Installation Examples

Educational Housing Services

Description

Type: 230 single and suite rooms across 18 floors in single building
No. of Users: 600, max capability of 1000
No. of Devises per user: Unlimited, only 5 simultaneous active sessions
Wireless Service: Individual VLANs for each User
Technology: Cisco core and floor switches, Ruckus Zone Director and APs, SLICE Internet
Gateway for individual VLAN management, security and reporting
Support: 24X7Call Center and local support.
Bandwidth: 1gbps from RCN

Slice Wireless Solutions worked together with RCN to define and deliver a complete scalable managed network solution for Educational Housing Services including all hardware, licensing and cabling. The centerpiece of the deployment was the Slice Internet Gateway, which was used to deliver in depth reporting about bandwidth usage to help optimize network performance. Slice delivered monitoring capabilities to monitor the health and reliability of the Wi-Fi solution in conjunction with delivering optimal internet experiences for end users and cost savings for operators. Security control mechanisms included:

- Behavioral intrusion detection capabilities to swiftly identify abusive end users and quarantine malicious users attacking SLICE from the WAN.
- DPI engine that supports signature matching; compatible with industry standard rule formats that are widely available for detecting viruses, worms, malware, DoS attacks and other common problems.
- Behavioral-and-signature-based malicious identification is integrated with the policy enforcement engine to separate and momentarily or permanently penalize, quarantine or ban abusive end users.

Included with this deployment was the personal VLAN feature which allowed end users to recreate the comforts of home by creating their own unique VLANs and allowing them to add multiple devices via account authentication or by inputting MAC addresses via a user friend interface at the splash portal.

After rigorous quality testing, Slice set up a 24x7 Toll Free Help Desk support line for end user Wi-Fi related issues with defined SLA for response times and delivered response time for both minor and major network issues where hardware would need to be replaced. To ease transition to the new network, Slice launched a marketing campaign to educate end users on network

features and functionality. The campaign included a video, distributable wireless cheat cards, a joint press release and how-to guides.

> *"We are absolutely thrilled with the results of the Slice WiFi implementation at our John Street Residence. Students are very happy with the new service; we haven't had any issues at all since it went live and we are working towards having the same service at all our locations in New York. Slice Wireless Solutions have demonstrated how professional they are and how well they know this technology." – Dorothy Parker*

Jaroth-PTS

Description

Type: Large scale public deployment
No. of Users: Up to 1000 new users daily
No. of Devices per user: Scalable to 5 (not necessary for application)
Wireless Service: Branded portal at authentication, per user bandwidth allocation
Technology: Ruckus Zone Director and APs, SLICE Internet Gateway user management,
reporting and security
Support: 24X7 Tier 2 Operator Support.
Bandwidth: 200mbps in datacenter where are traffic is routed through.

Together with Jaroth-PTS, Slice Wireless Solutions launched two of most prominent large scale public Wi-Fi networks in the five boroughs, The Downtown Brooklyn Wi-Fi network as well as the Staten Island Ferry Wi-Fi network (8 ferries across water). Slice was instrumental in defining and delivering a complete a Wi-Fi solution supported largely by the functionality of the SLICE Internet Gateway.

Two of the most important aspects if these included real time reporting and security. With 1000s of new users every day and heavy use of the wireless infrastructure, network health needed to be monitored on-demand in real time. Slice built a web console to allow networks operators and admins to log in on any device and view reports on network use and health. Simultaneously, the large user count drew attention from advertisers who wanted to leverage user data to provide revenue generating advertisements to the network operators. Slice custom built a reporting console to share various end user demographic information with the network operators including device type, user statistics and survey results.

With every large public network, security is a major concern. Slice helped minimize operator liability by implementing security features designed to prevent user abuse such as spamming, pirating and phishing. Users with infected devices were automatically detected when entering the network and were separated in to private VLANs to prevent communication with other devices on the network. BitTorrent traffic was also blocked to eliminate problems caused by end user copyright law violation.

Slice was used in the procurement and installation of Ruckus Access Points in both deployments and provided operator training as well as 24x7 tier 2 support for network and hardware issues. Both networks have been live as of 2014 and continue to provide internet access to hundreds of New York City Residents daily.

Roger Smith Hotel

Description

Type: Hospitality
No. of Users: Up to 300
No. of Devices per user: Scalable to 3 (not necessary for application)
Wireless Service: Per user bandwidth allocation, advanced security, user management, reporting and security
Technology: Ruckus Zone Director and APs, SLICE Internet Gateway.
Support: 24X7 Wireless network and desktop support
Bandwidth: 100mbps through RCN

The Roger Smith Hotel (RSH) is a 136 room boutique hotel located in East Midtown. Originally a managed service client of Slice Wireless Solutions, RSH began exploring wireless managed services with Slice in 2010. The goal of RSH was to provide a free reliable network for its guests with minimal management for their network operators.

Phase 1 of the RSH deployment focused on the radio and controller level. Deploying in-room access points was not an option so a proper model had to be chosen which would allow blanket coverage of every floor with no end user drop off. After a detailed site survey, the Ruckus ZoneFlex 7962 model was chosen. With business class bandwidth provided by RCN, Roger Smith Hotel now had a reliable and consistent enterprise grade wireless network.

Phase 2 of the RSH deployment came in 2012 and involved integration of the SLICE Internet Gateway. Proven to be a key element in MDU and hospitality deployment, the SLICE Gateway delivered many additional network features that could not be delivered at the radio and controller level. Two of the biggest functions as per user bandwidth management and proactive security.

With per user bandwidth management, RSH could equally distribute bandwidth to their guests without running into a situation of one power user ruining the internet experience for the rest of the guests. Proactive security was put in place to prevent infected devices from attacking the main network or other user devices. If an infected device was detected on the network, it would immediately be transferred into its own VLAN and would have its speed throttled down to limit any nefarious activity from occurring. Users who were throttled would immediately receive a message on their device letting them know why their speed has been reduced and to call

support for additional information. Slice would often provide support directly to the end-user to help resolve their device's issue.

Guest satisfaction key in the hospitality industry and Slice's network deployment at RSH helped to deliver just that. RSH is renowned for its guest network capabilities and continues to work with Slice to upgrade network infrastructure and position them to be the leading hotel internet network in New York City for decades to come.

Enco Electronics

Description

Type: Four multi dwelling units
No. of Users: Up to 1000 users daily
No. of Devices per user: 5
Wireless Service: Branded portal at authentication, per user bandwidth allocation, user management, reporting and security
Technology: Ruckus ZoneDirector and APs, SLICE Internet Gateway
Support: 24X7 Wireless Support
Bandwidth: 150/150 at all locations

Enco Electronics is an electronics systems provider and was hired to build and manage a full service wireless network at the Miramar Beach Condominiums in Miramar Beach, Florida. The property consists of 4 multi-story, multi-room buildings and required a high level wireless network to meet the needs of their end users.

Enco discovered Slice Wireless Solutions and learned of their offering in the MDU/Hospitality market. After a rigorous examination of the SLICE Internet Gateway and Slice's industry leading knowledge of the Ruckus product line, Enco decided to work in tandem with Slice to build, manage and support the wireless network at the Miramar properties.

The SLICE Internet Gateway was a huge piece of the Enco deployment. The SLICE Gateway was primarily used to deliver per user VLANs to allow tenants of the properties to add up to 5 devices to their personal network without accessing the devices and sensitive information of their neighbors. The per-user VLAN functionality was delivered using an intuitive guest portal which authenticated tenants based on their room number and property location. The SLICE Gateway was also used to maintain network integrity thought per user bandwidth allocation, proactive security and additional core networking features.

The Enco staff was trained on management of the SLICE Gateway by Slice's senior engineers and they continue to work together to optimize the network and support its end users.