

Use Case: Connected Windfarm

Situation

An operator of wind power farms needed to provide security for the multitude of sensors attached to each device across large arrays of turbines.

These sensors provide real-time data critical to efficient operation of the turbines including peak wattage, wind speed and direction, individual turbine performance, and local weather data including lightning proximity - a danger for the windmills and the maintenance crews that service them.

Simplified security lifecycle management and automated, secure connections to Microsoft's Azure IoT platform were key requirements.

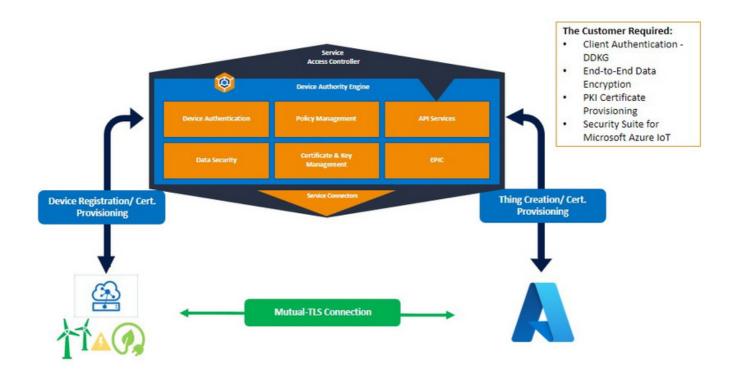
Solution

Device Authority KeyScaler as a Service (KSaaS) is used to provide:

- SaaS delivery model eliminating costly infrastructure and management overhead
- KSaaS provides automated PKI Services for IoT and complete Identity Lifecycle Management
- KSaaS leverages mTLS on the devices utilizing the devices' existing bootstrap certificates to enable secure onboarding, and provide operational certificate provisioning, revocation, and renewal
- KSaaS is used as an engine for Certificate Lifecycle Management via the simple API framework



Clean Power: Connected Windfarm



Conclusion

By Implementing KeyScaler, the customer could take advantage of a faster time to value by using pre-built integrations to enterprise IoT platforms, leveraging existing PKI infrastructure, and securing critical operational data.

This resulted in:

- A standardized security solution across a wide range of devices simplifying management, unifying IT and OT policy
- Elimination of human errors in the device identity lifecycle through Automated PKI certificate provisioning and management
- Significantly reducing complexity for the customer through initial device attestation and zero-touch onboarding through DPS to Azure IoT Hub

