Cable ops team up for Wi-Fi roaming

Subscribers from Time Warner Cable, Bright House Networks, Comcast, Cablevision and Cox Communications will be able to log in to each other's Wi-Fi hotspots, thanks to a new roaming agreement.

The deal among five of the top six largest cable operators in the nation will give their respective subscribers access to more than 50,000 Wi-Fi hotspots.

"Mobility is an increasingly important part of our Xfinity services product roadmap," said Dave Watson, chief operating officer of Comcast Cable. "Wi-Fi technology, coupled with our agreements with Verizon Wireless, are two significant ways we are executing on our strategy to deliver the best in- and out-of-home communications experience for our customers."

The roaming agreement is similar to the one that Time Warner Cable, Comcast and Cablevision inked a few years ago to share Wi-Fi hotspots in New York City, Long Island, New Jersey, Philadelphia and Connecticut.

In the largest roaming agreement to date, the participating cable operators currently offer Wi-Fi hotspots located in New York City and the surrounding tri-state area, Los Angeles, Tampa, Orlando, and Philadelphia. The operators plan to continue to grow the number of Wi-Fi hotspots and expand into several additional cities.

The shared network has both indoor and outdoor Wi-Fi hotspots located in popular, high-traffic locations, such as shopping districts, cafes, malls, arenas, restaurants, parks and beaches. Subscribers will be able to find the nearest Wi-Fi hotspots by visiting the Wi-Fi homepage of their current cable provider or by going to the CableWiFi site.

In the past, cable operator customers that were included in roaming agreements had to sign on to their specific Wi-Fi network name to access another hotspot that was out of their service area. With the new roaming agreement, Wi-Fi users use a new network name, CableWiFi, when they are outside of their home markets.

The first implementation of the new roaming agreement was already completed as Bright House Networks and Cablevision launched CableWiFi alongside their branded Wi-Fi networks in the New York City area and central Florida areas earlier this month. Over the next few months, the CableWiFi network name will be added by each of the cable companies to their branded Wi-Fi hotspots.

Cable eco-system turbo-charges speed-to-market cycles

Joan Rivers used to tell a joke about Elizabeth Taylor, that the movie star would yell "Faster!" at her microwave during her more porcine days. While today’s cable customers aren’t quite as demanding, there’s definitely a need for speed when it comes to the innovation cycles for new products and services.

One way to speed things up on the traditional side of the cable operator industry is Comcast’s Reference Development Kit. The Comcast RDK initiative provides a streamlined approach to the development and deployment of advanced
Sarepta Advisors a dream team of former cable execs

Former Charter Communications executive vice president and chief technical officer Marwan Fawaz has founded a new advisory firm, Sarepta Advisors, that features several high-level former cable operator executives in its lineup.

In addition to Fawaz, who is a partner of the firm, Sarepta’s employees include Matt Bell, former vice president of IP network and development of Charter; Jim Buckley, former vice president of finance at Adelphia Communications; George Kassas, former founder and executive vice president at Cedar Point Communications; and Sudhir Ispahani, former chief technology officer of Liberty Global Europe.

“The communications industry is going through unprecedented change, driven by disruption in how video is being delivered and consumed, and by the proliferation of wireless devices, which is creating new dynamics in the communications ecosystem. We partner with our clients to help them retain their competitive advantage and create value in this increasingly challenging environment,” said Fawaz.

Denver-based Sarepta’s core services are focused on strategy, technology roadmaps, customer experience, operational optimization and valuation/ due diligence support. Its target client base ranges from global service, solution and content providers to venture capital and private equity firms.

The Sarepta Advisors team brings a combination of executive-level leadership, strategic, financial, technical and operational experience in the cable, digital media and IP worlds.

Sarepta said it is quickly gaining traction with clients focused on establishing and assessing their strategic and technological roadmap in the evolving industry landscape.

Fawaz resigned from Charter last year and is now principal at Fawaz Consulting Services.
User interfaces that don't stink?

Even though HTML5 is still evolving, creating user interfaces (UIs) using the Web-based markup language are perfectly feasible today. That said, cable companies engaged in developing HTML5-based UIs are certain to be unnecessarily duplicating efforts.

Designing a UI was simple when the only display a cable operator had to worry about was the TV (and even then, the best UIs were … adequate). Now, service providers have to be concerned with UIs that not only have a similar look and feel across multiple platforms, but are also able to support apps with functionality that cuts across multiple screens. Comcast’s X1 (formerly Xcalibur) is a case in point.

At The Cable Show session “Your wish is its command: New possibilities for technology interfaces,” Comcast’s chief scientist of metadata platform and search services Amit Bagga demonstrated an app for companion devices that TV viewers can use to enter – by keyboard or by voice – searches for content.

The way the app operates would be familiar to those who’ve used Google’s voice input or Siri on Apple’s iPhone.

Navneeth Kannan, senior director of systems engineering for Motorola Mobility, said the industry will inevitably have to choose a browser to support on the set-top. The case for an HTML5 browser is that it is already familiar to developers, it can be made to work with OCAP and it will enable easy UI revision. The challenge is that HTML5 is still in development, and it doesn’t have set-top-specific support features yet.

“Even how to turn on the front-panel LED, there are no standards for that yet,” Kannan said. “We need changes to support platform-specific features.”

There are nitty-gritty details to consider, Kannan said. Graphics resources need to be available, not only to the browser, but also to the platform – for closed captioning, for example. There are considerations for memory allocation and management, as well as for widget authentication and storage. The industry must still develop stronger support for EBIF.

Despite the work that has to be done, though, Kannan said: “This is real. We’ve ported three different browsers. We can do it now. HTML5 apps on a browser are feasible now.”

(In a separate session, Kurt Hoppe, director of smart TV innovation and alliances at LG Electronics, said LG and Cablevision have tested an HTML5-based app).

Michael McMahon, Charter’s vice president of Web experience and application strategy, said that part of the excitement about HTML5 is that HTML makes it possible to write applications once and then do only minor tweaks for other platforms, so that you end up with a minimal code base. The problem is that there’s no such thing as a TV-specific, reusable framework.

“Everyone has their own code supporting every different tablet and smartphone and tweaking those for each iteration of the device. We don’t need to reinvent everything every time,” McMahon said. “It is possible to build a core framework.”

Simon Parnall, vice president of technology at NDS, talked less about user UIs than about how display technology is likely to change. In that context, UIs will have to evolve with them.

Cable ecosystem turbo-charges speed-to-market cycles

Continued from page 1

set-top, gateway and system-on-a-chip (SoC) platforms.

“The typical set-top box development cycle was taking about 24 months when we launched this product, and that’s just a long time to go through the whole process of building the box, building the software, and getting everything up and running,” said Steve Reynolds, senior vice president for CPE and home networking at Comcast, during the session “Speed to market: Enabling faster innovation cycles.”

“So we had this notion of building a reference design for software that would bring all of the modules together in a pre-integrated kit, where we could take that kit and work directly with the SoC manufacturers to get the RDK up and running on those chip platforms before they started building the box around that chip,” he added. “By working directly with the SoC manufacturers to do that porting, we really make all of the software that we need for a box OEM available essentially when the box comes back from sample.”

Reynolds said the goal was to lower that two-year set-top box deployment cycle to one year, or even less time. In order to help speed up the process, Comcast has licensed the RDK to vendors such as itaas and VividLogic, the latter of which was bought by SeaChange in 2010.

Comcast’s X1 platform, which launched this week in Boston ahead of a larger rollout this year, benefitted from the RDK project when it was first trialed on a Pace box in Augusta, Ga.

Chris Cholas, director of subscriber equipment at Time Warner Cable, said the RDK puts cable operators on a single track for development, as opposed to three OCAP stacks back when that standard was first getting off of the ground. Cholas said TWC would have RDK boxes out the door near the end of this year or early next year.

“The benefit of running the RDK is it keeps everything simple,” he said.
Active Broadband debuts ACM

OSS vendor Active Broadband Networks is showing off a new IP video service management product that was designed to improve the quality of premium video content over private IP networks.

The Active Content Manager (ACM) is a resource-aware, policy-based IP video service management solution that enables broadband providers to monetize IP video, track usage and assure subscriber quality of experience.

The ACM factors content delivery requirements and subscriber entitlements with current network conditions and capacity to dynamically map IP video streams onto separately managed virtual connections over broadband – private virtual connections independent of a subscriber’s Internet service, which uses different virtual connections and is metered separately.

Sigma Systems unveils Cloud Service Broker

Sigma Systems is introducing a cloud-based system that service providers can use to provision and manage the software-as-a-service (SaaS) applications they offer to their business customers.

The Sigma Cloud Service Broker, built on the company’s Service Management Platform, is an integrated SaaS service fulfillment solution that can be used to manage all on-network business services, including VoIP and high-speed broadband, as well as cloud-based SaaS services.

Service providers can leverage the Sigma Cloud Service Broker to offer their SMB customers features that include end-user portals, order management and provisioning, billing integration, and single sign-on (SSO) across a strategic suite of SMB SaaS service offerings.

Providers can establish and grow a unique and integrated catalog of services that complement their suite of network services and allow for flexible bundling to meet their business customers’ needs, Sigma Systems said.

Service providers may choose to deploy the Sigma Cloud Service Broker on-premises or opt for Sigma to host their Service Management Platform and Cloud Service Broker from the cloud.

“With the Sigma Cloud Service Broker, operators can further solidify their relationships with their SMB customers by becoming a trusted provider and manager of business-critical SaaS services,” said Tim Spencer, president of Sigma Systems.

“Organizations today are eager to leverage more SaaS services but do not have the time or resources to manage services from different providers,” Spencer explained.

“This presents an opportunity for cable and telecommunications companies to offer a much-needed service to their customers while benefiting from the increased revenues that these services can generate.”

The new solution integrates with existing BSS and other back office systems, so operators can bring cloud services to their subscribers quickly, accelerating time to revenue, the company said.
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the power to simplify
Edgeware goes into Orbit

Edgeware’s new Orbit 3020 video server platform is now available in the U.S. market. An integral part of Edgeware’s Distributed Video Delivery Network, the Orbit 3020 is the first in a next-generation family of video servers that answers North American operators’ demands for massive scalability and flexibility and delivers efficient power, space and cooling characteristics.

Edgeware also has integrated its Orbit family of video servers – including the WTV-2X and new Orbit 3020, with SeaChange’s Adrenalin unified back office. Cable operators will benefit from the solution – it can dramatically reduce their opex – while providing a complete multi-screen solution with simultaneous support for video-centric wholesale delivery services.

NDS showcases multi-screen demos

NDS has a full slate of multi-screen products and offerings on display at two locations.

NDS is taking part in the NCTA’s futuristic Imagine Park with a demonstration of its NDS Surfaces, which offers more compelling, immersive and varied television and media experiences in the home environment.

NDS will also be showing its VideoGuard Connect digital rights management system in another area of the show. VideoGuard Connect delivers secure content to connected TVs, gaming consoles, smartphones and other devices and has been deployed by Cox Communications, BSkyB and DirecTV.

And NDS is demonstrating CableLabs’ Open Media Security (OMS), which enables the secure delivery of premium pay-TV content to set-top boxes, powered by the NDS Unified Headend. The demo will also feature an OCAP reference implementation.

NDS also has a whole-home demonstration that uses its Unified Gateway, which is an end-to-end hybrid/IP platform, to deliver content to various devices. The single box enables any IP-capable device to access an operator’s branded video service by using aspects such as the NDS HTML5-based remote UI implementation. This implementation of the Unified Gateway also incorporates Panorama remote management technology from Jungo.

NDS has also teamed up with BlackArrow to showcase an advanced multi-screen advertising platform that features a single, integrated system for addressable advertising for multiple formats – such as linear, time-shifted, VOD and OTT – across many devices, enabling additional monetization for multi-platform services.

The NDS Service Delivery Platform (SDP) will showcase how platform operators can harness the value of third-party applications to complement their offering, and it will demonstrate new applications built using the NDS SDP.

NDS also has a TV coupons demonstration that includes an end-to-end TV coupon presentation, clipping, management, redemption and an analytics solution. Subscribers can use a mobile device app to clip the coupon. Once clipped, the coupon is automatically associated with the subscriber’s loyalty cards.
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Rovi gets Siri-ous with Nuance

Ready to yell at your TV – and have it respond? Rovi is combining its guide with Nuance Communications’ voice recognition technology to enable TV viewers to control their TVs with voice commands.

Nuance has licensed and will be integrating Rovi’s entertainment data with its Dragon TV voice and language understanding platform for set-top boxes and connected TV devices. The first result will be the ability to access guide content through voice command.

Nuance and Rovi are also developing a new application that will enable a wider set of actions, including changing the channel, browsing, bookmarking, and searching for content on both live and on-demand TV programming.

Examples of the types of voice queries that will be allowed, Rovi said, include: “Find comedies with Adam Sandler,” “Show me information on ‘The Big Bang Theory’” and “Who plays Chuck on ‘Gossip Girl?’”

“Consumers want easy-to-use and simple ways for discovering entertainment that doesn’t require a remote control with as many keys as a keyboard. Voice brings this capability,” said Corey Ferengul, Rovi’s executive vice president of product management and strategy.

Separately, working with Azuki Systems, Rovi is showing the ability to stream to Rovi’s TotalGuide xD, a white-label platform providing search and discovery on second screens. Rovi is working with Azuki to demonstrate video service possibilities for the TotalGuide xD product and is showcasing the experience for service providers looking to enhance the entertainment experience and drive additional value and revenue through advanced multi-screen video and content discovery features across platforms.

Also, Rovi will have its TotalGuide Solution running on Pace’s Multi-Tuner Video Gateway to demonstrate the ability to provide a common user experience across multiple platforms.

The company is also showing off its Rovi Cloud Services & Rovi Developer Portal, a set of tools and APIs that cable operators and third-party developers can use to create TV, movie, and music entertainment applications and products across multiple platforms.
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CCAP: More than just box replacement

By Jorge Salinger, vice president of access architecture, and Ty Pearman, director of access engineering, of Comcast

Many people have by now heard of the CCAP, so here is a quick summary of what CCAP is and does:

- CCAP stands for Converged Cable Access Platform.
- It combines the functions of the cable modem termination system and edge quadrature amplitude modulation into a single platform.
- It eventually implements all narrowcast and broadcast QAMs.
- It offers many operational features for scaling an all-digital network.

Figure 1 shows how a single port of a CCAP includes all of the QAMs for a given service group, including MPEG-TS for broadcast and narrowcast video services, and for DOCSIS applications.

CCAP was specifically architected to support growth in the number of QAM channels used for narrowcast services, such as video-on-demand and switched digital video, the expansion of high-definition television content, and the availability of channel bonding in DOCSIS 3.0 to support newer and higher-bandwidth data services.

And as MSOs continue to reduce the size of service groups to make more efficient use of their networks and deploy advanced services such as IP-based video and network DVR, even more QAM modulators are needed. CCAP devices will provide the necessary QAM-per-RF-port and port-per-chassis density needed to support this growth, while requiring less space and power than currently available equipment, reducing capital and operational costs, and simplifying operations.

There are many reasons for CCAP’s success amongst multiple system operators, even before the equipment becomes available. The key ones are included in Figure 2.

But supporting the growth in the use of narrowcast QAMs is the key reason.

Redefining operations

CCAP has the potential to redefine how operators deploy, scale and manage edge network access.

Video QAM and CMTS equipment is currently deployed across a multitude of separate platforms, and edge capacity is managed manually through multiple tools and is configured mechanically by connecting the various wires to the signal combining network, which is operationally inefficient.

One aspect of the CCAP is that it will allow MSOs to streamline the ability to bring new video, voice and data services to market quickly. CCAP can generate all QAMs used in the cable network, and any QAM can be used for either broadcast, narrowcast MPEG-TS video or DOCSIS. The use of each QAM within each service group is simply configured via the operational support system interface. A QAM can be changed from broadcast video to narrowcast video to DOCSIS – literally instantly – via a change in the CCAP configuration.

Operational readiness trial

Is the deployment and operation of CCAP equipment the same as that of a CMTS and/or an edge QAM with more QAMs?

The best way to know is to conduct an operational readiness trial (ORT). And the early findings from the ORT being conducted by Comcast show that the migration from current equipment to CCAP will involve operational changes. Some changes were known, but others are being found during the trial.

The concept is to have an ORT of a CCAP-like network to better understand the technical/operational issues and prepare accordingly. Given that CCAP equipment is not yet available, the idea is to emulate how a CCAP would operate in the network, mostly looking at the DS where things are changing. The focus is not on evaluating the equipment itself, but to establish the operational and network readiness for deploying CCAP devices.

The objective of the ORT is to understand the impact in the following areas:

- Operational processes – monitoring, management, troubleshooting.
- Tools – configuration, monitoring, capacity management, etc.
- Network engineering requirements and options.

The scope would be small but
meaningful. The ORT targets four high-speed Internet and three VOD service groups across eight nodes. Of course, extensive testing will take place before the small-scale deployment trial starts, which will include lab testing (Comcast CCAP pre-certification), headend internal technical testing and, finally, migrating trial participants.

The trial will be conducted in two phases:

• Phase 1: Isolated test network environment to evaluate equipment.
• Phase 2: Roll out to actual subscribers in production network.

Trial success is defined as: a CCAP-like network operating with real subscribers, carrying converged services for weeks and achieving a majority of the defined tasks.

ORT lessons

While the ORT is not completed yet, it has been underway for several months, and the results already show that some operational changes will be needed to deploy and operate CCAP devices.

Network operations

It will be necessary to get the network operations organization and processes ready to support CCAP devices. To that end, the CCAP ORT is keenly focused on ensuring that engineering and operations teams for the various services, which have traditionally worked independently given the different equipment they have managed, operate together and coordinate activities around CCAP’s unified platform.

Today, many services are delivered through devices isolated by the services they deliver. Most MSOs separately configure and manage services, including linear video, video-on-demand, voice and data. Services are segmented from a network infrastructure perspective, and they leverage different tools for each service.

With CCAP, one of the biggest challenges will be to more closely coordinate configuration, maintenance, troubleshooting and upgrade activities so as not to impact other services provisioned on the platform. Traps and alarms will also need to be correlated across the platform since the CCAP will have the ability to create alarms for multiple services, which could be destined for a variety of support tools and groups within the operator’s environment. Controlling access and privilege levels within the CCAP will be crucial to the management of services since multiple groups could be working on the platform at the same time. This could prompt a review of the roles and responsibilities of many of the support organizations that will manage the platform.

Combining the services within a CCAP box opens up the dilemma of which of the current service organizations will manage the CCAP management traffic. There will be one “reset button” in the end, and its use will have to be coordinated.

Read this feature in its entirety in CED’s May issue, located in The Cable Show publication bins.
Boston will soon get X1

Comcast is on the verge of commercializing its X1 cloud-based on-demand service. Sometime in the next few weeks, the company will release its X1 app for subscribers in Boston to download and begin using. That will be the beginning of a gradual, national rollout for the service, announced exactly a year ago at the last Cable Show, although at the time the company referred to it as Xcalibur.

With X1, Comcast is integrating customized apps and social media features with its traditional video services, allowing customers to use their handhelds not only as remote controls, but also as companion devices with apps that can complement what’s on their TV screens.

The new X1 remote control app enables customers to use motion and gesture control to drive their TV experience through the touchscreen of their handheld iPhones and iPod Touches.

Customers can swipe their device to page through the interactive TV guides on their television screen, program personalized shortcuts and favorites (“Quick Links”) on the TV, and even shake the device to pause on-demand content playing on the TV.

In addition, customers can use their devices’ virtual keyboards to search through content and play it.

Aurora touts Unified PON Architecture

Aurora Networks is demonstrating its Unified PON Architecture, including Trident7, a platform designed for cable operators looking to migrate to delivery of IP video, add over-the-top (OTT) services to the home and expand commercial services revenue.

With the growing interest in deploying PON technology to support commercial services, Aurora Networks is showing its extended PON offering, which supports its DPoE solution, driven from the acquisition of the Trident7 PON portfolio.

Aurora Networks is demonstrating its Trident7 chassis, a universal IP optical access platform supporting EPON, point-to-point Ethernet and GPON, along with its Node PON (distributed OLT in the node) solutions. The Trident7 platform is an all-IP Ethernet Layer 2/ Layer 3 switch routing platform. This platform is designed to support a smooth migration path to 10G EPON/10G PON.

As for migrating to IP, cable operators face continued pressure to increase QAM channels to support sustained growth in targeted services. At the same time, operators are challenged to rein in the complexity of their RF and optical infrastructure, control capital and operational expenses, manage the environmental footprint of their headends, and simplify operations.

Continuing its evolution of the node platform, Aurora Networks has developed a new node access module that helps cable operators address all of these issues, enabling a smooth migration to an eventual all-IP network. Aurora Networks is showcasing the industry’s first Node QAM.

Nagra takes wraps off of new IP gateway

Nagra has introduced its new “plug-and-play” broadcast-to-IP gateway.

The gateway uses Nagra’s OpenTV middleware and the company’s digital rights management (DRM) solution, Nagra Persistent Rights Management (PRM), to enable secure wireless streaming of linear programming to authorized viewing devices within the home, such as tablets, smartphones and PCs.

“While OTT is a hot topic, broadcast TV is still the most effective technology to deliver reliable and quality content and programming,” said Yves Pitton, senior vice president and director of advanced advertising and innovation for Nagra. “The Nagra broadcast-to-IP gateway addresses this demand by enabling service providers to deliver premium, high-quality broadcast television to any device in a secure and studio-approved environment – simply and efficiently – without the need for a high-end home media gateway or major investment on either the service provider or the consumer side.”

The Nagra Media Player supports the gateway, which is a secure media player for open devices that supports a customizable user experience utilizing extended rich metadata from third-party providers. Connected through Ethernet to a Wi-Fi router, the box receives an incoming broadcast signal through a coax cable. Nagra said the gateway is a new in-home edge device that acts as an independent content access point that tunes to subscribed services and transcodes the video content into the proper format without disrupting household viewing. The company also said it was easy to install and use, allowing for cost-effective deployment and operations, reducing the risk of call center calls.

“Our value proposition for this broadcast-to-IP gateway is very strong – it’s a cost-effective way to bring an operator’s premium linear TV programming to any device conveniently and efficiently – not just an OTT subset,” Pitton said. “It has the responsiveness of TV, a rich user experience, and does not confuse the user as to what content can be viewed on which device – this is what consumers are asking for and what the solution can offer today.”
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