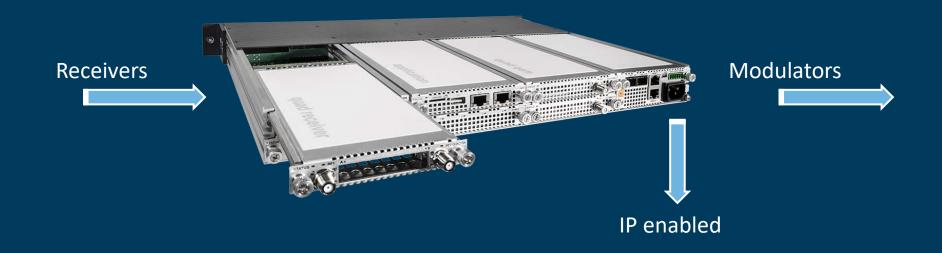


### Teleste Luminato 2018

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### Luminato – Left to right





### Luminato – Fact of the day

8500

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### **Luminato Receivers**

- No more traditional reception specific receivers
- Multistandard receivers
  - LRM-A
  - LRM-B
- Quad and Dual receivers
- IP reception included in Quad receiver
- Simultaneous reception of e.g. DVB-S2X and DVB-T2





### Luminato key benefit - Encryption

Simulcrypt up to four CAS simultaneous

IPTV encryption (AES)

Enhanced security with scrambling on the receivers

Samsung LynkDRM and LG Pro:idiom hospitality DRMs





### **Luminato Dense Modulator**

## LDM-A



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### Luminato Dense Modulator – Hard figures

Totally new design

Compatible with existing chassis (LCH-D)

16 / 24 QAMs per module

Flexible channel selection

Max 3 modules within existing chassis LCH-D



### Luminato Dense Modulator – Soft figures

QAMs added with licenses

First samples available by end of 2017

Launched in GPL H1/2018

General availability end of Q1/2018

Next phases will include Dense COFDM modulator

Existing DVB-C modulator will remain available



### Luminato Edge QAM

Dense modulator enables totally new density per module

Dataminer integration existing for umbrella monitoring and configuration

New Chassis will enable highest QAM density per 1RU



### Luminato Chassis – Version 2.0 on drawing table

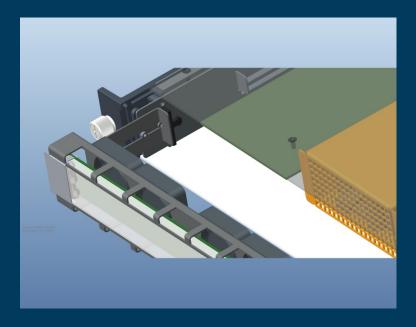
Six module slots

Interface card variable (1Gb ports vs. 10Gb ports)

Power supply on front side

Compliant with old modules

Available "late" 2018





### Luminato – Future compliancy is here

Transparent to codecs like HEVC

Transparent to resolutions like 4K

Support of DVB-S2X reception



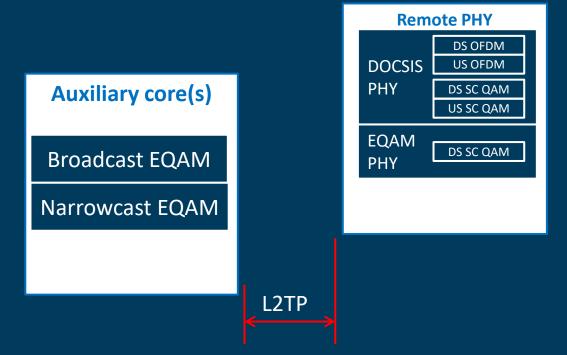
H.265 - HIGH EFFICIENCY VIDEO CODING



### Luminato roadmap snapshot – DVB Video Core

### Luminato acting as auxiliary core for:

- Broadcast video
- narrowcast video
  Features:
  - L2TP tunneling for pseudowires
  - 1588 clock





# **CMAF CENC JITP**



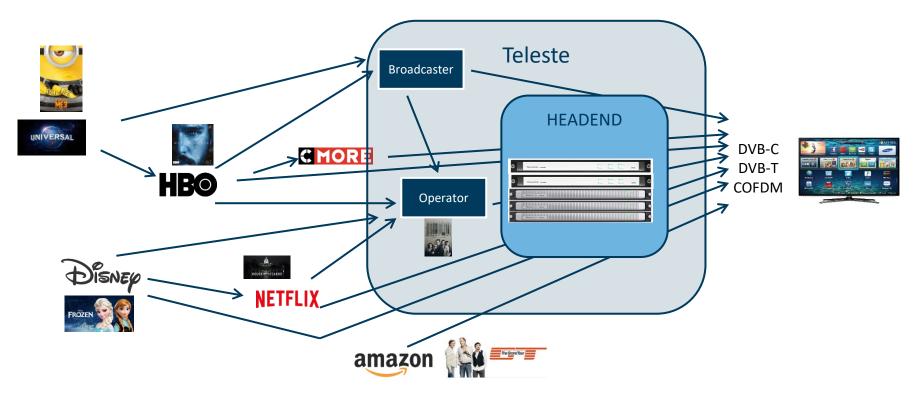
4K HDR

**HEVC** 

13



### Video is everywhere







#### Reception

### Multiplexing Scrambling

### Encoding

#### Offline transcoding

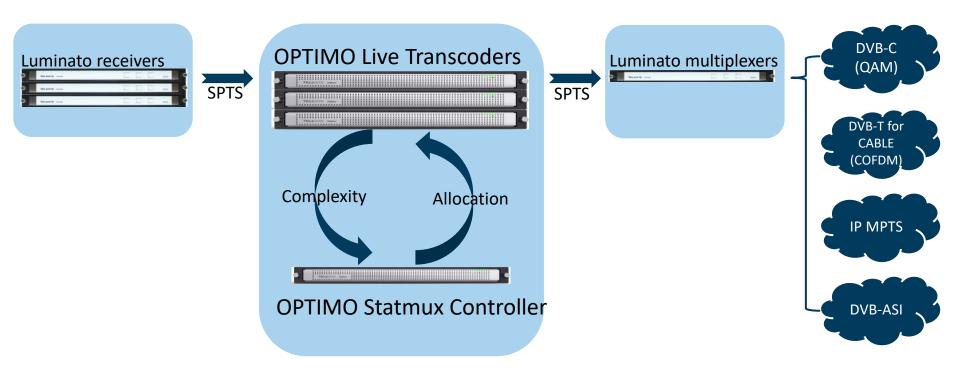
### Packetizing

Statmuxing



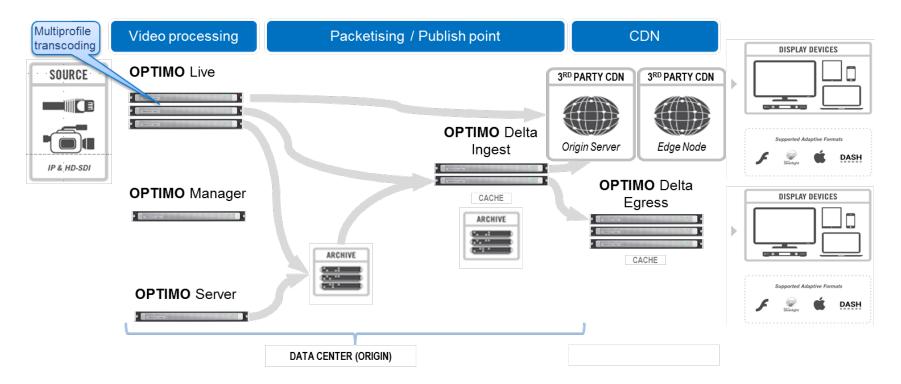


### **Optimo Statmux Architecture**





### **Video Delivery Pipeline - Architecture for OTT customer**





### Video – Size matters

FULL HD TV (1,920x1,080)		CLEATED (2) COLOR	
HD TV (1,280x720)	E CAN	Activity	Typical bandwidth required
		Music streaming	1.5 Mbps (CD quality) 250 Kbps (MPS)
		Video streaming – standard quality	1.5 Mbps per user (minimum)
PALTV (SD) 720x576		HD video streaming	5 Mbps per user
		Streaming video services, such as Netflix, YouTube, HBO Go	Up to 10.5 Mbps per user (HD or 1080p streams)
		4K ultra HD or HDR video streaming	25 Mbps per user

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