

# REMOTE MANAGEMENT OF RFID DEVICES ON A NETWORK

Andreas Johne,  
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Management,  
and Christian Rötzer,  
Head of Development,  
Elatec, in an interview with  
RFID & Wireless IoT Global

## Installing updates and configurations for RFID readers company-wide with the touch of a button

**A scenario that is globally familiar: A company operates thousands of multifunction printers at various global locations. Employees authenticate themselves at each device via RFID badges to approve print jobs. If a technology change in the employee ID cards is required, all RFID modules must also receive an update. With Elatec's remote management solution, a global software rollout over a network is just a push of a button away!**

*"Elatec comprehensively supports its customers in the implementation of remote maintenance over the network. On the hardware side, we provide all the information required for an efficient solution. Cost and time savings can be permanently realized with a remote management application."*

Andreas Johne, Head of Product Management, Elatec

### Three software maintenance options

The software of embedded Elatec RFID reader/writers in printers, time recording systems, or e-mobility charging stations, for example, can be reconfigured or updated. There are three methods for implementing software maintenance: "The most time-consuming method is to **remove each reader** and install an update by connecting it to a laptop. More efficient is the use of an **upgrade or config card**. The card is held in front of the built-in reader in order to impart new configurations. Both methods have the advantage that a visual inspection of the device takes place automatically. However, the time required for manual maintenance of over 10,000 devices within a company is enormous," explains Christian Rötzer. "If maintenance concerns the reader's software, **remote maintenance** is the most efficient way."

### Ten minutes instead of ten days for a nationwide update

If a manufacturer of multifunction printers, for example, relies on a remote maintenance solution from Elatec, the ROI is often already achieved after the first firmware update. A simple example underlines the efficiency gain of remote management via a network: A bank operates between one and three printers in each of its 100 branches throughout the country. The integrated RFID readers are to be given a new function. Due to the large distances

between the bank branches, a manual update of around ten printers per day is possible. Remote maintenance enables the update to be completed on all devices within ten minutes. "Exact planning is another benefit of remote maintenance. An update can take place in the morning as soon as the servers are started up and even before the employees are in the branch. Workflows are not disturbed by the presence of a technician," confirms Andreas Johne.

### Security to the last meter

Elatec's products provide a high level of security: a bidirectional end-to-end encryption is supported. Customers may retrieve information on the configuration currently installed on the readers in use at any time and check their status. When the remote maintenance is performed over the network controlled by the company IT, the manipulation risk is reduced further. Christian Rötzer says: "The implementation of a remote maintenance solution is up to the manufacturers of the devices and the customers. Beginning with the IT employee who distributes the updates over a network to every individual reader, different steps need to be taken. Multifunction printers usually have an interface suitable for remote maintenance. The "last meter" between the printer and the Elatec module installed for remote maintenance requires a software interface." All of the physical interfaces our clients require are available from day-one. The flexibility of the Elatec hardware is the decisive factor ensuring an efficient integration. "Our RFID modules support numerous interfaces such as USB, RS-232/V.24, RS-485, and special device interfaces. For integrators, there is a powerful spectrum of interfaces to realize secure and future-proof solutions," explains Andreas Johne.

### Elatec's unique remote maintenance options

Elatec RFID readers are used when a device manufacturer or integrator meets an unfamiliar, heterogenic card environment. The readers of the TWN4 product family support more than 60 different transponder technologies. "The focus of remote maintenance on Elatec modules lies on the efficient installation of updates and upgrades. Other solutions available on the

*"The TWN4 product line, which supports more than 60 transponder technologies, benefits from remote maintenance via network. Companies can react to new requirements quickly and in a targeted manner. We realize the operation and the distribution of updates and upgrades with Linux or Android-based solutions – or alternatively with OEM branded tools."*

Christian Rötzer, Head of Development, Elatec

market are more broadly positioned. They offer a multitude of functions which might not be required. We comprehensively assist our customers in creating a remote management following their requirements. Offering individualized maintenance packages according to the end customers' needs is a part of our holistic service portfolio. With extensive update opportunities, customers achieve a significantly longer lifecycle of the devices used. This saves costs and automatically ensures that all RFID readers deployed at the company run the latest software," reports Christian Rötzer.

### The future: upgrade via app

The demand for remote maintenance solutions is continuously increasing and requires continual development. "Our aim is to consistently integrate further services into our remote maintenance offer. In the future, interfaces like CAN bus for applications in the industrial environment will be supported, among others," Andreas Johne points out. Christian Rötzer adds: "Another development goal is remote maintenance via app. This opportunity is particularly interesting in the case of e-mobility charging stations, as the network connection in this case is established via radio signal such as GSM." The integration of cloud-based applications and the support of almost all platforms including Linux and Android are other decisive aspects the Elatec specialists also implement on the enterprise level.



#### BENEFIT: FLEXIBILITY

For remote maintenance, it does not matter whether a customer wants to upgrade all the readers installed or whether they want to enable functions adapted to a changed situation. Requirement-specific software maintenance is possible. At the same time, additional effort is reduced and complex processes are simplified extensively. Even when the requirements of the installed RFID modules change, there is no need for physical effort. The required configuration is simply entered via remote maintenance.



#### BENEFIT: COST REDUCTION

The deployment of remote maintenance over the network usually already reaches ROI after the first update. The necessary effort on the part of the company is reduced to the preparation and scheduling of the software remote maintenance. The efficient distribution of the latest firmware version provides the foundation for sustainable solutions and long lifecycles of the readers.



#### BENEFIT: SPEED

Enabling additional functions happens within a few moments. The upload of a new firmware takes an average of 30 seconds.

A specific working schedule for manual maintenance by a technician on site is no longer required.

This is a benefit particularly to companies with a large number of Elatec readers in sites spread around the globe.