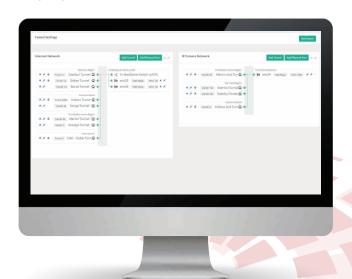


EPA-TN-16 Series Dual Layer SD-WAN



The Antikor Dual Layer (Layer2 & Layer3) SD-WAN EPA-TN-16 Series is a Turkish national product that provides secure virtual switching at the Layer2 level in SMB networks with advanced network and security features. Thanks to its bonding feature, it transfers different types of internet (xDSL, 4.5G, metro, asymmetric fiber, etc.) to the center simultaneously. It can perform packet filtering (Layer2 Firewall) and QoS - Active Bandwidth Management in traffic.

Layer2 Communication over WAN

By extending our local network over our internet connections, we create a closed network by performing secure virtual switching (virtual switching) at the Layer2 level. It works as an uplink between switches. In short, the broadcast domains of both networks are merged.

Switching and Compatibility

Both Virtual Ports and Physical Ports have the IEEE 802.1Q VLAN feature (Untagged Port Assignment, Tagged Port Assignment and Hybrid Port Assignment). It has High Availability Cluster (Active-Passive Cluster) and Fail-over features.

Multiple VLAN transfer in WAN

In the Antikor Dual Layer SD-WAN solution, independent isolated Virtual Switches can be created, and they are transferred encrypted with the assigned VLANs on the other side. It allows for MAC-IP matching control.

Central Management and Logging

Through the Central Management System and monitoring, bulk settings can be obtained. It sends logs to all SIEM solutions in RAW, CEF, EWMM, GELF, JSON, WELF, CIM formats. It has LACP, LLDP, and Netflow Export services.















Product Specifications



Operating Modes
Traffic Capturing on:
- OSI Layer 2 - Ethernet
Tunneling over:
- OSI Layer 3 - IPv4 & IPv6
- OSI Layer 3 - Working Behind NAT
Virtual Switch Features
Assigning Layer2 Tunnels as Virtual Ports
IPsec Encryption for Layer2 Tunnels
Physical Port Assignment
IEEE 802.1Q VLAN for both Virtual and Physical Ports:
- Untag Port Assignment
- Tagged Port Assignment
- Hybrid Port Assignment
VLAN Enabled MAC Table
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
Spanning Tree Protocol
Rapid Spanning Tree Protocol
Link Layer Discovery Protocol
NetFlow Export Service
MAC Learning
Ethernet Interface Specifications
4094 IEEE 802.1Q VLANs for each port
IEEE 802.3ad LACP
Virtual Ethernet Interface
- Loopback
- VLAN subinterface
IPsec VPN
Encryption: DES, 3DES, AES, BLOWFISH, CAST128, CAMILIA
Authentication: MD5, SHA1, SHA256, SHA384, SHA512, 3DES, DES
WildCard ID Support
NAT Traversal Support
Assigning different IPsec Profiles for each Layer2 Tunnel
Management Interface Features
HTML5 Responsive Web Interface

MAC Table Size 16 Layer2 Throughput (Gbps) 75 Mbps Firewall Throughput (Gbps) 50 Mbps IPsec Throughput (Gbps) 30 Mbps Licensing Number of Layer2 Tunnels 1 Number of Phys. Ports can be Assigned to a Virtual Switch 2 Number of Tunnels can be Assigned to a Virtual Switch 1 Number of VLANs for Layer2 Tunnels 1 High Availability (HA) - Cluster Support No Number of Addressable CPU Threads 2 Number of IPsec VPN Tunnels 1 Number of Virtual Switches 1 IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Yes Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	System Performance	
Firewall Throughput (Gbps) IPsec Throughput (Gbps) IPsec Throughput (Gbps) Licensing Number of Layer2 Tunnels Number of Phys. Ports can be Assigned to a Virtual Switch Number of Tunnels can be Assigned to a Virtual Switch Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	MAC Table Size	16
IPsec Throughput (Gbps) Licensing Number of Layer2 Tunnels Number of Phys. Ports can be Assigned to a Virtual Switch Number of Tunnels can be Assigned to a Virtual Switch Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Yes Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Layer2 Throughput (Gbps)	75 Mbps
Number of Layer2 Tunnels Number of Phys. Ports can be Assigned to a Virtual Switch Number of Tunnels can be Assigned to a Virtual Switch Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Firewall Throughput (Gbps)	50 Mbps
Number of Layer2 Tunnels Number of Phys. Ports can be Assigned to a Virtual Switch Number of Tunnels can be Assigned to a Virtual Switch Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	IPsec Throughput (Gbps)	30 Mbps
Number of Phys. Ports can be Assigned to a Virtual Switch Number of Tunnels can be Assigned to a Virtual Switch 1 Number of VLANs for Layer2 Tunnels 1 High Availability (HA) - Cluster Support No Number of Addressable CPU Threads 2 Number of IPsec VPN Tunnels 1 Number of Virtual Switches 1 IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Yes Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Licensing	
Number of Tunnels can be Assigned to a Virtual Switch Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads 2 Number of IPsec VPN Tunnels 1 Number of Virtual Switches 1 IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Yes Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of Layer2 Tunnels	1
Number of VLANs for Layer2 Tunnels High Availability (HA) - Cluster Support No Number of Addressable CPU Threads 2 Number of IPsec VPN Tunnels 1 Number of Virtual Switches 1 IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of Phys. Ports can be Assigned to a Virtual Switch	2
High Availability (HA) - Cluster Support Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of Tunnels can be Assigned to a Virtual Switch	1
Number of Addressable CPU Threads Number of IPsec VPN Tunnels Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of VLANs for Layer2 Tunnels	1
Number of IPsec VPN Tunnels Number of Virtual Switches 1 IEEE 802.3ad LACP Support on Virtual Switches No WAN Bonding No MTU Adaptation for WAN Yes Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	High Availability (HA) - Cluster Support	No
Number of Virtual Switches IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of Addressable CPU Threads	2
IEEE 802.3ad LACP Support on Virtual Switches WAN Bonding No MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of IPsec VPN Tunnels	1
WAN Bonding MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Number of Virtual Switches	1
MTU Adaptation for WAN Services Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	IEEE 802.3ad LACP Support on Virtual Switches	No
Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	WAN Bonding	No
Live Dashboard Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	MTU Adaptation for WAN	Yes
Automated Update System WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Services	
WAN Bonding (Optional) SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Live Dashboard	
SNMP v2/v3 Service Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Automated Update System	
Layer2 Packet Filtering on Tunneled Traffic (Optional) QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	WAN Bonding (Optional)	
QoS - Quality of Service on Tunneled Traffic (Optional) Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	SNMP v2/v3 Service	
Port Grouping Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	Layer2 Packet Filtering on Tunneled Traffic (Optional)	
Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM) MAC Learning Authorization Management Isolated Virtual Switching	QoS - Quality of Service on Tunneled Traffic (Optional)	
MAC Learning Authorization Management Isolated Virtual Switching	Port Grouping	
Authorization Management Isolated Virtual Switching	Syslog Service (RAW, CEF, EWMM, GELF, JSON, WELF, CIM)	
Isolated Virtual Switching	MAC Learning	
	Authorization Management	
NotFlow Export Corvice	Isolated Virtual Switching	
Netriow export service	NetFlow Export Service	
Incident Notification Service	Incident Notification Service	
- SMS, Email, Browser Notification	- SMS, Email, Browser Notification	
Routing		
IPv4 / IPv6 Static Routing		
OSPF(Open Shortest Path First), BGP(Border Gateway) Protocols		cols
Hardware Requirements	Hardware Requirements	

Min 2 Core Processor

Min 2 GB Ram

Min 64 GB Solid State Disc

Min 2 x Gigabit Ethernet Card

- SSL Certificate based authentication

- Customizing the service port

Physical Console (Monitor, Keyboard)

Out of Band Management Plane

SSH Console

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Mersin Universitesi Ciftlikkoy Kampusu Teknopark Idari Binasi Kat: 4 No: 411 Zip Code: 33343 Yenisehir / MERSIN / TURKIYE





^{*} Performance tests are performed with the following hardware:

⁻ Intel Atom E3940 Processor, 4 GB DDR3L 1866 MHz RAM

^{**} Note: All performance values may vary depending on environmental condiditions, system configuration and equipment.