



The SnakeWays Concept

SnakeWays provides state-of-the-art connectivity services to every type of seagoing vessel. At the heart of the SnakeWays Concept are two core elements.

- **SnakeBox** – the shipboard router and application host

The SnakeBox provides the routing and application functionality on board the vessel. SnakeBox manages the interfaces between the shipboard IT and networks such as INMARSAT, Iridium, VSAT and GSM.



The SnakeBox also acts as a host for a range of additional services that enhance the functionality of the system.

- SnakeMail** Our fully-featured mail service
- SnakeSwitch** Intelligent network switching with support for quota management
- SnakeWall** Flexible, yet easy to configure firewall service
- SnakeDoor** Remote network access, routing, and management
- SnakeCrew** Crew and guest services
- SnakeTrack** Tracking, maps, geolocation and more for your fleet

- **SnakeCloud** – the shore-based management server

Meanwhile on the shore, each customer has his own dedicated virtual server instance, the SnakeCloud. SnakeCloud provides system management, centralized configuration, reporting, and support services to the shipboard SnakeBoxes.

SnakeCloud and SnakeBox work together to form a state-of-the-art platform for the SnakeWays services. In the background they exchange data, configuration and status information using very efficient real-time synchronisation protocols.

From the outset the SnakeWays concept was to design, develop and provide a service for seagoing vessels that minimised installation and configuration costs. With remote configuration via SnakeCloud the SnakeBox is truly “self-install” on board.

State-of-the-art, synchronised, self-reliant, secure, and cost effective.

The SnakeWays Concept!

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The SnakeBox Hardware

SnakeBox is the shipboard device that provides the platform for the SnakeWays services.

The majority of shipboard “comms boxes” in service today are built on classic network devices using technologies that have been around for a decade and more. SnakeBox is different. Based on the latest technology, designed initially for smartphones, the SnakeBox is the most cost-effective device of its kind on the market today. The SnakeBox comes in 2 styles to meet all your requirements. SnakeBox S and SL, although small and light, are robust and can fit even in confined spaces. SnakeBox X and XL are sturdy steel devices for rack mounting.

Additional hardware modules, such as the 4G/LTE card that gives you access to GSM networks, are available to extend SnakeBox functionality. All of these hardware extension modules are installed inside the SnakeBox and require no external connections other than antennas if needed.

Configuration and operation of the extensions' features are fully integrated into the SnakeWays user interface, enabling remote configuration through SnakeCloud or SnakeBox.

Features

- Industry unique fan-less low-power design runs at 2W with no noticeable heat dissipation
- Highly integrated for long lifespan
- Five standard Auto MDI-X Ethernet ports
- Mounting bracket for secure rack, bulkhead or table installation
- Sturdy metal frame case with ABS cover (S/SL) or 1U steel rack case (X/XL)
- Integrated Wi-Fi usable as an access point (LAN) or managed interface to connect to an external Wi-Fi network (WAN). Single port on S/SL, 4 Wifi-6 MiMo Ports on X/XL models.
- Minimal configuration effort: a true self-install

Additional hardware modules

- 4G/LTE Mobile network interface with GPS on SL and XL models.

Technical specifications

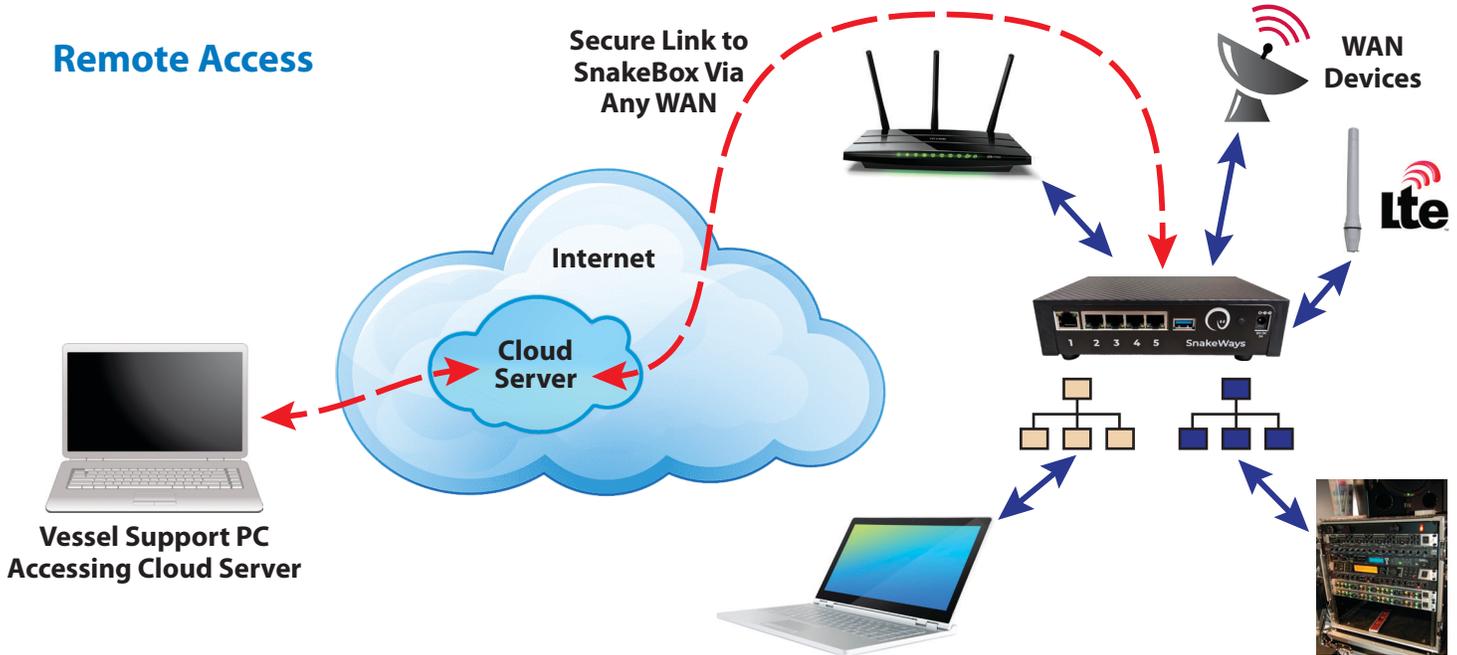
	SnakeBox S / SL	SnakeBox X/XL
Memory	1G DDR3 SDRAM	
Internal SSD	8G eMMC flash	
Data storage	SD card 32GB (optional 128 GB, 256 GB or 512 GB)	
Ethernet ports	5x Auto MDI-X	
CPU	1.3 GHz ARM Cortex-A7	1.35 GHz ARM Cortex-A53
USB port	1 x USB 3.0	
Dimensions	170 x 120 x 50 mm 0.4 kg	44.4 mm (1U) x 406 mm x 250 mm 2.4 kg
Power supply	Eternal adapter 100-240V AC, 12V 2A DC	
Approvals	CE FCC RoHS	
Operating	-10°C to 70°C, 15% to 95% relative humidity (non condensing)	



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Mackay WAN Management Unique Benefits



- Remote Access to All Connected Devices (WAN and LAN)
- Port Scan Automatically Identifies Equipment and Servers on Vessels
- One Click Connection to Target
- Secure Access From Corporate Network Only

Complete Traffic Management for Maritime Customers Across All Networks

Automated WAN Switching with Least-Cost Routing

- Wi-Fi, LTE, Satellite

Predictable Monthly Cost Control

- Quota Definitions to Prevent Bill Shock

Firewall

- Security and Content Control
- **Different Rule Set for Each WAN and LAN**
- Restricted Access After Exceeding Quota

Reporting

- Snapshot of Current Usage Values Per Network
- Report Generation for a Given Period/Network
- View of Active Network at Any Time

Email Server

- IMAP Support of Corporate Domain (e.g. Outlook.Office365.com)
- Incoming and Outgoing Filters
- Unlimited Accounts
- Secure Communication
- Complete Log of Messages with Progress Report

Connectivity Via Any IP Network

- Wi-Fi, LTE, LoRa, Satellite, etc.