

Aerohive Networks and Juniper Networks: Cloud-Enabled Solutions for the Enterprise

Easy-to-manage wired and wireless solutions for today's mobile-first enterprise

Challenge

Enterprises are increasingly challenged to deliver a high-quality user experience for applications and network resources - especially for distributed remote locations with little or no IT expertise, making management difficult.

The increasing consumption of applications and proliferation of mobile-first access in the workplace is driving tremendous change in wireless and wired network infrastructure for today's distributed enterprise. A scalable, high-performance wireless and wired architecture that's easy to manage is critical to support an ever growing, diverse set of mobile devices.

Organizations also need to provide secure and effective strategies for corporate, guest, BYOD, and Internet of Things (IoT) device access.

The Challenge

It is predicted that tens of billions of devices will be connected to the Internet by 2020. The vast majority of these devices will use some form of wireless access. When planning for wireless networks, enterprises today not only have to accommodate user operated devices (including corporate, BYOD, and guests), but also connected systems and sensors (IoT devices) that may not rely on human interaction.

Enterprises must devote significant resources to planning, deploying, and managing large wireless networks with a wired infrastructure that can accommodate growth. To address these issues, organizations are increasingly adopting cloud-managed networks at the access edge, which provide more deployment flexibility and simplify management.

The explosion of IoT sensors and devices further gives businesses new data that they can use to provide better customer experiences. For example, in retail, this business intelligence can enable accurate analytics on customer patterns in stores, interactive displays, firmly mobile point of sale (POS), automated vending, inventory tracking, and highly personalized customer service. To meet these changing business needs, network managers must deliver innovative wired and wireless solutions that can provide simple, secure, and scalable access accompanied by comprehensive data and analytics.

Additionally, the majority of today's enterprise networks are manual systems comprised of layers of switches and VLANs, with multiple management points requiring different tools, all adding to operational complexity. Multiple layers and flavors of security solutions, ranging from load balancers to firewalls, further contribute to this complexity. Because these product layers must be administered manually, the potential for configuration errors that disrupt services or open security gaps increases, making it riskier and more challenging than ever to operate and manage the distributed enterprise.

Today's Wi-Fi network must have the flexibility and performance to accommodate an explosion of connected devices without affecting the experiences of other users on the network. Network managers must be able to prioritize mission-sensitive traffic while offering alternatives to restrict or limit the use of apps that are not deemed critical to the business. At the same time, the network must provide appropriate levels of security to ensure that users' sessions and data are safe, and the network must ensure predictable access to data resources based on user identity, time of day, device type, or location. The network must have the intelligence to deliver these core requirements while maintaining a consistent and reliable connection as the mobile user moves around within the corporate network.

In fact, users should be able to experience the same levels of performance, security, and reliable access to resources no matter where they connect—not just to the wireless network in the main office. Users must be able to work from anywhere, on any device, and an intelligent network should be able to deliver the same user experience to wired and wireless users alike, whether they are at corporate headquarters, in a branch or remote office, or at home—all with the appropriate levels of security to fit the scenario.

A wireless solution that scales across numerous distributed sites must also be easily managed, preferably offering a single pane of glass management interface, providing unified reports, logs, and tools that can quickly identify, track, and resolve issues on any network, in any location, from anywhere. And the management solution should be delivered in a way that best suits the needs of the customer, with both on-premises and cloud-based alternatives available.

Solution

Juniper and Aerohive deliver a simple-to-deploy, easy-to-manage cloud-based wired and wireless enterprise network infrastructure. Aerohive provides simplified cloud management for its fast 802.11ac-based WLAN access points, while Juniper offers high-performance campus and branch switching, routing, and security.

Benefits

- Offers flexible deployment, enabling businesses to deploy and operate at remote locations in minutes
- Supports large numbers of diverse mobile devices without compromising security and performance
- Realizes the full potential of mobility for gaining application and network usage insights and analytics
- Delivers rich contextual end customer experiences

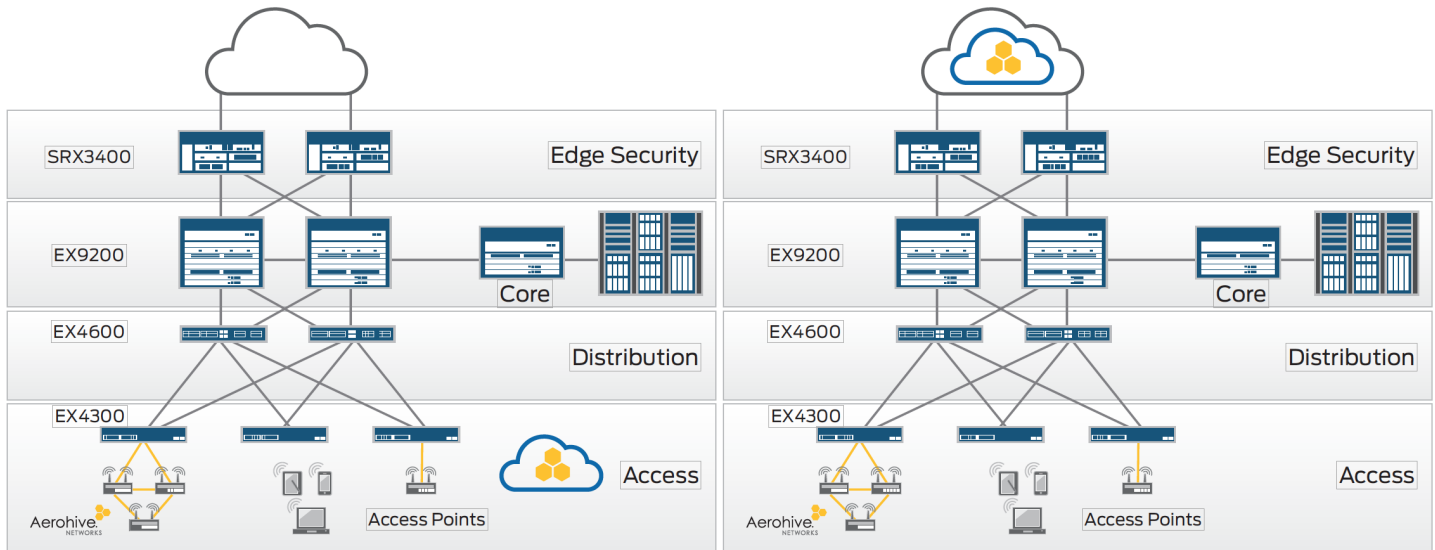


Figure 1. Aerohive Distributed Wireless architecture using Juniper Networks EX Series Ethernet Switches and SRX Series Services Gateways, and offering the choice of HiveManager NG Virtual Appliance or HiveManager NG Cloud

The Juniper Networks - Aerohive Solution

Together, Juniper Networks and Aerohive Networks deliver an elastic, simplified architecture, best-in-class hardware, and the distributed intelligence needed to deliver the optimized performance, security, resiliency, and simplified management required by today's highly dense, heavily utilized networks.

The Aerohive Cloud Services Platform, additionally, has Open APIs that help create a rich ecosystem of partners, customers, and applications, allowing businesses to realize the full potential of mobility as a platform for gaining business insights, gathering analytics, and launching revenue-generating services.

Aerohive HiveManager NG is a cloud-enabled enterprise management solution that provides all the features and functionality of a behind-the-firewall network management system (NMS) without the installation, operation, and maintenance associated with a dedicated management servers and at dramatically lower cost. Unique to the industry, Aerohive's HiveManager NG can also be deployed on-premises, in your own virtualized data center infrastructure, delivering many of the benefits of HiveManager NG. Customers can use Aerohive's public cloud to simplify access point provisioning while still hosting HiveManager NG Virtual Appliance on-premises, and can further migrate between cloud and on-premises deployment as their needs evolve.

Simplified Management

Juniper Networks® Junos® Space Network Director provides a smart, comprehensive, and automated network management solution that enables administrators to visualize, analyze, and control the entire enterprise network, from the data center to the campus, physical to virtual, and wired to wireless—all through a single management view.

Along with simplified configuration and operating system management, Aerohive HiveManager enables centralized wireless planning, monitoring, troubleshooting, reporting, and analytics. By deploying Aerohive's fast 802.11ac Wi-Fi access points with the high-performance Juniper Networks EX Series Ethernet Switches across campus and branch, customers are able to achieve a simple, scalable, and secure wired and wireless solution.

Security

The complete portfolio of scalable Juniper Networks SRX Series Services Gateways provides a foundation for implementing a wide array of protections, including high-performance unified threat management (UTM) services, next-generation firewall services, and dynamic threat intelligence. SRX Series gateways also offer multiple deployment options, including chassis-based and virtual appliances with full feature capability. Additionally, Junos Space Security Director software, when combined with Juniper's Advanced Threat Defense Solution, provides a foundational platform for open policy enforcement:

- Security Director provides security policy management through an intuitive, centralized, web-based interface that offers enforcement across emerging and traditional risk vectors. Security Director offers extensive security scale, granular policy control, and policy breadth across the network.
- Juniper Networks Spotlight Secure advanced threat intelligence platform aggregates threat feeds from multiple sources to deliver open, consolidated, actionable intelligence to SRX Series firewalls across the organization. These sources include Juniper and third-party threat feeds, as well as threat detection technologies that the customer can deploy. Administrators can define enforcement policies from all feeds via a single, centralized management point—Junos Space Security Director. These components combine with the SRX Series product family to deliver advanced threat protection across the network.

Summary - Aerohive and Juniper Cloud-Enabled Solutions for the Enterprise

For today's distributed enterprise, a scalable, high-performance wireless and wired architecture that's easy to manage is critical to support an ever growing and diverse set of mobile devices. Users need to be able to work from anywhere, on any device, and an intelligent network should be able to deliver the same user experience to wired and wireless users alike, while organizations need to develop secure and effective strategies for corporate, guests, BYOD, and IoT device access.

Working together, Aerohive and Juniper deliver an interoperable solution that realizes the full potential of mobility and supports large numbers of diverse mobile devices without compromising security and performance. This joint solution combines the flexibility and simplicity of cloud-managed wireless networks with a choice of deployment options from Aerohive, and high-performance, secure networking solutions from Juniper to address the needs of enterprises of any size.

Next Steps

To learn more about the joint Aerohive-Juniper solution, please contact your Juniper Networks or Aerohive Networks representative, or visit www.juniper.net and www.aerohive.com.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon, and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

About Aerohive

Aerohive (NYSE: HIVE) enables our customers to simply and confidently connect to the information, applications, and insights they need to thrive. Our simple, scalable, and secure platform delivers mobility without limitations. For our over 22,000 end customers worldwide, every access point is a starting point. Aerohive was founded in 2006 and is headquartered in Sunnyvale, CA. For more information, please visit www.aerohive.com, call us at +1 408-510-6100, follow us on Twitter @Aerohive, subscribe to our blog, join our community or become a fan on our Facebook page.

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