

Ultracore



ROSS

Production Technology Experts



Ultracore

Full Featured Control System

Great hardware is only as good as the control system running it. Ultracore is a fully featured connectivity control system that goes beyond traditional routing configuration and control. It is designed to handle all the usual router requirements as well as harnesses the power of Ultrix, a new breed of modern connectivity platform which is much more than just routing and includes major features like audio and video processing, MultiViewing and more. Ultracore makes it quick and easy to configure a system and gives your staff an intuitive and powerful set of controls to make operations run smoothly.

The Primary Benefits of Ultracore are:

Significant Reduction in Setup Time

Simple Configuration

Enhanced User Experience



Scalable Control

Different systems require various levels of complexity and connectivity, which is why you have two options with Ultracore. All Ultrix router frames ship standard with the complete version of the Ultracore control system within the frame. The physical interfaces to the frame include redundant Ethernet ports, and a USB port that can support Serial communication with the addition of a USB to serial adaptor. System configuration and discovery, database editor, salvo editor, and customizable software panels are all included. This integrated version is great for small systems, as it does not require the use of a central controller. For larger or more sophisticated systems, the Ultracore-CC 1RU central controller is available to provide for greater client (router frames, control panels, DashBoard and 3rd party connections) integration as well as enhanced control and connectivity capabilities. The 1RU Ultracore-CC physical interfaces include (2) redundant Ethernet ports, (2) Serial ports, and (2) T-Bus ports.

Standard Interconnectivity

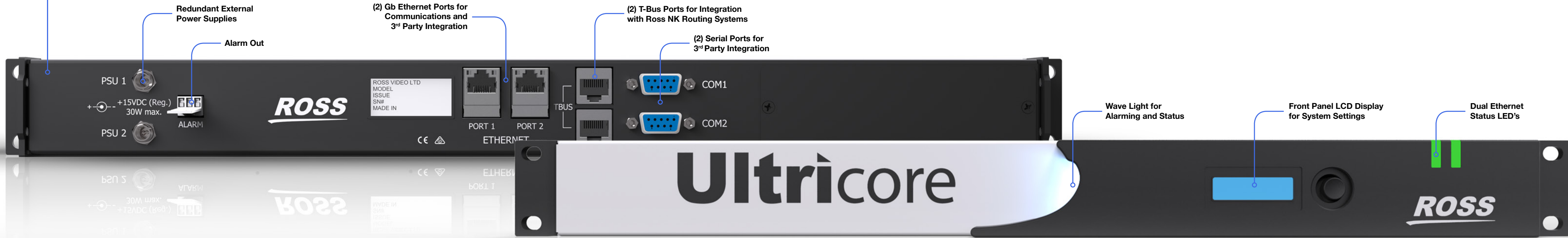
To ensure interoperability and easy interfacing to other devices within the facility, Ultrix uses industry standard protocols (GV Native, Probel SW-P-08, TSL Tallyman for MultiViewers). Ultracore can interface with existing Ross NK series routers via T-Bus links to be backward compatible. The Ultracore user interface is a Ross DashBoard application, making it familiar and consistent and delivering a smooth user experience. To state it simply, Ultracore has been designed to maximize efficiency. So dive in, and catch the power of this next generation control system.



Ultrix Frame

You Choose:
When is Ultracore-CC Required?

SPECIFICATIONS	ULTRIX STANDARD	ULTRICORE-CC
Control Panels & Ultrix Frames	Any combination up to 20 HW panels & Ultrix frames Up to 5 DashBoard clients	Any combination up to 50 HW panels & Ultrix frames Up to 10 DashBoard clients Needed for use with RCP-NK1
Control of 3 rd Party Router		Yes
Integration with NK Systems		Yes
Serial Ports	With USB to Serial adaptor	2 per frame (more Serial ports possible via additional frames)
T-Bus Connections		Yes
Form Factor	Integrated	1RU frame



Reduction in Setup Time

Ultracore is designed to provide maximum flexibility to you in designing your systems, while providing tools to make things easier.

WALKABOUT AUTO DISCOVERY TOOL >

Ultracore's superior experience begins with the Walkabout tool. Walkabout is a device discovery and configuration tool that gives you the ability to discover, apply network settings, and group Ross Video routers and associated hardware control panels into systems. This can be performed quickly without having to know current IP settings, saving valuable time.

No.	Device	ID	Name	Address	Netmask	Gateway	Reboot	Default	Locate	Link Quality
1	RCP-HE	000F98021084	RCP-HE-PRD-181	10.7.0.181	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
2	Ultrix	000F98020844	Ultrix-Phu	10.7.0.197	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
3	Ultrix	000F98020818	180-9009-200	10.7.0.200	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
4	Ultracore	000F9802091F	Ultracore-CC	10.7.0.174	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
5	Ultracore	000F98020879	Ultracore-CC-000	10.7.0.241	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
6	Ultracore	000F98020801	900-0001-180	10.7.0.180	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
7	RCP-GE	000F9802177E	RCP-GE-PRD-185	10.7.0.185	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
8	RCP-GE	000F98021773	RCP-GE-9012-179	10.7.0.179	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
9	Ultracore	000F980207EB	Ultracore-CC	10.7.0.205	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
10	Ultrix	000F98020409	Ultrix	10.7.0.203	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
11	HK-NET	000F98021E81	HK-NET-5014-188	10.7.0.188	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
12	HK-NET	000F98021E90	HK-NET-5027-194	10.7.0.194	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
13	HK-NET	000F98021E7E	HK-NET-5049-184	10.7.0.184	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
14	HK-NET	000F98021E94	HK-NET-PRD-195	10.7.0.195	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
15	HK-NET	000F98021508	HK-NET-142	10.7.0.142	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
16	HK-NET	000F980217DE	HK-NET-150-014	10.7.0.150	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%
17	HK-NET	000F98021E9D	HK-NET-5048-193	10.7.0.189	255.255.255.0	10.7.0.1	Reboot	Default	Locate	100%

SOFTWARE LICENSE MANAGEMENT >

Ultrix has a powerful series of software licenses. These licenses enable features like integrated MultiViewers, advanced audio processing and routing, video clean switching, and 12 Gb/s signal support. Ultracore makes it easy to enable and manage all of these licenses with an easy to navigate user interface.

ID	Name	Request Code	License Key	Count	Cancel	Apply
0	Ultrix	AG1X4H27M0082W4	TR88W-EK5XC-2R21Q-20R02	4	Cancel	Apply
1	UltraSpeed	HHFWCO4XEXXMCXC	08FQ-019RQ-CA7DD-48CPT	4	Cancel	Apply
2	UltraScape	YQB4RLBEBHCTYG	W512F-XNL18-618AL-3CR56	12	Cancel	Apply
3	UltraClean	WS025ZLBITR99MF	0FFQE-XW9XV-Q8HFS-QD1TX	72	Cancel	Apply

< HARDWARE PORT MAPPINGS

Ultracore provides a visual replica of the I/O of the Ultrix chassis. This makes it easy to assign attributes and licenses to ports. Create MultiViewer heads, clean switch video outputs, and more simply by clicking on the desired port and enabling the license. Additionally, attributes like linking ports together for Gearbox, setting failover behaviors for clean switch outputs, and configuring hardware partitions are all done within this elegant graphical user interface.

Name	Assigned Signals
Video	slot1.out[1].sdi.ch1
	slot1.out[2].sdi.ch1
Audio	slot1.out[3].sdi.ch1

< 3RD PARTY DEVICE INTEGRATION

Ultracore permits users to add third party routers easily. Simply add the device, protocol and port information, and matrix size.

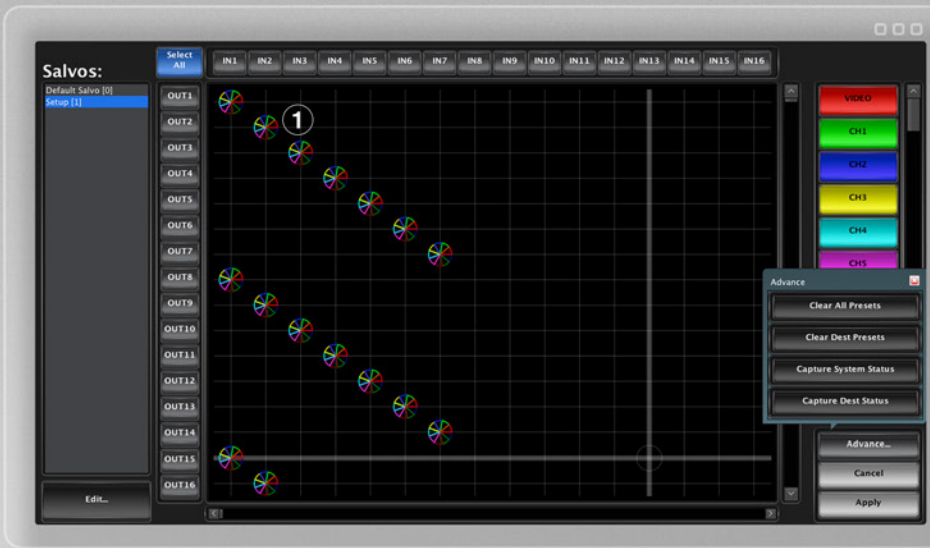
ID	Device ID	Name	Enabled	Connected	Protocol	Communication
0	NK-NET-150	NK-NET-150	Enable	Connect	Ross NK	TCP ip: 10.7.0.150 port: 5000
1	TBus0	TBus0	Enable	Connect	Ross NK	TBUS port: COM3
2	NK-NET-162	NK-NET-162	Enable	Connect	Ross NK	TCP ip: 10.7.0.162 port: 5000
3	UMD-SYSTEM	TSL_01	Enable	Disconnect	TSL_UMD.v3.1	TCP ip: 10.7.0.31 port: 5727

Simple Configuration

One of Ultracore's real strengths is how easy it makes configuring a system. The configuration tools draw on decades of experience by people that actually know routers and connectivity. You will find Ultracore visually and logically easy to understand, use and be productive with.

< MULTIVIEWER EDITOR

Create layouts with user definable labels (UMD's), audio meters, and tally support. Layouts can be recalled to any MultiViewer output within the system.



< SALVO EDITOR

Ultracore has a number of features that your operational staff will find quite useful, one of those is Salvos. A Salvo is the ability to execute a collection of crosspoint switches all at once with a single command. Ultracore's integrated salvo editor provides an easy, visual way to create salvos. This can be done from a blank configuration, from an entire system status capture, or from the current status of the router's destinations. Additionally, you can capture and create salvos from within the software control panels of Ultracore, making it simple to store and retrieve snapshots of systems.

1. View Salvo configuration based on level assignment for each crosspoint

DATABASE FILL WIZARD >

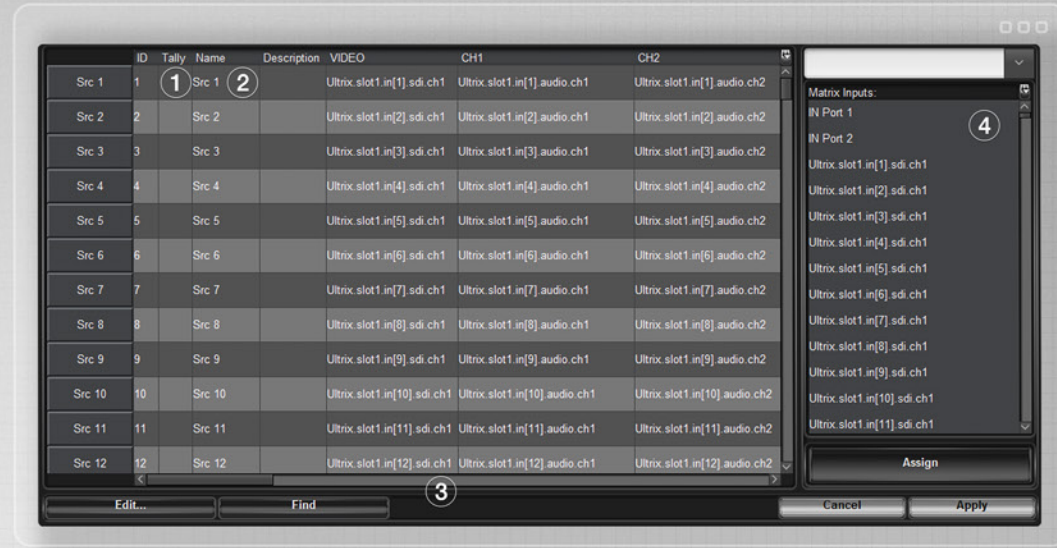
The Database Fill Wizard makes it easy to add I/O labels with minimal typing. Simply enter the name of the device (i.e. Camera), choose a starting port, set a range (i.e. 20) and hit apply. The Database Fill Wizard creates all of your entries automatically for Cameras 1 through 20. Fill a custom range, whole slot or entire frame for both inputs and outputs. Create a complete database in minutes.



DATABASE EDITOR >

One of the most powerful features of Ultracore is its database editor. The editor is a logical switching based system, which means you are able to interact with the inputs and outputs of the system by the names created in the database. Even more compelling is that you can then assign different ports and channels under a single database entry, with no real restrictions on how they are grouped together. Not only does this capability provide for a tremendous amount of flexibility, but changing a source or destination configuration is as simple as assigning new ports. There is no need to create entire new entries, which saves an enormous amount of time.

1. Tally ID Column
2. Status name for each source / destination
3. View the physical port assignment by level for each source and destination
4. Physical ports available to be used in the system



Enhanced User Experience

Ultracore provides integrated, completely customizable software panels free of charge. This gives users flexibility to create panels tailored in type and function for specific applications.

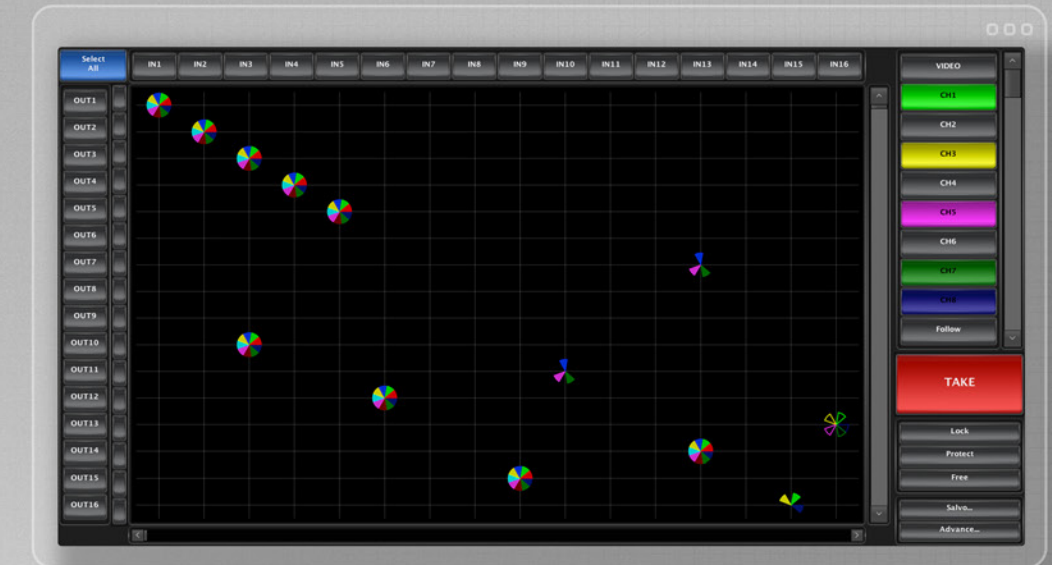
SINGLE-BUS >

A panel that controls a single, user defined output. Ideal for applications where speed, or security concerns are important.



MATRIX >

A panel designed to provide a visual representation of the status of crosspoints. Ideal for applications like breakaway audio switching, 1 to many, salvo creation and stusing.



< CATEGORY

A panel that groups sources, destinations, and levels into categories for quick access. Great for systems with large databases, or where breakaway switching is required.



< MULTI-BUS

A panel that controls multiple, user defined outputs. Provides ability to control a subset of router outputs from a single panel. Gives the ability to switch a single output at a time, or the ability to switch a source to multiple outputs simultaneously.



Unify Your Operation

Ultracore is a DashBoard application, making it part of the DashBoard ecosystem. This makes possible a range of CustomPanels tailored to your specific needs that go far beyond just connectivity control to include everything in your facility.

DashBoard is an open platform for facility control and monitoring that enables users to quickly build unique, tailored CustomPanels that make complex operations simple. DashBoard provides control and monitoring to hundreds of products from over 50 partners within the openGear and DashBoard Connect ecosystem, or any 3rd party IP-based device. Its ability to craft application specific solutions across this breadth of products is what makes DashBoard so special.

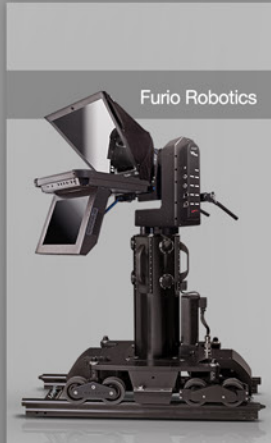
DashBoard Connects



Carbonite Production Switchers



XPression Graphics Systems



Furio Robotics



PivotCam and Acid Cameras



CamBot Robotics



MC1 Master Control



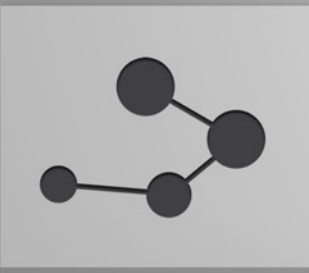
Abekas Mira Replay Servers



Acuity Production Switchers



openGear



3rd Party IP Devices



NK Routers



OverDrive Automation Systems



Ultrix Routers

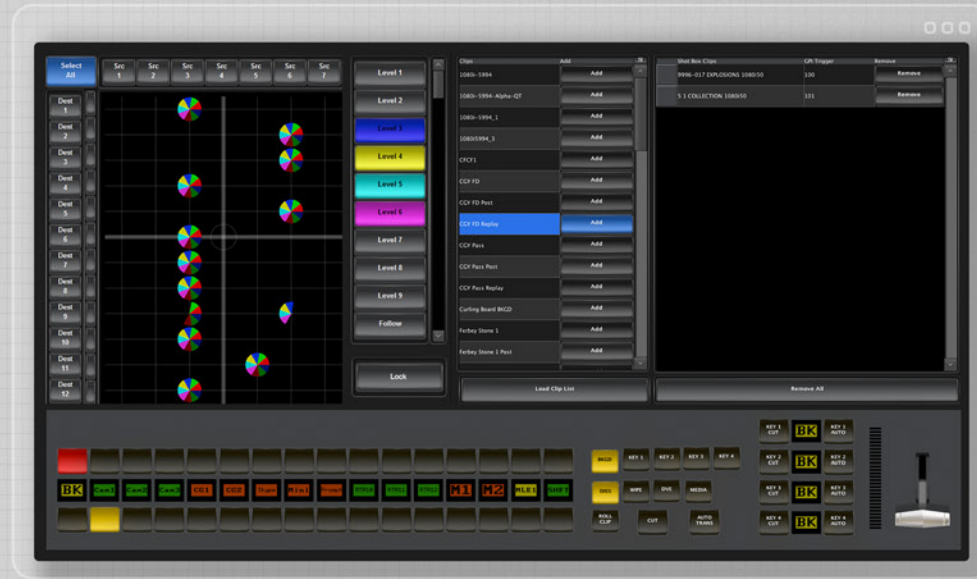


DashBoard Panels

DashBoard is a control system that can be molded to fit the needs of a variety of applications. Standard user interfaces allow quick access to control and monitor Ross equipment with minimal setup required. Additionally, DashBoard can be configured for sophisticated workflows, applications, and user groups, with fully customized graphics, alarming, control access, and reporting for the most demanding environments.

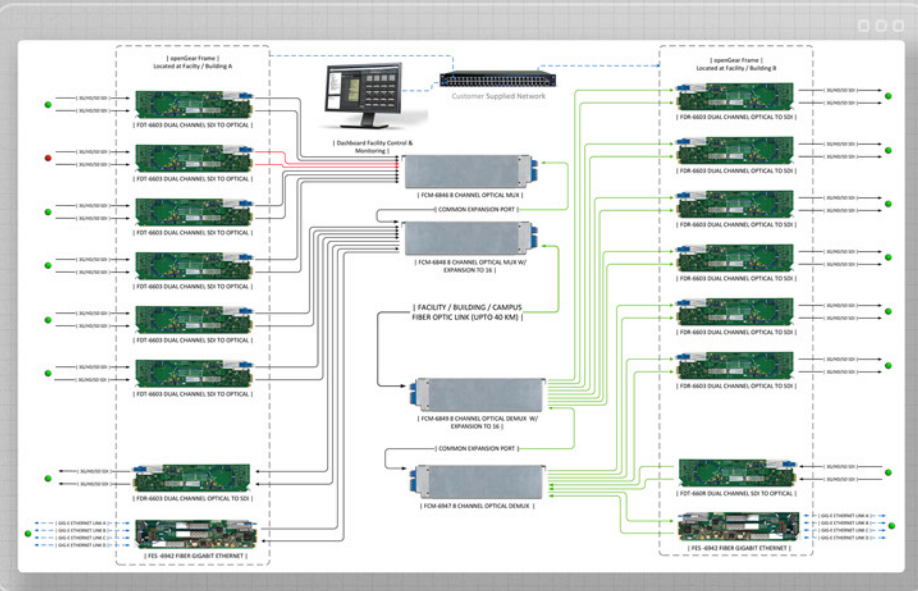
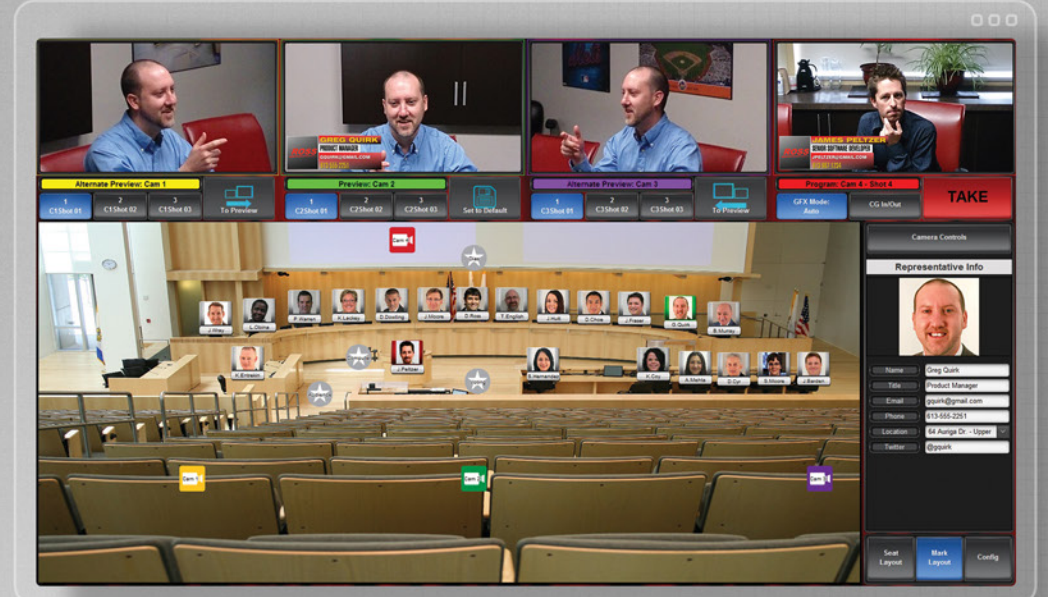
STREAMLINE PRODUCTION >

DashBoard can be used to build an easy to use, simple interface for the entire production. Switchers, graphics, routing, and infrastructure can all be controlled and monitored from a single, customized panel.



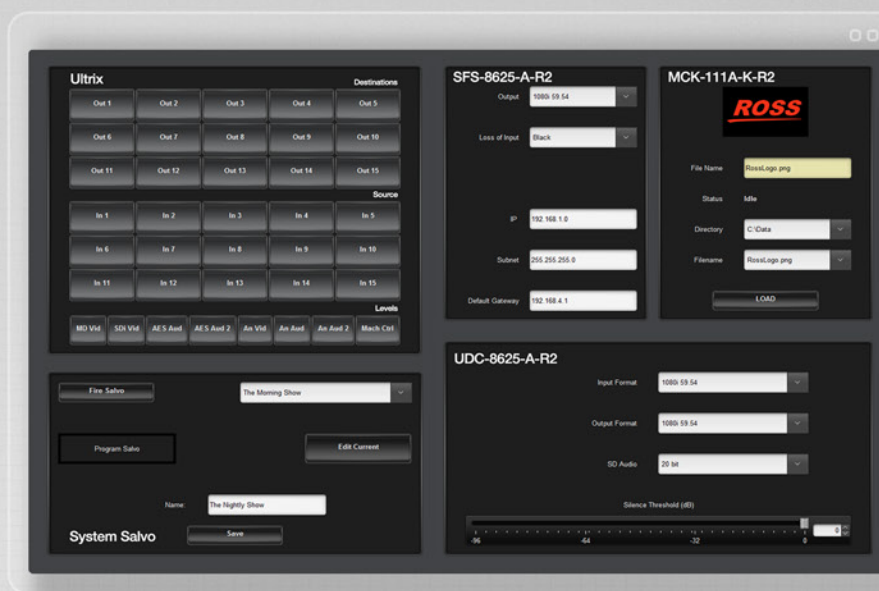
DASHBOARD SPECIALIZED APPLICATIONS >

DashBoard can be used to build specialized applications like the one on the right, the Legislative Control System (LCS). It was created to meet the needs of legislatures around the world to produce an increasing amount of video coverage. LCS makes it easy for a single operator to control all of the production equipment including graphics, video switching, and cameras via an intuitive, visual user interface.



< SYSTEM MONITORING

DashBoard provides a powerful interface to monitor your facility. By importing facility signal flow diagrams as a background, hotspots can be placed that allow for control, alarming, and monitoring of specific devices and signal chains. This provides users a single interface to make and correct problems and monitor failures.



< CUSTOM PANELS

Facility control rooms have many different pieces of equipment to configure, manage, and control. The Ross DashBoard platform is a way to manage multiple components quickly with the control interfaces served by the devices themselves. Users can create custom panels to provide access to only the desired parameters for specific users or applications. This improves workflows by creating a consolidated view of multiple devices to a single interface.



RCPME

OVERVIEW

The RCP-ME is the most popular NK Series control panel and finds a home in a wide range of applications due to its familiarity, flexibility and cost-effectiveness. The RCP-ME has all of the same button programmability as the RCP-NK1 (source, destination, breakaway, level select, macro, protect, take and panel lock), and adds salvos, direct Ethernet connection, and a backlit 16x2 LCD display for display of source and destination names, system warnings and errors.

The RCP-ME is an Ethernet based panel, which means improved ease of configuration, and a more flexible control architecture. When used in systems with Ultrix, it stays constantly in sync with the Ultracore controller, so any changes to the system database are automatically pushed to the panel, making it seamless to update.

Additionally, the RCP-ME adds the ability to create menus which enables the grouping of sources and destinations based on physical requirements (studios, edit suites, QC racks) or categories (servers, cameras, monitors). Menu navigation buttons programmed onto the RCP-ME also enable quick access between menus.

Multiple RCP-MEs can be tied together to operate as a single, larger panel. By doing this, the tied RCP-MEs can operate as a larger menu driven source / destination switching panel or a larger cut bus panel with a single button per source access. The variable backlight permits labels to be read in low light control room conditions, making this panel ideal for a wide range of environments.



FEATURES

- 40 fully illuminated LED backlit buttons
- Backlit 16x2 LCD display
- Ethernet connectivity
- Ability to connect to primary and backup IP addresses for control redundancy
- Slim design: 1RU, depth 4.4cm
- Full function, programmable control panel
- Configurable as cut-bus, multi-cut bus or menu driven source / destination switching control panel
- Control up to 32 levels
- Removable keycaps for labeling of button functions using transparent inserts
- Universal power supply included
- 5-year transferable warranty

ORDERING INFORMATION

- RCP-ME** Ethernet based Ross Routing 40 Button and LCD Display Control Panel
- NK-5V2A** Shelf Spare Power Supply for the RCP-ME



RCPQE Series

OVERVIEW

The RCP-QE Series offers unmatched flexibility and ease-of-use. They are ideal for use in OB vans or production houses where configurations change regularly, and are equally useful in studios where unlimited configurations enable fast and simple customized setups of each panel.

Ethernet based connectivity means increased ease of configuration, and provides for more flexible control architectures. The RCP-QE Series remote control panel offers 18 or 36 colored backlit graphic LCD keys with multiple menus, enabling users to easily navigate through the system with just a few key presses.

Using the category function, users can quickly navigate through hundreds of sources and destinations, making it an ideal menu driven source / destination switching panel for any size router.

As with all the other control panels, each button can be programmed to function as a source, destination, breakaway, level select, salvo, protect, take and panel lock button. Custom key labels (up to 10 characters across 2 lines) and colors are all user-definable. Source / destination names are automatically updated on the panel as changes are made and saved within the Ultracore Database Editor, making panel updates quick and seamless.



FEATURES

- 18 (RCP-QE18) or 36 (RCP-QE36) backlit graphic LCD keys
- 8 programmable function keys
- Slim design: 1RU, depth 4.4cm
- Ethernet based control
- Ability to connect to primary and backup IP addresses for control redundancy
- Full function, programmable control panel
- Menu driven and single key configurations
- Unique multi-level menu programming
- Configure with DashBoard Control System
- Universal power supply included
- 5-year transferable warranty

ORDERING INFORMATION

- RCP-QE18** Ethernet based Ross Routing 18 LCD Illuminated Button Control Panel
- RCP-QE36** Ethernet based Ross Routing 36 LCD Illuminated Button Control Panel
- NK-5V2A** Shelf Spare Power Supply for the RCP-QE Series

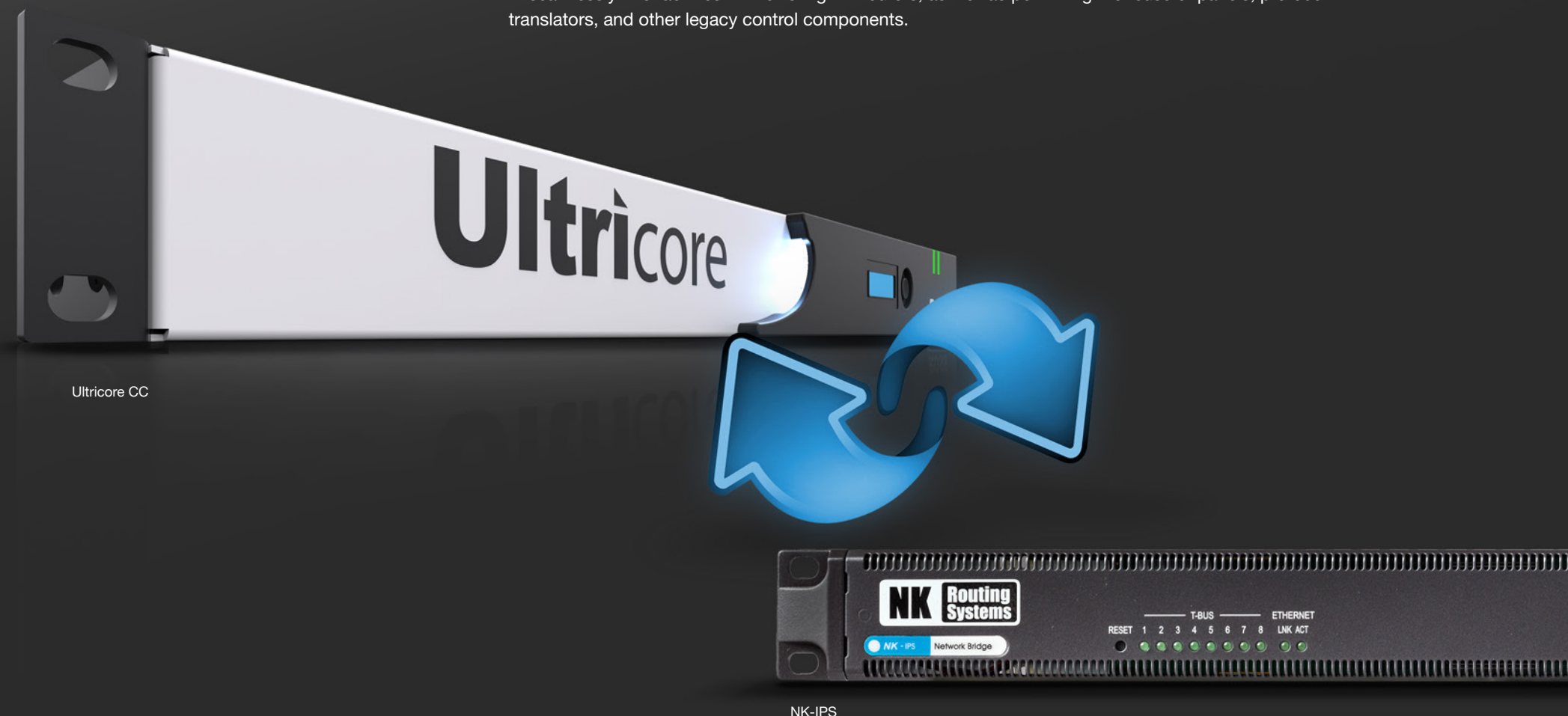


RCPME

RCPQE

A Control Solution for Ultrix and NK

During development, it was important that the needs of tomorrow's connectivity systems were squarely in focus. However, it was also a desire to be able to use the advanced features of Ultrix with all Ross Video routing solutions. As such, there is a full line of NK products that can be used within an Ultrix controlled system. These include hardware control panels, GPI boxes, and bidirectional interface translators that convert native Ross routing NK protocol over T-Bus to Ethernet. This means that Ultrix can fit seamlessly into facilities with existing NK routers, as well as permitting the reuse of panels, protocol translators, and other legacy control components.



Ultrixcore CC

NK-IPS

NK Series Remote Control Panels

RCPNK1

The RCP-NK1 is a simple and cost-effective control panel that can be used in a wide variety of applications. Ideally suited as a menu driven source / destination switching control panel for small routers or as a cut-bus or multi-cut bus control panel for any sized router, the RCP-NK1 features 40 soft, fully programmable backlit keys arranged in a 32 + 8 configuration for convenient function key layout.

FEATURES

- 40 fully illuminated LED backlit buttons
- Slim design: 1RU, depth 4.4cm
- Full function programmable control panel
- Configurable as cut-bus, multi-cut bus or menu driven source / destination switching control panel
- Control up to 8 levels, across 16 breakaways
- Removable keycaps for labeling of button functions using transparent inserts
- Can be mounted on the front of any NK-16 router, providing an integrated 1RU routing and control solution
- Phantom-powered via T-Bus (requires an NK-IPS or Ultrixcore-CC to be used with Ultrix)
- 5-year transferable warranty

RCPNKM

The RCP-NKM is the most popular NK Series control panel and finds a home in a wide range of applications due to its familiarity, flexibility and cost-effectiveness. The RCP-NKM has all of the same button programmability as the RCP-NK1 (source, destination, breakaway, level select, macro, protect, take and panel lock), and adds a backlit 16x2 LCD display for display of source and destination names, system warnings and errors.

FEATURES

- 40 fully illuminated LED backlit buttons
- Backlit 16x2 LCD display
- Slim design: 1RU, depth 4.4cm
- Full function, programmable control panel
- Configurable as cut-bus, multi-cut bus or menu driven source / destination switching control panel
- Control up to 32 levels, across 16 breakaways
- Removable keycaps for labeling of button functions using transparent inserts
- Universal power supply included
- Requires NK-NET, NK-IPS, or Ultrixcore-CC to be used with Ultrix systems
- 5-year transferable warranty



RCPNKM

RCPNK1

RCPNKQ

The RCP-NKQ offers unmatched flexibility and ease-of-use. It is ideal for use in OB trucks or production houses where configurations change regularly and is equally useful in studios where unlimited configurations enable fast and simple customized setups of each panel.

FEATURES

- 17 backlit graphic LCD keys
- Slim design: 1RU, depth 4.4cm
- Full function, programmable control panel
- Menu driven and single key configurations
- 8 backlight colors
- Unique multi-level menu programming
- Configure with web browser or DashBoard Control System
- Universal power supply included
- Requires NK-NET, NK-IPS, or Ultracore-CC to be used with Ultrix systems
- 5-year transferable warranty

NKIPS

The NK-IPS Network Bridge is the external gateway to all NK Series devices for configuration, firmware upgrades, monitoring and remote control. It can also be used as a bridge to connect legacy T-Bus enabled NK devices to Ultrix routing systems.

FEATURES

- Compact size: 1RU, depth 2.4cm
- Password protection to prevent unauthorized changes
- Front panel status and communications indicators
- 8 port hub for T-Bus connected devices
- 10/100 Ethernet port
- Supports static or DHCP assigned IP addressing
- Universal power supply included
- Optional redundant power
- 5-year transferable warranty

NKNET

In an effort to simplify NK routing solutions, and provide significant cost savings for a more cost-effective routing solution, Ross offers the NK-NET configuration dongle. This simple, unobtrusive dongle provides users the ability to configure an NK router, and up to 4 NK remote control panels via DashBoard, without the need of an NK-IPS.

Restrictions of NK-NET Applications:

- NK-NET requires the router to host the connection. Use NK-IPS to support panels directly.
- NK-NET does not support advanced mapping.
- NK-NET only allows a single DashBoard connection.
- NK-NET does not support MC-1 or Carbonite eXtreme.

FEATURES

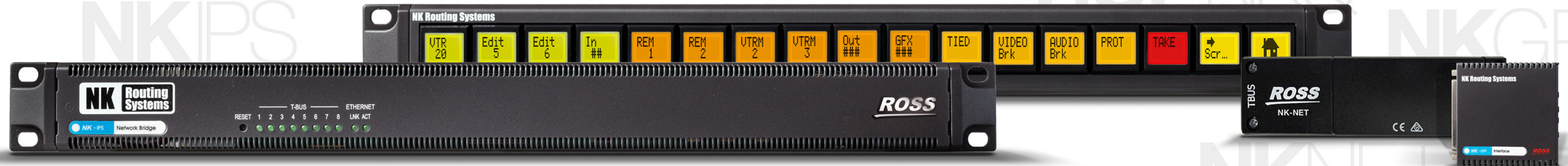
- Enables Ethernet configuration of any NK Router from DashBoard
- Ships as standard and is automatically included with every NK router (orderable separately as well for legacy installations)
- Configures both the router and up to 4 T-Bus connected NK panels
- Replaces the need for an IPS for simple, router installations – saves costs, saves space, saves complexity
- Powered by T-Bus connection, no external power supply required

NKGPI

The NK-GPI is a stand-alone, universal, general purpose interface for the Ross Video NK and Ultrix Series family of routers. Providing GPI inputs and outputs, the NK-GPI enables flexible GPI control, configured from a web browser or the DashBoard Control System, via the NK-IPS or Ultracore-CC external controllers. The NK-GPI also supports both GPI input return and latch modes.

FEATURES

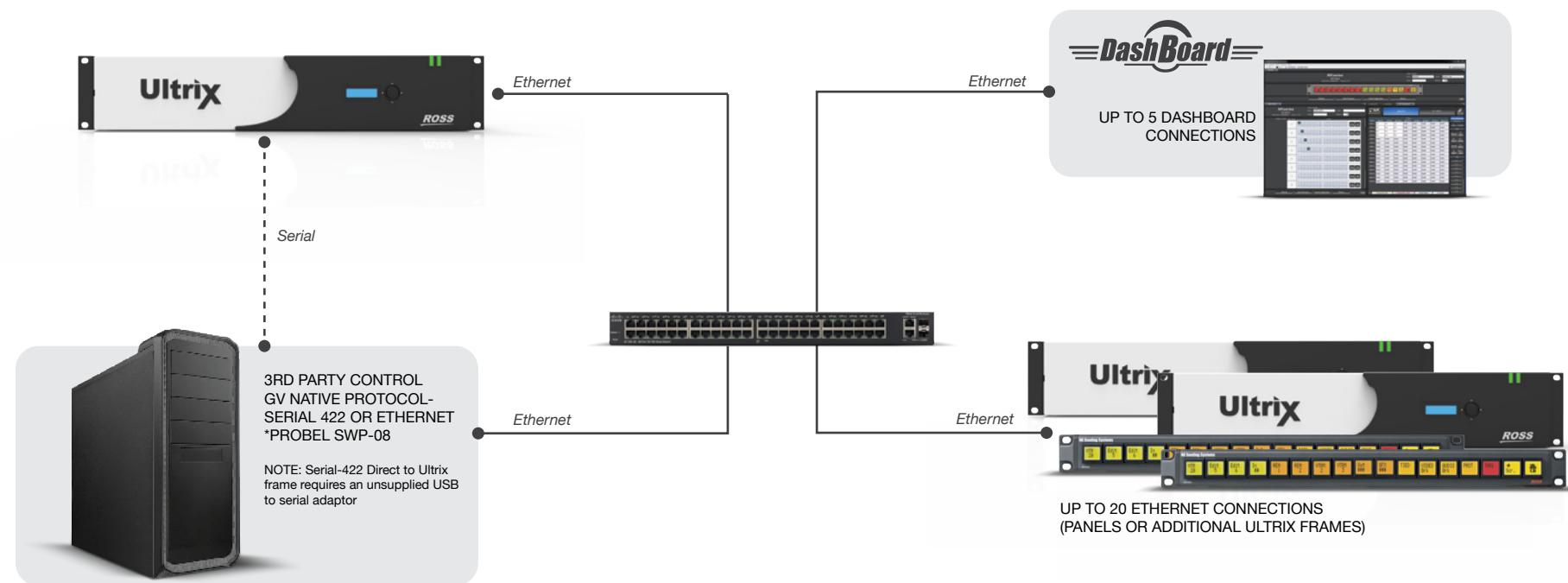
- 16 GPI inputs and outputs
- Return / latch mode
- Easy to install and operate
- Phantom-powered via the T-Bus (Requires either an NK-IPS or Ultracore-CC to be used with Ultrix routers)
- 5-year transferable warranty



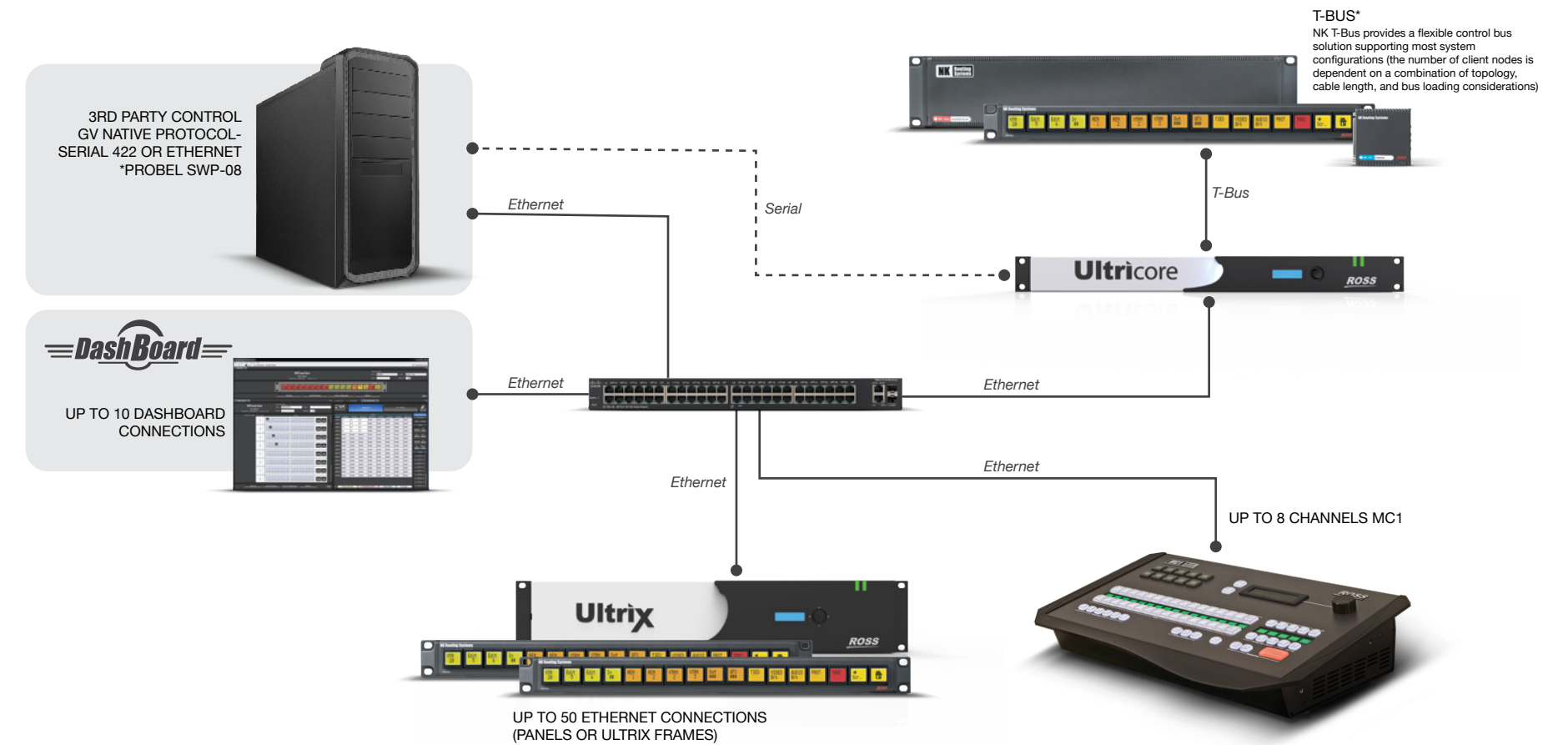
System Connection Basics

There are many ways to build the connectivity of a routing system. Included here are some of the more common system designs that are used for building Ultrix systems. These layouts are not exhaustive, but are meant to provide guidelines to follow when configuring a system. Please contact Ross Video for more information on specific system designs.

// Ultrix Connection Guide



// Ultrix Connection Guide with Ultricore-CC & Optional MC1



Ultracore

Ross Video has a complete range of technical services available to ensure that your Ultracore installation is a success.

Operational Training can be provided at Ross Video, on-site or on the web. Experienced Ross operators will teach your staff to get the most out of your new system, and enhance your productions.

Commissioning is a service to help get your routing system properly configured, connected and installed. This service is performed by factory trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

Ultracore comes standard with a 1 year comprehensive warranty. **Extended Warranties** on hardware and software maintenance are available for an annual fee.

Technical advice is available on-line, by telephone, or email to Ross Video – **Included for the life of your system.**

Contact Us

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Technical Support

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