# ARISTA

# UNIVERSAL CLOUD NETWORK AND ECOSYSTEM

# CLOUD NETWORKING PORTFOLIO

Arista Networks is the leader in building software defined, open networks for today's datacenter, Web 2.0, and cloud computing environments. Arista delivers the most efficient, reliable and high performance universal cloud network architectures based on 10GbE, 25GbE, 40GbE, 50GbE and 100GbE platforms. Arista EOS® is built on an open, programmable, and resilient architecture that delivers maximum system uptime, reduces CAPEX and OPEX by simplifying IT operations, and enables business agility. Arista EOS offers programmability at all layers, including eAPI, EOS SDK, Linux APIs, DevOps integration (Puppet/Chef/Ansible) and broad scripting support. Furthermore, Arista EOS CloudVision® extends the EOS state-based architecture to a network-wide scope as a platform for workflow automation, workload orchestration, and advanced telemetry. CloudVision's open framework leverages modern APIs and state streaming to capture granular network state and to integrate with a variety of network overlay, network orchestration, telemetry, and security ecosystem partners.

**General Inquiries** 

Email: info@arista.com

us-sales@arista.com

Latin America Sales:

latam-sales@arista.com

emea-sales@arista.com

apac-sales@arista.com

japan-sales@arista.com

Asia-Pacific Sales:

Japan Sales:

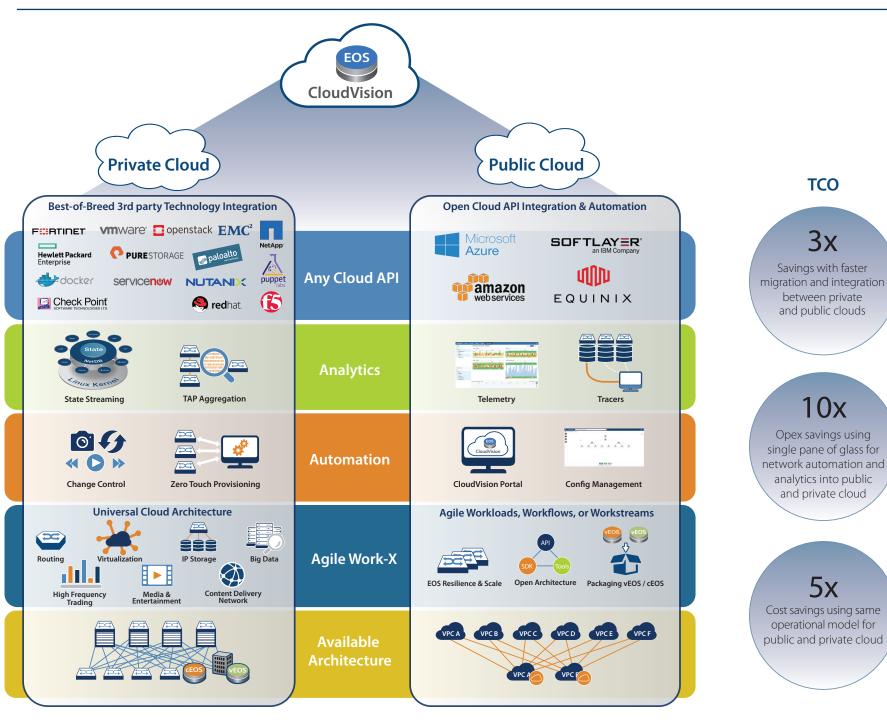
Europe, Middle East & Africa Sales:

US & North America Sales:

#### CORPORATE HEADQUARTERS

5453 Great America Parkway, Santa Clara, CA 95054 Phone: 408-547-5500 Email: info@arista.com

www.arista.com



# ARISTA - THE PLATFORM FOR SOFTWARE DRIVEN CLOUD NETWORKING

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<ul> <li>Fully programmable platforms allow rapid, automated deployment and provisioning</li> </ul>	SDN Controllers and Security	DevOps / Network Services	Orchestration/ IT Operations Tools	Big Data Analytics	Hybrid Cloud							
<ul> <li>Open SDK/APIs for easy integration with third-party and customer extensions</li> <li>Single-OS consistency across use-cases for every place in the cloud</li> </ul>	Controller											
	VMware NSX, DB Controllers, Checkpoint, Fortinet, Palo Alto Networks	Puppet, Chef, Ansible, Docker	OpenStack, HPE VMware vCenter, ServiceN	Splunk Enterprise, low VMware Log Insight	Turbonomic, Cirba							
AVAILABLE ARCHITECTURE		ANALYTICS		AUTOMATION								
High Availability	Zero Touch Provisioning		Cloud	Cloud Automation for Everyone								
<ul> <li>Open, predictable and efficient network designs with only modern, open and standards-based protocols using ECMP &amp; VXLAN</li> </ul>	Reduce operating costs a     errors during rack expan	and time-to-production with ZTP by ision or replacement	m	CloudVision provides a turnkey automation hub for config and image management, change control simplification, operations compliance, and								
<ul> <li>Advanced hitless upgrade/update and auto-recovery features with 100% active- active utilization of all bandwidth, resources and links</li> </ul>	Automate infrastructure     customizable and scripte	scale-out using standards-based me ed at any scale		much more. Tracers								
Scalability	DevOps Integration	-	• E	• Enable real-time visibility and automation for highly dynamic, virtualized,								
• A state-sharing, highly resilient, multi-process architecture that enhances reliability,	<ul> <li>Integrate development a</li> </ul>	and operations workflows with DevC		containerized, big data, and bare metal workloads								
visibility and scalability	including Docker, Ansible	e, Chef, Puppet and others	• C	Correlate network health and reachability information with workload								
• Supports networks from a few nodes to millions of VMs, containers and end-points at	• Automate network and s	server management with access to a	ny virtualized, P	placements in the public, private and hybrid cloud								
Internet scale and with linear expansion	containerized or Linux to	ool running natively on EOS	TAP A	TAP Aggregation and Advanced Mirroring								
Efficiency	Telemetry		• G	Get precision access to raw and filtered packet data anywhere and								
• Designed to utilize advancing developments in merchant silicon hardware, ensuring a path for customers to new advances in speed, scale and efficiencies with proven	Access and record netwo workload, workflow and	ork-wide state and and congestion workstream	intornation for every	nytime at industry-leading scale with bo apture, replication and analysis capabiliti								
investment protection	Identify and troubleshoor real-time or forensic analysis.	ot issues in underlay and overlay ne Ilysis	in on topologics ioi	Generate and analyze high rate sFlow meta-data for macro-level v into performance trends and security threats								

EOS – Open and Extensible Networking Software

- State-sharing, highly resilient, multi-process architecture that enhances reliability, visibility, serviceability at any scale
- Built on state-of-the-art NetDB process isolation architecture and continuous development model to enable ease of customer extension, high stability and rapid delivery of advanced features
- At its core, a native unmodified Linux kernel and runtime supporting open APIs, Python, Go, JSON eAPI/SDK, OpenFlow/DirectFlow, AEM event notification, Docker runtime, Linux tools, etc.
- Packaged as bundled EOS on Arista switches, containerized EOS, or virtualized EOS for any production or simulation use case

## FOUNDATION FOR UNIVERSAL CLOUD NETWORKING

## ARISTA EOS



## **CloudVision – A Platform for Cloud Automation and Visibility**

**ANY CLOUD API** 

 Extends EOS shared-state to a network-wide model for global automation, orchestration, visibility, and analytics



- Unified control-point for third party (SDN/SDDC) network controllers, orchestration systems, and security platforms
- Turnkey automation for provisioning and ongoing change management with network-wide snapshot and rollback
- Visibility and correlation of network state across physical, virtual and cloud network infrastructures

	GI	рЕ	Ultra-Low Latency	Progra	mmable	e Leaf	f 10/40GbE					10/40/100GbE Spline™				0/40/100GbE Deep Buffer	10/40/100GbE Dynamic Deep Buffers							10/40/1 Splir		10/25/40/50/100GbE Universal Spine						
Product Line Overview																																
Chassis	7010T	7020TR	7150S		7160		7050TX				7050	sx	7050QX	7250QX 7060CX2 7260X				7280SE	7280R						7300			7500R				
Model Number						32C			72Q	128	64 720	2 128	3 325		32	2S QX-6	4 CX-6			SR-48C6	TR-48C6	SR2-48C6	QR-C36	R-C72	CR-48	CR2-60	4-Slot	8-Slot	4-Slot	8-Slot		16-Slot
Height	1RU	1RU	1RU		1RU			1RU		2RU	1RU	2RL	J 1RU	2RU	1R	RU 2RU	2RU	,	1RU	1RU	1RU	1RU	1RU	2RU	2RU	2RU	8RU	13RU	7RU	13RU	18RU	29RU
Line Card Slots	-	-	-		-			-			-		-			-			-				-				4	8	4	8	12	16
Backplane Capacity	-	-	-		-			-			-		-			-			-				-				25Tbps	50Tbps	38.4Tbps	76.8Tbps	115Tbps	150Tbps
Switching Capacity	176Gbps	216Gbps	480Gbps - 1.28Tbps	2.16Tbps	3.6Tbps	6.4Tbps	960Gbps 1.	.28Tbps 1.	44Tbps 2.	56Tbps 1.2	28Tbps 1.44Th	ops 2.56Th	ops 2.56Tbps	5.12Tbps	6.4T	bps 5.12Tb	ps 12.8Tb	ops	1.28 - 1.44Tbps	2.16Tbps	2.16Tbps	3.6Tbps	4.32Tbps	6.4Tbps	10.24Tbps	12Tbps	25Tbps	50Tbps	38Tbps	75Tbps	115Tbps	150Tbps
Per Slot Capacity	-	-	-		-			-			-		-			-			-				-				3.2Tbps In/3	.2Tbps Out		9.6T	bps	
Forwarding Capacity	132Mpps	162Mpps	480/720/960Mpps	1.2Bpps	1.2Bpps	1.2Bpps	720Mpps 9	60Mpps 1.	08Bpps 1.	44Bpps 96	0Mpps 1.08Bp	ops 1.44B	ops 1.44Bpps	3.84Bpps	3.3B	3.3Bp	os 9.52Bp	ps	900Mpps	720Mpps	720Mpps	1.6Bpps	1.44Bpps 2	.88Bpps	5.76Bpps	5Bpps	19Bpps	38Bpps	17.3Bpps	34.5Bpps	51Bpps	69Bpps
100/1000 BASE-T	48	48	-		-			-			-		-			-			-			-					-			-		
100Mb/1Gb/10Gb BASE-T	-	-	-	48	-		32	48	48	96	-		-			-			-	-	48	-	-	-	-	-	192	384	192	384	576	768
1/10GbE (SFP+)	4	6	24/52/48	-	48	-		-			48 48	96	4	-	2	2 2	2		48	48	-	48	-	-	-	48	192	384	192	384	576	768
10/40GbE	-	-	-/-/ 16/4	72/6	72/6	128/32	16/4	16/4	24/6	-/8	16/4 24/0	5 -/8	96/32	256/64	128	/32 - /64	256/6	54	16/4, 8/2, 24/6	24/6	24/6	72/6	144/36	160/72	224/56	240/60	512/128	1,024/256	576/144	1,152/288	1,728/432	2304/576
25/100GbE	-	-	-	24/6	72/6	128/32		-			-		-	-	128	/32 -	256/6	54	0, 0 /2, 0 /2	24/6	24/6	72/6	48/12	64/16	192/48	240/60	512/128	1024/256	576/144	1152/288	1728/432	2304/576
Port-Port Latency	3usec	3usec	350/380ns	From 3usec	From 2	2usec	3usec 550ns				550ns	550-1,800ns 450ns 550ns 550-1,800ns				00ns	under 4usec	3.8usec From 3.						3.8usec	550-1,	under 4usec						
Forwarding Technology	Store and Forward	Store and Forward	Cut-Through	Store	e and Forwa	ard	Cut-Through				Store and Forward	Store and Forward Cut-Through Store and Forward			and St	tore and Forward	d Store and Forward							Store and Forward			Store and Forward					
Buffer Size	4MB	3GB	9.5MB - Dynamic Allocation		24MB					12MB - Dyn	namic Allocatio	n		16MB - 22MB					9GB - Dynamic Allocation	4GB	4GB	8GB	8GB	16GB	32GB	24GB	96MB	192MB	96GB	192GB	288GB	384GB
Environmental														1										I								
AC + AC Power Redundancy	Yes	Yes	Yes		Yes			Yes			Yes	;	Yes	Yes				Yes	2 (1+1 redundant)							Yes			Yes			
DC Power	Yes	Yes	Yes		Yes			Yes			Yes		Yes			Yes			Yes	Yes							Ye	s	Yes			
N+1 Hot Swappable Fans	Yes	Yes	Yes		Yes			Yes			Yes		Yes		Yes			Yes	4 (N+1 redundant)					Yes			Yes					
Average/Max Power Draw (W)	52/65	105/115	Various	408/482	168/382	310/465	305/367 3	315/387 3	40/430 5	07/740 14	40/220 144/2	61 235/4	15 150/302	622/1,229	622/1,229 220/410 315/800 1672/2090		090	Various	263/381	290/405	450/685	324/499 7	25/1406 1	1363/1710	/1710 1660/1850 1560/2262 2986/4			0 3650/4978 6439/8586 9618/12824 12,000			12,000/16,500	
Front-to-Rear/Rear-to-Front Air	Yes / Yes	Yes / Yes	Yes / Yes		Yes / Yes			Yes / Ye	25		Yes / '	Yes	Yes/ Yes		Yes / Yes			Yes / Yes	Yes / Yes				Yes	/ No	Yes /	Yes	Yes / No					
Features																																
EOS Single Binary Image	Yes	Yes	Yes		Yes			Yes			Yes		Yes	Yes				Yes	Yes							Ye	s	Yes				
Latency Analyzer (LANZ)	No	No	Yes		Yes			Yes			Yes		Yes	Yes				Yes	Yes							Ye	s	Yes				
VM Tracer	Yes	Yes	Yes		Yes			Yes			Yes		Yes		Yes				Yes	Yes							Yes			Yes		
Zero Touch Provisioning (ZTP)	Yes	Yes	Yes		Yes			Yes			Yes		Yes		Yes			Yes	Yes							Ye	s	Yes				
Max VLANs	4,096	4,096	4,096		4,096			4,096			4,09	6	4,096		4,096			4,096	4,096							4,0	96	4,096				
Max MAC Entries	84K	256K	64K		128K			288K			288	к	288K	288K			256K	768K							28	зк	768K					
Multi Chassis LAG	Yes - 32 Link	Yes - 32 Link	Yes - 32 Link	Ye	es - 64 Link			Yes - 64 L	.ink		Yes - 64	Link	Yes - 64 Link	Yes - 64 Link			Yes - 128 Link	Yes - 128 Link							Yes - 6	4 Link	Yes - 128 Link					
Jumbo Frames	9,216 Bytes	9,216 Bytes	9,216 Bytes	9	,216 Bytes			9,216 By	tes		9,216 B	ytes	9,216 Bytes	9,216 Bytes			9,216 Bytes	9,216 Bytes							9,216 Bytes			9,216 Bytes				
Max ARP Entries	84K	80K	64K		80K			32K (208K l	JFT *)		32K (208K	UFT *)	32K (208K UFT *)		32K (208K UFT *)			96K			92K - 736K					32K (208K UFT *)			768K			
Max Routes (IPv4 / IPv6)	16K/8K	200K/100K	84K/21K	1	128K/64K		16	K/8K (144K/7	7K UFT *)		16K/8K (144K	/77K UFT *)	16K/8K (144K/77K UFT *)		16K/8K (144K/77K UFT *)				64K/12K	over 1M+ entries in hardware							16K/8K (144)	(/77K UFT *)	over 1.3M+ entries in hardware			re
BGP/OSPF	Wirespeed	Wirespeed	Wirespeed	v	Wirespeed			Wirespe	ed		Wiresp	eed	Wirespeed	Wirespeed				Wirespeed	Wirespeed							Wires	peed	Wirespeed				
Multicast Routing	PIM-SM	PIM-SM	PIM-SM		PIM-SM			PIM-SA	N		PIM-9	SM	PIM-SM	PIM-SM				PIM-SM	PIM-SM						PIM	SM	PIM-SM					
Multicast Groups	8K	24K	23K		128K			8К			8K		8К		8К				64K	128K							8	(	128K			
			• • •			l																										

## UNIVERSAL CLOUD NETWORK PLATFORMS

#### Any Cloud API

- Common operational model for Private, Public, and Hybrid Cloud
- Best-in-class third-party . integrations for advanced service
- Automation and Analytics

service automation and

management and security

• Advanced analytics, for

visibility

 CloudVision, network-wide EOS Software, singular . foundation for cloud agility, resilience and scale

Available Architecture

• Open, standards-based designs using MLAG, ECMP and VXLAN

