



HiMoNN BASIS 3.11

RELEASE NOTES



The HiMoNN Release Basis 3.11 enhances the features of HiMoNN Basis 3.10 and incorporates the following modifications and new features.

HiMoNNitor: acoustic signal on loss of connection

The application "HiMoNNitor" for the supervision of the mobile ad-hoc network now offers the opportunity of signaling the loss of a data connection also acoustically in the connectivity display. If this optional function is activated, a beep sounds - adjustable with 3 different playing times - as soon as a monitored connection is interrupted for more than approx. 30 seconds.

Adjustable radio modulation and data rate for MANET

For the amplified radio interface of the ad-hoc network, it is now possible to set the modulation or the maximum gross data rate to be used, via the web administration.

When setting a low data rate, the radio interface for the ad hoc network uses a very robust modulation method, so that packet losses with UDP data streams can be largely avoided.

This function can, for example, be used for the connection of mobile TETRA base stations (E1-based) when using E1-IP multiplexers.

Automatic channel selection for HiMoNN Wifi access point

In order to avoid multiple use of the channel by other WLANs, it is now also possible to use an adaptive channel setting (auto mode) for the interface of the Wifi access point. This automatically selects a free or little used WLAN channel for the connection of Wifi end user devices.

Web Administration: display of unsaved configuration

If the configuration of a HiMoNN node has been changed during operation, this is displayed graphically in the upper area of the web administration form, as long as the configuration change has not yet been saved permanently. This gives the administrator control over the saving state of the HiMoNN configuration.

Further extended functions

DHCP client: passing HiMoNN host name

If the IP address of an interface of the HiMoNN node is requested and configured via DHCP by a DHCP server (for example, if the HiMoNN node is integrated as a gateway node into a network with a DHCP server), it will now use its "hostname option" to the used DHCP server. This function can e.g. support monitoring and identification of connected HiMoNN nodes in large networks.

WAN mobility: the MANET as WAN access

Connections via the ad-hoc network can now be used as a dedicated WAN access of the WAN mobility function - in addition to the "classic" WAN connections such as DSL, LTE etc.

Thus, both direct point-to-point connections in the ad-hoc network into a target network can be defined as an integrated WAN transition, as well as paths in the ad-hoc network to other gateway HiMoNN nodes which have access to a remote network.

Further system optimization

Improved WAN mobility

The WAN mobility has been improved in two further aspects:

A dynamically activated access to a remote network can now also dynamically create its HNA entry. In contrast to other HiMoNN nodes, such an HNA entry indicates the availability of the access only if this has been activated by the WAN mobility function. As with regular HNA entries, a cost value can also be defined for dynamic HNA entries, with which the local transition can be valued against other gateways located in the ad-hoc network.

Furthermore, the evaluation of the HNA cost value for the selection of the most favorable access among competing gateway HiMoNN nodes has been carried out only by the other HiMoNN nodes, but not for end user devices, connected to the local gateway node.

This restriction has now been abolished: for the terminals locally connected to one of the gateway nodes, the cost value set for the local HNA entry is also taken into account. If a further gateway node exists in the ad-hoc network, which is evaluated better than the local node, taking into account its cost value and the link quality of the routing protocol, a local terminal uses the other, cheaper gateway node via the ad hoc network now.

ARP compatibility of end user devices

In some cases, there are end user devices that have limitations on the standardized ARP (Address-Resolution-Protocol) protocol. ARP is primarily used to determine the physical network address (MAC address) of a network device by its IP address. In order to better support end devices with the aforementioned limitations, several improvements and additional settings for the end device mobility and proxy ARP functions have been made.

HiMoNNitor: layout update

The appearance of the application "HiMoNNitor" for the supervision of the ad-hoc network has got an updated appearance in this release. In addition to a window design, typical of Windows, the design of the connectivity display and the radar view was updated and the application's scaling behavior improved.

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