

CAN Newsletter Online

BRIDGE, SWITCH, AND REPEATER

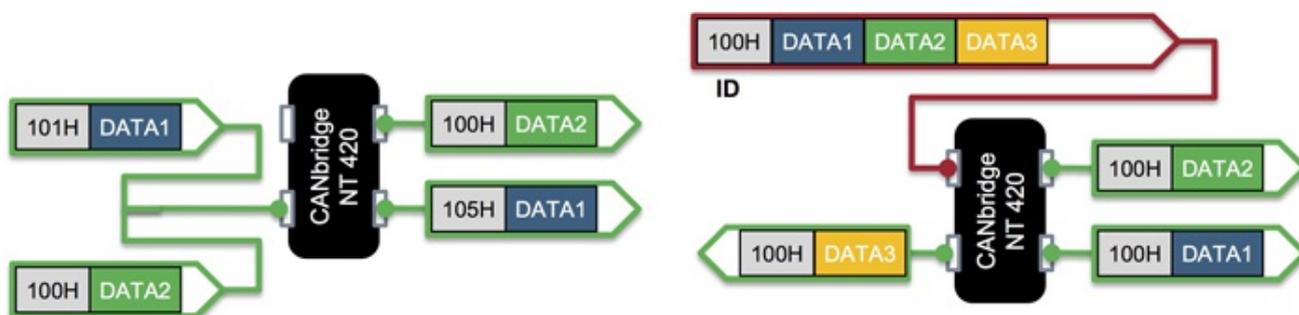
For CAN FD networks

HMS (Sweden) will introduce at the iCC in Nuremberg its CAN FD-compliant network infrastructure devices. This includes the 4-port CANbridge NT and the CAN@net NT, which provides also a TCP/IP interface.

At the [international CAN Conference \(iCC\)](#), HMS will show its 4-channel CANbridge NT 420 featuring two Classical CAN interfaces and two CAN FD ports. Thomas Waggerhauser from HMS said the product addresses industrial customers, who want to separate Classical CAN and CAN FD communication, in order to migrate step-by-step to CAN FD. In other applications, several Classical CAN networks can be tunneled through CAN FD – similar to the Multi-PDU concept in the automotive industry. This means CAN FD is used as backbone network. The product will be available at stock in March. It features a USB interface for configuration purposes. This includes CAN-ID filter configuration, in order to optimize the traffic on the different branches. The free-of-charge Ixxat CAN-Gateway Configurator software comes with the product. Using the software, the setup allows free configuration of the transmission of CAN messages between the four ports, also between Classical CAN and CAN FD. The bit-rates are automatically detected. The switch operates in a temperature range from -40 °C to +85 °C.

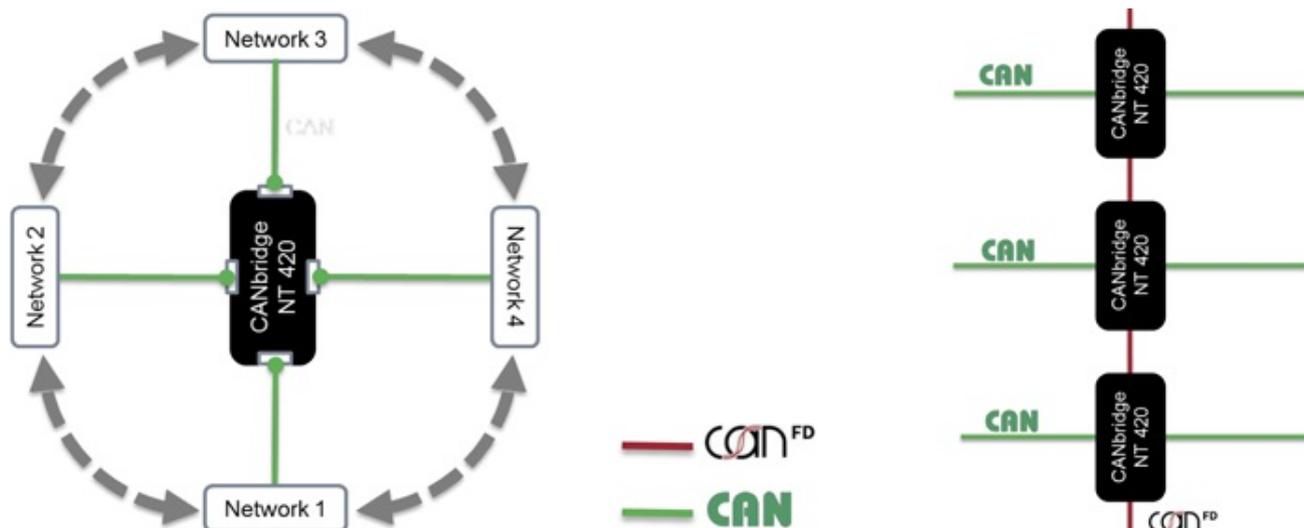


The CANbridge NT 420 features two CAN FD ports and two Classical CAN links (Photo: HMS)



The Ixxat CAN-Gateway Configurator supports messages routing by means of mapping tables (left) and multiplexing tables (right) (Photo: HMS)

The switch device allows building star network system topology. In this setup all messages are transmitted unchanged to the other port and all four CAN ports operate in Classic CAN mode. Another option is a tree network system topology. It can be used, for example, in elevators. Each floor has its own Classical CAN network, and the floors are interconnected by means of CAN FD links, so-to-say a cascaded backbone. These point-to-point CAN FD connections from landing to landing are not so challenging as multi-drop topologies.



With the 4-port CANbridge you can realize star (left) and tree (right) network system topologies (Photo: HMS)

The CAN@net NT is similar to the CANbridge NT, but provides an additional TCP/IP interface, which can be used as fifth CAN FD port, when implementing the CAN Generic Protocol by HMS. Since last year, a 2-port variant is available. The CAN@net NT 420 with four CAN channels will be available in April.

The Swedish company plans to extend the Ixxat portfolio by a CAN FD repeater with four ports. This product will be released in the second quarter of 2017. All other CAN hardware and CAN tool products are already CAN FD enabled. HMS participates also in the CANopen FD demonstrator, which will be exhibited on the CiA booth at the [Embedded World 2017](#) tradeshow.

