

How GSE Group monitors their smart buildings remotely

Secure remote access to Building Management Systems



GSE Group is a well-known specialist in commercial real estate with a history of over 40 years. They take care of the entire process - from land search to construction and building delivery - for projects such as logistics platforms, factories, shopping centers and laboratories. As a result, GSE has become the single point of contact for the realisation of these kinds of projects.

When GSE Group wanted to improve the way they were accessing their Building Management System (BMS) remotely in a secure way, they couldn't find an in-house solution that would fit their requirements. As a result, they decided to look for a solution from a specialised provider. In 2018, they came across IXON and started using it for remote access to and remote monitoring of their buildings.

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Since the installation of the 4G IXrouter, we have remote access to the BMS. This makes it possible to monitor the buildings built by GSE.

- Bertrand Ageneau, Smart Building Engineer at GSE

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User-friendly Industrial IoT solution

Before using IXON, the biggest challenge for GSE was to access the BMS to do programming and system updates remotely. As they didn't have a remote access solution at that time, they either had to go on-site for all the interventions and modifications or they had to ask the customer if they could use a VPN tool to set up a connection to the installation after which they could start the software to get access. This needed to be simplified in order to save time and manpower.

"Once we saw how easy IXON is to install and use, we were convinced," says Bertrand Ageneau, Smart Building Engineer at GSE. Since the installation of the 4G IXrouter, GSE has remote access to the BMS. This allows them to monitor the consumption of electricity, water and ventilation of their buildings.

Using different features for various purposes

The IXON Cloud helps GSE access the BMS and manage several routers. Even customers can have access if they want, in order to check on things like gas and hot water. "It's very convenient to have all the sites in one single access point," says Bertrand. "This way we can significantly reduce the amount of trips we take to access data and change settings."

GSE uses the IXrouter and IXON Cloud's functionalities for various purposes. For example the HTTP service is used to access the BMS server web page, whereas the VPN function is used to access the BMS for remote configuration. On the other hand, the API function is used for GSE's Energise service* for data acquisition of the BMS. Before accessing the BMS via the IXrouter and the VPN connection, the authentication is done via API.

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- Bertrand Ageneau, Smart Building Engineer at GSE

GSE also uses the HTTP service of the PLC to control the air conditioning in their own office. There are no worries about losing the AC remote control anymore. GSE can just operate it via the router on their mobile phones.

Benefits the IXON Cloud offers GSE Group:

- ✓ Connect safely via VPN
- ✓ Easy to use and install
- ✓ Fewer on-site visits
- ✓ Everything together in one single access point



Industrial IoT development in the smart building industry

The IXrouter allows GSE to access the Building Management System remotely in a secure way - using a VPN connection via a robust router including a firewall. "It's an easy-to-use tool. Even some of our subcontractors have adopted the IXrouter in their own projects for remote programming," says Bertrand Ageneau.

"We expect that Industrial IoT will be developed in the smart building industry to complement existing systems such as BMSs. IIoT makes it possible to have data easily available for any service." GSE's future plans include gathering data such as use of electricity, water and ventilation with the help of the IXrouter and analysing them in the IXON Cloud to learn more about their smart buildings.

- * Energise service is a trademark of GSE. With this service they are able to request information to offer simple data to the customer via IXON's API. They build an interface with the HTTP server and then provide the reports to the customer. This means the customer gains insight in their data in an easy understandable way.



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