



PRODUCT

Falqon[®] Domain Controller

For Advanced Quantum Network Management

Are You Able to Easily Monitor and Configure Your QKD Network?

Quantum Key Distribution (QKD) networks are critical for building future-proof cryptographic infrastructure. But as these networks scale, they introduce operational and security challenges from legacy configuration methods.

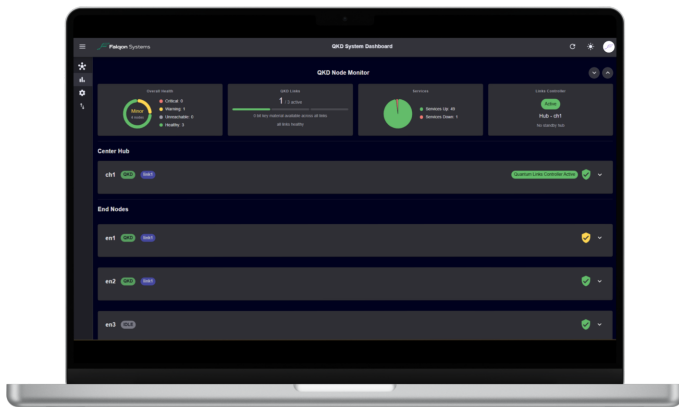
Manually configuring each device in a QKD network using command-line tools or low-level interfaces risks inconsistent security policies, configuration issues, deployment delays and human error. This slows down the adoption of quantum secure communication at scale, the very outcome QKD promises to accelerate.

Without centralized control and management, quantum cryptography methods and data security risk fragmented visibility, limited auditing, poor traceability, uncoordinated updates and slower issue detection.

Quantum cryptography promises future-proof data security. In quantum secure communications, what's needed is a unified platform that treats the quantum domain like the critical security infrastructure it is.

Are Operational Gaps Putting Your QKD Infrastructure at Risk?

The Falqon® Domain Controller is a secure, web browser-based platform designed for centralized configuration, control and monitoring of Falqon®'s quantum key distribution (QKD) network.



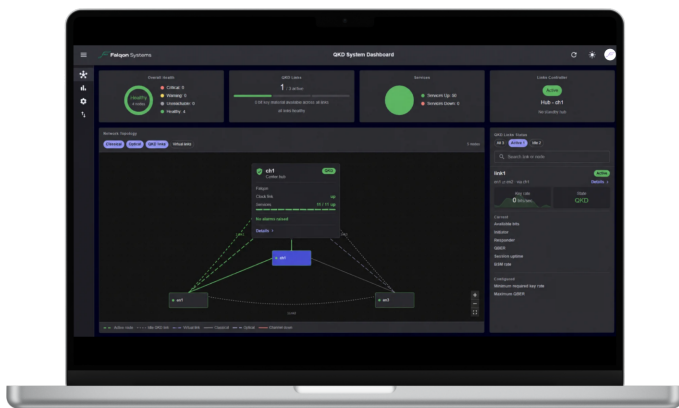
The Falqon® Domain Controller transforms the management of Falqon® QKD network infrastructure, ensuring that the inherently secure data is efficiently coordinated and the network remains resilient.

Purpose-built for quantum security environments, the Falqon® Domain Controller eliminates the inefficiencies and risks of manual, device-level management by enabling centralized administration of:

- Center Hubs
- QKD End Nodes
- QKD Links
- Secure Application Entities (SAEs)

Falqon® Domain Controller: Secure and Scalable by Design

- **SSH-based communication** ensures secure, authenticated access to all QKD End Nodes.
- **Authentication controls** protect the management interface.
- **Proprietary compatibility** with Falqon® MDI-QKD Series hardware ensures tight integration and minimal attack surface.
- **Define a QKD link once** and the Falqon® Domain Controller handles secure distribution of configuration parameters to all involved devices.
- **Visualize both physical and logical network topologies** to detect anomalies instantly
- **Monitor quantum key generation**, network health and device-level metrics in real-time.
- **Reduce exposure from manual errors**, configuration delays or operational and traceability issues.



Technical Features

User Interface Type	Browser-Based
Browser Compatibility	Chrome (>=109) Firefox (>=115) Edge (>=136) Safari (>=18.5)
Communication Protocols	Browser to Falqon® Domain Controller: HTTP with Authentication Password Falqon® Domain Controller to QKD Devices: SSH, with SSH keys
Monitoring Capabilities	✓ Dashboards + Time-Series Graphs QKD Devices • Per Device (QKD Nodes and Hubs) Monitoring • Physical Topology View QKD Links • Per Link Monitoring • Logical Topology View
Configuration Capabilities	✓ QKD End Nodes, Center Hubs, QKD Links, SAE
User Access Control	Role-Based Access Control
Deployment Options	Standalone Software Product • Pre-installed on Falqon® Hub (default) • Containerized version Standalone Hardware Product • Installed on a separate Falqon® provided server Standalone Cloud Hosted Product • Hosted in Falqon® environment

The Falqon® Domain Controller is a web-based platform for centralized control and monitoring of a Falqon® Quantum Key Distribution (QKD) network. It is designed for efficient network-wide quantum network management.

 Unified Configuration Interface

 Interactive Network Visualization

 Proprietary Compatibility with Falqon® MDI-QKD Series

 Comprehensive Monitoring Dashboards

Your Partner in Quantum Security

Falqon® is a leader in quantum communication technology, based in Delft, The Netherlands. We provide cutting-edge solutions and expert support to ensure your data security.

Trusted by



Explore how the Falqon® Domain Controller can elevate your quantum network management and accelerate your network scalability



Interested?

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