

# BRC District Association Ansbach

## Success Story – Connected Command Vehicle

The command vehicle of the support group for the emergency medical command team of the Bavarian Red Cross has been modernized. NetModule has provided a NB2710 router, which is now used as the heart of the communication solution.

### The Project

The support group for the emergency medical command team (UG-SanEL) is a department of the disaster control organization of the Bavarian Red Cross and supports the medical command team in case of emergency.

In case of major damage events, the UG-SanEL is active 24/7 in an operational area of approx. 2000 km<sup>2</sup> and supports the emergency task forces. Its tasks include the support of communication, the securing of radio and telecommunications connections and the registration of the parties involved and the emergency task forces. The UG-SanEL consists exclusively of volunteer employees and is financed mainly by donations.



Until recently, the communication solution of the command car (ELW2) has been implemented with devices for private use. Due to the modernization process, the consumer devices were replaced with industrial grade products. NetModule has donated a router of the type NB2710-2LW-G, which serves now as the backbone of the new solution.



*«We are excited about our NetModule router. It is highly available, robust and allows us to significantly improve and modernize our communication.»*

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**Requirements**

The modernization of such an important facility requires a professional solution. Therefore, the router of Net-Module needed to fulfill the following requirements:

- Industrial grade
- Usage of two SIM-cards for LTE
- Handling of a WAN over Ethernet with prioritization over LTE
- VoIP-ability
- High availability

**Solution**

Now, a NB2710-2LW-G is installed inside the command vehicle. This device is shock and vibration resistant and certified for usage in vehicles. The router has two LTE modules as well as WLAN and GPS. Besides it comes with six SIM-slots, four Ethernet ports, two digital inputs and two digital outputs.

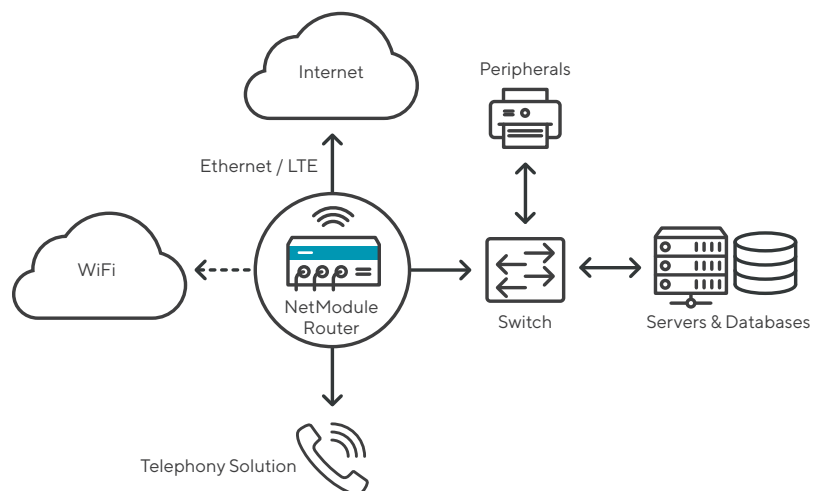
The router is installed in the interior of the vehicle and connects with the two LTE modules via a roof antenna to the mobile network and thus also to the Internet. The UG-SanEL uses two SIM cards from different providers to increase availability.

In addition to various radio channels, telephony is also available in the vehicle. The NB2710 is used as an additional voice gateway for three different purposes:

- SIP-trunk for fax per standard T.38  
This is the only solution for fax in the vehicle.
- SIP-trunk for dual GSM telephony  
Serves as a fallback for the telephony solution
- Several SIP channels for Voice over IP  
Additional telephony solution

For long assignments and for major events, the UG-SanEL accesses the satellite network or a local WAN via the Ethernet WAN interface on the NB2710. This prevents the communication from being interrupted if the LTE network is overloaded. The WAN port of the NB2710 detects external networks and prioritizes them over LTE. Thus, if a WAN is available via ping queries, it is automatically switched from LTE to WAN.

The router also acts as a WLAN access point for computers and tablets, so that can be worked wirelessly and thus flexible.



The modernization of the command vehicle not only has numerous technical advantages, but also has a magnetic effect on new volunteers. The highly reliable industrial router helps to further professionalize the vehicle and makes an important contribution in the event of an alarm.