



NEXUS SMART ID

Energy and Utility Sector Customer References

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Enabling
trusted
identities



Uniper were in need of a modern Identity Management System (IdM) to future proof digital workforce identities. Uniper also needed to migrate its on-premises legacy system to a modern solution in Microsoft Azure.



Smart ID Digital and Physical ID Management modules removed the complexity from identity management allowing Uniper to manage the full lifecycle of all types of identities in one system, including access to self-service functionality and automated processes.

About Uniper

Uniper is a leading international energy company with around 11,500 employees and activities in more than 40 countries. With about 34 GW of installed generation capacity, Uniper is among the largest global power generators. Its main activities include power generation in Europe and Russia as well as global energy trading, including a diversified gas portfolio that makes Uniper one of Europe's leading gas companies. In 2019, Uniper sold a gas volume of 220 bcm. The company is headquartered in Düsseldorf, being the third-largest listed German utility. Under its new strategy, Uniper aims to become carbon-neutral in Europe by 2035.

Uniper selects Nexus Smart ID for secure digitization and to protect its work-force

Uniper, an international energy company has selected Nexus Smart ID to modernize its legacy identity management system to future proof and protect its digital workforce identities. To enable Uniper to have access to a smooth identity management solution, Nexus needed to first migrate their on-premises legacy system to a modern solution in Microsoft Azure.

Nexus' Smart ID – Digital and Physical ID Management modules remove the complexity from identity management allowing organizations to manage the full lifecycle of all types of identities in one system, including access to self-service functionality and automated processes. Through this central system, Uniper allows for information security compliance with freedom of choice for identity types such as smart cards, virtual smart cards and mobile virtual smart cards which can also be used for strong authentication and encryption services.

Smart ID comes with integration capabilities to many common related systems such as Active Directory, external trusted certificate authority, EDM and ITSMs. For this solution, Uniper has selected to go with the product integration with D-trust for publicly trusted certificates in the solution.

Continue reading to learn more about the Smart ID Identity Manager solution which centralizes lifecycle management of identities for physical and digital access.



Fortum required a new safer technology for access cards. They needed to unify their 50 offices worldwide and wanted to manage everything online “as a service”.



Nexus GO Cards, an online service, enabled quick and easy ordering of cards, key fobs and accessories, from Fortum’s own customized assortment. The service included all types of products for secure identification and access control to physical and digital resources.

About Fortum

Fortum is a leading clean-energy company developing and offering solutions for their customers in electricity, heating, cooling, as well as solutions to improve resource efficiency. They also provide services for the power generation industry and solutions for consumers so that they can be smarter win their energy choices.

Fortum selects Nexus’s cards and readers for secure access

Motivated by recent expansion and a new corporate design, the energy company Fortum has decided to invest in new safer technology for access cards and card readers. “We needed a uniform identity card for the entire group, so that every employee can visually show that they work at Fortum. As a big group, with high standards of security and growth, we were prepared to take a holistic approach to physical security, and thus chose Nexus Group as a global supplier,” says Tuomo Linjala, Group Security Manager at Fortum.

The new access cards have multiple colors and a photo. The old RFID technology is exchanged for a safer MIFARE DESFire technology. The cards are used for “follow me printing” functionality, and Fortum employees can order their cards through the Nexus card portal CaaS, Cards as a Service. In the card portal there are also pre-configured cards for visitors, who are given temporary access to different offices or power stations. Security, quality and price were crucial factors in Fortum’s decision for choosing Nexus.

Order portal and global delivery sealed the deal

Security, quality and price were crucial factors in Fortum’s decision. “Nexus has a very simple and smooth ordering process, where employees at our offices and power stations can order cards directly in a card portal. Then the cards are produced locally and distributed to all locations. The other suppliers did not offer cards as a service and could not deliver to all our countries where we operate,” says Tuomo Linjala.

Energy Company



Utilize self-service functionalities to manage trusted identities including approval stages to assure governance even with those employees working with critical infrastructure. Solution also needed to be delivered “as a service” where the critical service for the energy supplier’s infrastructure would be provided by Nexus.



Smart ID Corporate PKI, a flexible and scalable solution was used to issue, manage and validate certificate-based digital identities for mixed endpoint environments that include people, infrastructure and things.



Nexus’ cloud services for the workforce allowed this energy supplier to focus on business while we manage the PKI platform. We assure availability, coupled with continuous upgrades and maintenance.

About the Company

An international energy supplier with offices throughout Europe, Russia and North America.

Leading international energy supplier

Smart ID enables an international energy supplier with offices throughout Europe, Russia and North America, to utilize a self-service portal for the management of trusted identities, including the approval stages to assure governance, including those working in critical infrastructure. Employees can use trusted identities for desktop log-in, email encryption, remote access and other security applications.

Through the Smart ID Corporate PKI, this company can implement user-groups with different access levels, manage keys including archiving and deploying the user key history as well as implementing a backend-to-card secure messaging for the secure personalization of trusted identities within an unsecured environment. The provisioning of users’ decryption key on a mobile device via mobile device management (MDM) systems like Mobile Iron or Microsoft Intune, is also common, or via ITMS (e.g. ServiceNow) for automated enterprise certificate provisioning for both domain endpoints (machines and servers) and non-domain endpoints (dev-ops servers, mobile devices or networking devices).

This energy supplier also requires a secure “as a service” approach, where we at Nexus, or our partner, provides the critical service for our customers’ infrastructure. Our cloud services for the workforce allows our customers to focus on optimizing their business while we manage the PKI platform. We assure availability, coupled with continuous upgrades and maintenance. Furthermore, we allow the options to deploy a subordinate CA in your name, meet your specific needs regarding certificate policies or short-lived certificates, or keep your environment crypto agile through upgrades in key usage.

This applies to the energy sector very well, whether it is to enable trusted identities for physical cards, Yubico, servers, e-charging stations or smart tokens and virtual smart cards.



In addition to IoT needs, Energy needed protection for its internal IT. Measures for establishing trust and encryption were needed for both employees and workplace devices.



Nexus Smart ID IoT PKI ensured end-to-end security and the ability to issue certificate-based, cryptographically secure and unforgeable identities.

About Energga

The main task of ENERGA-OPERATOR SA as the Distribution System Operator is the distribution of electricity to consumers through the energy network it manages. In accordance with the requirements of the concession for distribution activities, ENERGA-OPERATOR is responsible for the development, operation and modernization of the transmission infrastructure in the area of operation in order to provide the recipients connected to the grid with energy with the correct quality parameters. Energga Operator SA is part of the Orlen Group.

Energga selects Nexus Smart ID to protect critical infrastructure

Energga Operator SA, a leading distributor of electricity and part of Orlen Group, one of the largest oil refiner, petrol retailer and energy companies in Poland, selected Nexus Smart ID to provide a proven security solution that could support their workplace devices and secure Energga's Advanced Metering Infrastructure for their SmartGrid deployment.

Energga needed a multi-faceted solution that could not only support their internal IT needs but also secure its SmartGrid project. Energga required the integration of various SmartMeter manufacturers, PKI CA and sub-CA segmentation for separated environments, the ability to set up test scenarios for different SmartMeter providers and different certificate issuance procedures for both, automatic and manual issuance for routers, data concentrators and direct load controller devices. Selecting the Smart ID IoT PKI ensures Energga end-to-end security and the ability to issue certificate-based, cryptographically secure and unforgeable identities.

Nexus Smart ID is a proven solution for organizations needing to support their workforce, workplace devices, as well as IoT applications using one platform. The full Nexus solution was implemented by Nexus technology partner, Esysco.

Energy Company



This company needed a key management system (KMS) that would enhance the security of its pioneering Smart Meter Project. A solution that would provide trusted identities for smart meters, head-end systems, data concentration units, hand-held units and Smart Meter Operations Control systems was required. The solution also needed to be fully compliant to the DLMS Security Suites 0,1 and 2.



Nexus Smart ID for IoT provided PKI-based trusted identities to devices on the smart grid based on open standards providing end-to-end security between the devices.

About the Company

One of the largest electric energy companies in the Middle East, that dominates the generation transmission and distribution of electric power in its country.

Smart ID IoT to secure world's most ambitious smart meter project

One of the largest electric energy companies in the Middle East, that dominates the generation, transmission, and distribution of electric power in its country, has begun the installation of millions of smart meters. Cited as the 'world's most ambitious smart meter project', this AMI project aims to regulate consumption patterns and reduce power wastage using IoT-based smart grids while improving system stability, reliability, and transparency.

Nexus has been selected to provide a key management system (KMS) that enhances the security of this pioneering Smart Metering Project. Nexus Smart ID for IoT solution will provide PKI-based trusted identities to the smart meters, head-end systems, data concentration units (DCUs), hand-held units (HHUs), and Smart Meter Operations Control (SMOC) systems from smart grid solution vendors such as Schneider, NARI, China Electric Power Equipment and Technology (CET), and Oracle. Assigning trusted identities to devices on the smart grid based on open standards such as SCEP, EST, EST over secure CoAP (EST-coaps), REST, ACME, and CMP provides end-to-end security between the devices. This guarantees trustworthiness and high availability of the smart grid.

The Smart ID for IoT solution provides a hybrid KMS scheme for AMI by combining symmetric key algorithms for authenticated encryption and key transfer, and asymmetric key algorithms (public key infrastructure) for digital signature and key agreement – fully compliant to the DLMS Security Suites 0, 1, and 2.

"Securing the smart grid for one of the largest electricity projects in the Middle East strengthens Nexus' position as the preferred identity partner for IoT," says Tejas Lagad, Director at Nexus for Asia Pacific.

Do you want to know more? Contact us!

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