



Converged Infrastructure Secured and Customized Network Solutions

The ubiquity of Internet access for communication and entertainment purposes significantly changed guest's online behavior. They mostly regard being online as a necessity – they want to stay connected, enjoy their apps, movies or surf the internet at any time. For existing ship or hotel infrastructures it can be challenging to manage an increasing number of guest devices requiring online access, while on-board operation needs to ensure the availability of passenger control systems, cash or security solutions in parallel.

Converged Infrastructure Services at a glance

- Centrally managed network solutions
- Secured and customized, according to a customer's specific requirements
- Network analysis, design, engineering and application development
- 3rd party integration, provider selection and management

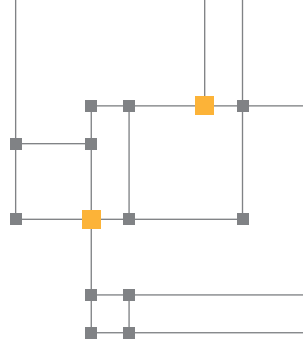
Precisely fitting network solutions

Performance, security and extensibility are the most essential requirements for infrastructure solutions. Besides that, every company and branch has additional specific requirements for their infrastructure solution, e.g. cash systems, security or control processes.

Our team of network engineers consists of skilled consultants with long-term Hospitality IT knowledge and experience in service providing. According to their technological focus, they support clients e.g. in design, engineering, set up or optimization of existing and emerging network and internet solutions. Our customized network and IT-solution are designed, engineered and built by us. Execution directly by the customer is also possible.

Converged network solution

It might be challenging for IT teams to manage a wealth of independent on-board applications. But only well-designed, structured and engineered network and IT solutions will be reliable, highly available and secure. For that reason our tethered or untethered networks (LAN/WLAN) are designed and engineered in a converged manner. This enables us to integrate on-board applications into one single network solution, which can be centrally managed or monitored. By using state-of-the-art technologies and certified protocols we ensure, our solutions are secure, have high performance and are extensible to the customer's changing requirements at any time. Our network applications are either developed in house or by a provider and have been integrated into our converged networks by our engineers to ensure best quality and service. Centralized software deployments and process automatization are also part of our convergence services, as well as monitoring and reporting for embedded applications, devices, or the infrastructure itself.



Network and onboard security

According to industry standards and requirements it is necessary to separate logical networks on-board a ship (e.g. cash systems, camera systems, guest WLAN). We provide consultancy to our customers on logical network separation, firewalls, content filtering and proxy systems.

Besides that, we have a longstanding partnership with CCTV providers to ensure highest security for on-board guests, their luggage or compliance with industrial security standards.

Internet and WAN solutions

Our solution provides a secured tethered or untethered internet connectivity (satellite or mobile telephone), which combines services and centralizes IT management in a single server:

- URL filtering
- Reputation services,
- Intrusion prevention,
- Web proxy,
- Application and network-layer firewalls
- Anti-malware
- HTTP/HTTPS inspection
- Authentication and policy enforcement

It supports extensive caching and proxy functionalities to improve the guest's experience and reduce bandwidth costs. Bandwidth control, configurable to user groups, devices, dates or pricing models are supported, as well as traffic quotas based on pricing models.

Some examples of 3rd party integrated systems are

- PMS providers
- SPA & tour reservation systems
- Nautical systems, weather and GPS devices
- Telephone systems
- Mail servers
- Audio on demand appliances
- CCTV cameras
- Room automation systems

