



2019

# POST IBC Presentation

**Create  
Control  
Connect**

Content your way.

# LIVE PRODUCTION

# ЧТО НОВОГО:

- Creative Grading
- LDX85N4K only
- Kula AV
- 12G I/O on K-Frame X
- IP sQserver
- Live Touch for OB
- Live Touch w/Aux Audio
- Remote Production

# Ultimate Direct Access

And more Direct Access...

- 7 freely definable rotaries
- 4 freely definable push-buttons



See the button assignments and values at all times





- Light

- Shows the hit on sensitivity for every stage, from lens to ND filter, to video mode, to exposure, to gain...
- Displays the whole system in one overview, making it really fast to pin-point
- Highlights a potential sub-optimal combination of settings



# LDX 85<sup>N</sup> 4K Model

- UHD камера начального ценового диапазона
- Основана на LDX 86<sup>N</sup>
- Один вариант камеры работающий в UHD 50/60p
- eLicenses for DirectIP and HDR
- Совместима с UXF Transmission (SDI и IP)
- HD только даун-конвертированный режим. Без возможности DPM Ultra.



# Kula AV



- Cost effective “all-in-one” switcher
  - Video switching
  - 8 ch Audio control/mix
  - Multiviewer
  - Conversion (FF3)
  - Internal graphics
    - RT Soft, “Swift”



- Great companion to GV STRATUS One

Cost savings from fewer operators  
Real GV Solution for the smaller deployments

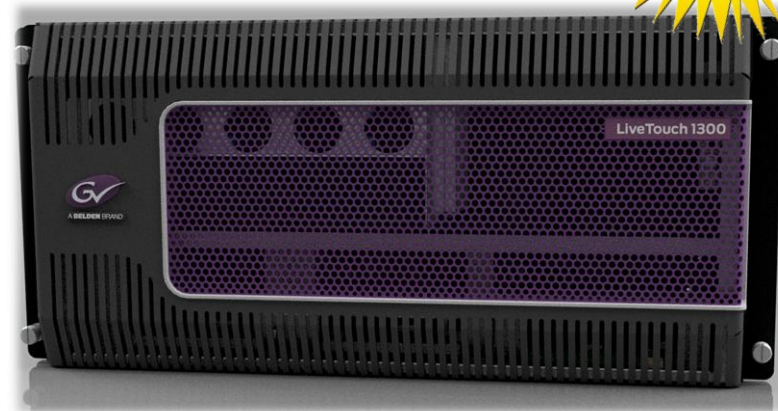
# Live Touch для ПТС!





# Live Touch IP (SQ1300)

- Dual 50G Interface (2110 & 2022)
- 12xHD или 4xUDH
- 2110-40 Ancillary Data Support
- Full Raster UHD
- Proxy Generation on input (H.264)
- 8x 1.6 TB SSD Storage
- Shipping Nov 2019



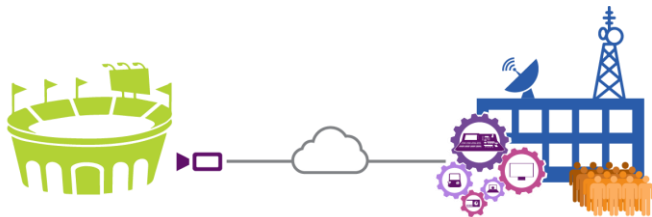
# Auxiliary Audio? Absolutely


- Auxiliary Audio Import
  - Sound Effects, Nat Sound, Music
- Advanced Editing Toolset on Panel
  - Define Regions
  - Insert into Playlist
  - Mixing/Keyframes
- Stereo Mix Down on Playout





# Remote Production?

## Уже в эфире!





 All processing at home. Only camera heads at location. Least amount of equipment at event.


 Bandwidth requirement is high. Uncompressed video streamed to production center.

 Delay is minimal. Not an issue for production team.





 All processing at home. Only camera heads at location. Least amount of equipment at event.


 Bandwidth requirement is reduced with compressed video streamed to production center.

 Delay is moderate with latency introduced by compressing and uncompressing signal.



 All processing at event. Processing frames with camera heads on location.

 Bandwidth requirement is moderate. Compositing multi-viewer video streamed to production center. Control signal return.

 Delay varies based on distance of remote location from production center. The greater the distance, the longer the delay.

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# ROUTING

# GV Fabric

## ❖ Two Models

- 1RU: 32x 100GbE
- 1RU (half-width): 16x 100GbE

## ❖ Flexible Topologies

- Monolithic
- Leaf/Spine

## ❖ Reprogrammable Core

## ❖ Up to 1024<sup>2</sup> 3G in 2RU (fully redundant)

## ❖ Up to 512<sup>2</sup> 3G in 1RU (fully redundant)

The screenshot shows the GV Fabric Management Console interface. At the top, it displays the logo for Grass Valley (A BELDEN BRAND) and the console title "GV Fabric Management Console". Below the logo, there's a navigation bar with tabs for Setup, System, Security, Ports, Status, VPI Capcity, VPI Cpbity, ETH Mgmt, IP Route, Gateway, and Save. The main content area is titled "Ports Information" and shows a list of ports. The selected port is "1", and its details are displayed in a table format. The table includes fields for Port number, Port type, Port description, Admin state, Operational state, PFC admin mode, PFC operational mode, Last clearing of counters, Threshold Level, 60 seconds ingress rate, 60 seconds egress rate, Mac address, MTU, Flow-control, Supported speeds, Advertised speeds, Actual speed, Auto-negotiation, and Switchport mode.

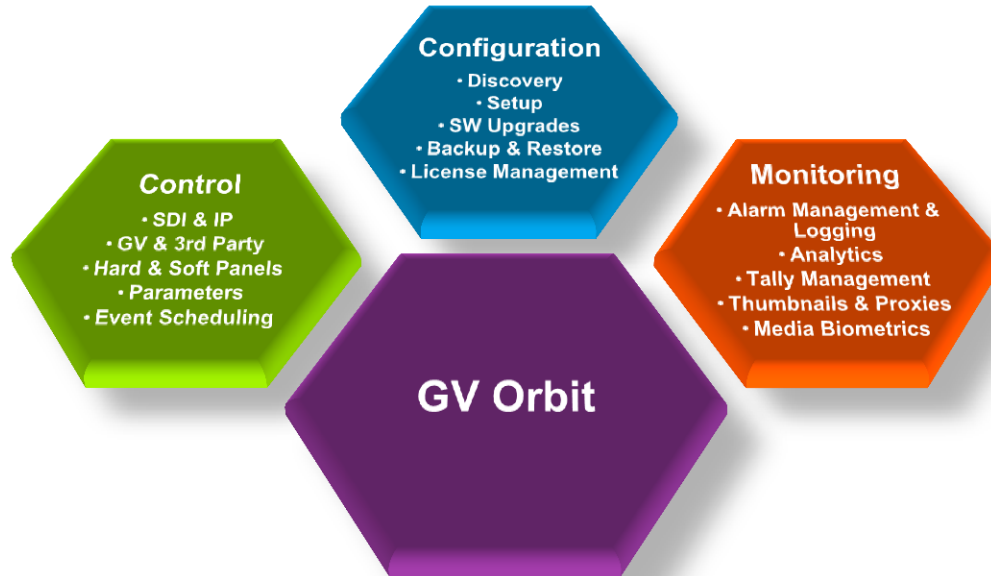
| Port Info                   |  |                     |                             |
|-----------------------------|--|---------------------|-----------------------------|
| Port number :               | 1                                      | Mac address :       | 7c1fe90:f7:5c:bc            |
| Port type :                 | ETH                                    | MTU :               | 1500 bytes                  |
| Port description :          |  | Flow-control :      | receive off send off        |
| Admin state :               | Enabled                                | Supported speeds :  | 1G 10G 25G 40G 50G 56G 100G |
| Operational state :         | Down                                   | Advertised speeds : | 100G                        |
| PFC admin mode :            | Off                                    | Actual speed :      | Unknown                     |
| PFC operational mode :      | Off                                    | Auto-negotiation :  | Enabled                     |
| Last clearing of counters : | Never                                  | Switchport mode :   | access                      |
| Threshold Level :           | N/A                                    |                     |                             |
| 60 seconds ingress rate :   | 0 bits/sec, 0 bytes/sec, 0 packets/sec |                     |                             |
| 60 seconds egress rate :    | 0 bits/sec, 0 bytes/sec, 0 packets/sec |                     |                             |

# GV Orbit: Dynamic System Orchestrator



# GV Orbit: Dynamic System Orchestrator

- Single interface for control, configuration and monitoring
- Dynamic discovery, setup and pathfinding



# Open Standard, End-to-End IP

The only provider with ALL the key parts!



**Cameras**

LDX-86/86<sup>N</sup>... Direct IP



**Switchers**

K-Frame, Kahuna, Kula-IP  
Masterpiece-IP Master Control



**Conversion & Processing**

Alchemist Live IP  
KudosPro-IP



Audio Live



GV Orbit  
(Control, Configuration & Monitoring)



**Modular**

Conversion: XIP-3901  
Gateways: IPG-3901, IQUCP25/50

Densité



IQ



**Multiview**

Kaleido-IP, MV-820-IP  
IQUCP-MV, KMX-4921



**Display**

IPVU  
Dual channel IP to HDMI





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# PROCESSING

# 4K UHD Processing with XIP-3901

- IP agile processor (**Available Dec. 2019**)
  - JT-NM TR-1001-1: ST 2110, ST 2059, ST 2022-7, NMOS IS-04/05
- Dual channel HD / 3G / 4K UHD processor
  - Supports single stream 4K UHD
- Improved HDR conversion
  - BBC HLG LUTs & user-defined LUTs
- Powerful 228 channels audio processor



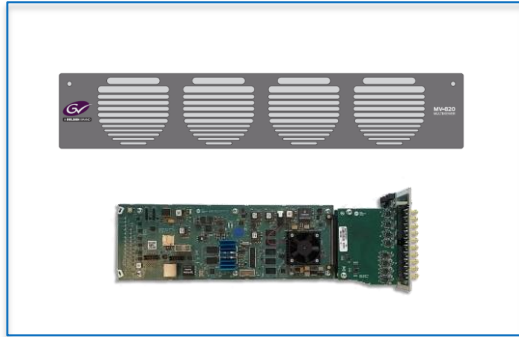
# Новинки Densite и IQ

- Densite
  - HDA-3961 Single / Dual channel 12G DA
  - MDX-3901 12G Audio Mux/Demux
- IQ
  - IQUDC40 12G Up/Down Cross
  - IQMDA40 12G Down converter + DA
  - IQSDA41/42 Single / dual channel 12G DA
  - IQGBX40 4K UHD 12G / Quad-Link Gearbox

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# MULTIVIEWERS

# IP Multiviewers



## ❖ MV-820-IP / IQUCP-MV

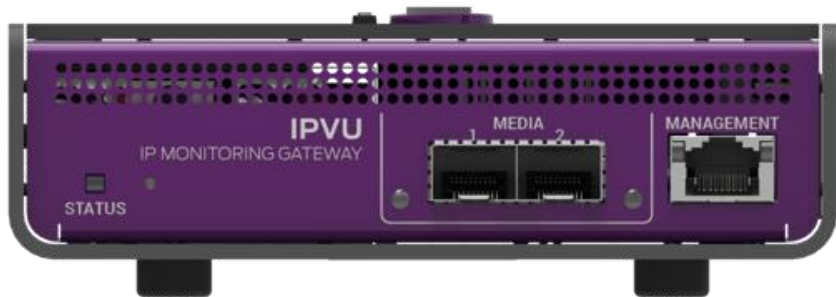
- ❖ Ideal for:
  - Live production, Trucks, Fly kits
- ❖ MV-820-IP: for larger size (48x12)
  - ❖ - 100 GbE
- ❖ IQUCP-MV for smaller size (12x4)
  - ❖ - 25/50 GbE



## ❖ Kaleido-IP

- ❖ Ideal for:
  - Playout
  - Incoming Feeds
  - Remote production
- ❖ MPEG-TS and OTT requirements
  - ❖ 10/25/40/50/100 GbE

# IPVU - IP Monitoring Gateway



# Kaleido IP

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## ❖ Программный полиэкран на COTS сервере

- Компрессированные входы (MPEG 2/4, )
- Некомпрессированные входы (2022-6, 2110)

## ❖ **NEW**

- **2110 выходы (2 мозаики)**



# MV-821

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## ❖ MV-821-12G

- 48 inputs –all at 12G SDI
- 12 x 3G outputs or 3 x UHD outputs
- Based on MV-8xx feature set with **unique features**
- Media Biometric Generators on every input
- H.264 proxy on every input





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# PRODUCTION

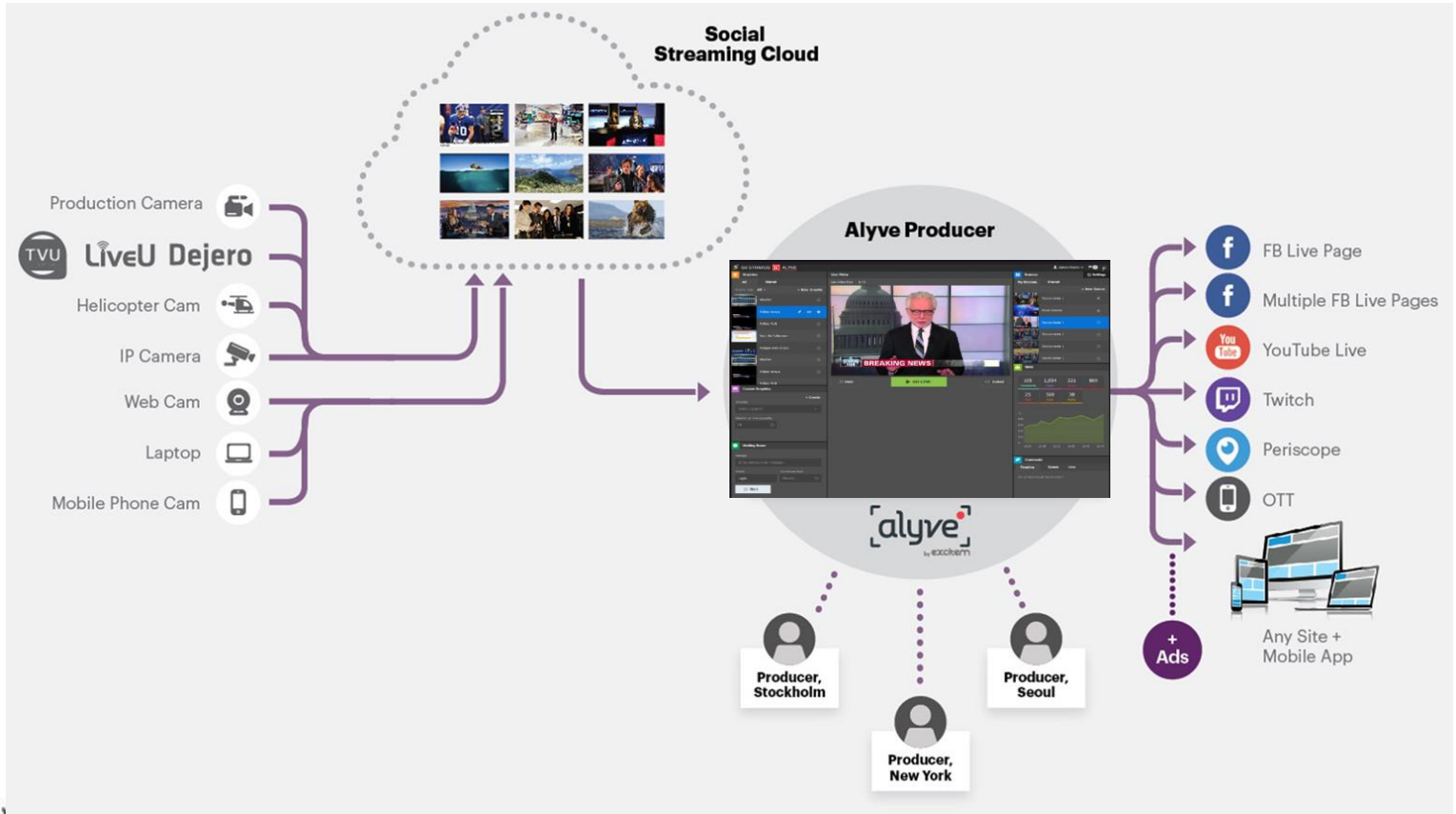
# GV PACE

## GV Pace

- Студийная автоматизация
- HTML 5 интерфейс
- Подписка или покупка
- 3 варианта стоимости



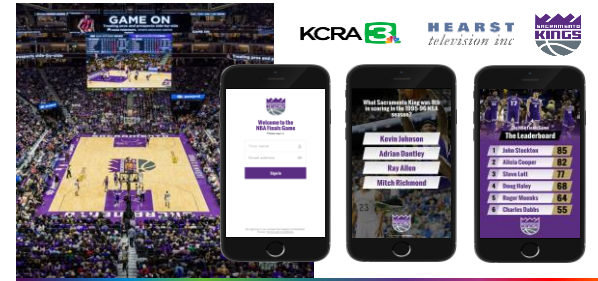
# GV Alyve



# GV Polling & Gaming

## GV Polling & Gaming

- A comprehensive Real-time Audience Interaction Platform
- A two-way conversation in which viewers directly contribute to the show live
- Empowers a presenter to captivate audiences with real-time stats!
- Cloud based, Subscription offering



# GV STRATUS One



## Продакшн в коробке

- 2RU
- 4 канала видеосервер
- 16TB PAM
- 15Low Res
- 1x Hi Res
- Интеграция с соц медиа





# *Спасибо!*



grass valley  
A **BELDEN** BRAND

