



Technolution
Prime

PrimeLink
5001c

State-of-the-art
IP encryptor
for NLD
CONFIDENTIAL



Redefining
solutions

Managed centrally, **wide range of use**, scalable, and **quantum resistant**

The PrimeLink 5001c sets a new standard for High Assurance IP encryption: great ease of use combined with simple centralized management. The PrimeLink 5001c allows you to create secure connections in no time for the highest classification levels in almost every network configuration. Management and configuration are very user-friendly thanks to the graphical management interface developed with input from end users. The optimized key plan makes deployment and stock management simple and clear.

State-of-the-art IP encryptor

The PrimeLink 5001c IP encryptor offers very strong data encryption designed for classification levels up to and including NLD CONFIDENTIAL. Realize secure connections within your network by connecting two or more PrimeLink 5001c devices with each other. The PrimeLink 5001c offers simple central control and is suited for many network topologies, making it highly scalable.

The PrimeLink 5001c has been designed to meet the latest security requirements and is quantum resistant, making it ideal for modern cryptostrategies for information-driven organizations that handle classified information.

The PrimeLink 5001c ecosystem

▼ **Management Server**

Use the Management Server (MS) to manage and configure secure connections. The MS is a 19" 1U appliance that you place in your data center. You can then manage your PrimeLink 5001c Crypto Units remotely from a standard desktop connected to your management network.

▼ **Crypto Unit**

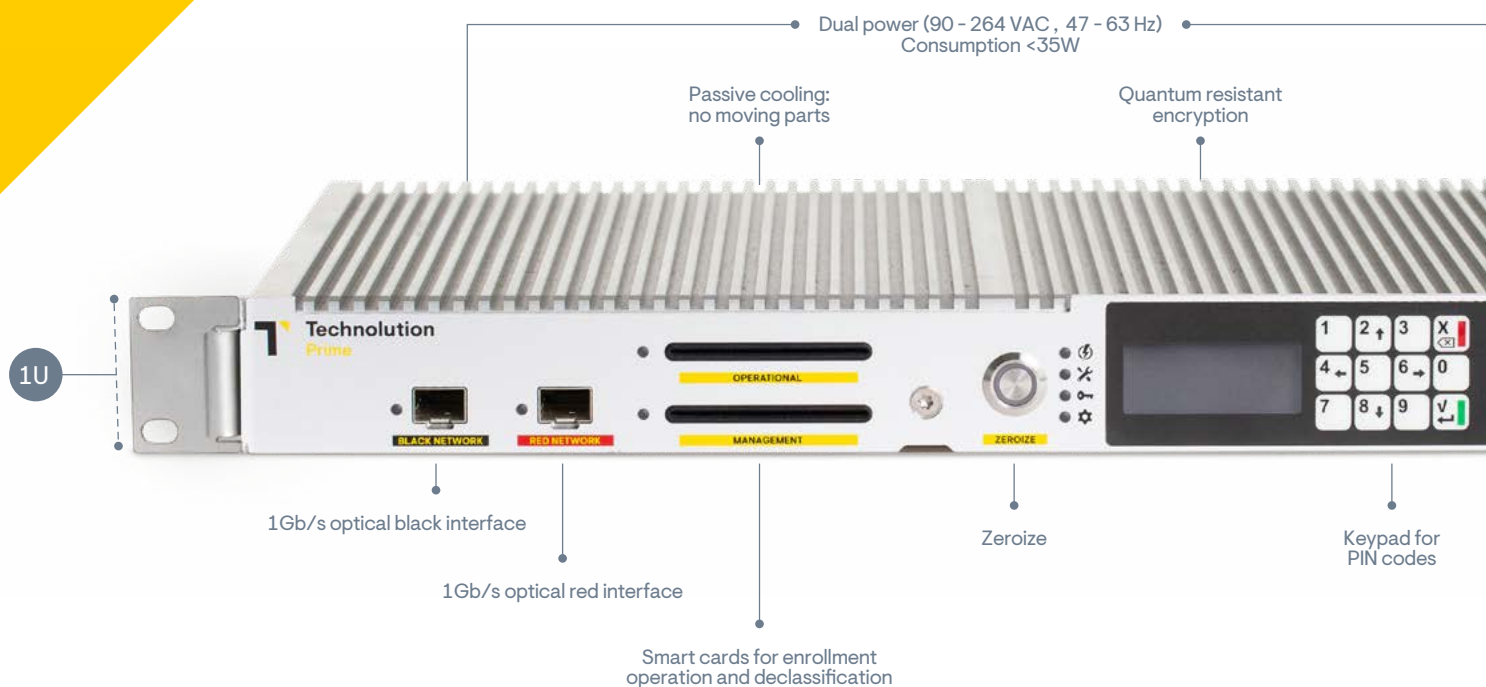
The Crypto Units (CUs) are the PrimeLink 5001c units that build secure connections between each other. A network configuration will contain at least two CUs. More CUs can be added.

▼ **Management Crypto Unit**

The Management Crypto Unit (MCU) is a dedicated PrimeLink 5001c that gives the MS access to the CUs within a network. It builds the connection from the MS to the Crypto Units in the field and ensures that any configuration changes made by the MS are communicated to all PrimeLinks in the field.

▼ **Key Server**

The Key Server (KS) is used to generate keys for the management of the CUs and their secure connections. These connection keys are distributed to the CUs automatically and securely. A second KS is required for the essential backup of the management keys.



Simple centralized management

The Management Server of the PrimeLink 5001c offers a unique graphical interface for network configurations. Managers can quickly and easily create a secure network in just a few steps. Moreover, the system is very efficient; it automatically generates network configurations and IP routing tables. Deployment is easy as well: the new network configuration is sent automatically to all PrimeLinks through the network via the management PrimeLink.

Management security is safeguarded by a dedicated management PrimeLink 5001c, which realizes the connection between the Management Server and the PrimeLinks in the network.

Key and stock management

You control almost all aspects of key management for your secured network. After the initial delivery of keys and devices, interaction with the National Distribution Authority (NDA) is minimal. This means you have maximum control over the deployment of your PrimeLinks. You choose the best moment to assign PrimeLinks to the domain of your choice.

No contact with or consultation of the NDA is required.

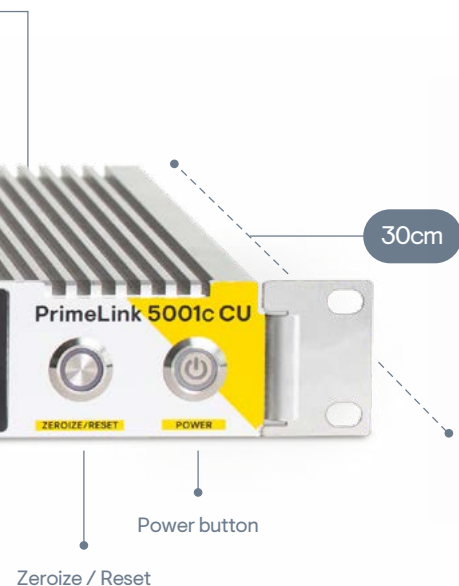
This means you can keep a large number of PrimeLink 5001c devices in stock centrally and assign them to specific domains at a later point.

Minimal management effort thanks to optimized key plan

Every network configuration has at least two Management Crypto Units (MCUs). The MCUs are connected to the PrimeLinks in the field, and, through the Management Server, with the Key Server. This means key management requires very little management effort.

The PrimeLink network requires no further maintenance to keep functioning properly.

The security of the management is assured by a dedicated management PrimeLink 5001c, which covers the connection between the Management Server and the PrimeLinks in the network.



The compact PrimeLink 5001c Desktop version

The PrimeLink 5001c Desktop version is the compact version of the standard 19" PrimeLink 5001c Crypto Unit (CU). It offers the same functionality and has the same performance, but is easier to transport, takes up less space, and has a DC supply. The ideal solution if you need a secure connection with a highly classified network and there is no available server space.*

* Placement in a TBB2 location is required as per the usage advisory.

Management environments

Version	Description	Scope of supply
Standard	The minimum recommended management environment. One management location is set up, including a Key Server, Management Server, and two Management Crypto Units (MCUs), one of which is redundant as a backup. The second Key Server is stored externally in a safe as a backup.	2x Key Server 1x Management Server 2x Management Crypto Unit
Backup	For smaller and larger networks, the Management Server and the Key Server are implemented redundantly at one management location. This means there is always a complete secondary backup management environment ready for use.	2x Key Server 2x Management Server 2x Management Crypto Unit
Redundant	The most extensive and most robust version. A second management location is set up, with a Key Server, Management Server and two Management Crypto Units. This means a secondary management environment is always active and standby at a different physical location than the first management environment.	2x Key Server 2x Management Server 4x Management Crypto Unit

Technical specifications

	PrimeLink 5001c CU	PrimeLink 5001c CU - Desktop
Security		
Certification	NLD CONFIDENTIAL	NLD CONFIDENTIAL
Hardware protection	Tamper evident and tamper responsive	Tamper evident and tamper responsive
Tempest	NATO SDIP-27/1 Level A	NATO SDIP-27/1 Level A
VPN		
Protocol	IKEv2 / IPsec - UDP	IKEv2 / IPsec - UDP
Number of tunnels	120 endpoint and 4 management tunnels	120 endpoint and 4 management tunnels
Tunnel routing	Longest Prefix Matching on source VLAN-ID and destination IP address	Longest Prefix Matching on source VLAN-ID and destination IP address
Operation behind NAT	Yes	Yes
Mode	Layer 3 with a maximum of 8 virtual Ethernet ports (VLANs)	Layer 3 with a maximum of 8 virtual Ethernet ports (VLANs)
Performance		
Maximum throughput	Optical > 950 Mbps	Optical > 950 Mbps
ICMP	ICMPv4 too big (automatic MTU tuning)	ICMPv4 too big (automatic MTU tuning)
MTU size	Black: 12.000 bytes, Red: 11.900 bytes	Black: 12.000 bytes, Red: 11.900 bytes
Latency	< 50µs unidirectioneel (< 0,05 ms)	< 50µs unidirectioneel (< 0,05 ms)
Management		
Network diagnostics	VPN dead peer detection	VPN dead peer detection
Key management	PL5000 Key Server (KS)	PL5000 Key Server (KS)
Remote monitoring	Statistics via SNMP, support for syslog server	Statistics via SNMP, support for syslog server
Remote management	PL5000 Management Server (MS)	PL5000 Management Server (MS)
Time synchronization	NTP (for log time stamps)	NTP (for log time stamps)
Interfaces		
Trusted network	1000Base-X, SFP cage (1G)	1000Base-X, SFP cage (1G)
Untrusted network	1000Base-X, SFP cage (1G)	1000Base-X, SFP cage (1G)
Operational smartcard slot	ISO7816-2, class A (5V)	ISO7816-2, class A (5V)
Management smartcard slot	ISO7816-2, class A (5V)	ISO7816-2, class A (5V)
Hardware		
Regularly compliance	RoHS, CE	RoHS, CE
Power	~24W typical (35W maximum)	~24W typical (35W maximum)
Power input	90-264 VAC, 47-63 Hz (Redundant power supply)	DC (External adapter included)
Cooling	Passive	Passive
Weight	7,1 Kg	4,8 Kg
Dimensions	19" rack 1U: W 425 x D 300 x H 44 mm	W 240 x D 270 x H 78 mm
Temperatures Operating	0°C - 40°C ambient	0°C - 40°C ambient
Storage	-20°C - 60°C ambient	-20°C - 60°C ambient



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About Technolution Prime

Technolution Prime is the market leader in the Netherlands in preventive High Assurance solutions for classified data. We develop all our products and solutions entirely in-house. We stand for high quality cyber-security where it is needed most.

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