



SPIE OSMO

Spie Osmo and City of Arnsberg: Strengthening resilience of municipal infrastructure

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Andreas Kötter,
responsible for urban
water and parking man-
agement at the Arnsberg
municipality

Cities and municipalities often use normal routers to access their facilities. However, this practice no longer meets current security requirements. The city of Arnsberg has taken the step into secure digitization and replaced existing installations without interrupting current services. This process was supported by Spie Osmo.

Arnsberg in North Rhine-Westphalia has been using remote maintenance technology for many years, to keep its widely distributed infrastructure in good shape. Given the increasing number of cyber cyberattacks, the municipality decided to deploy the ENDIAN SECURE DIGITAL PLATFORM. Not only does it provide highly secure networking, but it also enables the simple and central management of the OT systems.

In the process of the digital transformation of our cities more and more systems that existed long before the internet age are being connected. When data interfaces are retrofitted, for example to establish remote maintenance access, you risk to create potential entry points for cyber criminals," said **Endian CEO Raphael Vallazza**. "With our platform, it is possible to establish a holistic security concept in order to connect and secure existing assets and new systems alike. With this we optimally support the transformation process of cities and municipalities."

“Endian’s solution can handle a wide range of communication protocols. This makes the platform maximally flexible and facilitates the networking of a heterogeneous infrastructure.”

Daniel Kratzsch,
responsible for automation and control technology at Spie Osmo GmbH



Cyber security connectivity with the Endian 4i Edge X enables secure remote access.

IT security, remote access and central management

The city of Arnsberg uses the ENDIAN SECURE DIGITAL PLATFORM to connect various infrastructures, including the two waterworks Möhnebogen and Lagel. These produce 11,000 cubic meters of drinking water per day from the surface water of the Möhne and Ruhr rivers. Each of the two waterworks has its own flood pumping station and several wastewater pumping stations, which are distributed over the entire city area of 193.72 km².

To establish a connection to the Internet, all pumping stations were equipped with an Endian 4i Edge X gateway. These gateways combine several IT security functions, such as malware prevention, firewall and intrusion detection software (IDS) for optimum protection against attacks coming from the Internet. At the same time, they enable secure remote access via a Virtual Private Network (VPN), which can be used for maintenance purposes.

Since the VPN tunnel works bilaterally, i.e., enables data exchange in both directions it is also suitable for monitoring sensors. For example, if the sensor reports a pump failure, this event is displayed in the WinCC control system from Siemens. The service technician in charge will then receive a message on his smartphone and can rectify the fault either remotely or on site.

In addition to the waterworks, four parking garages are connected via the ENDIAN SECURE DIGITAL PLATFORM. Operating messages and reports of malfunctions, for example of the barriers or vending machines, are notified via the solution.

“The fact that we can manage and secure a wide variety of digital assets via a single platform is a huge benefit for us,” says Andreas Kötter, responsible for urban water and parking management at the Arnsberg municipality. “The employees only need to be trained on how to use one single solution, which was also important for the acceptance of the new system.”

Maximum flexibility and security

“Endian’s solution can handle a wide range of communication protocols,” says Daniel Kratzsch, responsible for automation and control technology at Spie Osmo GmbH. The infrastructure supplier provides the system for the city of Arnsberg and had planned the integration of the ENDIAN SECURE DIGITAL PLATFORM. “This makes the platform maximally flexible and facilitates the networking of a heterogeneous infrastructure.”

The Switchboard, the platform’s central management tool, allows full management of permissions of users, gateways, assets, and applications, further enhancing security. For example, it is possible to specify that employees of the municipal services receive different authorizations for remote access than external service providers.

All access authorizations can be changed or deleted in real time. This simplifies administration, especially when an employee changes department or leaves the company. The Geo-IP allows to prevent access from certain countries. The platform also ensures that all systems are supplied with the latest updates at all times. This helps to keep all networks and devices safe and secure which is an important security aspect.



The **Endian Switchboard** is the heart of the Endian Secure Digital Platform that provides secure remote access to field equipment, data collection and visualization, edge computing and powerful user and device permission management.

Installation with support from partners

The reason for the project was the replacement of the outdated routers which the systems were previously connected. The launch of the new technology was planned by Spie Osmo in detail. During the rollout, the infrastructure provider received support from the systems house Power on Tour. "We are a long-time partner of Endian and have a lot of Endian UTMs in the field. So it was only a small step to look into Endian's IoT solution. Michael Anzenberger from our distributor CONACTIVE made us aware that Spie Osmo would like to use us as a service provider. We, in turn, were excited about the possibility of securing and managing so many heterogeneous assets through a single platform," says Michael Kamm, Managing Director of Power on Tour.

About Spie Osmo:

SPIE OSMO designs and builds complete systems and plants for industrial, commercial and public clients, on schedule and turnkey. The company is active in the fields of electrical systems and automation technology, machine and plant engineering, medium and low-voltage systems, traffic engineering and information & telecommunications technology.

SPIE OSMO also offers comprehensive service packages, maintenance and, on request, operation of the plants it builds - all in the interests of finding the best economic and technical solution for its customers. The range of services offered by SPIE OSMO begins with project development and remains reliably available to all clients even after the tasks have been completed.

[More information at www.spie-osmo.de](http://www.spie-osmo.de)

About Endian:

Endian is a leading security manufacturer in the field of Industry 4.0. The company's declared goal is to set technological standards in the market for highly secure data communication. Based in Bolzano, South Tyrol, the company was founded in 2003 by CEO Raphael Vallazza and a team of experienced network specialists and security experts. The product portfolio ranges from security solutions for SMBs and hotspot management to solutions for industrial production facilities. In addition to the enterprise products, Endian offers a free-to-use Community Edition, which is one of the most popular open source UTMs with over 2.2 million downloads.

[More information at www.endian.com.](http://www.endian.com)

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