

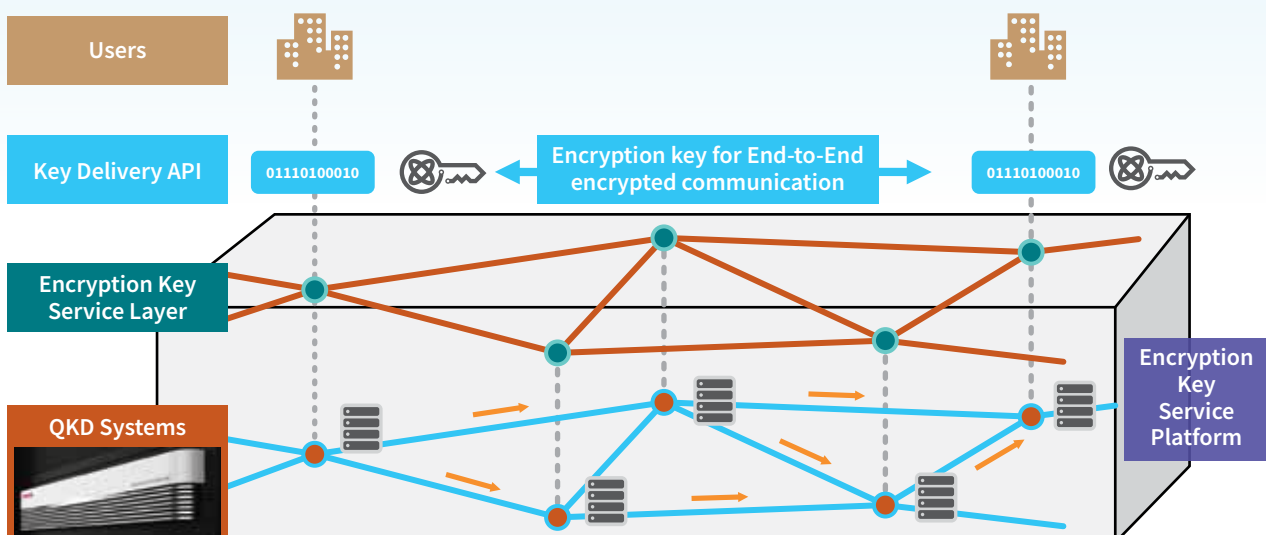
# Toshiba Quantum Key Management System

Enabling Quantum Secure Networks

The Toshiba Quantum Key Management System (Q-KMS) enables Quantum Secure Networks (QSN) to be easily deployed using Quantum Key Distribution (QKD) systems available today by managing key distribution in the QKD network. Q-KMS provides an abstraction from the underlying physical QKD hardware layer and helps QSN service providers implement a QKD overlay to their secure communication applications.

## Key Features

- Highly flexible approach to build quantum secure networks.
- Secure key routing mechanism to distribute keys between any two trusted nodes.
- Built in proactive key allocation mechanisms.
- ETSI GS QKD 014 REST-based API compliant for quantum key delivery to secure application entities such as network encryptors, VPN gateways etc...
- Q-KMS admin interface for configuration and monitoring of QKD network.
- Accommodates QKD systems from multiple vendors.



## Key Benefits



### Ease of Deployment

Q-KMS enables QSN service providers to easily operate quantum secure networks for numerous organizations, in order to communicate securely.

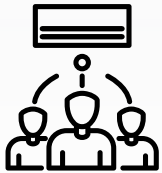
Q-KMS helps QSN service providers grow their quantum secure network capabilities over time, ensuring that new innovations can be incorporated as the quantum secure network market grows and matures.



### Fast & Robust

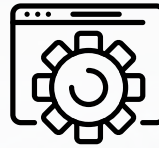
Q-KMS is designed and tested to work with industry leading QKD systems that deliver key rates of up to 10Mbps. Q-KMS performs proactive key allocation based on the QKD network capacity in real time. This enables low latency and high secure key rate.

Automatic re-routing functions implemented on the KMS manager enable robust operation of QKD network.



### Multi-Vendor QKD Support

Designed as a QKD system vendor independent key management system.



### Integration & Maintenance Support

Open API Simulator on AWS enables verification of key delivery implementation on Q-KMS remotely from your lab or office.

## Q-KMS Hardware & OS Requirements

Feature Set	Minimum Configuration	Recommended Configuration
CPU	Four Physical Cores, Xeon Family	Six Physical Cores, Xeon Family
RAM	8 GB	16 GB
Storage	512 GB	1 TB
Network Capabilities	GbE x 2	GbE x 4
Operating System	Red Hat Enterprise Linux 8 or AlmaLinux 8	

## TOSHIBA

Toshiba Europe Limited - Quantum Technology Division

208 Cambridge Science Park, Milton, Cambridge CB4 0GZ United Kingdom | [quantum@toshiba.eu](mailto:quantum@toshiba.eu) | <https://www.toshiba.eu/quantum/>