

Use Case: Critical Infrastructure

Situation

Commercial Facilities including large public gather spaces like sports arenas and concert venues, are outfitting the facility with smart sensors that can detect important environmental factors such as air flow, chemical odors, smoke, etc.

In the event of a potentially dangerous event such as a chemical spill, fire, or pathogen release, security staff can be quickly alerted, and emergency responders can be immediately dispatched.

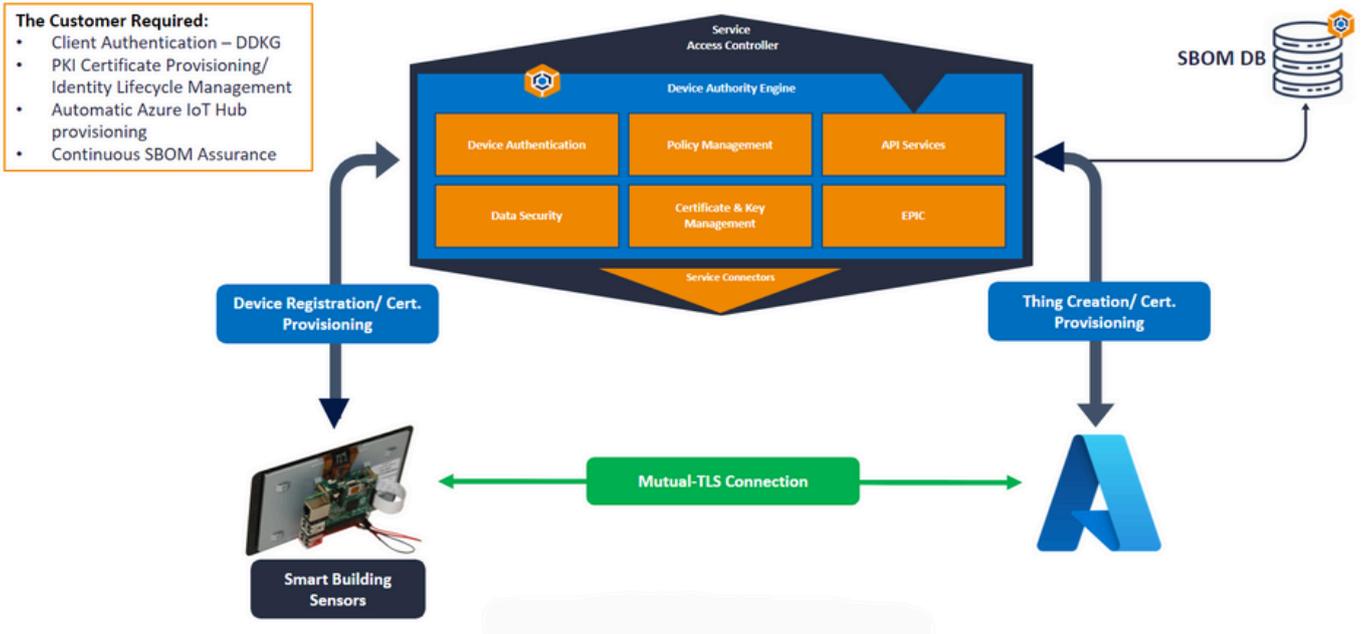
In order to ensure the highest level of security and data integrity, these sensors require x.509 certificates, and as part of the nation's Critical National Infrastructure need to validate their Software Bill of Materials (SBOM) as part of the authentication and authorization processes, ensuring a Zero Trust security approach.

Solution

Device Authority KeyScaler is used to provide:

- Generation of device root of trust using patented Dynamic Device Key Generation (DDKG) trust anchor technology to establish a hardware-based root of trust.
- Automated device provisioning to the IoT application used for overall device management.
- PKI Services for IoT utilizing x.509 Certificates issued by the corporate CA.
- Identity Lifecycle Management including automated certificate revocations and renewals.
- Continuous Assurance utilizing the device Software Bill of Materials (SBOM)

Critical Infrastructure: Commercial Facilities



Conclusion

Commercial facilities included in critical infrastructure require PKI security for the sensors and other devices that provide important facility data to help ensure safe, secure operations. Part of this requirement is to utilize advanced validation of the device's Software Bill of Materials each time the devices connect in order to meet Zero Trust security standards. KeyScaler is able to establish device trust, automate the provisioning of devices to the application layer, extend PKI services to all IoT devices and manage the full identity lifecycle, and utilize the device SBOM to ensure software supply chain integrity.



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