

PESA SECURA[®] SOFTWARE



SECURA[®] - DoDIN APL Certified Cybersecure Mission Video System (MVS) For Situational Awareness and Decision Making

- ✓ SECURA[®] Software is architected on a group of micro-service applications that can be used both on-premise and in networked environments. SECURA[®] supports multi-cloud environments, if needed
- ✓ Zero Trust is at the core of both SECURA[®] Control and Data Planes
- ✓ The SECURA[®] Control Plane uses FIPS 140-3 (CMVP pending) and Mutual TLS (1.2) for every connected secure edge device as well as mutual authentication between micro-service applications
- ✓ SECURA[®] authenticates users from local Active Domain servers maintaining current authentication policies
- ✓ SECURA[®] Control ensures that each flow of video, audio and USB can be assigned a specific security level, insuring proper domain isolation
- ✓ Classified users can access certain Classified video from network connected edge nodes



CERTIFICATIONS OF THE SECURA[®] INTEGRATED SOLUTION



SECURA[®] SOFTWARE CAPABILITIES

- ❑ Control Encryption - FIPS 140-3 mTLS using Certificates of Authority and CNSA Elliptical Curve Keys
- ❑ MILS Levels - Multiple Independent Levels of Security separating Unclassified, Classified, Secret and beyond enforcing existing policies of security domains and separation of those domains
- ❑ Configuration Module to easily manage setups and changes to the video, audio and HID Matrixes.
- ❑ Dashboard Module to monitor activity within the matrix and log all events pertinent to active operations
- ❑ Switch Module for control over switching video to walls, monitors and other displays
- ❑ Switch Module for mouse and keyboard control without disrupting CAC readers
- ❑ Individual and separate flow control for encrypted video, audio and HID within an IP fabric
- ❑ Supports On-Premise, Hybrid and Multi-Cloud environments



Website:
www.pesa.com

Email:
sales@pesa.com

103 Quality Circle, Suite 210
Huntsville, AL 35806

US Toll Free: 1.800.323.7372
Telephone: +1.256.726.9200



SECURA® SOFTWARE DESCRIPTION

SECURA® Software consists of six (6) software modules:

- 1) SECURA® Control Server Stack
- 2) SECURA® Supervisor
- 3) SECURA® Switching
- 4) SECURA® Maintenance & Admin Tools
- 5) SECURA® 3rd Party API for Switching
- 6) SECURA® DVR (Digital Video Record)

1) SECURA® Control Server Stack: The SECURA® Control Server Stack is a group of micro-services applications using mTLS (mutual Transport Layer Security), a cryptographic protocol. The stack can be loaded on to RHEL or Ubuntu FIPS certified OS. It supplies the system with the means to control all of the transmit and receive nodes as well as authorized users, areas and workstations. The Secura Control Server Stack can use AD (active domain) and LDAP (directory access protocol), or can run as a standalone. All security levels are defined and enforced by the Secura Control Server Stack whose chief aim is to maintain compliance of current security policies.

2) SECURA® Supervisor: The Supervisor software application is used to configure the Secura System and sets up each node device such as transmitters, receivers, touch panels and other nodes necessary to fulfill an encrypted audio, video and HID USB matrix. Each node can be tagged and filtered in such a manner as to fulfill current security policies of a particular enclave. The Supervisor is intended for Secura System Administrators and as such can add and delete devices.

3) SECURA® Switching: The Secura Switching Application manages the switching of video, audio, and HID USB devices from sources to destinations. It works by providing each user with a specific security level to view, listen or manipulate, with keyboard and mouse, to signals that they are authorized to use. Prior to any switch, a mutual TLS connection is established ensuring security for both endpoints. Once authenticated and verified, the switch is made. This insures a properly secured connection based on the signal, user, room and work seat that was setup in Secura Supervisor.

4) SECURA® Maintenance: The Maintenance software application is used for updates and changes to the micro services platform as well as the placement of customer Certificates of Authority (CA), FIPS keys and AES keys as well as assignment of IP addresses and multicast addresses. The Secura System does not use mDNS, DHCP or SSH to make changes and it's this module that insures proper administration of each and every node of the Secura System.

5) SECURA® 3rd Party API: The 3rd Party API allows for 3rd party devices, which are generally unsecured, to attach to a SECURA® System. This is typically used for 3rd party non-PESA panels. This allows many non-secured devices to be used within the environment. It also requires PESA training to properly integrate to the Secura System.

6) SECURA® DVR: The DVR software runs as a Digital Video Recording and Playback device that uses standard COTS (Commercial off the Shelf) Hardware. This allows for any or all video flows to be recorded for storage or instant playback anywhere on the network.

CERTIFICATIONS OF THE SECURA® INTEGRATED SOLUTION

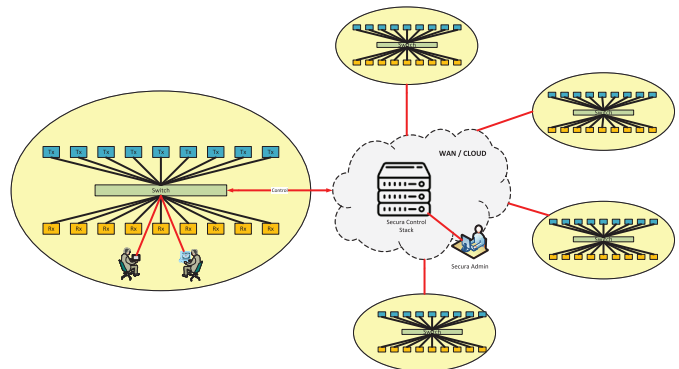
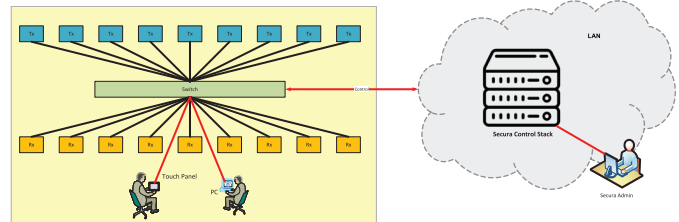




SECURA[®] SOFTWARE SPECIFICATIONS

SIGNAL TYPE: VIDEO	
Video Routing Formats	HD, Full HD, 4K UHD (4:4:4) plus HDR
Video Resolution Display	Mixed (Dynamic) EDID
Quadview processing:	Yes
Low Latency	Yes ~1ms
Open Architecture	Yes
SIGNAL TYPE: AUDIO	
Dolby	Yes (HDMI 2.0)
Multiple Audio	Mono/Stereo/5.1 per input
SIGNAL TYPE: USB	
KVM	Yes
HID	Yes
CAC	Yes
SECURITY	
Multi Factor Authentication	Yes
Number of Security Levels	Unlimited
MILS Level	Yes
Key Management	Dynamic Rotating Keys
Video Encrypted	Yes (AES256)
Audio Encrypted	Yes (AES256)
USB Encrypted	Yes (PESA Crypto Module)
Control Encrypted	Yes (PESA Crypto Module)
MILS Level Encrypted	Yes
DoD APL and NIAP Secure Switch	Yes (Arista, Cisco)
NIST Certified FIPS 140 -2 Encryption	Yes – NIST Certified (cert #4021)
Trusted Protection Module	Yes
NODES AND ENDPOINTS	
DisplayPort	Yes, with converter
HDMI 2.0/ HDCP 2.2	Yes* (* HDCP 2.2 for 4K not backwards compatible with HDCP 1.4 (can add externally))
HDMI 1.3/1.4	Yes
SFP/SFP+ Fiber	SFP+ 10Gb Fiber Ethernet (TRX)**
RJ45	1Gb Copper Ethernet (opt. 2.5 Gb Ethernet)
RJ45 SFP	10Gb Copper Ethernet
USB 2.0	Yes
POE (requires copper ports)	Yes (RJ45)
USB CAC	Yes
USB HID	Yes
10" 15" 32" Touch Panel	Yes

NETWORK	
Maximum Endpoints	Tens-of-Thousands
SDN	Yes
TCP/IP	Yes
ARP	No
mDNS	Yes
Registration & Discovery (NMOS)	Yes
IGMPv3	Yes
JSON API	Yes
Leaf / Spine Architecture	Yes
LAN/Campus Capable	Yes
CERTIFICATIONS AND EXPORT RESTRICTIONS	
PESA Crypto Module	Yes
NIST FIPS 140-3 Certified	Provisional CMVP (Control Plane)
DoDIN APL Switches	Yes (Arista, Cisco)
NIAP Switches	Yes (Arista, Cisco, Juniper, Others)
TAA Compliant	Yes (100% SW Dev and Assembly in US)
Conforms to National Security Export Restrictions	Yes
SECURA CONFIGURATIONS	



PESA

SECURA[®]



**FOR MORE INFORMATION, PLEASE
PHONE, EMAIL, OR VISIT OUR WEBSITE**

**PESA Inc.
103 QUALITY CIRCLE
SUITE 210
HUNTSVILLE, AL 35806
USA**

**+1-256-726-9200
WWW.PESA.COM
SALES@PESA.COM**



www.pesa.com