use case #05

SecuriCDS® ZoneGuard

Safe information management for critical systems

Energy plants such as wind farms and utilities rely on data from outside manage-ment systems. These systems include virus protection and software updates, but also other crucial information, to work at maximum potential. The information transfer to and from the system has to be secured to make sure that the integrity of the Industrial Control System (ICS) is preserved.

Safe information management for critical systems

Transfer information – without the risk of breaches

Wind farms rely on the power of wind to generate energy. These energy plants need accurate forecasts from agencies such as The Met Office or Sweden's SMHI to optimise production.

Reliable forecasts for a day ahead are needed by utility operators to start up secondary power sources like coal, nuclear, or gas plants in case of low wind speeds. Predicting the generated energy from wind farms will also result in eco-nomic benefits as electricity   can be bought from other producers at an early stage instead of later paying premium prices.

All connections to and from the ICS/SCADA network must be secured so that the segmentation between OT and IT cannot be breached.
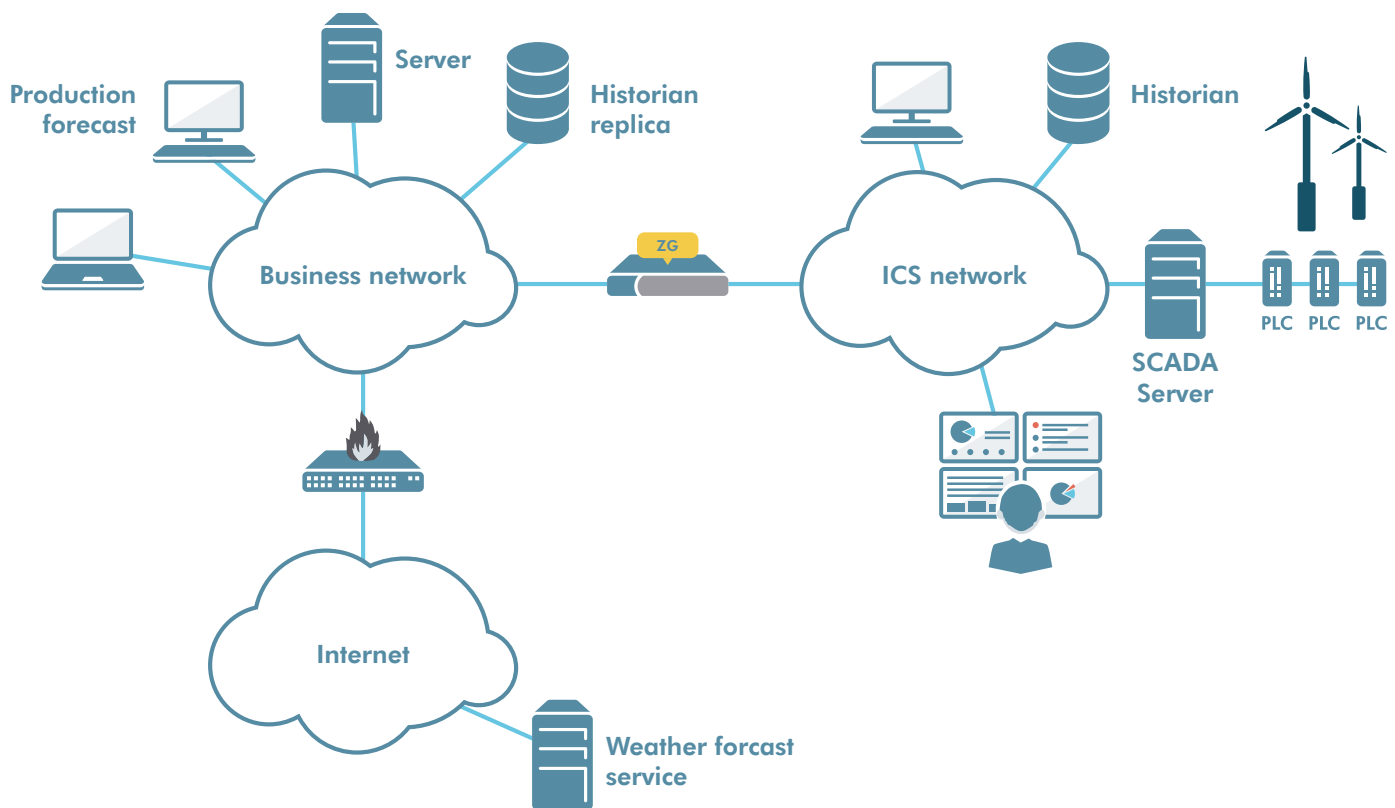
ZoneGuard – protecting the flow of data

Advenica's ZoneGuard technology is the failsafe way to protect your sensitive systems. The solution allows only designated data to pass in one direction, no mal-ware or destructive data can infiltrate systems during data transfer, and no data leakage can occur. ZoneGuard enables sensitive and structured information to pass through the system, maximising production, even under severe conditions.

ZoneGuards are compact bidirectional security gateways which sit between two networks. The ZoneGuard disconnects the critical part of your infrastructure from other networks while maintaining access to the critical information it needs for its management functions to operate in an optimal way.

Safer, more efficient information management

Advenica's ZoneGuard technology is flexible, efficient, and reliable using a com-bination of proxy services and filters. Customizable filters perform excessive data validation which increases operational safety. This ensures the availability and in-

Production forecast

Server

Historian replica

ZG

Business network

ICS network

Historian

SCADA Server

PLC PLC PLC

Internet

Weather forcast service

tegrity of your systems and data. No unauthorised people or processes are able to interfere with your systems. Additionally, they offer greater security over conventional firewalls by minimizing the risk of human error, using automatic enforcement of security policies, real-time monitoring and logging to be able to create an audit trail.

Keep up with standards and regulations

With the growing need for IP-based access and the risk of intrusion or leakage it brings, it is more important than ever to conform to relevant standards. Advenica's ZoneGuard technology is based on a long experience of building security solutions that have received multi-national approvals for highest classification including Restricted, Confidential, Secret and Top Secret.

Benefits

By using ZoneGuard in the ICS/SCADA connection case the information flow is controlled by a policy defined by the system security responsible or the IT security department. Threats towards the critical ICS/SCADA network is effectively mitigated in the cross-domain point by ZoneGuard's validation and filtering of all information.

ZoneGuard technology
Advenica's ZoneGuard technology reduces attack vectors by enforcing an organisation's information policy to achieve secure information exchange between Industrial Control System (ICS) and other networks.

- *Full message inspection and termination of protocols   which provides protection on all information levels, including the application layer.*

- *Assets within the secured system is fully secured from manipulation and theft.*

- *Safeguards which information that will be communicated.*

The ICS/SCADA information flows may be combined with other information flows to support more use cases e.g. email or file transfers.or file transfers.

Advenica provides expertise and world-class high assurance cybersecurity solutions for critical data in motion up to Top Secret classification. We enable countries, authorities and companies to raise information security and digitalise responsibly. Founded in 1993, we are EU approved to the highest level of security. Our unique products are designed, developed and manufactured in Sweden.

Read more at advenica.com

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ISO 9001
CERTIFIED
ISO 14001
CERTIFIED