

# Digital Key Distribution System

The Digital Key Distribution System is a platform designed as an offshore product development engagement for a USA based company, to secure the communication of memory-constrained devices by leveraging the TLS stack instead of Raw TCP/UDP. It facilitates the distribution of encryption keys to ensure data security without the need for complex digital certificates.



## Challenges

- **Secure Communication:** Memory-constrained devices in green or brown fields struggle to use Public Key Infrastructure (PKI) for secure communications.
- **Certificate Management:** Installing, managing, and renewing digital certificates is complex and resource intensive.
- **Data Vulnerability:** Many industries still use Raw TCP/UDP for data transfer, posing a high risk of data interception during transit.

## Solution

- A platform to enable key distribution to devices via a Phone App or bulk import using CSV or API integration.
- Intuitive user-friendly interface for system admins, operators, and key managers to configure key templates for various devices.
- A native Device API library to generate and distribute keys, which simplifies integration for OEMs and application developers.
- Allows devices to use symmetric keys and the TLS stack for encrypted communication, eliminating the need for complex certificates.

## Impact

**Enhanced Security:** Secured communication channels reduce the risk of data theft during transit itself.

**Simplicity:** Simplifies the security setup by eliminating the need for digital certificates.

**Efficiency:** Streamlines key management and distribution,

**Accessibility:** Easily accessible and manageable for various device types and classes.

