



PRO 64[®] SERIES

AUDIO NETWORKING
& DIGITAL SNAKES

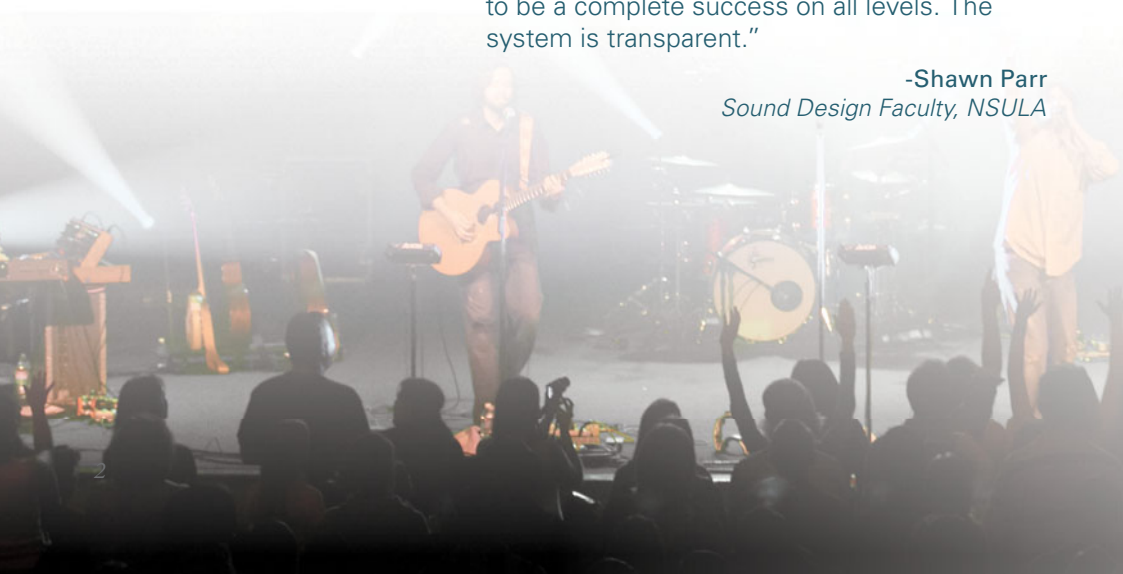
AVIOM[®]

PRO 64[®] SERIES

The Pro64[®] Series modular audio networking devices combine Aviom's plug-and-play simplicity with unsurpassed system flexibility and audio performance. With sub-millisecond latency and revolutionary clocking algorithms, the Pro64 Series provides a unique combination of simplicity and performance and makes audio networking a practical and cost-effective solution for a wide range of both portable and fixed installation applications.

"We consider the choice of Aviom's Pro64 Series and the implementation of the system to be a complete success on all levels. The system is transparent."

*-Shawn Parr
Sound Design Faculty, NSULA*



EXCEPTIONAL AUDIO FIDELITY

The Pro64 Series uses the Pro64 version of A-Net®, Aviom's groundbreaking digital audio networking technology developed specifically for the unique demands of transporting high fidelity audio simply and reliably. Pro64 A-Net protects the integrity of the audio signals and ensures consistently outstanding audio fidelity.

SIMPLIFIED CONNECTIVITY

With the Pro64 Series, system design, installation, and operation are all streamlined, even if your needs change over time.

Pro64 A-Net eliminates directional limitations on signal flow, allowing you to place inputs and outputs where you want and to connect devices in the most efficient manner, using any combination of parallel and serial topologies. Systems can be reconfigured and redesigned at any time—without complex reprogramming or rewiring.

PROVEN PERFORMANCE

Pro64 Series products provide premium build quality and exceptional durability. Pro64 audio networks and digital snakes have withstood the abuse of extreme conditions from race course to ski slope to football field, as well as the wear and tear of everyday use on tour, on set, and in performance halls, studios, schools, churches, and more.

All Aviom products are designed, manufactured, and supported in the USA.



A CLOSER LOOK AT PRO64 SYSTEM DESIGN



SIMPLIFIED AUDIO NETWORKING

Each Pro64 audio channel is routed through the network in an A-Net Slot, which reserves dedicated network bandwidth for a given channel. Without any IP addressing or signal routing, every active signal is automatically available everywhere in the network. In addition, each Pro64 I/O device includes a full crosspoint switch, so any audio channel can be placed anywhere in the network stream, removing the need for physical patching or addressing.

BIDIRECTIONAL SERIAL & PARALLEL CONNECTIONS

Pro64 systems can utilize any combination of serial and parallel wiring topologies. Pro64's Auto Mode ensures the simplest and most reliable signal distribution, without restricting signal flow or imposing directional limitations. This allows you to put devices where you need them and to connect them in the most cost-effective and efficient manner for your job or installation.

CAT-5E OR FIBER OPTIC CONNECTIVITY

Pro64 A-Net supports Cat-5e cable runs up to 400ft/120m between each device—nearly 100 feet longer than standard Ethernet-based technologies. In addition, serial runs can be extended across hundreds of devices without perceptible signal degradation.

For systems that require longer cable runs, the Pro64 Series integrates single- or multi-mode fiber optic connectivity via the MH10f Merger Hub and F6 Modular I/O Frame, allowing you to switch seamlessly between Cat-5e and fiber optic connections as needed.





“It’s a good solution for an educational environment. The system can do a lot, but it’s still easy to manage.”

-Randy Tritz
Shen Milsom & Wilke

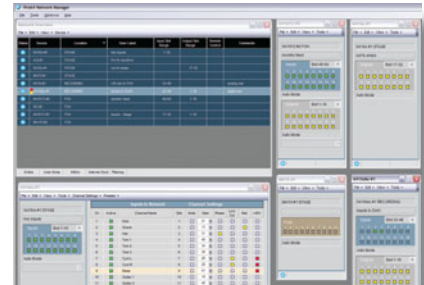


INTUITIVE HARDWARE CONTROL

All Pro64 standard rack-mounted I/O devices feature intuitive front-panel user interfaces that allow you to set up an entire network in a few simple steps, without navigating menus and without mastering complex programming rules. Pro64 mic preamps and presets can also be controlled remotely from anywhere in the network, using the handheld MCS Mic Control Surface, or directly from most Yamaha digital consoles, using Pro64’s integrated m-control™.

CENTRALIZED PC-BASED SYSTEM MANAGEMENT

In addition, the Pro64 Network Manager™ PC control application provides centralized control of any device in the Pro64 system, as well as the ability to name channels and devices, matrix audio channels to any available A-Net Slot, save and recall device presets and network scenes, and monitor system status.



INTEGRATING AVIOM PERSONAL MIXERS

With the addition of the ASI A-Net Systems Interface, Pro16® Series Personal Mixers, network devices, and output modules can be added to any Pro64 system. The ASI allows you to combine the powerful features of the Pro64 Series—remote control preamps, PC-based system management, the most advanced clocking algorithms, and matrixing—with the simplicity and control of the Pro16 Series.



PRO
16®
SERIES

PRO64 PRODUCTS

The Pro64 Series includes audio interfaces for different signal types and in different form factors, plus network devices to accommodate control points, network splits, or star wiring. All Pro64 devices are fully compatible and can be combined in nearly any combination to suit the precise needs of a given application.

ALLFRAME™

MULTI-MODULAR I/O SYSTEM

F6 Modular I/O Frame

The F6 is the host frame for the AllFrame Multi-Modular I/O System, supporting up to 24 inputs and 24 outputs.

- Six slots for audio I/O cards
- Cat-5e network ports plus SFP slots for fiber transceivers
- DC power via 4-pin XLR, Euroblock, or Cat-5e



ALLFRAME MOUNTING OPTIONS

RK6 Rack Kit



PLT6-f, PLT6-s Mounting Plates



SK6 Stage Kit



"The technology has held up flawlessly. It's easy.
And the most important attribute: it sounds great!"

-Nathan Powell
PTC Group, Inc.

ALLFRAME I/O CARDS

C4m Mic/Line Input Card

- 4 premium mic preamps (XLR)
- Remote controllable via MCS, m-control for Yamaha digital consoles, or Pro64 Network Manager



C4dio AES3 Digital I/O Card

- 4 AES3 digital inputs and outputs (XLR)
- External clock via AES3 or Word Clock
- Supports 44.1/48kHz and 88.2/96kHz
- Switchable sample rate converters on inputs



C4o Analog Output Card

- 4 balanced analog outputs (XLR)
- Selectable output level (mic, +4, +18, +24, +28dBu)



ALLFRAME POWER SUPPLY

POA80 Power Supply

- Allows power for the F6 to be sent over the Cat-5e cable
- Standard IEC power connection



SAVE TIME AND MONEY IN DESIGN AND INSTALLATION

The AllFrame Multi-Modular I/O System brings added flexibility to system design and operation. The system is comprised of a network host frame, audio I/O cards, and mounting accessories that allow the completed device to be installed on or in a wall, in a standard 19" rack, or used as a stage box.

By allowing signals to be digitized at the initial connection point, AllFrame reduces installation cost and complexity while also delivering enhanced performance and flexibility.

ALLFRAME™
Multi-Modular I/O System



PRO64 PRODUCTS

ANALOG I/O

6416i Input Module

The 6416i provides 16 balanced line-level analog inputs. Each channel includes a four-position gain switch and three-segment level metering.

- 16 balanced line-level analog inputs (XLR)
- DB25 alternate inputs/analog thrus
- Virtual Data Cable I/O for GPIO, MIDI, and RS-232



6416m Mic Input Module

The 6416m features 16 high quality remote-controllable mic preamps with 56dB of gain control in 1dB steps, +48V phantom power, low cut filter, phase invert, mute, and 24dB pad.

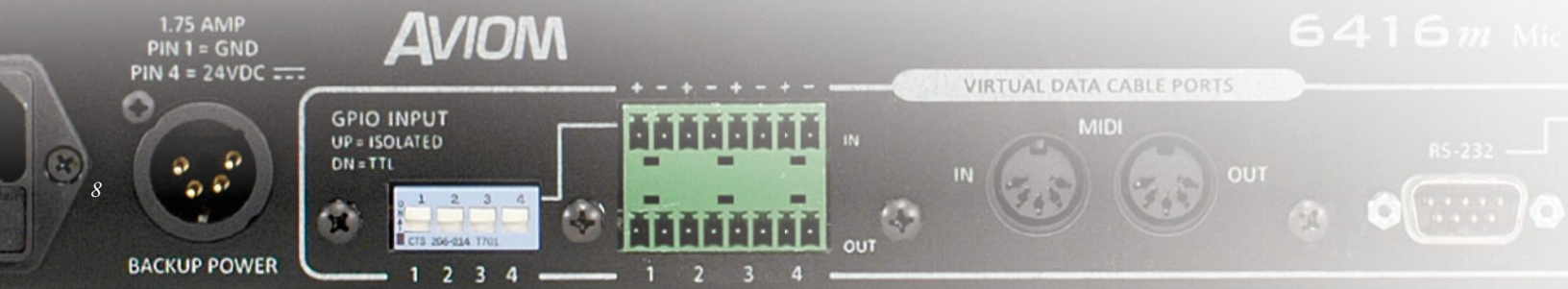
- 16 mic-level inputs (XLR)
- DB25 alternate inputs/passive splits
- 16 customizable presets
- Virtual Data Cable I/O for GPIO, MIDI, and RS-232
- Remote controllable via MCS, m-control for Yamaha digital consoles, or Pro64 Network Manager



6416o v.2 Output Module

The 6416o v.2 provides 16 balanced analog outputs. Each channel can be independently set for one of four output levels (+24, +18, +4dBu, and mic).

- 16 balanced mic- or line-level analog outputs (XLR)
- DB25 alternate outputs
- Virtual Data Cable I/O for GPIO, MIDI, and RS-232



DIGITAL I/O & CONSOLE INTERFACE

6416dio Digital I/O Module

The 6416dio provides 16 channels of AES3 digital inputs and outputs. All 16 inputs and outputs may be used at any selected network sample rate.

- 16 AES3 digital inputs and outputs (DB25 and BNC versions available)
- External clock via AES3 or Word Clock
- Four-pin XLR connector for optional backup DC power
- Virtual Data Cable I/O for GPIO and RS-232/422



6416Y2 A-Net Interface Card

The 6416Y2 provides a 16x16 (48kHz) or 8x8 (96kHz) interface to Yamaha digital consoles and other devices.

- 16x16 or 8x8 interface
- Supports 44.1/48kHz and 88.2/96kHz
- Virtual Data Cable I/O for RS-232/422 (supports Yamaha remote control protocol)



"What makes the system really superior is its flexibility and ease of use. You can make any modifications on-site without delays."

-Charles Moses
Viper Studios

PRO64 PRODUCTS

NETWORK DEVICES

RCI Remote Control Interface

The RCI provides a secure interface between the Pro64 network and the MCS Mic Control Surface. The RCI also allows any Pro64 audio resource to be monitored via headphones and/or line-level XLR output.

- Control Groups for segmenting control among multiple users
- Headphone/line out (front-panel TRS; rear-panel XLR)
- Four-pin XLR connector for optional backup DC power



MCS Mic Control Surface

The MCS provides metering and remote control of mic preamp settings, plus 6416m presets.

MH10 & MH10f Merger Hubs

The MH10 and MH10f support bidirectional parallel network connections. The MH10f includes two SFP slots for integrating single- or multi-mode fiber optic connectivity.

- 10 bidirectional Pro64 A-Net ports
- 10 EtherCon jacks (MH10) or eight EtherCons plus two slots for SFP transceivers (MH10f)
- MH10f adds four-pin XLR for optional backup DC power



ASI A-Net Systems Interface

The ASI provides a digital link between a Pro64 network and Aviom's Pro16 Series Personal Mixers, output modules, and network devices.

- Four matrixable 16-channel Pro16 A-Net outputs
- Supports all Pro64 sample rates



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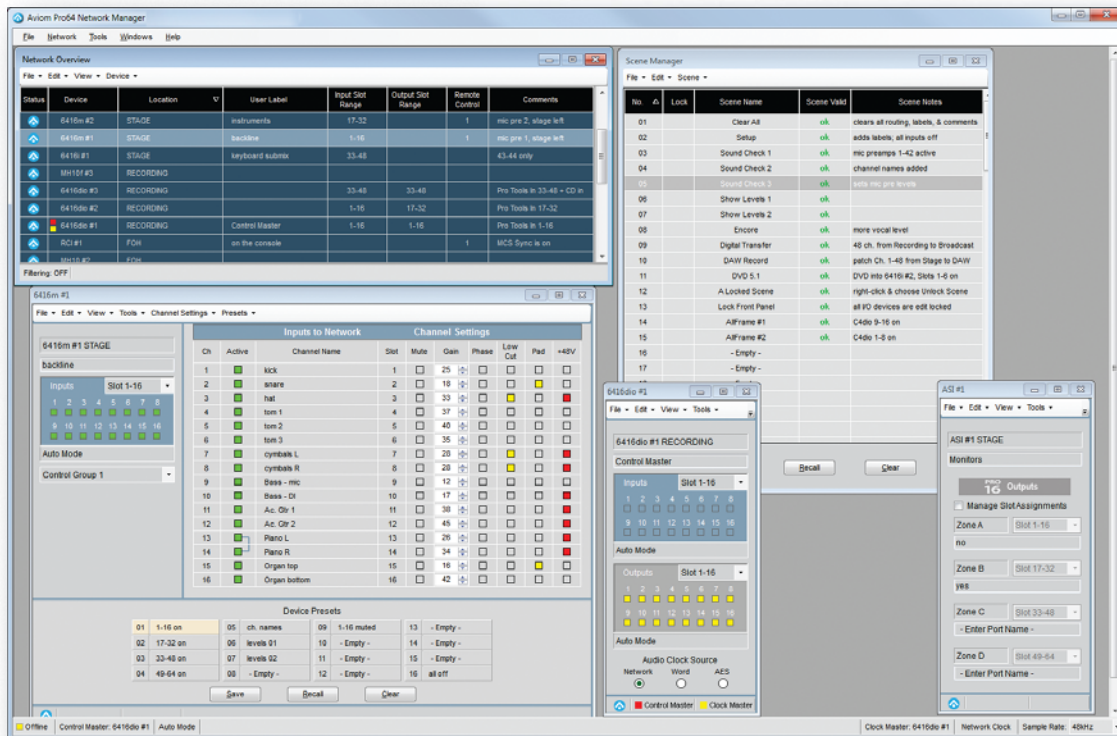
SOFTWARE



PRO64® NETWORK MANAGER™

Pro64 Network Manager's intuitive graphical interface provides a host of global and device-specific information, allowing simple management of even complex audio networks. Individual device settings can be changed without manual front panel adjustments, adding to the simplicity and flexibility of Pro64 digital snakes and audio networks.

- View all active Pro64 network devices at a glance
- Name devices and organize them by location
- Edit channel-level settings
- Assign channels to network slots via crosspoint matrix at every audio I/O device
- Activate channels on any device from a central location
- Name and track channels throughout the system
- Store, recall, and manage network scenes and device-level presets



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"The Aviom Pro64 network has proven to be a high-quality system that has been extremely well received by our clients and audio engineers."

-Joseph Signorino
NEP Supershooters, LP

FEATURED PRO64 CASE STUDIES



Lakeshore Audiovisual

Reconfigures to provide necessary I/O at any location

Integrates with Yamaha® digital consoles

Reduces gear profile at events

Nationally recognized audiovisual production company Lakeshore Audiovisual (LSAV) utilizes a Pro64 digital snake, including the AllFrame Multi-Modular I/O System to reduce their gear load, improve efficiency, and deliver consistently outstanding sound.

"The Aviom setup allows for a nice low profile while maintaining a digital signal chain, free of hum and noise," says audio engineer Nick Crofts. In addition, the modular design of the AllFrame allows LSAV to reconfigure their snake to meet the needs of each job. "Sometimes our events have moderately low input counts but high output counts. Sometimes it is the other way around," says Crofts. With AllFrame, adapting is easy.



Allen Theatre, PlayhouseSquare

Ties together stage, orchestra pit, and multiple mix positions

Supports additional portable I/O

Reduced installation time and costs

The transformation of Playhouse Square's historic Allen Theatre into a modern performance space included a Pro64 audio network integrating rack-mounted units in the control room with the AllFrame units mounted throughout the theater, as well as portable units.

System designer Raymond Kent, CTS LEED AP, of Westlake Reed

Leskosky says, "The Pro64 system allows the production team to do what they would have done with analog, but in the digital domain and with more flexibility."

The Pro64 network streamlines connectivity throughout the spaces and significantly reduced construction costs.

Trinity Lutheran Church

Allows the church to utilize volunteer operators

Provides mobile and reconfigurable I/O points

Integrates with an Aviom personal mixing system

The new sanctuary at Trinity Lutheran Church includes a new audio system that volunteers can easily configure and control and that delivers consistently excellent audio fidelity. With Cat-5e cable and RJ45 jacks throughout the facility, the tech team can connect AllFrame stage boxes and Aviom Personal Mixers wherever they need to suit a particular service or event.



Wanda Eikenbary, Director of Music Ministries, says, "I can't imagine anything better than having this flexibility. At any given time we can configure this room in the way that we choose. That flexibility is worth its weight in gold to us."



Center for the Creative Arts at Cuyahoga Community College

Provides 192 channels across three reconfigurable modular subsystems

Ties together studios, control rooms, classrooms, and performance spaces across multiple buildings

Supports multiple simultaneous events with independent control

Integrates Aviom personal mixing systems

Distributes SMPTE time code

The Center for Creative Arts at Cuyahoga Community College utilizes an Aviom Pro64 digital audio network to connect the building's five production suites, two control suites, three audio classrooms, and various common areas. In addition, the Pro64 network provides integration via fiber with facilities located on the college's other campuses.

As a teaching environment, the school required a system that was both intuitive and reliable, while also delivering world-class audio performance and the flexibility to accommodate a wide range of system configurations.

The Aviom network delivers: it can be instantly adapted into a wide range of configurations, while providing stable, intuitive connectivity with archival quality audio fidelity. The network also distributes SMPTE time code and Word Clock throughout the building and provides a seamless interface to Aviom Personal Mixers in the studios.

AVIOM DESIGN SUPPORT

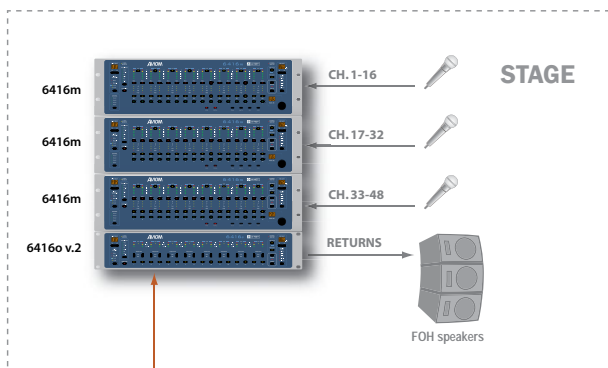


Even for professional system designers, fielding new technologies and products can be time consuming. Aviom strives to simplify the entire system design process for you, and our Design Support professionals are available to help you at any stage of your design project: from weighing options and proof of concept, to working through the details of the design, to reviewing drawings or helping to prepare master bids and equipment lists.

Learn more at www.Aviom.com/DesignSupport



PRO64 SERIES SAMPLE APPLICATIONS



Live Sound

EQUIPMENT ON STAGE

6416m Mic Input Modules for mic and line inputs.
6416o v.2 Output Module for returns to amps.

AT FRONT OF HOUSE

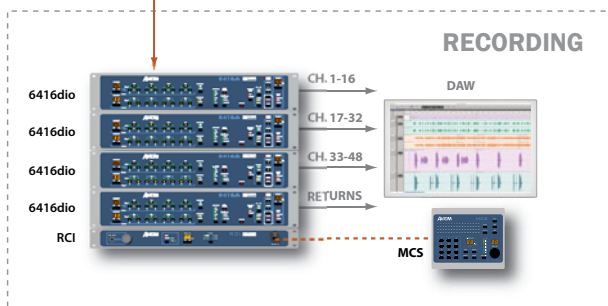
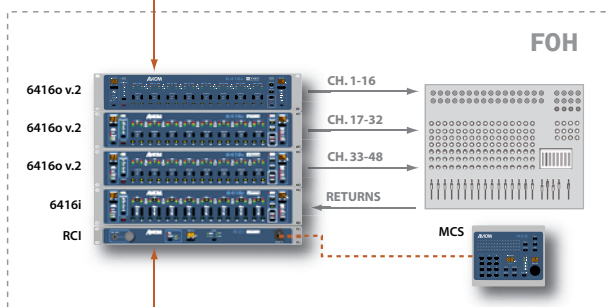
Analog audio I/O to and from console (*6416o v.2 and 6416i shown*).
RCI and MCS for mic preamp remote control (*optional*).

DIGITAL SPLIT TO RECORDING

6416dio Digital I/O Modules for connecting stage inputs and FOH returns to DAW recording interface.
RCI and MCS for mic preamp remote control (*optional*).

CONNECTING A MONITOR CONSOLE

Stage inputs may be split in the analog domain at each 6416m using the built-in Thru jacks. To split the signals digitally, run a Cat-5e cable to an I/O rack similar to the one at FOH or Recording.



Performing Arts Theater

ON STAGE

Wall-mounted F6 Modular I/O Frames with user-configured cards for inputs and outputs.

PORTABLE EQUIPMENT

F6 Modular I/O Frames, mounted in SK6 Stage Kits, connect to the network at any RJ45 jack location.

AT CONTROL ROOM MIX POSITION

Audio I/O to and from console (6416Y2 shown).

RCI and MCS for mic preamp remote control (optional; not shown).

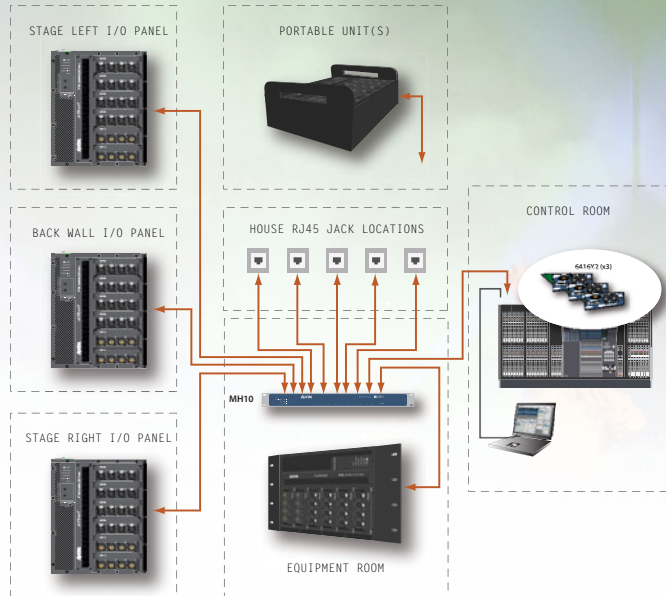
Pro64 Network Manager for network configuration.

IN EQUIPMENT ROOM

Rack-mounted F6 Modular I/O Frame for catwalk mics and returns to amps.

MH10 Merger Hub for parallel network connections.

POA80 remote power supplies for F6 Modular I/O Frames (not shown).



Event Staging & Broadcast

PORTABLE EQUIPMENT

F6 Modular I/O Frames, mounted in SK6 Stage Kits, for inputs and outputs.

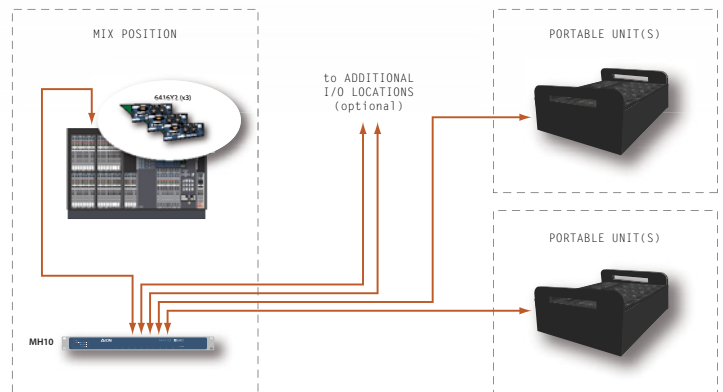
AT MIX POSITION

Audio I/O determined by console (6416Y2 shown).

RCI and MCS for mic preamp remote control (optional; not shown).

MH10 or MH10f Merger Hub for parallel network connections.

POA80 remote power supplies for F6 Modular I/O Frames (not shown).



“Aviom’s Pro64 network is an extremely powerful tool for us. Aviom has allowed us to shed our long copper runs, making setup and take-down very efficient, and the band members all commented on the great sound from the Aviom mic pres. The system was really a revelation for us.”

-Chris “Sully” Sullivan
Mix Engineer

AVIOM pioneered personal mixing with its Pro16® personal mixing system and continues to break new ground with the revolutionary Pro64® Series of audio networking products. With tens of thousands of products in the field today, Aviom has set the standard for cost-effective, scalable digital solutions.

All Aviom systems harness the power of A-Net®, Aviom's innovative high speed digital audio transport technology that simplifies system design while enhancing control and flexibility. All Aviom products are designed, tested, and manufactured in the USA.

Photos courtesy of: Darren Takegami, Charles Davis Smith, Nick Crofts, Bethel Temple, Viper Studios, Phoenix First Assembly, Mile Hi Church, Jeff Lange, Ray Legnini.

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