

Arista NDR Campus Edition

As digital transformation efforts accelerate and organizations look to formulate new strategies for in-person workspaces, the campus network has evolved tremendously. Building automation and other IoT devices today often form a significant portion of the endpoints connecting to the network. Primarily driven by the adoption of SaaS applications, traffic from these campuses is rarely backhauled to the data center; instead, it is routed directly to the Internet. This architecture renders traditional network security approaches blind to many of these locations. Agent-based solutions, on the other hand, are often incompatible with the devices to be protected. Consequently, attacker lateral movement, ransomware, malware-free and insider threats, and credential abuse can go unnoticed. Organizations need a network-based threat detection and response solution that can efficiently identify such threats at each campus location while not requiring additional hardware deployments and security expertise in these places.

Arista is uniquely situated to address these security gaps, given its position at the foundation of the wired and wireless network. Security built into the network eliminates the need for multiple disparate network security overlays and, along with the rest of the Arista Zero Trust Networking¹ portfolio, reduces operational costs, complexity, and the need for experts at each location.

The Arista NDR Campus Edition uses an easy-to-deploy software **AVA Sensor** extension on existing Arista Cognitive Campus switches. This sensor can be deployed easily using Arista CloudVision or Ansible playbooks and is designed to parse over three thousand protocols and process layer 2 through layer 7 data. The platform also analyzes encrypted protocols to identify essential context such as the nature of traffic (file transfer, interactive shell, etc.), the applications communicating, and the presence of remote access, all without forcing data decryption. **Arista's EntityIQ™** technology uses this information to autonomously profile entities such as devices, users, and applications while preserving these communications for historical forensics.

Arista NDR Campus Edition



Delivers EntityIQ™ to autonomously discover & profile every device, user & application (managed or unmanaged) in the organization.



Deploys directly on network switches to deliver granular visibility while eliminating the operational overheads of additional hardware.



Automates triage and investigations through AVA™ AI, providing a decision support system to analysts.

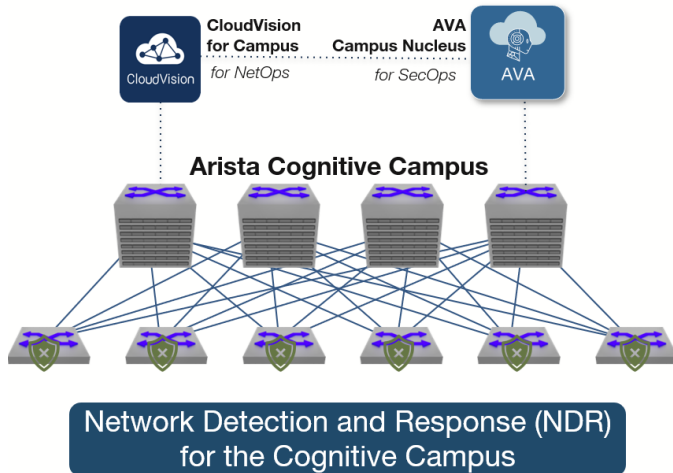


Requires no agents, manual configuration, or lengthy training periods.

¹ <https://www.arista.com/assets/data/pdf/Arista-ZTNO-Solution-Brief.pdf>

“Arista NDR has exceeded our expectations and empowered us to secure our connected workplace more effectively and autonomously than ever.”

– Rich Noguera, Fmr. CISO, Gap Inc.



Campus-optimized NDR Nucleus along with switch-based sensor and optional managed threat hunting expertise

Eliminate the need for overlay networks, TAP/SPAN, additional rack space for security gear

Eliminate threat detection blind spots in campus environments including IoT, lateral movement, insider threats, ransomware etc.

NetOps-SecOps workflow integration via security-specific dashboards in CloudVision

Seamless remediation via NAC, segmentation, firewalls, proxies, endpoint security, SIEM, and more

Extracted activity data feeds into the **AVA Campus Nucleus**, which uses a combination of detection models to uncover malicious intent. An ensemble of machine learning approaches avoids reliance on simplistic and noisy anomaly detection or unsupervised learning.

Arista’s **Adversarial Modeling™** capability uncovers even the most complex attacker tactics, techniques, and procedures (TTPs). The Arista Threat Research Team uses Adversarial Modeling to build and maintain AI-driven models that zero in on suspicious activity and then gather corroborating evidence to support the conviction. This process reduces both false positives and negatives.

AVA, Autonomous Virtual Assist, is Arista’s AI-driven decision support system that automates threat hunting and incident triage. AVA automatically connects the dots across the dimensions of time, entities, and protocols, enabling the solution to present end-to-end **Situations** to the end user rather than a plethora of meaningless alerts. Analysts thus see the entire scope of an attack along with investigation and remediation options on a single screen while avoiding the effort of piecing it together themselves. Importantly, federated machine learning allows Arista customers to gain these capabilities while keeping their private data firmly within their infrastructure.

Use Cases

Detection
Detect mal-intent & behavioral threats from both insiders & outside attackers and triage based on the MITRE ATT&CK framework mappings.

Response
Investigate and respond rapidly with access to necessary decision support context, correlated by AVA across entities, time, protocols, and attack stages.

Situational Awareness
Gain comprehensive visibility into the campus via a platform that learns & tracks managed & unmanaged IT/ IoT devices, including those from contractors and third parties.

Attack Sequence Overview

Stage 1
 May 17, 2023 19:51:27 through May 31, 2023 19:51:27
 Traffic directly linked to or traced from jak-245621.appspot.com. **Note:** This destination has been active on the network since 2023-04-06, but Ava analyzed only the last 2 weeks of its existence.

- brobertson.SYS5022... → jak-245621.appspot.com (Definitively related traffic)
- IP usage for jak-245621.appspot.com: 216.58.195.84 (WINADSRV), 10.137.100.254

Stage 2
 May 17, 2023 19:51:27 through May 31, 2023 19:51:27
 Traffic directly linked to or traced from jak-245621.appspot.com. **Note:** This destination has been active on the network since 2023-04-06, but Ava analyzed only the last 2 weeks of its existence.

- kvaldez.SYS3099-W7 → jak-245621.appspot.com (Definitively related traffic)

Attack Map
 Supporting Artifacts: 3 Items, 2 Domains, WINADSRV, ubuntu-caldera
 Connections to brobertson:SYS5022-W10: Viewing: 1 - 5 of 5

Integrations

The Arista NDR Campus Edition integrates with solutions such as SIEM, endpoint detection, and response tools, as well as firewalls/proxies. For instance, an analyst can pivot from any SIEM alert containing just an IP or email address to an EntityIQ profile that includes the operating system, device details, and associated user(s). Similarly, endpoint integrations allow one-click quarantining of compromised devices or retrieval of endpoint forensic data. In addition, the platform supports deep integrations with Arista's Networking and Zero Trust solutions, including CloudVision and CV AGNI (network access control).

NDR Dashboard
 Main Dashboard - Risk Sensor Data

Devices By Risk
 191 Devices (High, Medium, Low)

Device Risk

Risk Level	Device Name
High	gms@arista.com
High	W10802222
High	win@arista.com
High	W10802222
High	W10802222
High	W10802222
High	W10802222
High	W10802222

Situations by Risk
 138 Situations (High, Medium, Low)

Risk Level

Risk Level	Situation Name
High	Access to malicious phishing website
High	Recovery: Remote installation of a third App Service
High	Malware Detection in Proxy
High	Device connectivity through
High	License Management: Unapproved Users: Sending or Receiving Email...
High	Compliance: Password in Internal Chat
High	Download: Download from Binary Content

Threat Intelligence
 Adversarial Models: 10 Models (High, Medium, Low)

High Suspect Domains

Risk Level	Domain Name	Activity Count
Low	arista.com	342
Low	arista.io	3168
Low	arista.net	1007
Low	arista.org	742
Low	arista.com	70
Low	arista.com	1
Low	arista.com	880

Model #	DCA-NDR-NCC10
PERFORMANCE & CAPACITIES	
Function	Campus Nucleus
Protected Throughput	Up to 10 Gbps
SYSTEM REQUIREMENTS	
Rack Unit	1U
CPU Cores	16
RAM	64 GB
Non-volatile Memory	3.2 TB
Network	2x 10/25 Gbps SFP 1x Out-of-Band Management Interface
Power Supply	2x 800W –Redundant and Hot Swappable

Model #	SS-NDR-G-SWITCH-1M	SS-NDR-G-T1-1M	SS-NDR-G-T2-1M
Tier	Up to 149 switches	150-499 switches	500+ switches
Function	Sensor Only	Sensor Only	Sensor Only
SYSTEM REQUIREMENTS			
Supported Arista Switches	Please refer to the link below, pick one or more switch models, select “Campus Features” under Product Features, and look for the “AVA switch sensor” checkmark. https://www.arista.com/en/support/product-documentation/supported-features		

Model #	SS-SEC-AMNDR-Switch-1M
Tier	This service is available per switch for 30 or more switches.
Function	Managed Network Detection and Response
SYSTEM REQUIREMENTS	
Supported Arista Switches	Gain access to a 24x7x365 team of expert threat hunters and incident responders with this optional add-on service. Please refer to the following datasheet for service details. https://www.arista.com/assets/data/pdf/Datasheets/Managed-Network-Detection-and-Response-MNDR-Datasheet.pdf

Santa Clara—Corporate Headquarters

5453 Great America Parkway,
Santa Clara, CA 95054

Phone: +1-408-547-5500

Fax: +1-408-538-8920

Email: info@arista.com

Ireland—International Headquarters

3130 Atlantic Avenue
Westpark Business Campus
Shannon, Co. Clare
Ireland

Vancouver—R&D Office

9200 Glenlyon Pkwy, Unit 300
Burnaby, British Columbia
Canada V5J 5J8

San Francisco—R&D and Sales Office 1390

Market Street, Suite 800
San Francisco, CA 94102

India—R&D Office

Global Tech Park, Tower A, 11th Floor
Marathahalli Outer Ring Road
Devarabeesanahalli Village, Varthur Hobli
Bangalore, India 560103

Singapore—APAC Administrative Office

9 Temasek Boulevard
#29-01, Suntec Tower Two
Singapore 038989

Nashua—R&D Office

10 Tara Boulevard
Nashua, NH 03062



Copyright © 2024 Arista Networks, Inc. All rights reserved. CloudVision, and EOS are registered trademarks and Arista Networks is a trademark of Arista Networks, Inc. All other company names are trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be available. Arista Networks, Inc. assumes no responsibility for any errors that may appear in this document. 04-0055-02 March 6, 2024