“No better time to be a WISP”

By Martin Vilaboy

Wow,” said Nathan Stooke, agenda committee co-chair for WISPA and CEO of Wisper Internet, as he took the stage at the WISPAPALOOZA welcome breakfast yesterday morning in the Amazon Ballroom. Stooke expressed the feelings of many as they walked into a packed room filled with hundreds of event attendees and exhibitors enjoying a fully loaded breakfast buffet around several dozen large tables.

The buzz of the room was an indicator of the growth of the WISP industry and its premier event, WISPAPALOOZA. Stooke spoke to the growth and change since the show’s early days in St. Louis and the recent track of record-breaking years in terms of participation and size of the event. Sold out since July, the 2017 edition of WISPAPALOOZA hosts nearly 1,800 attendees, 36 sponsors, 131 unique speakers and 91 sessions. When Stooke asked first-time attendees to WISPAPALOOZA to stand up, nearly a quarter of those at the breakfast came to their feet.

“It’s a testament to what we are doing and how we are coping with the challenges we face,” said Stooke.

All in all, 51 U.S. states and territories (c’mon Rhode Island) were represented at WISPAPALOOZA, and conventioneers came to the Rio Hotel and Casino in Las Vegas from 31 different countries, including 109 representing WISPs in Canada, and solidifying WISPAPALOOZA as an international event.

(See WISP Story, page 4)
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Stooke went on to thank the WISPA staff, who has been managing this growth; the show agenda committee; and the WISPA board members, and he encouraged WISPA members to consider running for the board, joining agenda committees and deepening their involvement with the association.

“It isn’t as daunting as it may seem,” said Stooke.

After reviewing some of the changes to the WISPAPALOOZA schedule for 2017, Stooke passed the microphone to Jimmy Carr, a WISPA director and chair of the Legislative Committee, to update attendees on activities on Capitol Hill. That includes efforts to gain access to more spectrum and relief for WISPs from needless over-regulation and legislative bureaucracy. Carr also called for support for the recently formed WISP PAC (political action committee), created to help elect representatives in Washington who are friendly to the WISP industry.

Following Carr was Layne Sisk, an agenda committee member who spoke about the charity event chosen for WISPAPALOOZA 2017. A few years ago, WISPA started charity auctions for each show, “and we have had the opportunity to have a pretty significant impact on some lives,” said Sisk.

Among the several possible causes, this year the auction was being held for Kimmy Brooks, a 26-year-old single mother, recently divorced from an abusive relationship, who suffered a near-fatal boating accident. On a water skiing excursion this summer, Brooks was climbing back into the boat when it slipped into reverse.

“The propeller of the boat tore up her leg and abdomen, and came within less than an inch of her femoral artery,” recanted Sisk.

Brooks, who will attend Wednesday night’s Annual Awards Dinner, not only miraculously survived but is fighting her way back to full health. Those who would like to contribute to the cause can take part in a silent online auction at 32auctions.com/wispapalooza2017.

Finally, Stooke closed the morning’s opening remarks by issuing a challenge to WISPAPALOOZA attendees. Despite the fact that there has been “no better time to be a WISP,” said Stooke, it would be foolish to put heads in the sand when it comes to the challenges and problems WISPs face, both as small business owners and as contestants in a highly competitive data-comm ecosystem. Stooke encouraged WISPAPALOOZA attendees to share their challenges and issues with each other in an effort to face and tackle those challenges.

Of course, sharing challenges and problems can sometimes put us in a vulnerable position, but Stooke assured the audience that “others share your challenges,” and that such an open and honest dialog is the only way “to get to the root cause of problems,” he said.

“You only get out of the show what you put into it,” said Stooke. ☺️
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ExteNet, Paladin Partner on CBRS LTE Fixed Wireless Network

ExteNet Systems, a leading provider of Distributed Network Systems (DNS) enabling advanced cellular, wireless and broadband connectivity across urban and rural America, announced plans to deploy a CBRS Part 96 ready LTE fixed wireless network with Paladin Wireless, a wireless internet service provider (WISP) based in Royston, Ga. Paladin Wireless provides high-speed wireless internet to residential and enterprise customers across northeastern Georgia in Jackson, Franklin and Madison counties.

ExteNet’s turnkey small cell and distributed evolved packet core (EPC) solution will enable fixed wireless service for Paladin Wireless over the 3.5 GHz Citizens Broadband Radio Service (CBRS) band, with the goal of delivering high-speed LTE connectivity to Paladin’s customers. The innovative solution will deliver true broadband speeds and will offer clear advantages versus legacy solutions typically available in rural communities, said the companies.

“At ExteNet, our goal is to help bridge the digital divide in rural and remote communities,” said Jason Osborne, Vice President of Business Development and Strategic Initiatives for ExteNet Systems. “In partnering with Paladin Wireless, we worked to deliver a fixed wireless solution that is a preferred alternative to legacy solutions, like satellite and DSL, to support high-bandwidth applications. Paladin Wireless will have the ability to offer fast and reliable wireless connectivity to its customers in the northeastern Georgia region. In addition, this same infrastructure can support multiple use cases including mobile roaming services from the Tier 1 providers when conditions demand.”

“We chose to work with ExteNet Systems because it’s an established company that has experience deploying networks for other WISP providers in rural markets,” said Stephen Fortmann, President and Chief Executive Officer for Paladin Wireless. “With this partnership, we are addressing the need for innovative wireless solutions that connect northeastern Georgia with the global community.”

“Broadband access is often a community’s key to realizing its dreams and ambitions in the digital age,” said Congressman Doug Collins of Georgia’s 9th congressional district. “We need innovative solutions to deliver last-mile service to much of northeastern Georgia, and it’s encouraging to see companies investing in these families and businesses by providing high-speed access to the internet, which means access to opportunity.”

In related news, on Thursday at WISPA-PALOOZA, from 4 to 5 p.m. in the Palma Room, Martin Jensen, Director of Technology Solutions for ExteNet Systems, will participate on a panel to discuss the importance of selecting the right core for your network. ExteNet also will host LTE application demonstrations in its booth throughout the event.

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Bicom Systems took the opportunity this morning at WISPAPALOOZA to unveil version 5.0 of its IP PBX communications platform for WISPs. PBXware 5.0 is a highly scalable, flexible, and reliable platform with a brand-new GUI that focuses on quick and easy usability, said the company.

“We took customer feedback to heart in the development of version 5.0,” said Bicom Support Engineer Nedim Mehmedovic. “PBXware 5.0 and the new GUI are the culmination of years of work, and I think our partners will find it more efficient and easy to use.”

A turnkey IP PBX communications platform, PBXware’s latest version brings new features including a completely new look and feel in the updated GUI. This is the biggest change in appearance since the release of PBXware in 2003. Not only aesthetics, the modern interface will save time and boost productivity through its simplicity.

More specifically, the new navigation and administration menus make everyday – and more unusual – tasks easy to tackle in no time. PBXware and administrative tasks are separate but can be toggled between with the click of a button. Alerts and configurations are a combination of in-page elements and pop-up windows depending on function and importance.

Developers were also happy to announce that Asterisk 13 is now running under the hood of PBXware. This update freed developers to add new functionality that was previously restricted by an older version of Asterisk.

Meanwhile, an improved reports page makes it quick and easy to check stats and stay on top of your business, while the addition of an online self-care dashboard is an answer to many customer requests and will speed up troubleshooting and problem solving.

An expanded hardware selection is another feature of PBXware 5.0. Bicom Systems partnered with Fanvil, Htek, Huawei, Obihai, Polycom, Vtech, and Yealink to make more devices available to partners.

Bicom Systems is doing free demos of PBXware 5.0 – plus their six other UCaaS products for WISPs – at WISPAPALOOZA.

Bicom Releases New Version of PBX Platform to Support WISP Growth
AMTS [217-220 MHz] Band Suitable for Many Utility Applications Available Nationwide

Select Spectrum is offering Automated Maritime Telecommunications System (217-220 MHz) FCC licensed spectrum of up to 2.0 MHz bandwidth. The available spectrum covers virtually the entire United States, said the company, and the owners will partition the licenses geographically and spectrally to match buyer requirements.

These licenses, originally set aside for Automated Maritime Telecommunications System services, provide for a wide variety of FCC approved land uses and excellent propagation with support of throughput of 2 Mbps or more per license per site. In most of the licensed areas, there is little or no current use of the licenses, however Select Spectrum has recently assisted with four separate sales from this inventory that were approved by the FCC and successfully closed.

The licenses are typically divided into two 500 kHz blocks, which can be used to separate transmit and receive. Alternatively, Time Division Duplex operation is allowed. The large frequency allocation and wideband channels afford greater flexibility in network design and use, said Select Spectrum. Two-way transmission may be divided between remote and base frequencies or by Time Division on the same channel. The buyer may also divide the channels into narrower blocks such as 5 kHz or 12.5 kHz. The frequencies may be reused at multiple sites within the licensed area. Most of the licenses are valid through 2025 when they may be renewed for a small administration fee.

AMTS spectrum can be used for broadcast or two-way; mobile or fixed; data, voice or video. Maximum downlink power is 1,000 watts ERP and maximum uplink power is 23 watts ERP, which provides for long range and high reliability. Networks may employ point-to-point, point-multipoint (tall site) and/or cellular architectures. AMTS licenses have been used by and are recommended for utility and other critical infrastructure communications including for Land Mobile Radio, SCADA, Positive Train Control. Oil and gas operations and IoT applications.

Equipment for the band is made by Full Spectrum, 4FR, GE MDS, CalAmp, and Tait Communications. The band is also compatible with a new IEEE wireless standard (802.16 "GRIDMAN"). This high reliability standard is intended for use by utilities and other critical infrastructure operators.

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## WISPPALOOZA 2017 AGENDA

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- **Marketing 101 Infrastructure 201**
- **Regulatory 101 Vendor Spotlight**
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### Session 2
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### Session 6
- **Technical 101 Business 201**
- **Marketing 101 Infrastructure 201**
- **Regulatory 101 Vendor Spotlight**
- Brasilia 1
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**STAGE**

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**Booth #** | **Company Name**
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547 | Winncom Technologies
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602 | Newmar Power/Power Products
604 | Morningstar Corporation
508 | Ooma, Inc.
646 | Tycon Systems, Inc.
650 | DASAN Zhone Solutions
01 | Aviat Networks
02 | Rodeo Internet/Rodeo Networks LLC
03 | MCP Networks LLC
04 | IsTruss Industries, LLC
05 | EPMC
06 | Windstream Communications, Inc.
07 | Istele Antennas, Inc.
08 | AFL
09 | Alteo Networks
10 | Hughes Syste Inc.
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- Fixed Wireless
- Overlapping Networks

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WISPA IS COMING TO **ALABAMA** 2018

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March 6-8, 2018
Phillips Named to FCC Consumer Advisory Panel

Alex Phillips, a long-time leader of the fixed wireless internet service provider industry, has been named to the Federal Communications Commission’s (FCC) Consumer Advisory Committee.

The mission of the committee is to make recommendations to the FCC regarding all consumer issues within its jurisdiction and to facilitate the participation of under-represented consumers in the agency’s proceedings. With the addition of six new members, including Phillips, the advisory committee’s 34 members represent a variety of constituencies.

Phillips, the founder and CEO of Rural Broadband Network Services in Harrisonburg, Va., is the immediate past president of WISPA and has been a WISPA board member and chairman of several WISPA committees during the last six years.

As a WISP operator serving consumers in small towns and rural areas of western Virginia, Phillips understands the challenges of delivering broadband to rural consumers, and he aims to continue his advocacy for their interests on the FCC committee.

“I am honored to be invited to join the FCC Consumer Advisory Committee,” Phillips said. “I am passionate about closing the ‘digital divide’ between urban and rural areas, and I believe it can be done with existing technology, for an affordable price, with a pro-small-business, pro-entrepreneurial approach to government regulation.”

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Altelix is proud to announce that it has become a member of the Made for MikroTik Program. Officially listed as a MikroTik certified accessory maker, this program consists of companies that are approved by MikroTik and that make accessories specifically for MikroTik products.

Altelix now offers a wide range of MIMO antenna kits, which are designed for use with MikroTik’s BaseBox 5, BaseBox 2, NetBox 5 and NetMetal 5 radios. In addition, the company will be offering other accessories and kits such a mounting kits, which allow the MikroTik radio to be mounted directly onto an Altelix antenna.

Altelix Becomes MicroTik Certified
CTIconnect Wins Multiple Cambium Partner Awards

CTIconnect, a wholly owned subsidiary of ConVergence Technologies, Inc., and a nationwide leader in the distribution, design, and integration of wireless networking equipment and services, won four 2017 top industry awards at the Cambium Networks North America Partner Awards Event held this summer in Chicago.

The awards taken home by CTIconnect included Fastest Growing Distributor USA; Master Distributor of the Year (ePMP/cnPilot); an Outstanding Individual Performance, awarded to Matt Kahle, CTIconnect Senior Account Manager; and most significantly, Partner of the Year in North America.

“These are team accomplishments, and I want to congratulate and thank every employee at ConVergence and CTIconnect for helping us make this happen,” said Daniel White, Managing Director of Revenue at CTIconnect.

The awards were presented August 8, 2017, at the Cambium Networks 2017 Awards Dinner, where the winners were presented with elegant, individual crystal trophies for each category.

“We are very pleased with our long-term partnership with Cambium Networks, the industry leader in providing global wireless broadband solutions, and are honored to have won four of our industry’s most prestigious awards,” said Marc Kruer, President and Chief Executive Officer of ConVergence Technologies, Inc. “Our long-term partnership with Cambium has positioned us to grow our distribution company and remain leaders in the industry.”

Not to be missed!

Come hear RADWIN’s CEO discuss how to achieve business growth through game-changing technology

Find out how RADWIN’s 2nd generation beamforming antenna and new dual band solution will enable you to deliver the highest possible capacity with unique interference immunity.

Oct. 11th, 3:00 pm in Mtg. Brasilia 4 | CEO Sharon Sher
Guest Speaker Presentation

JOIN US AND WIN

Drop by booth #528 for special WISPAPALOOZA promotion:

Buy 3 Get 1 FREE

Buy 3 JET AIR base stations and get 1 JET AIR base station FREE

www.radwin.com

Exhibit hall traffic was heavy on Day 1, with much the same expected for Day 2 and Day 3.
Baicells Technologies Achieves Full Integration with Powercode

Baicells Technologies, a provider of disruptive global LTE solutions, announced today at the WISPA-PALOOZA show that it has successfully integrated Powercode’s WISP subscriber lifecycle business management platform with its LTE fixed wireless products. The move follows months of mutual efforts with senior product teams from both companies. Wireless service providers can now leverage a leading solution in LTE fixed wireless and third party comprehensive business management platforms in one integrated package.

Baicells offers its own management platform, but many operators also use dedicated third party platforms that include subscriber provisioning, billing, scheduling, and other operationally critical features typically not included in a hardware vendor’s management suite. Integration between hardware vendors and management platforms enables operators to more easily mix, manage, and monitor multiple hardware brands into their network by having a single operational interface for subscriber lifecycle management, said the company.

“We are a customer-focused vendor and we tell the truth,” noted Patrick Leary, President of Baicells Technologies North America, Inc. “The truth is that most WISPs use more than one hardware brand, not just Baicells. It’s about the right tool for the job. Our job is to make customer lives easier and to earn our position in their network, and integrating our solution with Powercode’s platform is part of our ongoing effort to do that. Powercode is both the pioneer and leader in third party WISP management solutions, so this integration benefits many customers.”

“PowerCode and Baicells are the leaders in their respective categories, so it was both natural and important for us to work together in support of our mutual customers’ needs” commented Jim Bertram, CEO of Powercode. “Our combined solution makes it even easier now for WISPs to add Baicells’ game changing LTE into their service offerings in a way that’s seamless with their existing Powercode management platforms.”

Both Baicells and Powercode are proud members of WISPA and Diamond Level Sponsors for WISPAPALOOZA 2017.

IN-BOOTH PROMOS & GIVEAWAYS

PCs Technologies Booth #148
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LinuxMagic Showcases MagicMail 3.0

LinuxMagic, a sponsor member of WISPAPALOOZA, is using the event to highlight the recently released 3.0 version of its MagicMail platform.

Built especially for the ISP industry, MagicMail is a complete, carrier grade email platform offering all the tools that the Tier 1 providers offer to their customers for a fraction of the price, said the company. With complete 64-bit high-performance operating system, three different WebMail solutions, and a complete spam protection system, MagicMail understands how important a good email experience is for your customers.

For example, Tier 1 ISPs report 72 percent less customer churn when customers use their email platforms, said LinuxMagic, which has been servicing the ISP/telco markets for almost 20 years, but ISPs also know that if they don’t give the customers a great experience, it can lead to increased support costs.

MagicMail is designed for unlimited users, unlimited domains, comes complete with 24/7 emergency support, free upgrades/updates, and full APIs to integrate MagicMail with other systems.

Visitors stopping by booth #317 to see all that MagicMail 3.0 offers also can check out the company’s new Mobile Responsive Webmail and online portal.

AdCaddy Affiliate Marketing for WISP Unveiled at WISPAPALOOZA

MarketBroadband.com, powered by Lorex, announced the release of the AdCaddy, a low-cost affiliate marketing program for WISPs. The AdCaddy is a turnkey program for gaining new small business subscribers while generating an ongoing stream of residential prospects from those same businesses.

The AdCaddy itself is a small, pre-configured tabletop display that holds business-card-sized advertisements. Because of its compact size, it can easily be placed on tabletops in bars and restaurants or on waiting room tables in service businesses of any kind. The WISP pays a sales commission to the affiliate [business] that allows the WISP to place the AdCaddy in their place of business.

“Any business that has customers killing time in a waiting room is perfect for the AdCaddy,” said Ken Janc, President of Lorex, the company behind MarketBroadband.com. “Tax preparation services, lawyers, doctors, hair salons, oil change services, the list is endless. Business owners love the idea of a free revenue stream. Plus, these same business owners need internet service to run their business. The ISP can sell them internet service and a way to not only pay for it, but profit it from it.”

The AdCaddy and the ads that fit into it will soon be created online using an easy-to-use, online graphic design tool that launches on November 1, 2017. No graphic design expertise is needed, said Janc. If the WISP prefers, there will continue to be the option of having MarketBroadband.com do the design work as they have in the past. MarketBroadband.com specializes in providing turnkey marketing programs for wireless and wireline internet service providers.

“ISP’s are always looking for a simple, low-cost way to grow their subscriber base,” Janc continued. “This fits that.”
New Fiber to the Antenna Training Available

Fully aware of the shortage of fiber installation technicians in some regions, Light Brigade unveiled a Fiber to the Antenna (FTTA) training course that provides ETA FTTA-FOT certification valid for four years. The course is designed for installers, design engineers, project managers, field engineers or anyone who is interested in managing or installing fiber for an antenna site.

The course includes fiber optic fundamentals and focuses on the integration and installation of optical components in order to successfully establish connectivity in FTTA and cell tower networks. Fiber, cable, connectivity, and field tools and equipment are taught and applied to cell sites as well as macrocell, microcell, femtocell, picocell and DAS applications.

**FTTA Training Dates and Locations**

<table>
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<th>Location</th>
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<td>Washington D.C.</td>
<td>November 14-17, 2017</td>
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<tr>
<td>Seattle, Wash.</td>
<td>January 16-19, 2018</td>
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<tr>
<td>Orlando, Fla.</td>
<td>March 5-8, 2018</td>
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<tr>
<td>Las Vegas, Nev.</td>
<td>June 26-29, 2018</td>
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<tr>
<td>Dallas, Texas</td>
<td>July 17-20, 2018</td>
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<tr>
<td>Washington D.C.</td>
<td>Oct. 30 - Nov. 2, 2018</td>
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Attendees will use the latest technology and equipment in hands-on skills exercises that provide practical hands-on experience with splicing, cable preparation, cleaning and inspection, OTDR, return loss, and optical test loss. The four-day course outline includes 16 hours of classroom time and 16 hours of hands-on training.

Cost of the four-day course is $1,700, plus an optional $150 ETA FTTA-FOT exam, and discounts are available for multiple attendees and Light Brigade alumni.

Stop by the Fiber Broadband booth #134 or the AFL booth #08 to find out about a 25 percent discount on online training through October.

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ARIN Names New Policy Director

American Registry for Internet Numbers (ARIN) recently welcomed Anne-Rachel Inné as its new Executive Director of Government Affairs and Public Policy. Inné will be working closely with Cathy Handley, who served ARIN in the same capacity, to transfer the critical functions of the role in preparation for Handley’s retirement in December 2018.

Inné brings a wealth of experience in the Internet Governance and Policy arena, having served most recently at ICANN as the Vice President of Global Engagement and Manager of Regional Relations and in the Regional Internet Registry system where she served as the Chief Operating Officer at AFRINIC.
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THE COMPLETE ISP SOLUTION

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CHANNEL
VISION
What’s Your Churn Rate?

According to a research by The Carmel Group, more than three-quarters of WISPs surveyed by the analyst firm report an average monthly “churn” rate, or customer turnover rate, of 1 percent or less. A full 30 percent report a monthly churn rate of 0.05 percent or less.

Perhaps this simply quantifies the notion that rural WISPs provide superior customer service and build strong customer loyalty, but it’s certainly below the average monthly churn rates of the leading national wireless service providers, which tend to hover well above 1 percent and often close to 2 or 3 percent.

Business School Press, Grannis referred to a study that showed how just a 5 percent increase in subscriber loyalty can result in a 60 percent increase in profit.


What is your company’s average monthly churn (or turnover) rate for the past year (take your average number of disconnected subscribers in a given month and divide that by your subscriber base at the beginning of month)?

- 30% 0.05%
- 10% 0.51-0.1%
- 10% 0.11-0.5%
- 17% 0.51-1%
- 10% 1.1-1.5%
- 8% 1.51-2.0%
- 6% 2.01-5%
- 9% Don’t Know

Source: The Carmel Group
Automated Subscriber Billing and Provisioning with Built-in HyperRADIUS™ Authentication

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