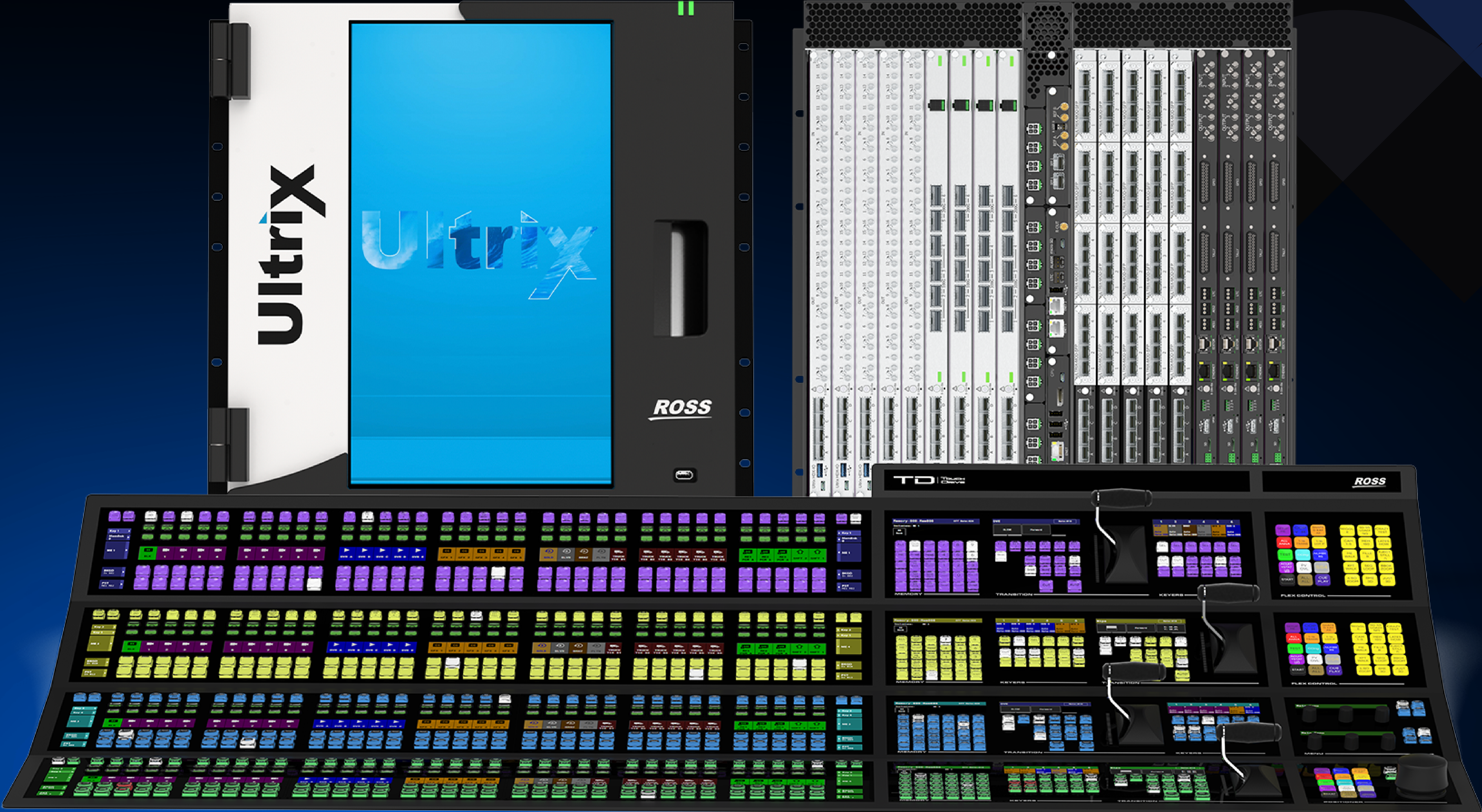


CARBONITE HyperMax



Maximum Flexibility. Maximum Control.

Maximize flexibility and performance with Carbonite HyperMax. Configure your tools to suit every production, integrating all of Ross Video's industry-leading production technology into a single, powerful hyperconverged platform.

Adapt to your needs

With robust hardware and dynamic software licensing, Carbonite HyperMax provides you with a comprehensive suite of production tools that can scale up, down, combine or divide resources easily so you're ready to meet today's demands and seize tomorrow's opportunities.

Ready for Every Environment

Outside Broadcasting

Maximize your production capabilities without compromising on space, power, or performance. Carbonite HyperMax's flexibility and dramatically smaller size, weight, and power consumption make it perfect for live events and sports producers with ever-changing production requirements.

Studio Production

Stay ahead of your production with a solution that evolves with your needs. Carbonite HyperMax empowers your studios with dynamic licensing and easy configuration changes, allowing you to quickly expand or modify functionality to meet the demands of local, regional, or global events - without additional hardware investment.

Hyperconverged Production to the Max

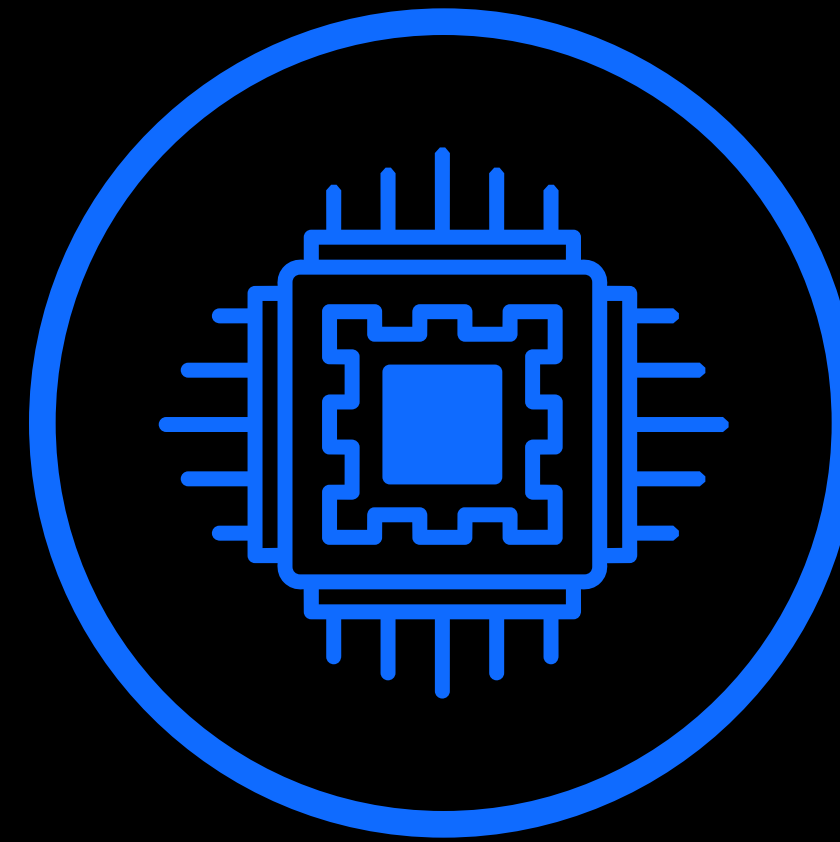
Adapt quickly

Quickly add and remove capabilities when your production requires, without additional hardware, complicated setup requirements, or costs. With dynamic licensing, you can assign and reassign features across multiple hardware platforms to maximize your resources without adding extra equipment.

Create More

Control multiple switcher engines from a single panel with Carbonite HyperMax's resource pool technology. Share resources between switchers and reuse effects and presets from different switchers to meet the needs of your current production.

Fully loaded features



Software Defined Production Engine

The SDPE blade at the heart of Carbonite HyperMax is a versatile blade that changes functionality using software for multiple production needs.



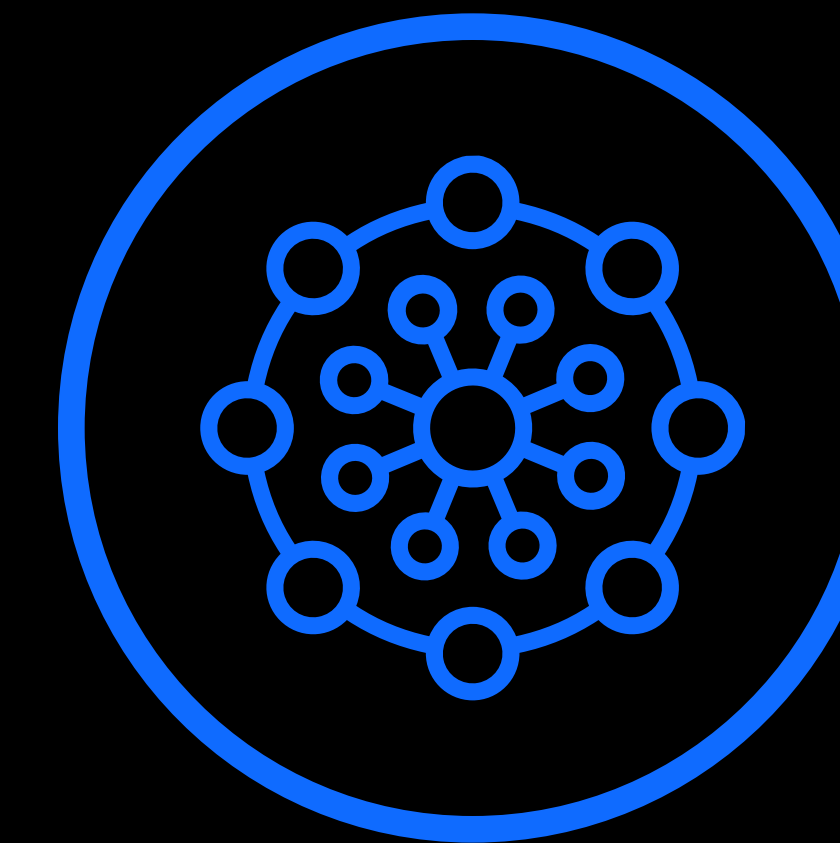
TouchDrive™ Control

Carbonite HyperMax is fully compatible with the full range of TouchDrive control surfaces, from the small TD1C to TDXL as well as DashBoard, Ross Video's powerful operational control and configuration software.



One License, Multiple Functions

A single software license activates advanced software features such as MaxME, MaxMini, MaxScene, and Ultrix Carbonite on any SDPE blade. This maximizes flexibility and efficiency while eliminating the need for multiple licenses or additional hardware.



Resource Pool Workflow

Access MEs, MiniMEs, AUX Buses, and Canvases from up to four Carbonite switchers —HyperMax, Ultrix Carbonite, Ultra, and Mosaic — from a single TouchDrive panel. Assign any resource to any panel row, redefining multi-switcher control with a single operator.



Hyperconverged Hardware

Ultrix FR5 and FR12 frames provide a compact, power-efficient home for SDPE blades. This reduces power usage, simplifies cabling, and lowers maintenance, making production more cost-effective.



Rapid Deployment Force

With Ross Platform Manager, Carbonite HyperMax easily scales to your organization's peak usage needs. Check-in / check-out licenses across different switcher engines and recall configuration snapshots to instantly reallocate HyperMax resources wherever you need.

Bringing big **switcher power** to Carbonite

More Powerful DVEs

3D DVE

Move, scale, rotate, and position video elements in true three-dimensional space. Create polished picture-in-picture layouts, dynamic transitions, fly-ins, boxes, squeezes, and layered visual treatments and make your production more engaging.

DVE Key Combiners

With HyperMax's DVE key combiners, each keyer's key and fill can be repurposed into two independent DVE video keys. In short, you gain unparalleled DVE flexibility, vastly expanding your compositional power.

- MaxME – 6 keyers per ME – 12 DVEs per ME
- MaxMini – 2 keyers per MiniME – 4 DVEs per MiniME
- MaxScene – 8 shareable key layers – up to 16 DVEs in a Scene

MultiFeed MEs

4 Programmable Outputs Per ME

Create more feeds within a single ME. Carbonite HyperMax's MultiFeed capability offers four fully programmable outputs per ME, with precise control over which keyers and transitions appear on each output—whether fully loaded or true clean feeds.

Split MEs

MultiFeed's split ME function lets you operate distinct A and B programs within the same ME, allowing a single HyperMax system with up to 8 MEs to provide a 16 ME split feed workflow. ME A and ME B are assignable to any of the four Multifeed outputs.

Intelligent Custom Controls

Custom Control Logic with User Variables

With Custom Control Logic and user variables, Carbonite HyperMax lets you build intelligent, context-aware automation. Use IF/ELSE logic to adapt to real-time conditions—like choosing MediaWipes based on the replay channel—or even link external data, such as sports data feeds, to dictate graphics or transitions on the fly.

Custom Control Attachments

Custom control attachments let you directly map custom controls to any button on your TouchDrive panel. For example, you can link a graphic recall directly to a camera cut or prepare a media wipe when selecting a replay channel.

HyperMax Resource Pool

Through HyperMax Resource Pool, a single TouchDrive panel can now access and control specific ME and MiniME resources across up to four production switchers simultaneously. Once connected, a technical director can examine the resources of any switcher from the TouchDrive panel and map it to any row. This revolutionary workflow gives production teams centralized access to local and remote resources on any Carbonite:

CARBONITE
HyperMax

CARBONITE
MOSAIC

Ultrix
CARBONITE

CARBONITE Ultra **60**

Carbonite Ultra Solo

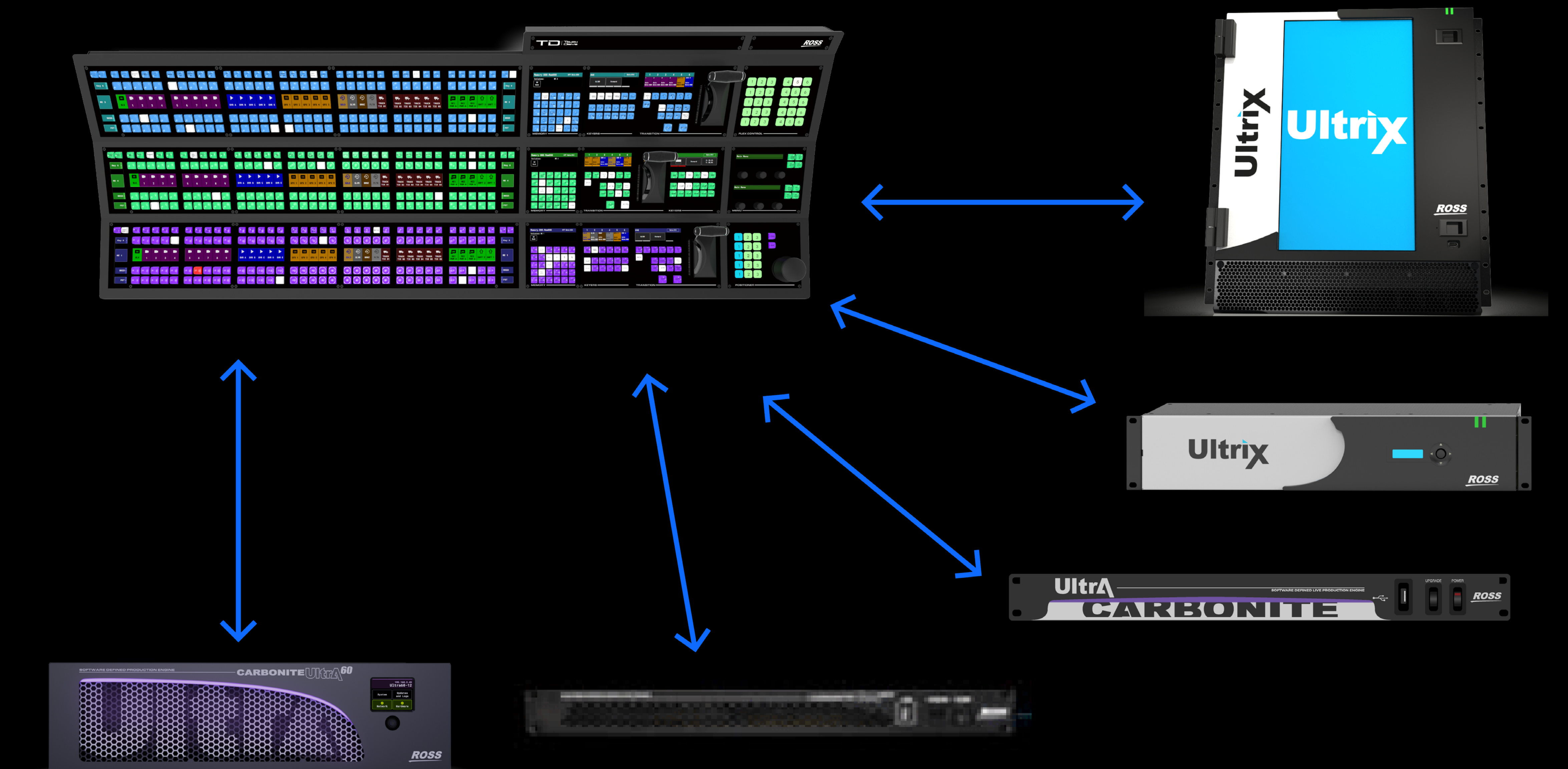
CARBONITE Ultra

Carbonite Ultra Mosaic

A more agile production model for today's hybrid workflows

Local productions can seamlessly incorporate remote studios, REMI camera trucks, event flight packs, or even virtual and cloud-based systems for disaster recovery and temporary expansion.

Whether you are scaling up for a complex live event, adding remote contribution points, or building in extra resiliency, Carbonite HyperMax gives you the freedom to pool resources, extend production capability, and deliver more ambitious shows with greater flexibility.



Ross Platform Manager Control

Centralized control for a more agile HyperMax workflow

With enhanced Ross Platform Manager integration, Carbonite HyperMax becomes easier to deploy, manage, and adapt across changing production needs.

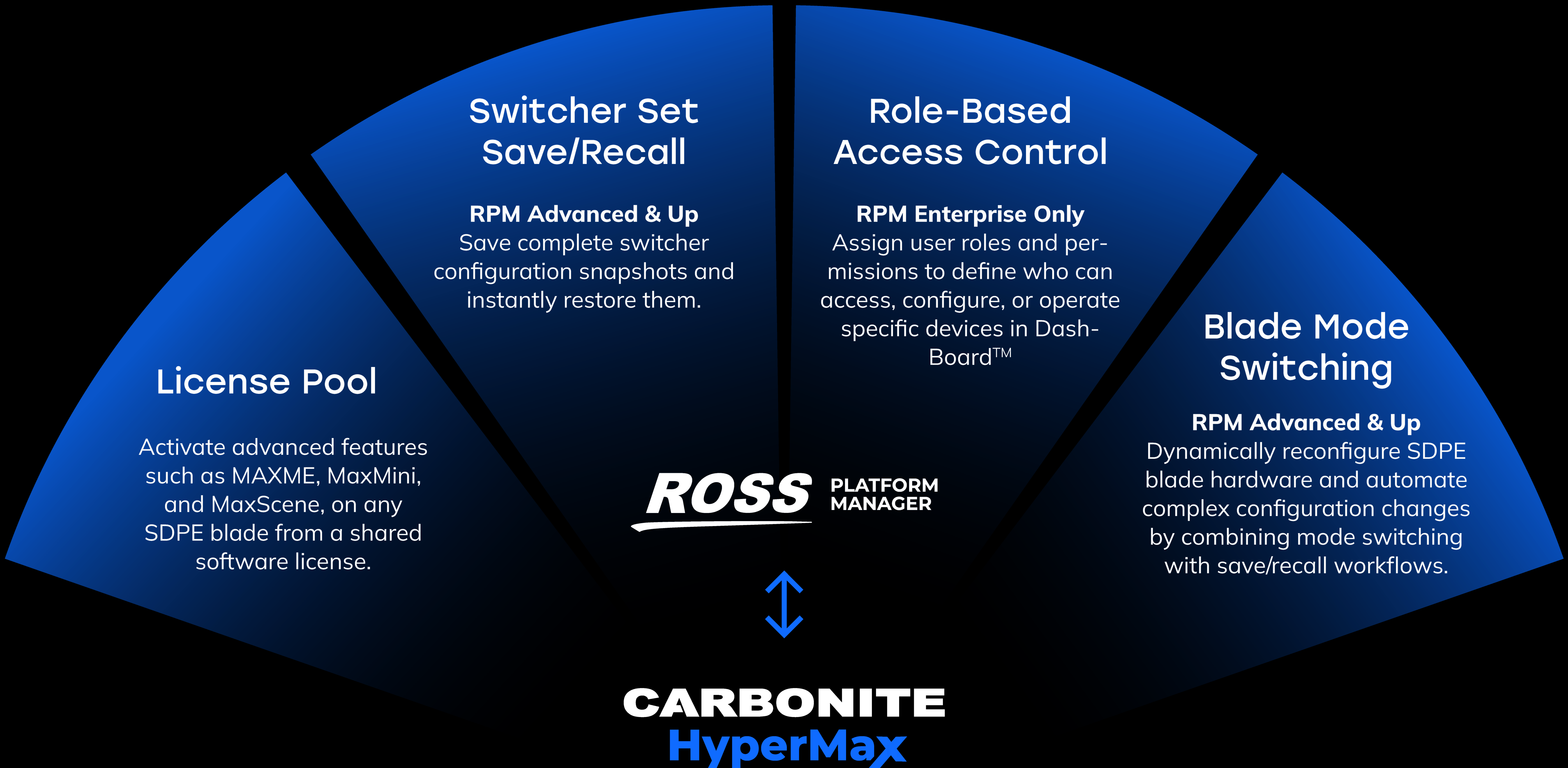
Leverage Your Software Resource More Effectively Than Ever Before

RPM helps facilities get more value from their HyperMax investment by enabling shared license pools for advanced features such as MaxME, MaxMini, and MaxScene across SDPE blades and frames. Instead of provisioning software for the grand sum of all productions, teams can activate the tools they need where they need them to cover peak usage, dynamically deploying licenses as needed.

Advanced and Enterprise Features

Switcher Snapshot Save + Recall: Operators and engineers can save complete switcher configuration snapshots and instantly recall them, making it faster to move between shows, restore proven setups, or recover complex configurations with confidence.

- **Role-Based Access:** For larger environments, RPM brings additional operational control through role-based access, allowing teams to define who can access, configure, or operate specific devices.
- **Blade Mode Switching:** Reconfigure SDPE blades between HyperMax modes or standalone Ultrix Carbonite switchers. Deploy combinations of HyperMax instances and fully self-contained switchers, across all hardware engines in your organization.



1 License, 3 different modes

Specification	MaxME	MaxiMini	MaxScene
Video processing	6x Full Keys with DVE combiners Media Wipes Configurable Clean Feeds	Each MiniME provides 2 Full Keyers with DVE Combiners. PGM, PVW and Alpha Combined Outputs	8x Layers each with DVE Combiners. Dynamically assigned across 8x Scenes.
Supported video formats		720p /50 /59.94 1080i /50 /59.94 1080pSF /23.98 /24 /25 /29.97 /30 1080p /23.98 /24 /25 /29.97 /30 /50 /59.94 /60 2160p /23.98 /24 /25 /29.97 /30 /50 /59.94 /60	
2D DVE		14 (HD) 6 (UHD)	16 (HD) 8(UHD)
3D DVE		4 (HD) 1(UHD)	
UltraChrome ChromaKey	4	3	4
MediaStore channels (with alpha)	4	4	4
Clip Player		1 (UHD upscales 1080p Clips)	
MultiViewer	1 ME Buses/Outputs and Media	1 MiniME Buses/ Outputs and Media	1 Scene Buses/Outputs and Media

SDPE Mode Configurations

# SDPE Blades	MaxME	MaxiMini	MaxScene
2	Up to 2 (Min 1 ME)	Up to 1 (3 MiniMEs)	Up to 1 (8 Scenes)
3	Up to 3 (Min 1 ME)	Up to 2 (6 MiniMEs)	Up to 2 (16 Scenes)
4	Up to 4 (Min 1 ME)	Up to 3 (9 MiniMEs)	Up to 3 (24 Scenes)
5	Up to 5 (Min 1 ME)	Up to 4 (12 MiniMEs)	Up to 4 (32 Scenes)
6	Up to 6 (Min 1 ME)	Up to 5 (15 MiniMEs)	Up to 5 (40 Scenes)
7	Up to 7 (Min 1 ME)	Up to 6 (18 MiniMEs)	Up to 6 (48 Scenes)
8	Up to 8 (Min 1 ME)	Up to 7 (21 MiniMEs)	Up to 7 (56 Scenes)

Each HyperMax instance requires a minimum of 1 SDPE operating in the MaxME Mode. This is the Primary (Program/Preset) ME and main controller of the Switcher instance.

Additional SDPE blades in a HyperMax instance can be assigned as additional MaxME, MiniME or MaxScene modes. The mode of the SDPEs will define the pool of switcher resources available.

SDPE & I/O – sliding scale

# SDPE Blades	FR-5 (9 slots)		FR-12 (16 slots)	
	Max # I/O Blades	Max # I/O	Max # I/O Blades	Max # I/O
1	8	142 x 142	15	270 x 270
2	7	124 x 124	14	252 x 252
3	6	106 x 106	13	234 x 234
4	5	88 x 88	12	216 x 216
5	4	70 x 70	11	198 x 198
6	3	52 x 52	10	180 x 180
7	2	34 x 34	9	162 x 162
8	1	16 x 16	8	144 x 144

TouchDrive Control Panels

Carbonite Code software is compatible with the full range of TouchDrive control panels.

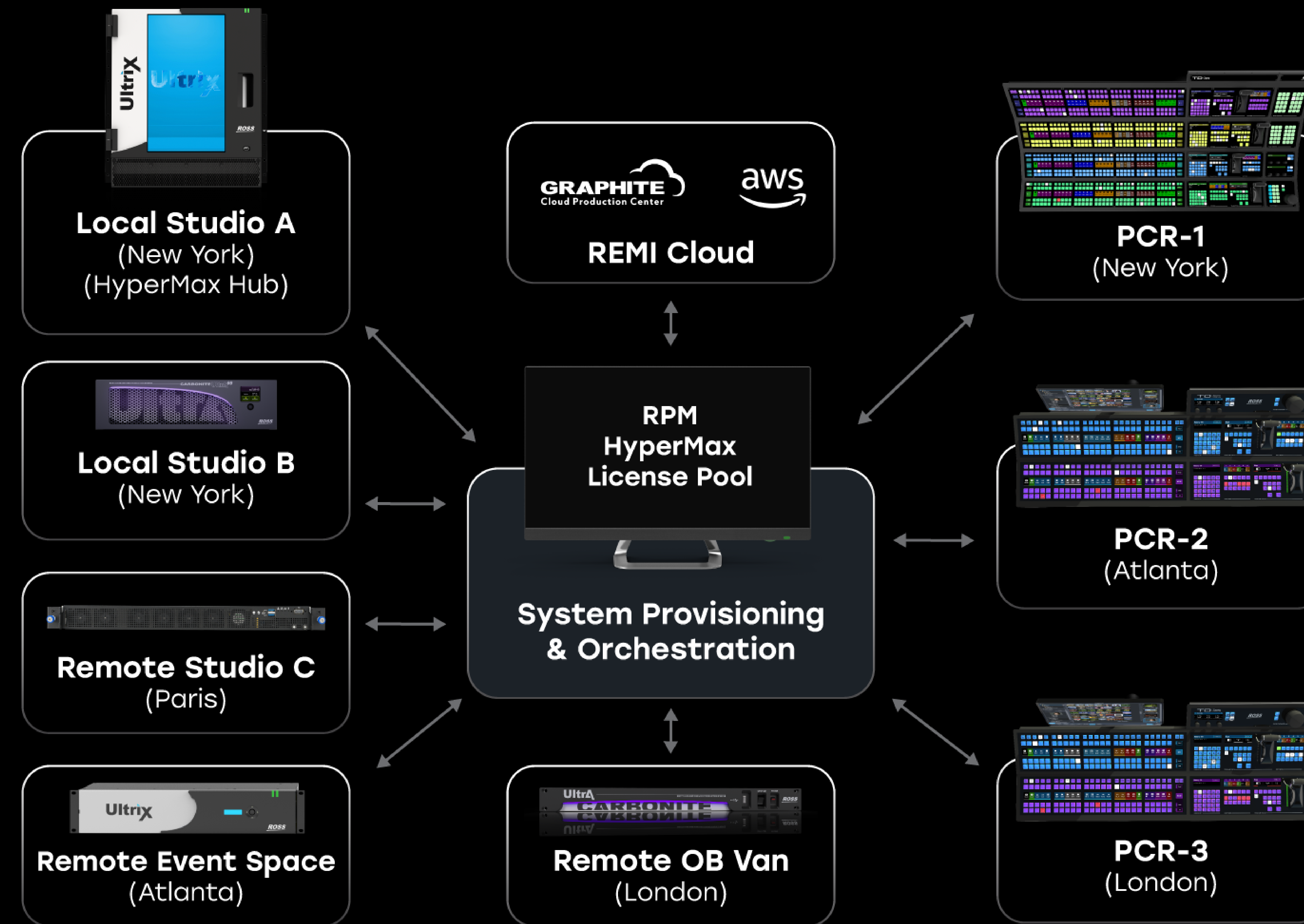
[Learn more about our panels >](#)



MaxControl

Share and Scale Easily

Maximize utilization and share resources amongst different productions, allowing each to access only the functionality that they require.



Ultrix frames



Chassis	FR5	FR12
Number of Slots	9 Slot 1-8: 16x16 + 2 AUX Ports FLEX Slot: 16x16 only	16 (16x16 + 2 AUX Ports)
Max Video Matrix (up to 12G)	160 x 160	288 x 288
Ultriscape MultiViewer Head License per Slot	Up to 3	
Clean & Quiet Switch	All Output Ports	
Input Frame Sync per Slot	3G: All Input Ports (Opt) 12G: Up to 16 assignable (Opt)	
Input Format Conversion & Frame Sync per Slot	Up to 16 assignable (Opt)	
UltraProc/UltraProc- 3DLUT per Slot	3G: Up to 8 inputs or outputs per HDX-IO or MODX-IO (Opt) 12G: Up to 4 inputs or outputs per HDX-IO or MODX-IO (Opt)	

Ultrix I/O Blades



16x16 HD-BNC

Standard Processing: Ultriclean, Ultrimix

Licensable Processing: UltriSRC, Ultrisync, Ultriformat, UltriscAPE, Ultriproc, Ultriproc-3DLUT

Aux A+B: Additional SDI I/O, HDMI I/O or 64-ch MADI I/O

Aux C: 64-ch Dante® I/O (licensable)

Aux D: Ultristream NDI® MultiViewer Output (licensable)



HD/3G/6G/12G: 16 Senders + 16 Receivers (with redundancy)

(4) 100GbE QSFP28 Ports

Supports SMPTE 2110 and 2022-7

Standard Processing: Ultrisync, Ultrimix

Licensable Processing: UltriscAPE

Aux A+B: UltriscAPE MultiViewer SDI Output (licensable)



4 Sub-Module Slots

Choice of:

NDI Sub-Module

HD-BNC Sub-Module

SFP Sub-Module

DisplayPort Out Sub-Module

Standard Processing: Ultriclean, Ultrimix

Licensable Processing: UltriSRC, Ultrisync, Ultriformat, UltriscAPE, Ultriproc, Ultriproc-3DLUT

Aux A+B: Additional SDI I/O, HDMI I/O or 64-ch MADI I/O

Aux C: 64-ch Dante® I/O (licensable)

Aux D: Ultristream NDI® MultiViewer Output (licensable)

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*All SFPs sold separately.

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Contact Us

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