

Solution Brief

Arista and Highway 9: Seamless, secure enterprise wireless

A truly unified wireless experience, comprised of Wi-Fi and Private 5G, delivering a seamless user experience, across the entire enterprise estate.

Arista and Highway 9



Delivering Seamless Mobility

A truly unified wireless experience, comprised of Wi-Fi and Private 5G, delivering a seamless user experience, across the entire enterprise estate.

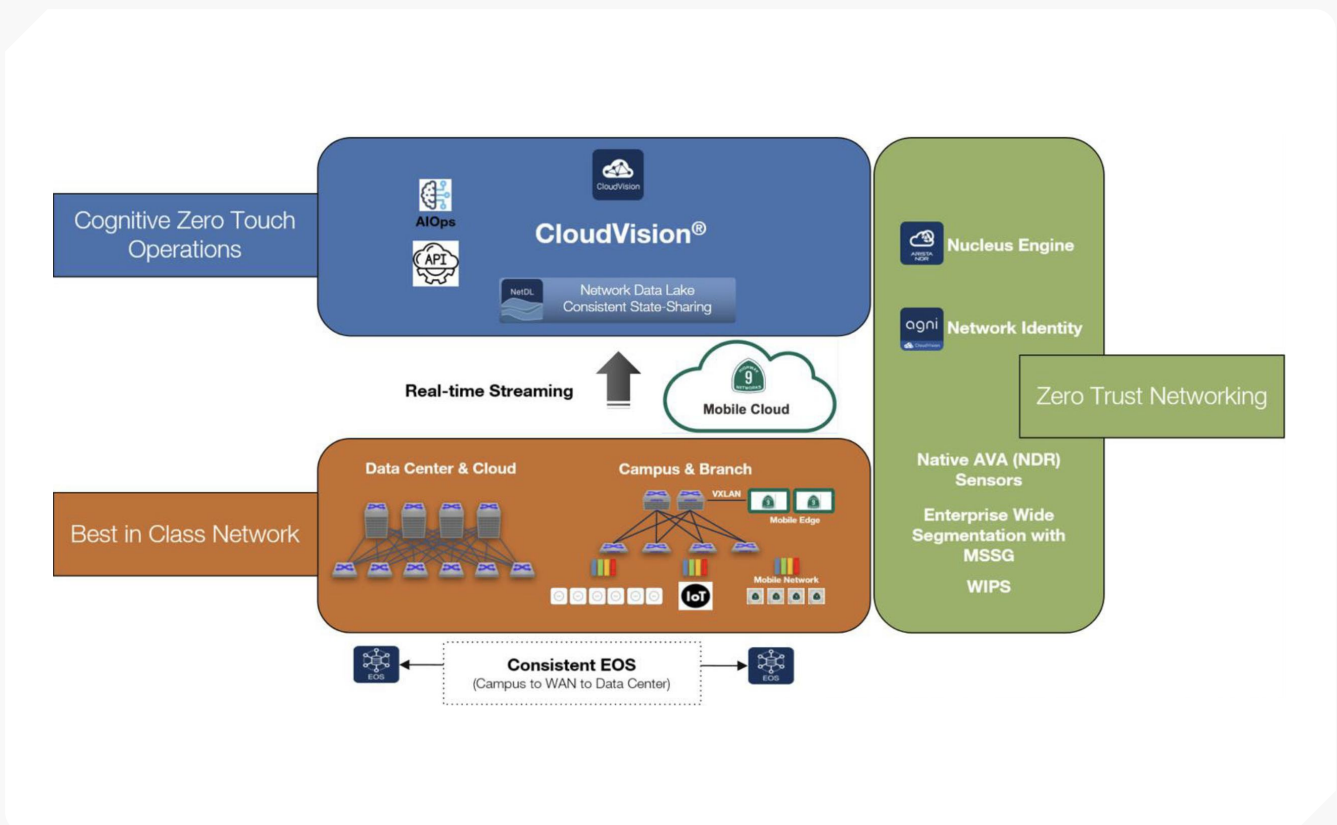
This joint solution empowers enterprises across industries such as manufacturing, logistics, healthcare, and higher education to transform their wireless infrastructure, delivering enhanced productivity, efficiency, and innovation.

By combining the inherent strengths of Wi-Fi and Private 5G technologies, organizations can provide their staff, guests, and systems with a fluid, always-connected experience, regardless of their location.



The Arista and Highway 9 joint solution addresses the connectivity challenges faced by modern enterprises, which require consistent, high-performance wireless access across a wide range of environments.

By integrating Arista's Cognitive Wi-Fi with Highway 9's private cellular network, the partnership creates a unified wireless experience that delivers seamless coverage and enhanced capabilities throughout the enterprise.



Arista/H9 Joint Architecture for Cognitive Campus and Mobility

Cognitive Campus and Mobile Cloud: A Seamless Integration

Arista's best-in-class network infrastructure provides a high-performance foundation for Highway 9's Mobile Cloud, a powerful synergy that extends cognitive campus capabilities to mobile environments



Highlights



Enhanced Power and Connectivity:

- Arista's advanced PoE capabilities provide abundant power for Highway 9's Access Points, ensuring optimal performance and coverage.
- The integration at the access layer maximizes efficiency and simplifies deployment.



Precision Timing for Mobility:

- Arista's network distributes Precision Time Protocol (PTP) throughout the campus, meeting a critical requirement for mobile networks.
- Reliable PTP ensures synchronized and reliable mobile services across the entire enterprise.

The integration of Arista's Cognitive Campus and Highway 9's Mobile Cloud creates a unified, intelligent network that extends from core to edge, seamlessly blending Wi-Fi and cellular capabilities for unprecedented coverage, security, and performance.



Resilient and Flexible Mobile Edge:

- Highway 9's Mobile Edge, hosting the 5G Packet Core, seamlessly extends Arista's service spine switch set.
- Leveraging Multi-chassis Link Aggregation (MLAG) for high availability and resilience.
- Utilizes VLAN and VXLAN tunneling to integrate with various network segments, extending security zones and applications into the cellular wireless space.



Secure Virtual Mobile Zones:

- Combines mobile devices into secured enterprise zones, providing a protected operating environment for mobile routers, phones, and tablets.
- Ensures consistent security policies across both Wi-Fi and cellular networks.



Extending Zero Trust Networks to Mobile Devices

The integration of Arista's Cognitive Campus and Highway 9's Mobile Cloud extends Zero Trust principles seamlessly to mobile environments, ensuring comprehensive security across all network types and devices.

Highlights

Consistent Segmentation and Policy Enforcement:

- H9 Mobile Cloud integrates with Arista's Cognitive Campus segments and zones, including Arista's Next Gen Identity and policy solution CV Agni, Macro Segmentation service MSS and Arista NDR.
- Ensures the Zero Trust principle of "never trust, always verify" is applied consistently to all devices, whether connected via Wi-Fi or cellular networks.
- Mobile devices are subject to the same strict segmentation and least-privilege access policies as traditional network endpoints.



Unified Authentication and Access Control:

- Arista's AGNI integrates with Highway 9's Mobile Edge to provide consistent Network Access Control (NAC) for all devices.
- Extends the Zero Trust requirement to "verify explicitly" to the mobile environment.
- eSIM authentication from Highway 9 for both cellular and Wi-Fi clients provides hardware-based identity verification.



By seamlessly extending Zero Trust principles to mobile environments, the Arista and Highway 9 joint solution creates a

unified, secure network ecosystem

that verifies every user, device, and connection - without compromising on simplicity or user experience.



Simplified Zero Trust Management:

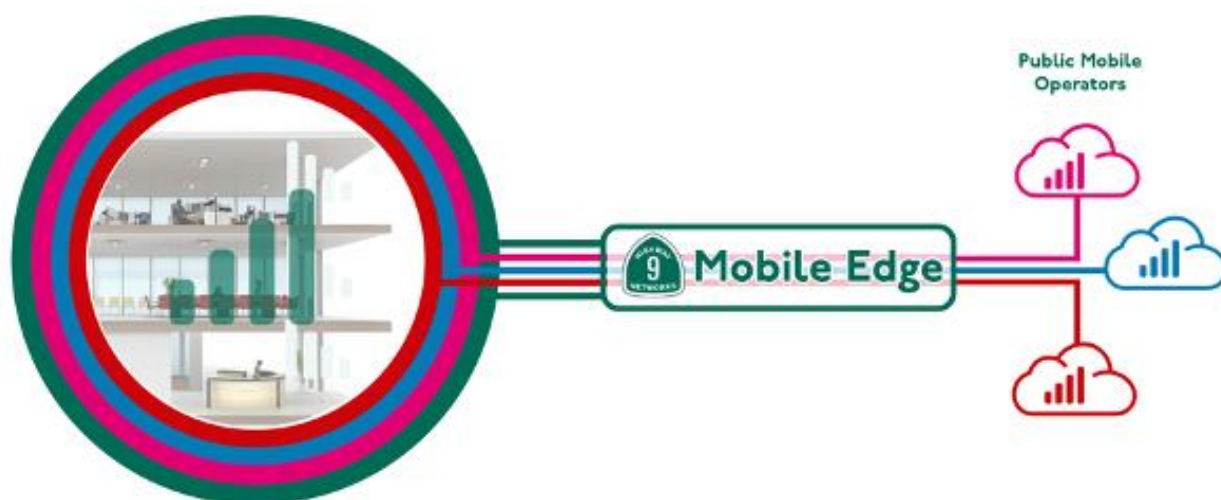
- Arista CloudVision users gain Single Sign-On (SSO) access to the Highway 9 Mobile Services dashboard.
- Creates a unified management interface for both campus and mobile networks.
- Allows administrators to implement and manage Zero Trust policies consistently across all network types through a single pane of glass.



Converged Wireless: Indoor Cellular Extension

Highway 9's Indoor Cellular Extension transforms your building into a seamless, secure extension of public mobile networks. It enhances safety, simplifies connectivity, and supports the modern BYOD workplace – all while maintaining enterprise-grade security and adapting to your organization's evolving needs





Indoor Cellular Extension Service

Highlights

Seamless Cellular Connectivity

- Extends carrier networks across the enterprise, providing coverage where public networks do not reach.
- Automatic transition between public mobile networks and private cellular
- Users experience uninterrupted service as they enter or leave the building roaming seamlessly across Wi-Fi and 5G networks.
- No manual switching or configuration required by end-users.





Enhanced Safety and Communication

- Improved E911 support with accurate in-building location awareness.
- Reliable delivery of critical information:
 - National emergency alerts.
 - Building-wide emergency announcements.
 - Ensures all occupants receive vital information, across all network providers.

Native BYOD Support with Enterprise-Grade Security

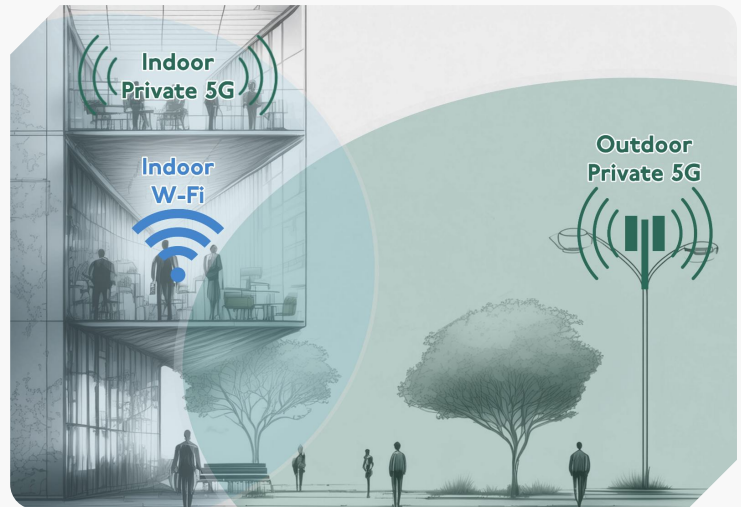
- Personal devices connect automatically to their preferred network within the building, no need for special configuration or additional software installation.
- Enterprise security posture is maintained for all data and cellular traffic.



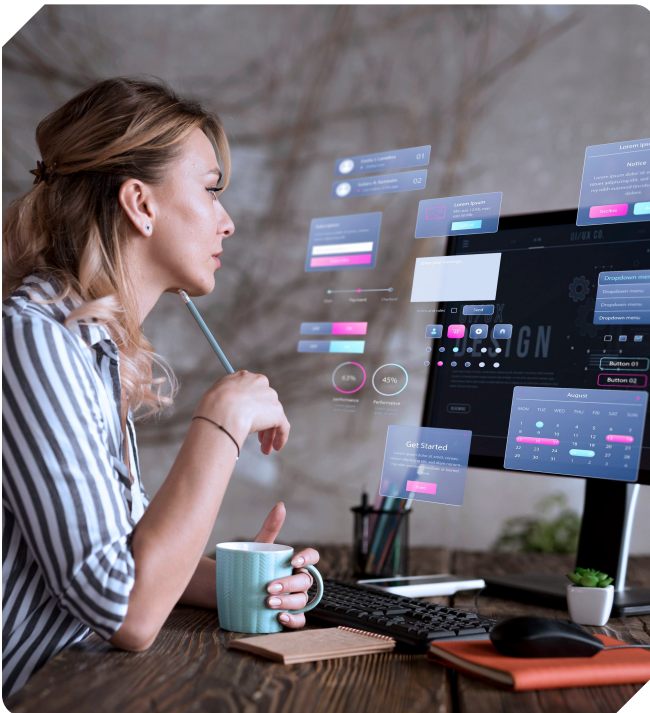
Converged Wireless: Indoor Outdoor Roaming

The seamless indoor-outdoor roaming capability delivered by Arista and Highway 9 creates a borderless enterprise, where connectivity, security, and user experience remain consistent regardless of location. This empowers organizations to reimagine workflows, enhance collaboration, and drive innovation across their entire campus.

The joint solution enables users to move freely between indoor Wi-Fi and outdoor Private 5G while maintaining uninterrupted connectivity, security, and access to critical resources.



Highlights



Uninterrupted User Experience:

- Users can roam seamlessly between Wi-Fi and Private 5G networks without manual intervention or reconnection.
- Ensures continuous access to voice, data, and enterprise applications as users move throughout the campus.
- Supports high-bandwidth, low-latency applications like video conferencing or augmented reality, even during network transitions.

Consistent Zero Trust Security:

- Maintains the same level of security and access control as users transition between networks.
- Leverages unified eSIM authentication across Wi-Fi and Private 5G for continuous identity verification.
- Applies consistent segmentation and policy enforcement regardless of the user's location or connection type.



Enhanced Operational Efficiency:

- Enables location-based services and context-aware applications that adapt to the user's environment.
- Supports efficient asset tracking and management across indoor and outdoor spaces.
- Facilitates real-time collaboration and data access for mobile workers, improving productivity.

About Arista Networks

Arista Networks is an industry leader in data-driven, client-to-cloud networking for large AI, data center, campus and routing environments. Its award-winning platforms deliver availability, agility, automation, analytics, and security through an advanced network operating stack. For more information, visit www.arista.com.

Arista, the Arista logo and EOS are trademarks of Arista Networks.

About Highway 9

We founded Highway 9 Networks to bring the power of the cloud to enterprise mobility ...for the first time ever.

Specifically, we leveraged several advances in private mobile technology including availability of free spectrum, multi-eSIM support and private 5G, and combined them with our founding team's deep cloud/networking expertise to build a mobile cloud for the enterprise.

Our innovation result is the Highway 9 Mobile Cloud — the first cloud-based approach to mobility and the only offering that meets an AI-driven enterprise's core operational, performance and multi-carrier integration requirements.

Discover the Power of Highway 9 Mobile Cloud for Your Business

Get in touch

Contact us to learn how Highway 9's Mobile Cloud can transform your energy operations



Info@highway9.com



www.highway9.com