

## **AHD-WNL**

### **Mobile Access and Logging**



- **Display of all ship relevant data on iPad®, iPhone® and iPod® (design similar)**
- **Remote control of lights, air conditioning and much more**
- **Logging of measured values and events**
- **Internet access to the visualization**

Bönning Automationstechnologie offers a special app for the iOS® devices iPad®, iPhone® and iPod® downloadable at the Apple App-Store, as an additional option to display ship data and control ship functions. It turns the iOS device into a full-fledged control and display device which can be connected seamlessly to the existing visualization environment on board, complementing it optimally. This makes the ship data available at any time and everywhere on board. The user can even view the ship data and send control commands via the Internet, for example to switch lights, to the on-board system from any location with a connection to the Internet.

Appropriate rights can be assigned to passengers to control the lights and air conditioning in their cabin, for example, or to view the ship's current position and speed, without interfering with the system.

The graphical user interface can be adjusted to the permanently installed displays to ensure the highest degree of operational safety.

AHD-WNL logs the measured values and special events of appropriately configured channels of the system. This data can be displayed on the ship's displays and exported in several formats. For the graphical representation of the measured values, the software AHD-Charting is available. AHD-WNL can log up to 50 million measured values and 100000 events.

Several supported iOS devices can be integrated into the system and operated with equal status.

## Visualization Examples



Example 1:

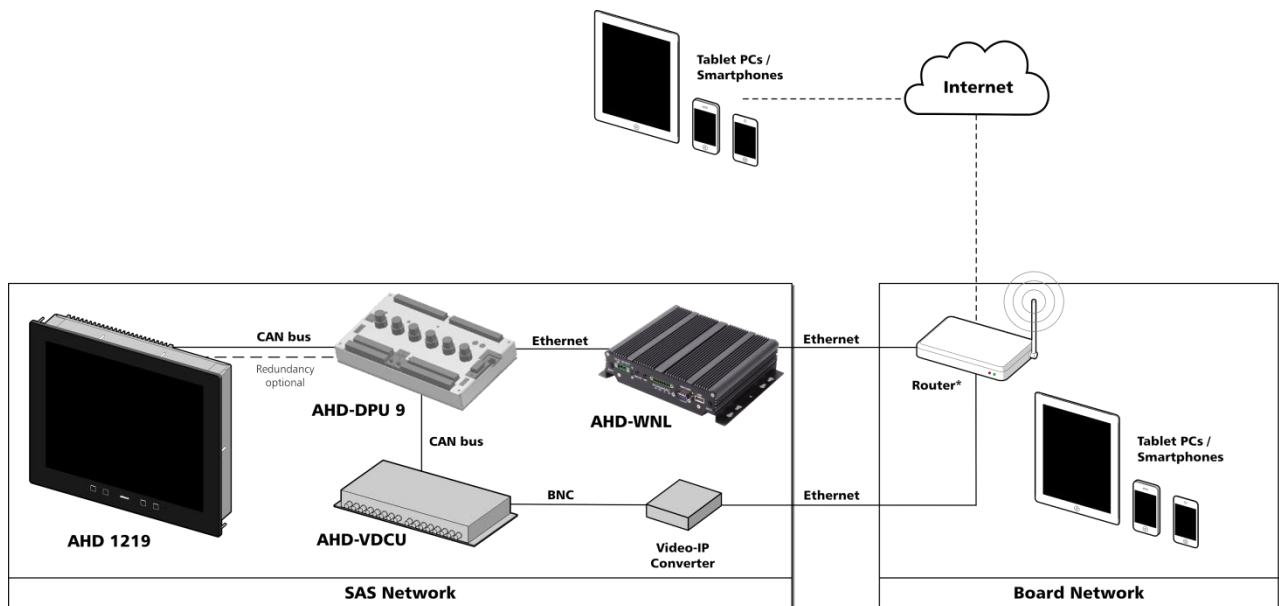
Overview page featuring the most important ship data at a glance



Example 2:

Analog visualization of engine data

## Diagram



\* WLAN-Router must be present shipside

This diagram demonstrates the integration of the iPad® or another supported iOS device with an installed App AHD-IAMCS into the system.

The main component is AHD-WNL, acting as an interface for connecting the SAS CAN bus system with the Internet or the onboard network, respectively.

The data are transmitted from AHD-WNL over the (shippside) router to the Internet or the onboard network and sent to the logged in iOS devices. The configuration of the visualization is stored on AHD-WNL. The user configuration can be set up and adjusted on an administration interface.

For access over the Internet AHD-WNL must be registered at Böning Automationstechnologie.

AHD-WNL only transmits encrypted data into the Internet.

The visualization on the iOS devices can be adapted to the visualization on a connected display, such as AHD 1219.

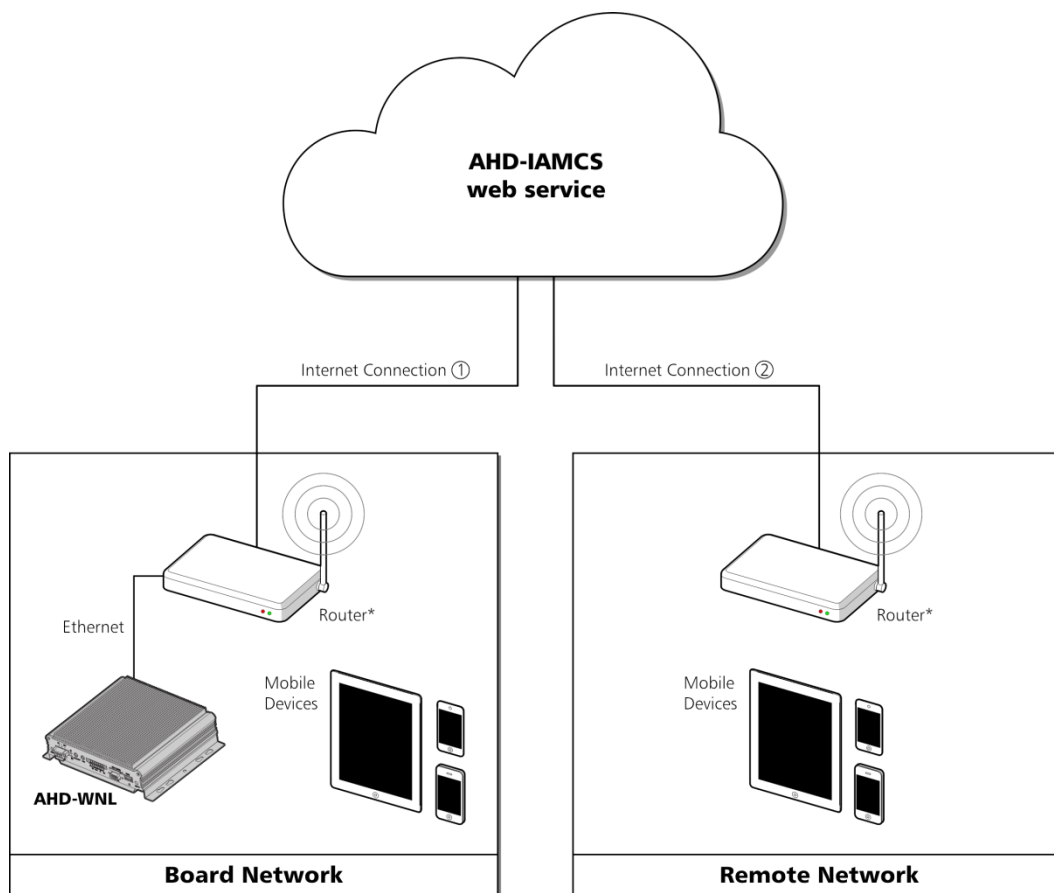
Of course, existing Böning systems can be retrofitted without any problem.

Already existing AHD-WNL, granting access to on-board LAN or WLAN only, can be updated for access over the Internet.

The iOS device can also be used as a mobile engine display to conveniently visualize the ship engine data of all major manufacturers (MAN, MTU, CAT, etc.).

An uninterruptible power supply ensures that AHD-WNL can operate for 10 minutes during a power failure.

## Remote Access via the Internet



\* Routers must be provided by the operator

This example illustrates the remote access to AHD-WNL with the App AHD-IAMCS.

The AHD-IAMCS web service is used to connect AHD-IAMCS with AHD-WNL. AHD-WNL's connection to the web service must be initialized by AHD-WNL. On an AHD-WNL administration page, the user can establish the connection manually or set it up as permanent. If an appropriately configured channel is present in the vessel's system, this channel can be used to open and close the connection to the web service.

With AHD-IAMCS, the user can log in to AHD-WNL via the web service, once the connection has been established.

To ensure a higher degree of security, the user must provide a Boat ID when logging in; this ID is only valid for connecting to an AHD-WNL with a specific hardware ID.

To reduce the data volume, AHD-WNL only sends data to the web service on request. For technical reasons, video data is transmitted only as single frames.

Existing AHD-WNLs can be updated for Internet access. Installed AHD-IAMCS are automatically updated for remote access.

AHD-WNL supports devices with iOS version 11 or higher.

The following resolutions are supported:

- iPad 1024 x 768 pixels,  
Retina displays 2048 x 1536 pixels
- iPhone 320 x 568,  
Retina displays 640 x 1136 pixels
- iPod 320 x 568 pixels,  
Retina displays 640 x 1136 pixels

For other resolutions the correct display cannot be guaranteed.