ROSS®

LIVING LIVE!

Sharing a Passion for Live Production!

SOLUTIONS

PRODUCTS

MOTION GRAPHICS

XPRESSION | Single, Triple, UHD Flex, Prime, Go!, Designer, Developer
XPRESSION CLIPS
XPRESSION TESSERA
XPRESSION MAPS
XPRESSION TELESTRATE
XPRESSION TOUCH FACTORY
XPRESSION TICK IT

2RU

4RU

CREATIVE SERVICES

ROCKET SURGERY | Graphics Creation

STUDIO IN A BOX

GRAPHITE | All-in-One Live
Production Vehicle

NEWS & SOCIAL MEDIA

INCEPTION NEWS | Academic, Express, Standard, Enterprise
INCEPTION LIVE
INCEPTION SOCIAL
INCEPTION.CLOUD
HORIZON

CONTROL SYSTEMS

OVERDRIVE | Express, Prime, Premium
OVERDRIVE + GRAPHITE
DASHBOARD
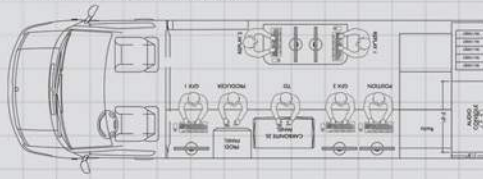**LIGHTNING CONTROL SYSTEM**
ULTRITOUCH CONTROL PANEL

PRODUCTION SWITCHERS

ACUITY | Panel: A1s, A2m, A2x, A3m, A3, A4 Frame: 4RU, 8RU
CARBONITE BLACK | Panel: C1, C1s, C2, C2s, C3s, C3x Frame: 2RU
CARBONITE BLACK PLUS
CARBONITE BLACK PLUS 12G
CARBONITE BLACK SOLO
CARBONITE BLACK SOLO 13
CARBONITE ULTRA
ACUITY & CARBONITE IP SOLUTION

OPENTRUCK

OPENTRUCK | Flight Case through to 40-foot Truck Designs

ASSET MANAGEMENT

STREAMLINE GRAPHICS
STREAMLINE PRODUCTION
STREAMLINE.CLOUD

CAMERAS

ACID CAMERA | H200-UCHR, Z50-UCHR
PIVOTCAM | PivotCam SE

PRODUCTION SERVICES

ROSS MOBILE PRODUCTIONS

MULTI-SCREEN IMAGE PROCESSING

CARBONITE MOSAIC

CHROMA KEYING

ULTRACHROME HR

Carbonite Black Chassis with UltraChoma HR Software

INFRASTRUCTURE

ULTRIX 12G & IP ROUTER | 16x - 144x
NK ROUTER | 16x4 -144x144
OPENGEAR | Modular Signal Processing, oGx Frame
MASTER CONTROL | MC1 openGear Card, MC1 Panel
NIELSEN | Watermarks Encoder

GATOR | 12G UHD Signal Processor
RAPTOR EDGE | IP Gateway & Processor
NEWT | IP Point of Use Gateway
GEARLITE | Point of Use Signal Processing
ULTRITOUCH | Soft Touch Control Panel
AUDIO MONITORING | MB-651, MB-652
MASTER SYNC & REFERENCE | SRG-2200, SRG-4400, ACO-4400

IP TECHNOLOGY

OEM PRODUCTS | Market Ready Modules & System-on-Chip

VIDEO SERVERS, REPLAY & DELAY

ABEKAS MIRA | Replay Systems
ABEKAS TRIA | Production & Clip Servers
ABEKAS TRIA NEWS | News Clip Server
ABEKAS AIRCLEANER | Live Events Delay

ROBOTICS

**FURIO SE LIVE** | Live Head, SE Dolly and SE Lift; PanBar and Joystick Controls
FURIO SE STUDIO | VR100, VR600 Heads; SE & S2 Lifts; SE BlackBird; VR0| Manual Fluid Head with Tracking
CAMBOT | 520PT, 600PT, 700PT Heads; 600 BlackBird; 600XY & 700XY Free-Roaming Peds
SMARTSHELL | Robotic Camera Control System

VIRTUAL & AUGMENTED REALITY

TRACKLESS VIRTUAL
UX VIRTUAL TRACKING SYSTEM
UNREAL ENGINE
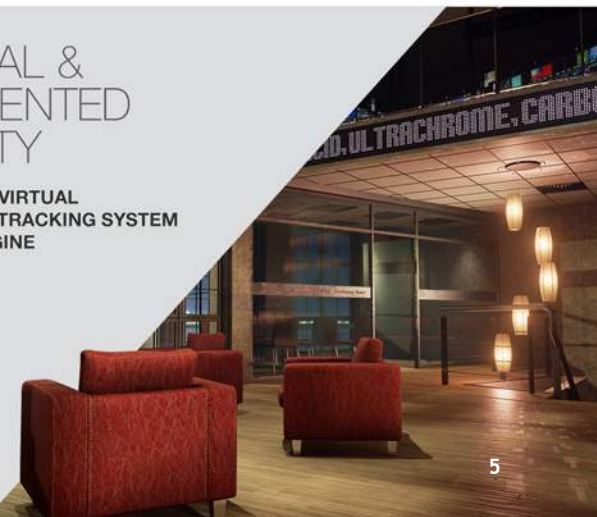
SOFTWARE-DEFINED PRODUCTION

FLEXIBILITY, AGILITY AND SCALABILITY

There is much excitement around the potential of IP connected systems to create more flexible, agile and scalable production environments.

Ross is at the forefront as a leader in IP connectivity with in-house core technology development for key popular technology standards including SMPTE ST 2110 and AES67 technology, while continuing to push forward with SDI connected environments at the same time. Hybrid IP/SDI environments will be the norm for the foreseeable future in live production as system engineers leverage the best that each technology has to offer.

Whether IP or SDI, agility comes from flexible processing engines and the notion of Software-Defined Production – Ross' term for agile, multi-function processing hardware that can add functionality through software licenses. The benefits are a flexible and scalable pool of resources that can grow as your needs change.

ROSS IP / SDI HYBRID SOLUTION
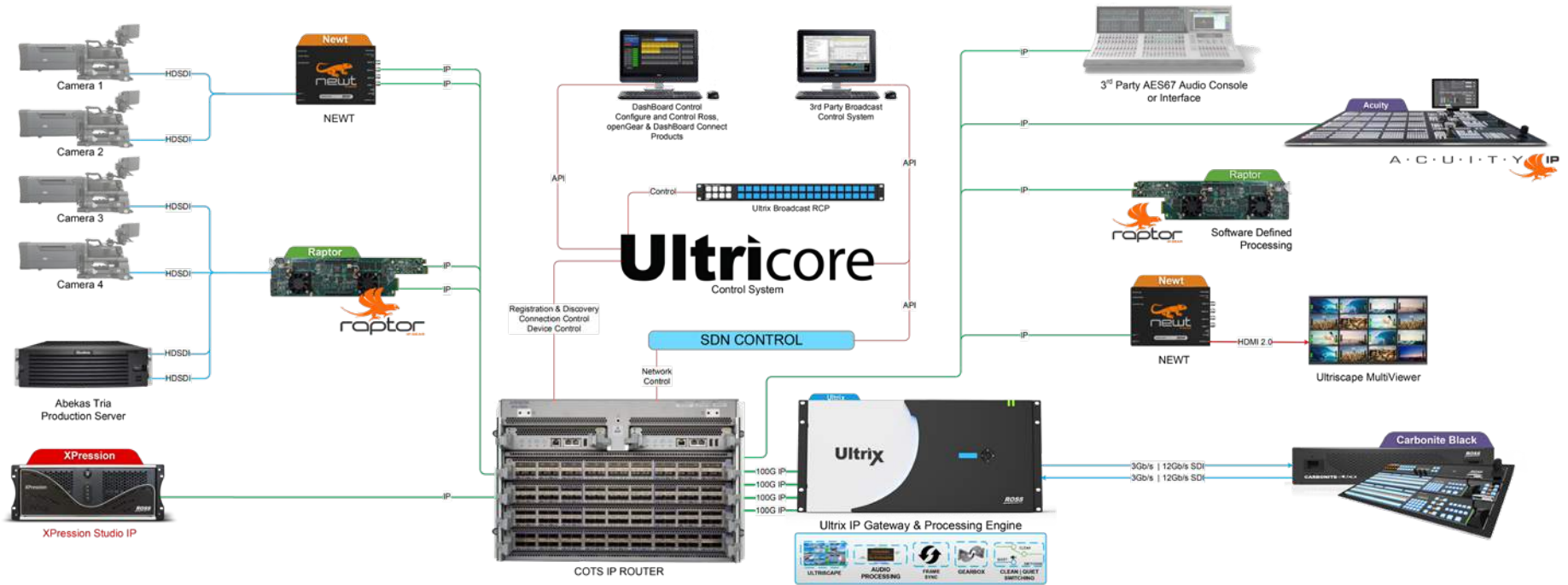
XPRESSION pg 56	ULTRIX pg 64	ACUITY pg 70 | CARBONITE pg 72	RAPTOR pg 94	NEWT pg 96
IP Graphics System	**16x - 128x IP / SDI Routing Platform**	**IP Production Switchers**	**openGear IP Gateway**	**Point-of-Use IP Gateway**
· XPression graphics available with IP I/O	· IP/SDI router with integrated processing engine and clean/quiet Smart Fabric	· SMPTE ST 2022-6/7 & ST 2110 gateway bundles	· 6 bi-directional HD connections	· Compact UHD conversion & processing
· SMPTE ST 2022-6/7 & ST 2110	· SMPTE ST 2110 & ST 2022-7	· Software-Defined Processing	· SMPTE ST 2022-6/7 & ST 2110	· SMPTE ST 2110 & ST 2022-7
· PTP or black burst timing	· Up to 128x128 IP I/O or mix of IP and SDI		· NMOS compliant	· 4 SDI BNC
	· Software-Defined Processing		· PTP or black burst timing	· 1 HDMI 2.0 Output
	· Ultricore control system		· Software-Defined Processing	· Software-Defined Processing

12G SDI, HDR, WCG AND
4K UHD

4K UHD PRODUCTION SOLUTIONS

4K UHD is rapidly becoming an in-demand production format as the worlds television manufacturers cease production of High Definition displays in favor of 4K UHD displays with support for High Dynamic Range (HDR) and Wide Color Gamut (WCG) and as live web streaming and broadcasting begin to transition to 4K UHD. Ross has a growing 4K UHD portfolio that will have you producing impressive results for these new large format displays.

The next generation of Serial Digital Interconnect (SDI), 12G extends SDI into 4K UHD applications with the plug & play ease-of-use and reliability that we know and love from SDI. Ross has been a pioneer in 12G SDI which has now been broadly adopted with a large ecosystem of products and vendors supporting the standard.

4K
UHD

ROSS 4K UHD SOLUTION
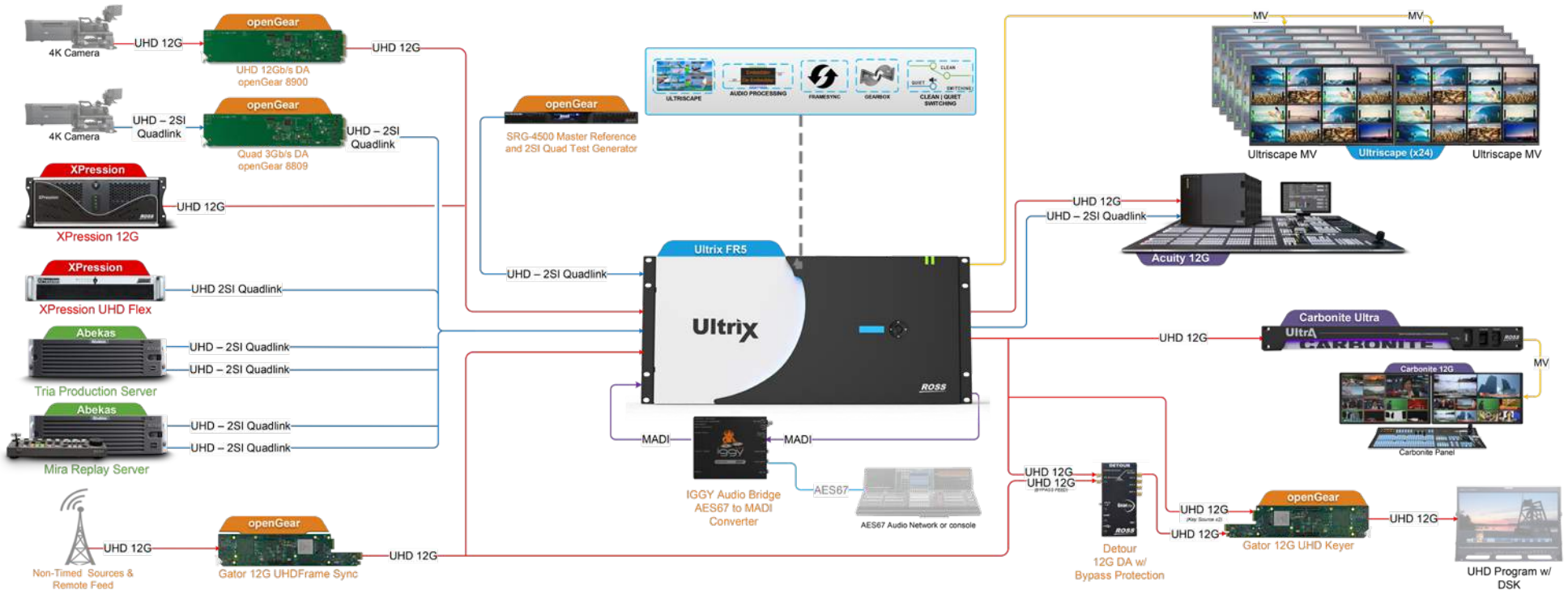
XPRESSION pg 56	TRIA pg 60 | MIRA pg 58	ULTRIX pg 64	ACUITY pg 70 | CARBONITE pg 74	OPENGEAR pg 92, 94, 96

12G 4K UHD Graphics System
- Single Link UHD over 12Gb/s SDI
- 12G SDI Key/Fill output
- 12G SDI inputs x 2 | 3G outputs x 2
- HDR & WCG support

4K UHD Graphics System
- UHD quadlink 2SI or SQD - 1 output
- 4 SDI Key/Fill pair outputs

Tria Production Server
- 4 or 8 channel HD play or record
- Up to 2 UHD quadlink 2SI outputs

Mira Replay Server
- 4 or 8 channel HD play or record
- Up to 2 UHD quadlink 2SI outputs

16x - 144x UHD Routing Platform
- 12Gb/s video routing
- Advanced audio embedding/ de-embedding and processing
- Video clean/quiet switching
- 24 MultiViewers
- UHD gearboxing

Acuity 12G Production Switcher
- 4ME|4Keyer UHD production switcher
- 30 12G or 2SI in, 15 12G or 2SI out
- HDR & WCG I/O conversion
- HD to UHD format conversion

Carbonite Ultra Production Switcher
- 1 ME UHD production switcher
- 18 in 12G or 2SI - 3 out 12G & 2-2SI
- HDR HLG-1200 conversion
- HD to UHD format conversion

8900 Series Distribution Amp
- UHD/12Gb/s or Quad 2SI SDI DA

Gator UHD Signal Proc
- 12Gb/s UHD Frame Synchronizer
- 12Gb/s UHD Keyer

SRG-4500
- Quad 2SI Sync Generator

THE POWER OF
VIDEO

CORPORATE

Modern corporations leverage video to connect with new and existing customers, employees, partners, and shareholders. Ross can help you take advantage of this opportunity with tailored solutions that fit a wide range of budgets.

Increase community reach and engagement
Leverage live streams, real-time presentations, on-demand training, and integrated social media outreach to get your messages to stakeholders around the globe.
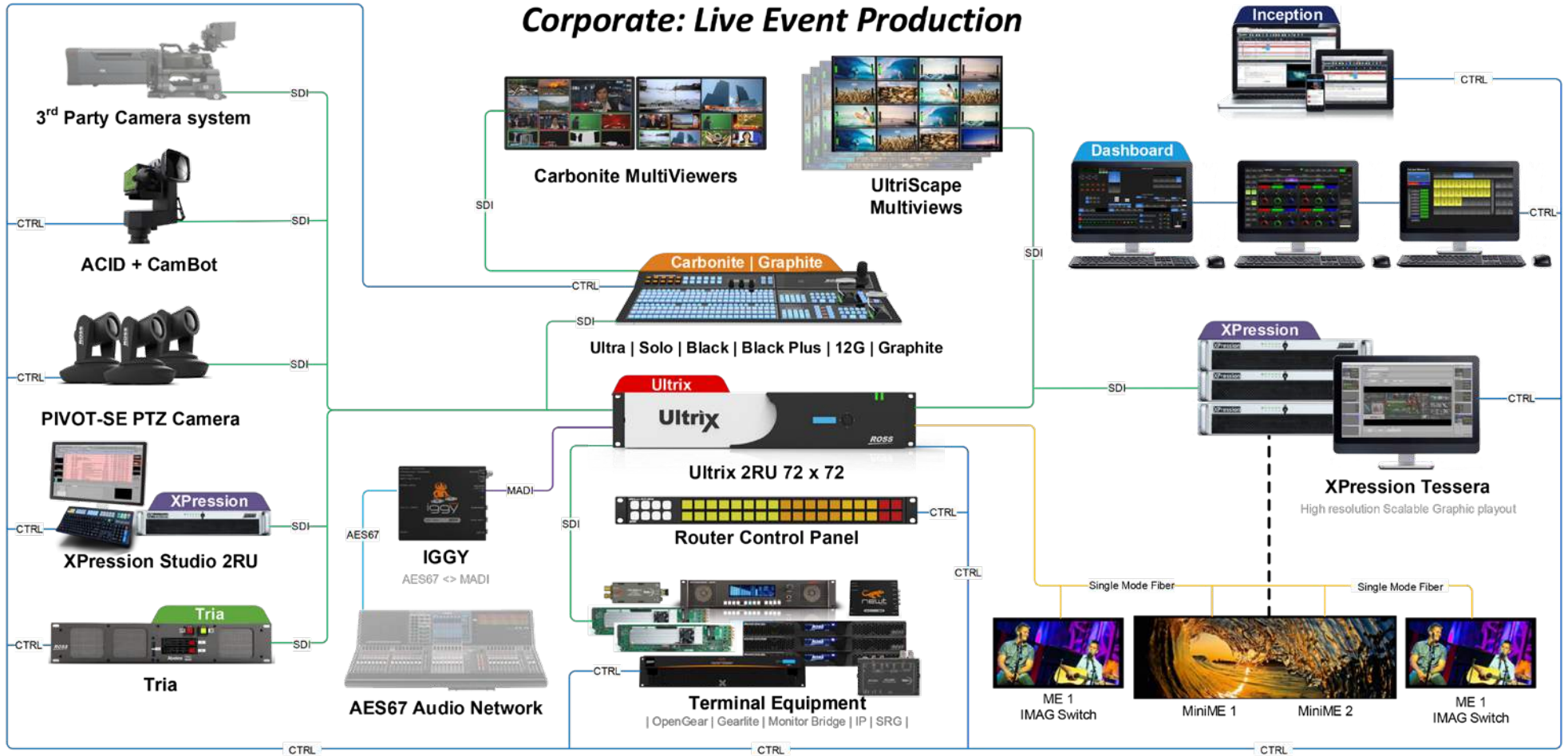
Improve crisis communications
Be prepared to deliver time-sensitive and critical information with professional equipment quickly and easily.

Build your brand efficiently
Tell the story of your brand with one easy to use solution that makes your staff more efficient and supports a wide variety of web and social platforms, screen sizes and more.

ROSS CORPORATE LIVE EVENT SOLUTION

Corporate: Live Event Production

3rd Party Camera system

ACID + CamBot

PIVOT-SE PTZ Camera

XPression Studio 2RU

Tria

Carbonite MultiViewers

UltriScape Multiviews

Carbonite | Graphite
Ultra | Solo | Black | Black Plus | 12G | Graphite

Ultrix
Ultrix 2RU 72 x 72

Router Control Panel

IGGY
AES67 <> MADI

AES67 Audio Network

Terminal Equipment
| OpenGear | Gearlite | Monitor Bridge | IP | SRG |

Inception

Dashboard

XPression

XPression Tessera
High resolution Scalable Graphic playout

Single Mode Fiber   Single Mode Fiber

ME 1
IMAG Switch   MiniME 1   MiniME 2   ME 1
IMAG Switch

DASHBOARD pg 28	INCEPTION LIVE pg 42	XPRESSION pg 56	TRIA pg 60	ULTRIX pg 64	CARBONITE pg 72 | GRAPHITE pg 78
Facility Control System · Included Mac | PC | Linux Software · Control and monitor Ross products · Add more DashBoard stations to separate out operator positions · Custom panels for custom operation & workflow to minimize operators · Send RossTalk commands to DashBoard and use as a custom protocol translator	**Live Event Management System** · Local and cloud hosted options · Manage live event rundowns with multi-user collaboration · Messaging and alert notifications · Publish to web and social · Search for user generated content on social media and push directly to onscreen graphics	**Real-time 3D Motion Graphics** · Robust graphic & clip playback · Dynamic data driven graphics including social media with Ross Inception · Tessera licenses allows for large canvases by linking multiple XPression Engines together · Software-defined to add channels and features as needed · RossTalk and native API integration to DashBoard	**Production Server** · Lightning fast clip recalls · Intuitive operations & file management · 4-8 inputs and 4-8 outputs · Native Video + Key Playout · Simultaneous record & playback including time slip ·Multiple codec support	**16x - 144x UHD Routing Platform** · Powerful, state-of -the-art software defined routing platform · 1RU - 5RU : 16x16 to 144x144 · 12G, 6G, 3G, HD or SD · UltriScape: MultiViewers · UltriSync: 3G Frame Syncs · Add Fiber, HDMI, and MADI using SFP ports · Up to 3072 x 3072 audio matrix · DashBoard control + RossTalk	**Carbonite Production Switcher** · Big switcher features · DashBoard Control + RossTalk · Easy to learn and operate **Graphite All-In-One Production System** · Real Switcher. Real Graphics. Real Audio. Real Clip Server. · Dedicated hardware with the reliability of separate system components.

/CORPORATE   11

DEVELOP FUTURE PRODUCTION
ROCKSTARS

EDUCATION

Training the next generation of video production professionals doesn't have to come with compromise. Teaching with industry-leading tools from Ross provides students with the foundation needed to become top industry operators.
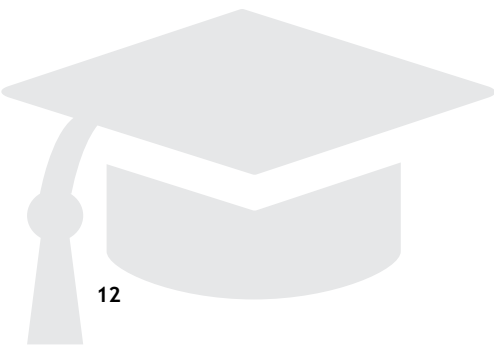
Teach production workflow
Ross solutions are great for teaching both traditional and modern workflows. Technology has enabled whole new ways of producing and delivering television and Ross can help modernize your curriculum to ground students in traditional methods while expanding their knowledge into new areas like automated production, augmented reality and social media.

Invest in flexibility
Easily transform a control room to suit different types of productions - from news to sports to live auditorium productions and everything in between. This gives students exposure to a broad range of production experiences and a path to potential job opportunities.
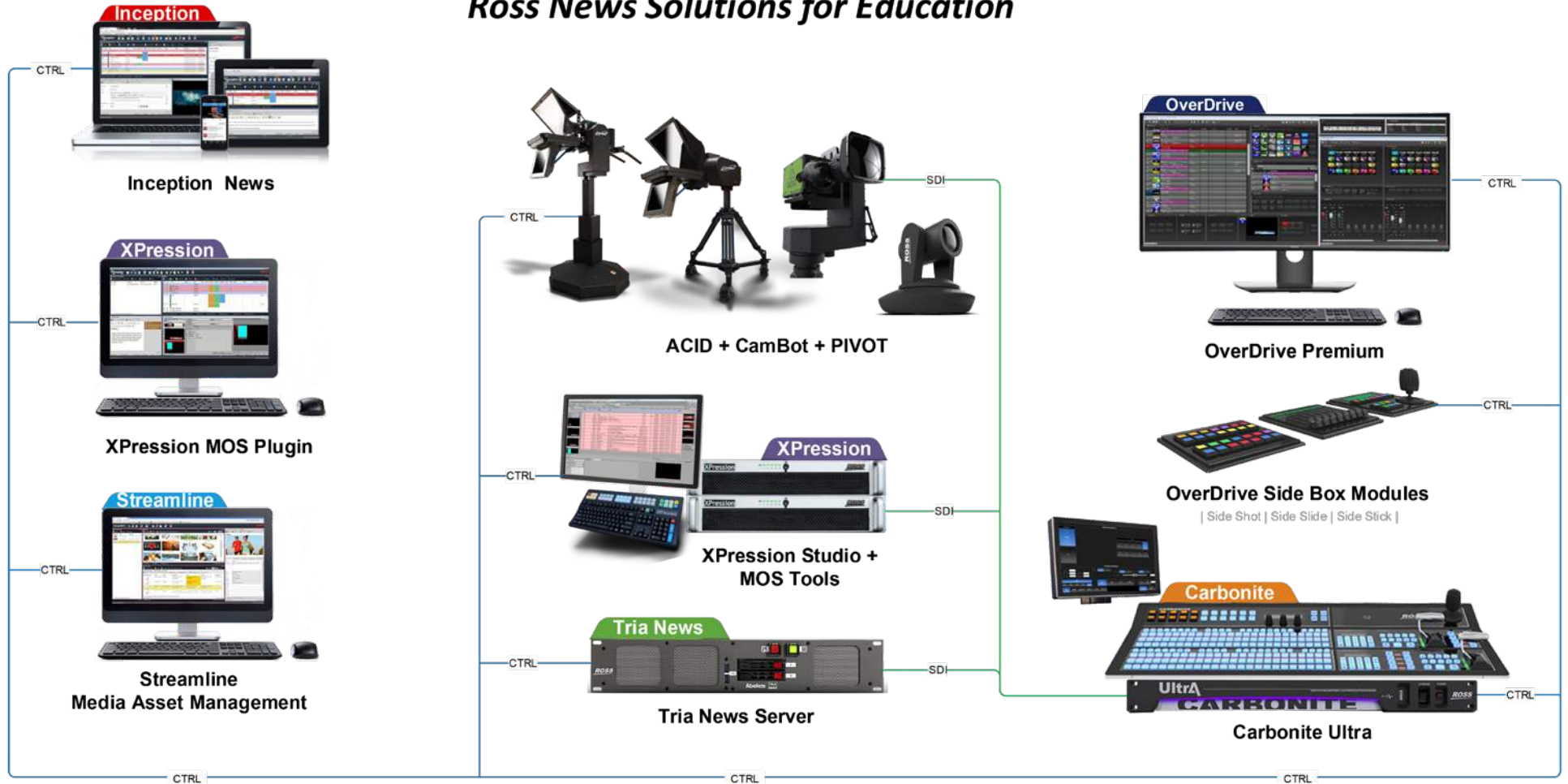
Scale your solution
Ross has a deep portfolio of products, enabling you to start small and add equipment as the educational program grows. Easily add licenses / users, link chassis together, unlock features and swap out hardware when it's time to expand.

ROSS EDUCATION SOLUTION

Ross News Solutions for Education

INCEPTION pg 38	**STREAMLINE** pg 34	**OVERDRIVE** pg 44	**XPRESSION** pg 56	**TRIA NEWS** pg 60	**CARBONITE** pg 72, 74
News Computer System	**Asset Management System**	**Automated Production Control**	**Real-time 3D Motion Graphics**	**News Playout Server**	**Production Switcher**
· Browser based interface	· Organize assets for graphics and for video production	· Control all devices for flawless production execution	· Designer friendly easily building complicated graphics	· Multiple codec support	· Highly popular mid sized production switcher
· Story-centric workflow supported for digital content and MOS integrated linear productions	· Browser based - access everywhere	· Full MOS support	· Easy to use and operate	· MOS compliant when paired with Streamline	· Easy to learn and operate
· Curate content from and publish content to digital and social media platforms	· Local and cloud hosted options available	· Control both Ross and 3rd party devices	· Full MOS integration	· 1 input and 4 outputs	· Big switcher power at a fraction of the price
· Integrates with teleprompters, XPression, Streamline, Tria News and OverDrive	· Work Order Management available for Graphics workflows		· Software-defined to add channels and features as needed	· Integrates with SAN storage	· Robust hardware with multiple panel and frame options
· Locally hosted or Cloud hosted options available	· Placeholders available for Graphics and Production workflows				
	· Integrates with XPression, Tria News and Inception				

LEAGUE OF THEIR OWN

ESPORTS

The eSports world has exploded, as have the scale and demands of productions supporting this major industry. Working closely with leading eSports companies, Ross is pioneering the development of unique eSports oriented production solutions. Whether online battles, small venue, or full arenas, Ross offers eSports solutions to fit them all.

Bring the sizzle
Deliver the excitement and experience of the game to your viewers with a world class production. Captivate fans with game characters and environments brought to life through augmented reality and virtual sets. Ross brings the best of live sports and broadcast production technology to the task of putting on an amazing eSports event.
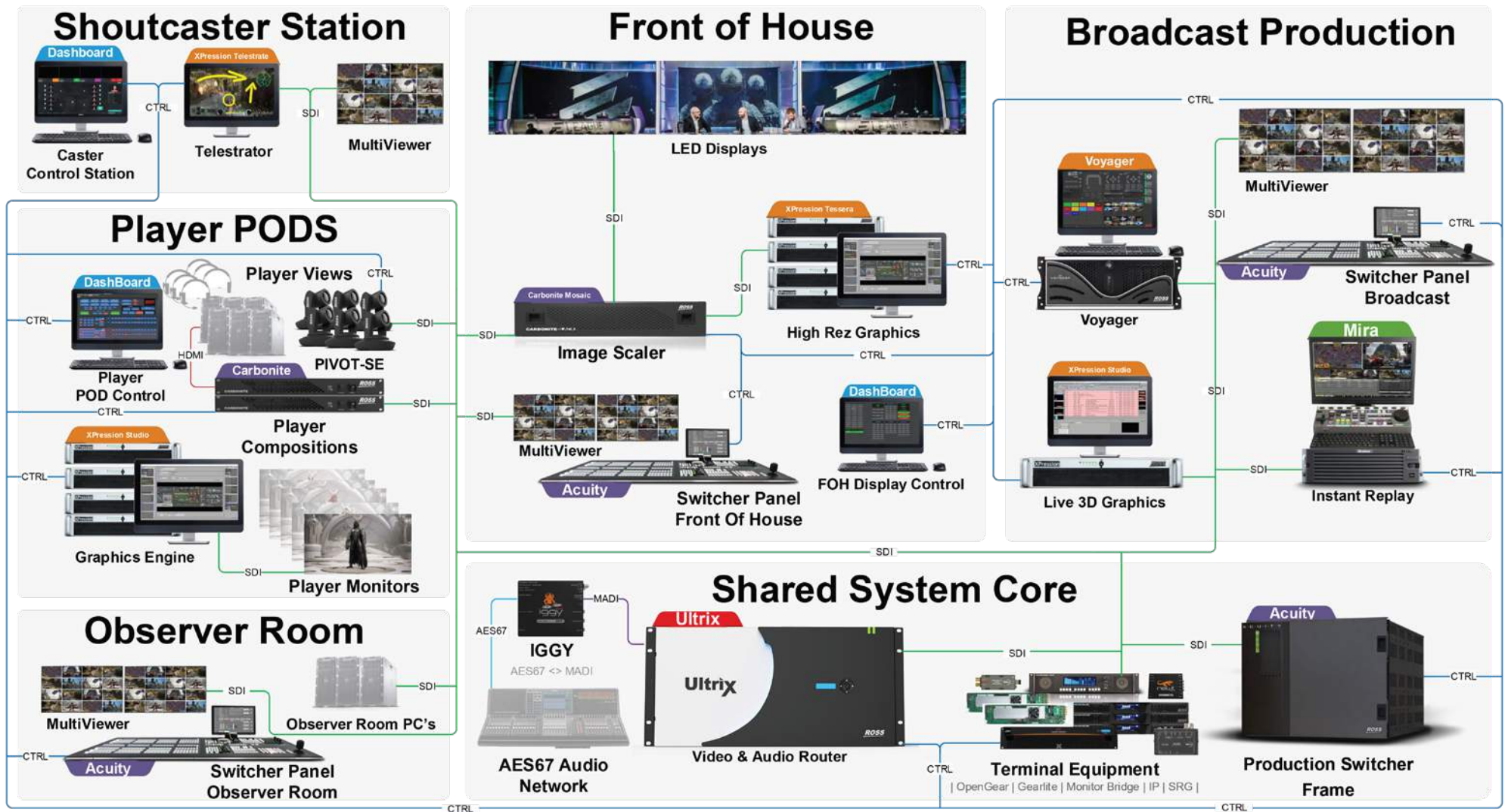
Unify the production
Bring the operation all together with a tightly integrated workflow. Ross solutions provide more efficient use of equipment and simplified operation supporting the key elements you need including Shoutcaster, Player Pods, Observer Rooms, Player Streams, Front of House screens and Broadcast & Streaming outputs. Our eSports-optimized DashBoard control panels automate workflow, offering simplified customized operation in the exact places you need it.

Choose a great partner
Ross technology has a proven track record of product performance in the most demanding live production applications gained from over 45 years of experience. Well known for top-notch technical support, you can count on Ross to be there when you need it most.

ROSS ESPORTS SOLUTION

Shoutcaster Station
- Dashboard — Caster Control Station
- XPression Telestrate — Telestrator
- MultiViewer

Player PODS
- DashBoard — Player POD Control
- Player Views — PIVOT-SE
- Carbonite — Player Compositions
- XPression Studio — Graphics Engine
- Player Monitors

Observer Room
- MultiViewer
- Observer Room PC's
- Acuity — Switcher Panel Observer Room

Front of House
- LED Displays
- Carbonite Mosaic — Image Scaler
- XPression Tessera — High Rez Graphics
- MultiViewer
- Acuity — Switcher Panel Front Of House
- DashBoard — FOH Display Control

Shared System Core
- IGGY (AES67 <> MADI)
- AES67 Audio Network
- Ultrix — Video & Audio Router
- Terminal Equipment | OpenGear | Gearlite | Monitor Bridge | IP | SRG |
- Acuity — Production Switcher Frame

Broadcast Production
- Voyager — Voyager
- MultiViewer
- Acuity — Switcher Panel Broadcast
- XPression Studio — Live 3D Graphics
- Mira — Instant Replay

DASHBOARD pg 28	XPRESSION pg 56	VOYAGER pg 82	MIRA pg 58	TRIA pg 60	ULTRIX pg 64	ACUITY pg 70	CARBONITE pg 74

DASHBOARD pg 28

Facility Control System
- Runs on any PC on the network
- Build easy to use Touch Screen based custom workflows for any operator
- Control and monitor all Ross Gear
- Ross purchased panels for robust turnkey applications

XPRESSION pg 56 | VOYAGER pg 82

XPression 3D Motion Graphics
- Insert Graphics | Multi-Engine Canvas | Live Telestrator
- Quick recall of data backed graphics

Voyager Graphics Rendering Engine
- Live Unreal engine for broadcast use
- Full augmented reality when paired with tracking data and UX virtual control system

MIRA pg 58 | TRIA pg 60

Mira Replay Servers
- Feature rich, intuitive operation
- Dual user configurations
- Playback over network on multiple Mira's
- 1080p native | Super slow mo

Tria Production Server
- Lightning fast clip recalls
- Robust hardware
- Multiple codec support

ULTRIX pg 64

16x - 144x UHD Routing Platform
- Up to 144x144
- Full MADI audio integration
- Embed any audio to any output | Useful for individual player streams
- Optional 3G frame syncs on every input
- Clean / quiet switch on every output
- Non-blocking MultiViewer with up to 100 PIPs per head

ACUITY pg 70 | CARBONITE pg 74

Acuity Production Switcher
- Large I/O and up to 8 ME's
- Superior device control & automation
- Supports up to 9 panels per frame

Carbonite Production Switcher
- Mosaic: Large screen display processor
- Solo: Compact, cost effective small switcher with HDMI inputs & built in frame syncs

GOVERNMENT

GOVERNMENT

Broadcast technology is increasingly being used by national agencies, state governments, and local communities to make information more accessible to constituents. City, state and national governments require different levels of scalability. Ross has a cost-effective solution for every size.

Produce efficiently, accurately and flexibly
Make training staff and getting on air quick and easy with a seamlessly integrated solution from Ross. Control cameras, graphics, and switching all from a responsive and intuitive user interface. Keep the production flexible and engaging by quickly changing camera angles, shots, and graphical content with no added complexity.

Maximize budget
Single user workflows allow for coverage of more committee meetings and assemblies making sure nothing gets missed because of operational budgets or staffing limitations.

Choose a proven solution
By choosing Ross you'll be in good company. Ross provides the technology that legislatures all over the world rely on.

ROSS GOVERNMENT PRODUCTION SOLUTION

Ross Government Production Solutions
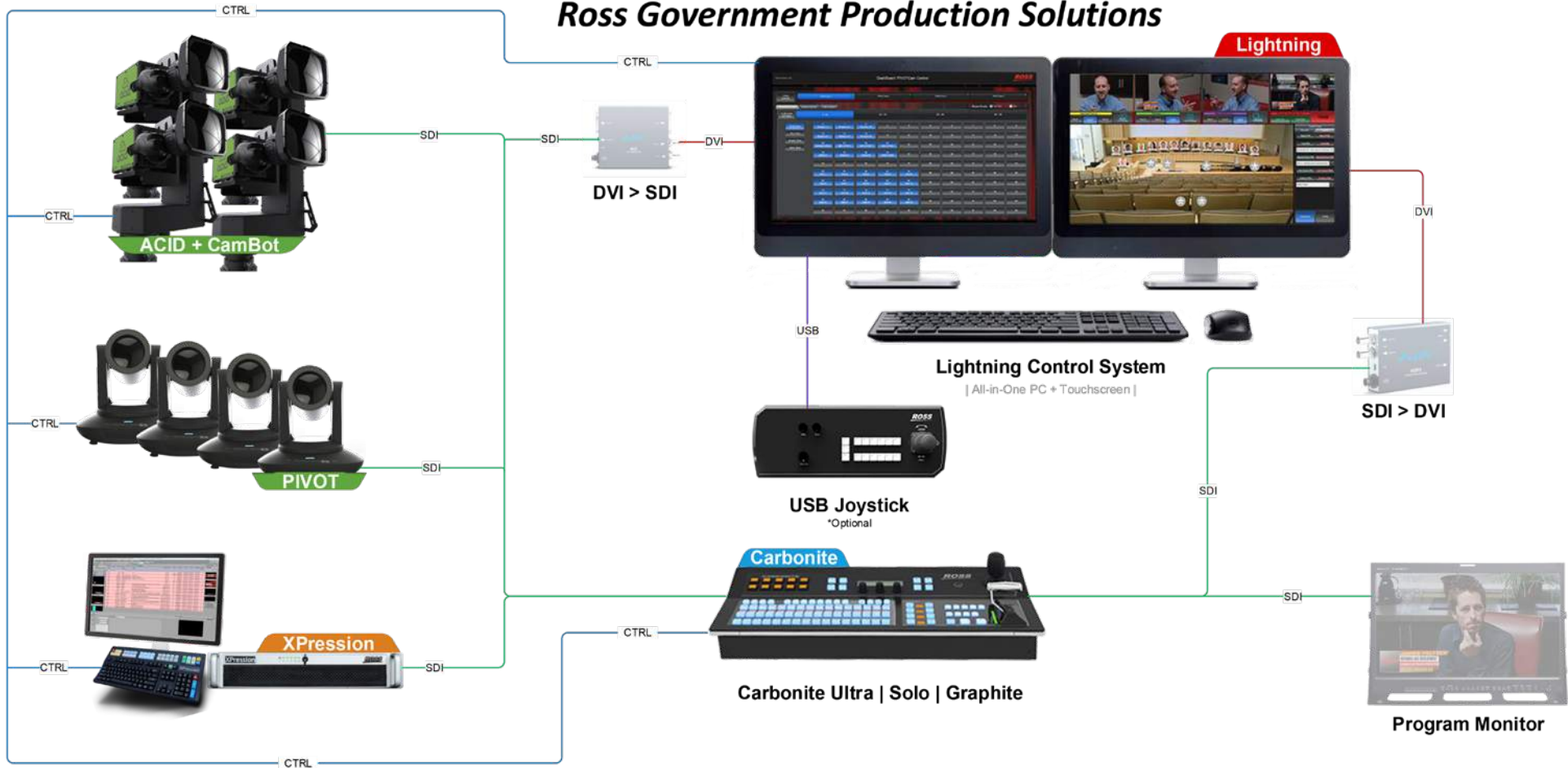
LIGHTNING pg 32

Production Control System
- Easy to use DashBoard interface
- Fast, interactive touchscreen interface with live video and only 1 frame of delay
- Control cameras, graphics and switching from a single interface
- Pair with a microphone system for added automation

ACID pg 46 | PIVOT pg 48 | CAMBOT pg 54

ACID Broadcast Video Camera + CamBot Robotic Camera System
- Robust camera + robotics integration
- High quality images and on air moves
- Unlimited presets when paired with Lightning

Pivot PTZ Camera
- Cost effective camera with IP control & POE makes mass deployment easy
- Crystal clear images from High Resolution sensor
- Unlimited presets when paired with Lightning

XPRESSION pg 56

Real-time 3D Motion Graphics
- High quality graphics
- Unlimited layering on a single output
- Full data integration from Lightning
- XPression Live | Prime | Studio versions to fit any budget
- Intuitive designing of complex graphics

CARBONITE pg 72

1 - 3 ME Production Switcher
- A range of panels and frames to fit any budget
- Robust hardware for long lasting solutions
- Can be ran under Lightning or operated stand alone
- Easy to learn and intuitive design

BUILD YOUR
SPIRITUAL COMMUNITY

HOUSE OF WORSHIP

The modern world of worship effectively leverages the use of technology for spiritual purposes. Large and small venues are incorporating IMAG, online, and multi-campus productions to reach a broader believer-base cost effectively.

Amplify your spiritual message
Display and update pertinent speaker and sermon details including passages and hymns in real-time, or bring in remote guest speakers from across the globe. Using video production and social media tools, combined with broadcast-quality, dynamic graphics and interactive content, you will be able to create the ultimate worshiper experience.

Reach a wider congregation
Reach local and remote believers including satellite campuses easily and effectively. Reach overflow viewers in adjoining rooms with live broadcast of main sanctuary proceedings.
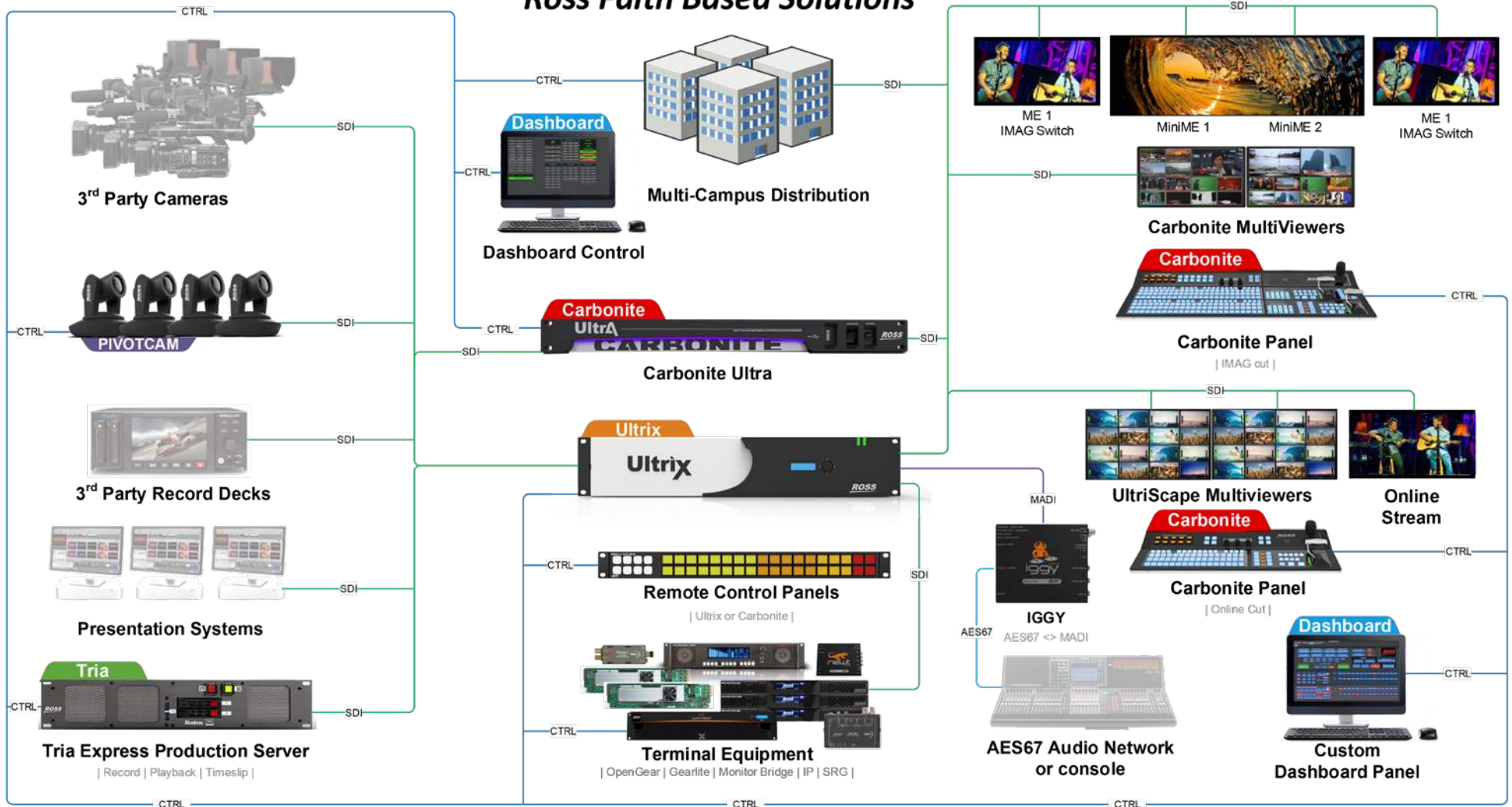
Make it easy
The Ross House of Worship production solution with unified device control is easy to set up and intuitive to use. Realize expert productions from your volunteer community.

ROSS HOUSE OF WORSHIP SOLUTION

Ross Faith Based Solutions

Diagram labels:
- 3rd Party Cameras — CTRL / SDI
- PIVOTCAM — CTRL / SDI
- 3rd Party Record Decks — SDI
- Presentation Systems — SDI
- Tria — Tria Express Production Server | Record | Playback | Timeslip | — CTRL / SDI
- Dashboard — Dashboard Control — CTRL
- Multi-Campus Distribution — SDI
- Carbonite UltrA — CARBONITE — ROSS — Carbonite Ultra — CTRL / SDI
- Ultrix — ROSS — CTRL / SDI / MADI
- Remote Control Panels | Ultrix or Carbonite |
- Terminal Equipment | OpenGear | Gearlite | Monitor Bridge | IP | SRG | — CTRL
- IGGY — AES67 <> MADI — AES67
- AES67 Audio Network or console
- ME 1 IMAG Switch — SDI
- MiniME 1 — MiniME 2
- ME 1 IMAG Switch
- Carbonite MultiViewers — SDI
- Carbonite — Carbonite Panel | IMAG cut | — CTRL / SDI
- UltriScape Multiviewers — SDI
- Online Stream
- Carbonite — Carbonite Panel | Online Cut | — CTRL / SDI
- Dashboard — Custom Dashboard Panel — CTRL

DASHBOARD pg 28	**PIVOT** pg 48	**TRIA** pg 60	**ULTRIX** pg 64	**CARBONITE** pg 72
Facility Control System	**Pivot PTZ Camera**	**Production Server**	**16x - 144x UHD Routing Platform**	**1 - 3 ME Production Switcher**
· Included Mac | PC | Linux Software	· Cost effective PTZ camera	· Hardware base video server for frame accurate playback with multiple channels of audio	· 1RU - 5RU frame size	· Multiple frame and panel sizes & DashBoard software control
· Control Ross devices on the network	· Control from DashBoard and Carbonite production switchers	· Rock solid recording capabilities	· Full audio matrix including audio shuffling and non-blocking MADI integration	· Up to 3 control surfaces per frame
· Monitor devices across campus networks	· Crystal clear images from High Resolution sensor	· Time slip capabilities for multi-campus production	· Software-Defined MultiViewers and frame syncs to easily grow the video system	· Full ME's and MiniME with Multi-Screen capabilities pairs perfectly with Pro Presenter
· Build custom panels for simplified workflow controlling multiple devices simultaneously	· Fast recall times	· Automate control through DashBoard and / or Carbonite	· Clean switch on every output	· Powerful custom controls
			· DashBoard control + RossTalk integration	· Easy to learn and volunteer-friendly

COST EFFECTIVE PRODUCTIONS
ON-THE-GO

MOBILE

The amount of content being captured has only increased, from large national and international events to regional and local events. Ross has been on the forefront of redesigning the mobile market in a cost-efficient way that doesn't compromise quality. You can achieve that big-budget production look at a fraction of the price.

A new standard in mobile productions
The openTruck initiative from Ross has paved the way for new ideas and workflows. Using partnerships with equipment manufacturers, system integrators, truck-builders, mobile producers, and freelance operators Ross has redefined truck production capability. This blueprint enables full-featured mobile productions with network-quality output, ensuring consistent performance and results—every time, all the time.

Big productions on-the-go
A suite of best-in-class production tools from Ross include production switching, real-time motion graphics, flexible control, content management, versatile signal processing, and compact routing solutions. These solutions are well suited to the special needs of the mobile production environment, with compact sizes, low power consumption, flexibility of use, and ease of set-up and configuration.

Built for life on the road
Planning mobile space for future expansion, extra operator stations, and rental equipment can be a compromise. When space is limited, equipment designed for high-density is important. Ross products are not only built to be compact and highly-efficient, but also robust, and up to the challenges of life on the road.

ROSS MOBILE SOLUTION

Carbonite MultiViewers

UltriScape Multiviewer

XPression Telestrate

XPression GO!

XPression 2RU Engine

Dashboard Custom Panel

3rd Party MADI Audio System

Carbonite Black

Ultrix 5RU | 144x144

Ultrix Remote Control Panel

Terminal Equipment
| OpenGear | Gearlite | Monitor Bridge | IP | SRG |

3rd Party Camera Systems

Mira Replay

Mira | Dual Operator

Tria

Tria Production Server

DASHBOARD pg 28	**XPRESSION** pg 56	**MIRA** pg 58 | **TRIA** pg 60	**ULTRIX** pg 64	**CARBONITE** pg 72
Facility Control System · Free software for Mac, PC and Linux · Control and monitoring for all Ross devices · Build custom panels for: simple operation, separating out operation, data driven panels such as advanced stats and bug operations	**Real-time 3D Motion Graphics** · Full data integration from a wide variety of data sources · Easy to build highly complex graphics · Integrated video playback engine · Great for: insert graphics, spot box, bug box, telestration, and virtual production	**Mira Replay Server** · Robust replay server · Multiple operators on a single server · Easily trade content between servers **Tria Production Server** · Robust video playout and record · Native video + key playback for spot box like functionality	**16x - 144x UHD Routing Platform** · 12G/6G/3G/HD/SD & IP routing in the same chassis · Full audio MUX / DMUX on all SDI I/O with full MADI integration and channel shuffling · Software-defined MultiViewers and frame syncs · Clean switch on every output · Compact, robust design	**Production Switcher** · 1ME - 3MEs + 4 MiniME · Big switcher power in a mid sized design · Easy to use and operate · Extensive device control · DashBoard menu control · Easy to use custom controls for building and executing complex effects

NEWS

Ross delivers news production solutions for the 24/7 digital era. Viewers expect engaging and unique content delivered faster across a myriad of screens and channels including social media networks. Improve newscast quality and reduce your newsroom footprint with virtual sets, augmented reality (AR), automated production control (APC), streamlined content creation and distribution, 3rd party device integration and control.

Never miss a story
Because news never stops, an efficient newsroom is vital. To reduce the time it takes to get a story on air, an integrated workflow paired with the most cutting-edge production technology will ensure your newsroom is running at top speed.

Engage more viewers
Ross applies a unique story-based approach to easily create and package content for cross-platform distribution. Create and monetize more news content streams and produce new types of unique programming.

Built for breaking news
Don't get scooped - Newscasts are typically scripted workflows, but, when breaking news happens it is important to have a system flexible enough to jump in and out of breaking stories. Don't sacrifice the quality of a newscast when the big stories hit.

ROSS NEWSROOM SOLUTION

Ross Newsroom Solutions

Inception — Inception News

XPression — XPression MOS Plugin

Streamline — Streamline Media Asset Management

ACID + CamBot | Furio

XPression Studio + MOS Tools

Tria News — News Playout Server

XPression Tessera MOS

On Set Monitors

Carbonite Mosaic | Large Screen Video Image Processor |

OverDrive | SideShot | SideSlide | SideStick |

Acuity — Acuity Large Format Production Switchers

INCEPTION pg 38	STREAMLINE pg 34	OVERDRIVE pg 44	XPRESSION pg 56	TRIA NEWS pg 60	ACUITY pg 70
News Computer System	**Asset Management System**	**Automated Production Control**	**Real-time 3D Motion Graphics**	**News Playout Server**	**Acuity Production Switcher**
· Browser based - access everywhere	· Browser based - access everywhere	· Gain the consistency and efficiency of automated news production	· Stunning graphics to enhance your news production	· Built for news production	· Up to 8 MEs for the most demanding news productions
· Robust Assignment Manager for tracking events and ideas	· Search and download assets from third party media libraries	· Control all devices for flawless production execution	· Powerful yet easy to use	· Multiple codec support	· Largest choice of Ross and 3rd party device control
· Built-in messaging and alerts	· Work Order Management and placeholders for asset requests	· Full MOS integration	· Full MOS integration	· MOS compliant when paired with Streamline	· Works great with OverDrive APC
· Search and publish to social media and the web	· Manage and move files between storage locations	· Control both Ross and 3rd party devices	· Software-defined to add channels and features as needed	· 1 input and 4 outputs	· Robust hardware with multiple panel and frame options
· MOS integration with Ross and 3rd party devices	· Integrates with XPression, Tria News and Inception			· Integrates with SAN storage	
· Story-centric workflows and robust user permissions	· Local and cloud hosted options available				
· Local and cloud hosted options					

FAN EXPERIENCE

SPORT AND LIVE EVENTS

Today's fans and sponsors expect more. The challenge is both art and science. Ross has deep venue experience that can get you where you want to go, providing the specialized technology as well as working with you on the creative content - the solution to engaging your fans and delighting your sponsors.

Up your creative game
Realize a grander vision, producing for your venue in new and innovative ways that are guaranteed to captivate and inform your audience. Go beyond simple graphics, animations and statistics displays, to fully 3D environments driven by real-time data and even fan-interactive games. Tie in mechanical and electrical devices like water fountains, neon signs, and stadium lightning for full venue control. Ross gives you access to experts with the know-how to make it all happen.

Go big
Modern venues are incorporating massive screen sizes and higher-resolutions to integrate scoring, stats, social media, closed captioning, and more. The Ross venue solution meets this challenge with the ability to feed infinite canvas sizes across multiple screen formats of various sizes and custom shapes - all pixel perfect.

Dazzle fans, drive revenue
Increase engagement. Increase attendance. Increase sponsorship. Keep your fans eyes on your screens and coming back for more with a top-notch game day production, made easy with a Ross solution. Deliver unrivaled impact for your sponsors with Moments of Exclusivity - branding the entire venue at the touch of a button!

ROSS SPORTS VENUE SOLUTION
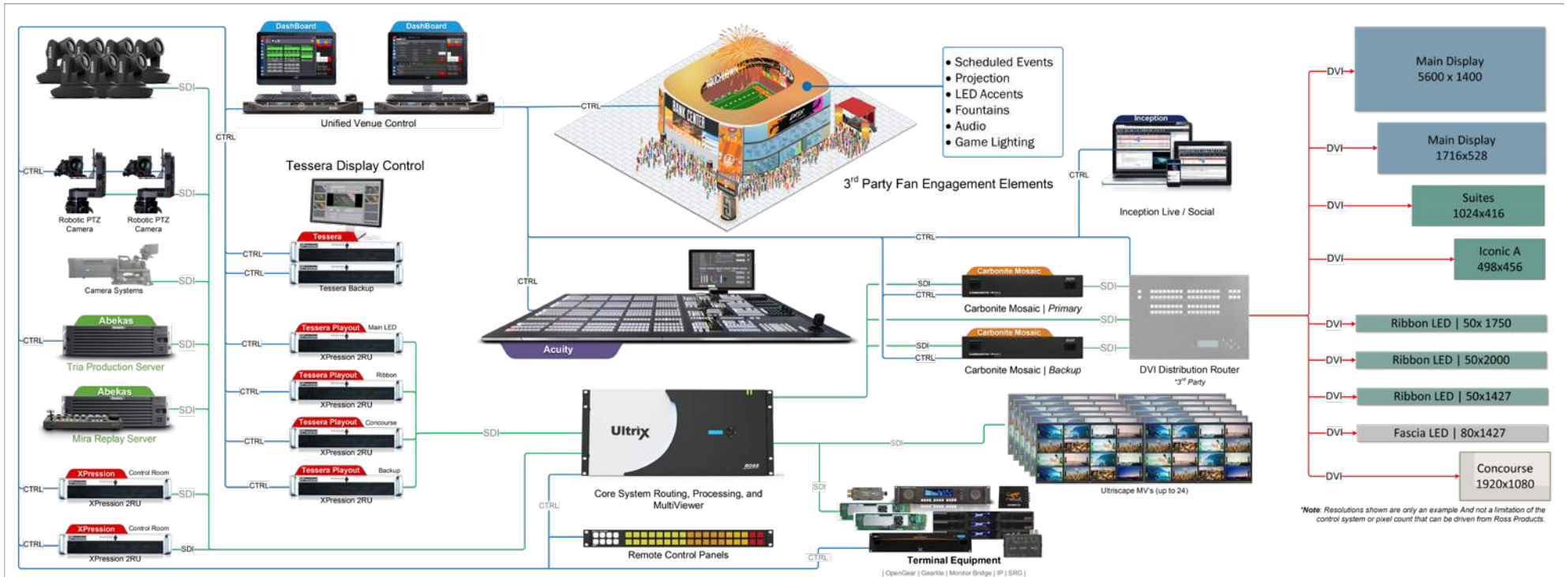
DASHBOARD pg 28	INCEPTION LIVE pg 42	XPRESSION pg 56	MIRA pg 58 | TRIA pg 60	ACUITY pg 70	CARBONITE MOSAIC pg 88
Facility Control System · Unified Venue Control: video production, LED Display, and game day elements · Customizable user interfaces (unique per operator position / function) · RossTalk and native API support protocols to Ross and 3rd party systems	**Live Event Management System** · Collaborative tool to manage game-day rundowns · Built-in messaging and alerts · Engage fans with photos, videos and polls from social media · Link the publishing of social media content to game events · Increase and track sponsorship opportunities · Local and cloud hosted options	**Real-time 3D Motion Graphics** · Single Solution: insert GFX, LED display GFX, clips / effects, concourse branding L-Bar, Telestration, augmented reality & unlimited canvas / resolution support with Tessera · HDR capable · Software-Defined Production: upgrade from single to 4 channel systems with license · RossTalk and native API integration to DashBoard	**Mira Replay Servers** · Feature rich, intuitive operation · Dual user configurations · Playback over network on multiple Mira's · 1080p native | Super slow mo **Tria Production Server** · Lightning fast clip recalls · Robust hardware · Multiple codec support	**Acuity Production Switcher** · Unmatched devices control of Ross and 3rd parties · Up to 8.5 MEs. Up to 9 control panels · Input and output HDR conversion · Quadlink UHD and 12gb/s SDI · Raptor based IP Gateway support	**Large Screen Video Image Processor** · 20,736,000 Pixels) · Up to 10 discreet canvases · Low latency (1 frame delay) · 36 inputs x 22 outputs · 5 layers per canvas · Internal media playback · RossTalk protocol support

VIRTUAL PRODUCTION

VIRTUAL STUDIO

Today's technology can produce a hyper-realistic virtual environment. To obtain best results a compelling 3D design with precision camera tracking and calibration are essential. A Ross end-to-end virtual solution provides the highest level of quality with an easy-to-use workflow and consistent results.

Tell better stories
Wow your viewers by overcoming the limitations of traditional studio environments. Get viewers to tune in longer by showing segments with captivating content like an augmented reality tornado. Create stories with multiple virtual monitors, floating augmented reality elements, and customizable virtual sets to enhance your weather, sports, news, elections, and talk / variety shows.

Do more for less
Virtual production allows for a higher level of ROI. Deploy virtual solutions in small spaces which require fewer physical set pieces and less storage. Utilize "blended" environments that combine the best of traditional physical design and virtual design to eliminate the need for video walls and on-set monitors.

Increase Flexibility
Quickly change a set, deploy a new look or share studio space with no downtime for construction, moving set pieces or competition for physical set space. Create flexible production teams that execute a variety of tasks contributing to a high-quality, lower-cost production.

ROSS VIRTUAL SOLUTION

Trackless Virtual solutions

ACID | Mounted Horizontal |

XPression — SDI — XPression Trackless — SDI — Virtual Composite
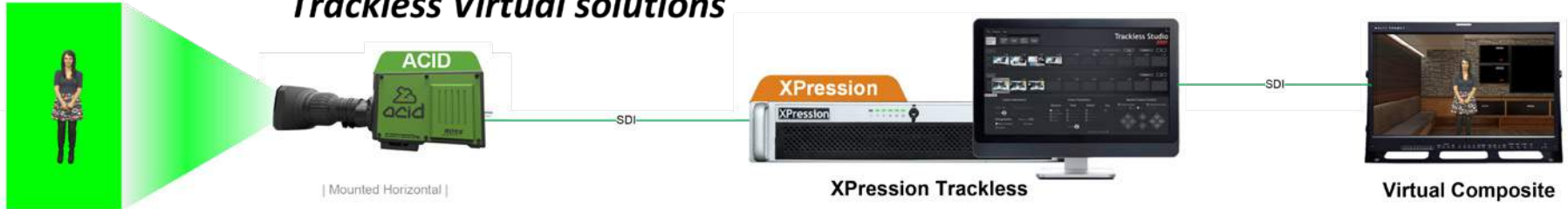
Tracked Virtual solutions

ACID — CTRL — Dashboard — CTRL

SDI

XPression — CTRL — SDI

Voyager — CTRL — SDI

UltraChromeHR — SDI — Virtual Composite

Furio | CamBot — CTRL

UX Control — CTRL — UX XPerience | Virtual solutions Control |
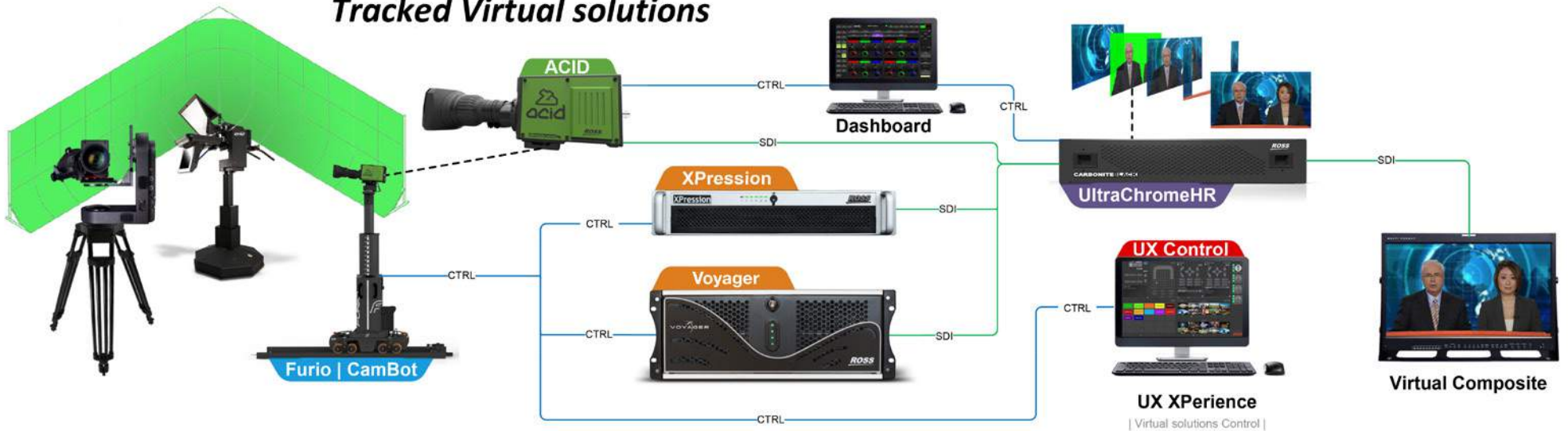
ACID pg 46	FURIO pg 50	CAMBOT pg 54	XPRESSION pg 56	VOYAGER pg 82	UX XPERIENCE pg 80	ULTRACHROME HR pg 86
Broadcast Video Camera · AC-H200 - 1080p edition · AC-Z50 1080i edition · UC 0:4:4 output · Full DashBoard control · Ultra low noise · HDR capable (AC-H200 only)	**Furio Track-Based Camera Motion System** · Provide tracking data with PT heads, lifts and full dolly systems · Dolly provides ultra smooth on air moves free of errors, perfect for virtual environments **CamBot Free-Roaming Pedestal Camera System** · Heavy duty robust XY pedestals with tracking data	**XPression 3D Motion Graphics** · User friendly design and playout system · MOS capable virtual engine · Built for dynamic data driven graphics **Voyager Graphics Rendering Engine** · Built on EPIC Games Unreal 4 Engine · Support for both external and internal compositing · MOS capable virtual engine	**Virtual Solutions Control** · Control all camera chains from one interface · Quickly build and save tracking calibrations · Trigger assets, camera moves and more with RossTalk triggers	**Multi-Channel Chroma Keyer** · Up to 4 chroma keys per system · Full 4:4:4 chroma keying from ACID · Built in input delay for up to 8 inputs · Full compositing of camera and renders · Output fill & key for internal composition · DashBoard Control · Supports RossTalk

DASHBOARD
FACILITY CONTROL SYSTEM

DashBoard is an open software platform from Ross for facility control and monitoring that enables users to quickly build unique, tailored CustomPanels that make complex operations simple.

DashBoard is a software application that provides control and monitoring to hundreds of products from more than 80 partners within the openGear and DashBoard Connect ecosystem, and of course most Ross products. Its ability to craft application specific solutions across this breadth of products is what makes DashBoard so special.

CUSTOM
DashBoard PanelBuilder is a powerful tool used for creating custom interfaces for products from Ross, and partner companies. Custom Panels built with PanelBuilder are used by major broadcasters and large sports venues across the planet.

OPEN
The Emmy®-award winning openGear platform is designed to work with DashBoard as the front end UI for the more than 80 openGear partners using OGP (openGear Protocol).

FREE
Download DashBoard for free to start building panels and monitoring your openGear devices. Training and professional services, as well as other pre-built applications using DashBoard are available for purchase to make the most of the free platform.

OPEN. CUSTOM. CONTROL.

CONTROL & MONITORING

DashBoard is a primary control system from Ross. It is the only open application that allows full and complete native control running on any compatible computer system and / or Ultritouch. DashBoard panels automate workflow and offer simplified operation to any production.

PANELBUILDER™

Integrate control of multiple devices into a single, logically laid-out control surface and allow your operators to focus on the production, not on the equipment being used.

DASHBOARD CONNECT™

DashBoard Connect opens the DashBoard control and monitoring system beyond openGear® frame based products. DashBoard Connect is for products that benefit from integration to the DashBoard control system. With DashBoard Connect, any equipment that has an Ethernet connection can appear in DashBoard.

ULTRITOUCH
TOUCHSCREEN CONTROL SYSTEM

Ultritouch is a no-compromise, 2RU touchscreen-based facility control panel powered by DashBoard and guaranteed to fit your workflow.

Have you ever wished you could build a control panel to fit your workflow without compromising? So did we. That's why we created Ultritouch - allowing easy creation of custom control panels designed around your needs.

TOUCHSCREEN OPERATION
SmartTouch™ functionality provides traditional control with modern workflows.

SYSTEM-WIDE CONTROL
Control your Ross solutions from a single hardware based panel. Open control with DashBoard provides full customization based on user need.

ROBUST
Redundant power, redundant control ports, HDMI output, USB 2.0 connectivity, audio speakers and a tough gorilla glass touch surface combine to provide a complete control and monitoring solution.

THE NEXT WAVE IN CONTROL PANELS

Ultritouch
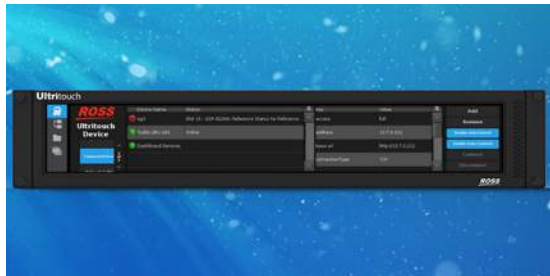
EASY SYSTEMIZATION

Basic DashBoard connectivity and custom panels brings the ability to control Ross products the way you do now. Optional software licenses allow for more advanced and targeted control of specific devices and workflows.

ADAPTS TO YOUR WORKFLOW

Ultritouch adapts to your needs. It can be set up quickly to perform traditional applications like router, multiviewer, and signal processing control. But it's real power is the ability to do virtually anything you want, in the way you want to do it. Your panel, your workflow, own it.

INTEGRATED DESIGN

Any device that supports OGP protocol and can be discovered in the Dashboard menu tree can be configured to be controlled with Ultritouch.

LIGHTNING
MEETING CONTROL SYSTEM

Lightning is the world's most intuitive and flexible meeting control system, perfect for legislative assembly, house of worship, education and corporate productions.

Lightning was designed to make the task of producing meeting and assembly proceedings much easier, fully controlling cameras, production switchers and graphics from a simple graphical user interface. It is ideal for single-operator use.

ROOM FLEXIBILITY
Adjust to changes that happen quickly and easily. Lightning is able to easily accommodate changes, such as switching seating arrangements, without costly service contracts or fees.

OPERATOR EFFICIENCY
Simplified control of broadcast equipment and automation means one operator can effectively produce an entire high-quality broadcast, without compromising unique workflow aspects of the location.

EMPLOYEE GROWTH
Produce more meetings with available staff enabling shorter shifts, reduced operator fatigue, and ability to accomplish other important tasks with an improved overall work/life balance.

SIMPLIFIED MEETING BROADCASTS

LIGHTNING

TAILORED TO YOUR FACILITY

Load your room background and position representatives relative to where they are actually seated.

INTUITIVE GUI

Just touch a representative and cameras move to prepare the next shot.

MULTIPLE CAMERA OPTIONS

Three preview cameras, each with three quick shot recalls, are available to best capture next speaker.

STREAMLINE GRAPHICS
MEDIA ASSET MANAGEMENT

Streamline Graphics combines the entire asset management process into a single platform, providing everyone from graphic artists to journalists easy access to existing assets and collaborate on new content.

Streamline Graphics is designed to pair with the XPression motion graphics workflow to make finding the right image or video faster and easier than ever. Increase graphics usage and improve accuracy using Streamline Graphics to create a searchable database of assets and (optional) approval workflows.

IMPROVE COMMUNICATION
Utilize the built-in work order management system and user messaging capabilities to increase communication between newsroom staff and your graphics team. Users can upload requests, track progress and provide feedback without leaving the user interface.

ACCESS AND ARCHITECTURE
Streamline Graphics requires no software installs on client machines. This increases the flexibility of devices that can be used to create content and decreases the amount of time it takes to perform upgrades. Streamline Graphics can be accessed from Mac and PC platforms on a variety of web browsers.. It is also accessible directly inside the XPression MOS plugin.
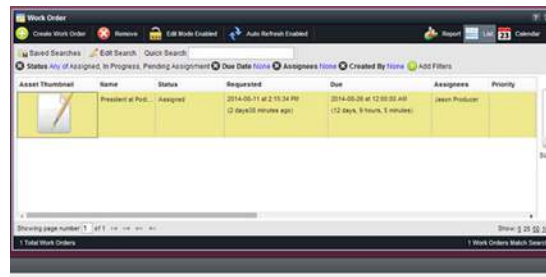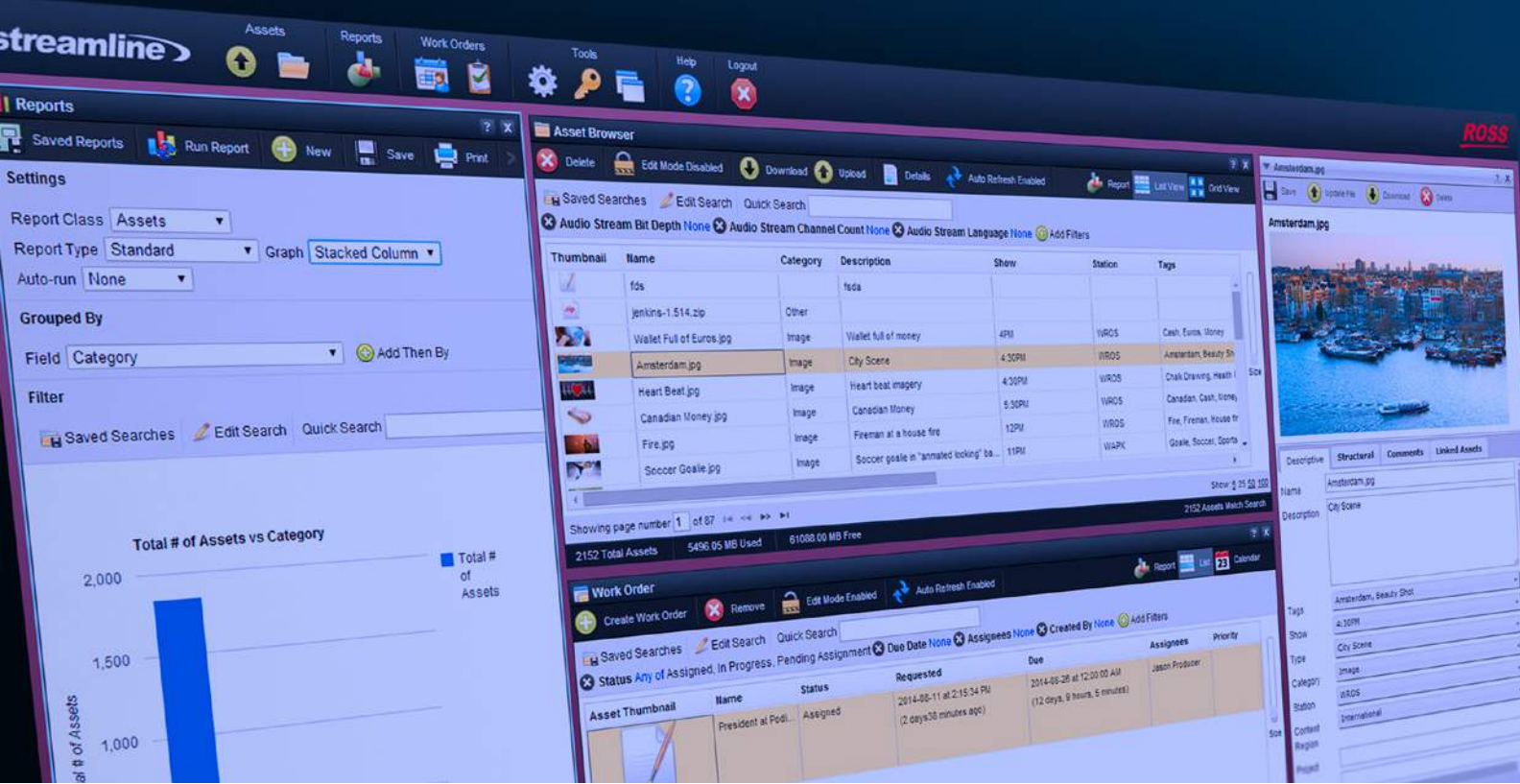
FLEXIBILITY AND SCALE
From Streamline Graphics to Streamline Enterprise, there is a feature set and configuration model for the smallest newsrooms to the world's largest broadcasters. With a scalable feature set and both purchase and subscription models available, Streamline can empower any newsroom regardless of size.

ORGANIZING CREATIVITY & OPTIMIZING ABILITIES

streamline

WORK ORDER MANAGEMENT

Streamline Graphics includes a powerful Work Order Management system that allows newsroom staff to request, track and provide feedback on required assets. Requests can include notes and supporting documents to help the graphic team understand exactly what is needed. Work orders can be assigned to a graphics artist and deadlines can be tracked with a customizable dashboard.
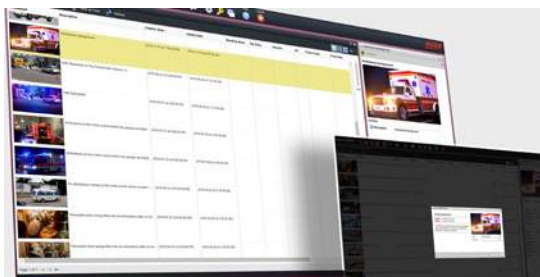
INTEGRATED IMAGE LIBRARIES

Because Streamline Graphics is integrated into the XPression MOS plugin, users can browse, download and select images from third party libraries like MGN Online and AP GraphicsBank directly from the plugin.

STREAMLINE.CLOUD

Streamline.cloud offers the ability to add Streamline functionality to your workflow without the need to maintain on premise servers and software. Streamline.cloud is hosted in the cloud and maintained by Ross. Choose from monthly and annual subscriptions.

STREAMLINE PRODUCTION
PRODUCTION ASSET MANAGEMENT

Streamline Production is designed to bridge the gap between the newsroom computer system (NRCS) and playout server. Create placeholders, search customizable metadata and select the clip needed to tell the story with a rules-based workflow designed to move content between locations and servers.

Streamline Production seamlessly ties asset creation, organization, file management and playout together in the video production workflow.

INCREASE EFFICIENCY
Use customizable metadata fields to search for existing clips and view a proxy preview of the clip from a web browser or plugin in the NRCS. If the clip doesn't exist yet, add a placeholder to the story and receive status updates on each placeholder.

ACCESS AND ARCHITECTURE
Streamline Production requires no software installs on client machines and is available as an HTML MOS plugin or in a web browser. This increases the flexibility of devices that can be used to create content and decreases the amount of time it takes to perform upgrades. Streamline Production can be accessed from Mac and PC platforms on a variety of web browsers.

FLEXIBILITY AND SCALE
From Streamline Production to Streamline Enterprise, there is a feature set and configuration model to meet the needs of small newsrooms to the world's largest broadcasters. With a scalable feature set and both purchase and subscription models available, Streamline can empower any newsroom regardless of size.

ORGANIZING CONTENT & CONNECTING WORKFLOWS

streamline

AUTOMATED ORGANIZATION

Content can be ingested, copied or moved based on rules set up in Streamline Production. Index content from a variety of file storage systems including on premise and cloud options. Move content between servers and file storage locations with automated rules. Delete content using lifecycle rules for playout servers.

INTEGRATED WORKFLOWS

Streamline Production pairs with Streamline Play to form an end-to-end playout workflow. Select videos or create placeholders in Streamline Production > Target a storage location or playout device such as Tria News > Streamline Play receives clip playlist from the real-time NRCS (updated in real-time as changes are made) > Streamline Play triggers clip playout.

STREAMLINE.CLOUD

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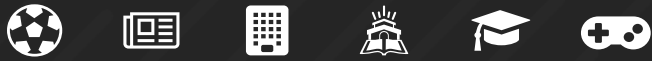
INCEPTION NEWS
NRCS AND SOCIAL MEDIA MANAGEMENT

An innovative newsroom computer system and social media management tool all-in-one. Inception News makes it easy to discover and publish stories as they happen.
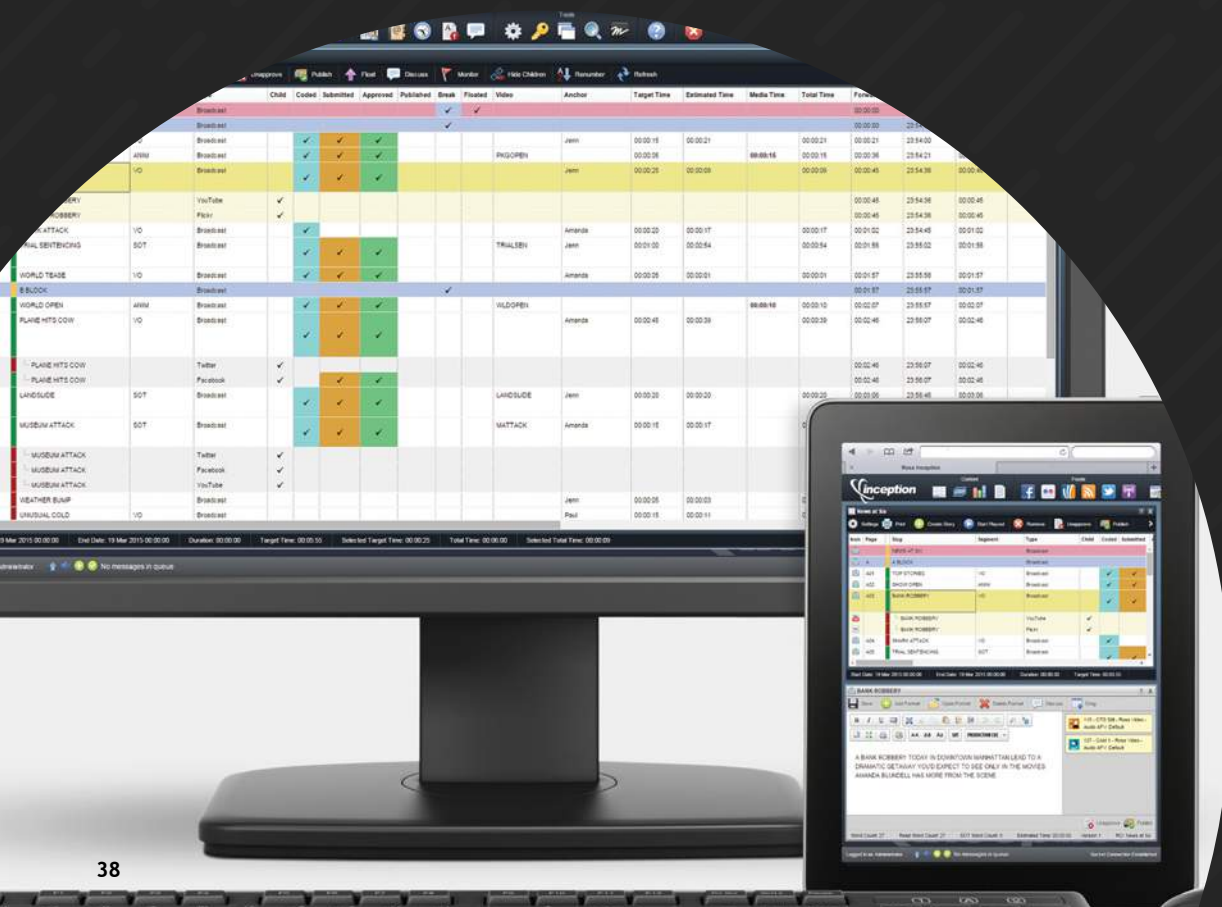
Inception News brings news, social and web content creators together, with one system designed to handle the challenges of multi-platform productions, and, efficiency to your editorial team.

INCREASE COMMUNICATION
By centralizing web, social media and broadcast workflows into a single platform, teams can easily share content and information using Inception's built-in messaging and contextual discussions.

SOCIAL & WEB ENGAGEMENT
Create interactive polls and search social media in real-time while building playlists based on comments, photos and other content which feeds directly into on-air graphics.

FLEXIBILITY AND SCALE
From the smallest newsrooms to the world's largest broadcasters, Inception scales to meet any size operation and workflow with both subscription and purchase models available.

YOUR MULTI-PLATFORM NEWSROOM
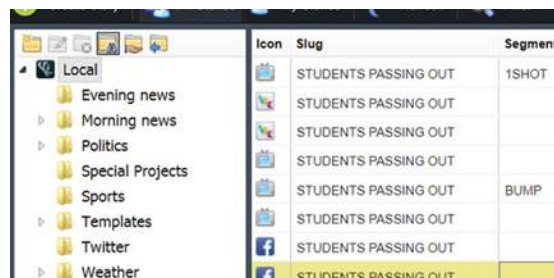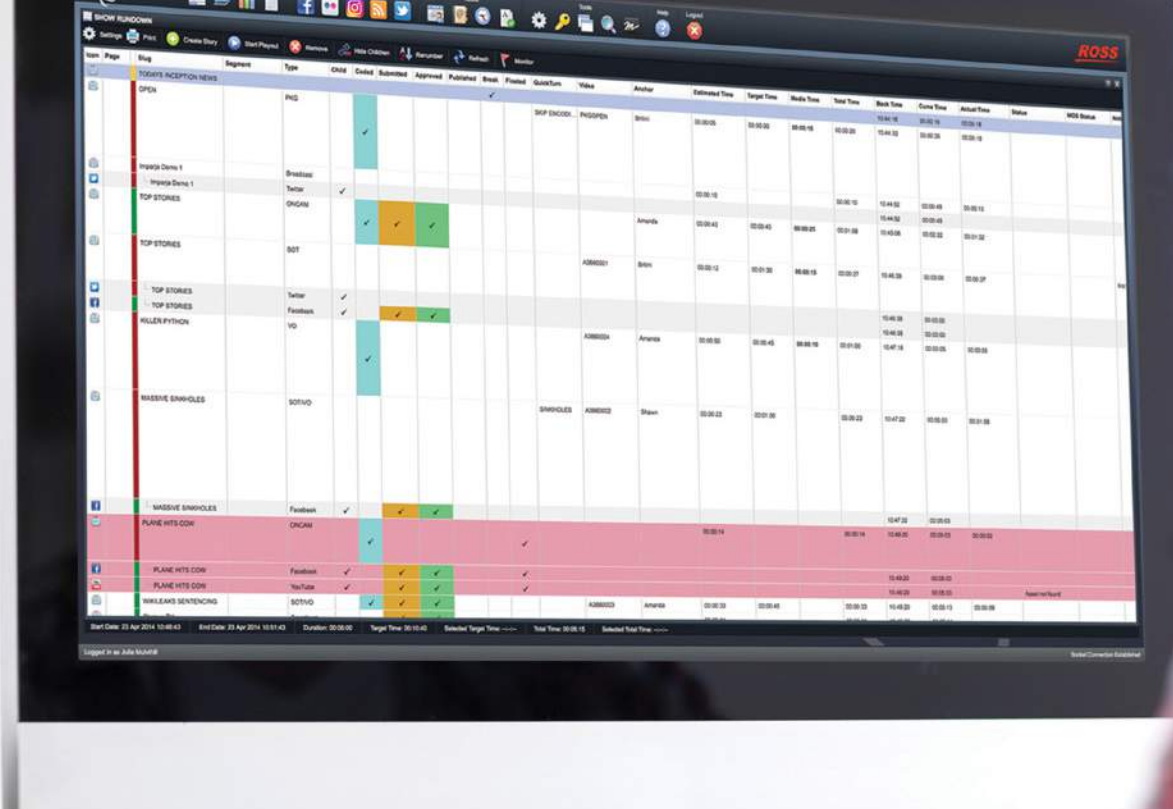
STORY-CENTRIC WORKFLOWS

Create multi-platform content based on specific user permissions, optional approval workflows, and publishing schedules. Quickly reformat a traditional broadcast story for social media or web in just a few clicks, or, break a story on the web and use that information to write your broadcast script.

MULTIPLE SYSTEMS

Horizon manages communication and user permissions between each Inception system. Users are able to browse and share broadcast, social and web stories in addition to rundowns, assignments and contacts.

INCEPTION.CLOUD

Inception.cloud offers the ability to add Inception News functionality to your workflow without the need to maintain on premise servers and software. Inception.cloud will be hosted in the cloud and maintained by Ross.

INCEPTION SOCIAL
SOCIAL MEDIA MANAGEMENT

A complete social media management solution for media and entertainment applications. Inception Social is your toolset to discover and curate social media content for use in productions and live events.

Inception Social allows your team to create multi-platform content based on their specific user permissions. Manage moderating and approving content from social media channels for your production playout on-the-fly.

INCREASE AUDIENCE ENGAGEMENT
Connect with your audience through social media polling and real-time results, curating comments, photos and video posted to social media. Seamlessly feed the content to an onscreen graphic through drag-and-drop workflows with broadcast graphic solutions like XPression from Ross.

OVERSIGHT AND ACCOUNTABILITY
Give your team the freedom to create and discover social media content while still maintaining oversight of the final product through granular user permissions and optional approval workflows.

FLEXIBILITY AND SCALE
Inception Social is available for purchase or as a subscription service offering monthly or annual billing. The Inception platform can be hosted on a traditional on-premise server, a virtualized environment, or in the cloud.

WHERE BROADCAST MEETS SOCIAL
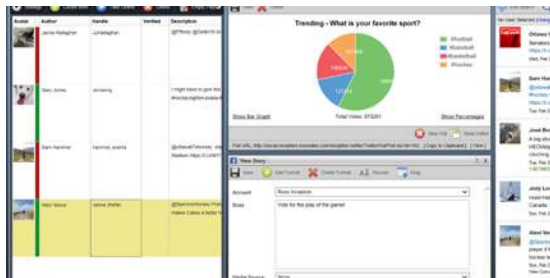
MULTI-PLATFORM PUBLISHING

A single piece of content can be published across platforms in just a few clicks. Whether it's one user or a team of content creators, this story centric workflow allows for social and web stories to easily be repurposed and tailored for each destination.

SOCIAL CONTENT TO ON-AIR GRAPHICS

Get content from your audience onto the screen, fast. Create keyword, hashtag or geolocation searches to discover content on Twitter, Facebook and Instagram. Drag and drop comments, photos and videos directly from social media searches into a graphics playlist. Use word filters and an optional approval process to keep inappropriate content off the screen.

INCEPTION.CLOUD

Inception.cloud offers the ability to add Inception Social functionality to your workflow without the need to maintain on premise servers and software. Inception.cloud will be hosted in the cloud and maintained by Ross.

INCEPTION LIVE
LIVE EVENT AND SOCIAL MEDIA MANAGER

Manage game day or live event rundowns from anywhere with a collaborative tool to plan, write and time everything from sponsor graphics to scripts for your host. Use the same tool to engage the audience with real-time social media publishing and searching.

Whether your team is in the same building or spread across the world, Inception Live presents a collaborative and tailored platform to plan, write and publish content for live event rundowns, social media and the web.

INCREASE COMMUNICATION
By centralizing web, social media and broadcast workflows into a single platform, everyone from marketing to production teams can contribute and have visibility of the event rundown. Built-in messaging tools allow everyone to communicate easily whether working in the same building or around the world.

EASY ACCESS
Eliminate printed materials by storing everything in a shared workspace. Inception Live can be accessed from both Mac and PC platforms on a variety of web browsers. Special views are offered for tablet workflows including the ability to swipe between scripts or track timing of the show. There's never any client software to download.

INCREASE ACCURACY AND EFFICIENCY
Use templates and drag-and-drop workflows to easily reuse and share content between rundowns. With real-time updates, all users see the same information at the same time which cuts down on mistakes and redundant work. Approval workflows and content history allow you to control quality and track changes.
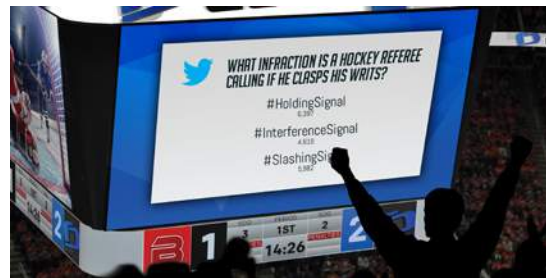
OPTIMIZED FOR LIVE
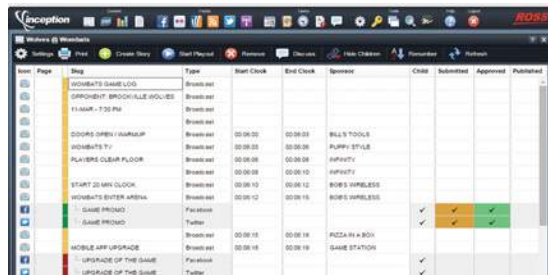
CUSTOMIZABLE INTERFACE

Tailor the user-interface to your production with user-definable columns to track everything from ribbon boards to sponsor messages. Each user can select the information they see and how they see it while still receiving updates as changes are made.

AUDIENCE ENGAGEMENT

Get content from your audience onto the screen, fast. Create keyword, hashtag or geolocation searches to discover content on Twitter, Facebook and Instagram. Drag and drop comments, photos and videos directly from social media searches into a graphics playlist. Use word filters and an optional approval process to keep inappropriate content off the screen.

INCEPTION.CLOUD

Inception.cloud offers the ability to add Inception functionality to your workflow without the need to maintain on premise servers and software. Inception.cloud is hosted in the cloud and maintained by Ross. Choose from monthly and annual subscriptions.

OVERDRIVE
AUTOMATED PRODUCTION CONTROL

OverDrive is the most advanced Automated Production Control System on the planet, enabling the most sophisticated productions to be executed cleanly and consistently, while delivering substantial savings in operational costs.

OverDrive was designed to meet the needs of modern production facilities, bringing benefits to both scripted and non-scripted productions. Manual and automated control is provided to both Ross and third party devices including production switchers, routing systems, video servers, audio mixers, robotic cameras, and graphics systems.

CONTROL FLEXIBILITY
Perform manual, semi-automated of fully automated productions at any time from the same control room, using the same equipment. Manual device control is always at the operator's fingertips whether from OverDrive or a dedicated panel.

COMPLETE BROADCAST AUTOMATION SOLUTION
In addition, there are optional interfaces to expand functionality such as router control and camera robotics control. This solution is upgradeable to other OverDrive editions and third party MOS device support is an available option.

WISE INVESTMENT
Delivers a consistent, repeatable, error-free production across a range of operator skill sets. OverDrive enables all operators to run clean, consistent productions, every day, every time.

ROI can occur in a little as 12 months, offering a significant return for a capital expense.

FLEXIBLE. POWERFUL. CONTROL.

overdrive

CONFIGURABLE INTERFACE

OverDrive offers an intuitive, user-configurable interface consolidating control of many devices into one control area. Use custom icons for quick identification and preview of the rundown.

SIDEBOX MODULES

SideBox modules are control panels for those who prefer a dedicated control surface. These work in conjunction with OverDrive's touch screen interface, keyboard and mouse allowing multiple ways for the operator to interact with the system. With the included in-desk / on-desk mounting kit, multiple combinations of SideBoxes can be ordered to fit your production needs.

DEVICE INTEGRATION

OverDrive has the most extensive library of supported 3rd party devices and MOS tools, permitting you to choose from the best in putting your APC system together. Ross Interface Engineering and Quality Assurance Teams are continually adding new devices, along with advancing and retesting currently available interfaces.

ACIDCAM
FULL CHROMINANCE BROADCAST VIDEO CAMERAS

Studio production cameras with best-in-class resolution, sensitivity and signal to noise ratio, plus, unique, patented UltrachromeHR outputs offering full 4:4:4 data for chroma keying and live virtual applications.

ACID cameras are precise imaging systems engineered for maximum HD performance in any studio production. Using the latest camera technology, they provide superior edge-definition and natural image composition within virtual environments.

GO VIRTUAL
ACIDCam integrates seamlessly into Ross Virtual Solutions. When combined with Ross' next-generation UltrachromeHR chroma keyer, ACIDCam delivers stunning images for live virtual broadcasts.

MULTIPLE OPTIONS
Maximize your budget with two ACID camera options. The H200 is an excellent high-end performer that offers 1080p, CMOS sensors and HDR capabilities. Also available is the economical Z50 model, which offers UltraChrome with 1080i resolution and SD compatibility.
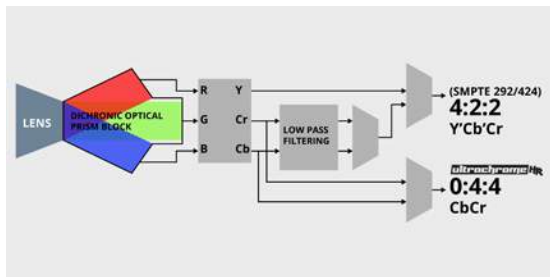
COMPACT DESIGN
Compact and lightweight, these rugged cameras can be mounted in a variety of locations, such as on a tripod, jib, or mounted on a robot where placing an operator is not possible.

A HEIGHTENED VISUAL EXPERIENCE

OWN EVERY PIXEL

Create beautiful, clean, true high-resolution keys using the patented 0:4:4 UltrachromeHR output, a signal that contains full bandwidth color information for complete 4:4:4 data into the UltrachromeHR Chroma Keying System.

BE CREATIVE

ACIDCam incorporates the latest developments in HDR technology through Hybrid Log Gamma (HLG) and Perceptual Quantization (PQ) to capture the full breadth of colors and contrast in any scene.

CAPTURE THE DETAILS

Obtain high quality images in lower light, with Dynamic Noise Reduction from the H200-UCHR providing a signal-to-noise ratio beyond 64 dB, and the budget friendly Z50-UCHR achieving a 58 dB signal-to-noise ratio.

PIVOTCAM
FULLY INTEGRATED BROADCAST VIDEO CAMERAS

Cost-effective, broadcast-ready PTZ HD live production cameras. On its own, or as part of an array, PivotCam helps tell a story by delivering great shots to your production.

PivotCam offers high-performance image capture with quiet and accurate PTZ functionality. Ideal for assembly, auditorium, and venue productions, its full complement of broadcast-ready features also make it a great fit for small live-studio productions, POV cameras, and remote cameras in news, weather and sports broadcasts.

VERSATILE
Pair PivotCam-SE with wall and ceiling mounts to creatively deploy dynamic camera shots.

CARBONITE / DASHBOARD CONTROL
On-the-fly manually control or instantly recall pre-programmed moves - PivotCam can be controlled via a Carbonite production switcher joystick, or from an intuitive DashBoard panel that can be used from virtually anywhere.

VISCA PROTOCOLS
PivotCam SE utilizes standard VISCA protocols that plug easily into existing production systems

PAN-TILT-ZOOM
ARTICULATE
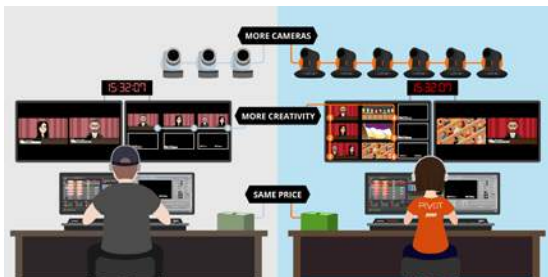
EXPAND YOUR VIEW

An affordable addition to any production, PivotCam offers producers the ability to position twice as many cameras in a production for the same cost as other PTZ camera solutions. Creative angles help to tell your story with limitless creativity.
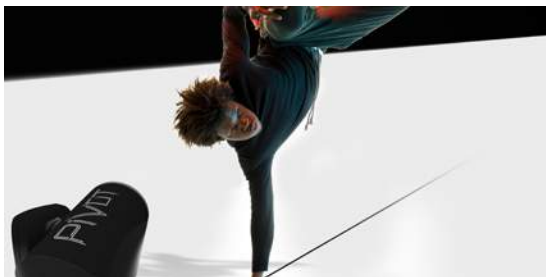
ON TARGET

Fast and efficient Pan / Tilt / Zoom and Focus control with preset recalls. A large rotation angle-range, and ultra-smooth PTZ mechanism, come together for fast and smooth maneuvers. PivotCam SE also features external genlock, 3G-SDI output, and IP-VISCA control, capturing high-definition moments quickly and accurately.

DASHBOARD CONTROL

No need for additional hardware to control and save presets. Ross DashBoard offers a software approach to control and manage your PivotCam.

FURIO STUDIO
STUDIO ROBOTIC CAMERA DOLLY SYSTEM

With the ability to produce silky smooth, sweeping on-air dolly shots, which can then be precisely repeated over and over again at the push of a button, Furio allows broadcasters to create more dynamic looks – while also delivering higher quality and repeatability, and lowering operating costs.

As a modular system, Furio is available in a wide variety of configurations, with multiple platforms, lifts and heads to choose from. Select the towering height and unbeatable range of the SE 3-stage lift, the more economical S2 2-stage lift, or a fixed column – or mount the head directly on the SE dolly. System can then be paired with either a VR100 or VR600 pan and tilt head, depending on payload requirements.

VISUAL IMPACT
Creates distinctive shots with more fluid and dramatic visuals that make productions come to life, capturing and holding audience attention. Incorporates eye-catching aesthetics that provide a cutting-edge look to programs, not only behind camera, but also in front of it.

CONTROL SYSTEM
The SmartShell Control System combines a touchscreen interface with an ergonomic joystick control panel. Whether you have Furio dollies, PT heads or BlackBird pedestals, all of your Ross robotic systems can be controlled by a common control system using a centralized Ethernet-based architecture.

GLOBAL DEPLOYMENTS & SUPPORT
With thousands of robotic systems deployed around world, few suppliers have more experience with installing, commissioning and maintaining robotic systems than Ross. As with all Ross products, you will enjoy the industry's best support, legendary for its customer-oriented approach.
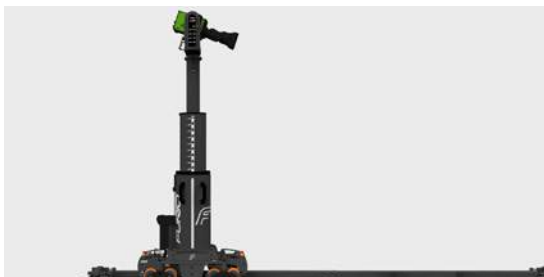
THE SMART EVOLUTION OF CAMERA ROBOTICS

TRACKED

Ross heads are available with a variety of mounting options that allow them to be placed on top of tripods or pedestals, hung upside down from a ceiling or trusses.

VR series PT heads provide accurate tracking data on pan, tilt, zoom and focus position, making them perfect for virtual sets or augmented reality.

DOLLY SYSTEM

All Furio Studio systems have the payload capacity to support a teleprompter, allowing them to be much more than just a specialty camera. All Furios provide stable and accurate virtual tracking data, making Furio the perfect tool for Virtual and Augmented Reality.

BLACKBIRD

The revolutionary BlackBird base provides an ultra-stable platform for combining smooth vertical movement with pan, tilt, and zoom to create dynamic on-air moving shots in an automated environment.

FURIO LIVE
LIVE EVENT CAMERA DOLLY SYSTEM

Furio Live is the ultimate next-generation remote control camera system for live productions. Combining a high speed dolly, silky-smooth lift, and ultra-fast pan & tilt head with two intuitive and responsive control systems, Furio Live delivers a unique combination of speed, fluidity, and responsiveness in a compact and modular package – perfect for capturing all the action at live events.

Save time and money with a system designed from the ground up to be fast and easy to setup and configure. Furio Live can be located in places that were previously impossible, discretely delivering stunning visual perspectives at your command.

GET CREATIVE
Make shots you only dreamed of previously, thanks to Furio's speed, smoothness, and range.

SETUP QUICKLY
Specifically designed for rapid setup and tear down, with fewer cables, built-in power bar and cable management features, and integrated camera balancing plate with tool-less quick-lock adjustments.

BUDGET FRIENDLY
Benefit from lowest total cost of ownership with the safest, most robust and reliable dolly system, coupled with the best support in the industry.

NEXT GENERATION REMOTE CONTROL CAMERA SYSTEMS

FURiO

OUT PERFORM

High speed Furio SE dolly travels at speeds up to 3 m/s (straight track), with a range of nearly 100 m.

Ultra-fast pan & tilt head (up to 180 degrees/sec) covers all the action, from any angle.

WORRY-FREE

Two lift options to choose from: The SE Lift featuring 3-stage Carbon fiber construction that delivers over 2.2 m (7′ 2″) of height and 85 cm (33″) of extension, or the more cost-effective 2-stage S2 Lift.

STAY IN CONTROL

Choose from two responsive and intuitive control platforms: modular joystick console, or remote pan bar.

CAMBOT
FREE ROAMING PEDESTALS

With three distinct models, the mid-sized 600XY-S2 and 600XY-S3, to the extra high-payload 700XY, the CamBot series of free-roaming pedestals have been designed to suit a wide variety of studio applications and capital budgets.

CamBot's pedestal-base features the industry's best accuracy and floor repeatability, fast and easy targeting, and a straight-forward design that provides years of reliable, low-maintenance operation.

UNBEATABLE FLEXIBILITY
CamBot XY pedestals provide the ultimate in flexibility, allowing the camera to be positioned anywhere around the studio floor, while providing remote control/programming of all camera axes, including pan, tilt, zoom, focus, elevation, and floor position.

CONTROL SYSTEM
SmartShell 4 Control System combines a touchscreen interface with an ergonomic joystick control panel. Whether you have free-roaming CamBot pedestals, PT heads or BlackBird pedestals, all of your Ross robotic systems can be controlled by a common control system using a centralized Ethernet-based architecture.

PERFECT AUTOMATION PARTNER
Consistent preset recalls combined with an open API and networked control architecture make CamBot Pedestals the perfect robotic camera system for Automated Production Control solutions, including Ross OverDrive, and all major 3rd Party solutions.

RELIABLY ACCURATE
ROBOTIC PEDESTALS

CamBot

SMOOTH

500, 600 and 700 series heads feature special gearboxes that eliminate backlash, as well as high-resolution servos to produce smooth and highly repeatable movements.

ROBOTIC PEDESTALS

CamBot XY pedestals provide the ultimate in flexibility, allowing the camera to be positioned anywhere around the studio floor, while providing remote control/programming of all camera axes, including pan, tilt, zoom, focus, elevation, and floor position.

BLACKBIRD

Our entry-level system is based on the 2-stage C2 lift with integrated electronics that comes from the original CamBot 600PTZ. Dubbed the C2 lift to reflect its CamBot heritage, it is paired with the 600PT to create our most cost effective robotic elevation solution.

XPRESSION
MOTION GRAPHICS SYSTEM

XPression has changed the real-time production graphics game - a 3D motion graphics system that is powerful, yet easy to use.

XPression is inspired by and continues to be developed to meet the needs of the world's top real-time motion graphics creative teams who are tasked with creating eye-catching graphics - often driven with real-time data and produced on tight timelines. XPression delivers results for the most demanding productions - from Hollywood to top network television and sports arenas all over the world while it's ease of use and affordability make it available to all.

MAXIMIZE CREATIVE OUTPUT
XPression is a joy to create and operate graphics on employing a clean user interface, logical menus, and controls. XPression shortens your learning curve, fosters creative flow and maximizes productive output.

OPTIMIZE WORKFLOW
XPression offers workflow tools and integration options that generate significant efficiencies for News, Sports and Entertainment environments. Implement a journalist self-serve graphics workflow for news with a centralized art department, easily tie in Twitter, Instagram and other feeds for text, images and polls, drive and entire stadium with a single button push – solutions like these are all available with XPression.

BUY ONCE, ENJOY FOREVER
Always enjoy state-of-the art graphics. Once you buy XPression and keep software maintenance current, you never have to buy it again. As a Windows product that runs on standard off-the-shelf computer hardware, XPression licenses can migrate from machine to machine, taking advantage of accelerated CPU and GPU performance over time.

IMAGINATION REALIZED

XPression
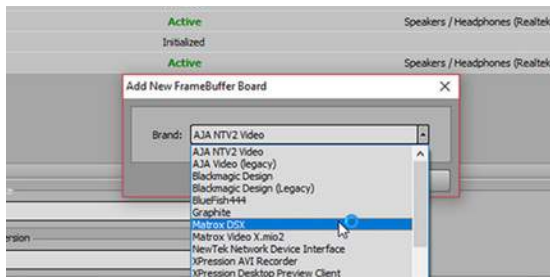
OPEN HARDWARE

XPression supports multiple broadcast video I/O formats and hardware from a wide selection of I/O card vendors. Rendering is done in the GPU, which allows XPression to work with various hardware framebuffer vendor solutions, rather than just one. XPression supports I/O hardware from Matrox®, AJA®, Blackmagic Design®, and Bluefish444. NDI™ is even supported on Studio and BlueBox.
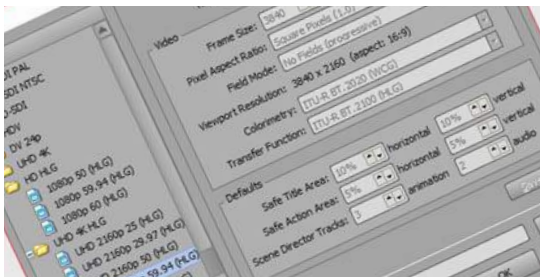
SCALABLE

XPression supports video formats from SD all the way to UHD. Changing the video output is as easy as changing the I/O card or changing a setting in software. As your facility's technology grows, so does XPression.

XPRESSION TESSERA

Map animation and video across multiple XPression outputs in real time and synchronize them with each other to populate massive video walls. Available in either Single-Engine or Multi-Engine configurations, XPression Tessera allows for pixel accurately mapping XPression scenes across multiple, massive displays and ribbon boards.

MIRA
REPLAY SYSTEM

Achieve impressive instant replays for all your live events and sports broadcasts with an extremely flexible and very powerful multi-channel replay system.
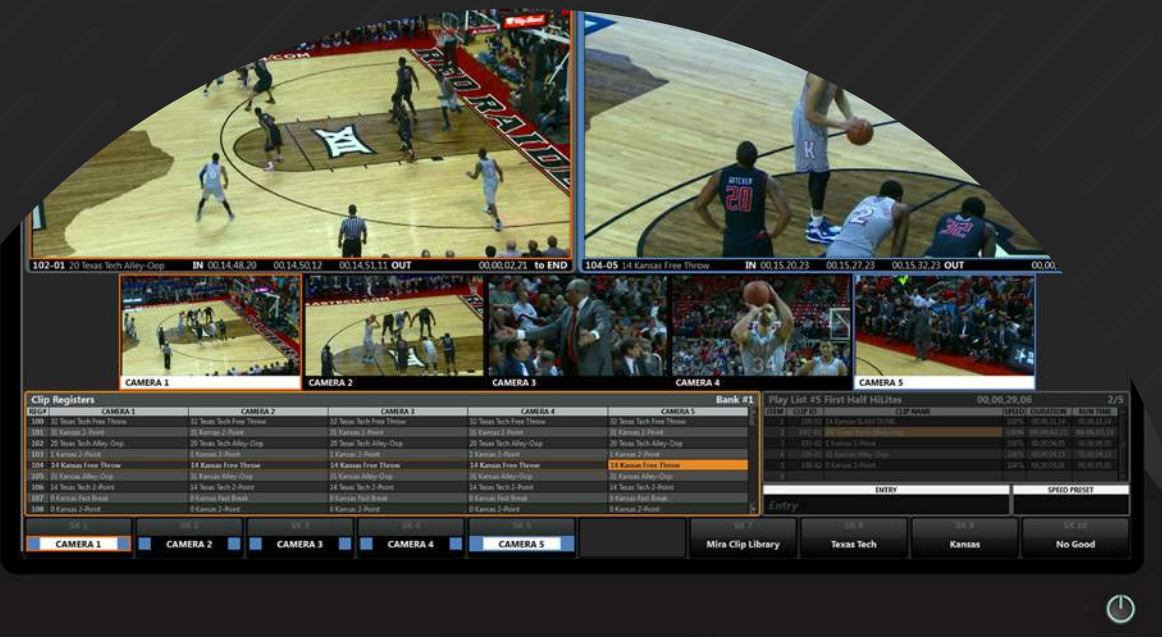
Driven from a unique, ergonomically-designed control surface and purpose-built replay application, you are able to execute live instant replays with the greatest of ease, quickly clip and tag content, ingest and export media files, and create engaging game-break highlights that will captivate your audiences.

SINGLE OR DUAL-USER WORKFLOW
Share the load by splitting / sharing server resources—so two operators can work independently on two replay events or work in collaboration on the same replay event.

RELIABLE PROTECTED MEDIA
Ensure maximum reliability, with standard dual-redundant, hot-swappable power supplies. For ease of maintenance, all premium Mira servers feature hot-swappable chassis fans and media disk drives.

FILE-BASED OPERATIONS
Integrated media file import and export tools reduce cost and simplify workflow.
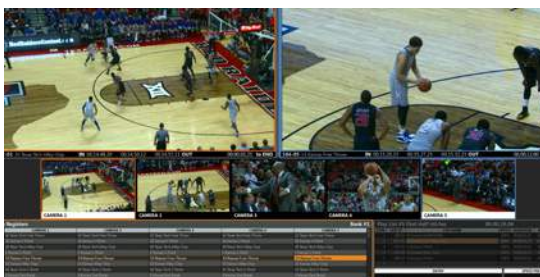
THE ULTIMATE REPLAY SYSTEM

CONTROL INTERFACE

Mira Control Surface features a "wide and slim" ergonomic design, for ease of use and smooth replay operations. All buttons on the control surface are logically grouped and color-coded to function, with generous spacing around every button.

USER APPLICATION

The Mira Replay graphical user interface compliments the Control Surface by providing operators with a single "heads-up display" to follow the action, manage all clips/playlists, and to easily export media files. Time-saving elements such as programmable softkeys further enhance operator efficiency.

MIRA EXPRESS

Mira Express transfers the core Mira feature set onto an SSD hardware platform for a professional four-camera / two-channel replay system. The two new SSD drives make show set-up and post-production as easy as slot-in and slot-out. Mira Express is available at an incredible value that makes it a great choice for mid-market sports.

TRIA
VIDEO SERVERS

Today's live production environments demand cost-effective playback of video, key and audio content. Tria is the ultimate production server that provides the flexible, feature-rich, multi-channel capability you need to deliver compelling live programming.

The incredibly flexible architecture of Tria production server ensures seamless integration into a wide variety of live production workflows that includes animated switcher transitions, feeding on-set displays, and capturing live video sources.

SIMPLE FILE MANAGEMENT
Integrated media file import and export dramatically simplifies file-based workflows. Files are automatically matched to production format on import and the export process features a variety of user-defined parameters.

FILE & FORMAT DIVERSITY
Compatible with the spectrum of resolutions and formats, including Ultra HD-4K, HD and SD. A wide variety of the most popular self-contained media files can be ingested and exported with ease.

CONTENT SHARING
Quickly and easily share media clips between any number of Tria production servers interconnected via inexpensive Gigabit Ethernet. No matter where a given clip is stored—any clip can be played back in real-time.

THE ULTIMATE
PRODUCTION SERVER

TRIA TRIA EXPRESS TRIA NEWS
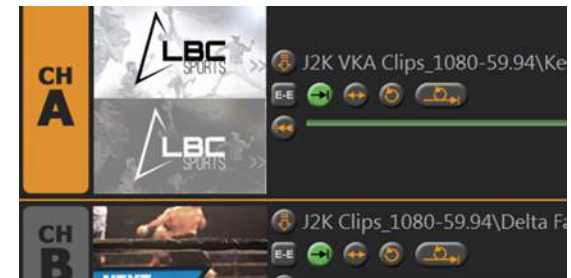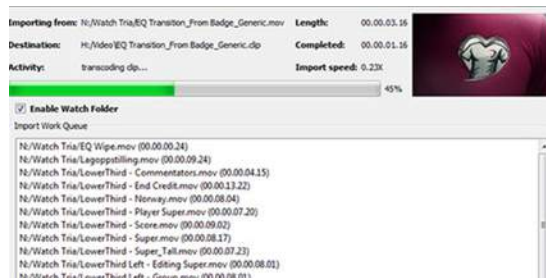
RECORD & PLAY

The premium Tria server can be purchased with either four or eight symmetric video channels – every video channel can instantly switch between record and play. Since all video channels have access to the shared clip library, one video channel can be actively recording into a clip while another channel plays out the same clip.

TRIA NEWS

From four independent PGM playout channels, Tria News gets your late-breaking news stories on-air quickly and effectively. Tria news handles the news-gathering native codec media files typically found in the newsroom and is the cornerstone of an efficient MOS workflow for news media playout.

TRIA EXPRESS

The entry-level Tria Express with 2-PGM outputs provides two independent "video+audio" output channels that can be easily reconfigured by the user as a single "VKA output" channel.

AIRCLEANER
LIVE EVENT MANAGEMENT

AirCleaner is your digital insurance policy against broadcasting any obscenities. This system is the leading digital video and audio delay solution for easily eliminating all unwanted content from your live broadcasts or webcasts.

The simple set up, operation, and personalization minimizes operator errors for concealing undesirable video and/or audio content.

REACTION TIME COMPENSATION
Compensates for the reaction time of human operators to an observed visual or aural event, ensuring every obscenity is concealed in its entirety.

HIDE CONTENT SMOOTHLY
The viewer experience is minimally interrupted with subtle video and audio masking techniques.

TWO-BUTTON CONTROL
Straight-forward to control with two large panic buttons; one for audio (red); and one for video (yellow). Simply press & hold to clean-up your broadcast.

KEEP IT CLEAN

SIMPLE CONFIGURATION

Simple configuration and programming of AirCleaner are managed via the LCD panel on the front of the chassis or from a web browser through the integrated Ethernet port. Delay settings and other set-up parameters are saved in up to three non-volatile memories.

CONTROL PANEL

The control panel has one button for audio and one button for video. After setting up your delay time and operator reaction times, make concealments by pressing & holding the button for as long as the offence takes place. AirCleaner can conceal audio and video separately or simultaneously.

MULTIPLE MASKING CHOICES

AirCleaner masks offensive live content by using an integrated effects engine to blur out visual obscenities with variable defocus. The unique Jumble feature scrambles audio to make speech unintelligible— while maintaining audio levels and spoken continuity.

ULTRIX
SOFTWARE-DEFINED ROUTING PLATFORM

Ultrix 12G Router is the ultimate routing, multiviewer, and signal processing platform for studios, OB vans, and flypacks.

Ultrix is a powerful, state-of -the-art software-defined routing platform that lets you realize significant cost, space and power efficiently with unprecedented flexibility and agility. As well Ultrix provides you with the peace of mind that comes with an extremely reliable system designed for future requirements.

SOFTWARE-DEFINED
Easily add new features through additional software licenses. No additional hardware required.

INTEGRATED DESIGN
The Ultrix 12G Router is infrastructure in a box. Video/audio routing, multiviewers, audio processing, frame synchronizers, clean/quiet switching, UHD gearboxing and more all unified in one single chassis.

SAVE MONEY
Because of its size, base feature set, and software capabilities, owners save significant money on upfront capital costs. Additionally, the advanced architecture provides significant ROI in terms of power, cooling, shipping, and space costs.

THE NEXT WAVE IN ROUTING

RICH MULTIVIEWER CAPABILITIES

Up to 24 Independent multiviewer heads in a single 5RU chassis. Each head supports up to 100 PIPs. Completely independent and individually controllable providing superior flexibility

AUDIO PROCESSING & ROUTING FABRIC

Up to 3kx3k audio routing and processing fabric comes standard with Ultrix. Up to 2kx2k embedded, and 1kx1k discrete audio supported. Route, process, and configure down to a mono channel, regardless of I/O.

ULTRICORE

Quickly route hundreds of video signals and thousands of audio channels anywhere by name. Creates a simple easy to use interface for operators to do their jobs quickly.

ULTRISCAPE
SOFTWARE-DEFINED MULTIVIEWER PLATFORM

Ultriscape is the ultimate multiviewer platform for Studios, OB Vans, and Flypacks. As the world's first software-defined multiviewer, customers realize significant cost, space, and power efficiencies with unparalleled flexibility and agility.

Ultriscape, is an integrated MultiViewer within the Ultrix platform. It is the worlds first software enabled MultiViewer that is housed inside a routing platform, and is also the first MultiViewer that can support single link 12Gb/s signals.

FLEXIBLE
Each multiviewer head is completely independent, offering tremendous flexibility for layouts and control.

INTEGRATED DESIGN
Ultriscape is an integrated multiviewer within the Ultrix platform. Therefore, it can be added to extensive routing, audio processing, and synchronization capabilities to create a completely integrated solution.

PAY AS YOU GO
The software-defined architecture means you simply buy what you need, when you need it. No need to make critical design decisions upfront, simply add appropriate multiviewer outputs when they are required.

WORLD'S FIRST SCALABLE, SOFTWARE ENABLED MULTIVIEWER

Ultrìscape

SOFTWARE-DEFINED

Add multiviewer heads by purchasing software licenses. Up to 6 outputs in a 1RU, 12 outputs in a 2RU, and 24 outputs in a 5RU.

RICH MULTIVIEWER CAPABILITIES

Each multiviewer head supports up to 100 PIPs. Completely independent and individually controllable providing superior flexibility.

INDUSTRY LEADING QUALITY

Pristine image quality, and low latency make Ultriscape ideal for the most demanding applications and venues.

NK
ROUTING PLATFORM

The NK Series routing family is a cost effective, high performance routing platform for studios, OB vans, and flypacks. NK Series is compact, robust, and simple to use.

With a variety of frame sizes and format choices NK routers excel in providing high quality routing in a cost-effective manner.

CONTROL FRIENDLY
NK Series are based on Dashboard control and can be configured to seamlessly fit within the Ross Ecosystem, as well as be a part of an Ultrix routing system.

MODULAR
Some NK Series frames have the ability to expand with additional I/O modules.

BUDGET FRIENDLY
Comprehensive range of sizes and formats to meet any budget.

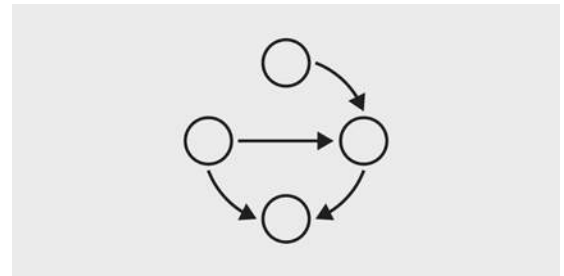## COST EFFECTIVE HIGH-PERFORMANCE ROUTING PLATFORM

COMPREHENSIVE FORMAT SUPPORT

From analog audio to 3G SDI, NK Series supports a wide range of signal types.

SIZE FLEXIBILITY

With matrix sizes from 16×4 up to 72x72, NK Series can scale appropriately for the workflow that is required.

INDUSTRY STANDARD CONTROL

Industry standard routing control means easy integration into automation systems as well as 3rd party router control systems.

ACUITY
LARGE PRODUCTION SWITCHER

Acuity is our top-of-the-line large production switcher - designed to handle world's most challenging live events. This switcher easily adapts to evolving technology in the video production industry and is built with the biggest creative feature set – for the biggest productions.

With Acuity, we not only provided support for new video standards, but also took everything we learned from past big switchers and made a system that was better, faster, and even more user-friendly than before.

FUTURE-READY WITH UHD & IP CAPABILITY
Built with the future in mind, Acuity addresses the latest video formats and transport methods, while enabling a gradual transition from your existing equipment.

POWERFUL PROCESSING
Acuity frames can be outfitted with specialized I/O cards for total input & output processing power, hybrid 3G quad & 12G single-link connectivity, or hybrid SDI/IP connectivity.

CREATIVE TOOLS FOR CREATIVE PEOPLE
Acuity makes it personal, allowing you to arrange things the way you want them. Independently map inputs to any button in any order on any ME. Set up individual source mnemonic names, font sizes and colors. Use the Acuity RGB buttons to design your own color scheme, background panel glow and on-air indicators to fit the way you work. Choose from a selection of system control display themes. Get Acuity in your zone and make things happen.

CREATIVITY UNLEASHED

A·C·U·I·T·Y

POWERFUL PRODUCTION ENGINES

Two production engines implemented in 4RU (6.5 ME) and 8RU (8 ME) frames, enable Acuity to eliminate I/O limitations and add new levels of internal processing power and signal management capability. SD, HD, 3G and 4K UHD production are all easy to achieve within these two processing engines.

MULTIFEED CONFIGURABLE OUTPUTS

MultiFeed equips each ME with 8 programmable outputs (6 program and 2 preview). Select any combination of keys on any of the 6 program outputs to create multiple uniquely-keyed outputs for multi-channel productions. No other switcher offers the flexibility to separately brand any ME output, and selectively preview keys and backgrounds.

FACILITY-GRADE MULTIVIEWERS

With flexible ME / MultiViewer resources, and input MultiViewers on optional MultiProcessing input cards, Acuity can be the single monitoring hub for your entire facility. Benefit from huge reductions in wiring, external routing, and signal distribution systems – for a cost-effective monitoring workflow.

CARBONITE BLACK SERIES
MID-SIZED PRODUCTION SWITCHER

Powerful mid-sized production switcher with an industry-leading feature set. Carbonite Black is built on a platform that adds new features via software updates and offer exciting functionalities that go beyond just a production switcher.

The most successful production switcher ever just got better. Carbonite Black's processing engine offers an I/O count of 36 inputs and 22 outputs. The Carbonite Black Plus and Carbonite Black Plus 12G have 36 inputs and 25 outputs making Carbonite production horsepower available to larger-scale productions.

BACKED BY THOUSANDS OF CUSTOMERS
Carbonite is the most popular mid-size switcher series in the market. This switcher is proven day-after-day in a wide variety of production environments. Enjoy a fine-tuned feature set and easy hiring & training of operations staff.

FUTURE-READY WITH UHD & IP CAPABILITY
Built with the future in mind, Carbonite Black addresses the latest video formats and transport methods, while enabling a gradual transition from your existing equipment.

SIMPLICITY
Ergonomic control with a dedicated button for every task you need to perform - no searching or stepping through menus.

PRODUCTION POWERHOUSE

CARBONITE BLACK

POWERFUL MEs & MINIMEs

Carbonite Black packs major effects and keying power in up to 3 MEs. Each ME has four powerful keyers with luma, linear, chroma and DVE key types – along with a 5th background keyer for animated MediaWipe & DVE transitions. There are 4 MiniMEs in the system that "float" and can be used anywhere in the signal path, great for assignment to multiple locations and simultaneous use.
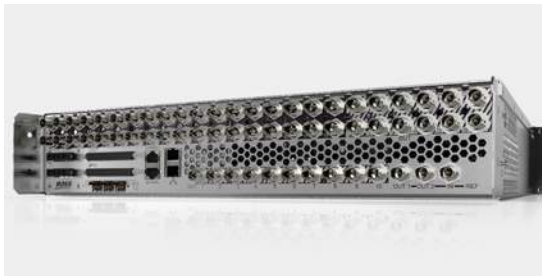
VIDEO PROCESSING RESOURCES

Built with internal signal processing resources to easily manage differing equipment and formats. Carbonite Black comes equipped with 6 frame syncs / format converters. Carbonite Black Plus models have frame syncs, format converters, color correctors, and proc amps on all inputs and 12 processing outputs.

UP TO FIVE MULTIVIEWERS

Two configurable MultiViewers with up to 32 windows are included in the standard Carbonite Black engine. Five MultiViewers are included with Carbonite Black Plus and Carbonite Black Plus 12G with up to 80 windows. These clean, low latency MultiViewers have access to all internal and external sources and selectable layouts.

CARBONITE ULTRA
MID-SIZED PRODUCTION SWITCHER

Carbonite Ultra is a next-generation switcher built on a software-defined platform which offers new features via software updates and exciting functionality that goes well beyond a traditional production switcher.

Carbonite Ultra takes everything customers love about the original Carbonite switchers and makes it more powerful, more compact, and more affordable than ever.

PROVEN PLATFORM
Carbonite Ultra is built on the solid foundation of Carbonite - the production switcher series that powers amazing productions for thousands of Ross customers worldwide. Experience the value of a software-defined switcher platform backed by a team with over 45+ years of production switcher development and one of the highest-rated customer support teams in the industry.

REDEFINED
Compact and powerful, Carbonite Ultra is a sleek 1RU chassis with 24 inputs and 14 outputs, that improves upon the most popular Carbonite features and adds new format-independent hardware to handle multi-format productions with ease.

VALUE
Carbonite Ultra makes it more affordable than ever to introduce big switcher features into your productions offering up to a stunning 3MEs @ 1080P 50/60 in only 1RU!

THE WORLDS MOST POPULAR SWITCHER - REDEFINED

CARBONITEUltrA

12G / UHD READY

Add a 12G / UHD license to Carbonite Ultra to enable support for 12G / UHD production.

With 18 inputs & 10 outputs in 12G mode, and 1 full ME & 2 MiniMEs during UHD operation – Carbonite Ultra represents unbelievable value for a 12G / UHD switcher.

INSANE HORSEPOWER

Carbonite Ultra offers an insane list of production features: Up to 3 MEs with 5 keyers each, 4 MiniMEs, 4 Key / Fill MediaStores with audio, 8 DVEs, 2 UltraChrome chroma keyers, animated media transitions, I/O signal-processing, LiveEDL, powerful macro timelines, MultiScreen mode, up to 4 MultiViewers with 64 windows and XPression LiveCG software.

FAMILIAR CONTROL

Offering a wide-range of control choices, any of the Carbonite Black Series control panels (including SoftPanel) can be paired with a Carbonite Ultra frame – an interface familiar to tens of thousands of users globally. RossTalk protocol support takes multi-product integration and control to the next level.

CARBONITE BLACK SOLO
COMPACT PRODUCTION SWITCHER

Carbonite Black Solo is our most compact and affordable production switcher. All-metal construction and robust, Solo is serious hardware designed for serious productions.
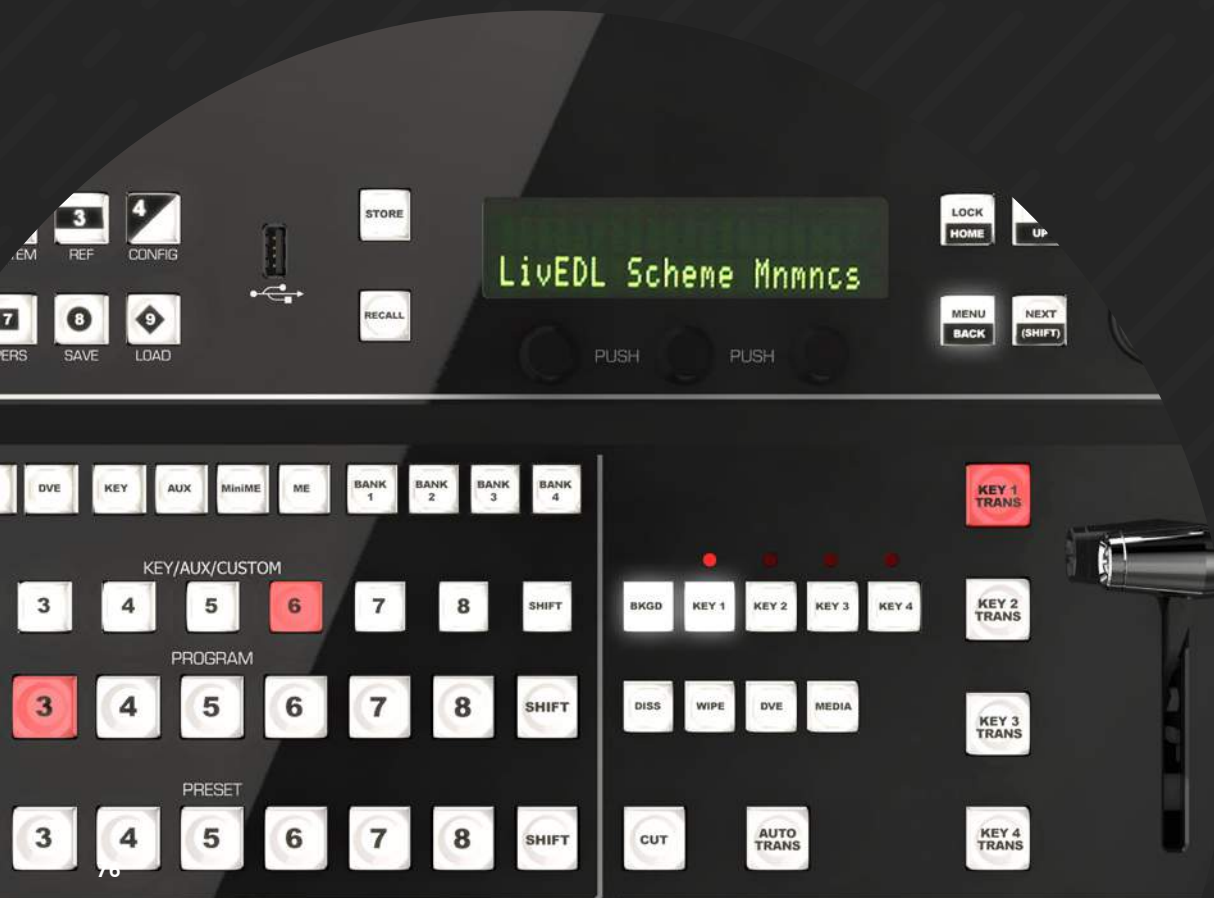
Carbonite Black Solo is the perfect fit for small productions and portability. Offering big switcher features of the Carbonite Black series, Solo has the tools to create a top-notch show where quality, affordability and operational performance is essential.

ELIMINATE ADDITIONAL PURCHASES
If your productions are on the go, at different facilities and events, you want to make it easy to plug-in and get the show rolling. Carbonite Black Solo is built with internal video processing and MultiViewer resources, so no external gear is required.

ONE-BUTTON PLAYOUT
Carbonite Black Solo features fully-customizable macros and a memory system with unique smart recall and effect recall functionality unlike feature-based custom controls and memories commonly found in compact switchers.

LIVE PRODUCTION HUB
Engage your audience with graphics, video clips, and animated media effects. Carbonite Black Solo comes equipped with everything you need for a media-rich production including four internal MediaStores, XPression LiveCG graphics software, and a USB media player, unlike anything you've ever seen in a production switcher.

NO ORDINARY COMPACT PRODUCTION SWITCHER
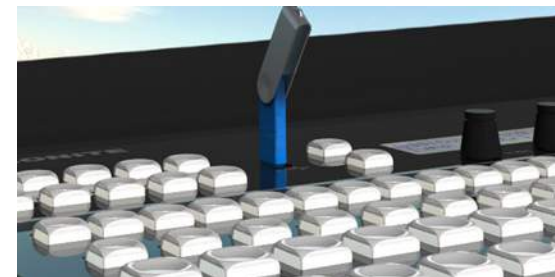
CARBONITE BLACK SOLO

POWERFUL PRODUCTION ENGINE

Carbonite Black Solo's main ME has 4 powerful keyers with luma, linear, Chroma and DVE key types - as well as an additional 5th hidden keyer for animated Media Wipe and DVE transitions. The 2 built-in MiniMEs are great for additional dissolves key layers, unique outputs, on-set monitors and multi-screen processors.

SIMPLE CONTROL

In addition to a refined control panel, Solo is part of the Ross DashBoard Control ecosystem. This network control software allows total control of all switcher functions and makes it easy to create a purpose-built UI for your specific production environment. For truly simple shows, take advantage of the included ViewControl touch screen interface.

REVOLUTIONARY MEDIA PLAYER

Truly unique and innovative, Carbonite Black Solo provides a dedicated single-channel clip player for playout of compressed MPEG-4 AVC media directly from a connected USB-media drive. Easily take your clips to air with a dedicated DashBoard interface, Custom Control or AMP command.

GRAPHITE
ALL-IN-ONE PRODUCTION SYSTEM

Real Switcher. Real Graphics. Real Audio. Graphite is an all-inclusive system that combines big switcher performance with 3D graphics, instant access clip servers and pristine audio clarity.

With a full suite of production tools at your finger tips, Graphite is a reliable, hardware-based alternative to software-based all-in-one production systems. Graphite is the perfect companion for generating live content for streaming, broadcasting, or feeding big screens.

FULLY-EQUIPPED SYSTEM
The value of a single all-in-one system with no need for supplemental equipment cannot be overstated. Every aspect of the Graphite system is purpose-built with the reliability of separate hardware system components.

FLEXIBLE WORKFLOW
Crew your show as you see fit. A single operator can run an entire show through all-encompassing control, or roles can be separated for multiple operators during high-intensity events.

INCREMENTAL GROWTH
Switcher resources and graphics power can be upgraded via software licenses – and additional equipment is available through a single vendor for effortless integration and guaranteed support.

PURE PRODUCTION POWER

GRAPHITE

CARBONITE SWITCHER

Graphite contains the full Carbonite feature set, with up to 2 powerful MEs and 4 MiniMEs.

Each ME has four powerful keyers as well as an additional fifth transition keyer for animated Media Wipes and DVE transitions. Additionally each MiniME includes an independent mixer and 2 keyers.

XPRESSION GRAPHICS AND CLIPS

XPression Graphite is a motion graphics engine with near limitless layering on a single channel with true 3D objects and animation. In addition, Graphite includes two channels of XPression Clips to record, catalog and playout clips - with instant recall times and back-to-back clip transitions.

RAVE AUDIO MIXER

Handle demanding live audio with RAVE, Graphite's hardware-based 46-channel digital audio mixer. RAVE provides access to audio from embedded SDI inputs and internal XPression/PC sources. Optionally, audio breakout panels add discrete analog and digital audio I/O, with microphone pre-amps and phantom power.

UX
VIRTUAL SOLUTIONS CONTROL

UX is a highly flexible and customizable real-time 3D rendering control platform with an easy-to-use, intuitive, touchscreen user interface.

The application provides seamless integration with tracking systems and real-time 3D rendering engines such as XPression and Voyager. It comes installed on a touchscreen PC for virtual set camera calibration, scene manipulation, media replacement, event triggering, animation control, robotic camera movement control and more.

EXTENSIVE INTEGRATION
UX supports most tracking system, tracking protocols, and camera mounts in the industry. Don't make compromises, select the right system for your production.

IMPROVED WORKFLOW
UX offers remote control to automate production workflows for efficient operations. Combine complex virtual moves and camera moves into a single button event, and provide control over animation sequences, as well as full synchronization with material changes.

SPEED OF OPERATION
Shorten downtime between shows by loading different scenes and projects with a single click of a button.

## THE CONTROL CENTER FOR VIRTUAL SOLUTIONS
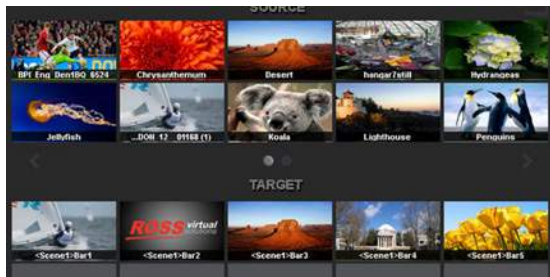
INTUITIVE CONTROL

UX offers an operator environment designed specifically for the non-engineering user. It provides extensive ease-of-use by taking the technical complexity out of deploying and operating virtual environments.

DIRECT CONTROL

UX allows the operator direct access to objects in the scene, and the ability to move, rotate, scale, save and animate them without going into the editor on the engine. In this way, last second changes can take place easily and effortlessly.
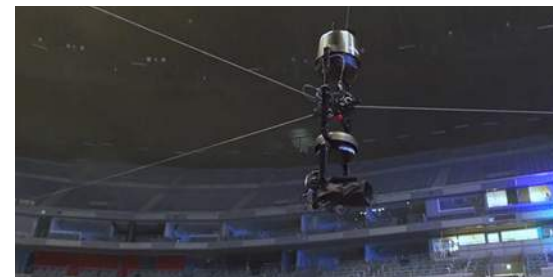
TRACKING

With UX, it is possible to mix and match tracking protocols and camera mounts to meet the requirements of the production. Whether it's manual heads, mechanical encoders, cable cams, or optical tracking systems, they are all transparent to UX.

VOYAGER
UNREAL 4 VIRTUAL RENDER PLATFORM

Based on the UE4 gaming engine, Voyager provides photo-realistic scenery in any virtual or augmented studio environment.

Voyager enables the creation of even the most complex graphical elements quickly, easily, and accurately, producing unprecedented realism like never before.

SUPERIOR GRAPHICS CAPABILITIES
The Unreal4 gaming engine utilizes advanced graphics features like collision, particles, dynamic texture, real-time reflections, skeleton animation, cloth animation and real-time shadows.

FLEXIBLE WORKFLOW
With UX and UX Virtual Camera Control, any combination of tracking protocols, camera mounts, and engines are achievable within the same environment.

EASE OF OPERATION
Voyager uses the UX control platform as its operator friendly front end and doesn't require the operator to be an experienced Unreal4 user or designer.

HYPER-REALISTIC RENDERING

REAL-TIME DYNAMIC SHADERS

Unreal4 allows the use of shaders to create realistic looking effects. From dynamic shadows, live-lights and light blooms, to reflections and refractions. These shaders and effects are applicable both in Augmented Reality and Virtual Studio environment.

COMPLEX ANIMATIONS

Unreal4 offers an unparalleled level of animation capabilities – IK, Skeleton, cloth, and Particles are just part of the toolset. Voyager supports the use of Unreal's sequencer to manage complex animations and trigger them effortlessly.
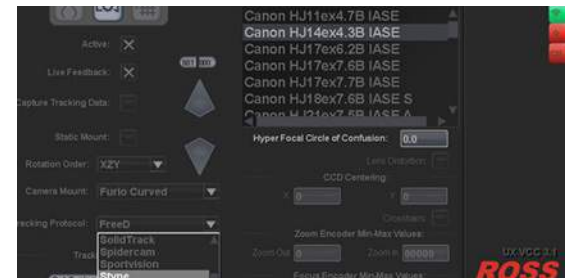
WORKFLOW AND CONTROL

Through the use of UX it is possible to control the Unreal engine, control tracking devices and lens data, make last second changes in real-time, connect to external data sources, and integrate the Unreal platform with MOS based newsroom control systems.

TRACKLESS STUDIO
VIRTUAL PRODUCTION

Trackless virtual systems are all-in-one engines that require no external action on the part of the camera in order to create movement. They use a stationary physical camera, with all the camera movement being done within the graphics engine. This eliminates the need for physical tracking equipment.

Built on the XPression Real-Time Motion Graphics System with an intuitive purpose-built interface, Ross Trackless Studio leverages years of experience with virtual sets and augmented reality to bring quality virtual sets to even the most basic productions.

LOOKS REAL
Combining virtual camera moves and the same high-quality virtual sets as tracked implementations creates excellent productions.

SHORTENED LEARNING CURVE
Leverages years of experience with virtual sets and augmented reality to bring quality virtual sets to even the most basic productions.

SMALL STUDIO. BIG IMPACT.
All camera moves are done virtually inside of the XPression scene, eliminating the need for a large studio space.

ALL-IN-ONE
VIRTUAL PRODUCTION

ROSS trackless studio

FULL 3D

Real 3D virtual sets with full 3D motion capabilities.

TRANSITIONS

Transitions between camera positions or between multiple cameras to show movement or changes in the production.

USE UP TO FOUR CAMERAS

Multi-camera support (1, 2 or 4 depending on hardware configuration).

ULTRACHROME HR
MULTI-CHANNEL CHROMA KEYER

Master the black art of chroma keying with UltrachromeHR, a high performance multi-channel chroma keying system built on the rock-solid Carbonite Black foundation.

Carbonite UltrachromeHR is a powerful chroma keying system. Get great results from standard camera signals or pair with Ross ACIDCam for the highest-quality chroma key ever created.

SIMPLE CONTROL
Part of the DashBoard ecosystem, a network-connected software platform for full control of UltrachromeHR and your entire production solution.

VERSATILE CHROMA KEY
Choose the chroma key mode that gets the best results from your unique setup and fine-tune your key with built-in post key processing resources.

SINGLE VENDOR VIRTUAL
Beautiful chroma keys with photo-realistic graphics and tracked + trackless virtual set technology – Ross can realize all your virtual set needs.

HIGH PERFORMANCE
CHROMA KEYING

4:2:2 + 0:2:2 = 4:4:4

For the highest quality virtual productions, UltrachromeHR accepts an additional 0:4:4 video output from Ross ACID cameras. The standard 4:2:2 and 0:4:4 UltrachromeHR outputs are received and internally combined to create a 4:4:4 signal. This signal format is then used to develop beautiful high-resolution key edges.

CHROMA KEYING ASSISTANCE

UltrachromeHR's quality-of-life features help you get the best key possible. Auto background analysis measures the video source to adjust the edge area and re-spill values of your chroma key. Additionally, each chroma key channel contains colour correction and colour temperature resources, to fine-tune your image.

MINIME COMPOSITING

Each of Ultrachrome HR's 4 MiniMEs provides 3 keyers, which provide great flexibility when building your final output. You can composite your chroma key with the virtual environment, leaving two more layers that can be either between background & chroma key or in front of the subject.

CARBONITE MOSAIC
DYNAMIC VIDEO IMAGE PROCESSOR

Built on the Carbonite Black foundation, Carbonite Mosaic is a dynamic compositing tool that scales your live productions to massive displays. Take advantage of a fully-loaded video-image processing feature-set at one of the best price points in the industry.

This powerful system's single frame latency ensures your video content keeps up with the live action, for a smooth viewing experience. Prepare to stun your audience with live productions across a canvas size of over 20 million pixels.

LEADING SOLUTION
Carbonite Mosaic and XPression Tessera team up for high-quality upscaled video and beautiful pixel-accurate graphics on your display. Live has never looked this good.

HANDLE ANY SOURCE
A complete set of video processing resources guarantees a uniform look across your display. For ultra-high-quality imagery, Carbonite Mosaic supports 10bit HDR formats.
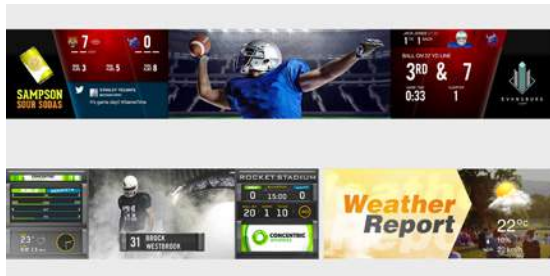
SMART CONTROL
Like all Ross products, Carbonite Mosaic is part of the DashBoard Control Ecosystem. DashBoard makes it easy to control your display layouts or even your entire venue, from a single interface.

MULTI-SCREEN POWER

CARBONITE
MOSAIC

10 CANVAS OUTPUTS

Each independent tile output has up to 5 layers each (1 background and 4 key layers) along with programmable recall and dynamic animated effects. By weaving the tile outputs into a canvas, you can put together a massive single screen or feed multiple large displays across your venue.

STILL & ANIMATED MEDIA

Any of Carbonite Mosaic's 36 inputs can be loaded with a still image. This is great for simple branding or as a backup source for your screens. Alternatively, any of the 18 scaler engines that are not in use, can be converted to MediaStores for still or animated playback with key+fill.

VIDEO PROCESSING & HDR

Every one of the 36 inputs have dedicated proc amps, color correctors and format converters.

On 12 of the 25 outputs, video proc amps, color correctors and format converters are available.

MC1
MASTER CONTROL

MC1 is a cost-effective, modular Master Control Switcher and Branding solution. The MC1 system scales from stand-alone branding to multi-channel master control installations adapting easily to manual or automated control.

As part of an integrated solution, MC1 delivers the complete functionality of a Master Control system, offering Multiviewers, frame synchronizers and advanced audio connectivity.

MIX, KEY, BRAND
At its core, MC1 is a powerful AV mixer, offering 4 keyers, logo playout, transitions with full preview. You get the tools you need to build your on-air brand.

FLEXIBILITY CONTROL
Manage multiple Master Controls with ease from an intuitive DashBoard touchscreen or tactile hardware control panel. Run in manual or automated or semi-automated, supporting most popular automation systems.

ROBUST
It features hardware bypass to keep your channel on air in any situation. MC1 can also be used as great backup to Channel-in-a-box and IP playout systems.

COST-EFFECTIVE
MASTER CONTROL
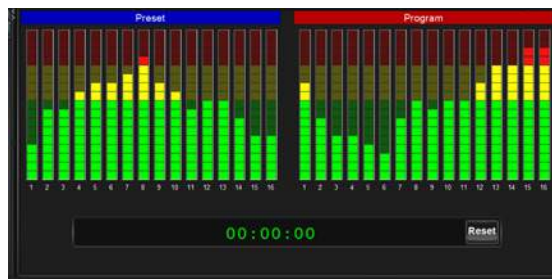
AUDIO CONTROL

MC1 features flexible audio shuffling, ensuring all your audio channels are in order, with adjustable gain and downmix. Each source can be independently configured with multiple presets to handle changing feeds with ease.

AUDIO MIXING

An integrated multi-channel audio mixer allows simultaneous mixing of up to 16 audio channels, complete with programmable transition types and rates.

At the push of a button, a program audio can be ducked (to a user-selected level) and VO inserted, with fully programmable audio gain level.

SQUEEZEBACK

Perform smooth on-air Squeezeback transitions to reveal another video source or graphic with ease. Squeezebacks can be integrated into standard transitions, either with or without keys. Squeezeback size, position and aspect can be stored as preset for clean, repeatable squeezes every time!

OPENGEAR OGX
MODULAR PLATFORM

openGear® is the industry standard platform of choice for modular signal processing. As the world's first modular infrastructure platform open to other manufacturers, openGear provides solutions derived from hundreds of individual cards from dozens of companies. This cooperative effort gives users best of breed product and budget options, all while ensuring common control and monitoring within the DashBoard ecosystem.

We decided that we should create an industry standard for terminal equipment. This fit perfectly with our code of ethics "#1: We will always act in our customers' best interest"

CONTROL
DashBoard provides one unified control system across openGear products from all manufacturers. This allows for easy setup, monitoring, alarms and management. With the included CustomPanel Panel Builder, it is easy to create custom workflows across multiple products to suit your exact needs.

OPEN
The Emmy®-award winning openGear platform, designed by Ross has been adopted by dozens of manufacturers offering hundreds of signal processing solutions. This provides you with the freedom to choose best in breed solutions to meet your needs and budget.

RELIABLE
oGx is the 4th generation openGear modular infrastructure platform built for 24/7 operation. Featuring redundant power and cooling, service is a snap with zero downtime. Front-loading modules and passive backplane ensure ease of maintenance and maximum reliability.

THE INDUSTRY STANDARD OF CHOICE

SDI, IP OR HYBRID

The oGx platform has been designed to meet the demands of today's complex IP and hybrid infrastructures. With lots of power and cooling, and careful consideration to shielding, the most complex processing can be achieved, supporting evolving IP and UHD applications.

DATASAFE

DataSafe dramatically reduces downtime when failed modules are swapped out. All module parameters are stored on the local frame network card and automatically restored when a hot-swap is performed.

SNMP

SNMP

SNMP is loaded direct to the frame eliminating the need for any external gateways and runs on a separate software port allowing for simultaneous control from both DashBoard and SNMP clients.

OPENGEAR
MODULAR INFRASTRUCTURE

Ross openGear is a wide range of modular infrastructure products designed to manage analog, SD, HD, UHD and IP signal-types and ranging from signal conversion and processing to signal distribution and keying with solutions for all your audio, video, and metadata needs.
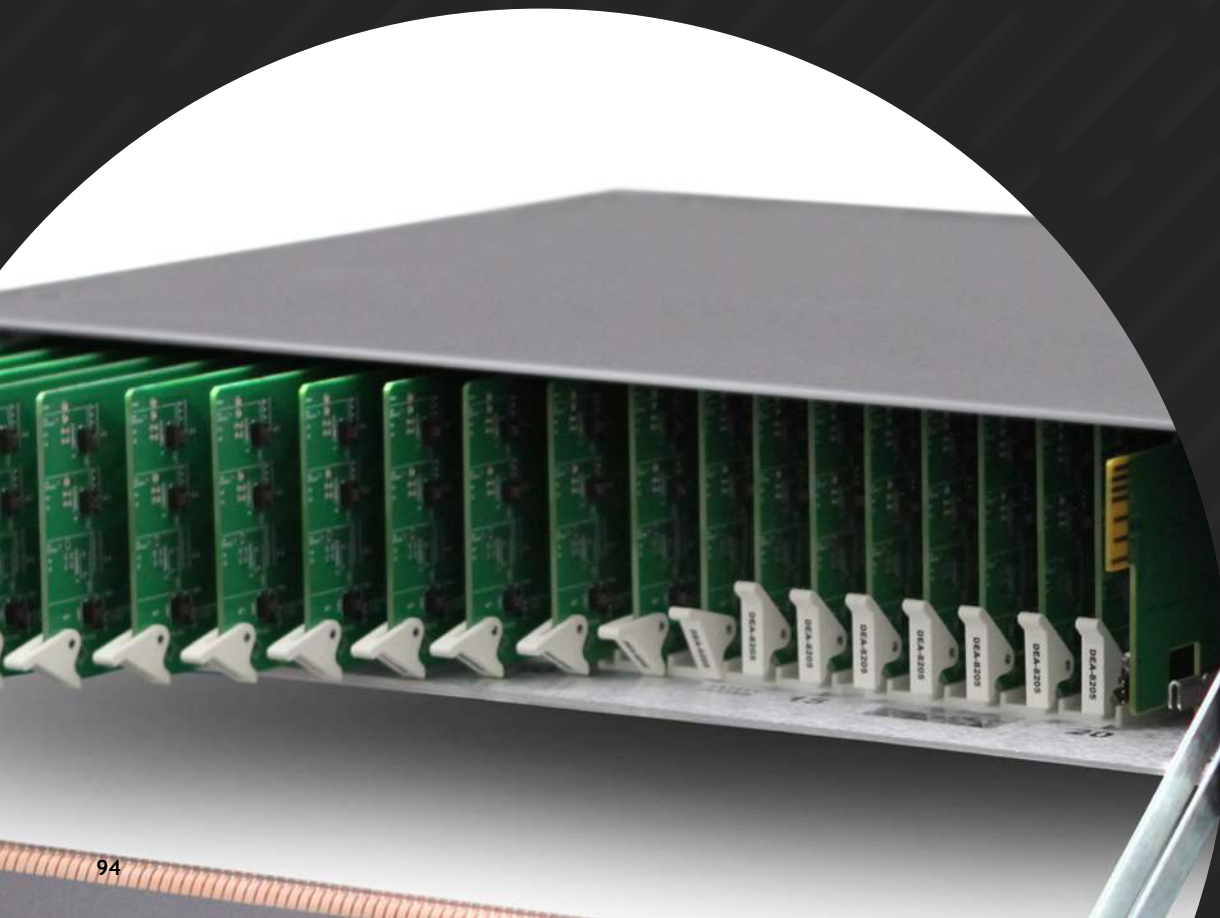
Built on a 30 year history of technical excellence, Ross leads the industry, in mission-critical and cost-effective solutions designed for existing and evolving standards.

SOLUTIONS
Ross openGear offers a variety of solutions for Distribution, Conversion, Keying & Branding, Processing & Monitoring, Fiber, IP Solutions, Timing & Sync, Audio Embedding and Data processing.

CONTROL
DashBoard provides unified control across all of our openGear products. This allows for easy configuration and full feature control with monitoring, alarms and management. The included PanelBuilder software makes it easy to create custom workflows across multiple products to suit your exact needs. DashBoard can also be paired with our 2RU rackmount Ultritouch, for the ultimate convenience.

SERVICEABILITY
openGear modular infrastructure is built for 24 / 7 operation. Front-loading modules with passive backplanes (no active components) and DataSafe backup ensure ease of maintenance and maximum reliability.

THE INDUSTRY STANDARD OF CHOICE

openGear

SOLUTIONS

- DISTRIBUTION
- CONVERSION
- KEYING & BRANDING
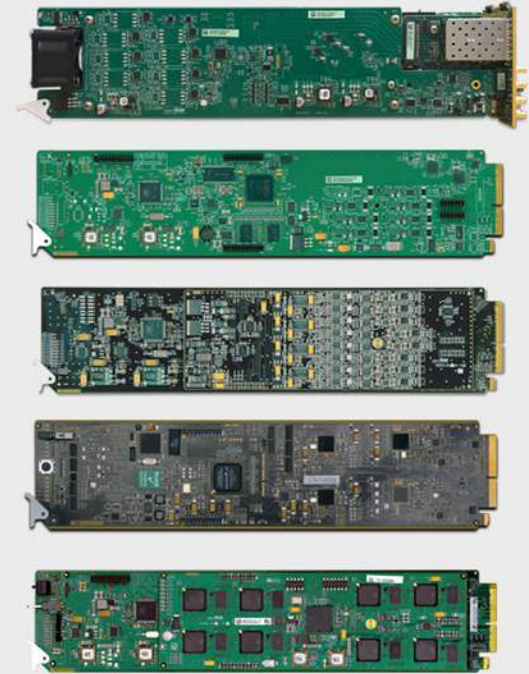- PROCESSING & MONITORING
- FIBER
- IP SOLUTIONS
- TIMING & SYNC
- AUDIO EMBEDDING
- DATA SOLUTIONS
- AUDIO WATERMARKING / AUDIENCE MEASUREMENT

SMART MODULAR DESIGN

openGear modular products offer the flexibility of independent rear modules for connectivity to a wide array of interfaces such as BNC, twisted-pair audio, and fiber, supporting analog to UHD and IP. The independent rear modules are available in different I/O configurations for select cards, including high density split rear modules allowing up to 20 independent openGear® cards in the oGx frame.

MODULAR IP PROCESSING

Raptor lifts openGear to new purposes, adapting software-defined modular processing to native IP or hybrid IP/SDI infrastructures. Raptor is fluent in many open control protocols such as NMOS, EmBER+, and DashBoard (to name but a few), thus giving you the freedom to soar through the IP environment of your choice.

MODULAR UHD PROCESSING

Gator is the ultimate in adaptation, bringing software-defined UHD media processing functions to baseband infrastructure. Gator is a platform for a new series of UHD capable signal processing products, the first of which are a multichannel frame synchronizer, and a new branding and keying product.

GEARLITE, NEWT AND IGGY POINT OF USE MODULES

A range of modules designed for point of use conversion and processing of audio and video signals, GearLite, NEWT and IGGY are system problem solvers.

It can take a lot of different pieces to make a smoothly running system. Timing, interconnect, and monitoring points are crucial to keep operations efficient and quality high. The Ross point-of-use modules are renowned for their performance and reliability.

SOLUTION FOR EVERY FORMAT
Solve system connectivity challenges with a wide range of solutions with support for common video and audio standards such as AES, AES67, MADI, SDI, 12G SDI, ST 2110 & 2022-6 IP Video and more.

FITS RIGHT IN
Easy to install with a range of mounting options including wall, rack mount and VESA. Locking signal and power connections let you deploy these modules anywhere with confidence.

HIGH QUALITY
Get quality signal processing with Ross Point of Use Modules developed to the same exacting standards as our openGear modular platform.

SMALL AND POWERFUL

IGGY

Our live audio-over-IP to MADI converter, offers the most broadly interoperable, flexible and robust AES67 & ST 2110 implementation on the market today.

NEWT

SMPTE ST 2110 & 2022-6 to/from SDI, HDMI conversion and 4K UHD support. Flexible support for the new IP video standards.

DETOUR

12G Distribution Amplifier with bypass relay. Great for 12G UHD systems and redundancy applications.

SRG-4500 AND SRG-2200 MASTER SYNC GENERATORS

Sync Generator solutions from Ross provide you with accurate, reliable system timing that is the critical heartbeat to your production facility.

Dependable timing is the heartbeat of a facility. The SRG Series provide an accurate dependable and flexible drumbeat for the rest of the facility to follow with confidence. With, flexible timing and signal generation, these master sync generators address the requirements from simple fly packs to large multi-format institutions.

CHOICE
Ross offers Master Reference generators for any application. From a small openGear card, ideal for fly-packs and remote locations, up to fully-redundant, flexible SRG-Series platforms for large multi-format facilities.

FLEXIBLE
The SRG-series Master Sync Generators support a wide range of output signals and formats from composite to UHD. These reference generators can even provide multiple video standards simultaneously. Integrated video pattern generators with idents and motion are great for remote feeds.

RELIABLE
Built to last and redundancy in mind, Ross Sync Generators will keep the heartbeat of your facility alive. All units feature redundant power and easy servicing. Automatic changeover units are available to ensure you never skip a beat.

SYNC PULSE GENERATORS

SYSTEM WIDE TIMING

Synchronize virtually anything in your facility from a wide range of video and audio outputs ensuring the distribution of reference signals from a single source.

MISSION CRITICAL

Pair a redundant system with an Automatic Changeover Switch (ACO) to provide superior performance and reliability in the most critical of environments.

MULTIPLE MODES OF OPERATION

Set up as a master sync system in freerun, lock to GPS or NTP, or even lock to another Master Generator as a system slave. Ross timing solutions can meet the needs of any system.
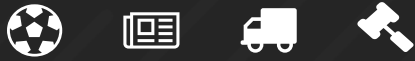
MB-651 AND MB-652
AUDIO MONITORING BRIDGES

In control room or in engineering, you need to hear your production. Ross Audio Monitors offer great value and provide you with the essential audio monitoring tools.

The MB-series are compact, integrated audio monitoring solutions for your studio gallery, engineering rack or mobile installation.

CHOICE
Offering a choice of 1RU and 2RU monitoring bridges, the MB-series fits your rack or console with ease. Choose the model with embedded SDI or discrete audio inputs to match your installation.

VERSATILE
The MB-series feature surround mix-down, channel summing, easy channel selection and loudness measurement – all the tools you need to ensure your audio is in check.

CONTROL
Front panels include large, bright displays and intuitive tactile controls to easily tailor your audio monitoring experience. Quickly choose what you want to listen to, they way you like it. Full DashBoard control and GPI interfaces round out a complete control solution.

AUDIO MONITORING

EASE OF USE

Simple, easy to read front panel allows you to quickly choose the audio channel(s) you need to monitor and outputs them in the desired format.

SELF CONTAINED

Integrated speakers with a built in amplifier, as well as a front panel mounted headphone jack means no external equipment required to monitor signals.

RELIABILITY

Redundant power supplies, as well as control, monitoring, and upgrades enabled via Dashboard means robust, reliable hardware that integrates seamlessly into your facility.

OEM DEVELOPER PROGRAM ECOSYSTEM PARTNERSHIPS

Ross OEM Developer Solutions offer a broad spectrum of market-ready platforms with proven AES67 / ST 2110 and baseband connectivity. Our openGear frames, modules, chips and software enable you to quickly tap into an award-winning ecosystem that enjoys broad adoption across our industry.

AES67 / ST 2110 and baseband connectivity are moving targets; this technology is difficult, expensive and risky to develop, and worse, these functions do not differentiate your products. Ross OEM Developer Solutions are mission-proven and offer freedom to choose the deployment option that best suits your needs.

OPEN CONTROL
Don't get handcuffed to a generic controller. Own your customer's experience and satisfy their needs better than anyone. Ross offers a variety of open control solutions, including Dashboard, to make it easy to create custom workflows and satisfy your target user.

PROVEN ROBUST PLATFORMS
Ross OEM offers a variety of mission-critical solutions with built-in redundancy and guaranteed interoperability designed to support the most demanding workflows.
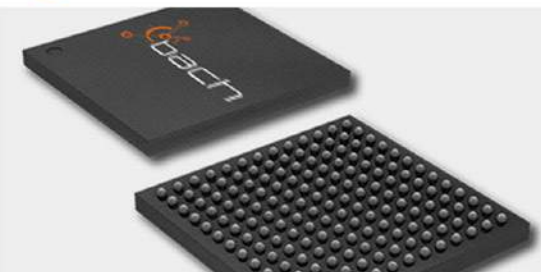
FASTER TIME TO MARKET
Market ready platforms and proven technology allow you to leverage on years of research and development, getting you to market fast with your own flexible and unique solution.

GUARANTEED INTEROPERABLE

OPENGEAR PARTNER ECOSYSTEM

Leverage the power of a broad ecosystem of over 100 partners and the widely deployed openGear frame with DashBoard open control for fast and efficient time to market.

IP AND UHD SOLUTIONS

Take advantage of the latest modular and point of use market ready solutions for AES67 / ST 2110 and UHD applications with OEM versions of NEWT, IGGY and RAPTOR.

BACH AOIP TECHNOLOGY

Quickly give your products the freedom and power to perform across markets with Ross' embedded live audio networking AES67 / ST 2110 modules, chips and software solutions.

OPENTRUCK MOBILE PRODUCTION

openTruck™ delivers huge opportunities in the regional sports and live-event market by enabling production companies to build and staff trucks that meet the demanding requirements of today's sophisticated media delivery networks.

openTruck™ delivers a standardized yet customizable way to design a new generation of cost-effective remote production vehicles that deliver the highest quality video and audio content from sports and other live events.

EXPAND COVERAGE
Coverage of local and regional sporting and other live events, including things like political rallies, music concerts and festivals, has traditionally been resource intensive. openTruck delivers huge opportunities for these applications by enabling production companies to cost-effectively build and staff mobile production implementations that meet the demanding requirements of today's sophisticated media-delivery networks.

A GROUNDBREAKING MOBILE MODEL.
openTruck's proven blueprints include open protocols, specifications and schematics. Some design models specify a number of Ross products, which must be used for an implementation to qualify as openTruck. Other products are optional and can be selected from leading technology suppliers many of which are participants in the openTruck initiative.

MAXIMIZE PHYSICAL SPACE. MINIMIZE RISK. DELIVER GREAT CONTENT.
Rather than using overly expensive technologies that lack smooth integration, this new construct emphasizes equipment and workflows that complement each other for better efficiencies at lower costs.

BEST-IN-CLASS SYSTEMS. SEAMLESS INTEGRATION

openTruck
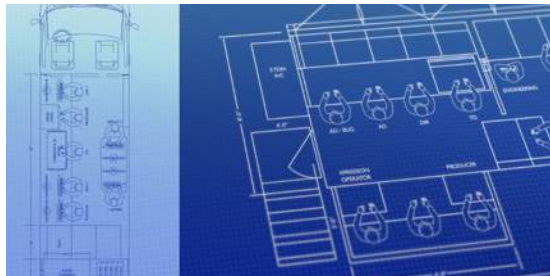
OPENTRUCK LAYOUTS

openTruck is versatile and can be deployed in everything from a flight pack to a truck body of your choosing that provides sufficient operator space and payload.

OPENCREW COMMUNITY

openCrew provides a talented pool of operators listed in the openCrew community and available for openTruck operators to hire.

Having experienced professionals that know the equipment and processes is key to ensuring the delivery of a predictable and consistent production with outstanding results.

QUALITY AND AFFORDABILITY UNITED

With openTruck™, broadcasters and other producers get reliable and ready access to less-expensive production models while maintaining the high-quality production values, sophisticated graphics packages and consistency of final product that ensure a healthy return on investment.

ROCKET SURGERY
ROSS CREATIVE SERVICES

Rocket Surgery offers unmatched design, workflow, and data integration expertise for XPression and Voyager customers in video, broadcast, and venue production. The Ross Creative Services organization has the expertise you need for a wide variety of applications, and can be your one-stop-shop for leading-edge design.

Today's graphic systems are more powerful and complex than ever, and, having unused functionality destroys competitive advantage - Rocket Surgery can help you get it back. With Ross as our parent company, we have exclusive insight, input, and influence into its advanced systems.

ROCKET SURGERY VIRTUAL PRODUCTIONS (RSVP)

As the industry leader in live event augmented reality, RSVP works with both Ross XPression, and Voyager systems and can bring virtual augmented reality to life in your production. From concept and creation, to on-air implementation and operation, we have the team to make it happen.

CUSTOM DASHBOARD

Graphics are only part of the story; playback control is what makes it all sing, and Rocket Surgery creates scalable DashBoard control systems specific to your needs. As with XPression, the Rocket has access to Ross resources, ensuring the highest-quality control system through proven API development.

UNRIVALED EXPERTISE

Rocket Surgery owns the heavy design jobs and projects others cannot fulfill, and with fast turns that cannot be beat.

UNMATCHED EXPERIENCE
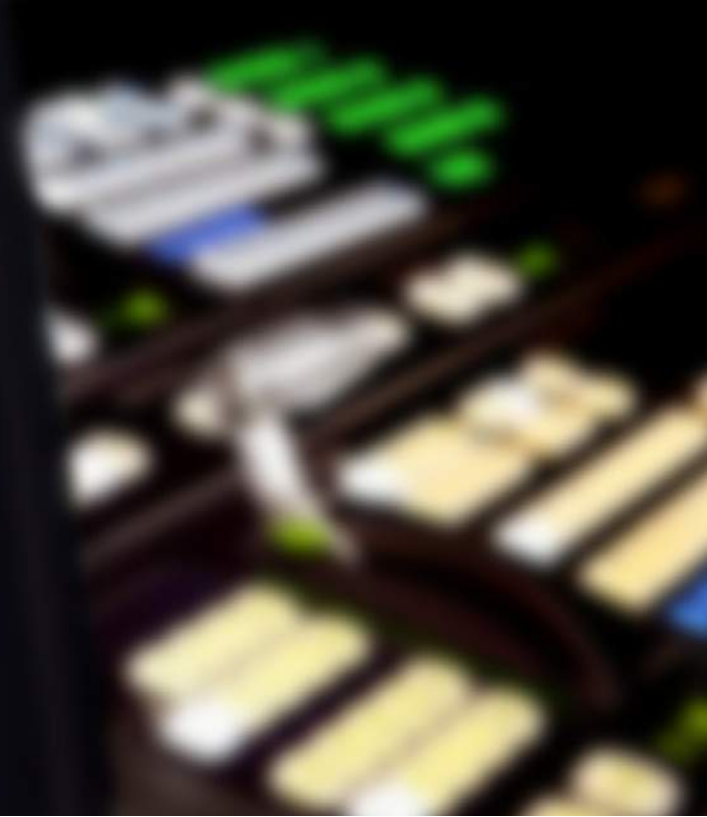
SPORTS IN-VENUE INTEGRATION & GRAPHIC DESIGN

New stadiums are going up and displays are getting bigger and more complex everywhere. Show producers are demanding more and more with every game and performance, and Rocket Surgery has become the go-to place to bring your vision to life using Ross XPression.

BROADCAST DESIGN & INTEGRATION

Using the unmatched real-time 3D power of the Ross XPression render engine, Rocket Surgery optimizes the performance power of the hardware and translates it to some of the most impactful display graphics in use in the world today.

VIRTUAL SET DESIGN & AUGMENTED REALITY

Be it Virtual Set design or Augmented Reality, Rocket Surgery can bring your vision to life in new and exciting ways using either XPression or the power of the Unreal Engine on Voyager.

ROSS MOBILE PRODUCTIONS MOBILE SOLUTION

With its new generation of cost-effective, full service, remote-production vehicles, Ross Mobile Productions (RMP) delivers consistent, high-quality video and audio content from sports and other live events, and ensures a predictable production experience and outstanding results—all the time, every time.

RMP trucks are designed around powerful best-in-class broadcast systems using the Ross openTruck design model. Highly-interoperable, these systems combine leading technology from Ross and other vendors designed to fit and work together seamlessly.

HIGH QUALITY REMOTE & STUDIO BROADCASTS
Full HD video transmission over satellite and fiber connectivity. HD quality streaming to all popular devices. Access to sophisticated graphics packages and other customization services.

MOBILE FLEXIBILITY
Modular architecture combined with custom-configurable workflows, make for efficient productions which can scale to suit any event.

PROVEN
Leverage the most experienced team in mobile production. Customers include ESPN, NBC, Fox, Red Bull, and many others. Ross Mobile Productions delivers results for demanding customers while meeting the reality of todays budgets.

THE NEXT GENERATION MOBILE PRODUCTION

ROSS *mobile productions*

TRUCK, TRAILER OR FLIGHTPACK

As the pioneer of mobile productions, RMP provides the ultimate in versatility and agility, allowing rapid deployment between events and locations, 24 hours a day 7 days a week.

STUDIO PRODUCTION

In 2015, RMP began operation of Blackdoor Studios, a complete production facility utilizing the equipment and workflow found in our mobile units, complemented by two green screen rooms paired with Ross ACIDCam.

CUSTOM ENGINEERING & CONSULTING

RMP has a unique partnership with Ross, that lets us scale up or down for each individual production. Not sure which equipment you need? RMP offers dedicated EIC's that can recommend the perfect solution.

SUPPORT & SERVICES

TECHNICAL SUPPORT

No charge for the life of your Ross product.

Ross will always take your call, answer your emails and point you in the right direction.

Ross prides itself in the quality of its products, but if problems occur, help is as close as the nearest telephone.

A 24 Hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross personnel. During business hours (Eastern time), technical support personnel are available by telephone any time. After hours and on weekends, a direct emergency technical support phone line is available. If the technical support personnel who is on call does not answer this line immediately, a voice message can be left and your call will be returned shortly.

www.rossvideo.com/support

WEB RESOURCES

The Ross website offers tips and techniques. Some products have forums that you can join to network and share experiences with other users and Ross staff. The "Ask the Product Manager" feature in each product area on the website permits you to directly connect with Ross Product Management staff to ask a technical question or suggest a new feature or product.

USER MANUALS

Manuals are continually updated. Each Ross product is provided with a comprehensive user guide that covers operation, installation and maintenance of your Ross product. These are updated and available simultaneously with new software releases. These are available for download from the Ross web or FTP site at no additional charge.

ROSSCARE+ WARRANTY

Ross products are covered with a full one year transferable warranty which includes advance replacement service. Ross has a network of strategically located, global logistics hubs to provide prompt local
delivery of necessary replacement parts. This quick ship service is available to all customers during their warranty period.

ROSSCARE+ EXTENDED WARRANTY

RossCare+ Extended Warranty for a fixed annual fee extends the warranty period on your Ross hardware, providing total protection against unexpected repair fees. The program also includes our
Advanced Exchange Program, to get you back online as quickly as possible.

ROSSCARE+ SOFTWARE MAINTENANCE

RossCare+ Software Maintenance is available for "software centric" products and keeps you current by offering access to ongoing software updates. Ross invests 25% of our annual revenue into research and development. A current Software Maintenance program means you can take advantage of the most current feature set of your product.

RossCare+

ONSITE COMMISSIONING

Get the advantage of Ross technical experts to assist you in shaking down your Ross equipment, configuring it and helping you get it up and running. This team has been there/ done that and will save your staff valuable time in bringing your new system online.

ONSITE OPERATIONAL TRAINING

Ross trainers don't just know the product, they understand the tele-production environment. They can assist you in getting the most out of your new Ross product in a way that is relevant to your production.

ONSITE TECHNICAL TRAINING

Ross technical staff are available to travel to your site to lead your technical staff through the key aspects of configuring, maintaining and troubleshooting your Ross equipment. Technical courses can be tailored to meet the specific needs of your organization.

ROSS VIDEO
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Augmented Reality & Virtual Sets
Sport & Live Events
Legislative
Mobile Production
House of Worship
Education
Corporate

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Replay & Production Servers
Robotic & Camera Systems
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Routing Infrastructure
Signal Processing Infrastructure
News, Live & Social Production Management
Media Asset Management

SERVICES
Creative Services
Mobile Production

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