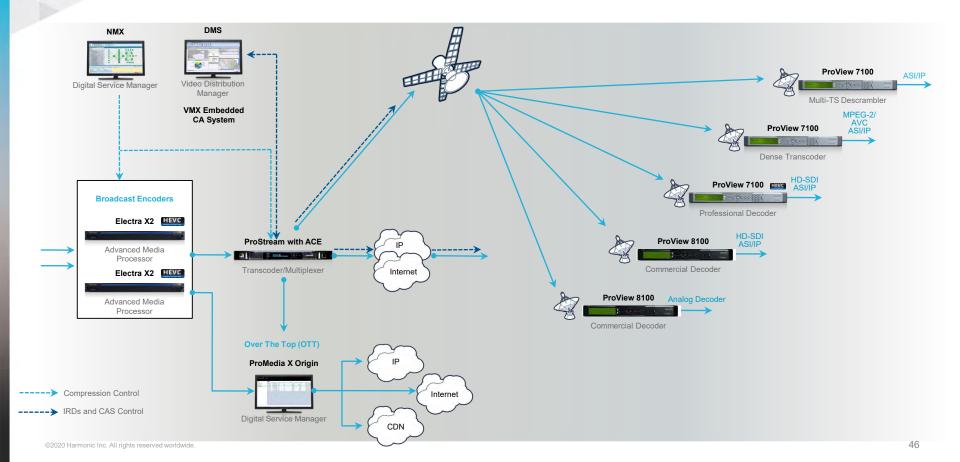
## Interfaces

- Inputs
  - TS over IP/ ZIXI / SRT
  - ASI
  - DVB-S2/S2X
  - Genlock
- Outputs
  - Quad 3G-SDI\*
  - 12G-SDI & HDMI\*
  - SMPTE-2110\*

<sup>\*</sup> Built in HW option

## **Harmonic Distribution Workflow**





## MediaGrid – Workflow for Video Storage





MediaGrid

Media Workflow Solution

Optimized file system built for file-based workflows

Leading Performance

High-bandwidth performance suitable for 4K UHD editing

Centralized System Management / Monitoring

Monitor utilization and system health from any browser

Simple, Online Scaling

Easily and linearly scale both bandwidth and capacity\*

Shared, Unified Storage

Ethernet connected Single unified name space

**Enterprise-class Reliability** 

Full Redundancy & High Availability
Clustering & Disaster Recovery

<sup>\*</sup> Currently 4PTB usable

## **Applications & Market**

# harmonic



Advanced Media Processor
Premium VQ
Innovative Features











- Cable
- Terrestrial

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- IPTV
- OTT



## **Electra XT Xtream Transcoder**





Digital Turnaround Transcoder MPEG2 H.264 HEVC





Broadcast + Multiscreen cbr statmux/vbr Abr

Internal Push Packager Microsoft





DRM

Audio Transcoder MPEG) ( DOLBY DIGITAL PLUS DIGITAL PLUS DIGITAL PLUS







**Audio Leveling** 

Logo/ Text insertion

## **NMX** value proposition



# Market reference for the management of multi-purpose compression systems

#### **One-stop interface**

- Network & Services configuration
- Monitoring
- Redundancy
- Multi-application
- Multi-Site
- For all HW/SW deployments

#### Service-oriented

- Versatile service plan management
- Bulk/Off-line or templatebased editing
- Scheduled service plan changes
- Service affecting alarms and service path

#### Aggregation

- Alarms & events consolidation
- 3<sup>rd</sup> parties integration
- Audit trail
- Automated system backups
- SNMP forwarding & RESTful API



# THE FUTURE IS SMARTER, FASTER, SIMPLER.

#### **VIDEO STREAMING SOLUTIONS**

Video streaming made smarter, faster and simpler, from source to screen.



## **Obrigado!**

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