

Hosted Wireless LAN Management

Access Networks Offers Customers Nationwide Hosted Wi-Fi Management Services with FlexMaster

Providing corporate IT services to small, medium and large-sized businesses can often open new doors, especially when Wi-Fi is involved. That's what Access Networks discovered.

Having built a growing business offering network design, installation and support services to enterprise clients, Access Networks was asked by a client to outfit his home with a complete wired and wireless network like the one installed in his business. The home happened to be as big as some businesses, spanning 15,000 to 20,000 square feet. Happy to oblige, Access Networks quickly found that designing, installing and supporting a complete infrastructure in such as massive home was more difficult than supporting a large-scale enterprise.

With little or no existing network infrastructure to work with, no on-site tech support, little space to install infrastructure elements, strict deployment restrictions and challenging building materials such as elaborate mirror, tile, glass and granite, installing a reliable wired and wireless infrastructure quickly became a monstrous challenge. And once the installation was completed, there was no good way to remotely and pro-actively monitor the network in the event of a problem. This was especially problematic with the Wi-Fi network which is typically the primary means of connectivity within large-scale homes.

In addition, just like in the enterprise, everything in the home is going IP. Wi-Fi-enabled handheld tablets can now control everything from lighting to CCTV cameras, irrigation systems to video and music distribution. "Wi-Fi-based remote controls have been growing in popularity over the last five years," said Hagai Feiner, president and CTO of Access Networks. "But many of these systems can't be successfully deployed using standard, consumer-level Wi-Fi. So a major focus for us has been finding and deploying unique wireless technology specifically developed to address many of the inconsistent coverage and reliability issues that have been next to impossible to solve."

Another major issue that Access Networks faced was the inability to remotely configure, manage and pro-actively troubleshoot wireless LANs deployed in hundreds to thousands of locations. "We really wanted to be able to offer a hosted WLAN management service to system integrators that would allow them to easily log into our server and have full visibility into and control over the wireless systems they had deployed," said Feiner. "Doing this today with conventional management tools just doesn't work."

Ultimately Access Networks found Ruckus Wireless and began testing it's ZoneFlex line of smart wireless LAN systems along with FlexMaster, a carrier-class remote Wi-Fi service management system.

According to Access Networks field testing, the integration of dynamic beamforming into Ruckus ZoneFlex smart Wi-Fi access points delivered 60 to 70 percent better coverage over conventional wireless LAN gear. "We test and install systems in the worst wireless environments you can possibly imagine," said Feiner. "It becomes very apparent, very quickly, if vendor claims hold water."

Taking their business nationwide, Access Networks needed a way to easily access remote equipment installed as well as to provide system integrators with that same remote access and control. Until now,



Access Networks is using the Ruckus FlexMaster system to offer hosted wireless LAN management services to its customers.

COMPANY OVERVIEW

Founded in 2003, Access Networks provides fully-engineered wired and wireless networking solutions to commercial enterprises and large-scale residential customers. Headquartered in Los Angeles, the company supports a nationwide network of integrators and partners. Access Networks provides a full range of services ranging from custom installation to network design and ongoing management services.

REQUIREMENTS

- Improve Wi-Fi signal coverage with fewer access points
- Offer more reliable Wi-Fi connectivity to Wi-Fi enabled devices and systems
- Multi-tiered management access
- Proactive alerts of wireless problems
- Auto discovery of remote devices
- Bulk firmware upgrades of APs
- Ability to remotely manage Wireless LANs behind firewalls and NAT devices

SOLUTION

- ZoneFlex 7962 dual-band 802.11n access points
- ZoneDirector 1000 series Smart WLAN controllers
- FlexMaster remote Wi-Fi service management system

BENEFITS

- Lower costs resulting from the reduction in truck rolls
- Proactive management of remote wireless controllers and APs
- Better coverage with fewer APs due to the use of dynamic beamforming.
- Ability to bulk configure devices
- Tiered access for integrators

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“FlexMaster is helping us to change our transactional business from simply selling networking boxes to building an annuity-based business that provides ongoing managed wireless LAN services.”

Hagai Feiner
President and CTO
Access Networks

Access Networks primarily used VPNs (e.g. IP-SEC, SSL, etc.) or SSH to remotely access systems. But these tools didn't provide a single and unified view of the entire network or proactive tools for running performance diagnostics, bulk configuration, or proactive troubleshooting.

“For us, FlexMaster has been a game-changer,” said Feiner. “We now have a single, unified view of every customer's wireless LAN and complete control, down to the device level. More importantly we can use FlexMaster to offer tiered Wi-Fi access services, extending management of wireless LANs to our integrators as a service,” said Feiner.

Once a Ruckus Wireless LAN system has been installed, the Ruckus ZoneDirectors and all ZoneFlex APs automatically “phone home” to the FlexMaster system. “Day one support becomes a non-issue for our installers. As soon as the system is deployed we have immediate visibility and control and can help fine tune the installation remotely,” said Feiner.

In the event of a device failure or remote problem such as an unplugged AP, an event is created within FlexMaster and an alert or email is immediately sent so corrective action can be taken. “We know before the customer whether something is wrong with the network – which is how it's supposed to

be,” said Feiner. “This translates into huge cost savings from fewer truck rolls and saves valuable time by remotely troubleshooting problems.”

Providing multi-tiered access to partitioned views of the network, statistics, status, and reports, FlexMaster uses industry-standard protocols such as SNMP, TR-069, TCP, and HTTP/S for secure communication across any IP-based WAN. It provides a comprehensive set of capabilities for configuration, fault detection, performance management, and reporting of Ruckus Wireless ZoneDirectors, ZoneFlex Access Points (APs), and MediaFlex APs.

FlexMaster can manage tens of thousands of Ruckus Smart Wi-Fi APs either in standalone mode or via the ZoneDirectors. With FlexMaster, customers can visualize remote RF environments, bulk configure, remotely run diagnostic tests and manage groups of devices. Managed MediaFlex and ZoneFlex devices can be grouped by geographic region, device type, serial number, MAC address range, or even client's name.

“Moving this hosted management model into the enterprise as a service will change everything. FlexMaster is taking us there,” said Feiner.

RIGHT: Access Networks provides an instance of FlexMaster that is centrally hosted and can be used by integrators to remotely monitor and manage WLANs from any browser.

If an access point is disconnected or fails, FlexMaster automatically alerts administrators

FlexMaster visually alerts problem WLANs so administrators can quickly drill down to solve problems

