



Solutions for Cruise Ships

Improving On-Board Signal Transport

Stay flexible during the planning phase

All fiber links within the MediorNet Network are fully generic and can carry any type of signal. MediorNet sees the fiber links just as bandwidth available to carry anything, anywhere, anytime. As a result, in the planning phase the engineering-team just needs to plan for multi-core fiber optic cables to all main locations. The precise signal-types and formats (e.g. SD/HD-SDI, HDMI, DVI, AES, MADI, analogue audio, Ethernet) can be defined in a late planning phase and affect only the selection of the relevant I/O-cards for the MediorNet terminal equipment. By using the MediorNet approach ship-owners keep full flexibility up to a very late phase in the design process.

Save during the construction phase

Construction time is continuously under pressure, be it in a new-build project or a refitting. When installing MediorNet you essentially will have only one type of multi-core fiber optic cable to be installed for all interlocal cabling, no matter what signals you want to transport between these venues. The fiber-optic cabling is terminated on fiber-patch panels on all locations, where you simply plug-in your MediorNet terminal equipment. In addition, MediorNet's wide range of signal interfaces significantly reduces the number of external converters while it's dynamic

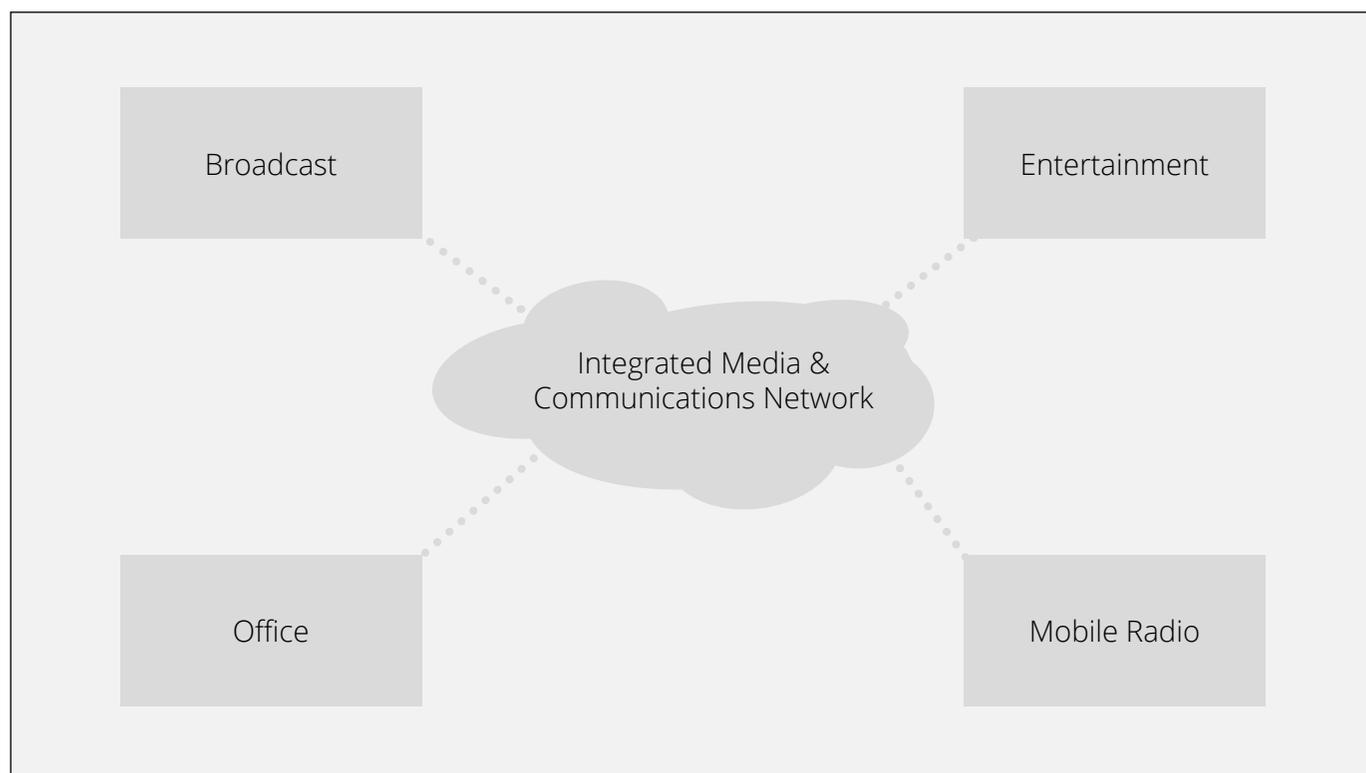
routing capabilities make external patch-panels obsolete. Again, this results in savings for both hardware and installation.

Shorten acceptance test phase

MediorNet doesn't need complex and time-consuming configuration. MediorNet terminal equipment is automatically recognized in the network as soon as it is connected. By using multi-core fiber optic cable for all interlocal connectivity, issues by external influences from powerlines or HF signals are reduced to zero. MediorNet's internal test-generators on all inputs & outputs significantly reduce test procedures.

Reduce operational costs

Riedel's solutions are developed to significantly reduce operational costs on board of cruise ships. Just think about the ability to have any signal anywhere available at any time, in the right format, either by an automated process or by a simple user-action without the need to be an AV or IT-specialist. But also think about the redundancy and self-healing principles built into our solutions to make sure the network stays online even in case of hardware failures or cable-breaks.



One Network for Real-Time Video, Audio, Data & Communications

Making technological choices in a fast changing world is a challenging task for shipowners. With new formats being created and standards evolving rapidly, your basic infrastructure needs to be capable of handling these evolutions and increasing bandwidth requirements without further investments in hardware, cabling and training. At the same time ship-owners and ship-yards work very hard to reduce the time-to-market for new-builds or dry-docking time during refitting. It's Riedel's mission to help you realize these goals and improve your guest's on-board experience, while optimizing your operational costs. The decision for the right signal transport infrastructure is crucial for reduced operational expenses.

German company Riedel Communications designs, manufactures and distributes innovative real-time networks for video, audio, data and communications. Riedel's solutions have been embraced at numerous international events including Formula 1 races, World Championships and Olympic Games. Leading broadcasting companies and theaters as well as governmental and industrial facilities utilize Riedel's systems and services.

Riedel Communications' MediorNet is a real-time network for video, audio, data & communications that...

- transports signals, not only from A to B but to multiple destinations at once, delivering a true point-to-multipoint solution
- routes signals from any source to any number of destinations – not in a fixed but in a fully flexible way. MediorNet is a true router solution that can be even controlled by 3rd party control systems
- is entirely hybrid as it routes not only one type of signal, but any type of video, audio, data,...
- integrates signal conversion, so you can not only transport or route signals, but you're also capable of converting them in the right format for your different destinations like flatscreens and giant video walls.

In brief, MediorNet consists of dedicated MediorNet Modular or Compact I/O devices (terminal equipment), placed in the different locations and interconnected via fiber, providing one integrated signal transport infrastructure. The network topology is entirely flexible: You can use a star-, ring- or daisy chain topology or any combination of these.

Improving On-Board Communications

On-board of today's cruise ships, several communication systems are used as separate islands: the onboard telephone system, mobile HF radios, the per-venue entertainment communication system and the broadcast communication system.

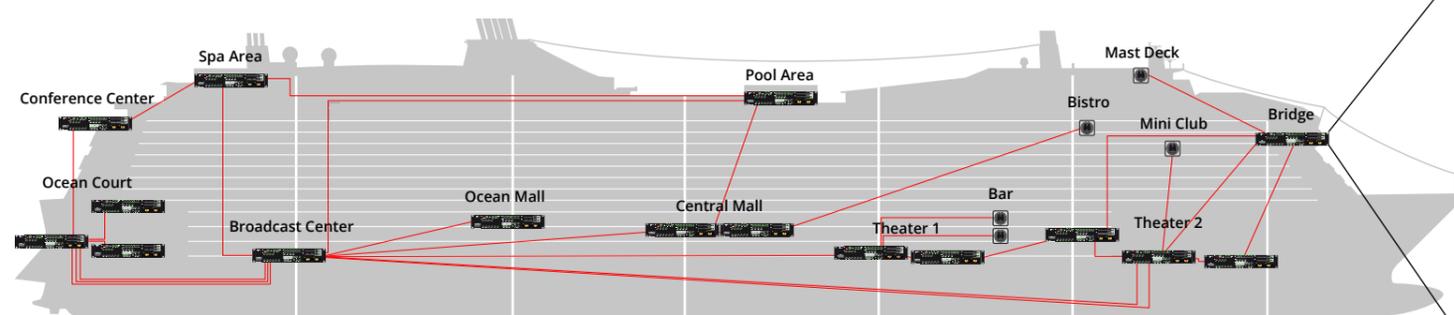
At Riedel, we believe that efficient communication is the key for more efficient processes onboard. Whether it is a fixed VoIP, DECT or WiFi phone, radio, wired or wireless belt-pack or an intercom panel – staff should be able to communicate with each other without the need to change their end-device.

Riedel intercom systems allow you to merge the different on-board communication networks into one integrated solution:

- Integration of VoIP SIP PABX's via our VoIP interface
- Integration of HF radios via our RiFace universal radio interface

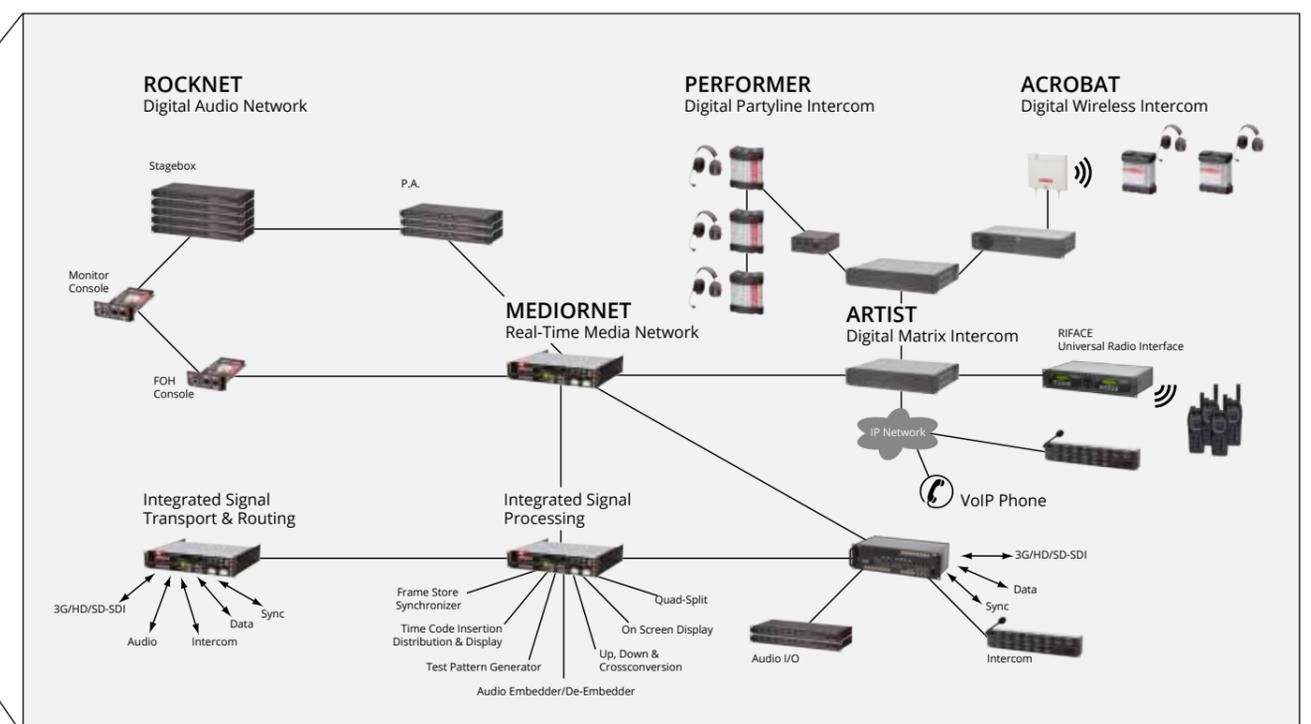
As a result it is possible to call from a fixed VoIP telephone to a mobile HF radio or from an intercom panel to a VoIP telephone.

And with using the MediorNet backbone for signal transport even the need for dedicated interlocal cabling for the entertainment/broadcast communication systems becomes obsolete. This approach ultimately results in easier onboard communication with less dedicated hardware.



Anything, Anywhere, Anytime

MEDIORNET – The one network for video, audio, data and communications you can rely on.



Riedel Product Lines

MEDIORNET - The Real-Time Media Network

- One fiber-based network infrastructure for broadcast and entertainment
- Integration of all video, audio, data and communication signals
- Future-proof – free signal-routing without rewiring
- Intuitive, easy-to-learn operation



ROCKNET - The Performance Audio Network

- Vendor independent: allows operation of mixing consols from various brands within the same network
- Independent Gain
- CAT-5 redundant network interface
- Intuitive set-up: No Ethernet, no IP – easy front panel operation



ARTIST - The Digital Matrix Intercom

- Distributed masterless system architecture for reduced wiring and installation costs
- Seamless integration of VoIP SIP PABX and mobile HF radio (conventional and TETRA)
- Easy and intuitive programming for reduced training and service
- German engineering and quality manufacturing



PERFORMER - The Digital Partyline Intercom

- High quality digital audio: no noise, no hum
- Remote Mic-Kill
- 2-channel intercom operation plus additional program sound on standard XLR cables
- Real plug-and-play installation



ACROBAT - The Digital Wireless Intercom

- Wireless partyline and point-to-point communications
- Excellent audio quality via VoIP-over-DECT technology
- Cellular architecture with seamless handover
- No interference with radio microphones, in ear monitoring or other UHF systems



Riedel Rental Services & Solutions



Intercom & Professional Mobile Radio Solutions



Media Network Solutions



RF Camera Solutions



CCTV Solutions



Access Control & Accreditation Solutions



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