



NEOUS

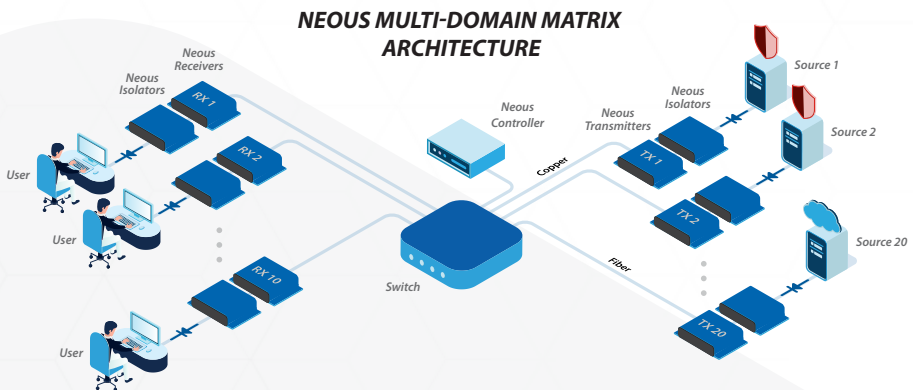
SECURE CROSS-DOMAIN

KVM AND VIDEO MATRIX SOLUTIONS

THE SOLUTION WHAT IS NEOUS?

Neous is a secure KVM over IP solution, implementing flexible and scalable KVM/AV matrix solutions for working securely with multiple sources of different classifications when users and sources are physically separated from each other. Neous implements multi-layer security integrating NIAP certified and FIPS 140-3 compliant components, and is fully compatible with HSL's family of secure KVM switching products for the utmost flexibility, user experience and data protection.

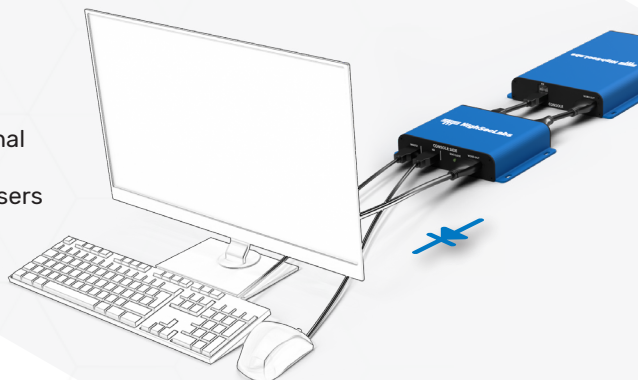
- **Flexible and scalable** – Deploy only what you need and expand as you grow
- **TAA and BAA** compliant products manufactured using a secure supply chain
- **On-Screen Display** to easily configure the matrix
- **Secure** - Prevents data leakage in a cross-domain, multi-classification environment using NIAP certified components, FIPS 140-3 compliant encryption and Network Access Control (NAC).
- **Fast zero-latency switching**



Using Neous, securely implement the most common cross-domain matrix solutions:

- **KVM matrix**
- **Video matrix**

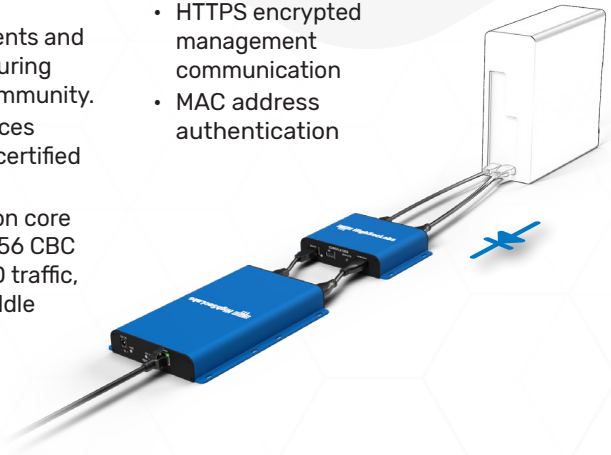
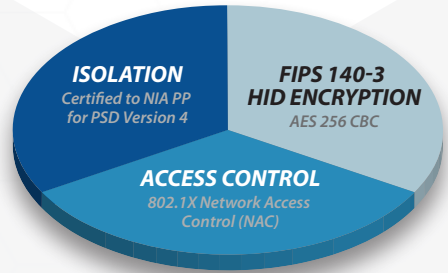
Neous is the perfect solution for control rooms, command and control centers, operational centers and other demanding applications where multiple users interact with many sources across multiple domains.



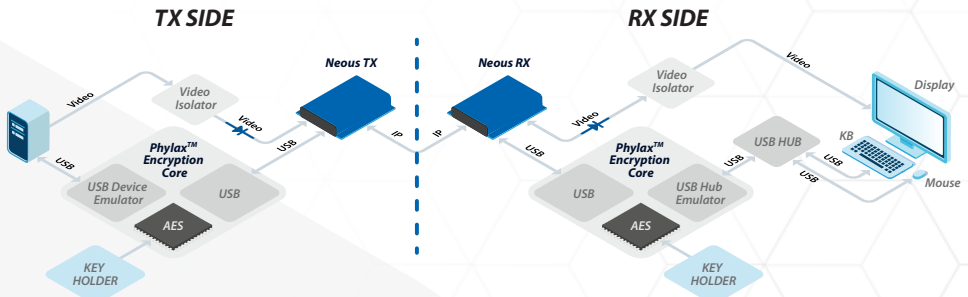
SECURITY HIGHLIGHTS

With Neous, work in a cross-domain, multi-classification environment securely without the threat of data leaks, insertion of malicious code or unauthorized use by using the highest security components available:

- Host and destination isolation using NIAP PP4.0 for PSD certified KVM and video isolators create a domain agnostic network for KVM and video matrix implementations.
- Uses pre-certified components and Industry standard tools assuring isolation and data leakage immunity.
- Isolator auto-sensing enforces system use only with NIAP certified isolators.
- The Neous Phylax encryption core performs FIPS 140-3 AES 256 CBC compliant encryption of HID traffic, preventing man-in-the-middle attacks.
- Secure EDID pass-through assures unidirectional information flow
- 802.1X NAC compliance prevents unauthorized connections.
- HTTPS encrypted management communication
- MAC address authentication



The Neous isolation core implements HW enforced unidirectional data flow and uses the Phylax core to encrypt or decrypt the data, according to the latest NIAP and FIPS 140-3 standards.



NEOUS COMPONENTS



Neous components are available for 10Gbps fiber and copper networks.

TRANSMITTER

- **Video Matrix:** Zero-latency video encoding and transmission
- **KVM Matrix:** Zero-latency encoding and transmission of video, reception and decryption of keyboard and mouse.

Both types of transmitters are operational only when connected to the linked Neous Isolator.

Transmitter



RECEIVER

- **Video Matrix:** Zero-latency video reception, decoding and multiview support.
- **KVM Matrix:** Zero-latency video reception and decoding; encryption and transmission of keyboard and mouse.

Both types of receivers are operational only when connected to the linked Neous Isolator.

Receiver



ISOLATOR

- **Video Matrix:** NIAP PP4.0 PSD certified video isolator.
- **KVM Matrix:** NIAP PP4.0 PSD certified KVM isolator.

Secure Isolators



CONTROLLER

Implements the logic for the solution type (KVM or Video matrix), performs the mapping of sources to users, along with user/source permissions. Manages the distribution of encryption keys.

Controller



TRANSMITTER & RECEIVER

MAIN FEATURES

- DP/HDMI 4K30Hz 4,4,4
- USB HID Type B/A (TX/RX) (KVM only)
- 10Gb Ethernet for video/audio, 1Gb for control
- SFP+ port for fiber
- FIPS 140-3 compliant AES 256 CBC encryption
- NAC, 802.1X, SSL



CONTROLLER

FEATURES

- KVM switching
- Video only switching
- Video matrix multiview support
- TX/RX configuration
- Permissions Management
- NAC



Frequency: 12.75 GHz	Utilisation: 97 %	Speed: 26 Gb/s
Throughput: 52618	Data Compression: 1/72	Seed: 750

ORDERING INFORMATION

MODEL	TYPE
SVFX10PHT-M	Neous Fiber Video Matrix TX with Linked Isolator
SVFX01PHR-M	Neous Fiber Video Matrix RX with Linked Isolator
SVCX10PHT-M	Neous Copper Video Matrix TX with Linked Isolator
SVCX01PHR-M	Neous Copper Video Matrix RX with Linked Isolator
SKFX10PHT-M	Neous Fiber KVM Matrix TX with Linked Isolator
SKFX01PHR-M	Neous Fiber KVM Matrix RX with Linked Isolator
SKCX10PHT-M	Neous Copper KVM Matrix TX with Linked Isolator
SKCX01PHR-M	Neous Copper KVM Matrix RX with Linked Isolator
MCV11EC-M	Neous Video Matrix Controller
MCK11EC-M	Neous KVM Matrix Controller



HIGH SEC LABS (HSL)

DEVELOPS HIGH-QUALITY CYBER-DEFENCE
SOLUTIONS FOR PROTECTING NATIONAL ASSETS
AND INFRASTRUCTURE IN THE FIELD OF NETWORK
AND PERIPHERAL ISOLATION.



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