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Photo by Leslie Stimson

Automakers are talking about "connectivity." This futuristic display by Hyundai highlights the blueLink connected vehicle system using telematics to gather vehicle care information; Apple CarPlay and Android Auto are integrated.

CE, Automakers Shape Radio's Center Stack Role

Car companies and receiver manufacturers throw the kitchen sink into the dash

BY LESLIE STIMSON

Through its location in dashboards and center stacks of modern automotive infotainment systems, AM and FM radio is, at least at present, part of the "connected car" trend. But pressure on radio's legacy position in the dash could be sensed at the recent International Consumer Electronics Show, where car technology plays an increasing role.

Here are some of the developments at the CES of interest to radio engineers and managers.

A record 10 automotive manufacturers showcased technologies this January including Audi, BMW, Chrysler, Ford, GM, Hyundai, Mazda, Mercedes, Mini, Toyota and Volkswagen. Show organizers emphasized this trend.

"As the car has become more connected, we have seen the popularity of in-vehicle technologies increase as well."

(continued on page 3)

Orbital Picks Up Where CCSS Left Off

A chat with the entrepreneur who acquired the former Clear Channel Satellite

FROM THE EDITOR

BY PAUL McLANE

A new company has acquired the former Clear Channel Satellite Services and is continuing support of its clients.

Radio World reported in November that CCSS parent iHeartMedia planned to stop services to non-iHeartMedia users. Business observers speculated at the time that the big company preferred not to be in the business of providing backbone transport capacity to competitors of its own stations and other holdings. At the time a spokeswoman told RW only that its move to cease program-

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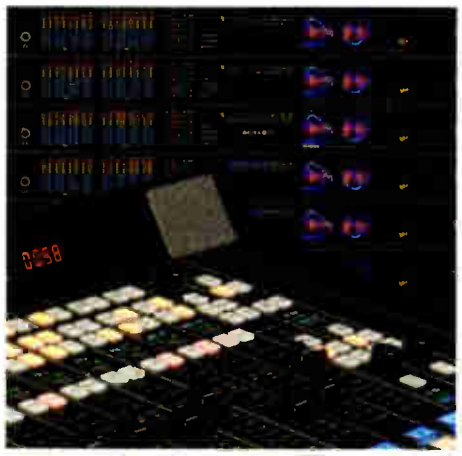

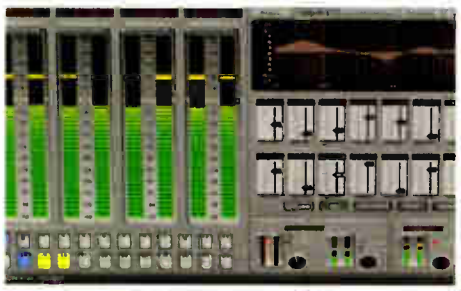

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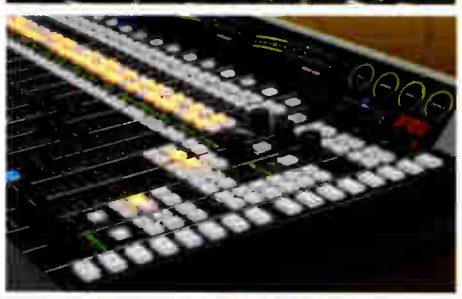

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CONNECTED CAR

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said CEA President/CEO Gary Shapiro as the show opened. "From connectivity to autonomous driving technologies to other rapidly evolving innovations, consumers today view in-vehicle technology as an important factor in their buying decisions."

CEA industry forecasts predict sales of factory-installed vehicle technologies will increase by 3 percent in 2015 to $11.3 billion. Connected systems, like General Motors' OnStar and Ford Sync, offer infotainment, communication, safety and driver assistance services. CEA consumer research shows approximately 30 percent of U.S. households now own a vehicle with a communications, safety or entertainment system.

While radio is no longer the undisputed king of the dashboard, it remains part of the infotainment portion of these services. Yet the dash is increasingly crowded. AM, FM and HD Radio exist alongside Internet radio services, satellite radio and personal music choices the driver brings on a device into the vehicle.

As automakers and their receiver manufacturing partners design infotainment system controls, we can expect to hear more about safety considerations. Manufacturers believe some drivers will never stop texting and driving; but current or planned integrations of Android Auto and Apple CarPlay are trying to curb or stop that behavior.

Those new technologies enable users to control various smartphone apps through a car's infotainment system using either touchscreen or voice control.

Many auto and receiver manufacturers echoed GM Chief Infotainment Officer Philip Abram, who said: "We're never going to turn a car into a smartphone. Its job is to take you and your family from here to there. It's a 3,500-pound device, so thank goodness it takes time to validate everything."

GM, like most automakers and CE manufacturers at the show, wants consumers to experience its integration of both Android Auto and Apple CarPlay; the consumer decides what device or system to connect to the car, not the manufacturer.

During Android Auto and Apple CarPlay demonstrations, as well as demos of various infotainment system upgrades coming onto the market this year, the driver wirelessly connects his or her smartphone into the dash. Using a wired connection, it seems, is *so passé*.

When these new controls and upgrades are in place, the user's phone screen is nearly blank so the driver is less distracted; he or she can look at the simpler radio display, or use voice commands to make or receive a call or to have email or text messages read aloud, for example. The driver can also use buttons on the steering wheel or touch the center display to accomplish these actions. The overall goal is less distraction.

While these trends in the dash play out, automakers also are looking farther ahead, to a future when automobiles won't require hands-on driver control. Some experts believe cars will be safer if humans don't drive, especially in congested urban conditions, and instead let the car do the work, presumably faster and more accurately. Further, some say, if we consumers are just sitting in the vehicle for much of the commute, we'll be a more attentive, captive audience for manufacturers and advertisers to sell to us.

For now, automakers continue to pitch telematics services as a way of obtaining automatic software updates and vehicle safety services and notifications, in addition to infotainment.

Other trends observed at CES that affect radio: There are fewer actual radio models in the aisles of consumer electronics stores, station engineers tell Radio World — a sentiment confirmed by conversations with CE manufacturers.

The trend developed because more often, radio now is part of another device that performs multiple functions, and/or it's an application.

Meanwhile, the number of CD receivers shipping in car dashboards or as aftermarket offerings continues to decline, as manufacturers produce more models without a CD slot. They are making this change because younger consumers aren't driving around with CDs in their cars, preferring to download or borrow music files.

More show developments are below; and we'll have news about HD Radio and NextRadio from CES next issue.

KENWOOD DEBUTS MULTIMEDIA RECEIVER WITH APPLE CARPLAY, ANDROID AUTO

Kenwood plans approximately 40 product introductions in 2015. Many of its models "push connectivity to new levels," according to the manufacturer.

Probably the top feature consumers want is wireless connectivity, the manufacturer told Radio World. "Consumers don't want to plug anything into the dash anymore, and we're trying to accommodate that," said Kenwood USA Senior Marketing Manager Scott Caswell.

Kenwood plans to release a multimedia receiver that includes Apple CarPlay and Android Auto in a single unit in late May.

Kenwood anticipates late-May release of the DDX9902S, the first receiver in its lineup that includes Apple CarPlay, what it characterizes as a smarter, safer way to use iPhones in a vehicle.

The multimedia receiver will also include the Android Auto smartphone interface.

"We understand that consumers are loyal to the brand or platform of smartphone they use," says Kenwood Marketing Manager Tony Mercado. "To that end, we wanted to create a multimedia receiver that doesn't force the customer to choose based on his or her preferred smartphone."

The DDX9902S features a high-sensitivity touch screen. With CarPlay, familiar apps are within easy reach and display just the right amount of information, according to the receiver maker.

The unit's interface encourages the driver to use Siri to control, read and reply to messages and more by speaking. Siri also provides access to music, podcasts and other third-party apps, and augments Apple Maps for voice-controlled navigation.

With Android Auto, the menu bar allows drivers to select sources, including navigation, phone and music. Integration with Google Now shows cards to provide users with location- and preference-aware information at the right time, and voice recognition and playback deliver information to the driver.

Aside from the smartphone interfaces, the DDX9902S is a Kenwood multimedia center. Bluetooth integration enables phone calls and wireless music from a paired smartphone. An MHL-supported HDMI input connects to iPhone 5 and 6 models, as well as select Android-based smartphones, to charge the device, control compatible on-device apps and play its audio and video content on the receiver.

The unit includes AM/FM and HD Radio capability. Built-in control of Pandora and iHeartRadio expand music choices when using a smartphone's broadband connection.

The DDX-9902S is SiriusXM-Ready and connects to the latest SiriusXMSXV300 Connect Vehicle Tuner, which is sold separately.

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World Radio History

ORBITAL

(continued from page 1)

ming distribution to outside clients was a strategic business decision.

The move set off a scramble among some users to find alternate providers.

Now the CCSS satellite and distribution business (which, very briefly, bore the name iHeartMedia Satellite Services) has been acquired and its name changed to Orbital Media Networks. Its owner and president is Sam Dibrell Jr.

"Orbital Media Networks Inc. will continue to operate from the Englewood, Colo., facility previously occupied by CCSS with no interruption in satellite service or customer support," Dibrell told clients in a letter.

"The previous notification made by CCSS regarding discontinuation of satellite services is officially rescinded, and we are honoring all existing customer contracts under their original terms."

Sam Dibrell Jr.

The purchase price was not disclosed.

BACKBONE

Orbital Media Networks provides satellite and terrestrial distribution capacity in the continental United States, leasing time on transponders and providing its clients with access to specialized distribution infrastructure. It thus will compete for media clients with entities like NPR Satellite Services and Cumulus, who also offer such capacity.

Perhaps a quarter of its business also comes from non-broadcast users who need paging, VoIP and disaster recovery services. A company might need phone and Internet connectivity at a construction site or remote business location; an emergency response team might need satellite equipment for Internet or connection of VoIP to keep communication lines open. A financial firm might need to keep data flowing when a disaster knocks out its usual lines of communication.

Dibrell is an Internet entrepreneur and former volunteer fire chief. In building his career, he said he found he could combine his business acumen with a passion for public safety.

"My company was in the business of providing IP over satellite to emergency response entities in and around Texas," he told me in a phone call. If an emergency medical task force needed to deploy, it could use his infrastructure to communicate via data and voice with the control center. For instance in 2008 his company provided hardware and services in support of incident command and medical responders on Galveston Island in Hurricane Ike. In this way, emergency responders didn't need to deal with "space segment" directly.

He also was a customer of CCSS, which provided him with IP-over-satellite services to resell. When he heard about the planned closure, he approached iHeartMedia about the possibility of purchasing and continuing operations.

I asked why he wanted to get into this particular business. While protecting his existing clients was the initial impetus — "I would have had to source a different provider, and my customers would have to re-source infrastructure" — he told me that, ultimately, he considers this an excellent business venture.

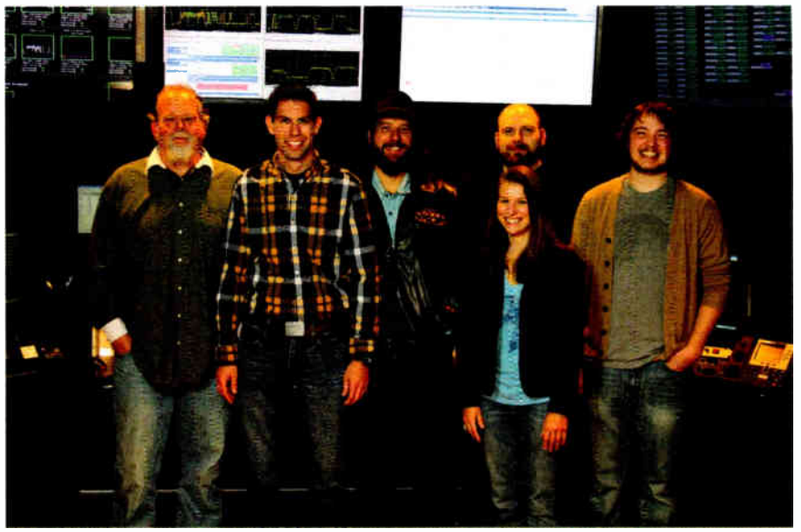
"There is a niche market out there that we feel is underserved; we're going after it with gusto." Satellite and Internet capacity is "a critical component of radio distribution and IP distribution. A lot of independent stations depend on the services we offer for their business continuity. They were going to have to find separate resources with a high quality of service."

The company offers a range of platforms, from the older Starguide system and newer X-Digital Systems receivers, to IP distribution using hubs from Advantech and Romantis that allow further specialization and regionalization. "We offer the full spectrum so customers can choose."

Though terrestrial Internet capacity is a growing part of the picture, he said, IP multicast can involve timing issues that satellite does not; this is important, for instance, if a syndicator wants to simulcast around the country and can't tolerate a difference of several seconds in delivery.

So the company introduced new media content receivers two or three years ago, expanding features like store-and-forward and regionalization. More recently it has been helping affiliates through a transition from the AMC-1 satellite to a better signal from SES-3.

Dibrell is pleased with the 20,000-square-foot, high-security facility near Denver that he has acquired. "Englewood is a data center with multiple divergent paths for terrestrial and RF sides. It's a significant facility, access-controlled; with generator and AC redundancy. It's a high-level data center."



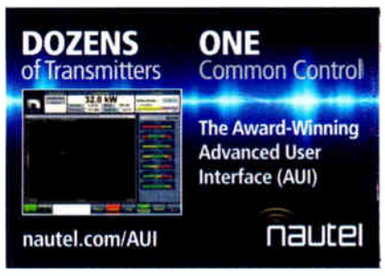
Among the staff at the Orbital Media Networks Network Operations Center in Englewood, Colo., from left, are NOC Operator Steve Schelgunov, Director of Operations Nate Butler, NOC Manager Matt Hebert, NOC Operator James Hebert, Administrative Assistant Kristen Thoburn (front) and intern Jonathan Hagans. Not pictured are NOC Operators Brian Anderson, Brandon Fuller and Jeff Wilkinson and Accountant Kristen Myers.

The Orbital business employs about a dozen people; Dibrell expects the number eventually will settle at about 15. Dibrell told me many of the earlier staff remain on board, including Nathan Butler, director of operations; Orbital has been negotiating with several others, whose status was pending when we spoke.

Meanwhile, between now and June, the company is "migrating off" iHeartMedia stations that stay with their parent. That handoff is being managed by Mike Hagans, former president and general manager of CCSS, who remains an iHeartMedia employee. (I contacted iHeartMedia to comment for this story but had not heard back as this issue went to press.)

Dibrell is in the process of moving the company from being part of a conglomerate to more of an agile startup. "We're debt-free; and a primary goal is to operate in the black the first year." The most frequent question he is hearing from customers right now is about existing contracts.

"We will honor all contracts; and we're open to new contracts, new markets. Pretty much any that can benefit from satellite transport, whether Single Channel Per Carrier, Multiple Channels Per Carrier ... We're here, and we're here to stay."



NEWSROUNDUP

CONNECTED CAR: The connected car is firmly established and growing, according to Gartner, which predicts there will be a quarter-billion connected cars on the road worldwide by 2020.

Connectivity for Gartner means telematics, automated driving capabilities, in-vehicle services and infotainment systems, which include radio. Gartner forecasts that about one in five vehicles on the road worldwide will have some form of wireless network connection by 2020, amounting to more than 250 million connected vehicles. "The connected car is already a reality, and in-vehicle wireless connectivity is rapidly expanding from luxury models and premium brands, to high-volume midmarket models," stated Gartner Research Director James Hines.

EAR: U.S. teens now spend more time with streaming audio than they do with AM/FM, according to Edison Research. Its "Share of Ear" study shows teens age 13 to 17 spend an average of 64 minutes a day with streaming audio, compared to 53 minutes with AM/FM (both over-the-air and the online streams of AM/FM stations). "While AM/FM radio listening leads by a significant margin among all other age groups, much of teens' listening time has shifted to pure-play Internet audio services like Pandora and Spotify and others," stated Edison Research President Larry Rosin on the Edison website. "This could be a lens into the future of audio usage."

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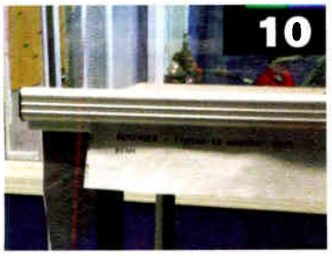

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NEWSROUNDUP

FUNDRAISING: Public radio is beginning to surpass public television in terms of individual donations, according to a report by the Corporation for Public Broadcasting. The number of donors to public television dropped from 3.9 million in 2003 to 3.03 million in 2013; at the same time, public radio donors grew from 2.52 million to 2.85 million. The average contribution for radio is slightly higher than for TV; it was $92 per person in 2003 and grew to $137 in 2013, according to CPB. The average contribution for TV was $93 in 2003 and grew to $134 in 2013. Total support for public radio in 2013 was $1.08 billion, with public TV at $1.69 billion. That's a 0.3 percent change for television and a 4.8 percent increase for public radio, compared to the year before. CPB didn't speculate on the reasons for the changes.

PODCAST: NPR launched a podcast directory. The mobile-friendly directory at *www.npr.org/podcasts* offers the ability to browse the catalogue by topic and discover similar podcasts available from a within particular podcast page. Separately, CBS Radio and CBS Local Digital Media recently launched a new podcast network called Play.it.

TELCOM ACT: Lawmakers on both sides of the aisle have been calling for an overhaul of the Telecommunications Act for some time. Now the chairman of the Senate Commerce Committee, Dakota Republican John Thune, considers it a priority. House leaders have been reviewing the Telcom Act for a year. With Republicans in charge of the upper chamber, he plans to begin a similar process in the next few months. He made his remarks at the American Enterprise Institute in January. He said it's too soon to predict the outcome but he didn't rule out a large bill similar to the 1996 package. An alternative is breaking it up into smaller bills by topic. The Internet was in its relative infancy when the act was updated in 1996, critics say, and the legislation doesn't reflect broadband, email or many other technologies Americans take for granted today.

EAS: The FCC upheld a $1.12 million fine against Viacom and a $280,000 penalty against ESPN for airing a movie promo that included real EAS tones. The commission prohibits the use of such tones, except for tests and actual emergencies, so that the public doesn't become desensitized. The cable network admitted the promo contained actual EAS tones, and it appeared multiple times on the networks in 2013. Last March, the Enforcement Bureau proposed a total fine of more than $1.9 million against NBCUniversal, ESPN and Viacom. NBCUniversal paid its $530,000 fine but ESPN and Viacom objected, saying they didn't produce the promo, but rather were merely re-transmitting it; the commission dismissed those arguments and upheld the fines, which differ based on several factors, including the number of channels involved and the number of transmissions on each channel. The fines were to be paid in 30 days.

UNIVISION: In another EAS case, the FCC and Univision reached an agreement that ends an investigation into whether one of Univision's radio stations misused EAS tones. The Enforcement Bureau received a complaint from a New Jersey resident who heard EAS tones during a Spanish-language comedy sketch broadcast on WXNY(FM) New York last January. The agency said that several disc jockeys played the tones repeatedly during a comedy routine, even after they acknowledged on-air that doing so was illegal. The settlement with Univision requires the company to pay a civil penalty of $20,000 and implement a three-year compliance and reporting plan for WXNY; the reporting and compliance plan applies to all 68 of Univision Radio stations.

World Radio History

CONNECTED CAR

(continued from page 3)

The Kenwood-branded unit will list for $700, and the premium Exelon version will list for $750, according to Kenwood staff.

Also planned for 2015 sale are single-DIN, full-screen multimedia receiver to fit older vehicles and specialized applications.

PIONEER BRINGS ANDROID AUTO TO CURRENT CARS

Pioneer Electronics aims to be among the first to offer Android Auto-compatible aftermarket products. The company began offering its first integration of Apple CarPlay in October 2014.

Three of the five Pioneer second-generation Networked Entertainment Experience, or NEX, in-dash multimedia receivers, will feature Android Auto. They are the AVIC-8100NEX, AVIC-7100NEX and AVH-4100NEX.

All three include HD Radio, the company tells Radio World.

The Android Auto integration enables consumers to connect their compatible smartphones. Android Auto promises an intuitive interface and voice actions for minimized distraction, according to Pioneer.

HD Radio is on the first screen displayed; AM/FM can be as well. During a demo, Radio World found users can customize in what order they want the icons and text to be displayed.

Three of the five Pioneer second-generation NEX in-dash multimedia receivers will feature Android Auto; this is the AVIC-8100NEX. The three also include HD Radio.

Integrating Android Auto into its second-generation NEX receivers provides compatible Android smartphone owners the ability to use the power and connectivity of their devices for navigation, communications and music, according to Ted Cardenas, vice president of marketing for the Car Electronics Division of Pioneer Electronics USA, who stated: "Android Auto delivers a familiar and consistent user experience that is optimized specifically for the automotive environment with advanced speech technology for quick and easy voice control and a unique visual display of useful and relevant contextual information."

Pioneer's Android Auto compatible units feature high-resolution 7-inch touchscreen displays, an external microphone for hands-free calling and voice control, and a wired remote input used for optional integration with factory installed steering wheel audio controls.

Additional features on compatible NEX models include Bluetooth connectivity and compatibility with Apple CarPlay and MirrorLink. The units include Pioneer's AppRadio Mode and Pandora; all are SiriusXM-ready with an additional tuner.

The AVIC-8100NEX lists for $1,400 and the AVIC-7100NEX lists for $1,200; the AVH-4100NEX, anticipated to hit store shelves in March, is expected to list for $700.

Android Auto compatibility will be available in the first quarter of 2015 in the U.S., UK and Australia.

Photo by Leslie Stimson

Alpine of America makes the iLX-007, an aftermarket in-dash receiver designed to be compatible with Apple CarPlay; it is available in North American markets.

ALPINE INTRODUCES IN-DASH RECEIVER WITH APPLE CARPLAY

The iLX-007 is an aftermarket in-dash receiver from Alpine of America, designed to be compatible with Apple CarPlay. It is available in North American markets.

"The iLX-007 showcases the most used iPhone features in a manner that is simple and relevant for in-vehicle use," said Alpine VP/GM Steve Crawford in an announcement.

A spokeswoman tells Radio World the unit has enabled Alpine to expand its customer base beyond car audio enthusiasts.

The iLX-007 has a 7-inch capacitive touch screen; through Apple CarPlay, iPhone users can make and receive calls, access text messages, play music and get driving directions with a touch or by using Siri voice control. Corresponding audio, driving directions and phone calls are played through the vehicle's speaker system. Users may set destinations through a conversational command to Siri.

Apple CarPlay is compatible with iPhone 5 and later, including iPhone 6, iPhone 6 Plus and the latest version of iOS. The iLX-007 lists for $800 SRI at Alpine retailers.

The unit is compatible with Alpine's TuneIt, a free sound-settings app that offers Facebook notifications.

Alpine has also expanded its 9-inch dash system "restyle" program for trucks and SUVs. With this program, the receiver manufacturer targets large truck and SUV owners who want to customize their audio system. The centerpiece is the X009, a multi-function system with audio, video and navigation features and HD Radio.

The X009 is paired with vehicle-specific Alpine Restyle dash kits. Alpine designs each kit for use with a specific vehicle platform, with color, finish and shape that matches the factory dash. The kits feature hard keys that replace the factory radio knobs.

Alpine added five X009 systems for 2015, bringing the total to eight.

SEVEN BRANDS INTEGRATE IHEARTRADIO APP

IHeartRadio has several new integrations and partnerships for its streaming music and live radio service; the upshot is that more brands will bring the streaming service to market. Google, Sony, LG, DISH, TiVo, QNX and Clarion are integrating the iHeartRadio app into their products.

Darren Davis, iHeartRadio and iHeartMedia Networks president, said the integrations set a tone for 2015, as iHeartRadio focuses on a consumer-first approach "from launching its app on meaningful devices to continuing to leverage its live radio and entertainment events to provide the best music experience for its listeners."

IHeartRadio will be one of the first apps available on the new Google Cast for Audio, which embeds the technology behind Chromecast into speakers, sound bars and A/V receivers. Beginning in February, the iHeartRadio app will be available on several Sony products like its PlayStation line.

Also for the first time, iHeartRadio will be available on LG connected devices, including the 2015 LG Music Flow Wi-Fi Series home audio lineup unveiled at CES 2015, as well as current and next-generation LG Smart TVs.

BlackBerry subsidiary QNX Software Systems unveiled a concept car that includes "iHeartRadio Drive Anywhere Radio." The prospective feature will allow drivers to continue listening to an AM/FM radio station even after driving out of signal range by switching automatically to the streamed iHeartRadio station.

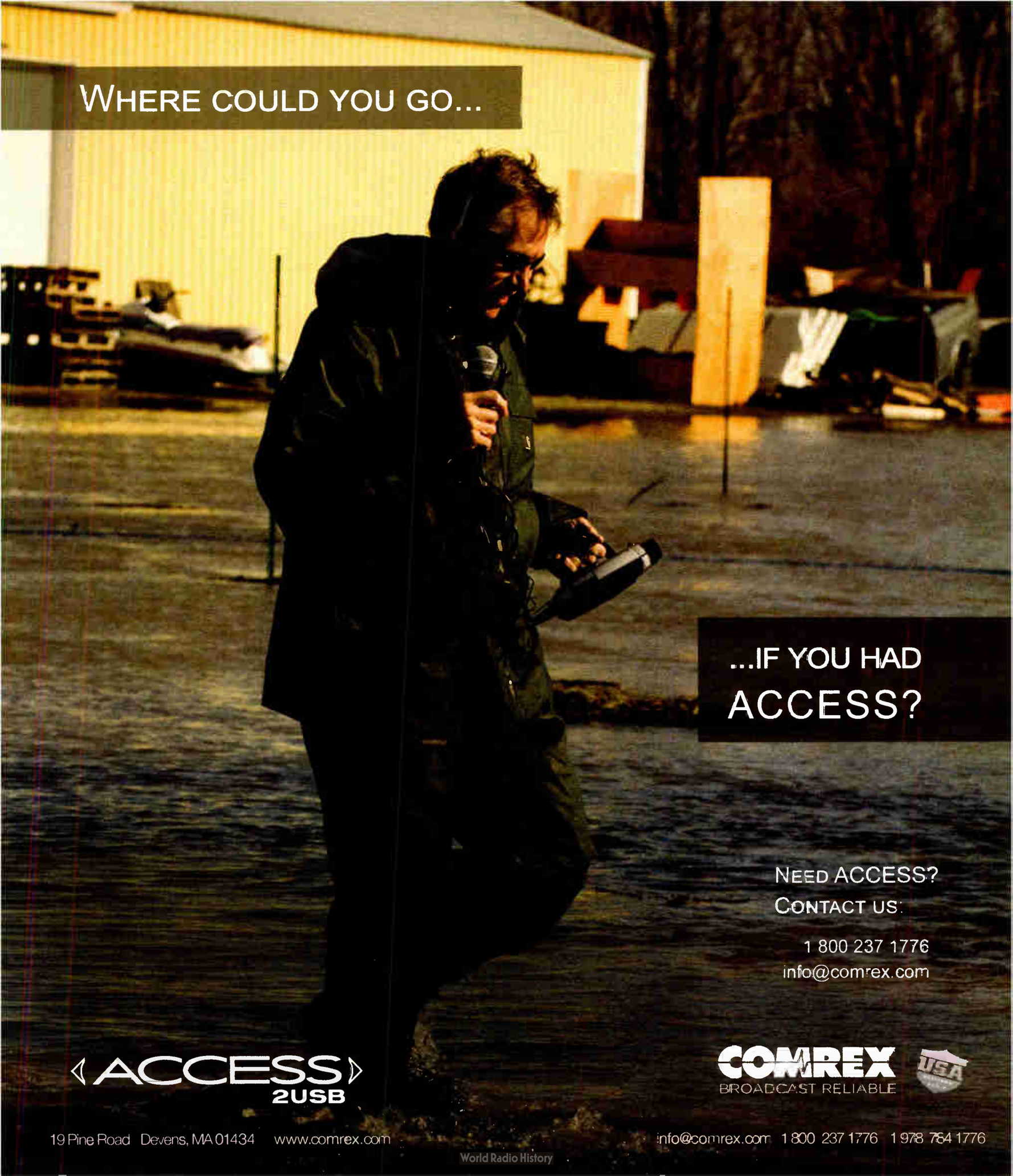
Clarion's new flagship model for 2015, the NX605, an in-dash navigation multimedia system with cloud-connectivity capabilities, will include iHeartRadio. In addition, iHeartMedia's Total Traffic Network information will be integrated into the system's navigation, allowing for real-time incident and traffic flow reporting.

(continued on page 8)

Photo by Leslie Stimson

Fiat-Chrysler highlighted its relationship with iHeartRadio in this CES charging station; the automaker has updated its "Uconnect Access" suite of connected in-vehicle services. Via mobile, owners can access iHeartRadio, Pandora, Slacker and Aha.

World Radio History



World Radio History

CONNECTED CAR

(continued from page 6)

CHRYSLER ADDS MORE UCONNECT SERVICES

Chrysler has updated its "Uconnect Access" suite of connected in-vehicle services.

Four new services are vehicle finder, send destination to vehicle, a monthly vehicle health report and vehicle health alert. These services are designed to help a consumer monitor and maintain a vehicle's key systems, navigate to desired destinations and keep track of a vehicle's location.

"We understand that our customers lead busy lifestyles, and our goal is to minimize the everyday stresses by providing drivers with a variety of ways to stay conveniently connected to their vehicle," Chrysler Head of Global Uconnect System and Services Al Amici said in an announcement.

Uconnect is introducing a refreshed Uconnect Access smartphone application, which the automaker says enable vehicle owners to navigate through the app in a faster and more intuitive way.

Via mobile, owners can access Pandora, iHeartRadio, Slacker and Aha.

The Uconnect 8.4A and 8.4AN provide vehicle owners with an included 6- or 12-month trial of Uconnect Access services that use a built-in data connection. Daily, weekly or monthly Wi-Fi subscriptions are sold separately.

IMAGINATION'S CASKEID WIRELESS AUDIO PLATFORM TO SUPPORT MQA

Imagination Technologies, parent of UK-based Internet radio maker Pure, said that its Caskeid wireless audio IP platform is set to be the first multiroom streaming solution to support Master Quality Authenticated, a British technology developed by Bob Stuart, founder of Meridian Audio.

Adding MQA support to Imagination's Caskeid wireless audio platform will enable companies that license Casekeid technologies to develop wireless multiroom and multichannel speakers for an in-home high-resolution audio experience, it said. The Caskeid platform can deliver MQA's intended studio quality audio in a wireless multiroom or multichannel environment.

Caskeid licensees and partners include Frontier Silicon, Media-Saturn Group, Onkyo, Pure and Meridian Audio, with more pending, according to the company.

MQA begins with the sound that's been signed off by the artist and producer. MQA also uses coding to build a file or stream which also delivers sophisticated metadata and can be delivered inside any lossless container, e.g. as ALAC, FLAC or WAV.

FORD UPDATES SYNC

Ford highlighted the Sync 3 communications and entertainment system. The automaker said this new version is faster, more intuitive and easier to use, with enhanced response to driver commands.

Ford says Sync has been updated with more conversational speech recognition technology, a more smartphone-like touch screen and clearer graphics.

Photo by Leslie Stimson

Using this Mustang, Ford highlighted the updated Sync 3, which begins arriving on new vehicles this year.

For example, instead of saying "Panera Bread Restaurant" to find the nearest location of that chain, drivers can now use the more common "Panera" reference for navigation.

The system builds on Sync, which Ford says is in some 10 million vehicles globally. Sync 3 begins arriving on new vehicles this year.

The Radio Disney smartphone app will soon be available to Ford Sync AppLink users. "While there are many music-streaming apps currently compatible with AppLink, Radio Disney is the first family-oriented music app," said Ford Connected Services Product Manager Julius Marchwicki.

The change comes as Walt Disney Co. is in the process of selling off its network of two dozen radio stations, with the exception of flagship program originator KDIS(AM) in Los Angeles.

GM ONSTAR TO LAUNCH "ATYOURSERVICE"

General Motors debuted connected car features to make it easier to shop in the car. The automaker's subscription-based OnStar program will launch AtYourService in the United States and Canada in coming weeks.

The e-commerce play spotlights partnerships with companies such as Dunkin' Donuts, Parkopedia, Audiobooks.com and Priceline, and will offer drivers coupons through RetailMeNot and Entertainment Book.

"We will continue to innovate in ways that make our customers' time on the road more efficient and more convenient," said Mark Lloyd, consumer online officer for OnStar.

OnStar annually receives 35 million requests for directions in North America, according to the company, a subsidiary of GM.

E-RADIO USES RDS TO CONNECT WITH APPLIANCES

The folks at e-Radio Inc. and project partner water heater manufacturer A.O. Smith Corp. displayed their smart technology. The e-Radio P2D 2045 module was named a CES Innovations Awards Honoree in the "Tech for a Better World" category.

The module uses FM RDS to send real-time electricity pricing directly to "smart" appliances, enabling them to use energy during non-peak times. For instance, a consumer might choose to wash a load of clothes at a time when hot water is less expensive, EVP Duff Roman and VP/Strategic Planning Mike Starling told Radio World.

The company is partnering with A.O. Smith because hot water heaters consume some 40 percent of the electricity in the average home, according to company officials.

The company demoed the project using the signal of KNPR(FM) in Las Vegas. Three dozen FMs have been participating in pilot tests in select markets or have been pre-qualified for service initiation, according to Starling and Roman. The tech has the possibility of bringing ROI to stations, as well as saving consumers and power companies' money, company officials believe.

For utilities, the ubiquitous FM RDS communication network ensures high levels of reliability with visual confirmation of locked signal quality, authenticated messages and optimal confirmation of load shed during times of peak demand, according to e-Radio.

RIVET NEWS RADIO DEMOS AUTO API

Rivet News Radio, which calls itself a smart audio network for news, demonstrated an embedded integration of the Rivet Auto API with OpenCar Inc. and Visteon. Rivet's dual approach, with both embedded and smartphone solutions, provides multiple ways for connected car drivers to access its content, according to CEO John MacLeod.

The Rivet Auto API enables customization of content selection to meet OEMs' application needs, and supports content filtering based on location and user interests. It also allows OEMs to offer on-demand weather updates, based on location.

Bosch Automotive Technology is working with Rivet's smartphone integration inside Jaguar and Land Rover vehicles. Earlier this year, Rivet announced its first smartphone integration, with Bosch Automotive Technologies and Abalta's Weblink.

Rivet also has a new programming partner, American Public Media. The public radio producer will share three program downloads to Rivet's customized playlists: "Marketplace," "The Splendid Table" and "The Dinner Party Download."

E-Radio President Jackson Wang, left, and VP/Strategic Planning Mike Starling hold their CES Innovations Award in the Tech for a Better World category. The company's technology uses RDS to communicate with "smart" appliances.

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Draft Everyday Items for Use in Your Studio

Here's a new use for a TP holder

WORKBENCH
by John Bisset
Read more Workbench articles online at radioworld.com

Sean Mattingly, director of technical operations for Woof-Boom Radio, found a great use for a restaurant kitchen ticket holder.

Shown in Fig. 1, kitchen tickets — or, in this case, your liner cards or weather forecast — can be slipped into the slot, held in place right in front of the talent, and changed just as easily.

The ticket holders are not expensive — a 48-inch model is less than $10 at the Webstaurant Store (*webstaurantstore.com*). Search "kitchen order ticket holder" on the website for a variety of styles and prices.

In our previous column, we talked about general transmitter troubleshooting and safety steps. Now, let's focus on the transmitter tubes.

Tubes must be handled carefully. The tube operates in a vacuum. Sudden jarring or dropping the tube can crack the seal, compromising the vacuum. In glass tubes, a white coating will develop as the filament burns up. Dropping a tube can also loosen the support structures inside the tube.

If the components sag inside the tube, they could short to other elements. Element-to-element shorts, as well as an open filament, can all be diagnosed with an ohmmeter. Refer to the transmitter schematic or tube sheet, as seen in Fig. 2, to identify the pins.

Inspect the tube pins or terminals. Oxidation can cause intermittent operation. Burnish the contacts using crocus cloth to remove any oxidation.

Do not use sandpaper, as it will remove the gold or silver flash or plating. Sanding pins may also reduce the diameter of the pins, resulting in a loose fit.

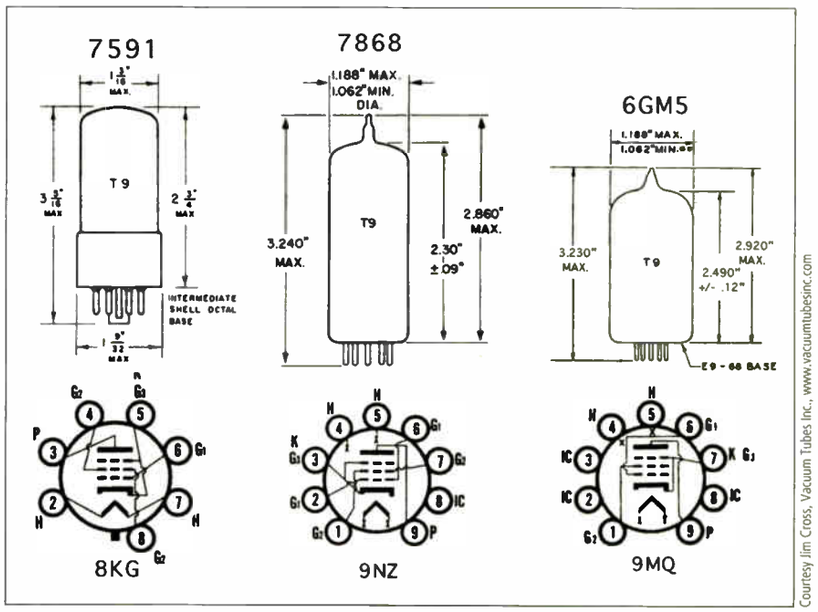
Do not use Tarn-X on tube pins. Tarn-X is designed for precious metals and contains sulfuric acid. It's not a friend of low-power nickel-steel tube pins.

In the days of tube-powered receivers, drug store tube checkers could diagnose receiving tube faults. In the case of transmitting tubes, substitution is your best ally. Having a supply of working spare tubes can help determine tube failure. Most new tubes work right out of the box, but this is not always the case. Don't assume a tube is good simply because it is new. Duds may be rare, but they do occur.

Tube socket failure is also rare but does occur. Inspection with a strong light and ohmmeter — with the transmitter de-energized and all components grounded with the shorting stick — may help diagnose the problem.

Have you had some interesting tube or tube socket experiences? Share them with your fellow engineers using my email address below.

Fig. 1: Use a $10 kitchen ticket holder to hold liner cards.



Courtesy Jim Cross, Vacuum Tubes Inc., www.vacuumtubesinc.com
Fig. 2: A tube pinout sheet identifies the tube pins.

Broadcast engineer and problem solver Joe Stack really liked Mark Voris' kitchen cabinet idea, discussed in the Jan. 1 Workbench.

Recall that Mark hid his station's punchblocks inside a kitchen cabinet with doors, which kept the wiring out of sight. Since the cabinet was hung on the wall, he also eliminated the need to crawl under console furniture to make wiring changes.

Joe, too, has pressed common home products into service for broadcast use.

A colleague of Joe's actually went to Home Depot and picked up a few toilet tissue holders that made ideal headphone holders. The tissue holders are the kind

(continued on page 12)

World Radio History

Need a Little Extra?

Increase your reach with AARON 650.

Today's radio listeners demand more than ever a cleaner signal, and in increasingly hard to reach locations. So what do you do when the average translator receiver just can't quite "grab it"?

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www.inovonicsbroadcast.com/model/650

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iStockphoto/Robin Olmb

Your Translator Affects Your Neighbor

Full-service stations may object to your new signal, citing interference

TRANSLATORS

BY JOHN GARZIGLIA

The first part of our series about FM translator stations looked at basic regulatory aspects. The second approached the topic from the perspective of a translator licensee, in particular a licensee of an in-contour fill-in translator carrying an AM station or HD subchannel. Then we looked at challenges faced by AMs that wish to acquire FM translators. See prior articles at radioworld.com/translators.

This part considers possible objections from full-service stations about interference.

Look at FM translators from the perspective of an existing FM station: There is always the risk that a newly granted FM translator will interfere with established radio listening.

In the past several years, the FCC has received a number of complaints from existing stations alleging interference from FM translators.

While some interference complaints have been legitimate, many others were procured by existing stations from friends, advertisers and loyal listeners doing a favor, to enable the existing station to claim signal coverage far beyond any listenable coverage area. A number of FM translator licensees have spent significant legal fees and resources defending against ill-founded interference complaints.

I OBJECT

Under current FCC rules, an existing FM station has two opportunities to object to a new or modified FM translator based upon interference.

The first is at the translator application stage, when an objection may be filed under Section 74.1204(f) of commission rules. A Section 74.1204(f) objection establishes that an existing station has legitimate listeners within the proposed FM translator's 60 dBu contour and such listeners, as a matter of undesired-to-desired predicted signal strengths, will be subject to interference. If there are such legitimate listeners within the translator's proposed 60 dBu contour, the FCC will deny a grant of the FM translator application.

The second opportunity for existing FM stations to object to an FM translator based upon interference is under Section 74.1203(a)(3) of the rules once the translator is on the air. If actual interference occurs to the regularly received signal of a bona fide disinterested listener, the FM translator must remediate the interference if requested by the listener, or absent successful remediation, power down or leave the air.

This is a harsh result that, at least to date, the FCC has been reluctant to order, unless there is clear and unrefuted evidence of interference to the regularly received signal of bona fide disinterested listeners.

ON THE BORDER

Because AM licensees soon will be applying for many new fill-in FM translator facilities, it may be time for the FCC to circumscribe borderline translator interference complaints by limiting complaints to the first year of a fill-in FM translator's operations and by giving cognizance only to interference claims within an existing station's protected contour.

Such limitations would protect an existing station's service area from harmful interference while at the same time safeguarding against the potential disruption of enhanced FM translator service for an AM station caused by an ill-founded or untimely interference complaint.

These safeguards would give reliability and reception stability to fill-in FM translators carrying AM stations.

Because of the vague interference standards that currently apply to FM translators, putting significant resources into buying or applying for an FM translator is a risky proposition. There is a good argument that FM translators that serve as a fill-in service to either an AM or HD sub-channel primary station should be accorded certain safeguards. Going forward into AM revitalization, broadcasters and the radio listening public would be well served by changes in FCC policies that reduce the risks and bring an expectation of continuing service from fill-in FM translators.

SAFEGUARDS

This concludes our discussion about FM translators; I welcome questions for a followup article.

The two immediate issues for FCC resolution are making FM translators more generally available to AM broadcasters in order to enhance programming services delivered, and safeguards for existing fill-in translators as to what constitutes actionable interference.

In my view, a focus by the FCC on the AM revitalization benefits brought by translators, rather than simply upholding current regulatory procedures, would benefit both broadcasters and the listening public. With respect to interference issues, fill-in FM translators are enhanced reception service to many people. Any two FM signals in a co- or adjacent-channel relationship will always create some area of interference. The challenge for the FCC is to act on interference complaints only when demonstrable existing listening patterns of bona fide listeners without a connection to the existing station are being substantially impaired.

Questions and comments are welcome; send to Radio World or to John Garziglia (jgarziglia@wcsr.com).

The author is a veteran radio and television attorney offering assistance in all areas of Federal Communications Commission law in the Washington offices of Womble Carlyle. Opinions are his own.

WORKBENCH

(continued from page 10)

shaped in the form of the letter "C" and allow the tissue roll to slide on and slide off from the side. When Joe first saw them, he actually thought they were manufactured as headphone holders!

Mounted to the side, under the console, the headphones are within easy reach, yet out of sight when not in use. No more headphones on the floor or taking up space on the countertop.

Now, I said Joe Stack is a problem-solver. Drawn from his years of broadcast experience, Joe has developed a cleaning kit that you can order at *kleenkit.com*. When used along with suction from a vacuum cleaner, the KleenKit is an effective way to clean the insides of computer cases, equipment racks, exhaust fan assemblies and other surfaces that collect dust.

As other particles in the air collect with the dust, a hard layer is formed, making it almost impossible to be removed by suction alone. That's when KleenKit's brushing, air blasting and scraping actions come in handy.

The KleenKit includes a dust mask, a magnifying glass, a notebook and pencil, an air blaster squeeze bottle, a soft cleaning brush, an inspection mirror, a stiff bristle brush, a flashlight and batteries, wooden scraping sticks, an instruction sheet and a storage box to hold everything.

Although it was not designed specifically for transmitter cleaning, the kit has several components that certainly can be used for that purpose. At under $30, the KleenKit won't break the bank, and it is suitable for the transmitter site, as well as the studio. They are available to order online.

Over the years, Joe has developed a number of problem-solving products. You can find out more at *stackleydevices.com*.

Contribute to Workbench. You'll help your fellow engineer and qualify for SBE recertification credit. Send Workbench tips to johnpbisset@gmail.com. *Fax to (603) 472-4944.*

Author John Bisset has spent 45 years in the broadcasting industry and is still learning. He handles West Coast sales for the Telos Alliance. He is SBE Certified and is a past recipient of the SBE's Educator of the Year Award.

World Radio History

Who says a console can't be smart *and* sexy?

What matters most: beauty, or brains? Some networked consoles need a Masters degree to operate; others look like refugees from 1985. What to do?

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World Radio History

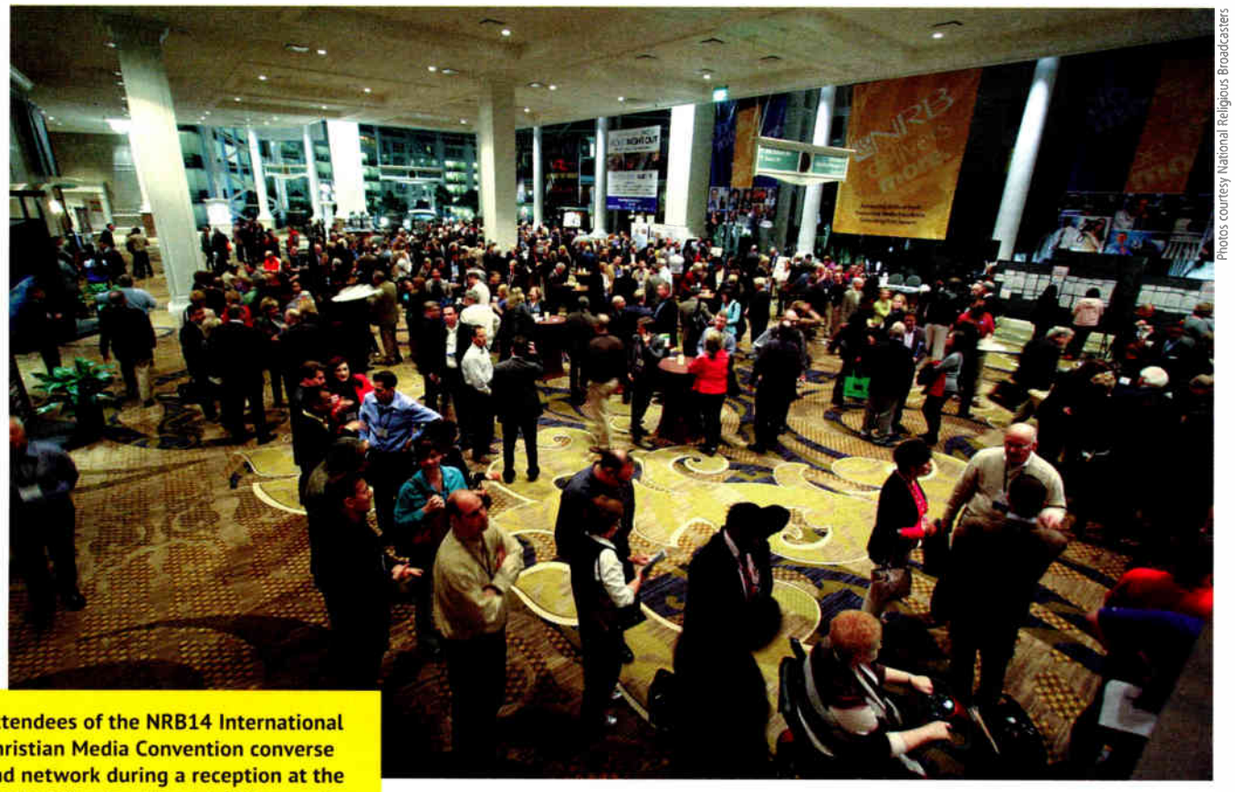
NRB15 Highlights New Media, Regulatory Issues

Christian broadcasters convene in Nashville to discuss the path forward

BROADCAST SHOW

BY CRAIG JOHNSTON

Over the past year, the National Religious Broadcasters — which will hold its annual convention this month — took a wide-ranging look at how audiences for its Christian broadcasting member stations and networks consume content.



Photos courtesy National Religious Broadcasters

Attendees of the NRB14 International Christian Media Convention converse and network during a reception at the Gaylord Opryland Resort & Convention Center in Nashville.

President/CEO Dr. Jerry A. Johnson boiled the findings down to a simple statement. "The new reality is this: People under 35 just aren't listening to appointment preaching on the radio or television anymore."

Instead, he said they're using podcasts, Facebook, Twitter, YouTube and other new media channels.

"At NRB, we need to reach that current generation, so we're having a Digital Media Summit on Wednesday, Feb. 25," Johnson said.

Also, in order to allow convention attendance for those such as pastors, music leaders, church technology professionals and others, who are tied up delivering church services on weekends, the NRB 2015 International Christian Media Convention in Nashville, Tenn., has shifted its schedule to mid-week.

SOCIAL AND GLOBAL FOCUS

There was previous warning about NRB members' appetite for new media sessions. The 2014 NRB convention offered a digital media session the day before the convention opened, and organizers expected a crowd of perhaps 80. Instead they drew a roomful of 380.

Also set for release at the convention is a study for NRV by LiveWay Research showing how Christians use media.

Traditional radio and television broadcasting is not being forgotten at the convention. Sessions specific to traditional attendees include on-air fundraising, talent coaching and boot camps providing training in broadcast production skills in all media.

The convention will also feature high-profile speakers like former U.N. Ambassador John Bolton; Governor Mike Huckabee; Steve Forbes, chairman and editor-in-chief of Forbes Media; and radio host and actor Chuck Norris, who will receive the organization's Chairman's Award.

Additionally, the annual convention offers breakout sessions addressing areas of concern to the organization's members. Among those that will interest Radio World readers:

- Monday afternoon's FCC Update will feature a panel of legal experts along with Peter Doyle, chief of the FCC Media Bureau's Audio Division.
- Tuesday afternoon Fred Jacobs, founder of Jacobs Media and an expert in radio consulting and strategic research, will share results of his TechSurvey and its direct relevance to Christian radio.
- Chuck Finney, president of Finney Media and Tracy Johnson, founder, president and CEO of Tracy Johnson Media Group, will present Tuesday afternoon's "5 Talent Coaching Tips In 45 Minutes."
- Wednesday morning's "The Art of Social Media" will be anchored by Guy Kawasaki, chief evangelist at graphic design tool provider Canva.

ISLAM

An all-day Tuesday session sure to draw a lot of interest is "Islam: Theological and Great Commission Challenges."

"We started planning a couple of months ago, but I think the Lord was in it," said Johnson. "Since Paris, since Boko Haram, since all that's happened now in Belgium and elsewhere, we've decided to make it deeper and wider. We've got now 14 speakers coming in."

The morning sessions on Islam will feature Bible expositors and Islam specialists, who will share research, insights and personal stories about the global rise of Islam from a theological perspective. The afternoon session will concentrate on what NRB sees as cultural and security challenges presented by Islam.

The convention will also feature a Film & Entertainment Summit.

"This is the first time we've done this," said Johnson. "This has sort of been the year of the Bible film, the Christian film. We've seen Hollywood try to do some films, these Bible films, and we've seem Christian films actually make it into the mainstream. We've got an entire day for this."

NRB's convention also will host an equipment and services exposition dedicated to Christian media professionals, featuring some 200 companies, ministries and organizations. A pass to the convention expo is free; attendees can purchase one-day passes to NRB sessions.

PURPOSEFUL POLITICKING

The convention always brings a focus on the political, regulatory and judicial concerns of NRB members; and some of those involve hot-button cultural issues. The association is vocal about what "religious liberty" means for

NRB15 INTERNATIONAL CHRISTIAN MEDIA CONVENTION

IF YOU GO

What: NRB15
Who: The organization National Religious Broadcasters sponsors this international Christian media convention.
When: Feb. 23–26
Where: Gaylord Opryland Resort and Convention Center, Nashville, Tenn.
How: *www.nrbconvention.org*
How Much: Convention registration for NRB members costs $550, nonmembers $650, first-timers $350 and day passes are $275 per day; rates increase $100 after Feb. 21.

World Radio History

Mike Huckabee addresses the 2013 NRB Convention. He will again attend the conference as a speaker in 2015.

broadcasters.

"One of the mission points of NRB is to defend free speech," said Johnson. "And what I'm sensing is that there is a new tone on the marriage issue, on sexuality, on so-called same-sex marriage and even on Islam, if you critique Islam. Already in countries like Canada, or Great Britain, if you talk about these things from the pulpit, or on the air, you can lose your license."

In his view, "speech codes" are developing when it comes to such topics and are a concern not only for broadcasters but for churches, whose leaders worry about losing tax-exempt status thanks to an unhospitable climate in the federal government.

Johnson believes the new Republican majority in the U.S. Senate and strengthened majority in the House of Representatives will help balance what NRB sees as excesses in the Obama administration agenda. "For instance ENDA, the Employment Non-Discrimination Act, which would essentially make any business, any Christian business hire trans-gender, homosexual...[even if that] would be violating their consciences, violating their religious convictions in hiring practices."

An area where the NRB has made a recent public filing to the Federal Communications Commission is in spectrum repacking and its effect on low power television stations.

"For 30 or 40 years small churches, medium churches, big churches, mom-and-pop operations, have put thousands, maybe even millions of dollars in building some kind of television station, a local television station with Christian programming. We believe it's just not fair for the FCC to come in and say, 'We're going to take this broadcasting spectrum and now sell it nationally to some big operators.'"

Craig Johnston is a longtime Radio World contributor.

BOOTH SAMPLER

NRB calls the convention exposition "the largest marketplace dedicated to Christian media professionals." It expects 200 vendors in 130,000 square feet of space.

This is a sampling; find the full list at *www.nrbconvention.org*.

Aberdeen Broadcast Services
Amazing Facts Ministries
Avid
Brinkman Adventures Radio Drama
Broadcast Electronics/Commotion
Broadcast Software International
Broadcast Supply Worldwide
Broadcasters General Store
Charisma Media
Christian FM Media
Comrex Corp.
Faith Broadcasting
Family Research Council
Fellowship of European Broadcasters
German National Tourist Office
Heritage Foundation
HisAir.Net
Holy Land Broadcasting
Israel Ministry of Tourism
Ka You Communications
LeSea Broadcasting Corp.
NPR Satellite Services
Propagation Systems Inc.
RCS
RF Specialties Group
Salvation Army
SCMS
Shively Labs
Southern Baptists Telling the Story
StreamOn

NEW...

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- VPN Remote Voice tracking
- Your Music scheduler or ours
- Multi-sound card Console interface
- Live & Automated Games with Rain delay
- Share audio files across the hall or continent

Scalable, high speed Radio Automation for Multistudio, Multisite Applications

Digilink-HD (DHD) is designed from the ground up for today's fast paced, distributed content, single station or multi-site Group. It empowers local and remote talent to collaborate to deliver exciting content, build your audience share, and increase sales. DHD has the tools to enable you to work faster, work smarter, and do more. For On Air, DHD supports live on air, live assist, hard disk automation, satellite automation, and Games automation. DHD supports multiple sound cards for interface to a console and live crossfading. Audio files can be shared across the station or across the planet. To create live sounding automation and facilitate flexible use of talent, DHD features a powerful segue editor, voice track recorder-editor, and remote voice tracking over a VPN (virtual private network). The voice track recorder-editor supports complete control plus the ability to assign a music bed under the voice track with ducking. DHD supports any kind of programming and any size market or multi-site group.

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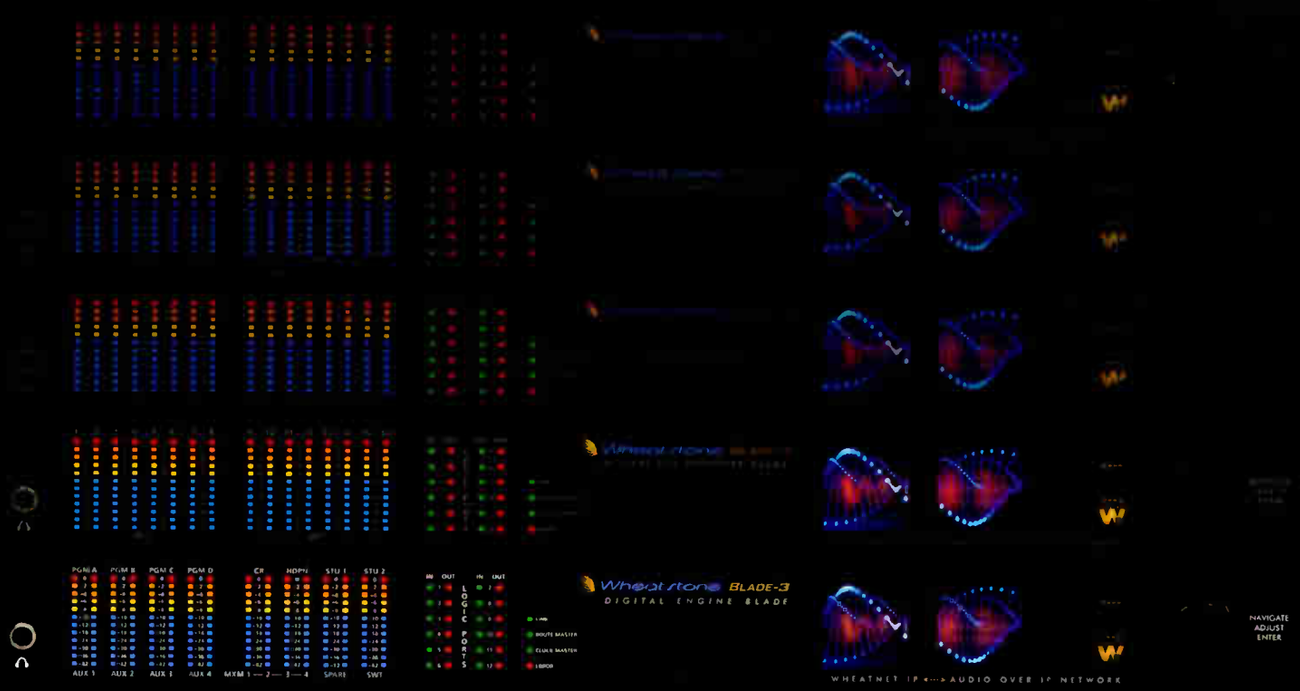

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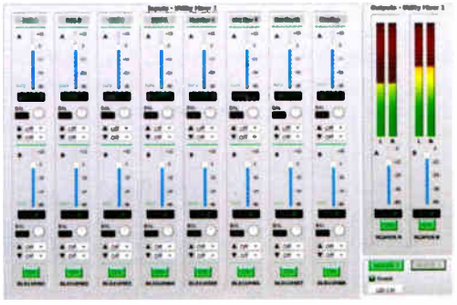
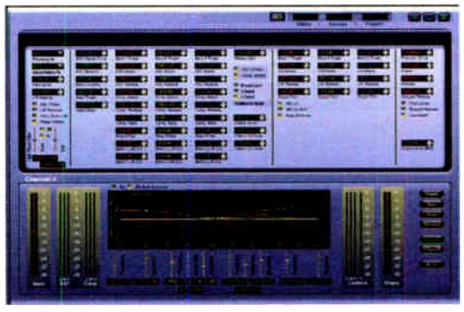
  All BLADE-3s use Gigabit Ethernet. This makes all the difference in network capacity, near-zero latency, throughput, reliability – in short, everything.

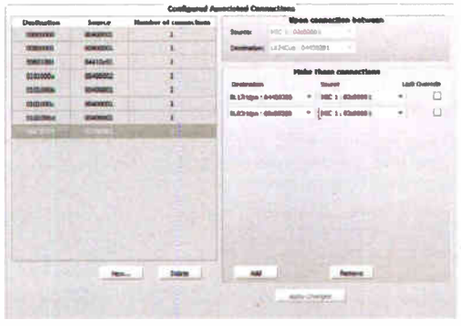
- **Virtually All Audio Formats**
  BLADEs are built to handle and convert native analog, microphone, AES/EBU, SPDIF, AOIP, MADI, SDI and AES67.



- **Two 8x2 Utility Mixers**
  Each BLADE has two 8x2 utility mixers that can be configured in many different formats. Two 8x2, four 4x1, etc. These internal mixers are full featured and include panning, channel ON/OFF, fader levels, and access to any source signal in the system. They also include a full ACI (Automation Control Interface) allowing remote control, ducking, auto fade, channel on/off, levels, source assign, etc.
- **Audio & Control Routing Matrix**
- **Source & Destination Control**
  Each BLADE has the ability to route any system source to the destinations on that BLADE.
- **Front Panel Logic Indicators***
- **12 Universal GPI/O Ports**
- **128 Software Logic Ports***
  Used to interface with software switches, indicators, and control functions throughout the system.
- **Built-in Audio Clip Player***
- **Silence Detection**
- **Dual OLED Displays***
- **LIO/SLIO Logging***
- **Aliases***
  Allows the same source to be identified by different names. Multiple aliases can be used so different operators can share logic functions, source feeds, routing, etc.
- **Auto Mono Summing**
- **Signal Splitting**
- **Gain Control on Every Input & Output**
- **Balance Control**



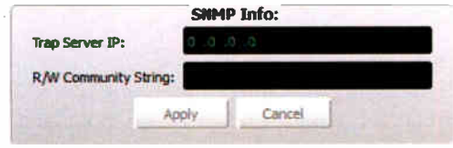
- **Stereo Audio Processor***
  Each BLADE-3 has a stereo multiband processor with the following: 4-band parametric equalizer, 3-way crossovers, 3 compressors, 3 limiters, and a final lookahead limiter. This is a "routable processor," meaning it is not limited to the local I/O on the BLADE – it can be considered a network resource.
- **Onboard Intelligent OS**
  Each BLADE has its own intelligence/operating system that allows it to be a powerful standalone router, part of a larger system or control the entire routing system.



- **Associated Connections***
  This is a great feature in BLADEs for callers, codecs, networks, remote broadcast & live talk shows that require a mix-minus. You can create a predetermined back haul, IFB feed or mix-minus for each device based on its location in the system or on a fader. If you have a shared resource connected to your system, such as a codec, the software will "automagically" give the proper return feed to the codec based on its destination. When a base connection is made, up to ten additional connections can be made. This significantly helps streamline studio routing, phone and codec selection.
- **44.1 or 48K Sampling Rates**
- **Flexible Signal Configuration**
  Signal can be defined as up to 16 mono, 8 stereo or any combination of mono and stereo totaling 16 channels.

** indicates features available only in BLADE-3s*

- **AES67***
  Ability to support AES67 compliant devices. Allows WheatNet-IP system to synchronize to IEEE1588 from a PTP grandmaster clock and ingest /stream AES67 compliant packets.
- **44.1, 48K, External Sync or AES67 Operation***
- **Clock/Sync and Alarm Indicators***
- **Automation Control Interface**
  This is a "tool box" that every BLADE has that allows full control of the BLADE's functions such as routing, ducking, panning, full logic control, mixing and silence detection. Each BLADE supports up to 20 ACI connections which can be used with devices like Talent Stations, GP panels, SideBoards, etc. It also allows control of our partners'/third party equipment.
- **Front Panel Headphone Jack and Source Selection**
- **Salvos/Macros**
- **Studio Bypass**
- **Front Panel Input and Output Metering**
  There is metering for every input and output on the system – 12-segment, multi-color LEDs that can be used for metering inputs and outputs as 8 pairs or 16 mono signals.



- **SNMP**
  SNMP gives you centralized monitoring over large distributed systems. You can configure alarms and set thresholds to get notified if and when a problem occurs. The instant alarms and notifications help you take quick corrective actions through e-mail, SMS, and executing custom scripts.
- **Connection Choices**
  Has both DB25 to make transitional wiring easy for existing BRIDGE TDM customers and RJ45 – Studio Hub compatible RJ connectors for input and output.
- **Full Info Screen**
  Each signal has a new info screen allowing the user to add text to signals such as wire numbers, termination locations, etc.
- **LIO Test**
- **Automatic Backup**
- **Alarm Notification**
- **NTP**
- **Front Panel Locking**
- **Version Checker**
- **Crosspoint Save**
- **Debugging Tools**
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MARKETPLACE

A Card by Any Other Name: Computer equipment maker Sonnet Technologies has something the geekiest of computer geeks would like — a 512 GB solid-state drive card, the Tempo PCIe SSD card.

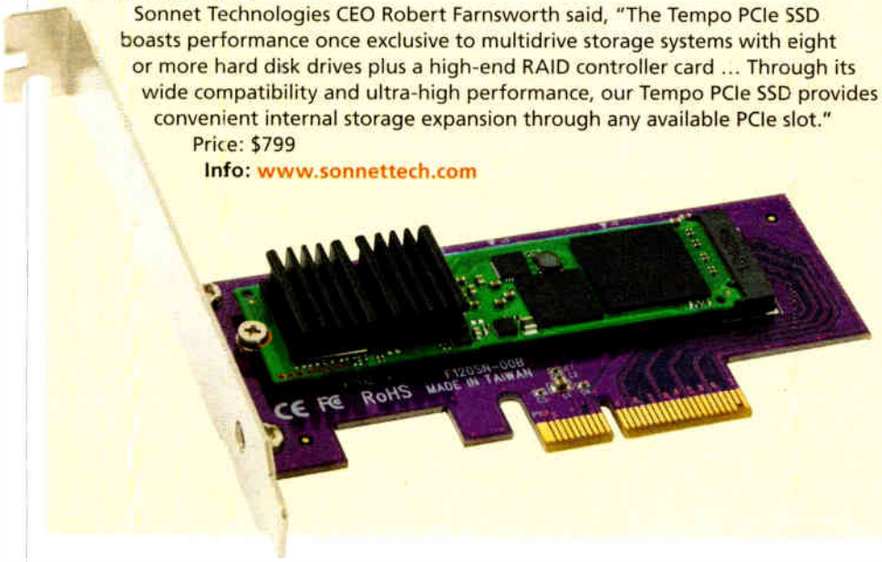
Built into a PCI Express 2.0 card, the Tempo offers 512 GB of storage with a performance spec of up to 1,100 MBps. According to Sonnet, the Tempo should even outperform SATA SSD drives.

It is compatible with Mac OS X 10.8.5+ (including Yosemite) or Windows 8 and 7 and Windows Server 2012 and 2008 systems and can operate as peripheral storage or as a boot drive.

Sonnet Technologies CEO Robert Farnsworth said, "The Tempo PCIe SSD boasts performance once exclusive to multidrive storage systems with eight or more hard disk drives plus a high-end RAID controller card ... Through its wide compatibility and ultra-high performance, our Tempo PCIe SSD provides convenient internal storage expansion through any available PCIe slot."

Price: $799

Info: www.sonnettech.com



Design Specifics: Furniture and structural elements manufacturer Middle Atlantic Products has announced that its Configurator is now officially live.

The Configurator is a Web-based design tool that allows users to select pieces and configure a rack or a room and get a quote or place an order for the needed materials. It can export to CAD programs, and designs can be saved online.

Middle Atlantic says the Configurator should be easy to use, whether by a beginner or a veteran contractor.

Info: www.middleatlantic.com

Feature Additions: Processor maker Orban is tweaking its high-end processors by adding onboard RDS/RBDS generators. The recipients are the 8600 Digital MPX, 8600S and the new 8500S (shown).

Orban says that the generator "supports automatic scrolling PS from text input. This implements real-time station signature and artist/title display on the RDS receiver's PS display, which is usually the default display. Built-in RDS eliminates an external RDS generator as a point of system failure."

The company adds, "It also ensures that the RDS subcarrier is in quadrature with the pilot tone. This minimizes additional RDS-induced peak modulation, leaving more headroom for the audio and maximizing loudness."

HD Radio processor models will also support the upgrade.

The new Optimod-FM 8500S model ships in FM-only and digital versions. The latter version handles Internet and HD Radio paths as well as analog. The unit is aimed at the budget-conscious. The FM-only model can be upgraded to digital model later.

The 8500S offers stereo enhancement, equalization, AGC, multiband compression, low-IM peak limiting, stereo encoding, composite limiting along with a delay (up to 16 seconds). It is also network remote operable.

Info: www.orban.com

Can-CAP: EAS-CAP equipment manufacturer Gorman-Redlich Manufacturing Co. has announced that development of Common Alerting Protocol Canadian Profile (CAP-CP) support in its line of radio alerting equipment is in its final stages and that television support will soon follow.

This support complements the existing range of Gorman-Redlich alerting products, which includes Emergency Alert System, CAP/IPAWS and NOAA/Environment Canada Weather Radio equipment, says the firm.

The latest addition aims to provide support for Canadian broadcasters and cable operators to meet new CAP requirements by the deadlines of March 2015–16. The new CAP equipment interfaces with the alert feeds provided by Pelmorex and decodes them based on the CAP-CP specifications. It also includes features such as standard text-to-speech conversion of alert information, print and email capabilities for alert details and relay contact closure with program audio interrupt on alert.

Info: www.gorman-redlich.com

Wireless Wonder: Hosa Technology has developed a Bluetooth audio receiver.

The Drive Bluetooth Audio Receiver is designed to receive Bluetooth transmitted audio, e.g. from a smartphone, and via its 3.5 mm outputs provide a stream of audio to nonwireless audio equipment.

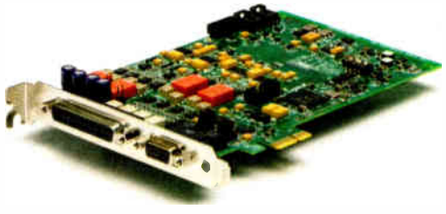
The advantage of the rechargeable battery-powered device is that it can be hooked up once (to an aux input) and left, whereas obtaining audio from a smartphone (or similar device) would require connecting it with a cable each time it is used. This would be a handy device for a production bay or an ENG journalist desk.

Drive Bluetooth Audio Receiver provides 3.5 mm outputs, has an app. 10-hour battery life, and comes with a 3.5 mm TRS cable and USB charging cable. It is compatible with Bluetooth 3.0.

Price: $54.95

Info: www.hosatech.com

Audio Express: Lynx Studio Audio Technology says users of its LynxTwo and L22 audio cards asked it to update the platforms for use with PCI Express forms.



The result is the E44 and E22. The E44 offers four analog channels in and four out along with four AES digital channels. The E22 is a two-channel model.

Digital conversion is courtesy of onboard Lynx Aurora converters. The onboard converters provide 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz conversion. Mac OS X and Windows 7/8 drivers.

Lynx co-founder and Chief Hardware Engineer Bob Bauman said in the announcement, "Now that most computers only offer PCI Express, we have had many requests from our customers to port the LynxTwo design over to PCI Express."

MSRP for the E44, shown, is $1,095, for E22 $795

Info: www.lynxstudio.com

World Radio History

AWA Saves a Piece of Delano Station

Collins Collectors Association

BY JAMES E. O'NEAL

Since my involvement with the Voice of America's Delano, Calif., shortwave transmitting station began in the early 1990s, I've written many thousands of words about that facility.

In the March 2014 Radio World article "VOA's Delano Goes on the Block," I wrote that the General Services Administration had imminent plans to auction off the Delano station real estate to commercial interests. I was fairly certain those words would be my last on the subject of the nearly 70-year-old facility — *ashes to ashes, dust to dust, Requiescat in Pace.*

However, I was wrong.

I recently visited a small, northern New York town more than 2,200 miles from the transmitting site to report yet another chapter in the Delano story. The location is a storage facility belonging to the Antique Wireless Association Museum, where some 44,000 pounds of "Delano" is now resting.

I'm referring to one of the three model 821A-1 Collins Radio 250,000-watt transmitters that were in daily use at Delano from the mid-1960s until the facility went dark at the end of September in 2007.

A labor of love — and some fairly serious money — saved this Cold War relic from the landfill or a metal recycler.

CONCEIVE A PLAN

The rescue plan actually had its roots in an alliance struck in 2013 between the AWA and another historically minded group, the Collins Collectors Association. The entities had pooled their resources to create The Collins Radio Heritage Group, an organization with the stated objective of "fostering the preservation of the history and equipments of Collins Radio."

When the idea of saving one of the big Delano Collins rigs — one of only nine such transmitters ever made — from destruction surfaced in September of that year, the CRHG moved into action.

According to CCA President Bill Carns, the plan came about during a dinner meeting with Jim Stitzinger, a CCA board member.

"The topic of Delano kept coming up," said Carns. "I remarked wouldn't it be wonderful if we could figure out how to save one of those transmitters. The conversation led to the weight and size of the rig, and Jim volunteered that he had a large warehouse about 25 miles from the Delano site." If they could obtain one, they could store it there.

Carns said that, thanks to the alliance between his organization and the AWA, it didn't take a lot of persuasion to get

(continued on page 20)

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World Radio History

DELANO

(continued from page 19)

the Bloomfield, N.Y., historical group to buy in.

"The concept came up in the fall of 2013," said the AWA Deputy Director Bob Hobday. "We had been operating on a loose arrangement with the CCA, trying to preserve whatever Collins equipment came up. They said, 'Could we?' ... and we [then] reached out to the Voice of America. They got excited about the concept of us saving a transmitter and putting it on display. At that time, however, they had committed to the disbursement of [the transmitters] through the General Services Administration. Although they were in support of the plan and made this known to the General Services Administration, we had to apply through the New York State General Service Administration and demonstrate that we were a 501(c)3 organization.

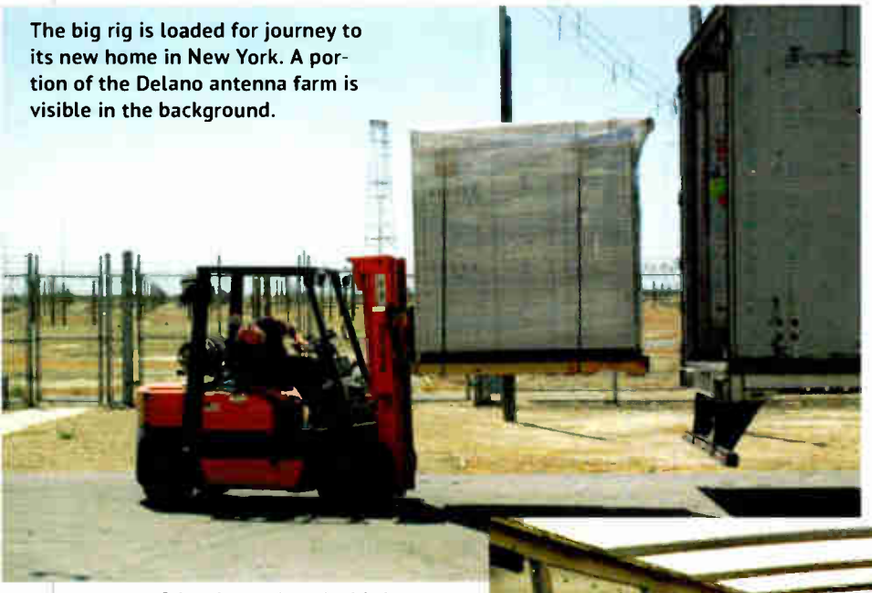
"In May of 2014, we received a letter that was good news and bad news — the good news was that 'you've got it' and the bad news was 'you have two weeks to get it out of there.'"

Stitzinger and some others had organized a team that committed to go to Delano as soon as the arrangement was finalized, Hobday said. "They went out there and spent two weeks taking apart and documenting the world's largest 'erector set.'"

In all, nearly a dozen people were involved in disassembling and readying the transmitter for its journey to Bloomfield. It was packed in some 128 boxes; Carns referrred to it as "the Heathkit from hell." He noted that the 821A-1 was created by Collins specifically to address a "request for proposals" issued by the VOA in the 1960s. Collins got the award and rolled out three transmitters for transmitting stations at Delano and Dixon, Calif., and Bethany, Ohio, all part of a modernization program.

Photos: Collins Collectors Association

The transmitter extraction crew, from left: Vince Baker of RMC Enterprises, which provides security and maintenance at the VOA site; Rod Blocksome, retired Rockwell Collins high-power transmitter designer; Dennis Kidder, Dave Jennings and Jim Stitzinger, all CCA board members; and Tim Zeichik, assistant to Stitzinger.



The big rig is loaded for journey to its new home in New York. A portion of the Delano antenna farm is visible in the background.

NEXT FOR THE BIG RIG?

Not only the 25-foot long transmitter and associated power supply and modulation components, but much of the Delano control and monitoring facility was also disassembled and packed for shipping to Bloomfield. Two trucks were needed to transport the more than 22 tons of equipment. According to Hobday, in addition to considerable manpower and lifting equipment, more than $20,000 was required to extract the transmitter and move it across the country.

Everything arrived safely and plans are underway now to reassemble the gear into a major exhibit at the AWA Museum. The museum has been in existence for more than 60 years and last year left its previous home of nearly 40 years in the Bloomfield Historical Society Academy building for the 10,000 square foot building it now occupies. The AWA has some 1,800 members worldwide.

Plans include recreation of the Delano control room, which contained equipment for monitoring and controlling all seven quarter-megawatt transmitters used at the facility (there were also four later ASEA Brown Boveri rigs, subsequently relocated to other VOA facilities), and the incoming audio feeds from the VOA's studio and operations facility in Washington, D.C.

The reassembly and display is on a strict timeline, according to Carns.

"We have to have the transmitter on display within 12 months of its removal date," he said. "We are under the gun to get the next stage of work done. As you can imagine, siting that transmitter is not a trivial task. You just don't open the door and push it in."

While it's obvious that the 250,000-watt behemoth will never hurl its thunderbolts again (it required a 4,160 volt three-phase power connection and drew some 500 kilowatts), the museum does plan to supply low-voltage power to the big rig's indicator panel to simulate its operation for visitors.

According to Hobday, plans have been made to put the transmitter on dis-

(continued on page 22)

Two large trucks were needed to transport the 821A-1 transmitter and associated control room equipment.

World Radio History

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World Radio History

PEOPLE NEWS

Mary Beth Sewald
Nevada Broadcasters Association
began her term as president

Kris Smith
PodcastOne
replaces Rob Greenlee as chief technology officer

Tony Banks
iHeartMedia
was named regional programming manager for St. Louis, Wichita (Kansas) and Springfield (Illinois)

Karam Kaul
Harman's AKG
was chosen as director of marketing

Bob Heil
Heil Sound
was named an honorary Doctor of Music and Technology from the University of Missouri at St Louis

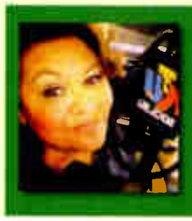
Chuck Alexander
Burk Technology
joins the company as executive vice president

Kim Bryant
Westwood One
will serve in the newly created position of executive vice-president of West Coast Sales

Eric Boyer
Harman's AKG
will head sales efforts as vice president of worldwide sales

Rich Davis
iHeartMedia Seattle
was tapped as VP of programming and program director for KISS(FM)

Jim Ryan
CBS Radio
was upped to senior vice president of programming and will continue to serve as PD for WCBS(FM) & WWFS(FM)



Micki Gamez
iHeartMedia San Antonio
was named assistant program director for KZEP(FM)

Doug Carnell
Full Compass
joins the executive team as chief operating officer

Send information to radioworld@nbmedia.com *with People News in the subject field.*

DELANO

(continued from page 20)

play by summer 2015. However, funding is still needed to create the complete exhibit. Carns said a fundraising effort is underway to support the Collins transmitter project.

"We've been fortunate that people have donated toward the extraction and moving of the transmitter, but we're now looking for support to allow us to develop the next phase," said Hobday. "We're developing plans for a 400-square-foot display. Imagine being able to stand in the control room of the Delano station, listen to the Voice of America programming going on, and see the transmitter just beyond the control room.

"You ask anybody under 35 years old now and they have no idea what the Voice of America is. We have a responsibility to tell their story — what it means to freedom."

WHAT'S NEXT FOR DELANO?

As previously reported, the U.S. General Services Administration had the final say as to what would happen with the Delano property, which consists of a 20,000 square-foot building and several smaller support structures, along with numerous HF antennas, on a nearly square mile of land in California's San Joaquin Valley.

Photo by James E. O'Neal

Bob Hobday poses with the remote control unit for the three Collins systems.

When contacted in late 2013, David Evans, a supervisory property management officer at the IBB, stated that proposed plans for the property, including its use as a U.S. Marine Corps training facility and a homeless shelter, had fallen through and that the GSA was readying to auction the property to private sector interests. However, in a November 2014 telephone conversation, Evans reported another twist in the facility's long history.

"The City of Delano has put in an application to create an airport on the site," said Evans. "And the FAA has asked the city to do a feasibility study."

If this scenario is approved, it's conceivable that part of the former broadcasting facility might live on as administrative and support facilities for the proposed airport; however, the antenna farm with its two large curtain arrays and numerous rhombics would have to go. Evans reported that the antennas were still standing and that the two remaining Collins 821A-1 transmitters remained in place in the cavernous building.

"The other two transmitters are still on the VOA books until GSA turns them over to whomever gets the land," said Evans.

For additional information on the project how to provide support for it, visit *www.antiquewireless.org, collinsradio.com* or *collinsradioheritagegroup.org*.

Comment on this or any story to radioworld@nbmedia.com.

World Radio History

Comrex Brings Reliable Remotes to Dixie Country

Linking from a high school football game is easier with Comrex Access codecs

USERREPORT

BY GEORGE "G-MAN" HENRY
Host & Program Director
WDXX(FM)

SELMA, ALA. — WDXX, Dixie Country, is a 50,000-watt FM country station in Selma, Ala., with an additional 100,000-watt FM station, WINL, in Demopolis, Ala. We've branded the stations, so instead of calling it Dixie 100, we branded the whole footprint Dixie Country. No matter where you are, if you can hear the station, you're in Dixie Country.

The audience potential between the two signals is just over a million people — during non-primetime hours, we carry mainstream country music, but during our primetime talk show hours, we focus on community-based programming. The footprint stretches across much of Alabama to the Mississippi border

Until a few years ago, we were using early '80s technology — in fact, it would be late-'60s technology, with regards to the Martis themselves. When we had the opportunity to upgrade, and become a bigger radio station, I had to be the one to figure out how all this was going to work.

What we needed was a way to get the audio successfully from Point A to Point B without it sounding like there's been a serious loss in quality. We got two Comrex Access units, which I had heard about but had not experienced. To begin with, we used these as the link between the Selma studio and the Demopolis studio, and we used the bilateral function to send and receive from both directions. We set up a full studio in Selma, where the live portion of our broadcast originated, and we'd receive it in Demopolis and send it to our transmitter, and you never could tell from where it was originating.

REMOTE

We broadcast frequently from high school football games, as part of our local programming. To make our remotes happen, we use a Comrex Access portable. With the Comrex portable unit, we have the ability to do a remote from anywhere.

We saw off the bat that was a great thing — if we had an issue, we could change the network on which we were broadcasting. In addition, there are smartphone apps for Access that we're beginning to experiment with — these have the potential to make our remotes easier, as well.

The customer support has been exceptional. I never feel like I need to jump through hoops to get somebody on the phone. There was one time when my portable wouldn't restart, and I was able to get a portable unit from Comrex the very next day.

It's a joy to be able, wherever you go, hear your radio station playing because it's so community involved. Comrex is a large part of our community programming.

For information, contact Chris Crump at Comrex in Massachusetts at (978) 784-1776 or visit www.comrex.com.

ABOUT BUYER'S GUIDE

Radio World publishes User Reports on products in various equipment classes throughout the year to help potential buyers understand why colleagues chose the equipment they did. A User Report is an unpaid testimonial by a user who has already purchased the gear. A Radio World Product Evaluation, by contrast, is a freelance article by a paid reviewer who typically receives a demo loaner. Do you have a story to tell? Write to bmoss@nbmedia.com.

TECHUPDATE

GLENSOUND CUB NOW SHIPS AS A KIT

Glensound's Cub iPhone interface for broadcast now ships as a kit, with all the leads and connections required.

The Cub is a small beltpack-sized unit that connects to an iPhone or PC to give bidirectional two-channel audio between the devices. It is a two-channel digital mixer with two inputs (mic/line/48 V) allowing for two separate mics or a single stereo input on two XLRs. There are two 1/4-inch jack outputs for headphones as well as local XLR outputs. Standard broadcast headphones, microphones and headsets can be used with the Cub. The audio link to the iPhone is digital at 24-bit/48 kHz.

Radio news or sports reporters can use the Cub as a suitable interface to their iPhone when using IP codecs from companies like Tieline and its Report-IT app, or other IP codec options. The Cub also acts as a high-quality interface for recording mono or stereo directly to the iPhone.

As the Cub is a USB interface, it can also be used at a studio location as an interface for recording and monitoring directly with a PC or Mac.

The kit includes the Apple lightning connector and 30-pin adaptor, a USB cable, power supply, shoulder strap and solid foam-lined case.

For information, contact Glensound/GMA LLC in California at (818) 701 6201 or visit www.glensound.co.uk.

World Radio History

TECHUPDATE

TASCAM PLUGS INTO MICS

Equipment maker Tascam has developed a product to give new life to old dynamic microphones that may be lying around gathering dust in this era of smartphones and handheld digital recorders.

The DR-10X is a plug-on recorder similar in design to a handheld wireless microphone XLR plug-on transmitter. It uses a microUSB card as its media. Digital BWF files are recorded at 24-bit/48 kHz. The DR-10X has both manual and automatic gain settings, with a low-cut filter and limiter to prevent overloads.

A "dual recording" mode captures a copy of the audio at a lower level, so if there is distortion you have a backup safety. The recording button is a sliding mechanical switch to prevent accidental activation or deactivation such as can happen with small "chiclet" buttons or simple film-covered buttons.

Expected battery time (single AAA) is 10 hours.

The company says that it will also work with battery-powered condenser microphones.

For information, contact Tascam at www.tascam.com.

Report-IT Saves the Day for "Watchdog"

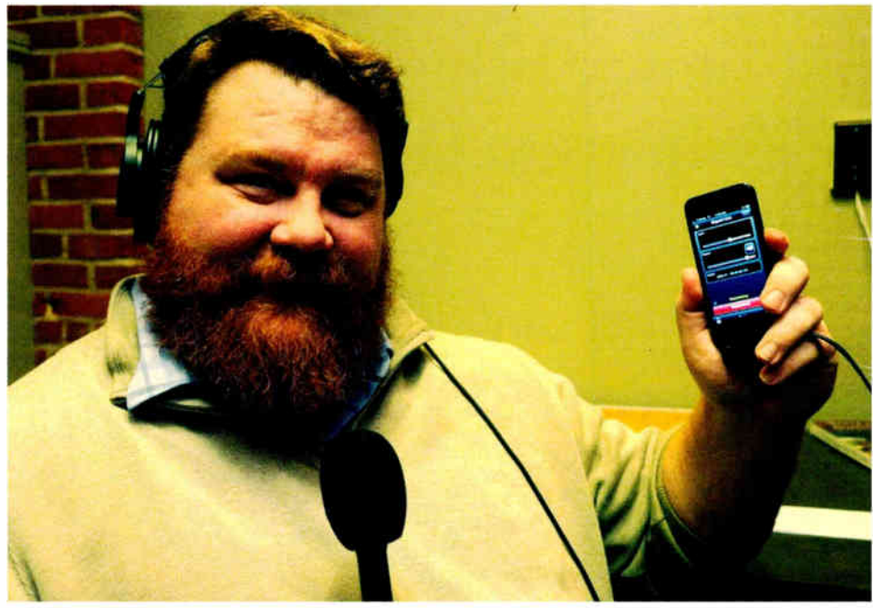
Internet broadcaster avoids power loss with wireless codec app from Tieline

USERREPORT

BY BENJAMIN YOUNT
Executive Producer and Host
Illinois Watchdog Radio

LINCOLN, Ill. — My list of fears includes clowns, spiders, heights and power outages.

Why power outages you may ask?



I used to be terrified of losing power before or during my two-hour talk show, "Illinois Watchdog Radio." Then one day the worst happened. A backhoe bumped the power line and the entire block went dark — including my home. This occurred only 10 minutes before I was scheduled to be on the air from my home studio, and the other studio was a 45-minute drive.

Initially I started to worry about how to get on air, then I remembered I had Tieline's Report-IT app on my iPhone.

I quickly set up a small four- channel board and mic at the dining room table and called up the Tieline Report-IT app to dial the studio.

My iPhone — specifically my Tieline Report-IT app — saved me. I was on the air on time, and didn't have a glitch or a dropout once during the two hours I was live.

I ran the feed from the mixer through a line-in/line-out connector I bought from KV Connection that works perfectly with my iPhone 5. Our reporters use the same kind of cables with Report-IT.

Watchdog.org uses the Tieline Report-IT Enterprise app to connect our 20 reporters across the country. They love the app. It makes podcasts, newscasts and live coverage easy. I also use it to host my daily talk show when I am on the road, or when I am without power.

We use Tieline's Merlin Plus codec to manage incoming IP connections at the studio end. The codec is reliable and it's a fantastic piece of gear. Along with Tieline's Report-IT app, it makes a neat solution and Report-IT provides studio-quality audio from just about anywhere you have a cellphone or Wi-Fi signal.

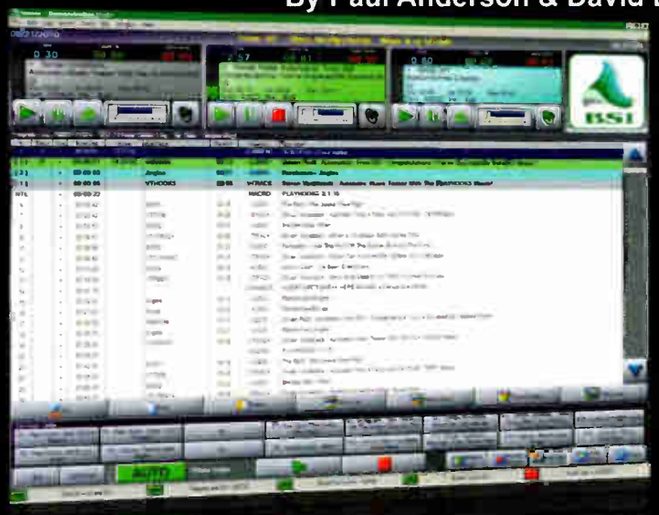
Now if Tieline could only do something about my fear of clowns …

For information, contact John Lackness at Tieline USA in Indiana at (317) 845-8000 or visit www.tieline.com.

World Radio History

Streaming Made Simple! With Simian 2.2 Pro & Lite

By Paul Anderson & David Bowman of KOUU



Paul Anderson at KOUU in Pocatello, Idaho

Idaho Wireless Corp is a small market group in Pocatello, Idaho, and we're the only independently owned and managed radio group left in our market. As technology evolves we evaluate the costs and benefits of each change, and streaming was one of those projects.

When we changed the format January 1st on our 50,000 watt AM KOUU to Country Classics the response was immediately positive, but our audience wanted to listen in their offices and on their smart phones. We had considered streaming KOUU in the past, but the expense and complexity meant it was always a project that got pushed back to "later".

In 2009 we installed our first Simian system, replacing a beloved but tired Scott Studios system. We were ready for the benefits of a Windows based system that had more features, and we found that Simian is easy to use, powerful, and installation was a breeze. Since then we've converted all of our stations from Scott to Simian.

Simian offers many options to set up streaming. Country KOUU audio streaming is being outsourced to a third party (Crystal Media Networks) using data provided by Simian. Using the Metadata tab in Program options is where all the set up takes place. Crystal Media Networks required certain parameters to interface with their streaming player. The majority of the setup is all contained in an .xml file.

To create an .xml file, use Notepad and type in the syntax for each parameter required by the streamer (Syntax for Artist is <artist><![CDATA[%ARTIST%]]></artist>). Simian support can help with this, or a template is pictured in the Simian Pro Manual. In the case of KOUU, Artist, Title, Filename, Category, and Length of each piece of audio was provided to Crystal Media Networks. This file becomes the Template File.

Some final setup is required. The template file is loaded in the Metadata tab in Program Options in Simian. The IP Address corresponds to the computer that will be accessed by the streaming software. This computer needs to be networked to the on air Simian computer. The port and TCP/UDP address is set up with information provided by the streaming company (in the case of KOUU, Crystal Media provided this information).

All of the programming for KOUU is played by the Simian Pro system. In order to stream with more than one source (i.e. switching from local audio to network audio like a satellite receiver) Data Repeater-available from BSI-can handle multiple metadata sources and destinations.

Our streaming project for KOUU was easier than we imagined. The support team from BSI and the streaming features of Simian made it simple.

Paul Anderson is the General Manager of KOUU, KZBQ and KORR. David Bowman is the Operations Manager. KOUU uses Simian Pro, though the metadata output features of Simian Pro are also available in Simian Lite. Simian Pro & Lite contain built in metadata output templates for Windows Media Encoder, ShoutCast, IceCast, SAM Cast, Live365, Orban Optimod, and Omnia A/XE. Metadata output in Simian Pro & Lite is template based, so most stream encoders not listed are compatible.

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World Radio History

TECHUPDATES

AETA SCOOPFONE GETS HD VOICE

AETA Audio Systems' ScoopFone HD is a professional mobile phone for inserting telephone calls with 7 kHz (HD Voice) audio bandwidth into the broadcast chain.

While IP-based solutions may suffer from high latency and packet losses, the ScoopFone family uses a dial-up connection over 3G mobile networks. Added HD Voice delivers higher-quality voice transmissions by extending the frequency of range of traditional or narrowband voice calls (300 Hz to 3.4 kHz) out to wideband audio ranges (50 Hz to 7 kHz). The 7 kHz wideband sound quality allows the full range of the reporter's voice to be heard. Unlike mobile data links, HD Voice delivers a priority connection with secure quality once the call is established, with lower cost and lower latency. AETA says HD Voice now is used by some 116 mobile operators in 75 countries.

The ScoopFone HD works with any microphone and offers mixing between one microphone/line and a second line input. The interface allows journalists to operate the ScoopFone HD with confidence under pressure, the company says. It is powered by rechargeable NiMH battery with an integrated charger or standard AA batteries, and should provide up to seven hours of continuous operation.

A diversity antenna system gives robust transmission performance in marginal conditions.

The AETA ScoopFone line will soon be expanded with the ScoopFone HD/IP, a VoIP-capable unit.

For information, contact AETA Audio in France at 011-33-41-36-12-00 or visit www.aeta-audio.com.

INMARSAT ISATHUB CONNECTS SMART DEVICES

The Inmarsat IsatHub provides a personal and secure communications network, allowing users to connect and use personal Wi-Fi-enabled smart devices when beyond the reach of terrestrial mobile and fixed networks anywhere in the world.

The service is accessible via a small, lightweight terminal that is less than half the size of a standard laptop. Multiple users within 100 feet of the terminal can connect their personal devices — iPhone, iPad, Android phones and tablets, etc. — to simultaneously talk, text, access the Internet and mobile applications.

Once the IsatHub connection is established, users can gain access to the IsatHub service through two applications — the control app and the voice app — on their smart device, allowing them to use both its data capabilities and dedicated high-quality voice line.

The control app has additional features such as set-up assistance, full control over additional device access, as well as visibility of data usage from each device sharing the IsatHub connection. The voice app enables users to make and receive voice calls on their device via IsatHub's dedicated high-quality voice line, as well as sending and receiving text messages, even if the device is for Wi-Fi use only. The IsatHub control app and voice app can be downloaded from the App Store or Google Play.

Radio journalists in the field can use IsatHub's dedicated voice line for live reports and can use the data connectivity connection offering of up to 384 kbps to upload and send recorded reports and interviews for airplay. A single IsatHub terminal and connection can support multiple journalists at the same time.

For information, contact Inmarsat in England at 011-44-20-7728-1000 or visit www.inmarsat.com.

PETITE USB MIC FROM IK MULTIMEDIA

The NAMM show in Los Angeles is aimed at the musical instrument market but it offers many products that could be of interest to radio broadcasters. One item seen at the show is the IK Multimedia's iRig Mic Studio.

The iRig Mic Studio is a petite microphone that looks bigger than it really is. It is designed for PC and mobile device use so it comes with a number of cables featuring micro-USB on one end and the connector to accommodate a tablet, smartphone or PC.

Inside there is a one-inch diaphragm condenser capsule. It offers gain and headphone volume controls along with a 44.1/48 kHz A/D converter. It also ships with a variety of recording and processing software for the various platforms. The iRig Mic Studio is also compatible with most DAWs.

For information, contact IK Multimedia in Florida at (954) 846-9101 or visit www.ikmultimedia.com.

PRESONUS PRESENTS THE AUDIOBOX ISERIES

Audio equipment manufacturer PreSonus has a new line of USB digital audio interfaces, the AudioBox iSeries.

The AudioBox iOne and iTwo are USB 2.0 interconnects along with being USB-powered. The iOne is a single-channel model with one XLR and one 1/4-inch analog inputs. The iTwo offers two front-panel XLR/1/4-inch combi connectors and MIDI I/O on the rear. Both units offer 24-bit/96 kHz conversion, internal mix control, headphone output and speaker outputs. The phantom power mic preamp sections are of a Class A design.

The AudioBoxes are compatible with Mac and Windows computers along with Apple iPads. They are also compatible with PreSonus' Studio One Artist DAW and Capture recording software.

For information, contact PreSonus in Louisiana at (225) 216-7887 or visit www.presonus.com.

BEHRINGER'S USB EUPHORIA

Behringer recently released new members of its U-Phoria line of USB 2.0 audio interfaces that could interest radio production personnel.

The UMC404HD would seem to be the most interesting. It's a four-channel model with four XLR-1/4-inch combi inputs. Each channel has a gain control, mic/line switch and a pad. The preamps are described as being Midas brand. For condenser microphone usage there is 48 V phantom power. It also has a mix control and headphone controls.

On the rear panel are RCA, 1/4-inch and XLR outputs, four inserts along with MIDI I/O.

Digital conversion is 24-bit/192 kHz. Behringer says it is compatible with major DAW programs.

For information, contact Behringer at www.behringer.com.

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2" plastic "spot" reels 6.5 or 8" diameter, as used for quad video. Wayne, Audio Village, 760-320-0728 or audiovlg@gte.net.

Equipment Wanted: obsolete, or out of service broadcast and recording gear, amplifiers, processing, radio or mixing consoles, microphones, etc. Large lots preferred. Pickup or shipping can be discussed. 443-854-0725 or ajkivi@gmail.com.

I'm looking for San Francisco radio recordings from the 1920's through the 1980's. For example newscast, talk shows, music shows, live band remotes, etc. Stations like KGO, KFRC, KSFO, KTAB, KDIA, KWBR, KSFX, KOBY, KCBS, KQW, KRE, KTIM, KYA, etc, I will pay for copies... Feel free to call me at 925-284-5428 or you can email me at ronwtamm@yahoo.com.

Looking for a broadcast excerpt of a SanFrancisco Giant's taped off of KSFO radio from 1959, interviews with Willie Mays, Dusty Rhodes & some play by play excerpts, also features a homerun by Willie Mays and Felipe Alou stealing second base, running time is 18:02, also looking for SF Giants games and/or highlights from 1958-1978 also taped off KSFO Radio. Ron, 925-284-5428 or ronwtamm@yahoo.com.

Looking for KFRC signoff radio broadcast from 1930 Andy Potter, running time is 0:22 & also the KLX kitchen the program guest is Susanne Caygill, a discussion of women's affairs with a long promotion for Caygill's appearance at a local store. Anne Truax, Susanne Caygill, running time is 13:44. Ron, 925-284-5428 or email ronwtamm@yahoo.com.

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World Radio History

Why Do We Need Public Files, Anyway?

Eliminate regulatory underbrush to keep the little guys in the game

COMMENTARY

BY RICHARD J. HAYES, JR.

The FCC has released a Notice of Proposed Rulemaking seeking to expand the online public file requirements to include terrestrial radio licensees. The commission already requires TV stations to make public files accessible online.

Recently, I filed formal comments questioning why most radio stations should be subjected to the new rule and challenging the requirement for maintaining any public file at all for most radio stations.

The commission's stated goal is the same as the previous TV proceeding, "to modernize the procedures broadcasters use to inform the public about how they are serving their communities, make information concerning broadcast service more accessible to the public, and reduce broadcasters' cost of compliance ... [These] online public file rules were the culmination of a more than decade-long effort to make information regarding how a broadcast station serves the public interest easier to understand and more accessible, promote discussion between the licensee and its community, and lessen the need for government involvement in ensuring that a station is meeting its public interest obligations."

What is not addressed is whether the time has come to eliminate this requirement for most radio stations. I believe it has.

The requirement was established in 1938 when the industry was as new and as exciting as the Internet is today. Radio, however, is no longer the dominant voice in the marketplace. While it is still important to listeners, it enjoys little of its early dominance and excitement. There are dozens of new media to choose from, and radio's slice of the marketplace of ideas has dwindled. Radio has become an entertainment medium. Few stations editorialize for fear of angering an advertiser. Except in very large markets, news and information is almost impossible to find. People look to the Internet for news, commentary and information; and almost everyone has the tools to be a news reporter given the smartphone photo and video access to sites such as Facebook, Google, Twitter and a host of others.

So what is radio's public interest requirement in this more modern age?

WHAT'S THE MEANING OF THIS?

Neither word — public nor interest — seems to have been parsed in this proceeding. The assumption is that the public's interest in the medium has not changed in 76 years; but the public has changed and its interests have changed.

The public does not look to radio, for news and information, except in times of local or national emergency. The public turns to radio for music and entertainment. The public is not interested in how radio stations are owned, managed or programmed, as they might have been in the industry's infancy. If the public likes what it hears, it listens.

Back in 1938, we didn't have thousands of stations to choose from or ratings to help determine if a station was resonating with its listeners. Today, the smart broadcaster adjusts his programming to suit the whims of the listener. Anathema to an entertainment format would be a public affairs program on an upcoming sewer bond proposal.

Broadcasters have learned that such programming drives listeners away. That is why public affairs programs are aired during periods of low listenership, on Sunday mornings at 5 a.m. The FCC requirement to air public affairs programs is fulfilled, but the gesture is meaningless.

Furthermore, most stations in smaller markets have no money to produce meaningful public affairs programs, so they air programs that are available free from sources such as their national network (if they have one), state broadcaster associations, colleges or extension services.

Issues lists often are reverse-engineered and reflect what free programs are available, and the charade of public service continues. If the public is not interested in obtaining this information from radio, how can such a requirement be in the public interest?

REALITY CHECK

The FCC should adapt its communications regulations to reflect that the vast majority of radio listeners don't want news, information or public affairs programs to interrupt their entertainment experience. When they want debate or discussion, people turn to social media. That's where most consume news and information and that's why even the White House doesn't rely on radio the way it used to.

Yes, there are people who consume news on the radio, and most live in one of the 19 markets that feature all-news stations. Some have substantial followings. There are 19 all-news stations in the U.S., and 11 offer news "full-time." The rest offer the format on a part-time basis in particular dayparts. NPR also offers news programming but it appears to be more niche in in its offerings than most others.

All-news is the most expensive format in radio. That's why it is not available in every market and new entrants to the format recently failed miserably in New York and Chicago. FCC rules need to take this reality into consideration and stop pretending that it's 1945 and that radio is the primary source of news and information.

REAL-LIFE EXPERIENCES

I conducted an informal poll of my clients; 13 responded representing 37 radio stations.

I asked one question: Has anyone from the general public ever asked to inspect your public file? All respondents said no. In all cases, only an FCC inspector or disgruntled competitor has asked to see these files.

Moving public files to the FCC's Internet servers serves no practical purpose. The FCC is wrong when it claims that the public wants and needs an easier way to view those files.

Two of the stated goals in this proceeding are to reduce costs of compliance and to reduce government oversight. This proposal does not reduce costs of compliance and actually puts the government at the center of the effort. In fact, the costs for compliance will significantly increase along with the government's involvement. The NPRM adroitly glosses over these points.

REDUNDANCY

Today, the FCC's website contains almost all of the information required to be in a public file with the exception of the Issues Lists and Programs lists, the political advertising requests and some contract information, which usually pertains to how the station was purchased.

There is no compelling reason individual stations need to upload all of their public file materials when 90 per-

(continued on page 30)

WRITE TO RW

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World Radio History

PUBLIC FILE

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cent or more of the information is available at *fcc.gov*.

Preparing issues and programs list and airing of public affairs programs are rules that no longer have relevancy. Why must radio go through this empty gesture?

Contract information is of no interest to the public, either. It may have mattered 76 years ago, but such information is not sought today. If the FCC believes that contract information is still vitally important, it could require that the contract information be supplied at the time an application is filed. That way, the information is appropriately part of the application and as such, the public could easily find it online.

The political files are statutory and can't be eliminated in a rulemaking proceeding. To address this issue, stations could easily keep a paper-based file of political time requests and their dispositions, as most do, now.

Our industry can be divided into two groups: publicly traded companies, such as iHeartMedia, Cumulus and others; and then everybody else.

The publicly traded stations use Wall Street investor money to acquire stations. They have thousands of shareholders with little skin in the game beyond their initial stock purchase. The privately owned stations are run by moms and pops and hopeful entrepreneurs. The "little" guys have their entire lives wrapped up in their stations and are mortgaged to the hilt.

The locally owned stations are operating on a shoestring in most markets below market 50. I hear stories every day of how owners go without paychecks just so they can pay the bills. Forcing these stations to make the transition to an online public file on the FCC's servers will create another regulatory burden that stations cannot afford.

If the FCC persists in keeping its outdated, duplicative and irrelevant file requirements, perhaps it should do so for the publicly traded station groups or in markets larger than market 50. For small markets, this 76-year-old rule needs to see its sunset.

The FCC needs to understand that small-market stations will serve the needs and interests of their markets because their investments and their livelihoods depend on it.

To keep this industry vital, the FCC needs to eliminate regulatory underbrush, yield to the new needs and interests of the marketplace and eliminate rules that serve no purpose in the modern age. It needs to understand that small-market stations *will* serve the interests of their markets because their investments and livelihoods depend on it. They can easily tell, from the ratings and from their advertisers, if their efforts hit the mark.

So what real purpose might there be in this online public file proposal? Perhaps it's nothing more than a "red-light camera," making it easier for the FCC to hand out $10,000 fines. If all of the public files are stored on its servers, it would be easy for a staff member to review public files with an eye toward making lists of violations.

ONE SIZE DOESN'T FIT ALL

If we eliminate issues lists and programs lists, and the cacophony of pointless public affairs programs the regulation produces, what yardstick do we use to measure whether a station has served the needs and interests of its community?

First, we can probably agree that airing programs no one wants to hear does not demonstrate whether a station serves the public interest. Perhaps for the next 10 years we simply eliminate the requirement and watch what happens. I believe the free market will dictate, better than the government ever could, how stations should serve their communities. If a station ignores the needs and interests of its community, it will not survive.

Stations know that there is good money to be made in community-based programming, and many stations have invested heavily in the concept within the scope of their formats. Why? Because it makes them money.

Unfortunately, many of these efforts do not satisfy the rigid issues and programs lists requirements, so stations cannot take credit for them the way they can if the program is a stodgy public affairs presentation. It could be argued that the archaic rules actually are a disincentive to stations to better serve their markets because they force adherence to a programming model that is outdated and boring. Free these stations from those constraints and we will see more appropriate community service efforts that are far more interesting and inventive than what we are getting, now.

Instead of an outdated requirement to produce quarterly issues and programs lists, it would be more meaningful (and less costly) for stations to submit an annual report to the FCC detailing what it has done during the year to address the needs and interests of its community. If the FCC wants to make those reports publicly available, it can easily do so through *fcc.gov*.

Now is the time to lighten the regulatory burden faced by broadcasters. It is *not* the time to increase that burden. The outdated public file requirements need to be eliminated in all but the very largest markets or for publicly traded companies only. Stations need the freedom to decide how to best serve the needs and interests of their communities.

Richard J. "Rick" Hayes, Jr. started his career in radio at the age of 14. As a communications attorney, he has represented radio clients in small and medium markets for over 33 years.

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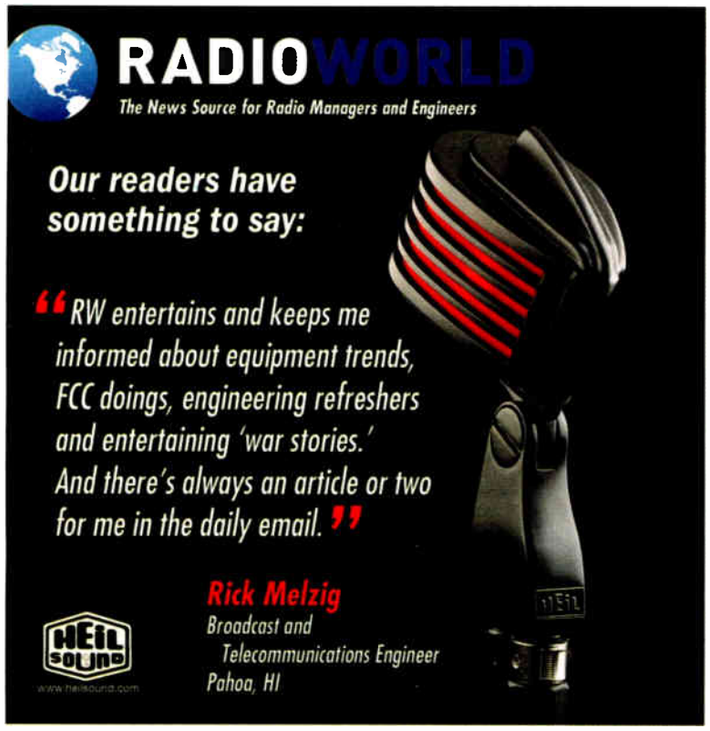

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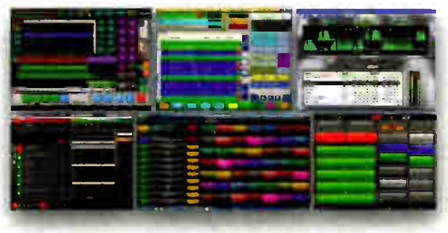

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