intertrust

Industry

Energy Utility Distributed Systems Operator

Location

Germany, with worldwide scope

Solution

Intertrust Platform™

Customer profile

Large European energy utility

optimizes and accelerates EV

charger planning and installations

E.ON is one of the largest utilities in Europe and globally, with about 80,000 employees managing their grid and retail businesses across Europe. DigiKoo, their data platform subsidiary and Intertrust's strategic partner, operates their grid data platform which is currently implemented at the largest Distribution System Operator (DSO) in Germany and being rolled out to others. Intertrust and Digikoo jointly market a broad set of applications and solutions to external customers globally.

The challenge

To accelerate the adoption of electric vehicles (EVs), DSOs, utilities, and municipalities are rapidly growing their EV charging networks. However, the lack of easy and quick access to grid information is significantly slowing down the siting and construction of new EV charging stations. DigiKoo is using the Intertrust Platform to implement a secure, automated grid integration and information access service that gives DSOs and municipalities the ability to easily support interconnections and information requests.

- Difficult to access grid information
- 800+ siloed DSO databases
- Strict privacy laws (GDPR, BDSG¹)
- Geolocation, load capacity, asset information in different DBs and in multiple data formats.

The solution

DigiKoo is using the Intertrust Platform to virtualize and govern data from a broad range of operational grid systems and visualization tools all on one platform. It also provides a secure and governed code execution environment which is key for analytics and AI applications.

This platform is used by multiple DSOs in parallel, which enables a seamless flow of data as well as analytics. This enables visual grid analysis solutions to efficiently access all the data needed to assess the feasibility of adding new EV charging stations or any other DER that needs to be connected to the grid, such as heat pumps, PV Solar, Energy Storage Systems, smart street lighting, and more.

Intertrust helps DSOs, utilities, municipalities, and their internal or external partners share data securely and collaborate efficiently with one another in building EV charging networks much faster.

. BDSG: German Federal Data Protection Act

The Intertrust Platform facilitates secure data exchanges and collaboration between businesses and partners, allowing them to secure, govern, and monetize their data, across any cloud service or infrastructure.

Intertrust Platform[™]

The Platform leverages container orchestration technologies such as Kubernetes and Docker to make deployments cloud-agnostic.



Identity and access management

Device and user identity, authentication, and authorization; maintains platform objects and their relationships.



Data virtualization

Data object definitions, permissions, restrictions. Provides data interfaces, manages DBs and virtualized datasets.



Secure execution environment

Secure network-isolatable environments for workload execution and controlled, interactive data exploration.



Time series database

Scalable, efficient, high performance database designed for time series data.



The approach

DigiKoo chose Intertrust to create their applications. It allows multiple stakeholders to plan and accelerate the grid interconnection process by making data securely and seamlessly available for collaboration. Using the Intertrust Platform, DigiKoo's applications are able to:

- Significantly reduce planning time and costs.
- Immediately calculate grid performance and cost impact, optimizing asset planning.
- Securely facilitate sharing of sensitive utility grid data.
- Implement role-based and rights-managed data access for multiple parties.

The result

Intertrust helped DigiKoo securely exchange data and collaborate without moving data around or copying it to a new location. By using secure data virtualization and an ability to operate using industry standard communication protocols, DigiKoo was able to:

- Reduce planning time by up to 90%
- Reduce soft costs
- Implement intuitive visuals of existing and proposed public and private charging stations, parking structures, and more
- Securely share grid data with multiple internal/external partners
- Implement rights-managed data access for multiple parties
- Immediately calculate cost impact, grid impact, and conduct what-if scenario analyses



View grid and city infrastructure, parking, existing, and planned EV charger locations

3 Connection to low voltage line - Alternative feeder - II

Max voltage drop

0.66%

The distance between the asset and the grid connection point is approx 130 meters Max. utilization of feeding transformers 12.02% \$24,759 Capex costs Rapid voltage change at the grid connection p -0.32% 99 74% Min voltage 99 02% Max voltag 40.27%

Max line utilization







View cost and performance impacts in real time

intertrust

Building trust for the connected world. Learn more at: intertrust.com/platform Contact us at: +1 408 616 1600 | dataplatform@intertrust.com

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