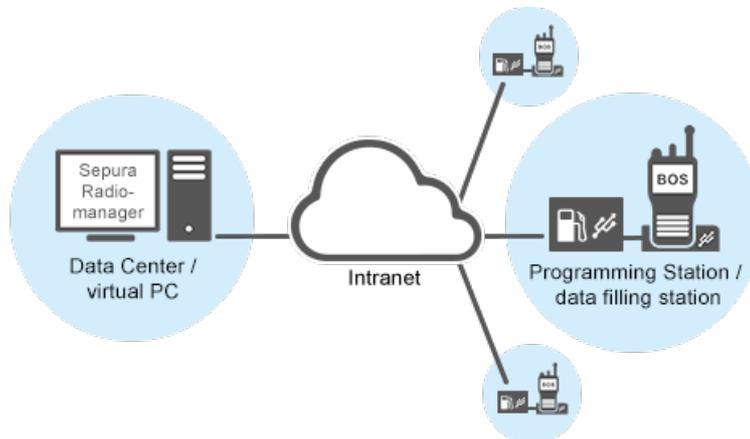


Application for USB-Server

Data filling station for BOS digital wireless devices

Network connection of programming stations for the Wuppertal fire department



Definition of tasks

The BOS hand-portable radios from Sepura used by the Wuppertal fire department are fitted once or twice a year with new code plugs for the keypad assignments, group associations etc. For this purpose the devices and associated charging/programming stations are equipped with either an RS232 or USB interface depending on the model. Both interfaces require that the programming PC (client) be in the direct vicinity, so that in order to reprogram using standard means there are only three options, all of which have decisive drawbacks:

1. The programming PC comes to the handheld

- High investment in cost and time for on-site programming performed by an employee at the individual locations. If the handhelds happen to be in use at the time, two trips become necessary

2. The handheld goes to the programming PC

- High investment in cost and time for the employee who has to bring the device
- Risk of overloading the programming station (all the devices are brought at the same time) or high organizational expenditure for coordinating dates

3. On-site installed programming PC (client)

- Installation of a fixed PC is not possible due to the ambient conditions in many locations (workshop, fleet garage etc.)
- Installation of a fixed PC is also highly critical from the point of view of data protection and IT security
- High failure risk of the PC with 24/7 operation
- High power consumption

For these reasons the department responsible at the Wuppertal fire department conceived the following network-based data filling station and implemented it in practical terms together with W&T.



The solution: Data filling station

The heart of the data filling station is the USB Server from W&T. Using its two USB ports the charger/programmer is connected directly on-site through a USB<->RS232 converter. The software-side counterpart is the USB Redirector on a central PC with the Sepura Radio Manager. This links the "remote" handhelds connected to the USB Server into the Windows system so that they appear to be local at the computer. Mechanically the data filling station is comprised as a rugged, plug-in IP54 wall mount enclosure, so that installation is simplified to mounting on a wall and plugging in all the components.

The data filling station was implemented in two hardware versions for the Wetech 1x and 5x charging station. In addition to the connection for the respective charger, both versions also allow the special cable for programming fixed installed radios to be integrated in the vehicles.

Simple and Efficient

There are currently three data filling stations installed and in operation at two locations of the Wuppertal fire department. In the future every location will be equipped with at least one data filling station. This means the actual process of programming handhelds is now highly convenient and simple for all those involved: A pending update is stored on the server side as a corresponding programming batch for all registered radios in the Sepura Radio Manager. The Radio Manager independently monitors the programming/charging stations connected via the data filling station and automatically starts programming as soon as a radio is set.

The benefits of the data filling station at a glance:

- No local installation of PCs
- No problems with data protection/IT security, since there is no mouse, keyboard etc. to operate locally
- Current draw approx. 3-5W
- No sensitive hard drives and fans
- Minimal administrative effort for updates, no back-and-forth travel of employees or handhelds

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Do you have questions about USB, serial interfaces and networking?

You can reach our technicians at

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(Mon-Fri 8:00am to 5:00pm)

From an economical point of view the concept of the data filling station for the City of Wuppertal will pay for itself after just a few updates just by eliminating the time expenditure. According to estimates of fire department representatives, a traditional update cycle for all the handhelds within Wuppertal would have required 6 man days. Compare this with just approx. 500€ in hardware costs (plus installation) per complete data filling station.



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