

Product Highlights

Arista vEOS Router

- Cloud-grade routing optimized for virtualized and cloud environments
- Flexible universal cloud networking for any cloud, public and private
- Consistent operational model with Arista EOS® and CloudVision®
- Industry-leading programmability and automation features
- Full Access to Linux shell and tools, including cloud-native APIs
- Secure connectivity with IPsec VPNs

Hypervisors Supported

- VMware ESXi
- KVM

Cloud Provider Platforms

- Amazon Web Services
- Microsoft Azure
- Microsoft Azure Stack*
- Oracle Cloud Infrastructure*
- Google Cloud Platform*

Routing Highlights

- Layer-3 routing
- Advanced Layer-3 features
- IPsec VPNs
- Network Address Translation (NAT)
- Cloud High Availability (HA)
- EOS API (eAPI) and SDK
- SNMP and sFlow

Provisioning & Monitoring

- CloudVision® turnkey automation
- Zero Touch Provisioning (ZTP)
- Template-based deployment
- Event monitoring & management
- Onboard packet capture analysis
- Cloud Tracer™ Telemetry

Overview

The Arista vEOS Router is a cloud-grade, feature-rich, multi-cloud and multi-hypervisor virtual router that empowers enterprises and cloud providers to build consistent, highly secure and scalable hybrid cloud networks. Already proven in the most demanding public cloud infrastructures, Arista vEOS Router extends the Arista EOS platform from Arista's award-winning physical switching and routing platforms into the virtualized environment. The Arista vEOS Router delivers an Any Cloud gateway, plus public cloud routing services and network services for virtualized customer environments and more.

Arista vEOS Router is featured on Amazon Web Service (AWS), Microsoft Azure and other public clouds. It is also supported on customer equipment running Linux and VMware hypervisors. Arista vEOS Router fully integrates with Arista CloudVision to simplify the experience of interconnecting public and private clouds. Leveraging a network-wide approach for workload orchestration and workflow automation together with advanced network telemetry and secure IPsec VPN, it provides a consistent, secure and universal approach to hybrid cloud networking.

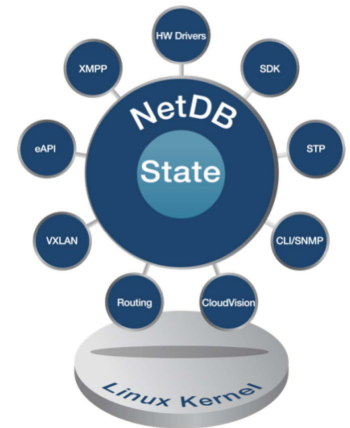
Arista vEOS Router delivers an unmatched level of consistency across enterprise datacenters, private clouds and public clouds. Arista's customers can reduce their operational costs and complexities by deploying Arista's hybrid cloud solution across all places in the cloud. Arista vEOS Router provides the following features and benefits:

High Available Architecture: Architected for resiliency, vEOS Router cloud API integration ensures automated resiliency and path recovery using industry-standard Bidirectional Forwarding Detection (BFD) with standard BGP or OSPF routing to detect and mitigate failures. Arista Cloud Tracer provides continuous monitoring of connectivity across the cloud and makes this information visible in CloudVision's analytics view.

Cloud Grade Routing: Arista vEOS Router delivers cloud-grade reliability that is capable of running on a variety of hypervisors and in multiple clouds. With the same proven single EOS software image that runs across all Arista products, vEOS Router extends a consistent operational model from existing datacenter network deployments and unifies operations with the same APIs and services in the cloud.

DevOps, NetOps and 3rd Party Support: Arista EOS is built with programmability at every layer of the software stack for easy integration and customization. Arista vEOS Router enables the same programmatic control of the network with extensive NetOps/DevOps integration and a rich, well-structured set of APIs.

Simplified Management, Monitoring and Reporting: vEOS Router is managed through either a Command Line Interface (CLI), or via APIs. It also presents comprehensive telemetry and diagnostic information that can be monitored via SNMP or using real-time state streaming and CloudVision analytics viewer.



vEOS Router Use Cases

Whether on premises or in the cloud, the Arista vEOS Router helps enterprise and service providers build the best possible hybrid networks without compromising on security, reliability and performance. Customers can use Arista vEOS Router and CloudVision for a myriad of use cases including but not limited to:

Secure Multi Cloud Connectivity

Today, IT teams are challenged to provide seamless connectivity not only across multiple regions within a specific cloud vendor but also across multiple cloud service providers. Arista vEOS Router, along with CloudVision, allows customers to create and manage a secure global network topology spanning multiple regions across multiple clouds.

Interconnecting VPCs/VNets in the Public Cloud

Arista vEOS Router allows you to interconnect multiple Virtual Private Clouds (VPCs) on AWS or Virtual Networks (VNets) on Azure. By leveraging rich routing features of EOS, one can interconnect multiple VPCs/VNets to create a secure global network topology.

Multi-site VPN aggregation:

The Arista vEOS Router radically simplifies branch office and datacenter designs by allowing each site to directly access applications hosted in multiple clouds without backhauling traffic through a central datacenter hub. This process increases application performance, eliminates the need for using expensive MPLS WAN circuits and avoids cloud providers per-VPN-tunnel costs.

Network Function Virtualization:

The Arista vEOS Router allows service providers, cloud operators and enterprises to achieve Network Function Virtualization (NFV), which decouples network functionality from singular point physical appliances so they can run as software on x86 servers. Feature consistency with Arista EOS software running on Arista routing and switching platforms allows vEOS Router to be configured as a virtual Route Reflector (vRR), virtual Customer Premises Equipment (vCPE), NAT device, WAN router, branch routers, secure VPN gateway, and more.

Attributes	Requirements
Minimum Server Requirements	<ul style="list-style-type: none"> Intel x86 4 cores running at 2.4GHz or greater 16 GB memory Intel VT-d support For SR-IOV based deployment, the NICs need to be SR-IOV capable
Hypervisor Support	<ul style="list-style-type: none"> KVM (RedHat Enterprise Linux version 7.0-7.4) VMware (ESXi version 5.5, 6.0 and 6.5)
Cloud Platforms support	<ul style="list-style-type: none"> Amazon Web Services (T, C and R instance types) Microsoft Azure Public Cloud (Dv2 series VMs)
Virtual Machine	<ul style="list-style-type: none"> 2 vCPUs 4 GB memory

Layer-3 Routing Features

- Routing Protocols: OSPFv2, BGPv4, IS-IS, and RIPv2
- Equal-Cost Multi-Path Routing (ECMP)*
- Policy Based Routing (PBR)*
- Virtual Router Redundancy Protocol (VRRP)
- Route Reflector (BGP RR AF IPv4)
- Network Address Translation (NAT)
- Generic Routing Encapsulation (GRE)
- Bidirectional Forwarding Detection (BFD)
- 802.1AB Link Layer Discovery Protocol
- Selective Route Download

Security Features

- IPsec VPNs
- Ingress/Egress ACLs using L3, L4 fields
- ACL Logging and Counters
- Port-based DOS Protection (PDP)
- Role Based Access Control (RBAC)
- TACACS+, RADIUS Auth., Authorization and Accounting
- AWS Key Authentication for Management Interface

Advanced Monitoring and Provisioning

- Zero Touch Provisioning (ZTP)
- Integrated packet capture/analysis (tcpdump/libpcap)
- RFC 3176 sFlow

Extensibility

- Advanced Event Management (AEM)
 - CLI Scheduler
 - Event Manager
 - Event Monitor
- Linux Tools
 - Bash shell access and scripting
 - RPM support
 - Custom kernel modules
- DevOps/NetOps Tool Support
 - CloudVision
 - Ansible/Chef/Puppet/Salt
 - ServiceNow
- Programmatic access to network-wide state
 - Python
 - C++
 - Go

SNMP MIBs

- RFC 4750 OSPF-MIB
- RFC 4273 BGP4-MIB
- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2863 IF-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 2096 IP-FORWARD-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 6353 SNMP-TLS-TM-MIB
- RFC 5591 SNMP-TSM-MIB
- VRRPV2-MIB
- RFC 2787 VRRPV2MIB
- LLDP-MIB
- LLDP-EXT-DOT1/3-MIB
- HOST-RESOURCES-MIB
- ENTITY-STATE-MIB
- ENTITY-MIB
- ARISTA-VRF-MIB
- ARISTA-SW-IP-FORWARD-MIB
- ARISTA-SNMP-TRANSPORTS-MIB
- ARISTA-SMI-MIB
- ARISTA-QUEUE-MIB
- ARISTA-PRODUCTS-MIB
- ARISTA-PFC-MIB
- ARISTA-IF-MIB
- ARISTA-DAEMON-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-CONFIG-COPY-MIB
- ARISTA-BGPV4V2-MIB
- ARISTA-ACL-MIB
- User configurable custom OIDs

SNMP TRAPS

- Authentication Failure trap, linkUp, LinkDown, coldStart, nsNotifyRestart, entConfigChange, entStateOperEnabled, entStateOperDisabled, VRRP, OSPF, and BGP supported.
- Additional event traps and log messages can be generated through AEM and eAPI scripting.

*Contact Arista to verify availability of these features on your cloud platform.

Please note that system requirements and features supported on vEOS Router are different than on vEOS-lab, which is a software product intended only for simulation and testing purposes. Refer to vEOS-lab datasheet for further details:

https://www.arista.com/assets/data/pdf/Datasheets/vEOS_Datasheet.pdf

Arista vEOS Router Ordering Information

vEOS Router is available as a software subscription via the following offerings:

Product Number	Product Description
SS-VEOSR-IPSEC-500M-1M	vEOS Router SW Subscription License for a single vEOS instance for 1-Month for up to 500Mbps throughput. Includes base routing features, IPsec encryption and SW support
SS-VEOSR-IPSEC-1G-1M	vEOS Router SW Subscription License for a single vEOS instance for 1-Month for up to 1Gbps throughput. Includes base routing features, IPsec encryption and SW support
SS-VEOSR-IPSEC-10G-1M	vEOS Router SW Subscription License for a single vEOS instance for 1-Month for up to 10Gbps throughput. Includes base routing features, IPsec encryption and SW support

Service and Support

Arista A-Care service offerings are available to provide you with world-class support when you need it. A-Care service offerings provide coverage for all Arista products including CloudVision. For more details see: <http://www.arista.com/en/service>

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