COMMSCOPE®

RUCKUS®

Solution Overview

RUCKUS and Nomadix

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Introduction

The intention of this document is to give a general overview about Nomadix, what does, how works, where can be placed and how can help RUCKUS.

Nomadix currently is facilitating more than 5 million connections daily, worldwide and claim to be leading provider of intelligent network devices that make nomadic computing and public internet access easy. Their products are designed and developed by a team of network experts committed to our company's mission to provide the most reliable, flexible and easy to install gateways.

- Intelligent Network Devices Deployed in Leading Venues in the Real Estate, Hospitality, Healthcare & Education Industries
- Shipped Over 50,000 Gateways Worldwide — Installed in Over 150 Countries
- Our Gateways Facilitate Over 5 Million Connections Daily Around the World

Solutions Overview

Nomadix has 3 different products and they consist in the following:

- Nomadix CLOUD
- Nomadix Wi-Fi
- Nomadix Edge Gateways

All the three different products are based on Edge Gateways and portals but the main intention of them is create the best in class onboarding and managing bandwidth, traffic, policies, guest management and reporting dashboard.

Nomadix delivers the most reliable, flexible and easy-to-deploy network appliances to create and manage a visitor-based network (VBN) or high-speed internet access (HSIA) network. You can rely on us for…

Easy VPN

Effortless creation of a VPN.

Access Management

Easy guest on-boarding access management.

Effective Bandwidth Management

Control and allocation to maximize use of bandwidth you are paying for.

Streamlined Experience

A streamlined experience for different applications with our deep packet inspection (DPI) technology.

Flexible Deployment

Flexible deployment capabilities adaptable to your guests' user experience needs.

Scalable

Scalability to accommodate small- to large-size networks (from coffee shops to resorts to convention centers).

All of Nomadix's gateways — access gateways and the new edge gateway — are based on our proven, reliable Nomadix Service Engine (NSE).

The NSE is designed to be a dependable, scalable solution to ensure your guests enjoy the internet experience they deserve

Nomadix Edge Gateway

Today's guest network operators are facing an unprecedented demand on their networks. Multiple devices per user are taking up massive amounts of bandwidth, which necessitates the need to deploy bulletproof, scalable solutions to ensure your guests get the internet experience they demand.

Why Nomadix is the right choice:

- Multiple Quality of Service (QoS) Policies Per Connected Device

- More Impervious to Network Virus Attacks and Bulletproof to Darkhotel Hacks Due to Proprietary Local Web Server

- Simple and Fast to Configure Your Visitor-Based Network

- Offers a Suite of APIs to Enable Cloud-Based Portals and Reporting Solutions

FIGURE 1: NOMADIX EDGE GATEWAYS

Authentication

Nomadix's Bandwidth Management and Edge Gateway appliances support multiple authentication types, including self-provisioning with credit card, or direct property management folio integration. Along with support for RADIUS, 802.1x and MAC authentication, Nomadix flexibility allows for any and all of the above authentication methods to be configured and utilized at the same time.

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Bandwidth Management (BW) & Control

The variety of bandwidth management tools provided by Nomadix enables network operators and system integrators to maximize their Return on Investment (ROI) from available internet bandwidth capacity. This means that internet bandwidth circuits do not need to be upgraded as frequently, even as the perceived demand for bandwidth continues to grow. Nomadix's Bandwidth Management and Edge Gateway appliances support BW management per device or per group. Bandwidth capping allows for control on a granular level for the operator to sell in tiered levels to groups.

Next Generation Platform for Speed & Durability

Built upon Intel's high-performance processors, the EG 3000 hardware platform sports built-in flash memory, dramatically increasing uptime over competitive products using hard drives. When combined with the proven Nomadix Service Engine (NSE) core software, the EG 3000 becomes an appliance with unparalleled reliability. Regular software updates from Nomadix ensure that your solution is responsive to the rapid pace of change inherent in the technology arena. New devices and new applications can wreak havoc on your network … Nomadix keeps you ahead of the curve.

Reliability

Nomadix has invested more than 15 years of operating-system development to maintain full control of the code without relying on open-source patches. Nomadix also has a vigorously trained quality control team dedicated to providing a robust device to our customers. We've deployed tens of thousands of Edge Gateways worldwide. All our Edge Gateways are high reliability real-time operating system RTOS and our RMA rate is as low as 0.25% of units deployed per year. Nomadix Edge Gateways have a monthly break-fix support call rate as low as 0.5% of all our units deployed.

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Custom Branded Captive Portal

The flexibility to create and maintain a dedicated captive portal that is completely site specific with only some simple XML commands is an example of how Nomadix empowers our customers. The Nomadix gateway supports either the simple built-in portal or the creation of a site-specific portal.

On Edge Gateway Nomadix has 3 different equipment and a management platform.

Here we broke in different areas and performance depending of the customers demands.

Edge Gateway EG 3000

FIGURE 2: NOMADIX EDGE GATEWAY 3000

The EG 3000, Nomadix's mid-range bandwidth management gateway, is ideal for value-driven, visitor-based networks (VBNs). With four configurable WAN/LAN copper ports and support for up to 3000 devices, the EG 3000 is the perfect solution for small-to medium-sized venues, including hotels with up to 500 rooms that want to offer state-of-the-art internet access to their guests. When combined with the proven Nomadix Service Engine (NSE) core software, the EG 3000 becomes an appliance with unparalleled reliability. The base configuration of the EG 3000 includes 400 concurrent devices with a throughput of 500 Mbps with an option to upgrade to 3000 concurrent devices, and 1 Gbps of throughput. The EG 3000 is built upon the best processor available to ensure that smaller properties who offer internet access can do so in an effective yet economical manner. And like all Nomadix bandwidth management and access gateway appliances, the EG 3000 offers industry-best bandwidth management features providing venues and properties with the technology needed to enhance their guest experience.

Nomadix's Bandwidth Management and Edge Gateway appliances allow end users to access the internet without making changes to their networks. "Set and Forget" functionality requires configuration only once during setup without administration oversight from then on.

Edge Gateway EG 6000

FIGURE 3: NOMADIX EDGE GATEWAY 6000

The EG 6000 is ideal for mid-to-large venues where support for thousands of simultaneous mobile devices is a must. It's a high-performance internet Edge Gateway that enables the creation of high-speed internet access (HSIA) and visitor-based networks (VBN). Designed with scalability in mind it is renowned for its reliability and suitability for venues such as hotels, airports, stadiums, and convention centers. The EG 6000 features the flexibility to support from 50 up to 800 doors, and up to tens of thousands of devices when using our clustering feature. With a throughput of up to 6 gigabits per second, the EG 6000 Edge Gateway is ideal for managing your growing bandwidth demand while ensuring your guests get the best internet experience.

NSE - Nomadix Service Engine

Nomadix Service Engine (NSE) offers a comprehensive set of features needed to deploy full-service, revenue-producing public access networks. With a range of internet access gateways powered by our industry-leading NSE software, connections can be fiber, wireless or wired, allowing maximum flexibility for operators and end users.

- Fastest Gateway, Largest Volume

- Support millions of devices and exploit your total bandwidth throughput.

- Multiple Authentication Methods Built In

- RADIUS and self-provisioning through a property management system (PMS), or credit card charging.

- Device Scalability Built In

- Supporting from 100 up to 8,000 simultaneous devices on our edge gateways and throughput capabilities up to 6 Gbps on our new edge gateways.

- Unlimited, Versatile and Simple Bandwidth Control

- Per device, grouping of devices, priority-based, and weighted fair queuing.
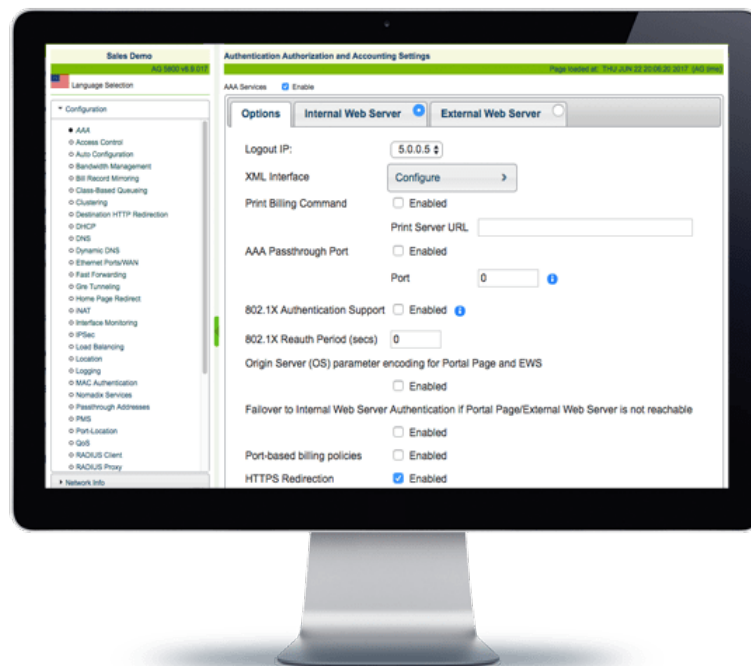

FIGURE 4: NOMADIX NSE

Conclusion

Nomadix Gateways continue to provide efficient and evolving technologies to its customers for traffic prioritization and management. These technologies are always one step ahead of market needs and enable operators to:

- Enhance bandwidth in a modular and cost-effective way.

- Monetize from demanding users while providing consistent experience to visitors with regular usage

  pattern.

- Maximize the potential of existing bandwidth subscription(s).

Ruckus solutions are part of CommScope's comprehensive portfolio for Enterprise environments (indoor and outdoor).

We encourage you to visit **commscope.com** to learn more about:

- Ruckus Wi-Fi Access Points
- Ruckus ICX switches
- SYSTIMAX and NETCONNECT: Structured cabling solutions (copper and fiber)
- imVision: Automated Infrastructure Management
- Era and OneCell in-building cellular solutions
- Our extensive experience about supporting PoE and IoT

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Visit our website or contact your local CommScope representative for more information.