

# emmasbox

## Success Story – Networked pick-up stations for flexible goods collection

**emmasbox is a total solution provider for «Click&Collect» systems of all kinds. For the secure and reliable networking of the systems the innovative company relies on routers from NetModule.**

### The project

Pickup stations and smart lockers, which make customers everyday life easier in a way never seen before, are the core business of the Munich-based provider emmasbox. The young team supplies the necessary hardware, provides a comprehensive software package for the operation of the stations and takes care of their support during operation.

The use of the boxes is very easy, for example in a supermarket with online service: when ordering online, delivery service customers place the items in the virtual shopping cart as usual and simply select the address of a pick-up station instead of home delivery. Locker systems at railway stations, such as those already operated by Deutsche Bahn, work according to the same principle and just as easily: Here too, the booking is made online and therefore contactless.

The products of emmasbox are classic Internet-of-Things solutions («IoT»), which use connectivity to bring together decentralised data at central points for evaluation and use in operations. Here the routers of NetModule come into play.

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*«Our high requirements on stability and availability were fully met by the NetModule products in practical use.»*

Rüdiger Weimer  
CEO  
emmasbox



## Requirements

For secure and smooth data exchange, the devices of the NetModules must meet the following requirements:

- Integration into proprietary VPN networks
- WLAN interface with 2.4 and 5 GHz
- Programmable hardware relays
- High stability and availability

## Solution

Industrial routers of the NB1601 series are used to network the collection stations and lockers. These enable smooth, secure data exchange. For this purpose, the robust devices are equipped with LTE and WLAN, Bluetooth and digital I/Os. WLAN enables connectivity via 2.4GHz and 5GHz to the market's own networks and ensures that the pick-up station is always online. Via digital I/Os the locking relays can be controlled by the emmasbox software installed on the router to activate the customer-specific opening of the individual boxes.

The also integrated LTE modem provides additional network access and serves as a backup connection. If the WLAN connection should fail, communication with the market's own sales software and the central server of emmasbox for controlling the boxes runs via LTE. A malfunction is automatically reported and in the majority of cases it can be remedied by remote access.

The NetModule Router software integrates a powerful VPN protocol suite, which is used to secure all connections. Thus, the store applications (e.g. connectivity to the cash register system), emmasbox application for controlling the pick-up station and the router control can run logically separated from each other.

The routers of NetModule are designed for very high availability and operation around the clock. Therefore, the connections and the hardware are constantly checked with several mechanisms. Even heat and cold cannot harm the router thanks to its robust metal housing (-40°C to +70°C).

With the devices of NetModule emmasbox has found robust and reliable routers, which fully meet their requirements in practical use.