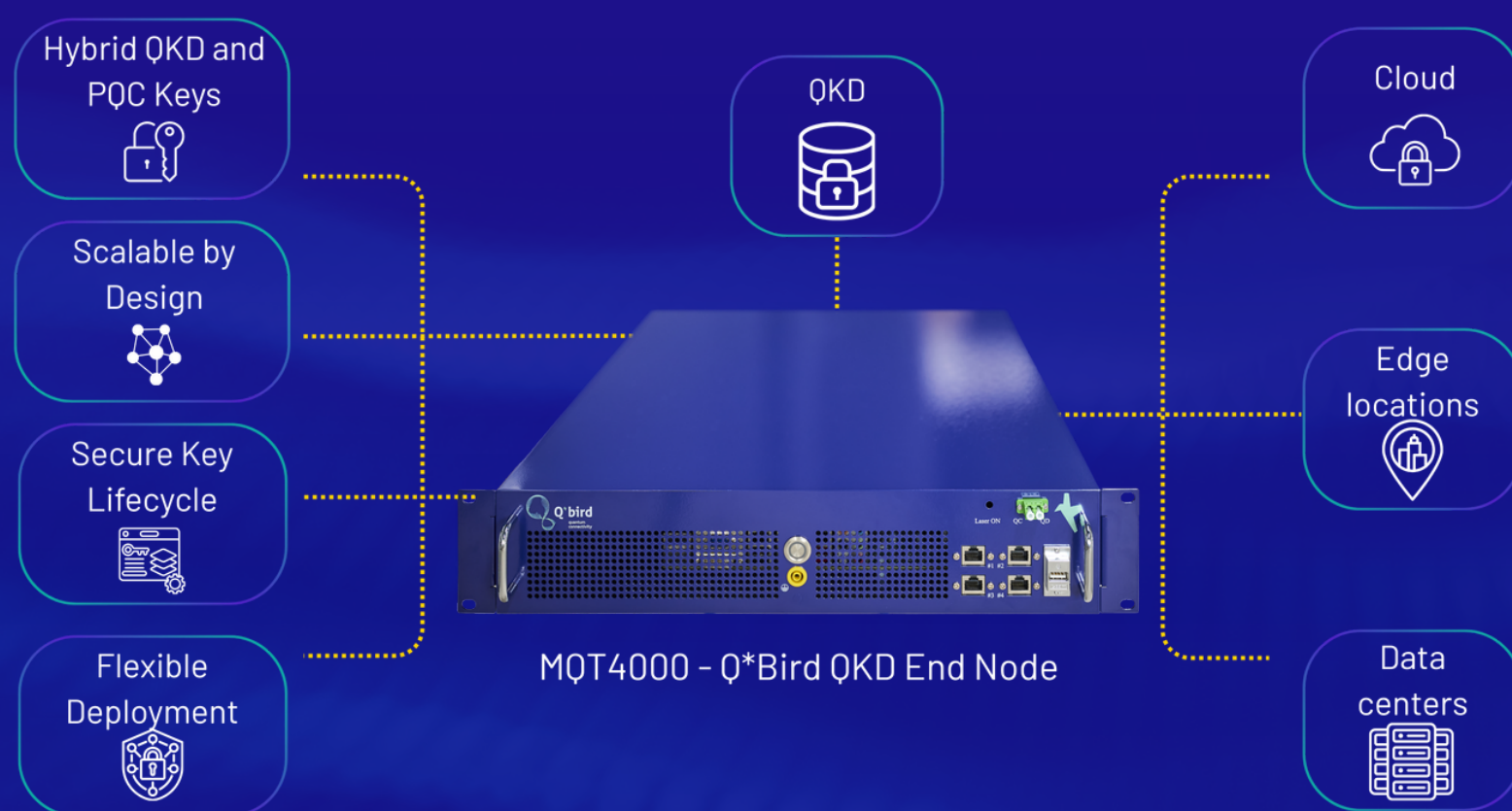


Q*Bird Falqon[®] Key Manager

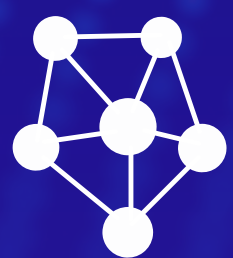
**FOR SCALABLE QUANTUM
SECURE NETWORKING**



Extend

**quantum secure
communications beyond
QKD-enabled locations
across cloud, edge and
distributed environments.**

The Falqon[®] Key Manager enables organisations to securely ingest, store, synchronise and deliver QKD keys, PQC keys and hybrid keys across distributed quantum secure networks.



**Scalable Quantum Secure
Networking**



**Secure Key Lifecycle
Management**



**Hybrid QKD and PQC
Integration**



**Standalone Quantum Key
Management**

**Interested in Collaboration or
Partnerships, Contact US!**

**sales@q-bird.com
www.q-bird.com**



KEY FEATURES

Feature	Specification
Network Architecture	Distributed Quantum Secure Networking KMS
Secure Key Lifecycle Management	Generation, Storage, Rotation, Archival, Destruction
Delivered Key Types	QKD, PQC, PKI, Hybrid
Ingested Key Types	QKD
Generated Key Types	PQC, PKI, Hybrid
Hybrid QKD & PQC Integration	✓
Multi-Site Key Distribution	✓
Trusted-Node Networking	✓
Multi-Tenancy	✓
Crypto Agility	Runtime Selection of Cryptographic Algorithm
Crypto Resilience	Optional Automatic Failover Between QKD, PQC and Classical Key Sources
High availability	Active-Passive Deployment
Multi-Vendor Interoperability	ETSI GS QKD Compliant
Deployment Models	Embedded, Standalone On-Premise, Containerised On-Premise, Cloud
Maximum Size of Stored Keys Database	Varies on Deployment
Maximum Number of Keys per Request	100 keys
Maximum Request Rate	over 1 Mbits/s
Maximum Key Size	1 Mbit
Minimum Key Size	1 bit
Concurrent Requests	✓

SECURITY FEATURES

Security Capability	Specification
Key Pool Management	Dynamic Allocation and Replenishment
Key Expiration Policies	Configurable per Tenant
Key Retention	✓
Key Revocation	✓
Key Usage Auditing	✓
Secured Key Delivery	mTLS End-to-End Encrypted
PQC-Protected mTLS Communication	ML-KEM
Encrypted Key Store	AES-256 Encrypted Storage
TPM-Protected Secret Storage	TPM 2.0
Signed Software Binaries	Cryptographically Signed
Strict Firewall Policies	Default-deny Rules
Physical Separation of Networks	Control / Management / Data
Role-Based Access Controls	✓
Secure Software Updates	Signed and Verified

SUPPORTED STANDARDS AND PROTOCOLS

Category	Specification
Key Delivery Protocols	ETSI GS QKD 014, SKIP and Nokia SMS
Relay Node Protocol	ETSI GS QKD 020
Key Types	QKD Keys, PQC Keys, PKI Keys, Hybrid Keys
Certificate Management	X.509 certificates
Management	CLI via NETCONF, Web via QDC
Health Monitoring	✓
Software Update Method	Via NETCONF

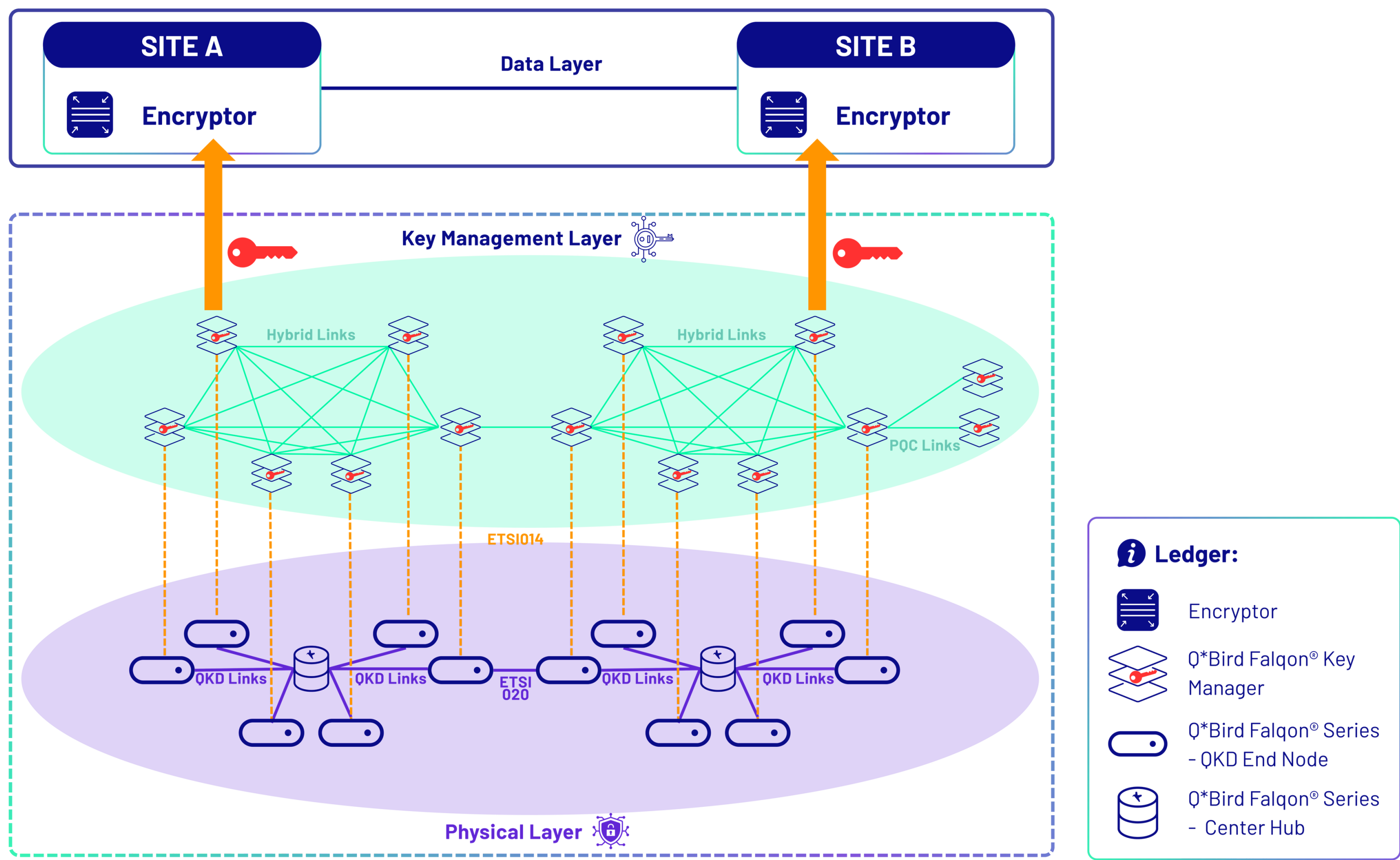
DEPLOYMENT MODELS

Deployment	Specification
Embedded Deployment	On Falcon® QKD Node
Stand-Alone Server*	On Q*Bird Provided Device
Containerised	Docker
Cloud	Azure, AWS and others
Air-gapped Operation	✓
High Availability Deployment	✓

* PHYSICAL PARAMETERS OF Q*BIRD PROVIDED SERVER (NOT APPLICABLE TO OTHER DEPLOYMENT MODELS)

Parameter	Specification
Form Factor	1U Rack-Mounted Device
Power Supply	<100W at 230V, -60V, or -48V
Redundant Power Supply	Optional
Dimensions	1U x 19" x 41 cm depth
Weight	7.5 kg
Operating Temperature	+5 to +40 Celsius
Relative Humidity	5% to 85%

DEPLOYMENT ARCHITECTURE:



Your Partner in Quantum Security

Q*Bird 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



Contact us today to learn how the Falcon® Series can protect your organization from data breaches, quantum threats and future-proof your network security



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