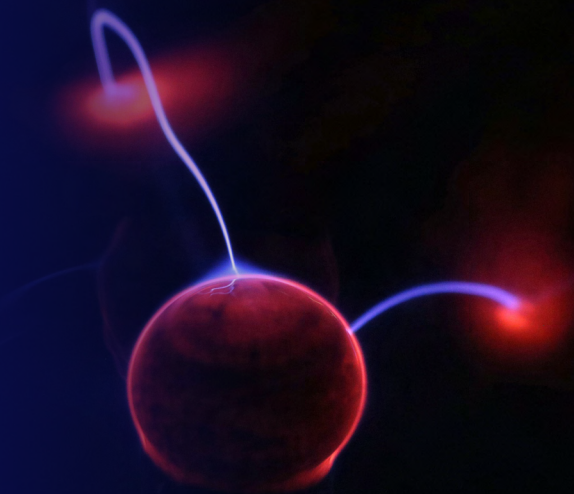


Network encryptor classified for confidential level

Quantum-resilient network encryption to secure your critical data-in-transit



NQX secures critical data transmitted over ethernet or IP networks. Strong encryption together with quantum-resilient key exchange algorithms ensure data is protected against eavesdropping or manipulation - now and in the future.

NQX appliances scale from robust industrial model up to high-performance models to enable encryption in environments where high amount of data is being transferred.



Crypto agility

Crypto-agile platform ensures the NQX encryption network can be updated to the latest PQC algorithms.



High speed

High-speed encryption for datacenters and enterprises - up to 100 Gbps.



A single platform

One platform to encrypt Ethernet (L2) and IP (L3) traffic.



Integration into your environment

NQX is easy to fit into your network infrastructure.



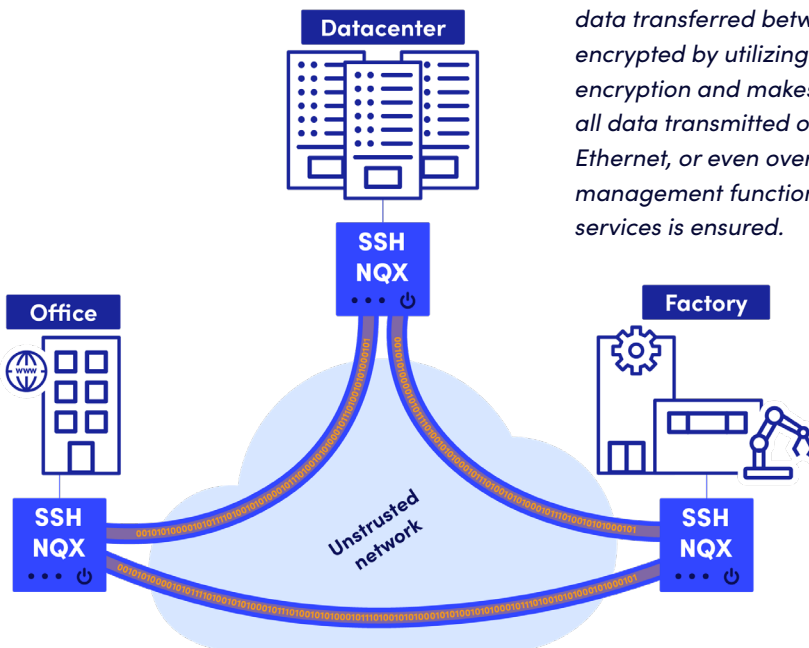
Performance

Optimal for applications requiring low latency.



Maintenance

Low-effort maintenance thanks to automated processes.



NQX nodes are deployed on the edge of organizations sites. All the critical data transferred between sites (like business, IPRs, customers data, etc.) is encrypted by utilizing quantum-resilient means. NQX provides high-speed encryption and makes it possible to deploy network encryption layer to secure all data transmitted over various transport technologies, such as xWDM, MPLS, Ethernet, or even over the Internet. The built-in security and automated key management functions ensure data is always secured and the availability of services is ensured.

“With the NQX solution, we are able to offer our managed private cloud customers more advanced solutions to protect their connections and more importantly data. We can securely embed customer data inside a quantum-safe tunnel, ensuring high bandwidth for protecting critical transmissions against cyber threats. Additionally, NQX operates at lower levels in the OSI model, including the data link layer (Layer 2) and the network layer (Layer 3), making it significantly harder for adversaries to capture data in transit.”

- Kim Gunnelius, Head of Finland at Verne

Security Feature Highlights

- Transparent L2-Ethernet encryption and L3-IP VPNs
- IPsec & IKEv2: Support for PSK Key lists & x.509 certificates (PKI)
- Adjustable IKEv2 & IPsec parameters to meet security needs
- Quantum-safe key encapsulation methods FrodoKEM/ML-KEM
- Automatic Post-Quantum Pre-Shared Keys (PPK) support
- Crypto module enables implementation of own key settings
- Emergency security features to purge the connections immediately and disable the appliance
- Remote Attestation to secure & control the appliance lifecycle
- Secure Boot verify the system integrity at firmware and software level

Networking Feature Highlights

- Native dualstack architecture supporting concurrent IPv4 and IPv6 traffic flows
- Simultaneous VPN support (IPsec) for both L2 and L3, all frames and protocols
- Flexible L3-operations with IPv4 and IPv6 capabilities
- BGP4 support for IGP/EGP dynamic routing
- DHCP, NAT, and NAT-T support for mobile and broadband access
- Rule-based forwarding for granular flow management
- Jumbo Frames support (9k bytes)
- Link aggregation Control Protocol (LACP)
- Automatic Path MTU to optimize performance

NQX™ Specifications

	NQX APPLIANCE MODEL				
PERFORMANCE	120	1160	1170	5170	5200
Throughput [Gbps] ¹	1	10	40	60	100
IPSEC tunnels	15	50	100	400	400
Encryption [Gbps] with PQC ML-KEM ²	1	6	15	30	60
Latency, average [ms]	0.6	0.6	0.5	0.5	0.4
INTERFACES Fixed/Max	120	1160	1170	5170	5200
Module slots	-	-	-	2	4
Gigabit Ethernet RJ45	3	6	8	8/24	0/16
10 Gigabit Ethernet SFP+	-	2	4	4/12	4/12
100 Gigabit Ethernet QSFP+	-	-	-	-	2/4
OPERATIONAL MODE	120	1160	1170	5170	5200
Ethernet (L2)	yes	yes	yes	yes	yes
IP (L3)	yes	yes	yes	yes	yes
MANAGEMENT	120	1160	1170	5170	5200
Console/LAN/inband	yes/yes/yes	yes/yes/yes	yes/yes/yes	yes/yes/yes	yes/yes/yes
USB	2	1	3	2	2
PHYSICAL	120	1160	1170	5170	5200
Dimensions (W x H x D) mm	147 x 40 x 110	240 x 44 x 220	340 x 44 x 250	438 x 43 x 480	438 x 44 x 511
Weight [kg]	1	1.9	3.4	8	10
Power supply	2 x 12V-48V TB ³	100-240 VAC adapter		Redundant 100-240 VAC	
Operating temperature	-40 - 65°C		0 - 40°C		
Relative humidity (non-condensing)	5 - 95%		10 - 90%		
APPROVALS	120	1160	1170	5170	5200
NCSA-FI CAA	Confidential				
Safety	CE/EMC, FCC class A				

¹ IPv4 UDP 1500 byte packet, 4x/8x 10G port configurations

² L2/L3 AES-256-GCM 1500 byte frame/packet

³ Terminal block connector

