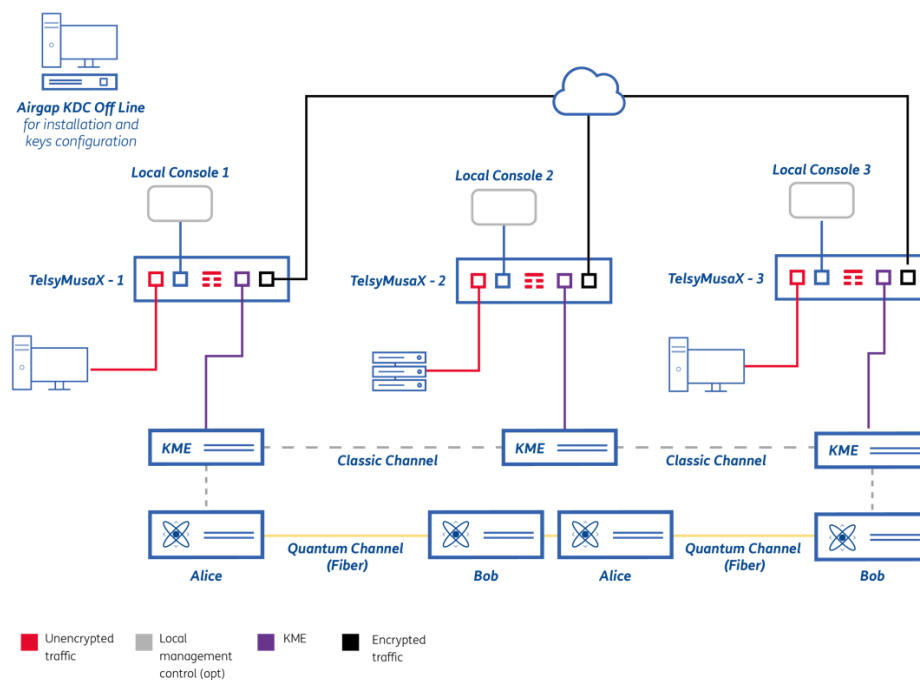# TelsyMusaX

QKD integrated
LAYER 3 ENCRYPTOR

Specifications

TelsyMusaX provides IP based encryption solution benefitting also from the additional security provided by QKD layer. These encryptors are designed to cover different architectures ranging from point to point, to star or full mesh. **Telsy**MusaX encryptors offer the protection granted by the proprietary **Telsy**Guard protocol, which is however based on standard AES 256 encryption. **Telsy**MusaX solution has been optimized for **Dell R450** family providing interfaces up to 10Gbit/s which allow for a maximum throughput of 3Gbit/s on the encrypted channel. Lastly **Telsy**MusaX solution is complemented by KDC server which manages the creation of Initialization and Crypto Ignition Keys and configuration files for **Telsy**MusaX appliance quick deploy.

General data*

Installation		
Form factor	Rack	19", 1 RU
	W x H x D	482 mm x 42,8 mm x 734.95mm (without Bezel)
Mounting	Mounting brackets for the rack	ReadyRails Sliding Rails with Cable Management Arm
Weight		18.62 kg (max)
Power supply		
AC power supply units	Power Supplies options	600W Platinum Mixed Mode (100-240Vac or 240Vdc) hot swap redundant 800W Platinum Mixed Mode (100-240Vac or 240Vdc) hot swap redundant 1100W -48Vdc hot swap redundant (CAUTION: only works with -48Vdc to -60Vdc power input)
Climatic and environmental conditions		
Ambient temperature	Storage	–40°C to 65°C
	Operating temperature (for altitude less than 950 m or 3117 ft)	10°C to 35°C °C
Humidity	Operating (Without condensation)	8% RH with –12°C minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point.

Data ports		

Number of ports	Data lines	2 10Gbit/s RJ45 ports:
		  - 1 "Red" private/unencrypted
		  - 1 "Black" public/encrypted

Maximum Throughput		Black Traffic – UDP max 3Gbit/s Red Traffic – TCP/IP max 3Gbit/s

Device management

Management ports		
Number of ports		1Gbit/s Management port for Local management
Connections to the security management **Remote/ Online management**		
Access	In-band	Configurable on customer request TLS 1.2, HTTPS through **Telsy**Guard encrypted channel.
Local management		
Access	Through local port or Red Network	TLS 1.2, HTTPS
Crypto Token		
Format	USB 3.0	USB adapter with 2 smart cards IP (for initialization) and CIK (for Operation)
Keys and Management		
Management station	For appliance initial configuration and Smart card programming	Telsy KDC
Security anchor	For initialization and operation	Smart card, secure configuration memory

Cryptography and security

Operational mode		
Protocol		**Telsy**Guard VPN Proprietary protocol integrated with QDK. (quantum safe cryptography included from next release)
Supported architecture		Point to point, Star, Mesh
Latency		<2ms
Symmetric cryptography		
Algorithm		AES Standard
Key length		256 bits
Mode		GCM
Key retrieval		
Interface		1 Gbit/s RJ45 interface to KME supporting ETSI 014 Standard
Additional functions		
Device security	Zeroize	**Telsy**MusaX can be zeroized upon request from management portal

Approvals and certificates*

Safety	EN 62368-1:2014 +A11:2017 EN IEC 62368-1:2020 +A11:2020 EN IEC 62311:2020 EN 62479:2010
RoHS	EN 55032:2015 +A11:2020 EN 55035:2017 +A11:2020 EN 61000-3-2:2014 EN 61000-3-3:2013
Environmental	EN IEC 63000:2018
Energy	Commission Regulation (EU) No. 2019/424

Provided as reference only Considering a Dell R450 platform using the provided data available on manufacturer site www.dell.com data may vary based on installation platform.