# SECURE ACCESS TO CRITICAL SYSTEMS

## Utility Company PSE S.A. uses SDP to secure critical SCADA and EMS applications.

### Background

PSE S.A. is the transmission system operator for Poland, responsible for meeting the country's domestic and cross-border demands for electricity. In addition to managing and developing the extensive network of power transmission lines and substations across Poland, the company's responsibilities also include the national security of the electricity supply, managing cross-border connections and operating the power market "balancing mechanism," buying and selling balancing energy effectively in real-time to balance power flows in the transmission system.

The complex nature of the business means that many user groups need access to PSE S.A.'s systems and resources: employees, electricity companies/traders, contractors and third-party suppliers. To protect the company's mission critical systems and protect the sensitive information being handled on the electricity market, PSE S.A. required powerful yet flexible network security.

### Requirements

**Access control for a wide range of user groups:** To provision access for a large number of users with diverse requirements, administrators needed to be able to define many individual roles quickly and easily and have precise control over individual access rights. For example, electricity market players submitting bids to buy/sell electricity, employees using or supporting central control systems, employees needing access to mail and office applications or third party suppliers providing online remote system support and maintenance.

**Strong user authentication and encryption:** Unauthorized access to some areas of the network could have potentially catastrophic results, from manipulation of the energy markets to control of substations leading to blackouts across the country. Therefore, all communications needed to be encrypted, and strong user authentication would be required to protect critical systems.

**24/7 access:** "We needed secure access 24/7," says Tomasz Szudejko, Deputy Director of Department of Operator Services, PSE S.A. "SCADA and EMS applications are working 24 hours a day. No downtime is allowed so it is important for our employees at home or after hours to be able to log in and fix any problems—and to be able to do it in a secure way."

### ORGANIZATION

Polskie Sieci Elecktroenergetyczne (PSE S.A.) is the transmission system operator for Poland, responsible for meeting the country's domestic and cross-border demands for electricity.

### CHALLENGES

A complex business environment requires secure access for employees, electricity companies/ traders, contractors and third party suppliers to PSE systems and resources.

Necessity to protect the company's mission critical systems and sensitive information being handled on the electricity market.

Maintaining continuity of service in a 24/7 operation running SCADA and EMS applications.

### SOLUTION

A very flexible, powerful and stable access system for the professional and demanding environment at PSE S.A.

### BENEFITS

Precise control to network resources

Strong two-factor authentication

Contextual authorization

Persistent encryption ensuring privacy

Clustering for high availability

## The Solution

PSE S.A. selected Appgate SDP as it met the full set of requirements, combining strong authentication, authorization, encryption and access control in one comprehensive solution.

Appgate's flexible and scalable technology allowed PSE S.A. to start with a smaller deployment and easily add more servers as their needs evolved, keeping the process cost-effective. Initially, a single Appgate security server was installed, but it has since been upgraded to support more complex requirements. Two clustered Ax2 security servers provided internal access to key systems such as SAP and the energy market.

A second cluster provides external access for electricity market traders and for technical support personnel to be able to securely connect remotely in the event of an emergency. A third cluster provided remote access for employees to access the mail server and office applications when working away office locations.

Appgate is designed to cluster several servers together for high availability. Alternative IP addresses for the other clustered servers are automatically distributed to users' machines. Ilf the primary server became unavailable, connections are instantly rerouted to a backup server. Additionally, connecting two different ISPs to the clustered servers ensured network access remained available through the alternate ISP/server if one ISP fails.

Powerful rules and roles management provides administrators with precise control over which network resources each user can access and under what circumstances. Endpoints can be evaluated, allowing only corporate-owned devices to access specific applications. Unauthorized services remain invisible to users, preventing them from seeing or targeting other corporate assets. In addition, Appgate automatically configures machines that have never connected to the PSE S.A. network before. So if an external trader or supplier uses a different device, the client is provisioned and configured without having to wait for an administrator's input.

Tomaz Szudejko says, "We work very closely with the Appgate team in Sweden and have found them to be very responsive, for instance, when we have needed them to develop additional functionality. We think it's a very flexible, powerful and stable system for the professional and demanding environment. So, we would be happy to recommend it."

***"The Appgate system is relatively easy to use, but the key thing is that it is very powerful. It is possible to define so many different profiles for different people with very different needs. We couldn't find any other system that allows us to define such a variety of different profiles for all our different users."***

***- Tomaz Szudejko, deputy director of department of operators services, PSE S.A***

## Conclusion

After the initial implementation, the organization adopted Appgate SDP as its primary system for controlling access to critical systems. The solution has been integrated with the new control systems and technologies at the company's award-winning headquarters in Warsaw. Other parts of the business, including branch offices that require secure access to data exchange, email, and other applications, also rely on Appgate SDP.

**About Appgate**

Appgate secures and protects an organization's most valuable assets and applications. Appgate is the market leader in Zero Trust Network Access (ZTNA) and online fraud protection. Appgate products include Appgate SDP for Universal ZTNA and 360 Fraud Protection. Appgate services include threat advisory analysis and ZTNA implementation. Appgate safeguards enterprises and government agencies worldwide. Learn more at appgate.com

appgate