

ARISTA EOS CLOUDVISION AND TURBONOMIC

Assure application quality of service at scale on any cloud

Network-Aware Control for Your Cloud

Enterprises are accelerating their adoption of virtualization and cloud deployments to meet the demands for new applications, increased use of data and analytics, and a digital-led customer experience. Today most enterprises have a cloud-first policy for running complex application workloads at scale and are pursuing a hybrid cloud deployment approach leveraging on-premises infrastructure and public cloud providers. As they do so, the complexity of assuring application performance increases exponentially.

As enterprises scale applications with networks spanning their private data center and public cloud resources, it is imperative to match workload demand with the right compute, storage and network resources. The Arista and Turbonomic software-defined approach enables enterprises to move to cloud-class automation without needing any significant internal development.

CloudVision extends Arista EOS with a network-wide approach for workload orchestration and workflow automation as a turnkey solution for Cloud Networking.

Turbonomic seamlessly integrates with Arista and Public Cloud providers to add network-aware placement decisions and the intelligence of which workloads to burst to the public cloud and when to bring them back. With Arista and Turbonomic enterprises are empowered to assure application quality of service across any cloud.

Arista CloudVision

Arista CloudVision's abstraction of the physical network to this broader, network-wide perspective allows for a more efficient approach for several operational use-cases, including the following highlights:

- Centralized representation of distributed network state via NetDB which provides the ability to aggregate the network state of all Arista Extensible Operating System (EOS) devices to a common point through the CloudVision platform and, from there, stream network-wide telemetry data to improve network operations visibility and historical analytics
- Controller agnostic support for physical and virtual workload orchestration through open APIs such as OVSDB, JSON and Openstack plugins
- Virtual Machine identification and telemetry via Arista VMTracer and container identification and telemetry via Arista Container Tracer for Docker
- Turnkey automation for zero-touch provisioning, configuration management and network-wide upgrades and rollback
- Compliance dashboard for security, audit and patch management
- Real-time streaming for telemetry and network analytics, a modern approach to replace legacy polling per device including network buffer management via Arista Latency Analyzer (LANZ)

KEY BENEFITS

- Assured Quality of Service levels (e.g. app response time, transactions per seconds) across any cloud
- Streamline management of network and virtualized environments with fewer system administrators providing better management of larger environments
- Accelerate migration to new virtualization and cloud architectures including OpenStack, Docker and hybrid cloud deployment models
- Quick time to value, deploy and scale to production in hours, see and realize value in days

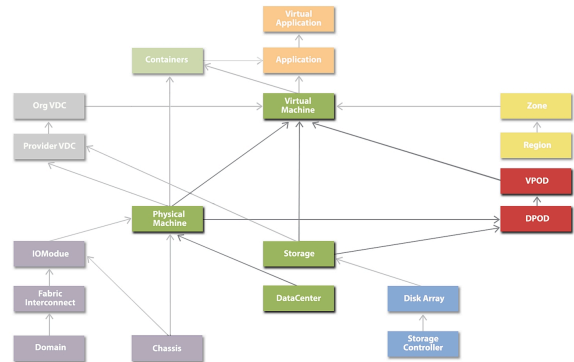
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Bring Control Further Into the Stack

Turbonomic's Common Data Model relates every entity in the data center as a provider or consumer of resources enabling real-time placement, sizing and provisioning decisions.

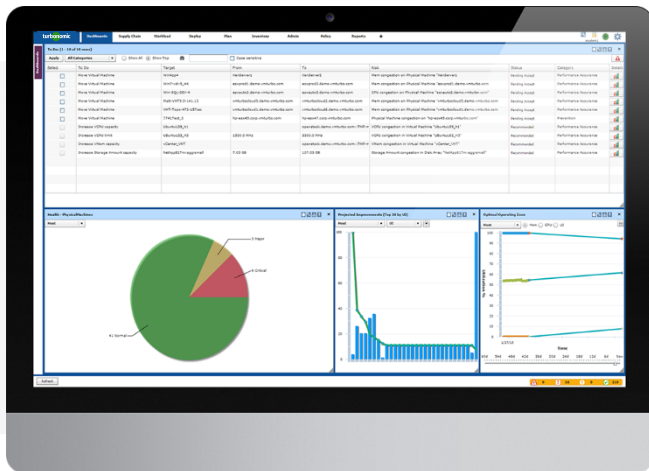
ENTITIES	PROVIDES	CONSUMES
vPod	Network flow to VMs enabled through sFlow instrumentation	Network flow from dPods
dPod	Network flow to vPods enabled through VM Tracer instrumentation	NA
Switches	Buffer utilization to VMs enabled through LANZ instrumentation	NA



Turbonomic Solution

Turbonomic delivers an autonomic software platform that complements any virtualization or cloud architecture, whether it is VMware, Hyper-V, OpenStack, Docker, public cloud or heterogenous combination adding:

- Assure application performance with automatable decisions to place “chatty” workloads close to each other reducing inter-application tier latency
- Auto-discovery and grouping of workloads into dynamic Virtual Pods (vPods) based on frequency of communication (sFlow)
- Extended control into the network layer through Arista Extensible Operating System (EOS) integration, auto-discovering network topology and public cloud compute and storage enabling on-demand leverage of resources
- Ability to maximize the value of high bandwidth top of rack switches and ports
- Automatable decisions that shape traffic flow to minimize buffer overflow risk through Latency Analyzer (LANZ) integration
- Identification of which workloads to burst to the public cloud and when, based on real-time demand while accounting for any business or technical constraint
- Utilization of underlying environment and public cloud resources as efficiently as possible



Try Turbonomic

- Download a free trial of Turbonomic for 30 days, at turbonomic.com/download
- For more information, visit turbonomic.com