

Remote Guidance

Your virtual engineer – remote expertise on-board and in time



The novel coronavirus disease 2019 (COVID-19) situation has evolved more rapidly than many of us could predict and is noticeably influencing our lives and daily business. Under these unprecedented conditions with global travel restrictions and health precautions, it is challenging to deliver field service and any other kind of on-board services in time when customers need support.

Wärtsilä Voyage Solutions Services (VSS) introduces an extended remote guidance concept for navigation and automation systems. Remote guidance empowers easy remote support and collaboration through augmented reality, mobile connectivity kits or extended use of on-board installations. It allows field service professionals to quickly respond remotely to issues raised by customers and/or co-workers and assist them with a solution.

The VSS remote guidance concept incorporates three modules, each module able to work as an independent solution or combined to a powerful service tool bringing the service experience to the next level.

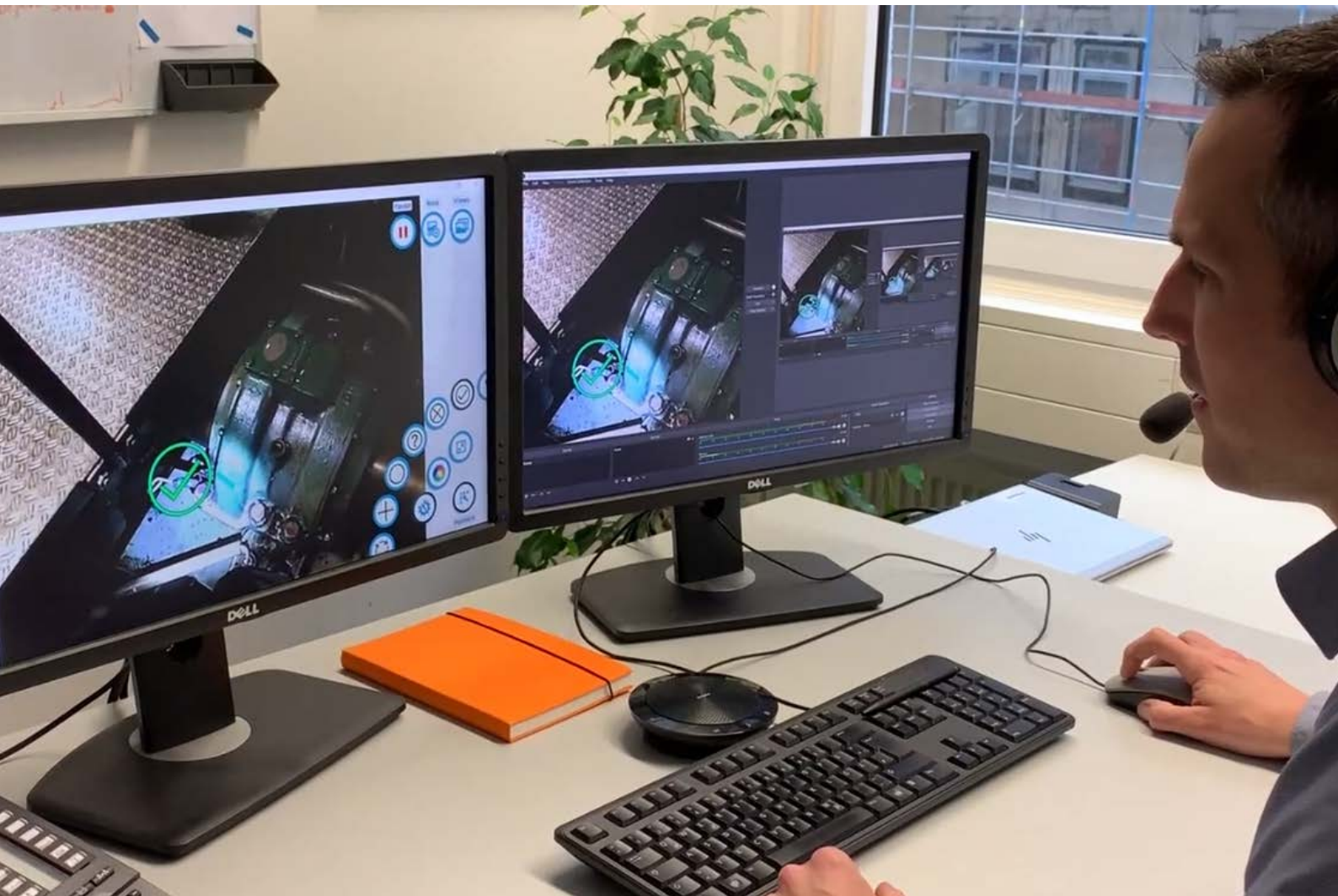
How does it work?



Our remote guidance modules

- Mobile remote guidance
- NACOS Platinum integrated remote guidance
- Mobile remote guidance with LTE connectivity kit





Module 1

Mobile Remote Guidance – Your Virtual Engineer

Mobile remote guidance by means of augmented reality, using a remote guidance software application.

The application is the mobile first aid kit for every unforeseen service call.

With an intuitive interface allowing you to share high quality video, audio and screen contents even with low bandwidth, you can get support on short notice from the Wärtsilä Voyage Solutions Services field service engineers and technical support team.

The remote guidance application is available for Windows, iOS and Android devices.

Complete installation and registration only takes 15 minutes, and the application can be installed on up to two devices per user.

Download the remote guidance application for mobile or desktop devices [here](#).

The license for the application is free of charge for customers for any communication between the customer and Wärtsilä. Normal air time cost and service cost apply.

KEY FEATURES

- Voice and video calls
- Group calls with up to five users
- Text chat for situations with limited voice call possibility
- Ability to connect to external audio or camera devices
- Screen sharing
- Field notes for documentation
- Annotations and symbols to guide technicians on-board

Module 2

NACOS Platinum Integrated Remote Guidance

Several NACOS Platinum installations are already equipped or prepared for the NACOS Platinum integrated remote guidance module, which allows secure remote access either for navigation or automation systems.

NACOS Platinum Integrated Remote Guidance is secured by various security measures to provide the maximum protection for our customers by:

- Two factor authentication (smartcard and PIN)
- Central user and privilege management
- Strong encryption
- No direct connection (only via rendezvous server)
- Secure file upload (virus scan during upload)
- Session logging (video log of all actions performed)
- Connection between NACOS and vessel network via firewall

Secure access runs through one NACOS Multifunctional Display (MFD), allowing full access to the rest of the system via Ethernet backbone. Remote guidance can be done without interfering with normal operation of the system. For safety reasons it is usually performed only when the vessel is in port.

Prerequisites for NACOS Platinum integrated remote guidance are availability of a key protected firewall, active

firewall connection to the ship's communication system and sufficient bandwidth.

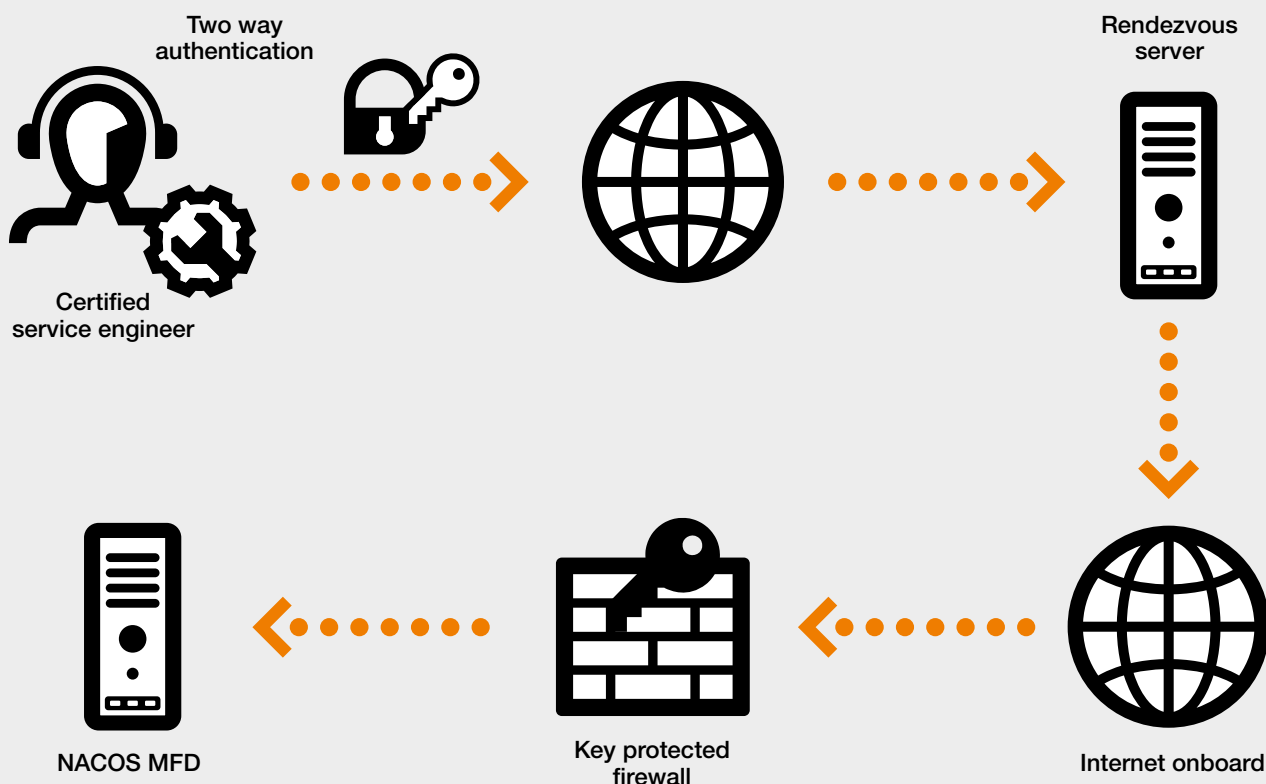
Please contact the VSS technical support team if you would like to confirm whether your ship is equipped with the integrated remote guidance module and verify that the module is ready for use.

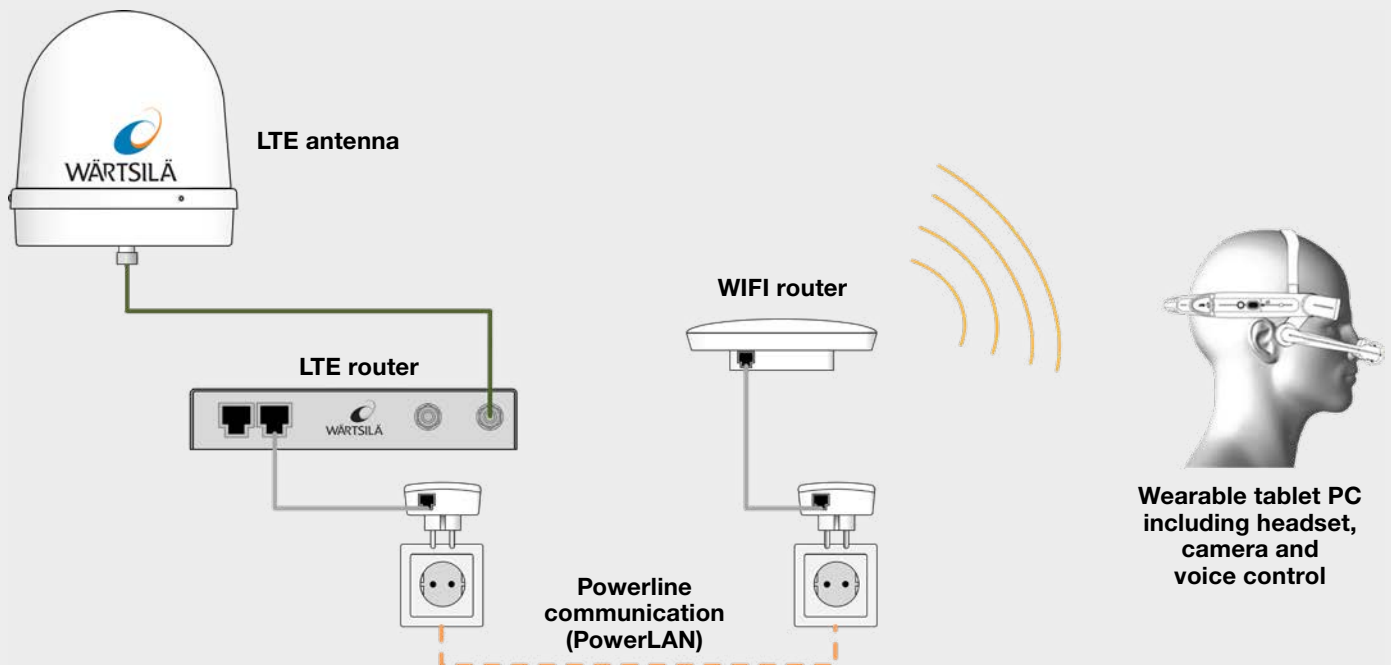
In case of bandwidth limitations the existing installation can easily be extended by the LTE connectivity kit in module 3.

KEY FEATURES

The following tasks can be performed with the NACOS Platinum integrated remote guidance module:

- Error log download
- System status analysis
- System settings adjustment
- Software update preparation
- Operator guidance





Module 3

Mobile Remote Guidance with LTE Connectivity Kit

Mobile remote guidance with connectivity kit enables qualified support from the Wärtsilä VSS technical support team in environments with limited connectivity. The mobile LTE remote guidance kit is a complete independent solution that can be easily installed in almost any environment and location on-board to compensate for limited connectivity and low bandwidth.

The core component is the LTE connectivity kit consisting of a high gain LTE antenna with accessories to setup a local

Wi-Fi environment. Other components of the kit is a remote guidance software application (with reference to module 1) and a mobile device such as a smart phone, tablet or head mounted wearable computer.

The wearable head mounted computer is the mutual extension to the connectivity kit. It is fully voice controlled and allows the engineer on-board to perform all usual tasks without limitation and with support from the Wärtsilä VSS teams from ashore.



KEY FEATURES

- LTE (4G)-3G-2G high performance internet access system, incl. antenna, modem, router and firewall
- Patented special design, optimised for long range access (up to 70 km)
- Top speed up to 150MBit/s download and up to 50 MBit/s upload (upon availability and network operator)
- Easy to install

Remote guidance is making use of new technologies like augmented reality and depends on the use of IT infrastructure. The nature of remote guidance is based on interaction between Wärtsilä and their customers and may require exchange of video and audio data. For this process the following should be considered:

- The technology is making use of customer's IT infrastructure and cloud services, i.e. the full communication line may not be under control of Wärtsilä.
- By transferring audio and video data it may be the case that information is unintentionally recorded/stored which may touch personal rights.
- For compliance and/or legal reasons it might be necessary to record and store data.

For any photo or video activities you have to consider application of privacy protection law (GDPR, DSGVO and similar).

For further information or to order remote guidance service please contact our service hotline:
24 h hotline: +49 (0) 180 600-8553 – Email: shippervice.sam@wartsila.com

www.wartsila.com

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