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iHeartMedia Bankruptcy Filing Brings Questions

Financial move is in spotlight at firm that still considers itself "America's #1 audio company"

BY RANDY J. STINE

The Chapter 11 reorganization of iHeartMedia is just getting underway, but already there has been speculation that the radio giant will shed radio stations during the process, even though company leaders say there will be no wholesale liquidation of properties.



At the time of its filing in March, the broadcaster said it had reached an agreement in principle with a majority of its creditors and financial sponsors to trim its oversized debt by at least \$10 billion via the reorganization; but court documents reveal lots more wiggle room with its stakeholders to drive down debt even further, analysts say. The San Antonio-based company listed \$12.3 billion in total assets and \$20.3 billion in debt in paperwork filed with the U.S. Securities and Exchange Committee.

The Chapter 11 process gives iHeartMedia some "breathing space," as one legal observer put it, since it effectively is

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Stormy Seas Ahead for Pirate Operators

The FCC is taking a hardline approach and partnering with law enforcement and Congress

BY SCOTT R. FLICK, JOSEPH A. COHEN AND WARREN KESSLER

The authors are communications lawyers with Pillsbury.

Since the government first began regulating the airwaves, it has struggled to eliminate unlicensed radio operators.

In its latest effort, the FCC is taking a hardline approach to this illegal behavior and is partnering with local and federal law enforcement, as well as Congress, to accomplish the task. While Chairman Pai has made clear that pirate radio prosecutions are once again a priority at the FCC, it is Commissioner O'Rielly

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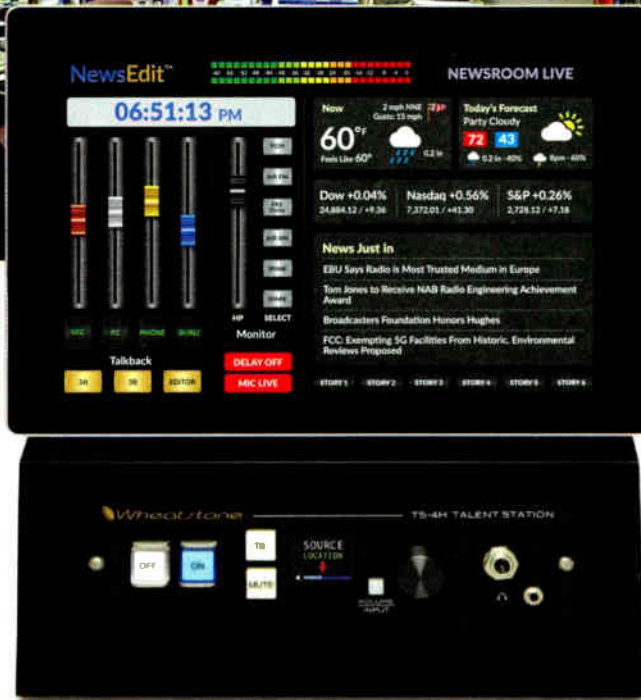
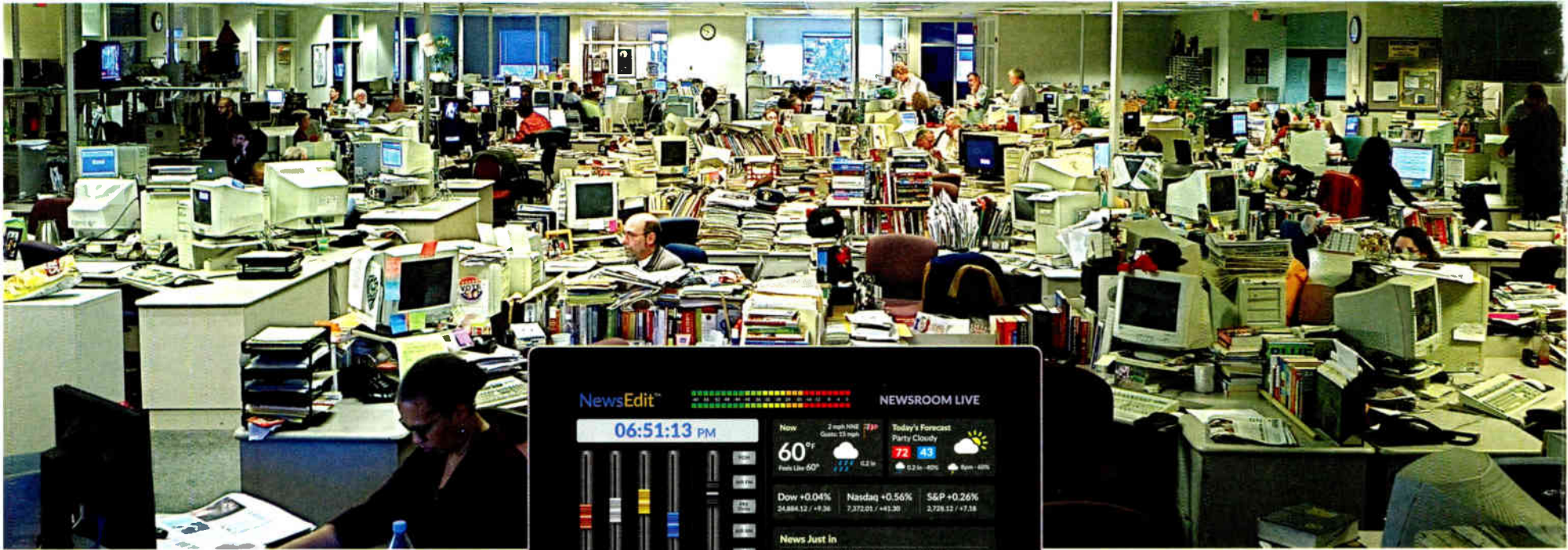


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Travis Gilmour, right, at work on a project in California.

With Video, Do What You Already Do Best: Tell Stories

How do you translate a DIY storyteller mentality to a traditional broadcast outlet?

VISUALRADIO

Travis Gilmour is co-owner of Video Dads, an Emmy award-winning production company specializing in video storytelling for documentary, corporate and public media clients. Video Dads also run the site geardads.com, which provide video and audio gear reviews for professional media producers.

This story appeared in the Radio World eBook "Visual Radio 2018."

Radio World: *Having spent a lot of time with radio people seeking to think visually, what advice can you offer?*

Travis Gilmour: As a professional video producer, media trainer and fellow storyteller, the biggest advice I give to folks looking to get into more visual forms of storytelling is "go for it." The beauty of this advice in 2018 is that it doesn't come with a built-in gear purchase checklist, a list of specific software to master or any of the budgetary and planning questions that came

along with that even a few years ago.

With the ubiquitous availability of excellent tools (smartphones) and platforms (Facebook, Instagram, YouTube, traditional blogging), the essential key is to do what you already do best:

Find the most compelling stories you can and tell them. And if you think about it, seasoned reporters and other radio talent, regardless of background, actually have an edge over the masses of newbies diving in to the storytelling profession every day: You have the experience, the story ideas and associated contacts, and an established audience and their trust.

Of course, this is not denying that there is a definite path towards improving, building audience, dedicating more and more time to the craft of visual content production, using more professional gear, mortgaging your house to purchase said gear, etc. But when asked, "How do I start on my journey to



becoming a visual storyteller," the answer is in the question: Start!

RW: *Can you give examples of radio organizations "thinking visually"? Through what tools or platforms?*

Gilmour: I'll answer in a roundabout kind of way by talking about how I use and

think about social media platforms — YouTube, Facebook and Instagram.

If I were starting out fresh today, I think I'd become a YouTuber. I'd pick a specific topic I enjoy — say, shooting vid-

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eos or old motorcycles or really good coffee — and start making videos about it.

I'd set out to make my first video in a day or less with tools I had on-hand — get to it, get it done and upload it. Phew. The hard part is over ... I've started something.

From there, I'd set myself a simple schedule. Something consistent, but doable ... say, one video a week. That rule, no matter what it was (one a day, week, month) would be sacrosanct. Then I'd set to work without too much ceremony. The videos would be a mix of style and genre: reviews of products I already use, DIY tips and tricks, more lengthy hands-on how-tos. If I was at a loss for video types and styles, I'd find a successful YouTuber I liked and copy the hell out of them.

Once I had a few videos under my belt, I'd spend time promoting them to places on the internet where my niche audience might congregate — a specific Reddit sub dedicated to my area, traditional website "forums" where people post, industry blogs, etc.

It's best to pick a platform that you like and focus on it, rather than go and create an account on every platform and spread your content (and time) too thin.

—Travis Gilmour

But remember: To be "of the internet," you have to be a full participant. You need to comment and respond to comments, foster relationships, dedicate time and energy into generating unique content and your own point of view. Then I'd lather, rinse and repeat.

If I was too busy to start a full-fledged new YouTube world, I'd maybe start smaller. My favorite low-impact social media engagement tool is Instagram. It's not nearly the convoluted time suck that Facebook can be (yet!), and it gets straight to the visual part of storytelling that grabs people. It's not a huge investment for the creator. And now with the addition of Snapchat-like features in the "Stories" medium, it's only getting richer and more versatile.

But in order to stand a chance at building a following on Instagram or any platform, you have to be a user and start to learn how people use it and why. So get the app, log in, follow some of your competitors, industry leaders or just some interesting celebrity types, and take it in. Elevators and the line at the bakery are great places to start.

Like most everyone, I'm a little tired of Facebook. But in the past year or so, we've

done a few Facebook Live video streams for clients and industry partners; and marketing folks love the level of engagement and amount of time people will spend watching and asking questions.

Think of it as a really informal webinar; you need a very clear topic, which you should be able to cover in 10 minutes (or less!) in a pretty compelling way. Be yourself — be funny or dry or whatever you are, but be authentic.

Of course, just like with a webinar, you'll need to advertise that you're doing it, using both your traditional and social media channels. But if you do them regularly, people will start to follow and anticipate them. From there, as with a traditional webinar or in-person panel discussion, the real meat of the engagement comes from the Q&A and audience participation. Be open to answering questions at any time they pop up on the screen ... because that interaction is what this is all about. It's a social medium, after all.

Overall it's best to pick a platform that you like and focus on it, rather than go and create an account on every platform and spread your content (and time) too thin.

RW: How can radio people monetize video, for profit or more effective fundraising?

Gilmour: "But can it make money?" is one of the big "what ifs" that keep good ideas in the boardroom or at the staff retreat. Unfortunately, nobody can answer that question for you except you.

That said, think of it this way: Whether we choose to realize it or not, we're in a golden age of audio storytelling. You can call it the "Podcast Boom" or think of it as a shift in the way people are getting their audio content, but the truth is more people than ever are getting into "the business" — and more often than not they're doing it DIY, outside of the traditional broadcast ladder.

If you listen to successful or even middlingly successful podcasts, you'll find something familiar to folks in commercial and public radio: the commercial underwriter. Major online brands like Stamps.com, Blue Apron, Casper mattresses, website companies like Squarespace and Wix — they're all over the underwriting of the podcast world. And if the number of podcasts, their audience share and the continued growth of that area are indicators,



A video for the PBS Digital Studios web series "Indie America." Watch it at <https://youtu.be/aHZG8tJWXtM>.

people are making money.

The same is true for video. Our small town of about 50,000 has more than one person who is a full- or part-time YouTuber, which means they've been able to give up the day job and focus their energy completely on their monetized content. The secret to this is not necessarily that these folks are the next primetime broadcast-stars-in-waiting, but rather that they found their particular niche that they are truly passionate about, and they treat it like a full-time job. And the commute is pretty nice.

How do we translate this DIY self-starting storyteller mentality to a traditional broadcast outlet? The short answer is that it might not be that easy. Say you find someone within the ranks of your staff who has the skills, passion and drive to become an amazing podcaster or YouTuber ... what's to keep this person from jumping ship and doing their own thing? Probably very little, at the end of the day. It's a problem. But that doesn't mean we can't study the success of the creators in this space and learn from them.

To me, the key lessons are *focus* — pick a storytelling niche you're passionate about and can do authentically; *persistence* — at first you will not succeed, but you must learn from it and keep at it; and *diligence* — you have to be consistent and post regularly or it's just not going to happen. Along with this must come a constant willingness to fail and tweak your approach based on the feedback you get every day.

RW: What skillsets should people pursue if they're interested in making themselves marketable visual communicators?

Gilmour: Again, you just have to start.

If it were me starting today, I would buy a decent DSLR or mirrorless camera and learn how to use it well. Something like a Canon 5D MKIV or Sony a7S II and a good lens or two. You can go cheaper and get good results, but think of the initial investment as a down payment on your having to put the time to actually learn to use the thing.

Every lesson or tutorial you could ever need for this type of equipment is already on YouTube, just waiting for you to pick up the camera and do something with it.

That exact path took me from not having picked up a professional camera since high school to being a multi Emmy-award-winning video producer in about three years; and it's done the same for my partner in Video Dads and geardads.com, as well as some of our students. Did other aspects of my life and career suffer as a result? Maybe. OK, probably. But you're always richer for the journey.

RW: What other questions should we be asking?

Gilmour: The biggest thing is "What am I truly passionate about?" If you can't find the answer within your current job, you should still pursue it; but you'll have to either make it fit in, or build it on the side until it becomes a full-time job.

I like to have an A, B and C path all going at one time, haha! Originally, I was a public radio and television fundraiser moonlighting as a video producer. Then I became a public television and radio video producer moonlighting as an independent video producer, media industry trainer, and an audio/video gear blogger. Now I'm an independent in all those things, working on a host of other projects to keep myself engaged and moving forward in my passions.

RW: Examples of good visual communication to share?

Gilmour: There are so many out there today that it's almost reductive to highlight any one. If you're passionate about a specific area, go Google it, search YouTube, Facebook or Instagram and find the person who's already doing it. If you don't find anyone, it's probably time to fill the void yourself.

If you're interested in my work and the work of my partner-in-crime Slavik Boyechko, you can check www.videodads.com or our gear review content at www.geardads.com.

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who has been the most vocal on this front, calling for more aggressive action against unauthorized operators.

The continued prevalence of pirate radio operations has been chalked up to several factors, including insufficient enforcement mechanisms and resources, the procedural difficulties in tracking down unregulated parties and lackadaisical enforcement until recent-

We are pursuing multiple legal routes to stop pirate broadcasters; the seizure action in Boston is just one of them.

— Rosemary Harold

ly. Regulators and broadcast industry leaders have also expressed frustration with the whack-a-mole nature of pirate radio enforcement — shutting down one operation only to have another pop up nearby.

REAL CONSEQUENCES

Congress has also begun to take an interest in the issue, with the House Subcommittee on Communications and Technology holding a hearing last week [in March] discussing the subject.

One of the witnesses was David Donovan, president of the New York State Broadcasters Association. In his testimony, he listed numerous risks that unlicensed operations present to the public, including failure to adhere to Emergency Alert System rules and RF emissions limits (which can be critically important where a pirate's antenna is mounted on a residential structure). Pirate operators also create interference to other communications systems, including those used for public safety operations, while causing financial harm to legitimate broadcast stations by diverting advertising revenue and listeners from authorized stations.

Despite these harms, pirate operations continue to spread. This past month, the FCC issued a Notice of Unlicensed Operation to a New Jersey individual after the FCC received complaints from the Federal Aviation Administration that an FM station's broadcasts were causing harmful interference to aeronautical communications operating on air-to-ground frequencies. FCC agents tracked the errant transmissions to the individual's residence and confirmed that he was transmitting without authorization.

Days later, the FCC issued an NOUO to another New Jersey resident who was

transmitting unlicensed broadcasts from a neighborhood near Newark Airport. Once again, FCC agents were able to determine the source of the signal and found that the property owner was not licensed to broadcast on the frequency in question.

In each of these NOUOs, the FCC stated that the transmission of unlicensed radio signals violates federal law and demanded the offenders immediately cease operations. Each party was given 10 days to provide the FCC with

any evidence that it is authorized to operate on the frequencies in question. The FCC will use these responses and any other relevant information available to determine what type of enforcement action it may pursue against these individuals. Violators risk fines, confiscation of contraband equipment and even imprisonment.

AN INCREASE IN ENFORCEMENT

The FCC's actions are not limited to New Jersey — the past 18 months have seen a major uptick in pirate radio enforcement actions by the FCC across the country.

According to unsealed court documents, the FCC recently teamed up with the U.S. Marshals Service and the Boston Police Department to seize radio transmission equipment from two unlicensed stations in Boston. In that case, the FCC began investigating the stations after receiving complaints from the public, including a complaint from a licensed broadcaster about interference with its signal. The equipment seizure came after the FCC issued several NOUOs to the unlicensed stations throughout the summer and fall of 2017.

One of the unlicensed stations was well-known in the area. Videos and photographs of live broadcasts were posted to the station's social media page during the weeks before and after the FCC's warnings. As of the end of March, the station still has an active website and social media presence. Its website prominently displays messages encouraging advertisers to reach out for on-air spots, and its social media page shows local community leaders and musicians at its studio.

*(continued on page 6)***Essential Digital Solutions!****DigiSwitch 3X1**

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iHEARTMEDIA

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an automatic stay against collection or other legal actions by creditors. "That respite is significant," the expert said.

The voluntary bankruptcy filing — the largest ever by a radio broadcaster — comes on the heels of Cumulus Media's Chapter 11 pre-packaged reorganization in November. iHeartMedia has about 850 radio stations plus digital, mobile, social and data platforms and products like the iHeartRadio app.

Most analysts don't expect iHeartMedia employees to see major changes during the early phases of bankruptcy. The company has said it does not plan to lay off employees or do a salary dump. While changes of some kind at the company are likely, bankruptcy experts note that cost-trimming usually comes before a Chapter 11 filing at the behest of major stakeholders.

A story in *Forbes* after the filing predicted a major station selloff with a much leaner iHeartMedia emerging on the other side of the reorganization; that could still happen, bankruptcy experts said. Townsquare Media for one has suggested it is positioned with cash in hand to be a player for selloff properties if iHeartMedia goes that route. We already know that Liberty Media Corp., owner of SiriusXM, made a play for iHeartMedia before the reorganization plan was submitted. And Bloomberg reported that iHeartMedia creditors were still exploring alternative proposals.

TECH PROJECTS CONTINUE

Meanwhile, day-to-day operations at iHeartMedia are unlikely to change drastically. The broadcaster is expected to keep buying broadcast equipment as necessary, experts said. An observer familiar with United States bankruptcy law said iHeartMedia likely has identified suppliers and vendors that provide it key goods and services and filed motions for them to receive preferred treatment when it comes to paying off unsecured debt and paying bills during the Chapter 11 process.

Extra scrutiny is likely being paid to the broadcaster's capital expenditure budget, experts said. But major tech projects are not being sidetracked, according to Steve Davis, senior VP,

real estate, facilities and corporate development for iHeartMedia.

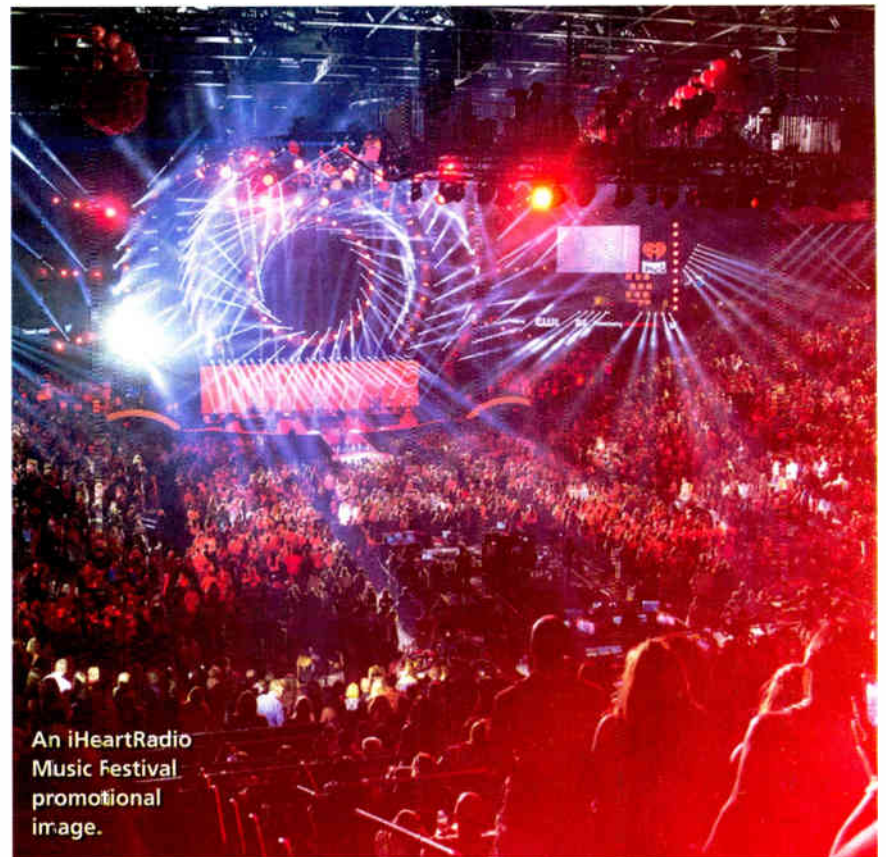
"We are proceeding with projects we have committed to. I have 25 projects I'm involved with, and there are no planned delays," Davis told *Radio World*. "It's business as usual on the technical side."

Davis said major remodeling projects involving stations in Boston and Seattle, acquired in a station swap with Entercom, are moving forward along with other capital projects. iHeartMedia swapped some of its own stations in Richmond, Va., and Chattanooga, Tenn., for four stations in Boston and three in Seattle.

Leon Barson, a partner in the finance, restructuring and bankruptcy group of Blank Rome LLP, said the balance sheet reboot is the crucial first step of many the radio broadcaster will need to take.

"The key for them is to maintain a focus on business operations and not be distracted and that is why you are hearing company leaders saying it will be business as usual," Barson said. "They have to focus on keeping customers happy and keeping staff on board."

Barson, who represented Nassau Broadcasting during its Chapter 11 filing and eventual liquidation in 2012, said iHeartMedia's case is purely a "balance sheet makeover to move heavy senior secured debt" off the books in



order to survive.

"The lenders were probably happy to just grab some of the equity. They're banks and probably didn't want to be left with 850 radio stations to operate

or ultimately sell off at a discount," Barson said.

Analysts have long said iHeartMedia has a solid business model but could not

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PIRATES

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The other pirate station was operated by a woman who the FCC claimed was not only the station operator, but the host of her own weekday afternoon program.

In response to these high-profile actions, Rosemary Harold, chief of the FCC's Enforcement Bureau, emphasized the FCC's focus on pirate radio stations. "We are pursuing multiple legal routes to stop pirate broadcasters; the seizure action in Boston is just one of them."

THE PIRATE ACT

David Donovan noted in his testimony before the House subcommittee that unlicensed operations are not rarities, particularly in larger radio markets, citing a recent study of the New York metropolitan area that revealed the existence of at least 76 unauthorized radio stations in a four-day span.

A major obstacle to enforcement, however, is the limited tools the FCC has to go after pirates. Federal law currently limits the fine for pirate radio operations to \$19,246 per day of a continuing violation, up to a maximum of \$144,344 for a single act or failure to act. It has become apparent that these fines are not deterring pirates, and there now appears to be bipartisan support in Congress for dramatically raising those fines.

Currently pending before the House is the Preventing Illegal Radio Abuse Through Enforcement Act ("PIRATE Act"), which would subject violators to a maximum fine of \$100,000 per day of a continuing violation up to a new maximum fine of \$2,000,000 per act. [Read it at <https://tinyurl.com/rw-pirateact>.]

The proposed legislation would also codify a recent Enforcement Bureau practice of penalizing individuals who facilitate such behavior by knowingly providing services or access to property that directly aids pirate operations. The bill also takes aim at the equipment used in pirate operations, giving the FCC authority to destroy equipment held from in rem seizures within three months of its removal. In addition to strengthening enforcement tools, the legislation would require the FCC to perform biannual enforcement sweeps of the five largest radio markets (New York, Los Angeles, Chicago, San Francisco and Dallas) to prosecute pirate operations.

As the FCC steps up its enforcement efforts and Congress gets involved, it looks like stormy seas ahead for pirate radio operators.

This article appeared in Pillsbury's FCC Enforcement Monitor newsletter. Visit www.pillsburylaw.com.

At the spring NAB Show, Chairman Pai reiterated that fighting pirates is "a top enforcement priority." He reported that since January 2017, efforts have included 306 investigations resulting in 210 NOUOs, an NAL for forfeiture and a "groundbreaking" settlement with a Miami-area operator to end broadcasts and pay a fine. The FCC also referred cases to Justice Department to obtain court orders, leading to four cases of equipment being seized in Boston, New York and Miami. "In 2017, the FCC took more than twice as many actions against pirate broadcasters that it did the year before," it stated, with \$143,800 in fines, and proposed fines totaling \$323,688. The commission also for the first time found property owners apparently liable for actively supporting activity on their property. "These actions have resulted in numerous unlicensed stations ceasing operation," it said.

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iHEARTMEDIA*(continued from page 6)*

survive its overwhelming debt. In fact, the broadcaster has posted 18 consecutive quarters of year-over-year growth, according to its financials. The company's financial unbalance began back in 2008 when private equity groups Bain Capital and Thomas H. Lee Partners purchased Clear Channel Communications in a highly leveraged deal valued at about \$24 billion.

"It's clear why iHeartMedia had to do this in order to emerge a stronger and healthier company. It appears that company executives believe the amount of time it needs in bankruptcy protection is relatively short, but sometimes these cases can take years," said Vickie Driver, a Texas-based partner in the insolvency department with Husch Blackwell.

iHeartMedia leadership has not indicated a timetable for emerging from its reorganization.

Driver said iHeartMedia is doing everything it can to show it will emerge intact without a major selloff of properties.

"It is paying employees, paying taxes, keeping its insurance programs intact. They already have court approval to keep operating so as not to impact operations and customers," Driver said. "Any severe company-wide cost trimming was likely carried out before the filing to bring the stakeholders on board with the reorganization plans."

The broadcaster's proceeding will play out in United States Bankruptcy Court for the Southern District of Texas in Houston before Judge Marvin Isgur,

Counterclockwise:
Vickie Driver, Husch Blackwell; Ben Lambiotte, Garvey Schubert Barer; Leon Barson, Blank Rome LLP



whom Driver described as a "very experienced Chapter 11 practitioner."

"He's a great draw in this situation and someone that can understand some of the complexities that will arise in the case. He will be very mindful of the 12,000 plus employees. That's a very important constituency to keep in mind in Chapter 11 cases," she said.

**HOW IT'LL WORK**

iHeartMedia's filing of voluntary Chapter 11 bankruptcy raises questions about what a successful planned reorganization — pending stakeholder approval — could look like for the country's largest radio broadcast group. Radio World asked Jeffrey Tarkenton, an attorney in the bankruptcy and restructuring group at Womble Bond Dickinson (US) LLP, about what iHeartMedia is going through and the possible outcomes to its reorganization.

Read the online story "How the Chapter 11 Will Work." Visit [radioworld.com](#), keyword Tarkenton.

**FAMILIAR NAMES**

The list of iHeartMedia's unsecured creditors is populated with familiar broadcast industry names like Nielsen, ASCAP, BMI and SoundExchange, all owed millions of dollars. One expert emphasized that financial amounts in such cases are a snapshot in time and that final amounts could be more or less based upon the timing of invoices being mailed and payments being received at the time of its mid-March filing.

Driver said iHeartMedia hasn't indicated if it is going to "impair those with unsecured debt or whether they will be paid 100 cents on the dollar but their recovery is yet to be seen."

Benjamin J. Lambiotte, principal in the Washington office of Garvey Schubert Barer, whose practice includes bankruptcy, said emerging from Chapter 11 occurs after confirmation of the reorganization plan and when the approved restructuring plans is implemented.

"For the court to approve the plan, generally the plan must be approved by each class of creditors whose claims have been impaired," Lambiotte said.

The company said at the time of its filing it had approximately 83 percent of legacy debt holders on board with its Restructuring Support Agreement, representing about \$11.9 billion worth of iHeartMedia total indebtedness. That was good enough for the company to move ahead with the balance sheet restructuring plan.

Despite the twin iHeartMedia and Cumulus reorganizations, these developments left some in the broadcast industry optimistic that better times are ahead for radio. Entercom Chief David Field said he thinks the industry will be healthier because of it.

"With iHeart and Cumulus eventually emerging from bankruptcy, the industry will be even healthier going forward, and that's good news for all of us," Field wrote in a memo to Entercom employees.

Other analysts say the positive cash flow generated by iHeartMedia and Cumulus show the radio industry is sound enough, it's just the companies couldn't wiggle out from under their massive debt loads without the protections afforded by Chapter 11.

Cumulus, which was mired in about \$2.4 billion of debt when it filed its prepackaged reorganization plan, has a goal of a late summer rebirth. The Atlanta-based broadcaster said it hopes to trim its debt by just over \$1 billion by completing the Chapter 11 process.

Comment on this or any story. Email [radioworld@nbmedia.com](#).

NEWSWATCH**NEWBAY ACQUIRED BY FUTURE PLC**

NewBay Media, the parent of Radio World and other B2B technology brands such as TV Technology and Broadcasting & Cable, was acquired by Future plc in a deal valued at an initial \$13.8 million.

Future said it paid \$12.25 million in cash and \$1.55 million in shares, with further potential consideration of up to \$5.6 million in 2019 depending on performance. It is a publicly held media group and digital publisher based in the U.K.; it said the move expands its reach in the United States and its position in music and consumer electronics, as well as adding titles in "complementary verticals" of audio visual, broadcasting and educational technology. It will now own more than 100 brands.

The announcement came two weeks after another announced acquisition in which Future plans to acquire five titles from Haymarket Media Group.

NewBay's business includes conferences and events such as Government Video Expo, digital content, events Daily publishing and data services; its consumer division features music brands like Bass Player, Guitar World and Electronic Musician. Future's titles include TechRadar, PC Gamer, The Photography Show, T3, Total Film, Metal Hammer, Digital Camera and Edge.

Zillah Byng-Thorne, CEO of Future, stated in a release, "NewBay is clearly aligned with Future in its mission to create content that connects, with market leading titles. This acquisition supports our strategy of growth organically and through acquisition, global expansion and revenue diversification." NewBay President & CEO Steve Palm said the combination "will result in new and better opportunities" for both companies. "Delivering data-driven brand and product awareness, thought leadership and demand for our partners will only be enhanced." He particularly cited NewBay's growth in recent years in the areas of events, marketing services and digital content.

Future trades on the London Stock Exchange, symbol FUTR. NewBay, headquartered in New York, was privately held; it formed in 2006 and made a number of acquisitions since then, including IMAS Publishing brands like Radio World and TV Technology in 2007.

Radio World was founded in the 1970s by Stevan Dana, a 29-year-old entrepreneur who saw an opportunity to start a publication aimed at technical professionals in the U.S. radio broadcast market. The idea came from one of the few early IMAS customers for computer services.



Future plc CEO Zillah Byng-Thorne

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Hibernating Rodents Are No Longer Asleep

Also, we explore some handy web resources for engineers

WORKBENCH

by John Bisset

Email Workbench tips to johnpbisset@gmail.com

Now that spring is upon us, many hibernating chipmunks and ground squirrels have set about building their underground burrows. Unfortunately, the sand that fills cable trenches or surrounds underground tanks can be easily displaced by rodents.

In Fig. 1, New Hampshire Public Radio's Steven Donnell shows what he found when inspecting an underground propane tank.

Recently we suggested using Mouse Magic-brand rodent repellent packs (manufactured by Bonide, www.bonide.com) around the interior of your transmitter building, storage/generator sheds, or AM antenna tuning units. Looks like we can add propane tanks to the list of useful locations for Mouse Magic.

By the way, although garden centers sell Mouse Magic, a pack of 12 is available on Amazon for under \$20.

Industry veterans will know Chicago engineer Warren Shulz. He tells us he was having a roof replaced and needed a new outdoor FM receive antenna.

Simple enough? Well, Warren reports that finding a replacement was like looking for a buggy whip. With VHF-TV low-band now silent and with the DTV migration, every antenna Warren found was UHF or high-band TV. The lowly FM-band Yagi roof antenna, it seems, was nearly extinct!

It took a lot of internet search time to find a replacement roof antenna, but his effort paid off. Warren found an eight-element 6-foot long Yagi for under \$100.



Fig. 1: Burrowing rodents add sand to a buried propane tank.

It's been Warren's experience that an outdoor roof antenna is required to receive FM-HD2 at the 28-mile distance from city transmitters, as there is no HD reception using an indoor

antenna.

Apparently, Warren is one of the few who feels an outdoor FM receive antenna is important. Unfortunately, sellers flushed low-band TV analog and

FM-band antennas after sales dropped and UHF-DTV took off.

If you're interested in what Warren bought, head to <http://dennys-tv-antenna.mybigcommerce.com/fm-radio-antennas>.

And speaking of things you can't find, have you heard of SWAR Grees?

From the Radio Society of Great Britain, here's the link: <http://rs.gb.org/main/swar-grees-standing-wave-improver>. The grease is supposed to improve VSWR — just smear it liberally on the transmission line!

Bible Broadcasting's Steve Tuzeneu recommends <https://www.everythingrf.com/rf-calculators> for engineers who need to make RF conversions and calculations. The site provides basic conversions like Fresnel zone calculations, free space path loss, as well

The lowly FM-band Yagi roof antenna was nearly extinct!

as calculating wavelength and resonant frequency of RF circuits.

There are even apps for your mobile device — head to Google Play or the App Store to download your free mobile app.

Malaysia's Paul Sagi invites readers to a unique "Tool Hacks" YouTube channel where you'll see how to make an inexpensive wire stripper from a clothespin and a pencil sharpener or using a rubber band to remove a stripped Phillips screw.

Here's the link: www.youtube.com/watch?v=SQdn_TvryeE.

Microfiber cloths are useful for cleaning monitor screens and other delicate surfaces. Broadcast engineer Joe Stack writes that for about \$3, you can pick up a 12-by-12-inch 3M Scotch-Brite-brand microfiber cloth. Cut the larger sheet into four equal pieces, and include a piece with the station's remote equipment. You can get the large cloths at a Target or Walmart.

Joe used to just look for the small microfiber cloths, but found it more eco-

(continued on page 12)

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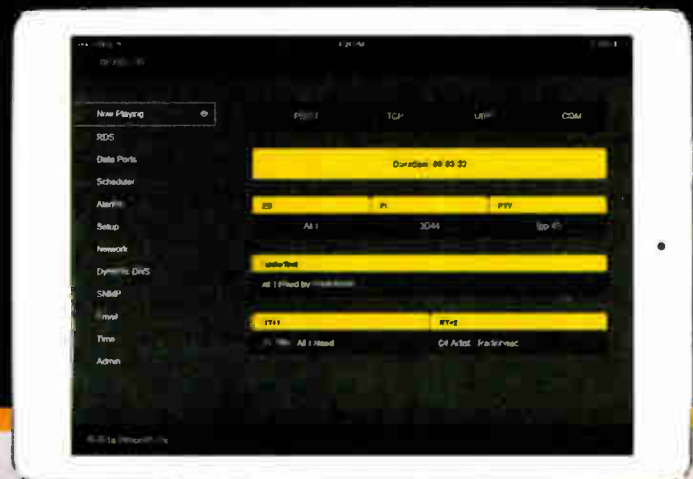
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Remembering Maj. James Andrew White, Radio Pioneer

An important announcer, sportscaster and executive you've never heard of

ROOTS OF RADIO

by John Schneider

He was nervous as he gripped the microphone and began speaking. He had never broadcast a sporting event. In fact, no one on the entire planet had done it. He was about to create an entirely new profession.

J. Andrew White was a handsome, dapper man with starched white collars and signature pince-nez glasses hanging from a black ribbon. He was the editor of "Wireless Age" magazine, a publication of the recently-formed Radio Corporation of America. During the World War he had authored training manuals for the Army Signal Corps, earning the title of major.

In the summer of 1921, White was contacted by Julius Hopp, a promoter who wanted to broadcast the upcoming "Battle of the Century" boxing match between Jack Dempsey and Jacques Carpentier. No one had attempted a wireless sports broadcast, and the ARRL's Hiram Percy Maxim had already turned him down, declaring it impossible. But the idea intrigued White, and he took it to his boss, David Sarnoff, who immediately authorized \$1,500 for the project.

Things came together quickly. A license was issued for RCA's first broadcasting station, WJY, which would operate for just one day. White borrowed a Navy transmitter and had it installed 2 1/2 miles from the stadium at the Lackawanna railroad station, where an antenna was strung from an existing radio tower. Early WJY tests on the longwave frequency of 1600 meters (187 kHz) demonstrated a 200-mile coverage radius.

Meanwhile, an army of amateur radio operators headed by J. Owen Smith (2ZL) installed radio receivers in theatres and assembly halls across the Northeast. Tickets were sold, with the proceeds benefiting the American Committee for Devastated France.

As the station was being assembled, White contemplated how he would describe a boxing match over radio. A



Major J. Andrew White was president of the CBS network when this portrait was taken in 1927.

former amateur boxer, he rehearsed by shadow boxing in front of a mirror while describing his actions.

Finally, on the hot afternoon of July 2, sweating in his white starched shirt, White described the action into a telephone as Dempsey knocked out Carpentier in the fourth round. At the other end of the line, operator Owen Smith repeated White's words into the WJY transmitter. At the end of the broadcast, the battery on the line died, and a trans-

mitter tube failed midway through, but the entire program still managed to reach an estimated 350,000 — easily the largest radio audience to date.

INSTANT CELEBRITY

The publicity generated by the broadcast made White an overnight celebrity. It also convinced RCA executives of the value of broadcasting, and they filed an

application for the company's first permanent broadcast license.

The WJY transmitter was relocated to the General Electric factory in Roselle Park, N.J., where WDY debuted on Dec. 14, 1921. White became the station and program manager, and J. Owen Smith was chief operator and announcer. WDY broadcast three nights a week, and the new Westinghouse station, WJZ in Newark, used the frequency on alternate nights.



Broadcasting from RCA's short-lived station WDY in Roselle Park, N.J., 1922.

WORKBENCH

(continued from page 10)

nomical to cut down the larger size, since micro fiber cloth stays intact and doesn't unravel when it is cut. Fig. 2 shows the cloths ready to go.

Even with weatherproofing kits, moisture can find its way over time into coaxial RF connections.

Fig. 2: Cut the larger microfiber cloth into smaller sheets.



Fig. 3: A water-damaged connector on an STL dipole.



Fig. 4: Cutting the connector end reveals the corrosion caused by the water ingress.

KSL Salt Lake Engineer Jeff Sory had an STL transmitter fail. Investigation found water had found its way into not only the transmission line but also the STL dipole — see the corrosion pictured in Figs. 3 and 4.

Replacement coax and a new dipole got things back to normal.

Contribute to Workbench. You'll help fellow engineers, and qualify for SBE recertification credit. Send Workbench tips and high-resolution photos to johnbisset@gmail.com. Fax to (603) 472-4944.

Author John Bisset has spent 48 years in the broadcasting industry and is still learning. He handles Western U.S. Radio Sales for the Telos Alliance. He is SBE certified and is a past recipient of the SBE's Educator of the Year Award.

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FEATURES

cast the Republican National Convention for WJZ and WGY. Later that month, he broadcast the Democratic convention from Chicago, and then on March 4, 1925, he announced for the inauguration of Calvin Coolidge on a temporary hookup of Eastern stations.

At that time, the bitter competition between RCA and AT&T over who would dominate the new field of radio broadcasting was becoming white hot. It finally came to a head in July of 1926 with the surprise announcement that AT&T was selling its flagship station, WEAF, and its fledgling radio network to RCA. AT&T forever exited the broadcasting field while RCA turned the WEAF network into its new National

Broadcasting Company, and then AT&T began reaping big profits by leasing broadcast lines to the new network. WEAF was relocated to the WJZ studios at Aeolian Hall.

The forced marriage of the two formerly competing stations staffed many careers. Among many changes, sportscaster Andrew White was to be teamed up with his main rival, Graham McNamee.

The first test of this relationship took place on Sept. 3, 1926, when WEAF and WJZ broadcast the highly anticipated Dempsey-Tunney fight over a hookup of 30 stations, just weeks before the formation of the NBC network.

(continued on page 14)

Major J. Andrew White and Ted Husing broadcast a Navy-Princeton football game for WJZ in 1926.

Because of technical issues and difficulty of attracting broadcast talent to the remote location, WDY turned out to be a short-lived operation. Three months later, RCA shut the station down and merged its operations with WJZ. But although he resumed his work as a magazine editor, White found himself being called to WJZ frequently to broadcast additional boxing matches. Soon he was announcing all kinds of sports events over WJZ.

He called the first live World Series game that year while Owen Smith became broadcasting's first spotter, moving cards with players' names around on a large cardboard diamond.

In 1923, RCA acquired WJZ from Westinghouse and moved it to Aeolian Hall in midtown Manhattan. WJZ was becoming one of the most important stations in the country, and White's prestige as a sports announcer rose with it. His skill at describing a sporting event was universally admired, and he was soon called "the most famous announcer in radio."

One admiring radio columnist observed that "White paints word pictures that other minds could feast upon. So accurate are his descriptions that anyone who has ever attended a game at the Polo Grounds can visualize the plays perfectly ... Those who listen to J. Andrew White cannot help but admire his painstaking attention to the details, side lights and human interest stuff that permits every listener to be one of the excited fans in the grandstand."

BRANCHING OUT


The Major's voice was soon being heard weekly over WJZ. In 1924, he broadcast the first horse race from Belmont Park. In 1925, he announced radio's first crew race, broadcasting from a power boat following the oarsmen.

In 1925, White started mentoring a young WJZ staff announcer, making him his assistant and teaching him the ropes of sportscasting. Ted Husing would go on to become the most important sports broadcaster of radio's "Golden Age."

In June of 1924, Major White ventured outside the sports world to broad-

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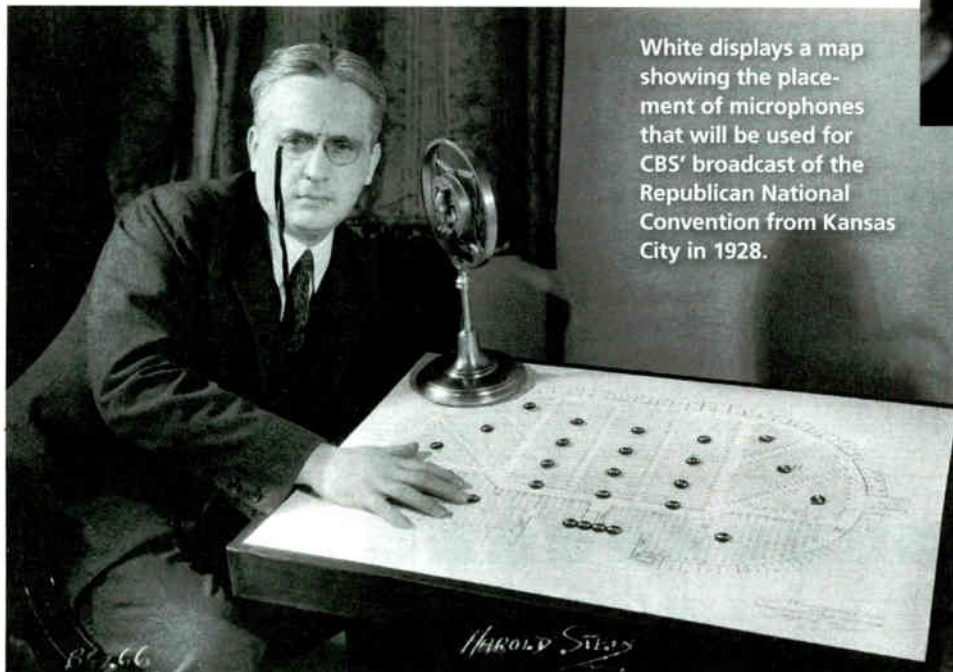
(continued from page 13)

It was reported that Andrew White easily outclassed McNamee, who seemed unnerved by his new co-star role. Nonetheless, in the shakeup that followed, White's role with the new NBC network was diminished, and he left RCA in the fall of 1926.

Shortly afterwards, he was approached by music promoters Arthur Judson and George Coats, who were looking for someone to lead their new company, the United Independent Broadcasters, Inc.

They had just signed a contract with the Columbia Phonograph Company to underwrite a new national radio network, to be called the Columbia Phonograph Broadcasting System. Because Judson and Coats were not broadcasters, they wanted someone with celebrity status and broad radio experience to head the company and attract other investors. Intrigued by the possibilities, White bought 200 shares of the new company and became its president.

The Columbia network debuted on Sept. 18, 1927, broadcasting from temporary studios at WOR in New York. Major



White displays a map showing the placement of microphones that will be used for CBS' broadcast of the Republican National Convention from Kansas City in 1928.



New York Governor Al Smith, right, presents Major White with a silver cup as the "best looking and most popular announcer in America" at the 1925 Radio World's Fair. The presentation was broadcast over New York's WAHG (now WCBS).

they found their buyer in Sam Paley's 27-year-old son, William. He had advertised his father's cigar company on WCAU and the network, and had been impressed with the results. And so, for \$503,000, William S. Paley became the 50.3 percent majority owner of the CBS network.

Paley quickly turned business around by dramatically changing the programming, and the financial and contractual arrangements with its affiliates. Soon the network was on strong financial footing. But in the process, Paley named himself president and demoted White to managing director. Although he continued to broadcast sports and oversaw CBS programs, he no longer played an important part in the management of CBS.

By 1930, White had become disillusioned with his lot at CBS.

Corporate broadcasting was a far cry from the rowdy, Wild West days of early radio, and he felt confined. He was used to being an innovator, but now he was just one more executive on a fast-growing staff.

Finally, on April 23, Paley issued a memo notifying the staff that "it is with exceeding regret that I have to report that Major White has asked to be relieved of his official connections."

Years later, Major White's son Blair said, "Paley thought CBS history started with him and didn't want any part of my dad. Shortly after he left, my dad sold all his CBS stock. Otherwise, I would have a butler."

Andrew White spent the next two years trying to start a new network, the American Broadcasting System, which would distribute its programs via transcription discs instead of expensive AT&T phone lines. But he apparently

never found the backers to get his venture off the ground, and later admitted he was "15 years ahead of his time."

After several other unsuccessful business starts, Major White moved to California in 1940. During World War II, he again joined the Signal Corps, "working 25 hours a day" writing textbooks and devising training schedules. After the war, he earned a doctorate of psychology degree and became a full-time psychologist, teaching a few courses at the University of Southern California.

In 1951, Major White returned briefly to radio as a disc jockey at KNX in Hollywood. Now, simply as "Andy White," he co-hosted the program "Encore Night" with Jim Hawthorne, playing pre-1930 recordings and reminisced about earlier times. But the program was short-lived, and White returned to relative anonymity. He died in Los Angeles in 1966 at the age of 76.

Major J. Andrew White was a true pioneer — a seminal figure in early radio broadcasting, and the industry's first real celebrity. He is mostly forgotten, undoubtedly because he departed from radio just as it was maturing as a mass medium and business. However, there is no denying his impact on the first decade of American broadcasting, or his status as a role model for the next generation of broadcasters.

John Schneider worked at stations in Michigan and California before joining the equipment industry. He worked for Sparta, McMartin, RF Specialties, Broadcast Electronics and iBiquity before retiring in 2016. He has written two books and numerous articles on radio history and was named a Fellow in radio history by the California Historical Radio Society. He publishes an annual photo calendar and maintains www.theradiohistorian.org.

White was the master of ceremonies for the opening three-hour broadcast, carried over 16 stations. Thereafter, it broadcast 10 hours a week — two hours each on Monday, Wednesday, Friday and Sunday evenings, plus Sunday afternoons.

But the expenses were huge, advertisers were scarce, and the new network was in instant financial peril. After only a few weeks of operations, Columbia Phonograph pulled out, and the paychecks for the network's 12 employees stopped.

Desperate for new backing, White, Judson and Coats convinced the Levy brothers, owners of their Philadelphia affiliate WCAU, to take controlling interest for \$135,000. Sam Paley, owner of the Congress Cigar Company, became an additional investor. The network was renamed the Columbia Broadcasting System.

But these new investors soon also discovered that CBS was a giant financial sinkhole. Advertisers were hard to come by, and if a salesman was able to convince a prospect of the value of radio, he would usually sign — with NBC!

Losses were running about \$20,000 a week, and by August 1928, they reached \$1 million.

Now the Levys wanted out too, and



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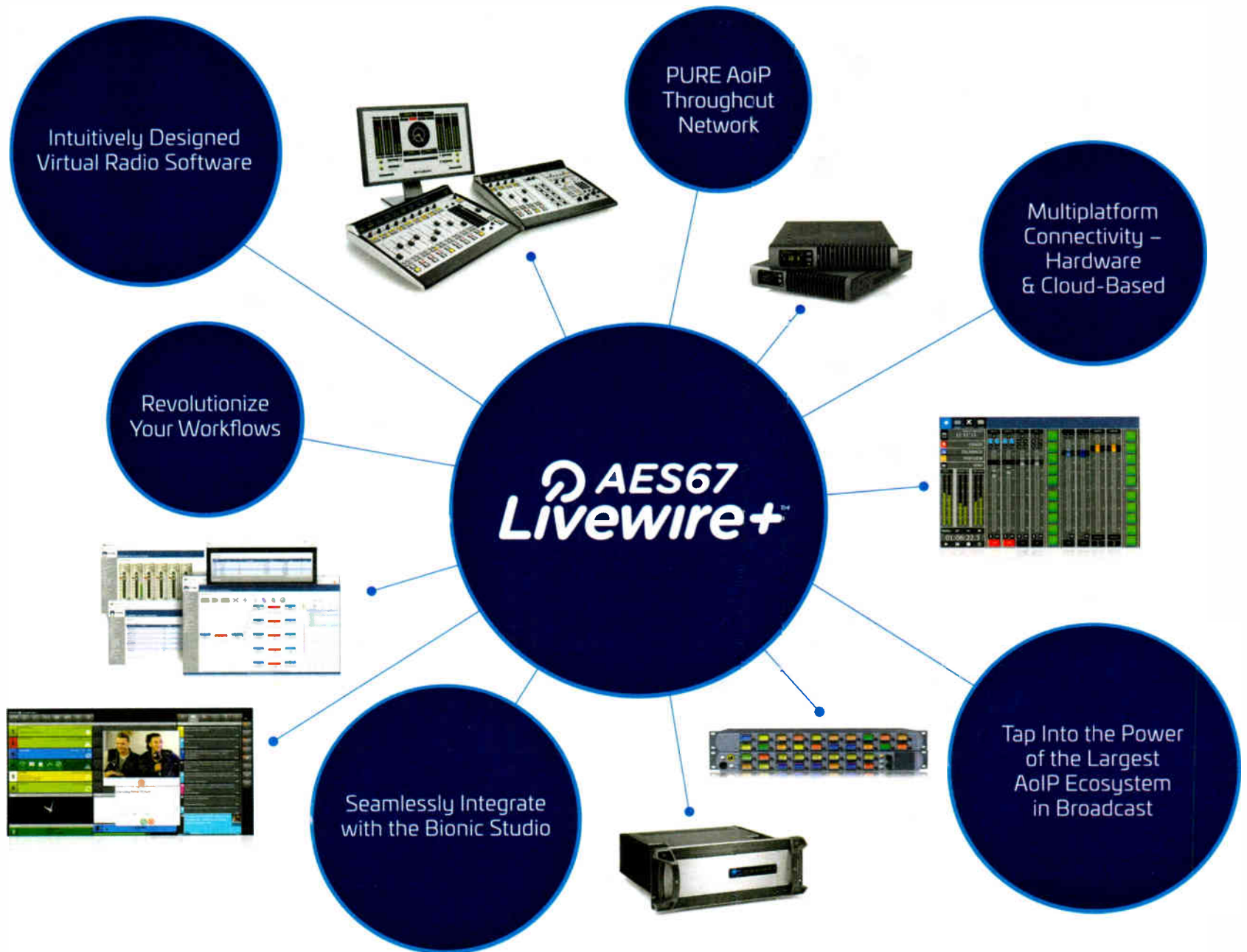
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If You're a Professional, Look Sharp, Be Sharp

Being a successful broadcast engineer requires you to look and act the part of a pro

TECHTIPS

BY MARK PERSONS

If your goal is to be paid better for your work as a broadcast engineer, look the part.

As an employee or contractor, you wish to be perceived as part of the management team of the business that's paying the bills. I worked at this and it paid off at my successful contracting business for over 40 years.

You've seen them — engineers with long unmanaged beards, uncombed hair and untied shoes. Managers tolerate them but often do not fully appreciate them or compensate them for their technical skill. These engineers degrade themselves and their trade through a lack of professionalism.

If you have a beard, keep it short and neatly trimmed.

Clients hired me because I looked and acted like them. I bathe daily, cut my hair and dress in clean clothes. When on the job, I never wore the same

clothes two days in a row and never put on shirts or hats with advertising or written statements. I didn't give a customer a reason to think of me as anything but a professional. (I do have a tie showing 1930s vacuum tubes, as well as a Nautel T-shirt with a Smith chart, worn to SBE gatherings.)

My wife Paula's advice is, "Tuck in your shirt, pull up your pants, polish your shoes and tie your shoestrings." Women and managers notice things like that.

As a contractor, I was not salaried; repeat business relied on happy clients. The proof was in the pudding. I was called to do work again and again because clients appreciated my previous work.

Some of these lessons I learned while serving with the U.S. Army in Vietnam in the late 1960s. My job was to run an aircraft avionics repair shop, to "keep 'em flying." We were winning when I left!

Your job as a broadcast engineer is to keep 'em broadcasting.

ON THE JOB

Sweep the engineering area of your studios regularly. The same applies to

transmitter sites. Keep workbenches tidy and ready for the next repair job. It's not demeaning to be a maintenance person. A messy office or shop sends a message to management that you are a disorganized person; that's bad for your reputation.

The same goes for your car. It doesn't need to be fancy or expensive, but it should be clean inside and out.

Do the best work you can and be sure to document that work so the next engineer doesn't speak poorly of you. Funny how those things can come back to bite you.

Managers typically know little of what you do; don't give them a reason to doubt that you're doing what is best. Put the job first. Always show up on time for appointments. Being late wastes people's time and is a chink in your armor.



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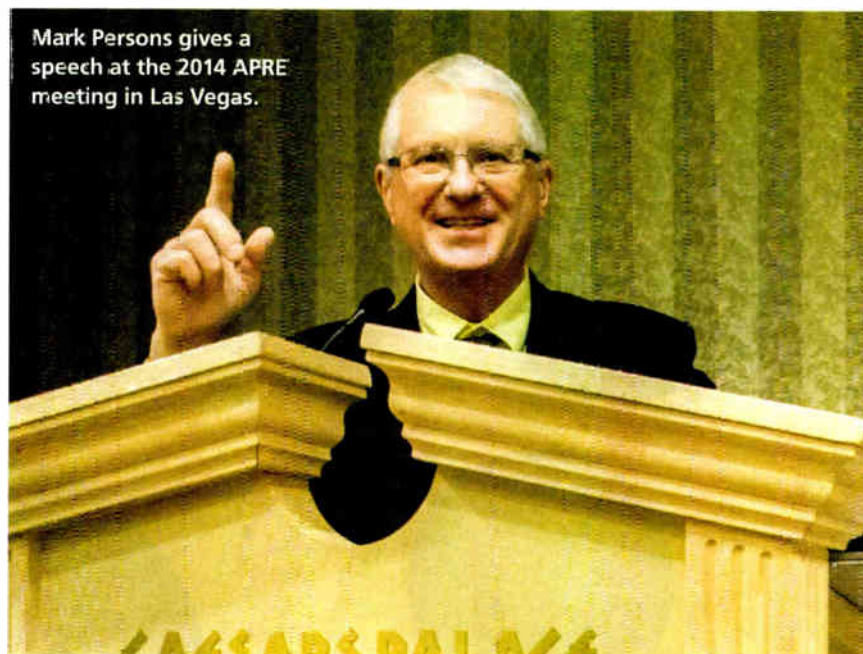
Good friend and broadcast engineer Shane Toven once told me, "Don't say anything if you can't say something good," a great philosophy. Be a good listener. Do more listening than talking, even if it is not in your nature. You might even learn something.

Don't wear dark glasses when communicating with others, even outdoors. Eye contact is so important; lack of it will cause distrust. You can put the sunglasses back on after the meeting.

Don't mumble; speak clearly and distinctly. Don't use slang or swear. Use real, everyday words to relate your thoughts effectively.

Don't use technical mumbo jumbo that makes a client's eyes glaze over. Jump past ohms and volts to tell the client how you are working on a difficult problem to make the station whole again. Give technical details only if asked. He or she wants to hear that you are making best use of the resources available.

Avoid talk about politics. You are sure to disagree with someone. Political discussions are divisive and can be bad for relations even if the other person is of your political persuasion. Politics is a personal philosophy, not a business agenda.



Mark Persons gives a speech at the 2014 APRE meeting in Las Vegas.

Don't chew tobacco or smoke while conversing with a client. Don't take calls or text messages during a meeting. Give your full attention to what is going on in front of you at that moment.

TAKE NOTES

Even as a retired person, I keep paper in my shirt pocket with a pen to write things down, so I don't forget important information.

That same piece of paper contained reminders for me to update the boss on projects and ask questions on how to proceed. I didn't have to go back later to say, "I forgot to ask you ..." Remember, you do yourself a disfavor by ignoring good business professionalism.

SBE

You should be a member of the Society of Broadcast Engineers, ideally with certification.

When your employer/client suggests a date for a job, you might say you were planning on attending an SBE meeting to update your skills on that day. That person might be impressed that you actually care about your profession.

The added benefit is you will learn more about the broadcast industry at SBE meetings.

EMAILS

When sending emails or other correspondence, avoid starting sentences with the word I. Best to use a few words ahead of "I" so you don't bill yourself as the center of the universe. Professional writers redo executive dispatches to avoid mistakes like that.

Use your first and last name in the "from" field on all emails. There might be four Jims known to the person you are conversing with. Avoid confusion by

being specific.

Your signature line should include a title like Broadcast Engineer. An SBE certification logo can go here, too.

If your email has an icon photo, make it a good one, not some abstract, jerky thing.

Do not type in all upper case. It makes you look like you are shouting.

Be clear and concise, keeping word count to a minimum. Detailed discussions are for communicating with other engineers, not management.

SOCIAL MEDIA

Be careful what you say on a website, blog and Facebook, etc. The whole world is watching. Best not to do or say something stupid that you'll regret. Bad humor can ruin you.

No one is perfect, but do what you can to win respect from others. Respect can't be demanded but is earned by your actions.

Sorry if some of this sounds negative. I am just trying to help you have a professional stance for best success in your job.

The Rotary service organization has a wonderful four-way test:

- ✓ Is it the truth?
- ✓ Is it fair to all concerned?
- ✓ Will it build goodwill and better friendships?
- ✓ Will it be beneficial to all concerned?

Present yourself well for the best outcome. It makes perfect sense.

Mark Persons, WQMH, is an SBE Certified Professional Broadcast Engineer. He and his wife Paula are retired after more than 40 years in business. His website is www.mwpersons.com.

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Underwriting and PSA Tips for Non-Coms

Longtime radio guy shares good practices

LOW-POWER CONCERNS

BY DAN SLENTZ

My experience in radio and TV takes me back to my start with non-coms and working for the continuity department at Ohio University's WOUB AM/FM/TV (NPR/PBS).

It was there that I started learning about word choices and positioning for both underwriting and public service announcements, both staples of non-com radio. I've been fortunate to wear many hats in broadcasting from an on-air personality to TV news anchor. Even sales, continuity, production and now engineering over my 35+ years of "playing in radio and TV."

Recently, I was discussing underwriting and positioning with some friends and wanted to share the way I've been treating this with underwriters for LPFMs.

My disclaimer here is that you should always check with your legal counsel to discuss questions or concerns about what you can or can't say in terms of underwriting.

KNOW THE RULES

The rules are fairly simple for underwriting.

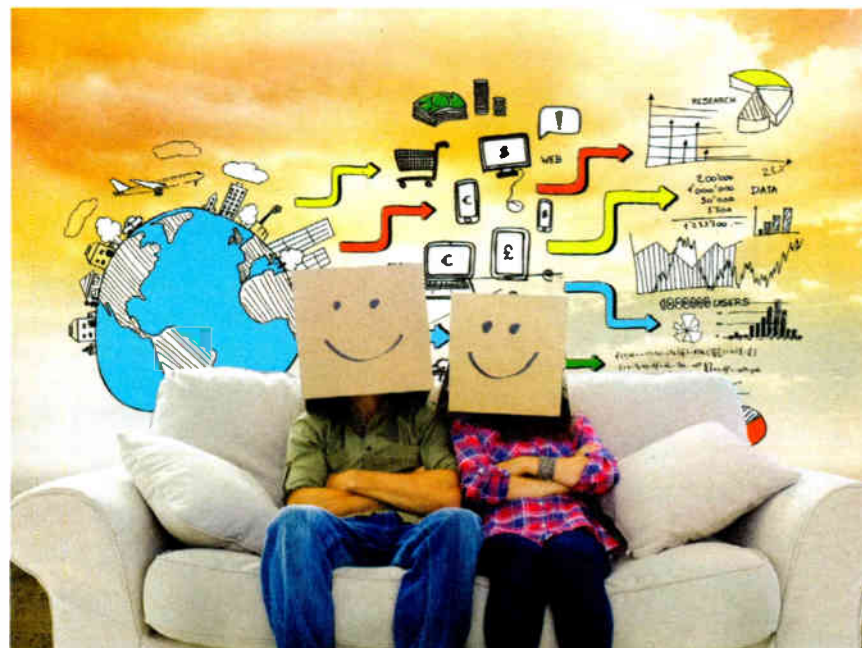
No unsubstantiated claims. You can't say "the best," "no one does it better," etc. Unless it can be backed up, the claims *must* be accurate. For instance: "Serving the area since 1935" is accurate (if true to the business). Or "voted #1 in the 2017 Daily Times newspaper poll" would be a substantiated statement.

You can use slogans, as long as they have been in use for an extended period of time (basically meaning, you don't create a new slogan so you can make a claim). A slogan would be something like "Dodge trucks... Ram tough!" Are they really "ram tough"? Probably not, so "unsubstantiated," *but* it is a

long-term slogan identified with Dodge trucks, so it would be acceptable.

No prices or discounts. You can't say "take 10 percent off" or "only \$49.95." Simply avoid money or prices completely.

No calls to action. This would be



working like "go to," "stop by" or "give them a call today." Sorry, but you are suggesting the listener actually do something. You can give info like the phone number, website or address, but not accompanied by a "call to action." An example would be simply: "They're on the web at *widgets.com*, and their phone number is 123-4567. Located at 123 Main Street." You aren't saying "call them" or "stop by," just providing the info.

When I'm helping stations, I also add the following:

- If a commercial radio station is airing the "announcement" (a commercial), there's about a 99.999 percent chance you *cannot* run it as an underwriting announcement.
- If it feels, smells, looks, tastes or sounds like a commercial, it probably *is* a commercial!

WHAT IS UNDERWRITING, EXACTLY?

I describe underwriting as the following: Underwriting can't sell a "widget." Underwriting would be a poor choice for pushing bottles of soda for 99 cents. But underwriting is *excellent* at name recognition or, as commercial people would say, "building a brand."

Underwriting is excellent for insurance companies and big car lots.

I say this because the insurance company doesn't want to sell "a life insurance policy," but they want to insure whatever you need insured. This means that they really want you to think of their company name when you need insurance, not the fact that they sell "a

"supported by listeners like you" puts the listener in the picture and reminds them that they are your first supporter. I've found that this has also led to some listeners actually making donations as they realize that they keep the station on the air.

POSITIONING AND LOGISTICS

I've also suggested that stations position underwriting logically based on my previous announcing and programming experience. Keeping in mind that they are important to you and the underwriter, I often place them right after the legal ID and before a promo or PSA.

For small stations that are more like a traditional commercial music station, this allows for a quick sweep and back into music. Even the legal IDs are off-set from the top of the hour so while other stations may be starting long commercial breaks or news, the small non-com is in and out their "underwriting break" long before the commercial station is back into music.

Rotating with the actual underwriting announcements are also a couple of "generic" announcements. One thanks the station's underwriters by listing just their names (no additional info) and ends with "if you'd like to be a supporter of great local radio and build you company's brand, contact WXXX at ..." which serves to self-promote underwriting.

Another generic underwriting announcement actually reminds listeners that their support is needed and includes contact information on how the listener can contribute or become a volunteer.

LOCAL, LOCAL, LOCAL

Another recommendation I make is to *always* think local, speak local and keep it local!

Since LPFMs generally get out with 60 dBu coverage for 4 to 6 miles (typically), the audience is local. Now Class A or certainly Class C FMs would say that's nothing or a disadvantage, but here's where it is an advantage: A big station hitting 60 cities alienates any city (and listeners) who aren't in close proximity to the one they might be discussing.

As a former jock in Cleveland and Denver, it was easy to talk about an event in a city that could be 50 miles away from half the listeners. It's pretty easy to not talk "local" when you station has more "regional coverage" than local.

But little LPFMs are truly hyper local, so the focus can and should remain on their local cities in their coverage area

(continued on page 20)

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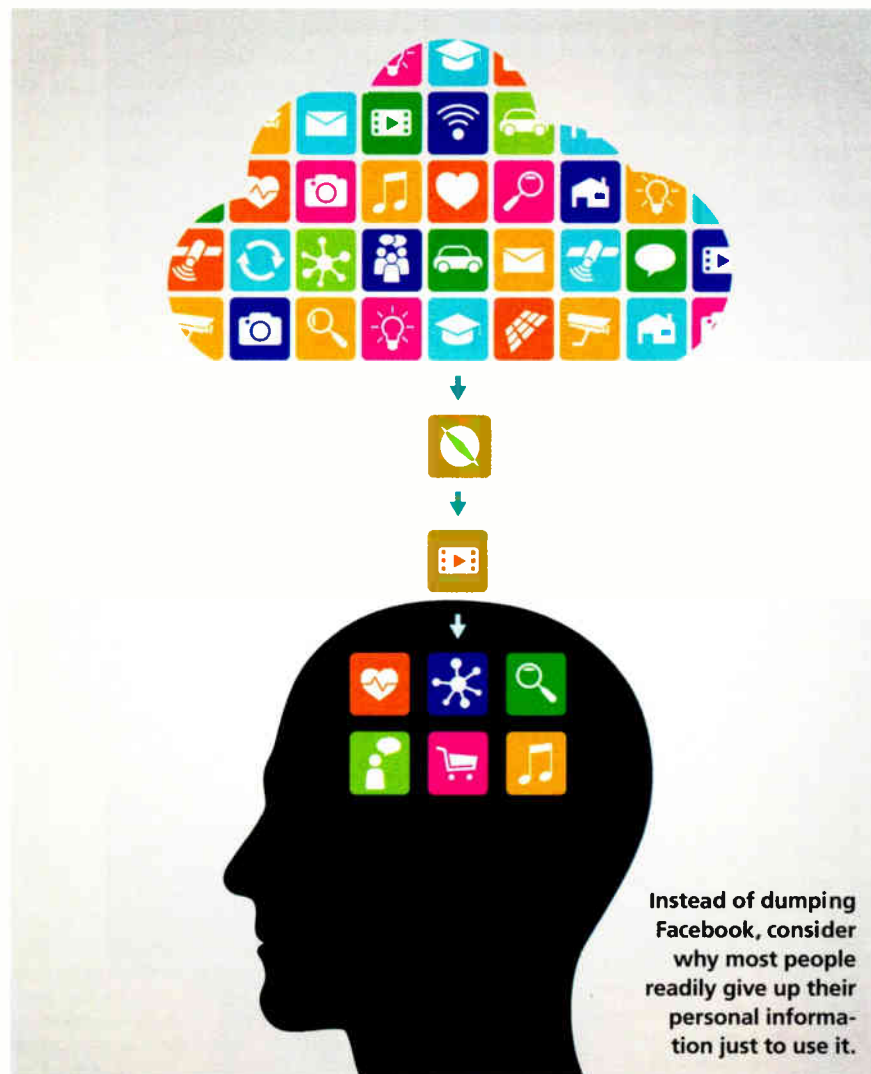
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Put the Original Social Network to Work



What does radio have in common with Facebook? More than you'd think

Shock! Outrage! *Revenge*. In recent weeks, newspapers and television newscasts told us that we should feel those first two things about Facebook's alleged data leakage and then act on the third by deleting Facebook.

It's hard to face the simple truth: Facebook, Google and scores of other digital platforms have convinced Americans that convenience is more important than privacy. While our society screams when the government obtains or even requests our personal information, we don't think twice about clicking "accept" on privacy policies as fast as we can slide a mouse.

What does this say about us? For the sake of brevity, let's just stick to the positive reasons we say "yes" to giving away personal data: We place an extremely high value on social connections. We want the most relevant search results. We want content that we care about.

Why is this important to the radio business? Because it reminds us what it takes to be an important utility to

our audiences. If the public, in massive numbers, is willing to give up private details just for social interaction and relevant information, we must go back to the basics of delivering the goods over the airwaves.

Before digital media, radio excelled in creating common ground and connections for its audience. Then came

UNDERWRITING

(continued from page 18)

(generally 1 to 5). If you talk about one city in your coverage, it's probably 10 minutes away from your most distant listener. Some may say "this is making lemonade out of lemons," and it probably is. But it truly allows the station to "focus" on an area *all* their listeners know and are a part of!

I suggest that all PSAs be local and have local connections. Make PSAs local! If there's an organization with a good national PSA and local ties, I even suggest re-voicing the entire PSA with the local information included (as opposed to tagging a nation with local info).

Teaching about continuity and public service announce-

ments, one of the things I often have to emphasize is keeping it to the point and brief.

You don't need to tell listeners every detail of what is usually submitted. Press releases could easily be a one- to two-minute PSA, if written verbatim. I always suggest including just the most basic info and how a listener can learn more. Just enough to make sure the listener knows what the service or need is, and then let them get the info (from the website or a phone call). This means I always suggest 30 seconds or preferably less on PSAs.

Station promos are similar except a little more relaxed on time. When or where possible, the station's website or social media are the focal point for details.

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

simple, cheap automation, consolidation and small staffs. For a time, too many stations cranked out content like widgets in a factory with little thought about creativity and making connections. In recent years there has been a return to localism, altruism and talent development; but there is still great need for improvement.

How does radio create social connections for listeners? When the medium is at its best, we provide emotional connections to music and artists; fun contests; neighborhood and citywide events; and the mustering of local resources for the disadvantaged.

MUSIC AND ARTISTS

While interviews with the stars of your format are great, access is limited — but thoughts and stories from your listeners are readily available. Giving fans a way to voice their feelings about new songs, or to share stories about what older songs mean to them, adds a relatable dimension to the predictable jukebox and pre-recorded corny bumpers.

It takes time to collect authentic audio, but it can be done via social platforms, attachments to text messages, or the old-fashioned way by recording people in person. These clips can be stored in a library and used every few months.

We tend to forget that "communities" of fans already exist around the core artists of any given music format. It is also possible to activate these fan communities with in-person social events at bars, pre- and post-concert activities, or cover band tributes.

FUN CONTESTS

HQ Trivia has proved beyond the shadow of a doubt that people will tune in for fun at scheduled times if you have a great host and decent prizes.

For those not in the know, HQ is played exclusively via an app on your mobile phone. The audience currently hovers at around 1 million people per game.

PROMO POWER



Mark Lapidus

Check it out sometime. It's a social activity that friends, family, or co-workers can play together, similar to what was on radio for almost a century until collective contesting blandly took over our broadcasts.

By the way, HQ host Scott Rogowsky should be doing a morning show in a major market. Somebody get this guy before TV snaps him up. There's no doubt that for a personality that big, audiences would show up for appearances just to see him live and get a chance to meet him and hang out together.

EVENTS

Do your personalities host neighborhood or city events? Once common, it's considered to be too much effort by some on-air talent. There's a reason politicians "work" a room. Over time, making personal connections convinces people you care about them and that they have connection with you.

CHARITIES

I have mounting evidence right now in my inbox that stations are increasing the amount of energy and time to help the needy in their own communities. For those of you who are just watching, get back in the game and do something for someone less fortunate. Everyone wins when stations facilitate fundraising and this is one social activity still done better by radio than any social network.

I recently overheard a colleague of mine tell someone in their early 20s that radio used to be *the* social network before Facebook came along. While we can't turn back the clock, we can still have a huge impact when we build social connections with our audience.

The author is president of Lapidus Media. He can be reached at marklapidus1@gmail.com.

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World Radio History

Is There Life After 55 for Radio?

Baby Boomers love radio. Why doesn't radio love them?

21ST CENTURY PD

by Dave Beasing

As of 2018, 90.6 million Americans are now over the age of 55 — 28 percent of the population.

Most are Baby Boomers who have been passionate about radio throughout their lives. They are adopting new audio technologies but at a slower rate than younger people. They're not stuck in the past, but some observers might say radio is.

"It's like radio is caught in a demographic time warp," says Jacobs Media President Fred Jacobs. Since the beginning of most of our careers, radio has been obsessed with targeting the 25- to 54-year-old demographic. "It stems from advertiser dictates — OK, preferences — that date back to the '80s," he says. "Interestingly, they haven't gravitated to an older demographic — 35-64 — as Boomers have aged. And in radio at least, they haven't shifted younger either."

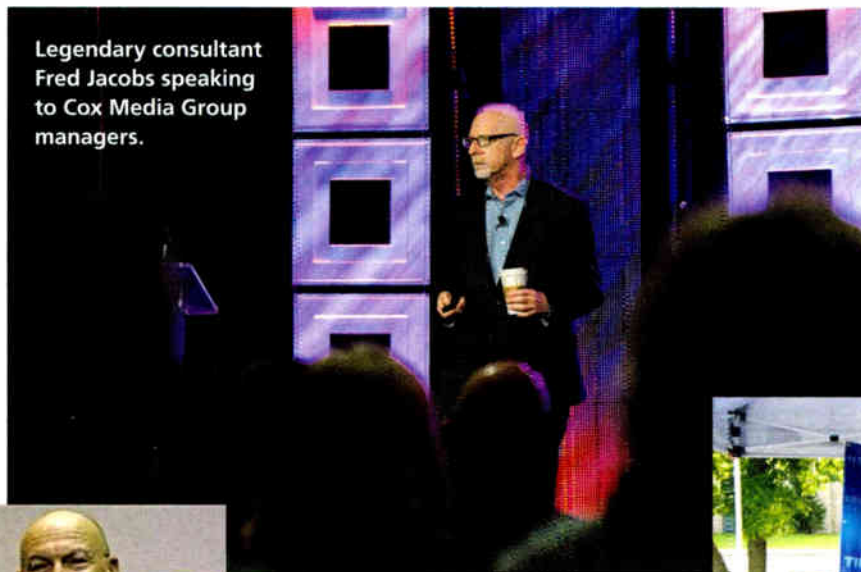
Jacobs believes radio has done a poor job overall of educating the ad community about the spending power of Boomers and radio's ability to reach them.

"Understandably, the RAB [Radio Advertising Bureau] has acted like Switzerland — not pushing any one demographic, ethnic group or gender. But the net-net is that radio is in a 25-54 box as it relates to advertisers. And as the climate has become more arduous for radio sellers, the need to stay tethered to 25-54s has even intensified."

Longtime Los Angeles radio owner Saul Levine agrees that buyer education is needed.

"Until the radio industry spends some time and money on reducing the difficulty of selling older demos, they will continue to be difficult to sell, and too few radio salespeople will make the effort."

Levine's KSUR(AM) "K-Surf 1260"



Legendary consultant Fred Jacobs speaking to Cox Media Group managers.



Longtime L.A. radio owner Saul Levine.

L.A. Oldies
1260
KSURF
50s & 60s

recently celebrated a year as an "oldies" station — playing the '50s, '60s and '70s era pop music that crosstown competitor KRTH abandoned in their quest to deliver 25-54s. KSUR garners a 0.5 audience share [6+ Nielsen Audio, Feb 2018, Mon-Sun 6A-Mid]. Consider this: Despite the music being played in mono on AM, with no live DJs and little-to-no marketing, KSUR ties local heritage talker KABC(AM), a station with huge personnel costs.

OLDIES BUT GOODIES

In Chicago, another station playing an oldies-based blend, WRME "MeTVFM" jumped from 26th to sixth in February with an audience share of 3.6 (6+ Mon-Sun 6A-Mid, Nielsen Audio) using what's legally classified as a low power TV Channel 6 signal at 87.7. That's so far to the left end of the FM dial that it literally isn't even available on some car radios. That didn't keep the station from reaching an estimated 765,000 weekly listeners and being #2 in middays.

When Weigel Broadcasting decided to launch a radio spin-off of their popular nostalgia-driven MeTV television network, Program Director Rick O'Dell says they made a choice: "They'd rather rank near the top of the 35-64 demographic than be near the bottom among

Production Director Bill Cochran (left) and Program Director Rick O'Dell at a MeTVFM event



25-54s."

As a former boss of Rick's used to say, "You gotta own a hill." Rick credits Cheryl Esken, MeTVFM's director of strategic sales and marketing, with designing creative campaigns for advertisers that target older listeners.

"We're trying to get the message out there that listeners over 55 have the largest chunk of discretionary income," says O'Dell. "Boomers buy big ticket items like second homes, luxury cars, and high-end vacations."

Then again, '60s and '70s songs can be popular among younger listeners, too. O'Dell points to the soundtrack of last year's big Disney superhero movie, "Guardians of the Galaxy 2," and says,

"It could have been subtitled, 'Boomers' Greatest Hits.'"

Among Persons 25-54 in Chicago, MeTVFM is now posting a respectable 0.2 rating, a benchmark that qualifies the station for more agency business.

Likewise, classic rock — the radio format that Jacobs pioneered — still attracts a big share of 25-54 listeners, even though its original listeners are older. The music is timeless.

"A century from now," Jacobs predicts, "people will appreciate and listen to the Beatles, the Stones, Floyd, Queen and Zeppelin. People discover music in a myriad of ways that have only fragmented with the popularity of the Internet. So everyone has their personal 'new

music' and their own playlists."

Meanwhile, network TV has been disrupted by hundreds of new providers, even more so than radio has been as a music source. So reboots like "Will & Grace" and "Roseanne" are considered major hits among all demos, especially when compared to the "long tail" of niche TV programming.

Looks like there may be more reboots in radio's future, too.

After 9 1/2 years of fun as the architect of LA's "100.3 The Sound," Dave Beasing has launched Sound That Brands, specializing in branded podcasts for major advertisers. Reach him on Twitter @DaveBeasing.

METVFM SAMPLE HOUR

- Kenny Loggins — "Whenever I Call You Friend"
- Pilot — "Magik"
- Mamas & Papas — "Monday Monday"
- Al Jarreau — "Mornin'"
- Grass Roots — "Sooner or Later"
- John Sebastian — "Welcome Back"
- Beach Boys — "Good Vibrations"
- Abba — "Fernando"
- Carpenters — "Yesterday Once More"
- Neil Diamond — "Kentucky Woman"
- Ringo Starr — "Photograph"
- Joni Mitchell — "Free Man in Paris"
- Melissa Manchester — "You Should Hear How She Talks About You"
- Los Bravos — "Black is Black"
- DeBarge — "Rhythm of the Night"



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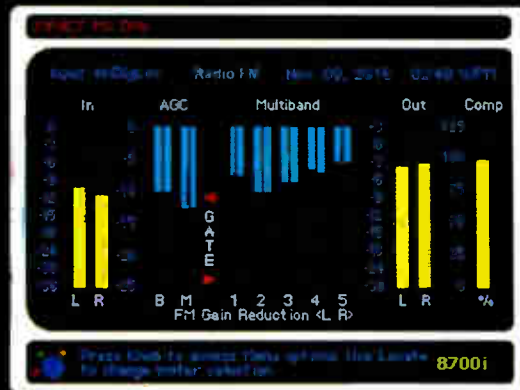
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World Radio History

Radio Automation Grows With the Times

More features and a constant need to adapt are hallmarks of modern automation systems

TRENDS IN TECHNOLOGY

BY DOUG IRWIN

Twenty years ago, as consolidation among radio companies was running rampant, automation systems became even more important than they'd been prior. Radio companies were promising new efficiencies to their investors, and automation provided one way to achieve that. Most manufacturers that work in this space have developed at least several generations of new systems since, with dramatically more power and functionality.

Over the last 15 years, initial requirements turned into basic features. Virtually all automation systems are going to allow you to do the following:

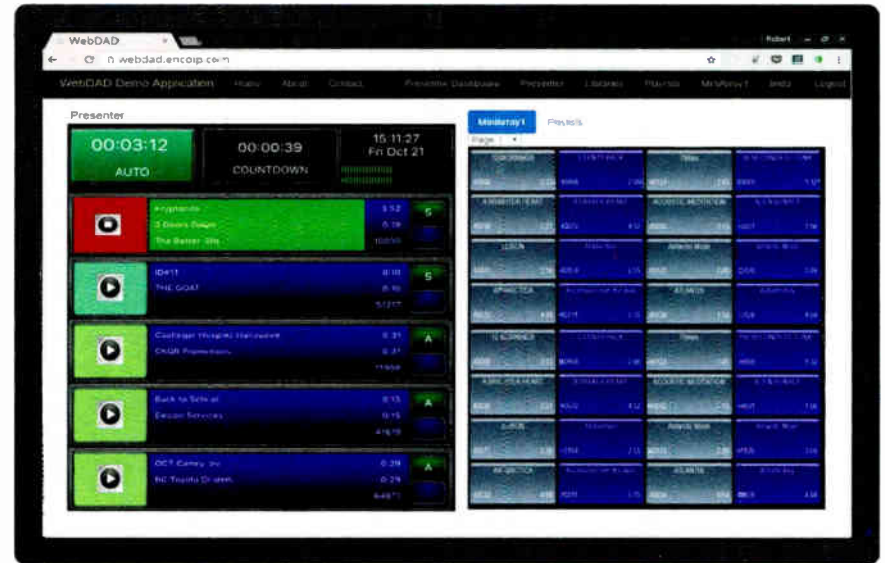
- Scheduling of a music log, and the

playback of songs according to the log;

- Scheduling of commercial content, and the playback of spots according to the log;
- Log reconciliations, so that you can prove spots ran over-the-air;
- In-house voice-tracking;
- Embedded recorder/editor.

Without those basic features, you don't have a system that is of use in a real radio station. Nowadays you must be able to accommodate voice-tracking for local and remote talent; you likely need content management features for streaming audio or on-demand features like podcasting along with management of metadata (for "now playing" features) and likely "social media" functions as well. The ability to access the system remotely via a smartphone has grown in importance.

Let's look at several major players



ENCO DAD

and see what they are offering over and above the five basic features.

ENCO

ENCO has its roots in the early 1980s. The Michigan-based company describes its DAD system thus: "Highly redundant and flexible architecture allows for infinite scalability and high performance ensuring your specific needs will be met into the future." From an engineering standpoint, here are its most salient features:

- DAD integrates with many types of broadcast equipment;
- According to the company the new DAD Engine can support up to 16 playlists running simultaneously from one workstation;
- Content can be shared across multiple streams (outputs). The system performs breakaways for different commercials, liners and jingles;
- It has an open API to facilitate integration with existing or new technologies.

As the end users, programmers will appreciate that playlists can have voice-tracks added from anywhere via a web browser, iPad or Windows PC. VPN access is unnecessary. DAD features automatic content ingestion, and directly integrates with Adobe Audition and Hindenburg Journalist Pro.

And certainly not least, the traffic department should find these features useful: Log changes can

be made at any time; the system automatically takes music logs and commercial logs and merges them. Music and/or commercial logs can be re-exported without having to re-merge logs afterwards; and DAD comes with its own integrated scheduling software plus what ENCO calls "tight bidirectional interface to leading scheduling systems."

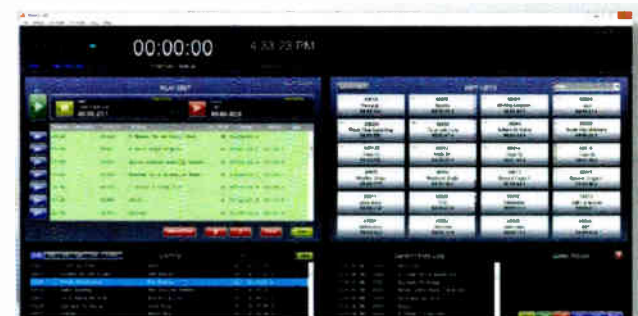
DAD is available as software-only, running on off-the-shelf PC hardware, or as a turnkey system delivered with ENCO's hardware configurations.

ARRAKIS SYSTEMS

Digilink-HD-Complete Arrakis, based in Colorado, is a full-featured automation system, and with it you can connect up to 10 on-air studios and an "unlimited" number of auxiliary studios. From a single networked station users can change schedules, add audio to specific stations and manage the audio database. With Digilink HD Tools, users have remote access to all networked stations.

The live-assist functions with Digilink-HD give each programmer access to all major components for live-assist. The system is touchscreen-compatible.

(continued on page 26)



Arrakis Digilink-HD

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OMNIA.SST SOFTWARE

AUTOMATION TRENDS

(continued from page 24)

and supports multiple monitors.

As one would expect, Digilink-HD gives the user the ability to create voice-tracks using its built-in segue editor and voice track recorder. The system also has a native recorder which can be used for phone calls, and it supports satellite automation and ball game automation.

RCS

RCS, headquartered in New York and with its roots in music scheduling, uses the tag line “the world’s largest broadcast software company.” According to the company, Zetta “takes a modular approach to workflow. All functions have a launcher app looking after the services and will restart them if they stop unexpectedly.” Playout audio is separate from the Sequencer, which is separate from the user interface, which of course, is just a



RCS Zetta2GO

remote control for the system and can be run on any workstation.

Zetta2GO is a suite of applications that lets users control the Zetta automation/playout system from a smartphone or tablet. You can manipulate what’s on the air from any place with an internet connection. Remote users can see the logs, Hot Keys and the segue/voice-

track editor.

Zetta was developed on SQL Server to enable flexibility for future expansion. It integrates with other RCS products such as GSelector, RCS News and Aquira. With the RCS “Living Log” changes are instantly reflected everywhere, allowing for easy coordination between all station departments that are involved.

Some other salient features for Zetta include:

- **ZCast**, which enables sites to share audio assets, logs, voice-tracks with heads/tails, segue transitions and splits between stations and databases;
- **Zetta Splits**, a feature that lets a master station send a signal, using TCP or serial, to local stations to play their own local spots and links, and then it rejoins the master station after the break. Splits stations can be used for internet streaming stations, network programming or simulcasting;
- **Emergency On-Air Backup** — Each computer in Zetta can be configured to have the ability to “Go Local.” This means the local computer will use a copy of the main database that is saved and synchronized on to the local computer;

Break Glass in Case of Emergency

Automation systems plan for emergency situations through redundancy

System redundancy is an important aspect of automation systems so I asked various developers about their approaches they take.

“With Simian, most users set up their production machine so that all of their audio files are mirrored between the air and production computers using the Simian File Sync utility, said Alex Roy of Simian developer BSI.

“If the air system fails, they swap the validation code and hardware keys between their two systems so that the production machine is now using the on-air license. If you want satellite source switching as well, you would route your satellite audio to the production system as well.”

At Arrakis, said Ben Palmer of the Digilink system, “We keep all of our software files in a single folder on the C drive. This folder contains all your schedules, audio, settings, etc. ... We recommend to customers to back up this folder, either with an external drive, a server, or on another networked PC or NAS. If you have the unfortunate experience of having your on-air PC die on you, it would then be as simple as placing these files onto a new PC and you’re back on air. Customers will often have a PC on their LAN that is mirroring that particular folder. This PC would be the standby, and would minimize any downtime.”

Ron Paley of DJB described redundancy in its system. “The DJB Radio automation system uses the audio server principle whereby the on-air software resides on top of the shared audio database, audio assets and archived files. In this case it’s a RAID mirror for the Windows Server 2016 operating system. Redundancy is provided by the second file server that runs as a file server in Win 2016. The main on-air machine seeks the primary database or it can

connect to File Server 2 for operations, while its local database runs as a backup.

“There are also many cases of off-site backups at transmitter sites whereby the assets are copied over a VPN to a desktop at the transmitter site(s),” he said. “We have found a software product called Syncback that does a great job mirroring the assets and with little overhead (which is user adjustable).”

Jeff Wilson of Broadcast Electronics provided specifics about AudioVault Flex: “With fast networks and large hard drives, the simplest solution is to copy everything everywhere with sound cards in the studio machines. If someone spills their coffee in the air console, hop into the prod room and fire-up the air-screen and as long as you can route the audio you’re back in business with minimal downtime

“For larger setups we do redundant servers that have multiple engines for automatic fail-over in case of server failure. In those sites, IP audio makes the backup possibilities endless,” Wilson continued. “Typically, we work with the engineer and design the system with the level of redundancy their budget allows.”

Jeff Zigler of RCS responded to my question about redundancy for Zetta. “One of the big benefits of Zetta is the hardware-agnostic approach, which allows it to be deployed on many different platforms (real or virtual) and hence be able to accommodate the varied redundancy schemes that are suitable for a given platform. We have many sites that have anxiously transitioned to the world of AoIP, but want to hold on to a bootstrap type of backup where audio is played out synchronously in both the AoIP platform as well as on a real hardware

audio card,” he said.

“The design philosophy for Zetta was to natively impose no functionality limits within the software, thus leaving the limiting factors to be within hardware domain. Since hardware platforms are always changing and typically improving with technological advances, Zetta’s configuration possibilities and redundancy designs will vary and evolve over time.”

While RCS strongly believes in backup and redundancy, he added, “We also believe there really isn’t one path that would be applicable to all customers and situations. We provide the customers with the capabilities, tools and assistance to develop and deploy the ‘right’ redundancy plans for them. We have had customers use as little as an external USB drive to backup and transport the data via a cloud storage solution to a get to a virtual machine, and all the way to customers that built a redundant system and then built an off-site second system that is in and of itself fully redundant and operating in concert with the initial ‘primary’ site.”

OMT’s iMediaTouch has several approaches

to system redundancy, Gary Kristiansen told me about its solution for mission-critical applications.

A central server is used for audio, logs and the database and through a feature called Store Forward. Both a “main” and “secondary” server pull copies and keep them locally. Further, the two workstations run in “teaming mode” whereby the secondary can take over for the main should the main fail. In the event that the central

server fails, the main on-air workstation keeps on going since it has the necessary files, previously pulled from the server. Likewise, the secondary can take over for the main since it too has pulled all the needed files from the central server. There is no single point of failure, he said.

— Doug Irwin



OMT iMediaTouch

• **Site Replication**, which keeps a copy of most of your entire database in sync somewhere else — off-premises. Hardware/computer-related items are not synced so that users can have local hardware configured to take a system to air if necessary.

BSI

Oregon-based Broadcast Software International, launched in the late 1980s and acquired a decade later by Cumulus Media, offers Simian 2.3, the latest iteration of its Simian radio automation.

Some of its new features include:

- **32-Bit/64-Bit-Compatible Audio Engine:** For use on Windows 7 64-bit, Windows 8 32-/64-bit, Windows 8.1 32-/64-bit, and Windows 10 32-/64-bit;
- **Simian File Sync Utility:** Sync and backup audio files and logs, trigger sets, Hot Key sets;
- **New Weather and Forecast Background Service:** Built-in utility to retrieve weather and forecast information;
- **Configurable Segue Fader Curve:** User sets the shape of the fade on segue;
- **New Email Notification Engine:** Receive email notifications when there is a playback/auto-replace error, crash recovery was engaged after a restart. Simian is closed by the user, program or hardware options are accessed by user, or the security options window is accessed by the user;
- **New Hardware Connector Functionality:** Add-on hardware connector background services for integration between Simian and third-party hardware.

OMT

Like many of the systems here, iMediaTouch by Winnipeg-based OMT has evolved substantially over the years since touchscreen control started showing up in studios in the 1980s.

Its features include advanced voice-tracking features both in-studio and from remotes locations, and a satellite interface that facilitates networked talk programming and sports broadcasts (“all done in one daily log”).

For station groups, iMediaTouch offers centralized audio distribution and remote voice-tracking. For noncommercial stations, the system offers compatibility with NPR Content Depot.

The system has functionality to interface with consoles, of course, as well third-party products from MusicMaster, Wheatstone and Axia. “Outbound” IP functionality includes metadata output, album cover and real time WMA encoding.

The user interface can be set up for either touchscreen or mouse/keyboard, depending upon station or corporation preference. An optional on-air screen audio library displays with drag’n drop into the main log and Hot Key pages. And, an enhanced phone bit recorder and waveform editor is available from the main on-air screen.

iMediaTouch offers a system emergency operation (operated from a local hard drive or redundant server) with complete restoration of all configuration settings and database entries in the event of a “server down” circumstance.

France-based software provider WinMedia Group acquired OMT Technologies in 2017; the company exhibited as Win-OMT at the spring NAB Show.

DJB

DJB Radio Automation Software runs on a PC, using either audio cards



DJB Radio Automation

or Axia’s Livewire or WheatNet IP (with optional interfaces). According to its literature, DJB Radio works with any traditional audio card that works with Windows Direct Sound. “Start with DJB Radio Automation Software, then upgrade your hardware in stages. Switch over to AoIP when your infrastructure is ready.” The company is headquartered in Las Vegas and managed by Ron Paley, whose family acquired the DJB technology in 2012.

Some of its important features include:

- **Wave Editor:** In the on-air studio, users can quickly edit phone calls or clean up recordings made with the Background Recorder to get them ready to air;
- **Voice-Tracking:** Has two modes — regular voice-tracking where users listen to the segue while recording the break and a faster Speed Voice Tracking, which has a time counter and record-without-listening function;
- **Log Editor:** It works in real time, with changes reflected instantly;
- **Scheduling of Programs:** DJB can interface with major traffic systems and music scheduling programs;
- **Central Server:** Each station can have its own independent set of music categories, logs are managed station by station, but each station can share the commercial library and other programming;
- **Now Playing/Streaming:** Several options for putting “now playing” metadata information on a website and output to an RDS encoder. SECURENET, Shoutcast, Live 365 and TCP-IP output settings built in to the automation;
- **Background Recorder:** The built-in Background Recorder uses a time-scheduled start-stop or triggered start-stop to record programs automatically and drop them into the audio database for later playback.

BROADCAST ELECTRONICS

AudioVault has been a prominent name in this sector for decades and has evolved into AudioVault Flex.

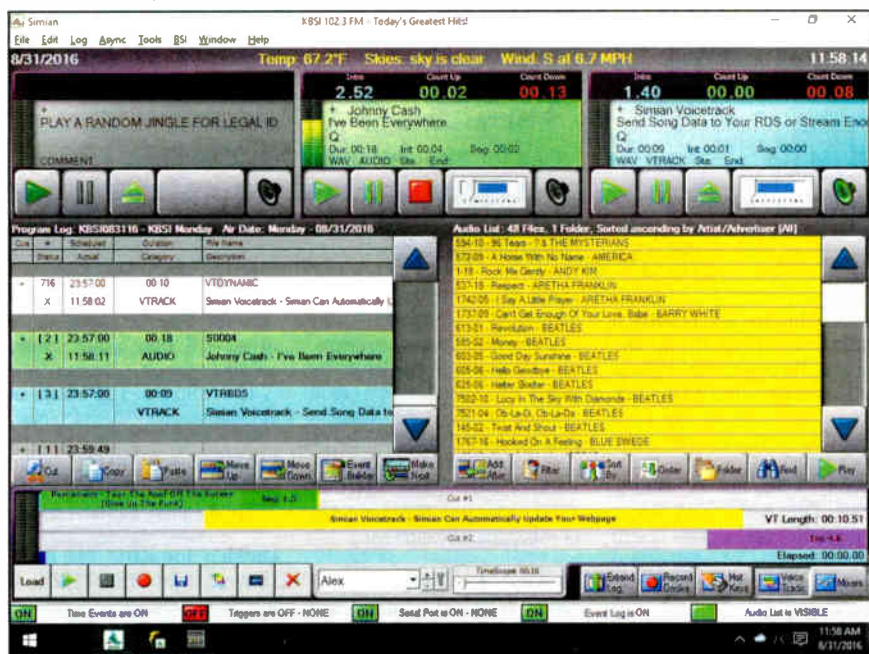
The system can be built using off-the-shelf audio cards, or it can use IP audio routing (the end-user decides). Engineering can repurpose content for use elsewhere such as new internet-only content or use on an HD2 channel. Stations can also syndicate shows individualized by affiliate anywhere in the world.

The system is scalable; it can be expanded from a single workstation to a multiple-location network and new capabilities can be added as the station needs. Engineering (and talent) can access the system remotely and now by a smartphone via the Flex mobile app.

BE says talent can set up any number of screen presets based on their preferences, show formats and other individual or workgroup uses; they can record and log audio from practically any source for long-term storage or short-term auditing; they can cut and paste audio clips, and they can record news actualities and phone bits. They can operate the system in a fully automated fashion, in live-assist, or off of satellite (or any combination of all three).

Naturally there are features for production and traffic personnel; spots can be dubbed in from agencies; music can be ripped from a CD, or imported in any WAV, MP3 or other standard audio file. With a feature called Perfect Timing, stretch/squeeze functions are used to keep the various streams all aligned

(continued on page 28)



BSI Simian



STUDIO SESSIONS**AUTOMATION TRENDS***(continued from page 27)*

with one-another from a timing standpoint. Headquartered in Quincy, Ill., BE was acquired by Elenos last year.

WIDEORBIT

WideOrbit Automation for Radio includes centralized content and playlists that allow users to record, import, edit and convert music for automatic distribution to the right markets; user can instantly change spots, music or other programming elements.

Remote management allows for management of the system from any browser; multiple-market voice-tracking allows the station or group to use talent from other markets and record voice tracks remotely — and to then deliver to any station via a web browser.

Enhanced MusicMaster Integration provides integration with this scheduling software for song replacement, real-time reconciliation, advanced music searching and automatic song card creation. WO Traffic

**Broadcast Electronics AudioVault FLEX**

Integration allows for use of WO Traffic for live log editing, electronic playlist delivery, real-time reconciliation and automatic run date synchronization. Audio Finder allows the station to manage the audio library centrally and search other markets for content. Customizable interfaces allows users to make changes to the UI to better suit their individual needs.

Like other large systems in a radio facility — consoles, routers, transmitters — an automation system should be purchased based not only on feature set but also on the purchaser's personal preference and history with a particular brand. It's natural to take that approach; it's also wise to see what other systems are out there before making a commitment to a system which is expensive and expected to have a long life. Do your homework!

Doug Irwin, CPBE AMD DRB, is vice president of engineering at iHeartMedia in Los Angeles and a technical advisor to Radio World. His Trends in Technology columns will appear here regularly.

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MISCELLANEOUS**WANT TO SELL**

I'm selling between 150 and 200 cassette tapes that consist of old-time radio shows, sports shows, some local New York radio talk shows, etc... Must take entire collection and the price is negotiable. Please call me for details and, my phone number is 925-284-5428.

Radio broadcasts of Major League Baseball, NFL, and some college football games that are on cassette tapes, approx 100 to 125 games, time period of entire collection os from the 1950's - 1970's, BO. Must purchase entire collection.

Contact Ron, 925-284-5428 or ronwtamm@yahoo.com

WYBG 1050, Messina, NY, now off the air is selling: 250' tower w/building on 4 acres; collection of very old 78s dating back to 1904; 12' satelite dish on concrete base; prices drastically slashed or make offer. 315-287-1753 or 315-528-6040

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Collector wants to buy: old vintage pro gears, compressor/limiter, microphone, mixing consoles, amplifiers, mic preamps, speakers, turntables, EQ working or not, working transformers (UTC Western Electric), Fairchild, Western Electric, Langevin, RCA, Gates, Urei, Altec, Pultec, Collins. Cash - pick up 773-339-9035 or ilg821@aol.com.

2" plastic "spot" reels 6.5 or 8" diameter, as used for quad video. Wayne, Audio Village, 760-320-0728 or audiolvlg@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 KFRC radio special of Elvis Presley which aired on January 8, 1978. I'd

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be willing to pay for a digital copy. Ron, 925-284-5428.

I'm looking for the Ed Brady radio show in which he did a tribute to Duke Ellington, the station was KNBR, I'd be willing to pay for a digital copy. Ron, 925-284-5428.

I'm looking for KTIM, AM, FM radio shows from 1971-1988. The stations were located in San Rafael, Ca. Ron, 925-284-5428.

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 San Francisco Giant's taped off of KSFO

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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 wom-

en'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 ronwtamm@yahoo.com.

Looking for KSFX radio shows, Disco 104 FM, 1975-1978. R Tamm, 925-284-5428.

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(2) LPFM radio stations for sale, located in the NW part of central Florida on the gulf coast, covers the county, get out of the cold weather, come to Florida, call or write for particulars, 352-613-2289 or email boceey@hotmail.com or Bob, PO Box 1121, Crystal River, FL 34423.

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Pai Seeks Further Modernization

For radio, he focuses attention on issues around translators and interference complaints

NABSHOW

BY AJIT PAI

The following are excerpts from FCC Chairman Ajit Pai's remarks to the 2018 NAB Show in Las Vegas.

If there has been a dominant theme of the past year for broadcasters, I would say it's been your role as first informers.

There are so many examples I could choose, but fresh on my mind is my visit last month to Puerto Rico and the U.S. Virgin Islands, two territories hit hard by last year's hurricanes. In San Juan, Puerto Rico, I did an interview on WKAQ, and heard firsthand how hosts Ruben Sanchez and Ricardo Padilla stayed on the air during the storms and kept people informed. Afterward, I got a tour of the station. You could still see some of the structural damage in the

atrium. And in the U.S. Virgin Islands, I visited WTJX, the public television station on St. Thomas. This station was completely destroyed. But before that point, WTJX was letting folks know what they needed to know to stay safe. ...

At the FCC, I see it as our job to create a regulatory environment that enables you to keep doing great work like this. A big part of that is modernizing our media rules to match the marketplace and technology of today. That's required a lot of work. For most of these rules were written during the analog era, at a time when Amazon was nothing more than a river and (the homonym) "googol" was nothing more than a really big number. ...

As you know, an important part of our 2015 AM Revitalization Order was helping AM broadcasters obtain FM translators.

This has been a pretty successful effort, with big demand across the country.

Chairman Ajit Pai at the NAB Show. "I'll continue to take the arrows fighting to promote a fair chance for broadcasters to compete."



But with this increase in translators, we've also seen an increase in interference complaints. That's why I shared a proposal today with my colleagues to update our rules on translator interference. The goal is to simplify and expedite the complaint process. This Notice of Proposed Rulemaking follows up on a petition for rulemaking filed by NAB. Among other things, it would allow translator stations to resolve interference by moving to any available frequency using a minor modification application and require a minimum number of interference complaints to support any interference claim. I appreciate NAB's input and look forward to working with you on this issue.

Another area where we've been active is pirate radio. We're cracking down on unauthorized stations that can hurt your businesses, interfere with licensed communications, and impede the public's ability to access the critical information you provide.

Since January 2017, the FCC's Enforcement Bureau has undertaken a whopping 306 pirate-radio investigations and has issued 210 Notices of Unlicensed Operation. That reflects a 101 percent increase in enforcement against pirate broadcasters compared to the previous year. During that same time, the commission has also fined illegal broadcasters \$143,800 and proposed fines totaling \$323,688.

But we're not just doing more. We're also getting more creative.

For the first time, the FCC last year found property owners apparently liable for supporting this illegal activity on their property. In proposing the statutory maximum forfeiture, we want to make clear that aiding a pirate's unauthorized use of the radio spectrum won't be tolerated. We also successfully reached a consent decree with a pirate radio operator that involved the pirate closing up shop and paying a fine.

And lastly, we're working with various U.S. Attorney's Offices and the U.S. Marshals Service to seize radio transmitters and other equipment used by pirate radio stations. Just a little over two weeks ago on March 26, federal authorities seized radio transmission equipment from two radio stations that were operating illegally in Boston. Today, I can report that we recently took similar action against a pirate operator in Miami and another operator in Queens, N.Y.

Thanks are due to our federal partners in Boston, Miami, and New York, the FCC's field agents and Enforcement Bureau staff, and Commissioner O'Rielly, who has been a leader on this issue. ...

Congress has authorized the commission to reimburse LPTVs and translators as well as FM radio stations. Our staff is hard at work preparing for rulemakings on reimbursement procedures for these stations, and we look forward to working with you on this. ...

The FCC needs to modernize its rules — in the digital age, it's the only way to allow broadcasters to thrive. And that is why I'll continue to take the arrows fighting to promote a fair chance for broadcasters to compete. It may not always be earth-shattering stuff, but it's a big deal for our communities and our nation.

Comment on this or any article. Email radioworld@nbmedia.com with "Letter to the Editor" in the subject field.

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indoor unit



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