CABLE-TEC EXPO

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CABLE-TEC EXPO 2014
TUESDAY, September 23, 2014

DAY 1

2014 SHOW DAILY

Carrier Grade Wi-Fi a must have

With Wi-Fi access points multiplying exponentially, service providers need to find better ways to manage their networks while providing the best user experience possible.

During the SCTE's pre-conference symposium on Monday, CableLab's Mark Poletti and ZCorum's Scott Helms went over how to build better Wi-Fi networks, both in public places and in customers' homes.

With hotspot deployments increasing from 5.2 million to 10.5 million from 2012 to 2018, along with mobile operator off-load traffic on Wi-Fi networks increasing from 22 percent this year to 48 percent in 2018, Po-

The SCTE's Marty Davidson, left, and Steve Harris moderate the DOCSIS 3.1 and wireless pre-conference symposium on Monday.

letti said Wi-Fi operators face the challenge of how to scale their networks more efficiently.

"How do you scale your networks to keep up with the rapid deployments?" Poletti asked. "Carrier Wi-Fi is a phrase that is used to describe Wi-Fi improvements for performance, management and design that match cellular networks."

Poletti, CableLabs' lead wireless architect, said Carrier Wi-Fi touches the entire Wi-Fi ecosystem, including access point (AP) vendors, AP controllers and servers that can provide data analytics.

The IEEE, Wi-Fi Alliance

Community Wi-Fi emerging as beyond hotspot service

Imagining a community-wide Wi-Fi service sans congestion and replete with seamless connectivity is now a reality, albeit with a list of challenges to be met and business decisions to be made.

Those were the take-away comments from Monday's session: "Community Wi-Fi" by CableLabs' system engineer, Vivek Ganti.

"Community Wi-Fi will allow service operators to leverage bandwidth for the private and public networks and for roaming partners.

Every MSO could gain significant network capacity gains with even a gradual transition to DOCSIS 3.1. See page 3.

Genband portfolio on display at Expo

Genband is demonstrating key components of its portfolio in Denver this week, including its Smart Office Unified Communications platform, wireless access gateway offerings and its Kandy platform.

Genband recently unveiled Kandy, which is a "platform-as-a-service" offering that includes APIs, SDK and "quick starts" that are pre-built applications such as live video assistance. Kandy is a subscription-based, real time communications software development platform, designed to help companies of all types and sizes build communications that are more integrated and immediate.

Genband's Smart Office solution provides cable operators with advanced unified communications and collaboration capabilities while its recently introduced QUANTiX Wireless

Access Gateway allows MSOs to cost-effectively enhance the user experience through improved coverage, faster data speeds and seamless roaming through indoor or outdoor small cell and carrier Wi-Fi deployments.

Genband is also showing its Network Functions Virtualization orchestration capabilities and D-SBC architecture, which leverages Advanced Media Software (AMS) and provides MSOs deployment flexibility with enhanced capabilities to share media and transcoding resources, centrally manage sessions and improve network resiliency.

"As the cable market leader in IP voice deployments we are committed to extending our leadership position by introducing innovative solutions that will allow our MSO customers to disrupt the status quo and grow market share by delivering new classes of solutions and services," said Brad Bush, chief marketing officer for Genband.

Genband is located in booth 437.

ZCorum demos proactive maintenance tools

At Expo this week, ZCorum, which provides managed broadband services and diagnostics products to cable operators, is demonstrating a remote downstream spectrum analysis tool, RF Inspector, as well as a proactive network maintenance (PNM) tool for isolating upstream impairments called "PreEqualization Analyzer."

Today, Scott Helms, vice president of technology at ZCorum, is speaking on a panel with Comcast's Larry Wolcott in a workshop session called "Tools that see around corners."

Helms is discussing the capability in newer cable

modems and set-top boxes to see the full spectrum passing through the device, and how this can be used for proactive detection of downstream issues affecting data and video service.

"Downstream monitoring has always been challenging because of the large number of devices," said Helms. "Now, rather than waiting for a bunch of subscribers to call and report a problem on a specific channel, we can monitor the CPE to proactively identify when there is a problem on a channel and how widespread the issue is."

ZCorum is located in booth 1526

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(WFA) and Wireless Broadband Alliance (WBA) have been working on Carrier Wi-Fi requirements and standards for the past few years with three goals in mind: consistent user experience, network management and fully integrated end-to-end networks. With the building blocks in place in the core network, Poletti said Wi-Fi operators could build large scale Carrier Wi-Fi networks that meet the three goals.

"Carrier Wi-Fi is gaining traction and is in transition from concept to inception," Poletti said.

In addition to the various "alphabet" flavors of Wi-Fi, Carrier Wi-Fi also includes traffic prioritization and procedures for time sensitive applications, jitter, latency and packet loss, as well as Wi-Fi certified products from the WFA.

Another example of Carrier Wi-Fi includes Hotspot 2.0, which allows mobile devices to automatically join a Wi-Fi network based upon preferences and network optimization whenever the user enters a Hotspot 2.0-enabled area. Hotspot 2.0 brings cellular like capabilities to Wi-

Fi users by enabling them to log in one time instead of entering their passwords at every access point when they come in range.

Hotspot is the technical specification that the WiFi Alliance uses for hardware while Passpoint is the certification process to that is needed to make sure the hardware is Hotspot 2.0 compliant.

Wi-Fi operators need to harden their networks with Carrier Wi-Fi best practices, and use Big Data analytics for networking planning, Poletti said.

"In conclusion, what we've gone through here is the need to keep up with the means to scale the managed network with this rapid growth of hotspots," Poletti said. "The vision if Wi-Fi is based on IEEE standard and the WBA's requirements. There's already a set of certified products that are compliant with Carrier Wi-Fi certification. The Carrier Wi-Fi term is gaining traction and the vision is becoming more and more real."
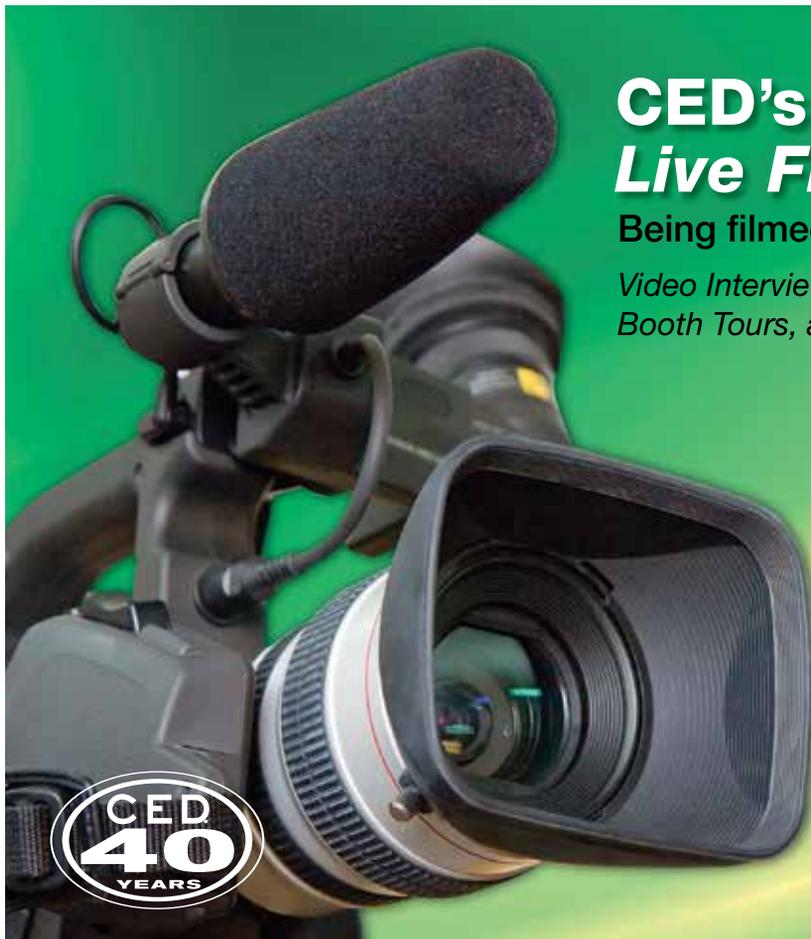
ZCorum's Helms, vice president of technology, spoke about the lessons learned from a project that used DOCSIS proactive network maintenance (PNM) practices for in-home Wi-Fi networks.

When subscribers call in with problems with their data services, Helms said a large proporation of the calls were from end users who had problems with their Wi-Fi networks. By finding potential channel interferences issues from the likes of baby monitors or radio-controlled cars at the point of installs, technicians can place the access points in the best locations before there are problems, inform subscribers of potential issues or add another AP in a home to provide a better experience.

With more analytics at their disposal, technicians and customer support can do a better job finding and fixing interference issues in home Wi-Fi networks.

"We as an industry haven't done a good job on communicating on our services," Helms said. "We need to think about how we can get involved in the client side upgrade cycle, or pushing customers towards Wi-Fi cameras (that don't create interference.) Our support centers need to be able to access the data in the home and what client a customer is using."