

# SANITIZED FOR YOUR PROTECTION



### SOME WORDS SHOULD BE OBSCENE AND NOT HEARD



Eventide Broadcast Delays are designed to keep profanity off your air, and angry listeners, embarrassed advertisers, and the FCC off your back. We invented the obscenity delay and have a solution for stations large and small that provides up to 80 seconds of the highest quality revenue and licenseprotecting delay.

Our new HD compatible BD600, 24-bit delay, comes standard with AES/EBU, and provides up to 80 seconds of memory — twice as much as other delays. There are fully adjustable Delay and Dump functions, and a Sneeze function which "edits" audio entering the delay, allowing the host to sneeze, cough, or make a short comment without being heard on air.

The BD600 offers two different methods of delay buildup and

reduction: Eventide's catch-up and catch-down system, and an exclusive fast-entry-and-exit feature which allows starting a broadcast with the delay already built up to a safe amount and ending it with a rapid reduction of delay.

For HD, the BD600 offers MicroPrecision Delay<sup>™</sup> mode which allows up to 10 seconds of delay to be adjusted in real time in 100 nanosecond increments. This is useful for synchronizing analog and digital signals while on-air, without audible artifacts, to maintain a seamless user experience.

Whatever your size, whatever your format, you can't expect to protect the integrity of your air and the foundation of your business without an Eventide Broadcast Delay in your rack.





One Alsan Way, Little Ferry, NJ 07643 tel.201.641.1200 www.eventide.com Eventide is a registered trademark and MicroPrecision Delay is a trademark of Eventide Inc. ©2005 Eventide Inc. World Radio History "Talent has come to expect the same level of quality and convenience they have at their home studios, and with Tieline's ViA, that's exactly what we are able to provide."

-Jim Hibbard/Pacific Mobile Recorders

### The Remote Solution of Choice...



# Merlin

#### ViA and Merlin PLUS Deliver More Options for Live Remotes

Innovative radio remotes in new locations can be challenging, however Tieline's ViA remote codec has up to 6 IP connectivity options, plus optional ISDN and POTS modules.

Connect ViA to Merlin PLUS at the studio with SmartStream PLUS dual redundant IP streaming and deliver high fidelity audio beyond expectations in the most demanding broadcast environments.

- Full duplex stereo program plus separate full duplex IFB communications
- Fuse-IP (Bonding)
- Schedule, dial, manage and hangup connections automatically
- Adjustable input EQ & compression, plus IGC & AGC limiting
- 6.5 hours of power with one internal battery in the ViA (remote end).
- POTS, ISDN, SIP, IP, LTE, Wi-Fi and USB Modem connectivity







317-845-8000 | sales@tieline.com | tieline.com



### Technology Suppliers Advance Industry Innovation

Here we present your annual Radio World Source Book & Directory, a resource for people working in and around the U.S. radio broadcasting industry.

From "visual" and "virtual" radio products to processors, alerting to test & measurement, IP codecs to high-capacity STLs, these products are part of your radio operation's bread and butter. The companies in these pages can help you outfit your radio studio, network, RF plant or new media platform.

Every year as the leaves turn here in the Middle Atlantic region, we invite all companies in our database to submit their contact information and brief descriptions of what they offer in support of the U.S. radio broadcast industry.

You'll find the respondents listed alphabetically in the Vendor & Product Directory section starting on page 24.

Companies also tell us the type of hardware or service they offer; find those categories in the Supplier Cross Index starting on page 18.

On pages 6–17, sponsors highlight key products in the Profiles in Excellence section. Starting on page 42 are sponsored product stories that originally appeared in Radio World in recent months.

Readers turn to Radio World to learn about familiar broadcast technology categories such as RF, audio over IP, and facility infrastructure. They also read RW to consider how smart speakers, mobile behaviors, social media, connected cars, cloud technologies and other new media trends and platforms affect their jobs and careers. These trends play out in this directory too.

My inbox is always open to you at radioworld@nbmedia.com.

— Paul McLane Editor in Chief



### Inside

6–17 Profiles in Excellence

18–23 Supplier Cross Index

**24–41** Vendor & Product Directory

42–46 Product Stories

### Open the door to your possibilities!





Powerful, state-of the-art automation with the flexibility to grow with you...

- The power of OPX in one stand-alone computer
- Easy to learn
- The power to handle the largest audio libraries
- Satellite and live programming
- Additional stations
- Remote voicetracking
- Remote control



### Call (888) 274-8721

(888) BSI-USA-1 or email us at sales@bsiusa.com

**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

PROFILES IN EXCELLENCE

### **TRM Corporation Uses ACCESS NX For Everything From Sports To Interviews**

Tom MacDonald owns TRM Corporation, a company that provides remote broadcasting services to a wide range of clients. "We do remotes for everybody from the New York Jets, to Sirius, to little mom-and-pop stations," said Tom. "My gear is everything from a satellite truck to a mixer. You name it, I own it."

TRM Corporation bought one of the first ACCESS NX units that was shipped. "We always need the latest technology, and I was very happy to get it. There are a lot of features we've been hoping for. ACCESS NX has a ¼" jack for a headset, which makes remotes much easier. Plus, microphone attenuation works with a wider range of headsets. These seem The properties by ACCECA by set the American Case and a set of the American Case and a set of

TRM Corporation's ACCESS NX at the American League Championship Series

like small changes," said Tom, "but they make a big difference."

"Plus, the agility to have two mics without adding a mixer is fantastic," said Tom.

TRM Corporation was contracted by Sirius XM to handle a remote from Yankee Stadium during the American League



TRM Corporation's ACCESS NX at a Veteran's Day Parade, broadcasting from the back of a Cadillac.

Championship Series. "We were handling pre- and post-game talk for Sirius XM's MLB Network Radio," said Tom. "I knew ACCESS NX would impress my client — and it did."

Tom also used ACCESS NX to handle a remote with the conductor of the Philadelphia Orchestra. "I'd never been able to get a solid signal out of that room before," said Tom, "but

with ACCESS NX, I did a 90-minute interview with an AT&T air card, and it sounded great."

"I own 8 or 9 ACCESS 2USB portables to handle radio row events, because they're just easy - I can set them up and hand them to one of my guys, and they can run it with no help," said Tom. "But now, all of my employees want to use the ACCESS NX. Everybody wants to see it — it turns heads."

"The GUI is smooth to work with, and it's instantly familiar. And the little green flashing light that tells you if you're overmodulated at a glance is cool as well," said Tom.

"It's great equipment. It works well, and I feel like I could use it for anything."



www.comrex.com | info@comrex.com | 978-784-1776



# HAVING A GUEST ON THE AIR Doesn't need to be complicated.

Adonal Foyle Author, Player Advocate, Media Analyst, Former Professional Basketball Player

Opal

ពណា ន៍ ទំ ស 😋

品 器

### **Quality Interviews, Simple Setup**

1/483

For more information, visit www.comrex.com/opal



Contact Us Today to Learn More <u>1-800-237-1776 | www.comrex.com</u>

COMREX



**IE**l

ES IN EXC

# Daniel Anstandig

#### **FUTURI MEDIA**

Few entrepreneurs can say that they were able to turn one modest round of angel funding into a multi-million-dollar company with 100 people operating in 20 countries. Futuri Media is one such company. With a commitment to building a culture around innovation, passion, speed, proactivity and trust, Anstandig and Futuri Media hold patents for innovative technology in 152 countries.

ROFI

A two-time NE Ohio Ernst & Young Entrepreneur of the Year finalist, Anstandig leads Futuri's growth through a relentless work ethic (spending more than 25 weeks per year on the road) and sincere appreciation and development of Futuri's leadership team.

The company has grown 40%+ YOY consistently for five years, achieving 88.7% client retention. Most recently Futuri was named on INC 500's prestigious list of America's Fastest Growing Companies for

a fourth year in a row, just weeks after being recognized as one of Cleveland's Top Workplaces of 2017 and being coined Best Tech Company of the Year by OHTec's Best of Tech Awards.

Futuri has acquired two companies in the last 18 months: in 2015, the company acquired Canadian-based international streaming media service StreamOn and broadcast sales consultancy TopLine Matters. Both acquisitions were only modestly profitable at the time of their acquisition. In the first quarter of each acquisition, Anstandig increased the revenue and profitability of both companies



RADIOWORLD INDUSTRY INNOVATOR Awards 2017

through innovation and business development. In the case of TopLine Matters, Anstandig transformed a boutique agency business into a scalable SaaS product within 90 days of closing on the acquisition, increasing customers by 469% and increasing revenue by 424%.

LENCE

Anstandig's business model for Futuri is unique, and it demonstrates his understanding of the distinctive opportunities of the broadcast marketplace.

Anstandig created a lucrative network syndication business model where clients can trade Futuri's services for unsold com-

> mercial time, which is then sold to major national sponsors such as McDonald's, Home Depot, Verizon and Pepsi.

Anstandig has advised The Wall Street Journal, CBS News, Clear Channel R&D, the White House Commission on Remembrance, Glencoe-McGraw Hill

and various broadcasting companies in the United States, Canada and Europe on digital audience and revenue growth strategies. Daniel's research and editorials on radio and interactive media have been published in The Wall Street Journal and Billboard Magazine, and industry trades such as Radio World and Radio Ink Magazine.

Anstandig is a frequent speaker for the National Association of Broadcasters, state broadcasters associations, Radio Ink Convergence, Canadian Music Week, RadioDays Europe and other conventions around the world.



futurimedia.com | partner@futurimedia.com | 877.221.7979 x2

– 😫 – World Radio History **Sponsored Section** 

### FUTURI

# Innovative technology that drives audience and revenue growth?

### That's what we do.

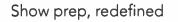




Podcasting & on-demand

Interactive broadcasting





Sales research & data visualization

10



Mobile apps



High-quality streaming



Smart speaker skills

# SaaS technology to drive audience and revenue growth for broadcasters, plus the best 24/7 VIP Support in the business, hands down.

futurimedia.com | 877.221.7979 x2 | partner@futurimedia.com

From the team that brought you LDR



# PROFILES IN EXCELLENCE

Jim Wood

Founder INOVONICS, INC.

Few companies can claim to be relevant in any industry after 45 years, but Inovonics continues to innovate new products and lead the radio broadcast industry thanks to a great partnership between our founder Jim Wood, CEO/President Ben Barber, and the talented engineering/production team at Inovonics Inc.

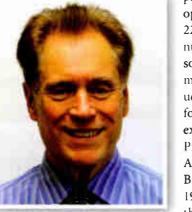
Now in his 70s, Jim is still very active at Inovonics. He works with the engineering team to develop new products and is responsible for authoring all of our product user manuals. In the last three years, Inovonics has launched no fewer than 16 new products, including six new products at NAB 2017.

Examples of recent technological innovations for the radio broadcast industry would be the 808 JUSTIN FM/HD-Radio Time Alignment Processor (2015), the 223 Multimode Audio Processor (2016), the 531N FM Modulation

Analyzer with Network Control (2015) and the INOmini SiteStreamer family of remote receiver-monitors for AM/ FM/HD/DAB-DAB+.

Jim Wood founded Inovonics in 1972 with Mark Drake. That year they invented their first product: a solid-state replacement tape recorder assembly for the AMPEX 350 series, which was a workhorse of the recording and radio broadcast industry at that time. The product was an unqualified success, and in its initial versions, nearly 10,000 channels were sold.

Since then, Jim has made important contributions to the radio broadcast industry by actively developing useful



RADIOWORLD INDUSTRY INNOVATOR Awards 2017

products. In the early 1970s, Jim developed Inovonics' first audio processor—the 220 Audio Level Optimizer—followed by numerous single and multiband processors, stereo generators, and AM and FM modulation monitors. Many of these products were industry firsts and can still be found in studios all over the world. Some examples include the DAVID I FM Audio Processor from 1992, the Multiband Audio Processor-MAP II, and the 222 AM Broadcast Compliance Processor from 1987, a product that is still in demand to this day.

> In the mid-1990s, Inovonics was one of the first U.S. manufacturers to develop RDS/RBDS encoders; it remains one of the few broadcast firms to offer a full product line designed and built entirely in the United States.

Throughout his long career in the broadcast industry, Jim has

registered a number of patents and has worked in partnership with other manufacturers for OEM development. Patents:

- 1974: Frequency Selective Limiting Means
- 1988: Filter Overshoot Control Means
- 2004: Polarity Independent Peak Processing (PIPP). OEM Development:
- 1974: Zi-Tech Inc., TB-100 Precision DC Voltage Standard
- 1976: Ampex Corp., TS-40 Tension Servo, 240 and 241
   'DYNEX' Adaptive Noise Suppressor
- 1982: Westrex., RA1125 Mag-Film Insert Recording Electronics; 250 Programmable Multiband Broadcast Processor.



Better Radio Since 1972

www.inovonicsbroadcast.com | sales@inovonicsbroadcast.com | 831-458-0552

- 10 -World Radio History

#### THERE'S A NEW MEMBER TO THE AARON FAMILY

# INTRODUCING THE -AARON 655

#### REBROADCAST / TRANSLATOR RECEIVER FM / H) Radio

The AARON 655 is the first of its kind—combining an FM/HD Radio Receiver with an Audio Processor, Dynamic RDS Encoder, and IP-Streaming. With premium features and unparalleled performance, the AARON 655 excels in the most challenging reception conditions. Radio

Uncompromising DSP-based (SDR) receiver

AARON

AARON 655 · FM/H) Radio Rebroadcast Receiver

- Program Sources: HD 1-8, FM, IP-streaming, Analog/AES Line Inputs
- RDS Encoder: Converts HD Pad Data, IP-Stream Meta Data or IP Telnet Data
- Audio Processor: Powerful 3-band, 10 factory resets, Dayparting
  - No Dead Air: Assignable failover audio backup
  - Dynamic Web Interface for remote control & monitoring
- Alarms & Notifications via email, SMS messages, SNMP support





www.inovonicsbroadcast.com | sales@inovonicsbroadcast.com | tel: 831-458-0552

# PROFILES IN EXCELLENCE

### **Frank Foti** CEO **THE TELOS ALLIANCE**

Frank Foti is CEO of the Telos Alliance, founder of Omnia Audio, and a pioneer in broadcast audio processing and broadcast engineering. His numerous technical achievements have helped to shape the sound of broadcast audio for the last 40 years. His list of inventions and innovations is exhaustive. Frank is responsible for Non-Aliasing DSP Clipper and Low-IMD Clipping technologies, both of which push the envelope in terms of the high level of performance that can be attained in radio broadcasts. He designed the first all-digital FM audio processor and first DSP-based

broadcast audio processor. Additionally, Frank is developer of Single Sideband Suppressed Carrier Technology for FM. By taking advantage of today's computing power, he has brought Single Sideband FM stereo from a theory to a usable tool in the broadcaster's transmitting toolbox. He is an

innovator of new tech and features in broadcast processing, including the first broadcast processors to have AES composite output and the first broadcast processor with 48 kHz audio sampling rate.

It's not only his personal thought leadership in the area of audio processing but his leadership as the CEO of the Telos Alliance that has led the way, with innovation across all six Telos Alliance brands: Telos Systems, Axia Audio, Omnia Audio, Linear Acoustic, 25-Seven Systems and Minnetonka Audio.

He created the creative and thinktank-like environment that led to the following:

- Axia inventing Audio over IP for broadcast.
- Telos Alliance being the first company in the United States to license MP3.
- Telos Alliance inventing Livewire\*, the first fully broad-



### RADIOWORLD INDUSTRY INDUATOR Awards 2017

cast-capable AoIP system that includes audio, GPIO control and advertising.

- 25-Seven creating Voltair and challenging the status quo in the ratings watermarking arena.
- Telos Alliance becoming a founding member of the Media Networking Alliance and staunch proponent of the AES67 interoperability standard.
- Omnia developing the µMPX<sup>--</sup> audio codec, which transports high-quality multiplexed FM signals over a small 320 Kb/s data pipe.
  - Frank has received numerous awards for his work in broadcast engineering, including the prestigious NAB Excellence in Engineering Award (2013) for his significant contributions, which, according to NAB, "have advanced the state-of-the-art in broadcast engineering."

Before his first company — Cutting Edge Technologies — joined

forces with Steve Church's Telos Systems (now the Telos Alliance), Frank was chief engineer at the legendary WMMS and WHK, where he got his start developing custom audio processing solutions for radio stations. His later work at KSAN and KNEW (AM) San Francisco and Z-100 (WHTZ) in New York cemented his reputation as a leader in the processing field. In fact, he helped take the latter from the worst radio station in New York to the No. 1 station in only 74 days. Thanks to Frank, Omnia processing products are now the choice of Top 100 rated stations in America, and are in use at virtually all major stations worldwide.

Frank continues to be not only the elder statesman of broadcast audio processing, but the innovator driving new technologies to market that are minicked by competitors worldwide.

### THE TELOS ALLIANCE®

www.TelosAlliance.com | Inquiry@TelosAlliance.com | 216-241-7225

- 12 -World Radio History







# commotion

Social Media and Mobile Solutions for Radio



Dependable STLs and RPUs





Innovative & Efficient FM Transmitters & Exciters



#### Flexible & Reliable Radio Automation





Solid State Transmitters 500 W - 10 kW

### Delivering total radio solutions for over 55 years.

Broadcast Electronics • 4100 N 24th Street Quincy, IL 62305 (217) 224-9600 • www.bdcast.com

**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

### PROFILES IN EXCELLENCE

### Join the Remote Revolution With ViA

When you compare ViA with competing remote codecs the choice is clear. Tieline's revolutionary ViA codec delivers more IP choices and backup options than ever before over IP, ISDN and POTS.

#### **6 IP Interfaces Available**

Stream bidirectional high fidelity stereo program audio and separate full-duplex IFB using your choice of:

- Built-in dual band Wi-Fi.
- Dual USB ports for cellular modems.
- Internal LTE hardware module.
- Dual Ethernet ports.

Plus connect over ISDN or POTS as required using optional hardware modules.

#### **Built-in Wi-Fi**

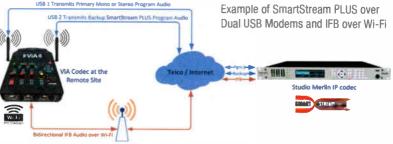
ViA's built-in Wi-Fi connectivity and integrated webportal expands connection options from hotels, fast food chains, or even a Wi-Fi hotspot on your smartphone! Tap to connect quickly and use Wi-Fi to stream program audio and IFB in seconds.

#### **Intuitive User Interface**

Navigate and configure settings easily with ViA's color touch screen, which provides familiar and intuitive menu navigation, similar to using a smartphone. All codec settings can also be configured and controlled using the Toolbox web-GUI.

#### SmartStream PLUS & Fuse-IP

Tieline's revolutionary SmartStream PLUS is the benchmark for dual redundant IP streaming over the public internet and is included as standard. With Tieline's proprietary Fuse-IP data aggregation technology you can also bond data from multiple IP transports such as LANs, cellular modems or Wi-Fi, and increase connection bandwidth.



#### **Dual Cellular USB Modems**

ViA supports a variety of pre-tested cellular USB modems out of the box. Bond data from multiple modems with Fuse-IP, or use two with SmartStream PLUS for dual redundant streaming.

"Tieline's ViA incorporates flexibility, top notch design, and most importantly, high-end quality and performance."



Tim Dench, Station Manager and Radio and TV Instructor at Jeffersonville High School



"The ViA with SmartStream PLUS exceeded all expectations."

> Malcolm Sully, Technology Manager, Nova 93.7

'The ViA blew me away, it's a great little unit!"

Simon Lovell, Technology Support Engineer, Nova 93.7

#### ViA Delivers #MoreOptions

Customize headphone monitoring and route any input to any output using the simple touch screen Matrix Router. ViA also delivers more input processing options than

competing remote codecs, such as configurable input EQ and compression, plus input IGC and output AGC limiting.

#### Power on the Go!

ViA ships with a road case, power supply and internal rechargeable Lithium-ion smart battery, which delivers up-to 6 ½ hours of wireless broadcasting freedom.

#### Basic & Admin Modes

Use 'Basic Mode' to simplify operation by restricting user access to complicated network settings.

Contact Tieline and join the #ViARevolution today.



www.tieline.com | sales@tieline.com | 317-845-8000



- 14 -World Radio History

# **The Remote Codec of Choice**



www.tieline.com

317-845-8000

Tieline

## PROFILES IN EXCELLENCE

# Gary Snow

#### WHEATSTONE CORPORATION

Gary Snow founded Wheatstone Corp. more than 40 years ago, creating what many consider to be one of the best audio design and manufacturing companies in the industry. Wheatstone is known by radio and TV broadcasters worldwide for its quality studio consoles and WheatNet-IP audio network.

Not too many people know that Gary played in a few small bands in his time. He'd get together in the evening with friends to play a little music, and from time to time he'd come up with an electronic goodie for his band buddies. In the early days, he even made specialized parametric equalizers. It's no surprise that when Gary was a teenager, he made customized repairs to guitar amps for his friends.

From the beginning, Gary was focused on — some would say obsessed with — making quality products. His first broadcast audio console was sold to WGBH in Boston in 1984, where it remained

in service for 25 years. In the early days, he would go to the AES or NAB show with his square wave generator and scope to show people just how good the audio performance of these consoles was. Soon enough, he designed one of the first multitrack recording consoles. It was unique because it had patch bays built into it. Twenty years later, he'd



### RADIOWORLD INDUSTRY INNOVATOR Awards 2017

revolutionize the industry again with tiny talent panels and other elements in an IP audio networked ecosystem that needed only a single Cat 6 cable to route audio.

Gary has always insisted on in-house manufacturing, with no jobbing out. At one point in the 1980s he decided that the company would build its own faders because he didn't want to be dependent on an outside supplier. In the '90s, when it seemed the entire industry began sending manufacturing elsewhere, Gary remained steadfast in his belief that quality and innovation come from total in-house control. In fact, Gary

was one of the first in the industry to invest in surface-mount technology, which then led to some amazing accomplishments in audio routing through IP networking. In 2016, under Gary's leadership, Wheatstone developed the first fully configurable audio console: the LXE.

Gary loves nothing more than to design audio products. We remember him building one-off band mixers in his attic back in the 1970s; now we walk out in production and marved that our company is shipping thousands of products all over the world every month from this one building in North Carolina — all due to his vision and commitment.



www.wheatstone.com | sales@wheatstone.com | 252-638-7000

– **16 –** World Radio History

#### Your Forever Console...Wheatstone LXE

12.008

Adapt to new technology, new techniques, and new work-flows with LXE. Completely configure/reconfigure your console – every button, knob, and display on the surface is fully programmable using our intuitive ConsoleBuilder<sup>™</sup> GUI/scripting interface.

ZHOTACI

With ScreenBuilder™LXE, you can design dynamic custom touchscreen interfaces to augment LXE's extensive screen set. Beautiful to see and use.

Need more input faders? Enable up to four layers to double/triple/quadruple the number (up to 32) in the same footprint.

LXE is built to last in every way.

Learn more: wheatstone.com/lxe

and the second s

LHOTAC

190

A-12 Date



# UPPLIER CROSS INDEX

#### Acoustic and Building Materials

305 Broadcast Auralex Acoustics Inc. Clyde Broadcast ProAudio.com Radial Engineering Ltd. SCMS Inc. Studio Equipment Transmitters 'R' Us

#### Antennas, Feedline and Waveguide

305 Broadcast Alan Dick Broadcast Ltd. AM Ground Systems Ampegon Antenna Systems Broadcast Warehouse Ltd. BSW DAWNco **Dielectric LLC Electronics Research Inc. (ERI) High Sound** Hodge Structural Engineers Jampro Antennas Inc. Kathrein-Werke KG Kintronic Labs LBA Technology Inc. Myat Inc. **OMB** America ProAudio.com **Progressive Concepts Propagation Systems** Inc. - PSI SCMS Inc. Shively Labs Transmitters 'R' Us

#### Associations and Organizations

Grace Broadcast Sales SCMS Inc. Traffic Director's Guild of America

#### Audio Accessories

305 Broadcast AEQ Broadcast International This section helps you locate suppliers of types of equipment and service. Find contact information for these companies in the Vendor & Product Directory section. This list is based on information provided by the companies; suppliers are listed only if they checked a given category.

AudioScience Inc. Axia Audio Broadcast Devices Inc. Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW DEVA Broadcast LLC** DM Engineering Glensound Henry Engineering Inovonics JK Audio Inc. Logitek Electronic Systems meduci 0.C. White Co. ProAudio.com **Progressive Concepts** SCMS Inc. Studio Equipment **Telos Systems Titus Technological** Laboratories Transmitters 'R' Us Whirlwind USA Yellowtec USA LLC

#### Audio Delays – Profanity

and **Diversity** 25-Seven Systems 305 Broadcast **Bay Country Broadcast** Equipment Inc. Broadcast Warehouse Ltd. **BSW Clyde Broadcast** DaySequerra DHD audio GmbH Logitek Electronic Systems Orban Labs ProAudio.com **Progressive Concepts** SCMS Inc. Sonifex Ltd. Transmitters 'R' Us

#### **Between Locations** 2wcom Systems GmbH 305 Broadcast AEQ Broadcast International Arctic Palm Technology Inc. Arrakis Systems ATI **Bay Country Broadcast** Equipment Inc. Broadcast Devices Inc. Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW** Comrex Corp. **DEVA Broadcast LLC** Digigram GatesAir Jutel Ov ProAudio.com **Progressive Concepts** Radial Engineering Ltd. SCMS Inc. Sonifex Ltd.

Audio Distribution,

Jutel Oy ProAudio.com Progressive Concepts Radial Engineering Ltd. SCMS Inc. Sonifex Ltd. Studio Equipment The Telos Alliance Tieline USA Titus Technological Laboratories TransMedia Radio Networks Transmitters 'R' Us Wheatstone Corp. WideOrbit WorldCast Systems

#### Audio Loggers

305 Broadcast Belar Electronics Broadcast Warehouse Ltd. BSW Burli Software Inc. Clyde Broadcast DaySequerra Jutel Oy Orban Labs Pristine Systems Inc. Progressive Concepts SCMS Inc. Sonifex Ltd. Transmitters 'R' Us WinMedia America

#### Audio Processing,

**On-Air** 25-Seven Systems 305 Broadcast AEQ Broadcast International Arrakis Systems **Bay Country Broadcast** Equipment Inc. **Broadcast Bionics** Broadcast Warehouse Ltd. **BSW BW Broadcast** Clyde Broadcast **DHD Audio GmbH** Digigram High Sound Inovonics Jutel Ov Kline Consulting Group LLC Logitek Electronic Systems O.C. White Co. Omnia Audio Orban Labs ProAudio.com Progressive Concepts SCMS Inc. Sonifex Ltd. **Studio Equipment Telos Systems** Transmitters 'R' Us Wheatstone Corp. WorldCast Systems

#### Audio Processing, Production 305 Broadcast

Arrakis Systems



AudioScience Inc. **Bay Country Broadcast** Equipment Inc. Broadcast Warehouse Ltd. **BSW BW Broadcast DEVA Broadcast LLC** Digigram ESE Jutel Ov Logitek Electronic Systems **Orban Labs** ProAudio.com **Progressive Concepts** SCMS Inc. Sonifex Ltd. Studio Equipment Transmitters 'R' Us Wheatstone Corp.

#### Audio Routing and Distribution Within a Facility

305 Broadcast AEQ Broadcast International Audinate AudioScience Inc. Axia Audio Broadcast Devices Inc. Broadcast Tools Inc. **BSW** DHD Audio GmbH Digigram DM Engineering ESE Glensound Harman Henry Engineering Jutel Oy Lawo Group USA Logitek Electronic Systems Paravel Systems ProAudio.com **Progressive Concepts** Radial Engineering Ltd. SCMS Inc. Sonifex Ltd. The Telos Alliance Tieline USA Titus Technological Laboratories Transmitters 'R' Us Wheatstone Corp. Whirlwind USA

#### Automation, Storage and Logging 305 Broadcast

AEQ Broadcast International Arctic Palm Technology Inc. Arrakis Systems

#### FLEXtest METER TO IDENTIFY SATELLITES & PEAK DISHES

Customers report that they can boost EbNo performance by several dB, when using the FLEXtest meter to perfectly peak

their satellite dishes. Base unit with SAT module will display satellite names, and show precise signal quality feedback for every adjustment to antennas. Portable unit with neck strap to allow hands-free adjustment of the dish. Much more precise than a spectrum analyzer, plus it powers the LNB during work. USA tech support. Ask about option to add measurement of Cable TV & Off AIr.



#### TI FILTER TO PREVENT TERRESTRIAL INTERFERENCE

Block local radar before it enters your dish-mounted LNB. Rhythmic drop-outs and degraded satellite reception often occurs near

airports, harbors, or military bases. The filter also blocks interference from the newly FCC authorized 3.65 Ghz Wimax transmitters. Pass the desired 3.7 to 4.2 Ghz satellite channels with super-low .4 dB insertion loss. Block out-of-band interference by up to 70 dB.

TI Filter, best grade CALL for special price



#### DAWNflex LOW-LOSS CABLE, BOOST SIGNAL LEVEL FROM DISH Improve signal quality on satellite downlink, by increasing signal level without using noisy amps. Reduce loss on signal cable run from dish to building. Flexible coas passes satellite L band signals from LNB. Flooded for direct burial, quad shielded for best protection from signal ingress. Connectors with lighting protection on both ends.

DAWNflex cable \$1.29 per foot



#### FIBER OPTIC LINK FOR LONG DISTANCES PASS SATELLITE OR CABLE TV SIGNALS

500 feet to fifty miles is no problem using fiber. Place a transmitter (TX) on one end, and receiver (RX) unit on the other end. The TX and RX units will convert your signals to light, which will pass your important information over a long distance of SingleMode fiber optic cable. Choose the SATELLITE fiber link to pass the L band 700-2800 Mhz output from one LNB. Choose the CABLE TV fiber link to pass Cable TV channels in the 45 to 860 Mhz band. Call for help choosing the best system for your needs.

#### SATELLITE fiber TX/RX link #FSS-95F13T&R \$1599 CABLE TV fiber TX/RX link #FBS-870F6T&R CALL for Price

State 12 Constant 12 Constant

#### STATIONARY 3.7M DISH PACKAGE FOR RADIO-SAT-MOVE

Best stationary 3.7 meter satellite antenna package, to ensure great reception of programming for the RADIO-SAT-MOVE. The 3.7 meter antenna package includes: One 4-petal aluminum satellite "dish" antenna, one 2-port C band fixed feedhorn, one cover plate to fit over one of the unused ports, and one top grade C band LNB with best-in-industry specs for maximum reception quality. New dish and parts ship in crate directly to the site, and fit onto customer provided 5.5 inch OD pipe. Call DAWNco to discuss options for: ground mount, roof mount, long distance cable run, option for high wind protection for hurricane areas.

Stationary 3.7m sat dish package for Radio-Sat-Move \$2591 Stationary 3.7m satellite antenna-only, #D37F48-APC-S.5 \$2099

> You'll find our prices reasonable, our reasoning priceless.

We can help you choose the best SATELLITE and FIBER OPTIC products to suit your needs. Our advice can help you get what you need, without paying for features you won't need. DAWNco high-gain satellite antennas will give you great reception, and our top-grade LNBs will optimize the reception quality of your finicky digital channels. Check out our web site, or give us a call today.

DAWNco

COVERsat

www.DAWNco.com • PHONE 248-391-9200 • EMAIL sales@DAWNco.com

#### PREVENT SIGNAL OUTAGES IN WINTER

Winter can be bad for reception of satellite signals. Snow and ice can pile onto your dish, which can cause a shift in the focal point and extra signal attenuation. Block the winter snow pile-up with DAWNco covers and heaters, and keep your signals strong.

COVERsat for protection under most conditions. Heavy vinyl cover is wrapped over the front face of your dish, to create a steep slippery surface that will prevent accumulation of ice & snow.

COVERsat for 3.0m dish \$399 other sizes... CALL



HEATsat completely stops snow outages. Electric HEATING system arrives as a kit for customer installation on a new or existing satellite antenna. Kit includes custom sized sheets of heater matting, plus sensors for precipitation and temp. HEATsat for 3.0m dish \$2400 other sizes... CALL



#### TOP-GRADE LNBs for C & Ku BAND

Try our new generation of LNBs, and watch for improved EbNo readings on your digital satellite receivers. Mandatory

upgrade for HD and 8PSK satellite channels. Bestspecs for "gain compression" and "phase noise." Stability rating of ±2 Khz will prevent video picture tiling and signal outages when outdoor temps fluctuate.



C band LNB, high grade \$219 C band LNB, best grade CALL Ku band LNB, best grade CALL



SIGNAL SPLITTER & POWER FOR LNBs All signal wires go into this amplified splitter. 1 LNB can feed signal to up to 9 receivers, or 2 LNBs can each feed 5 receivers. 18 vdc power to LNBs. DVINSUP-2-1X5A \$229

#### LNB POWER SUPPLY

Insert 18v dc power via coax cable for 1 or 2 LNBs DCP7A \$77



SAT SIGNAL SPLITTER high quality to pass L band 2x DED772A \$18

4x DED774A \$24



#### SURGE SUPPRESSOR for LIGHTNING Stop lightning surge on signal cable

from damaging equipment. Units can take multiple hits, with no need for resetting.

LNB-ZAP-Stop \$122



#### **RADIO WORLD 2018 SOURCE BOOK & DIRECTORY**

## JUPPLIER CROSS INDEX

AudioScience Inc. **Broadcast Bionics Broadcast Electronics /** Commotion Broadcast Warehouse Ltd. BSW Burli Software Inc. Clyde Broadcast DavSequerra Digigram ENCO Systems Inc. InSoft LLC Jutel Ov MacinMind Software Inc. Paravel Systems Pristine Systems Inc. RCS SCMS Inc. **Smarts Broadcast Systems** StreamS-Modulation Index Transmitters 'R' Us WideOrbit WinMedia America

#### Cloud Services for Radio

305 Broadcast ACE Medias Tools Barix Digigram ENCO Systems Inc. Jutel Oy Orban Labs Inc. StreamGuys

#### Codecs, Hardware and Software

2wcom Systems GmbH 305 Broadcast AEQ Broadcast International Barix

**Bay Country Broadcast** Equipment Inc. **Broadcast Bionics** Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW BW Broadcast** Comrex Corp. DaySequerra Digigram GatesAir Glensound Henry Engineering Moseley Associates Inc. Omnia Audio Orban Labs ProAudio.com **Progressive Concepts** SCMS Inc. StreamS-Modulation Index

 Contraction
 Contraction

 Contraction
 Contraction

 Contraction
 Contraction

AudioScience, today, has leveraged our experience with our customers and its 20+ years of existence to provide the most complete line of PCIe sound cards with the ASI67xx/ASI57xx and the ASI58xx. Whether you need a "built for broadcast" MPEG card that includes functionality such as multi sample-rate playback and recording, or a pure linear PCM card with a low latency ASIO interface, we have the product for you! Visit www.audioscience.com for more details or contact us at salesasi@audioscience.com.

www.audioscience.com



- 20 -World Radio History Telos Systems Tieline USA Titus Technological Laboratories Transmitters 'R' Us WorldCast Systems

#### Consoles, Mixers, Control Surfaces

305 Broadcast AEQ Broadcast International Arrakis Systems Axia Audio **Bay Country Broadcast** Equipment Inc. Broadcast Bionics Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW Clyde Broadcast** DHD Audio GmbH Glensound Harman Henry Engineering JK Audio Inc. Lawo Group USA Logitek Electronic Systems Mooretronix O.C. White Co. ProAudio.com **Progressive Concepts** Sandies SCMS Inc. Sonifex Ltd. Studio Equipment The Telos Alliance Wheatstone Corp. Yellowtec USA LLC

#### **Consultants and**

**Contract Engineers** 305 Broadcast AEQ Broadcast International Arctic Palm Technology Inc. Beacon Mountain Engineering Consultants **Boyd Broadcast Technical** Services **Brown Broadcast Services Clvde Broadcast Communications Technologies** Inc. Hatfield & Dawson Consulting Engineers Hodge Structural Engineers Javajava Radio Jutel Ov Kintronic Labs Kline Consulting Group LLC Kozacko Media Services LBA Technology Inc. Northwest Monitoring Service **Progressive Concepts** Safe2Climb **Skywaves Consulting LLC** Studio Equipment

Transmitters 'R' Us V-Soft Communications

#### **Content Syndication**

and Formats 305 Broadcast Tieline USA TransMedia Radio Networks

#### **Dealers** and

**Distributors** 

305 Broadcast Broadcast Bionics Broadcast Warehouse Ltd. BSW Clyde Broadcast DAWNco LineQ O.C. White Co. Paravel Systems ProAudio.com Progressive Concepts SCMS Inc. Studio Equipment Transmitters 'R' Us

#### **Digital Audio Editing**

and Production 305 Broadcast Bay Country Broadcast Equipment Inc. BSW Burli Software Inc. Jutel Oy Orban Labs ProAudio.com Progressive Concepts Studio Equipment Titus Technological Laboratories Transmitters 'R' Us Wheatstone Corp.

#### Documentation Tools/ Software

2wcom Systems GmbH 305 Broadcast BSW Collins Computer Technology WideOrbit

#### Electronic and

Electric Components 305 Broadcast BSW Digigram Kintronic Labs meduci Mooretronix O.C. White Co. Omnia Audio Paravel Systems ProAudio.com Progressive Concepts Surcom Associates Inc. The Telos Alliance



# We are mobile. "We get to work

# on our stations wherever we are!"

Aquirazgo Zettazgo Selectorzgo





# SUPPLIER CROSS INDEX

#### Emergency Signaling and Alerting, EAS

2wcom Systems GmbH 305 Broadcast **Bay Country Broadcast** Equipment Inc. BSW DaySequerra **Digital Alert Systems** DM Engineering **GSSNet/Alert FM** Henry Engineering Orban Labs Paravel Systems ProAudio.com **Progressive Concepts** Sage Alerting Systems **Titus Technological** Laboratories Transmitters 'R' Us

#### Equipment Rental and Leasing

305 Broadcast AEQ Broadcast International DaySequerra SCMS Inc.

#### Facility Design

and Architecture 305 Broadcast Hodge Structural Engineers Kline Consulting Group LLC O.C. White Co. Studio Equipment Transmitters 'R' Us

#### Microphones and Mic Accessories

305 Broadcast ATI Bay Country Broadcast Equipment Inc. Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW** Harman Henry Engineering JK Audio Inc. O.C. White Co. ProAudio.com **Progressive Concepts** SCMS Inc. **Studio Equipment** Transmitters 'R' Us Whirlwind USA

#### Microwave, STL and RPU Equipment

305 Broadcast Armstrong Transmitter Corp. Barix Bay Country Broadcast Equipment Inc. Broadcast Electronics / Commotion

#### Broadcast Warehouse Ltd. BSW Comrex Corp. Davicom, a division of Comlab

Davicom, a division of Con DAWNco Digigram GatesAir Kintronic Labs Moseley Associates Inc. OMB America Pro-Comm Inc. ProAudio.com Progressive Concepts SCMS Inc. Tieline USA Transmitters 'R' Us WorldCast Systems

#### Music/Production Libraries

BSW Grace Broadcast Sales UncompressedMusic.com

#### Power Products,

Generators, UPS 305 Broadcast Broadcast Tools Inc. BSW Henry Engineering ProAudio.com Sine Control Technology Inc. Transmitters 'R' Us

#### **Promotional Equipment**

and Services Arctic Palm Technology Inc. BSW Grace Broadcast Sales

#### Racks and Furniture

305 Broadcast AEQ Broadcast International Arrakis Systems Broadcast Warehouse Ltd. BSW Kintronic Labs O.C. White Co. Omnirax Furniture Company ProAudio.com SCMS Inc. Sonifex Ltd. Studio Technology Transmitters 'R' Us

#### Receivers

2wcom Systems GmbH 305 Broadcast Bay Country Broadcast Equipment Inc. Broadcast Warehouse Ltd. BSW BW Broadcast DAWNco DaySequerra Inovonics Kathrein-Werke KG meduci Orban Labs Inc. ProAudio.com Progressive Concepts SCMS Inc. Transmitters 'R' Us

#### **Remote Facility Control**

and Monitors 2wcom Systems GmbH 305 Broadcast **Bay Country Broadcast** Equipment Inc. Broadcast Devices Inc. Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW** Burk Technology Davicom, a division of Comlab DavSequerra Kathrein-Werke KG Paravel Systems ProAudio.com **Progressive Concepts** SCMS Inc. Sine Systems **Telos Systems** Transmitters 'R' Us WorldCast Systems

#### RF Accessories,

#### Connectors, Tubes 305 Broadcast

AM Broadcast GmbH Ampegon AG **Bay Country Broadcast** Equipment Inc. Broadcast Warehouse Ltd. **BSW** CPI / Eimac Operations DAWNco **Dielectric LLC** Kathrein-Werke KG **Kintronic Labs** meduci Mvat Inc. ProAudio.com **Progressive Concepts** SCMS Inc. Shively Labs Transmitters 'R' Us

#### RF Filters, Combiners,

Custom Components 305 Broadcast Alan Dick Broadcast Ltd. AM Broadcast GmbH Ampegon AG Broadcast Warehouse Ltd. BSW DAWNco Dielectric LLC Electronics Research Inc. (ERI) High Sound Jampro Antennas Inc. Kathrein-Werke KG



#### Kintronic Labs LBA Technology Inc. Myat Inc. P-Cube Inc. ProAudio.com Progressive Concepts Propagation Systems Inc. - PSI SCMS Inc. Shively Labs Surcom Associates Inc. Transmitters 'R' Us

#### **RF Monitoring**

2wcom Systems GmbH 305 Broadcast AM Broadcast GmbH Ampegon AG Bay Country Broadcast Equipment Inc. **Belar Electronics** Broadcast Devices Inc. Broadcast Warehouse Ltd. BSW Davicom, a division of Comlab DaySeguerra **DEVA Broadcast LLC** GatesAir Hatfield & Dawson Consulting Engineers Inovonics Kathrein-Werke KG meduci Northwest Monitoring Service P-Cube Inc. ProAudio.com **Progressive Concepts** SCMS Inc. Transmitters 'R' Us WorldCast Systems

#### Sales Department Solutions

Arctic Palm Technology Inc. BSW Futuri Media Grace Broadcast Sales Traffic Director's Guild of America WideOrbit WinMedia America

#### Satellite/Internet

Distribution 2wcom Systems GmbH 305 Broadcast Arrakis Systems Bay Country Broadcast Equipment Inc. Broadcast Tools Inc. BSW Burli Software Inc. DAWNco Digigram Jutel Oy Kathrein-Werke KG NPR Satellite Services

#### Scheduling, Traffic

and Billing

305 Broadcast AEQ Broadcast International Arrakis Systems Broadcast Bionics BSW MacinMind Software Inc. Media Masters Pristine Systems Inc. RCS Smarts Broadcast Systems Summit Software Systems, Inc. Transmitters 'R' Us WideOrbit WinMedia America

#### Social Media Tools

305 Broadcast Broadcast Bionics Broadcast Electronics / Commotion BSW Burli Software Inc. Futuri Media Grace Broadcast Sales InSoft LLC multiCAM Systems Inc. NeoGroupe Sprite Media Inc. WinMedia America

#### Software for Engineering and Mapping

305 Broadcast ACE Medias Tools Arctic Palm Technology Inc. Au Contraire Software, Ltd. BSW Collins Computer Technology Kintronic Labs NeoGroupe V-Soft Communications WideOrbit WorldCast Systems

#### Speakers, Headphones and Monitoring

305 Broadcast AEQ Broadcast International ATI Bay Country Broadcast Equipment Inc. Broadcast Tools Inc. Broadcast Warehouse Ltd. BSW Harman ProAudio.com Progressive Concepts SCMS Inc. Transmitters 'R' Us

#### Streaming, Mobile Apps, Podcasts

2wcom Systems GmbH 305 Broadcast

## PPLIER CROSS INDEX

Broadcast Electronics / Commotion Broadcast Tools Inc. **BSW** Burli Software Inc. Comrex Corp. Digigram ENCO Systems Inc. Futuri Media Inovonics NextRadio 0.C. White Co. Omnia Audio Orban Labs Paravel Systems Progressive Concepts Securenet Systems Shoutcast StreamGuys StreamS-Modulation Index **Telos Systems** Tieline USA Vidhi Techinnovation WideOrbit WinMedia America

#### Studio Support and Signaling

305 Broadcast AEQ Broadcast International Broadcast Devices Inc. Broadcast Tools Inc. **BSW** Oigigram **DM** Engineering Henry Engineering 0.C. White Co. **Paravel Systems** Sandies Sprite Media Inc. Titus Technological Laboratories Yellowtec USA LLC

#### Subcarrier and Datacasting

305 Broadcast Broadcast Electronics / Commotion **BSW** GSSNet/AlertFM Transmitters 'R' Us

#### System Integrators

2wcom Systems GmbH 305 Broadcast AM Broadcast GmbH Ampegon AG AudioScience Inc. **BSW Civde Broadcast** Collins Computer Technology Comrex Corp. Kathrein-Werke KG Kline Consulting Group LLC 0.C. White Co. Transmitters 'R' Us WideOrbit

#### Telco Interfaces

305 Broadcast ACE Medias Tools AEQ Broadcast International Arctic Palm Technology Inc. Bay Country Broadcast Equipment Inc. **Broadcast Bionics** Broadcast Tools Inc. Broadcast Warehouse Ltd. **BSW** Comrex Corp. DM Engineering Glensound JK Audio Inc. ProAudio.com **Progressive Concepts** SCMS Inc. Sonifex Ltd. Telos Systems Transmitters 'R' Us

#### **Test and Measurement** Equipment

**Bay Country Broadcast** Equipment Inc. Broadcast Devices Inc. Broadcast Warehouse Ltd. **BSW** Davicom, a division of Comlab **DEVA Broadcast LLC** ESE Hodge Structural Engineers Kathrein-Werke KG Kintronic Labs Pro-Comm Inc. **Progressive Concepts** SCMS Inc. Titus Technological Laboratories Transmitters 'R' Us WorldCast Systems

#### **Towers and Tower**

Services/Hardware 305 Broadcast Alan Dick Broadcast Ltd. AM Ground Systems Austin Insulators Inc. **BSW** Electronics Research Inc. (ERI) ice Krackers Inc. Jampro Antennas Inc. Kathrein-Werke KG LBA Technology Inc. **Progressive Concepts** SCMS Inc. Sine Control Technology Inc. Transmitters 'R' Us

#### **Transmitters, Translators** and Exciters

305 Broadcast AM Broadcast GmbH AM Ground Systems Ampegon AG

Armstrong Transmitter Corp. **Bay Country Broadcast** Equipment Inc. Broadcast Electronics / Commotion Broadcast Warehouse Ltd. BSW Burk Technology **BW Broadcast Clvde Broadcast** Davicom, a division of Comlab DaySequerra GatesAir Kathrein-Werke KG Nautel OMB America Pro-Comm Inc. ProAudio.com **Progressive Concepts** 

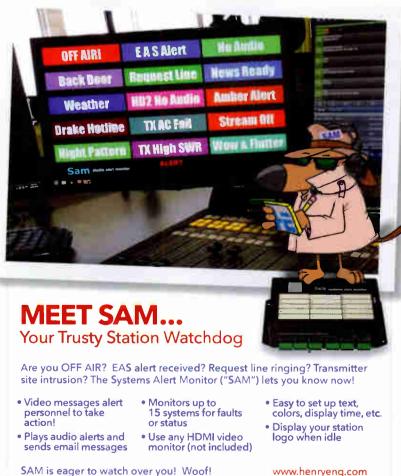
SCMS Inc. Transmitters 'R' Us WorldCast Systems

#### Video for Radio

305 Broadcast AEQ Broadcast International **Broadcast Bionics BSW** ChyronHego Comrex Corp. ENCO Systems Inc. InSoft LLC Kline Consulting Group LLC multiCAM Systems Inc. 0.C. White Co. Sprite Media Inc. StreamGuys WinMedia America

#### Wire, Cables, **Connectors and Cable** Management

305 Broadcast AEQ Broadcast International Broadcast Warehouse Ltd. BSW Kathrein-Werke KG Kintronic Labs Neutrik USA Inc. 0.C. White Co. ProAudio.com **Progressive Concepts** Propagation Systems Inc. - PSI SCMS Inc. Studio Equipment Whirlwind USA



SAM is eager to watch over you! Woof!

#### WE BUILD SOLUTIONS: DIGITAL SOLUTIONS. ANALOG SOLUTIONS, FUNCTIONAL, RELIABLE, AFFORDABLE HENRY ENGINEERING



Phone: 562.493.3589 • email: henryeng@aol.com

- 23 -World Radio History

#### **25-SEVEN SYSTEMS, A TELOS ALLIANCE CO.**

1241 Superior Ave. Cleveland, Ohio 44114 Krissy Rushing, Marketing Manager 216-241-7225 *Email:* inquiry@telosalliance.com

Website: http://www.telosalliance.com **Products/Services:** 25-Seven — part of the Telos Alliance — was founded on ultra-complex time compression algorithms that give radio stations more effective/efficient broadcast time. 25-Seven reinvented the profanity delay with Program Delay Manager and has since produced Voltair, one of the most disruptive technologies in broadcast history.

#### **2WCOM SYSTEMS GMBH**

Am Sophienhof 8 Flensburg, Schleswig-Holstein 24941 Germany Werner Drews, CEO +49-461-66-28-30-0 *Email:* sales@2wcom.com *Website:* http://www.2wcom.com **Products/Services:** 2wcom is a manufacturer, supplier

and system integrator providing versatile and reliable products as well as customer support. All solutions for AoIP, MPXoIP, SAT, FM/RDS and DAB+ can be integrated into existing systems. The portfolio includes high-quality encoders, decoders, codecs, modulators, demodulators and remote control server.

#### **305 BROADCAST**

2561 NW 74th Ave. #16 Miami, Fla. 33122 Anthony Gervasi, Sales Manager 855-305-3058 *Email:* info@305Broadcast.com *Website:* http://www.305Broadcast.com **Products/Services:** 305 Broadcast is an international distributor of broadcasting equipment. Its location facilitates the delivery of products and services to any customer across the globe. The company is an authorized dealer for the most respected and recognized brands in the broadcast industry.

#### A.T.S. SWITZERLAND - NAGRA

Chemin de l'Orio 30A Romanel sur Lausanne, Vaud 1032 Switzerland John Owens, Sales Director +41-21-643-72-40 *Email*: audio\_pro@nagraaudio.com *Website*: http://www.nagraaudio.com **Products/Services:** A.T.S. Switzerland designs, manufactures and commercializes the entire range of Nagra professional digital audio recorders. Handheld and shoulder-hung solid-state recorders for radio journalism.

#### **AC VIDEO SOLUTIONS**

50 S. Center St., Unit 19 Orange, N.J. 07050 Andrea Cummis, Managing Partner 844-422-8433 *Email*: sales@acvideosolutions.com

Website: http://acvideosolutions.com

Products/Services: Specializing in complete audio and video system design and integration, digital signage, live event streaming, A/V system design and installation, operations and technology consulting, studio design and construction, service contracts, as well as audio and video production services.

This section is an alphabetical listing of industry suppliers for the U.S. radio broadcasting community. To find suppliers by product category, see the Supplier Cross Index section. Suppliers, did we miss you? Email radioworld@nbmedia.com so we can send you the data form next year.

#### **ACE MEDIAS TOOLS**

9 rue de l'échelle Paris 75001 France Arnauld Vallin, President +33-1-44-82-00-57 *Email:* contcat@acemediastools.fr *Website:* http://acemediastools.fr **Products/Services:** We develop software to manage phone hybrids and audio codecs.

#### **ACOUSTICS FIRST**

2247 Tomlyn St. Richmond, Va. 23230 888-765-2900 *Email:* info@acousticsfirst.com *Website:* http://www.acousticsfirst.com **Products/Services:** Acoustic treatment products and services.

#### **AEQ BROADCAST INTERNATIONAL INC.**

6355 NW 99th Ave. Doral, Fla. 33178-2719 Peter Howarth, Management, Business Coordination 800-728-0536 *Email:* sales@aeqbroadcast.com *Website:* http://www.aeqbroadcast.com **Products/Services:** For more than 37 years, AEQ has developed solutions for the broadcasting industry; audio mixers, routing matrices, broadcast video monitors, intercom systems, etc. AEQ is a regular equipment and service provider at international sport events. AEQ has a distributor network with offices in USA, Portugal and Spain.

#### **AETA AUDIO SYSTEMS**

Immeuble Kepler 4 18–22 Ave. Edouard Herriot Le Plessis Robinson 92350 France +33-1-41-36-12-00 *Email:* info@aeta-audio.com *Website:* http://www.aeta-audio.com **Products/Services:** AETA Audio Systems is a leading international developer of portable sound recorders, mixers and advanced audio codecs for any kind of media and transmission infrastructure. Since 1978 the company has focused on developing innovative products, making them as compact as possible for optimal mobile use and easy handling.

#### ALAN DICK BROADCAST LTD.

Unit 1, Bay 2 Andoversford Industrial Estate Cheltenham, Glos GL54 4LB United Kingdom Sonia Del Castillo, Sales/Marketing Administrator +44-1242-820976

*Email:* sonia.delcastillo@alandickbroadcast.com *Website:* http://www.alandickbroadcast.com **Products/Services:** UK-based Alan Dick Broadcast manufactures antennas, combiners/filters, towers and broadcast infrastructure services for digital and analog video and audio systems.

#### **ALDENA TELECOMUNICAZIONI SRL**

Via per Vighignolo, 6/8 Settimo Milanese MI 20019 Italy Carlo Perotta, Sales

#### +39-02-9039-0461

*Email:* aldena@aldena.it

Website: http://www.aldena.it

**Products/Services:** Aldena has more than 70 years of experience in broadcasting. Products include radio and TV antennas, tower spines and mechanical structures, patch panels, filters and combiners, RF accessories and EMLab antenna design software. Services include in-factory antenna pattern certification/tests, antenna design, network planning, onsite support and commissioning.

#### ALERT FM

See GSSNet/ALERT FM

#### **ALTRONIC RESEARCH INC.**

PO Box 249, 621 Hwy. 202 W Yellville, Ark. 72687 Doug Starkey, Sales 870-449-4093 *Email*: dstarkey@altronic.com *Website*: http://www.altronic.com **Products/Services:** RF coaxial dummy loads from 1 kW to 1500 kW available in air-cooled, oil-cooled, water-cooled, soda/water systems and self-contained heat exchangers operating from 60 Hz to 1 GHz. Water-cooled calorimetry systems and our Opti-Cal power meter are also available. High-power cermet resistors are available.

#### **AM BROADCAST GMBH**

Mertensstr. 65-115 Berlin 13587 Germany Matthias Stoll, Sales & Marketing +49-30-33978-0 *Email:* info@am-broadcast.com *Website:* http://www.am-broadcast.com **Products/Services:** The new AM-Broadcast GmbH, a restart of Transradio SenderSysteme Berlin, provides manufacturing, installation and complete scope of services and after sales support concerning all AM and scientific products introduced by Transradio Sender-Systeme Berlin AG.

#### **AM GROUND SYSTEMS**

51 Ridge Ln. Lawrenceburg, Tenn. 38464 Kevin Kidd, Owner 866-227-2346 *Email:* agscrwbgus2015@amgroundsystems.com *Website:* http://www.amgroundsystems.com **Products/Services:** Physical AM site services featuring AM ground system construction, inspection and repair. Specialties include MoM preparation, due diligence and theft remediation.

#### AMPEGON ANTENNA SYSTEMS GMBH Rheinallee 1a

Ludwigshafen am Rhein, 67061 Germany Detlev Koch, Chief Marketing Officer +49-621-63595-0 *Email:* antennas@ampegon.com *Website:* http://ampegon.com **Products/Services:** Ampegon specializes in the field of high-performance AM antennas, components and mast systems.

#### **ANTENNA ID PRODUCTS-TOWER SIGNS**

22 Bryan Wynd, Ste. 2 Glenmoore, Pa. 19343 Tom Moyer, Sales/Owner 610-458-8418 *Email:* antennaid@msn.com *Website:* www.antennaid.com **Products/Services:** Custom and standard special tower signs for broadcasters and wireless service providers.

signs for broadcasters and wireless service providers. Free additional sign wording for ASR and FCC contact numbers. Antenna tags, guy wire markers available.

#### **ARCTIC PALM TECHNOLOGY INC.**

11 Camelot Cres London, Ont. N5V 3L4 Canada Stu Buck, President 519-452-0002 *Email*: sales@arcticpalm.com *Website*: http://www.arcticpalm.com **Products/Services**: Specializing in software for broadcasting, including Center Stage Live and its advanced Datacasting features, its paperless studio products for contest and prize scheduling, copy writing, call screening and automated file transfers. Since 1997,

Arctic Palm has been committed to providing reliable,

### featured-filled products with great service.

#### ARMSTRONG TRANSMITTER CORP. 4835 North St. Marcellus, N.Y. 13108 Kevin Smith, Sales / Technician 315-673-1269 *Email:* kevin@armstrongtx.com

#### Website: http://armstrongtx.com

Products/Services: Armstrong Transmitter manufactures AM and FM broadcast exciters and transmitters, STL transmitters and receivers. The company also manufactures transmitters for the National Weather Service.

#### **ARRAKIS SYSTEMS**

6604 Powell St. Loveland, Colo. 80538 Ben Palmer, Sales Manager 970-461-0730 *Email*: sales@arrakis-systems.com *Website*: http://www.arrakis-systems.com **Products/Services**: Arrakis Systems has been engineering state-of-the-art radio station equipment for over 30 years. The company offers digital radio automation, broadcast consoles and studio furniture.

#### **ATC LABS**

105 Lock St., Ste. 411 Newark, N.J. 07103 973-624-1116 *Email*: info@atc-labs.com *Website*: http://www.atc-labs.com **Products/Services**: Developer of software audio codecs and processors.

#### ATI

7209 Browning Rd. Pennsauken, N.J. 08109 Mike Pappas, VP Business Development 856-719-9900 *Email:* sales@daysequerra.com *Website:* http://www.atiaudio.com Products/Services: ATI Audio has long been recognized as a manufacturer of high-quality broadcast audio/studio equipment and has more than 100,000 pieces of equipment in use worldwide.

#### AU CONTRAIRE SOFTWARE LTD.

18121-C E. Hampden Ave. #216 Aurora, Colo. 80013 Cris Alexander, Managing Partner 303-489-3454 *Email:* info@aucont.com *Website:* http://www.aucont.com **Products/Services:** Au Contraire Software strives to provide evaluates and others in the broadcast wire.

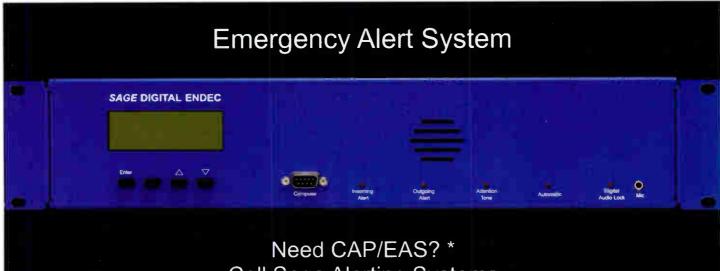
provide engineers and others in the broadcast, wireless and land mobile industry with the information and tools they need for accurate allocation, design and construction.

#### AUDINATE

1732 NW Quimby St. Ste. 215 Portland, Ore. 97209 Ervin Grinberg, Director of Marketing 503-224-2998 *Email*: ervin.grinberg@audinate.com *Website*: http://www.audinate.com **Products/Services**: Audinate's Dante media networking technology has been adopted by OEM manufacturers and is a dominant networking technology in the professional audio/visual industry. Dante is used for live events, commercial installation, broadcast

AUDIOARTS ENGINEERING See Wheatstone

and communications systems.



### Call Sage Alerting Systems 914-872-4069

\* Our Sage Digital ENDEC is easy to use, so we've made our ad easy to read.

Sage Alerting Systems, Inc 800 Westchester Avenue, Suite 641N, Rye Brook, NY 10573 info@sagealertingsystems.com www.sagealertingsystems.com

#### **AUDIOPOLE**

22 rue Edouard Buffard Montevrain 77144 France Jean-Philippe Blanchard, COO +33-1-60-54-31-86 *Email:* broadcast@audiopole.fr *Website:* http://www.audiopole.fr

Products/Services: Audiopole is a leading broadcast audio distributor in France. Audiopole represents major brands including Studer, beyerdynamic Genelec, Yellowtec, TC Electronic, Orban, Clear-Com, Digigram, Ghielmetti, CTP Systems, RTW, Wohler and Broaman.

#### **AUDIOSCIENCE INC.**

42 Reads Way New Castle, Del. 19720 Richard Gross, President 302-324-5333 *Email*:rgross@audioscience.com *Website:*http://www.audioscience.com **Products/Services:** AudioScience designs and manu-

factures advanced DSP-based digital audio peripherals for the OEM, broadcast, installed sound and entertainment markets. We support industry standards such as PCI Express, MPEG audio compression, CobraNet, Livewire and AVnu AVB audio networking, and the Windows and Linux operating systems.

Austin Insulators designs and manufactures Base Insulators for Guyed/Self Supporting Towers, Safety Core/Failsafe Guy Insulators, Static Drain Devices, Bushing Insulators Tower Lighting Transformers and Red LED Lighting Systems for Medium Wave (MF), Long Wave (LF) and Very Low Frequency (VLF) Antennas. Users worldwide include Radio, Naval, Navigation and Timing Broadcasters.



Web: www.austin-insulators.com

#### AUDIO-TECHNICA U.S. INC.

1221 Commerce Dr. Stow, Ohio 44224 330-686-2600 *Email:* mediaproduction@atus.com *Website:* http://www.audio-technica.com **Products/Services:** Manufacturer of wired microphones and wireless microphone systems, headphones and turntables.

#### **AUDIOTX**

1098 Stratford Rd., Hall Green Birmingham WM B28 8AD United Kingdom Mo Dutta, Head of Sales +44-121-256-0200 *Email:* sales@audiotx.com *Website:* http://www.audiotx.com **Products/Services:** AudioTX provides a range of software and hardware solutions for professionalgrade live audio over IP and the internet. The company offers solutions ranging from STL to remote/ outside broadcasts and syndication and distribution of audio both within and outside of a facility.

#### **AURALEX ACOUSTICS INC.**

9955 Westpoint Dr. Ste. 101 Indianapolis, Ind. 46256 Robb Wenner, Marketing Manager 800-959-3343 *Email:* marketing@auralex.com *Website:* http://www.auralex.com **Products/Services:** Auralex Acoustics was founded in 1977 with a mission to provide acoustical treatment

In 1977 with a mission to provide acoustical treatment products at the best value. Auralex customers have experienced improved acoustics, expert advice and customer service. Auralex products are in use among prominent artists, producers, engineers, broadcast facilities and corporations worldwide.



#### insulators

#### **AUSTIN INSULATORS INC.**

7510 Airport Rd. Mississauga, Ont. L4T 2H5 Canada Patrick Warr, President 905-405-1144

Email: sales@austin-insulators.com Website: http://www.austin-insulators.com Products/Services: Austin Insulators designs and manufactures base insulators for guyed/self supporting towers, safety core/failsafe guy insulators, static drain devices, bushing insulators tower lighting transformers and red LED lighting systems for medium-wave, longwave (LF) and very low-frequency (VLF) antennas. Users worldwide include radio, naval, navigation and timing broadcasters.

#### AVT AUDIO VIDEO TECHNOLOGIES GMBH Nordostpark 12

Nuernberg 90411 Germany Ulrike Lauterbach, Sales Manager +49-911-5271-0 *Email*: info@avt-nbg.de *Website*: http://www.avt-nbg.de **Products/Services**: AVT provides IP, ISDN and E1 audio codecs as well as VoIP, POTS and ISDN talk show systems/telephone hybrids and DAB/DAB+ equipment. The telephone hybrids are available for one to 16 caller lines with screening function, HD Voice, pretalk streaming and recording possibilities. New features include Dante/AES67 and Ember+.

#### **AXEL TECHNOLOGY**

Via Caduti di Sabbiuno 6/F Anzola Emilia, BO 40011 Italy +39-051-736-555 *Email:* sales@axeltechnology.com *Website:* http://www.axeltechnology.com **Products/Services:** Since 1996 Axel Technology has been a leading Italian radio and television broadcast equipment manufacturer. Innovation, research and development are the main sources of our competitive presence in the worldwide market. With an international sales force, Axel Technology's equipment and solutions are in over 120 nations.

#### AXIA AUDIO, A TELOS ALLIANCE CO.

1241 Superior Ave. E. Cleveland, Ohio 44114 Krissy Rushing, Marketing Manager 216-241-7225 *Email:* inquiry@telosalliance.com *Website:* http://www.telosalliance.com **Products/Services:** Founded in 2003, Axia — part of the Telos Alliance — is creator of IP-audio networking technology Livewire+ AES67, along with audio mixing consoles. Axia equipment can be found in more than 7,000 studios, with more than 70.000 Livewire-con-

#### BARIX

Ringstrasse 15A Dubendorf, 8600 Switzerland Reto Brader, VP Sales and Marketing +41-43-43322-11 *Email:* reto@barix.com *Website:* http://www.barix.com **Products/Services:** Barix specializes in research and development of IP-based communication and control technology. Barix products are standalone

nected devices and 100+ Livewire partners.

mercial audio distribution, communication and automation applications. See story, page 43

and able to remotely connect worldwide over stan-

dard networks/Internet, offering solutions for com-

#### **BAY COUNTRY BROADCAST EQUIPMENT INC.**

7117 Olivia Rd. Baltimore, Md. 21220 Steve Scarborough, Owner 877-722-1031 *Email*: sales@baycountry.com *Website*: http://www.baycountry.com **Products/Services:** Sales of quality used radio broadcast equipment.

#### BEACONMOUNTAIN ENGINEERING CONSULTANTS

11 Pheasant Hill Rd. Canton, Conn. 06019 Steven Bartholomew, President 860-693-3336 *Email:* beaconmountain@yahoo.com

**Products/Services:** Broadcast engineering consultants specializing in FM full-power, translator and LPFM facilities. FCC application preparation, directional antennas, site selection and coverage optimization. Signal level predictions using F(50,50) and Longley-Rice methodologies. Conducting signal strength measurements to verify actual coverage. Resolving disputes between translators and full-power stations using engineering solutions.

#### **BELAR ELECTRONICS**

1140 McDermott Dr. Ste. 105 West Chester, Pa. 19380 Mark Grant, CEO 610-687-5550 *Email:* sales@belar.com *Website:* http://www.belar.com **Products/Services:** Founded in 1964, Belar Electronics Laboratory manufactures modulation monitors

Used by radio and TV stations globally to monitors. broadcast signals, Belar products are known for accuracy and reliability.

#### BEXT INC.

1045 10th Ave. San Diego, Calif. 92101 619-239-8462 *Email*: bext@bext.com *Website*: http://www.bext.xom **Products/Services**: Manufacturer of radio and TV transmitters, STLs, RF filters, combiners and antenna systems.

#### **BOYD BROADCAST TECHNICAL SERVICES**

21818 SW Columbia Cir. Tualatin, Ore. 97062 James Boyd, President 503-703-8360 *Email*: boyd.broadcast@comcast.net **Products/Services**: AM and FM HD Radio install and troubleshooting, AM NRSC, FM73.317, AM diplex, FM combining, heavy troubleshooting, RFR measurements, due diligence.

#### **BROADCAST BIONICS**

The Barn, Hurstwood Grange Hurstwood Ln. Haywards Heath, West Sussex RH17 7QX United Kingdom Kirsten Smith +44-1444-473999 *Email:* sales@phonebox.com *Website:* http://www.phonebox.com

Products/Services: Broadcast Bionics are authors of talkshow/communications software PhoneBOX, Oasis, Virtual Director, PhoneBOXVX and PhoneBOX Solo. As specialist broadcast software developers, bespoke projects are also undertaken. Distributors of Telos, Axia, Omnia, Lawo, WideOrbit Automation for Radio, Music Master, Sterlitz, for the UK providing quality solutions and customer service.

#### **BROADCAST DEVICES INC.**

3199 Albany Post Rd. Ste. 122 Buchanan, N.Y. 10511 Bob Tarsio, President 914-737-5032 *Email:* bob@broadcast-devices.com *Website:* http://www.broadcast-devices.com **Products/Services:** BDI offers RF power measurement, RF switch controllers, antenna protection systems, remote control systems in addition to a variety of digital and analog audio switching and distribution equipment. AES3 and analog audio solutions available for broadcasters and sound contractors.

#### **BROADCAST ELECTRONICS / COMMOTION**

4100 North 24th St. Quincy, III. 62305 Tom Beck, President/CEO 217-224-9600 *Email:* bdcast@bdcast.com *Website:* http://www.bdcast.com **Products/Services:** Broadcast Electronics offers studio automation and complete RF systems for radio. BE manufactures AM, FM and HD Radio transmitters and studio systems for managing audio programming and

studio systems for managing audio programming and automating radio text as well as web interactive tools for social networks and mobile devices. BE has been a global company since 1959.

#### **BROADCAST PARTNERS**

Axelsestraat 58 Terneuzen 4537 AL Netherlands

#### Chris Pladdet +31-115-683555

*Email:* christiaan@broadcastpartners.com *Website:* http://broadcastpartners.com/website/ **Products/Services:** For more than 25 years Broadcast Partners has provided state-of-the-art broadcast technology and solutions to broadcasters. The chief activity is construction and maintenance of transmission networks for public and commercial radio stations. Broadcast Partners also supplies transmitters, studio design, in-house developed Aeron-Studio radio automation and turnkey broadcast projects worldwide.

#### **BROADCAST SOFTWARE INTERNATIONAL**

909 International Way Springfield, Ore. 97477 Marie Summers, Sales Manager 888-274-8721 *Email:* sales@bsiusa.com *Website:* http://www.bsiusa.com **Products/Services:** Radio automation software, playout and multichannel logging/skimming solutions. Developed and supported in the United States by a dedicated team of broadcast professionals, our software has helped BSI become one of the leading suppliers of radio automation with distributors on every continent.

#### **BROADCAST SOLUTIONS ELECTRONICS LTD.**

7d Bell Crescent, Westlake Business Park PO Box 31186 Cape Town, Western Cape 7945 South Africa Peter Bacon, Director +27-217012491 *Email:* pbacon@bselec.com *Website:* http://www.bselec.com **Products/Services:** Broadcast Solutions Electronics manufactures and supplies a range of FM transmitters and translators from 10 W to 5 kW, UHF STLs in the frequency range of 200 to 970 MHz, FM antenna systems and HD Radio translators 25 W to 250 W, LPFM transmitters to 250 W and FM radio rebroad-

#### **BROADCAST TOOLS INC.**

cast into road tunnels.

131 State St. Sedro Woolley, Wash. 98284 Donald Winget 360-854-9559 *Email:* support@broadcasttools.com *Website:* http://www.broadcasttools.com **Products/Services:** Broadcast Tools specializes in the design and manufacture of affordable and innovative problem-solving tools for the radio and television broadcast industries. Our products include analog and AES audio switchers/routers, web-based and telephone coupled remote control systems, studio audio accessories, satellite receiver interface adapters, DTMF encoder/decoders and logic in-

#### **BROADVIEW SOFTWARE**

business.

110 Adelaide St. East, 3rd Floor Toronto, Ont. M5C 1K9 Canada 647-255-3500 *Email:* sales@broadviewsoftware.com *Website:* http://www.broadviewsoftware.com **Products/Services:** Developer of broadcast business software.

terfaces. Broadcast Tools is a veteran-owned small

#### **BROWN BROADCAST SERVICES INC.**

3740 SW Comus St. Portland, Ore. 97219 Michael Brown, Owner/Principal Engineer 503-245-6065 *Email:* mike@brownbroadcast.com *Website:* http://www.brownbroadcast.com **Products/Services:** FCC radio applications, studies, coverage analysis, transmitter site construction, special projects.

#### **BSW**

2237 South 19th St. Tacoma, Wash. 98405 Shannon Nichols, Sales Manager 800-426-8434 *Email:* sales@bswusa.com *Website:* http://www.bswusa.com **Products/Services:** As a broadcast equipment supplier, Broadcast Supply Worldwide offers thousands

plier, Broadcast Supply Worldwide offers thousands of products. For over 42 years, broadcast and audio professionals trust BSW for all their equipment needs — radio, podcast, video, lighting and more.

#### **BURK TECHNOLOGY**

7 Beaver Brook Rd. Littleton, Mass. 01460 Matt Leland 978-486-0086 *Email*: sales@burk.com *Website:* http://www.burk.com **Products/Services:** Burk Technology designs and manufactures high-quality transmitter facility control

manufactures high-quality transmitter facility control systems for the broadcast industry, with thousands of radio and TV installations across the U.S. and around the world. Burk brings over 30 years of innovation to transmitter remote control, setting the standards for reliability, flexibility and ease of operation.

#### **BURLI SOFTWARE INC.**

4664 Lougheed Hwy. Ste. 264 Burnaby, BC V5C 5T5 Canada 604-684-3140 *Email:* info@burli.com *Website:* http://www.burli.com **Products/Services:** Burli produces newsroom software. It automatically ingests traditional newswires

ware. It automatically ingests traditional newswires, audio, social media, podcasts, RSS feeds, email and more; includes text and multi-track audio editors; and publishes newscasts and stories to broadcast prompters, automation systems, social media and websites. Suits newsrooms of all sizes.

#### **BW BROADCAST**

Unit 27, IO Centre 57 Croydon Rd. Croydon, Surrey CRO 4WQ United Kingdom Brendan Lofty, Sales 866-376-1612 *Email*: info@bwbroadcast.com *Website*: http://www.bwbroadcast.com

**Products/Services:** Innovative, award-winning and industry-leading FM transmitters, and audio processors, FM receivers, FM amplifiers and RDS encoders from BW Broadcast can be found in all corners of the globe. With emphasis on efficiency and reliability, you can trust BW Broadcast to make your station #1 in the market.

#### **CAVELL, MERTZ & ASSOCIATES**

7724 Donegan Dr. Manassas, Va. 20109-2868 703-392-9090



**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

## **VENDOR & PRODUCT DIRECTORY**

*Email:* gcavell@CavellMertz.com *Website:* http://cavellmertz.com

**Products/Services:** Experienced, licensed broadcast engineers performing a variety of services including FCC licensing, microwave and backhaul system planning and licensing, station prepurchasing due diligence, technical facility build and upgrade support, technical project management, frequency and channel searches.

#### **CENTRAL COAST ELECTRONICS**

3635 NW Port Ave. Lincoln City, Ore. 97367 James Thorusen, Chief Engineer 541-992-3416 *Email:* jthorusen@centcoast.com *Website:* http://www.centcoast.com

**Products/Services:** Broadcast engineering support — specializing in RF and transmitters, remote control systems, studio and transmitter construction.



#### **CHYRONHEGO**

5 Hub Dr. Melville, N.Y. 11747 Mark Gederman, Director of Marketing 401-787-0120 *Email:* mark.gederman@chyronhego.com

Website: http://www.chyronhego.com Products/Services: ChyronHego specializes in solutions for broadcast graphics creation, playout and real-time

data visualization for live television, news and sports production. ChyronHego solutions also include CG's, channel branding, Visual radio, weather graphics, graphics asset management, clip servers, social media and second screen applications, touch graphics, telestration, virtual placement and player tracking.

#### **CLYDE BROADCAST**

3 South Ave. Clydebank Business Park Glasgow, West Dunbartonshire G812RX United Kingdom +44-141-270-5050 *Email:* sales@clydebroadcast.com

Website: http://www.clydebroadcast.com **Products/Services:** Clyde Broadcast designs, installs and manufactures radio studio equipment. Its "Synergy" range of equipment is used by broadcasters worldwide. The company teams up with local partners to guarantee the best and most affordable solutions for your radio project.

#### **COAXIAL DYNAMICS**

6800 Lake Abram Dr. Middleburg Hts., Ohio 44130 440-243-1100 *Email:* sales@coaxial.com *Website:* http://www.coaxial.com **Products/Services:** Coaxial Dynamics has been a leading manufacturer of precision equipment for the measurgement and termination of RE power since 1969 Prod-

surement and termination of RF power since 1969. Products include RF loads, filters, wattmeters, line sections and plug-in elements for analog and digital applications.

#### **COLLINS COMPUTER TECHNOLOGY**

4516 Lovers Ln. Dallas, Texas 75225 Tex Collins, Owner/President 972-262-0423 Email: tex@meaux.net Website: http://tex.meaux.net Products/Services: Computer b

**Products/Services:** Computer hardware, software, systems and maintenance. The company also offers technical writing and documentation, Windows recovery and repair and custom software for database and engineering use.

#### **COMMUNICATIONS TECHNOLOGIES INC.**

PO Box 1130 Marlton, N.J. 08053 Laura Mizrahi 609-451-5296 *Email*: Imizrahi@commtechrf.com *Website*: http://www.commtechrf.com **Products/Services:** Broadcast engineering consultants specializes in AM, FM and TV RF system design. The company also offers FCC application preparation, site selection expertise to optimize facility coverage and signal level predictions using contour and Longley-Rice methodologies.

#### **COMREX CORP.**

19 Pine Rd. Devens, Mass. 01434 Chris Crump, Director of Sales 978-784-1776 *Email*: info@comrex.com *Website:* http://www.comrex.com **Products/Services:** Comrex designs and manufac-

tures technology to provide simple solutions to universal broadcast needs. An industry leader in the development of IP audio codecs, Comrex is also a pioneer in state-of-the-art video over IP and IP-based call management solutions.

See Profile in Excellence, page 6

#### **CPI/EIMAC OPERATIONS**

811 Hansen Way Palo Alto, Calif. 94304 Linda Di Lorenzo, Exhibits Manager 650-846-2900 *Email:* powergrid@cpii.com *Website:* http://www.cpii.com **Products/Services:** CPI/Eimac Operations is a leader

in the design and manufacture of power grid tubes for broadcast, communications, radar, industrial heating, semiconductor processing, science and medical applications.

#### **D&M BROADCAST SRL**

Via Bologna 276/I San Pietro in Casale BO 40018 Italy +39-051-817657 *Email:* info@dmbroadcast.it *Website:* http://www.dmbroadcast.it **Products/Services:** D&M Broadcast offers turnkey solutions for radio and TV stations, from design, production to installation and training. The firm also provides modular mixers, audio processors, telephone hybrids, RDS coders, IP links, A/V streaming, FM transmitters, HP links and antenna systems.

#### **D&R ELECTRONICA B.V.**

Rijnkade 15B Weesp, NH 1382GS Netherlands Duco de Rijk, CEO +31-294-418-014 *Email:* mail@d-r.nl *Website:* http://www.d-r.nl



**Products/Services:** D&R Electronica b.v. has been operating for 43 years. The last 15 years D&R has focused on broadcast-related products, such as the Airlite, Axum, Airmate-USB, Airence-USB, Airlab and Lyra mixers. Aircast is D&R's radio playout software. D&R also offers hybrids.

#### **DAC SYSTEM SA**

Via Cantonale 18 Manno 6928 Switzerland Pietro Casati, CEO +41-78-8821723 *Email:* pietro.casati@dacsystem.ch *Website:* http://www.dacsystem.ch **Products/Services:** DAC System is the supplier of IoT/ monitoring systems. The systems permit RF monitoring of all critical spots in the broadcast chain through a combination of indoor systems on combiner-filters and patch panels and outdoor systems of sensors on the power splitters and/or direct to the antenna/panels, everything is online and in real time.

#### DAVICOM, A DIVISION OF COMLAB INC.

2300, Leon-Harmel, Ste. 220 Quebec City, Quebec G1N 4L2 Canada John Ahern, CEO 418-682-3380 *Email:* dvsales@davicom.com *Website:* http://www.davicom.com **Products/Services:** Leading broadcasters around the

world rely on Davicom products to remotely monitor and control their transmitter sites, thereby allowing them to reduce their operating costs and downtime. Davicom units provide intelligent automation that drastically reduces nuisance alarms while using open standards like SNMP and Modbus for communication with on-site devices.

#### DAWNCO

7111 Dixie Hwy., Ste. 118 Clarkston, Mich. 48346 John Joslin, Director Sales & Marketing 248-391-9200

*Email:* sales@DAWNco.com *Website:* http://www.DAWNco.com

Products/Services: DAWNCo provides satellite communication products, including satellite antennas, satellite receivers, LNBs, feedhorns, motors, controllers and component parts. DAWNco also provides fiber optic communication products, including fiber links to pass audio/video, fiber to pass satellite signals, data fiber links and fiber for cable TV broadband. Call to speak with knowledgeable technical sales.

#### DAYSEQUERRA

7209 Browning Rd. Pennsauken, N.J. 08109 Mike Pappas, V.P., Business Development 856-719-9900 *Email:* sales@daysequerra.com

Website: http://www.daysequerra.com

**Products/Services:** DaySequerra provides highperformance audio solutions for live performances, radio, TV and internet broadcasters and content creators worldwide. Technology applications include audio processing, loudness measurement and control, multichannel surround audio, and digital radio processing and monitoring.

#### **DB ELETTRONICA TELECOMUNICAZIONI**

Riviera Maestri del Lavoro 20/1

**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

# VENDOR & PRODUCT DIRECTORY

Padova PD 35127 Italy Margot Deliperi, Marketing Manager +39-049-8700588 *Email:* marketing@dbbroadcast.com

Website: http://www.dbbroadcast.com

**Products/Services:** DB Elettronica Telecomunicazioni is the lead company of a corporate group specializing in broadcasting and scientific applications. Thanks to its 40 years of experience, DB Elettronica is today a world leader in the broadcast industry, providing FM and TV transmitters, broadcast gear, systems and services to customers worldwide.

#### DCSTOOLS.COM

8494 Saratoga Ln. Eden Prairie, Minn. 55347 Rich Habedank, Owner 952-949-9450 *Email*: rich@c-rmedia.com *Website:* http://www.dcsTools.com **Products/Services**: XStudio radio automation system

supports live, local automation, satellite and a unique emergency mode of operation. Software tools for legacy DCS and Maestro automation systems, including voice-tracking, log editing, web billboard, RDS and merging of music and traffic logs.

#### **DELTA MECCANICA SRL**

Via Fontanelle di Bardano 20 Orvieto, TR 05018 Italy Marco Longo, Co-Owner +39-076-3316222 *Email*: info@deltameccanica.com *Website*: http://www.deltameccanica.com **Products/Services**: Delta Meccanica designs and manufactures RF components: filters, combiners, switching systems both motorized and manual, dummy loads, analog or digital. We deliver and perform installations for turnkey projects worldwide.

#### **DEVA BROADCAST LLC**

7782 NW 46th St. Miami, Fla. 33166 Todor Ivanov, President 305-767-1207 *Email:* sales@devabroadcast.com **Website:** http://www.devabroadcast.com **Products/Services:** DEVA Broadcast is an international communications and high-technology company that serves the broadcast and corporate markets worldwide. DEVA Broadcast has been developing and producing a range of modulation monitors, audio processors, off-air monitoring receivers, RDS/RBDS encoders and other systems for the broadcast industry.

#### **DHD AUDIO GMBH**

Haferkornstr. 5 Leipzig 04129 Germany +49-341-589702-0 *Email:* info@dhd-audio.de *Website:* http://www.dhd-audio.com **Products/Services:** DHD audio GmbH was founded in 1996. It manufactures digital mixers, audio routers and other professional audio devices for radio and TV. DHD

other professional audio devices for radio and TV. DHD products ranging from four-channel touch mixers to 64-channel On-Air consoles and routing systems are used worldwide in thousands of installations at public and private radio stations.

#### DIELECTRIC LLC

22 Tower Rd. Raymond, Maine 04071 Cory Edwards, Global Sales 800-341-9678 Email: cory.edwards@dielectric.com Website: http://www.dielectric.com Products/Services: Dielectric is an innovative, customer-centric organization with a long history of engineering excellence in designing and manufacturing high-guality broadcast solutions

#### DIGIGRAM

82-84 allée Galilée Inovallée Montbonnot 38330 France Christelle Savorgnani, Sales Manager, EMEA & Americas +33-4-76-52-47-47 *Email:* sales@digigram.com *Website:* http://www.digigram.com **Products/Services:** Digigram sound cards, IP audio codec solutions and cloud applications are used in thousands of broadcast, AV and industrial applications all over the world.

#### **DIGITAL ALERT SYSTEMS**

100 Housel Ave. Lyndonville, N.Y. 14098 Bill Robertson, V.P. Business Development 585-765-1155 *Email:* sales@digitalalertsystems.com **Products/Services:** Digital Alert Systems provides the ultimate single-box EAS/CAP solutions for broadcasters with the FCC/FEMA-compliant DASDEC family. It also offers a flexible IP-based architecture supporting a variety of third-party switching, graphics and automation systems streamlining connectivity and operations. Optional integrated AM/FM/WX receivers save valuable rack space and wiring clutter.



### Here's how to find out for yourself for free.

Since 1998 Radio Pros have counted on Lynx PCI cards to deliver reliable, stable audio performance. With the new Lynx E44, E22 and AES16e PCI Express cards, Lynx delivers the same reliability, along with the best specs in the industry. In addition, Lynx PCI Express Audio Cards are designed to operate seamlessly with any radio, production or recording application for both Windows and OSX computers.

Don't take our word for it, find out for yourself. Contact Lynx or your broadcast equipment retailer for a no-obligations trial of the E22, E44 or AES16e cards.

www.lynxstudio.com/radio

Lynx Studio Technology - Designed and Manufactured in the USA since 1998.



#### **DIGITAL RADIO MONDIALE (DRM)**

London SW1W 0RH United Kingdom Radu Obreja, Marketing Director +44-7740-650-536 *Email:* marketingdirector@drm.org *Website:* http://www.drm.org

**Products/Services:** Digital Radio Mondiale is a global, open, green, cost-efficient, digital radio standard for all frequencies (AM and VHF). The DRM system covers large geographic areas, rural and local markets and when listeners are on the move. DRM can provide emergency warning functionality, traffic and multimedia information.

#### **DJB RADIO**

3651 Lindell Rd., D466 Las Vegas, Nev. 89103 Ron Paley, President and Sales Manager 702-487-3336 x 1 *Email:* sales@djbradio.com *Website:* http://www.djbradio.com **Products/Services:** Since 1995, DJB Radio has developed and installed affordable radio automation supported by industry professionals.

#### **DM ENGINEERING**

2174 Chandler St. Camarillo, Calif. 93010-4611 Dave Mandelbaum, President 800-249-0487 *Email:* dave@dmengineering.com *Website:* http://www.dmengineering.com **Products/Services:** Manufacture and sales of EAS multi-station adapters, remote controls, automation Interface devices, line of audio-pod mic controllers and headphone amp modules for studio. remotes and

Interface devices, line of audio-pod mic controllers and headphone amp modules for studio, remotes and podcast apps, single- and multi-line phone flashers, auxiliary relay packs for both studio audio and 115 VAC applications, and silence sense devices.

#### **DOUBLERADIUS INC.**

2022 Van Buren Ave. Indian Trail, N.C. 28079 Jeff Holdenrid, Sales Engineer 704-927-6085 *Email*: jeffh@doubleradius.com *Website:* http://www.doubleradius.com **Products/Services:** IP microwave specialists. We design, supply, license and integrate IP wireless STLs. With over 15 years IP microwave experience, we are the go-to professionals for IP STLs.

#### DVMR

320 Rue Saint Honoré Paris 75001 France Mourad Redouane, CEO +33-178-569-173 *Email:* contact@dvmr.fr *Website:* http://www.dvmr.fr

**Products/Services:** DVMR's objective is to accurately meet the "digital" requirements of our clients. In order to achieve this, our solutions are constructed around four principles: custom build, support, innovation and competitiveness. Our tools enable us to adapt to customer requirements.

#### ECONCO

1318 Commerce Ave. Woodland, Calif. 95776-5908 800-532-6626 Email: econco-sales@cpii.com Website: http://www.cpii.com/division.cfm/11 Products/Services: Power tube refurbisher.

#### **EFFICIO SOLUTIONS INC.**

520 South State St., Ste. 244B Westerville, Ohio 43081 David Einstein, Co-President 877-333-4246 *Email*: sales@efficiosolutions.com *Website*: http://www.efficiosolutions.com **Products/Services**: Efficio is an integrated media CRM and sales management solution that provides

sales intelligence and analytics via the cloud and synchs with media traffic systems. Efficio offers CRM, account management, inventory and rate maximization, integration with ShareBuilders, vCreative, Miller-Kaplan, and connects the sales cycle from prospect to renewals.

#### **ELBER SRL**

Via Pontevecchio, 42W Carasco GE 16042 Italy Christian Olcese, Sales Manager +39-0185-351333 *Email*: sales@elber.it *Website*: http://www.elber.it **Products/Services:** Since 1978, Elber has produced microwave radio links for the broadcast industry (TV and radio). The attention paid to each and

(TV and radio). The attention paid to each and every single phase of production and the use of high-quality components form the benchmark of Elber's philosophy. The company has recently opened divisions for satellite, monitoring and audio systems.

#### **ELECTRONICS RESEARCH INC. (ERI)**

7777 Gardner Rd. Chandler, Ind. 47610 Joe Meleski, Vice President, U.S. Sales 812-925-6000 *Email:* sales@eriinc.com *Website:* http://www.eriinc.com **Products/Services:** ERI delivers high-quality, innova-

tive, integrated solutions for radio and television broadcasters including the best antennas, transmission line, filters and towers. In addition to manufacturing the full range of components and accessories, ERI offers a suite of engineering and field services to plan, install, optimize and maintain your broadcast facility.

#### **ELENOS SRL**

Via G.Amendola 9 Poggio Renatico FE 44028 Italy Gianluca Busi, Marketing Manager +39-0532-829965 *Email:* marketing@elenos.com *Website:* http://www.elenos.com **Products/Services:** With 40,000 FM transmitters in-

stalled in more than 100 countries, Elenos is known for its reliable equipment. Exceptional efficiency not only saves electric costs but also means lower cooling requirements, reduced maintenance and longer operational service. Planar technology and compact design make Elenos transmitters scalable and rackmountable, with powers up to 40 kW.

> – **30 –** World Radio History

#### ENCO SYSTEMS INC.

29444 Northwestern Hwy. Southfield, Mich. 48034 Ken Frommert, President 248-827-4440



#### Website: http://www.enco.com

**Products/Services:** ENCO is the premier global provider of automated broadcast solutions. The awardwinning DAD is the most flexible, powerful and reliable radio automation system available, with recent innovations in cloud-based production and visual radio. Thousands of radio stations rely on ENCO for their automation, playout, scheduling and distribution needs.

See story, page 45

#### **ENERGY TRANSFORMATION SYSTEMS (ETS)**

43353 Osgood Rd. Fremont, Calif. 94539 510-656-2012 Sylvia Presley, Sales Account Executive *Email*: sylvia@etslan.com/ *Website*: http://www.etslan.com/ **Products/Services**: Manufacturer of audio, data and video interconnects, networking equipment such as converters, baluns, splitters, snakes, patch panels, etc.

#### ESE

142 Sierra St. El Segundo, Calif. 90245 Bill Rajaniemi, Sales 310-322-2136 *Email:* ese@ese-web.com *Website:* http://www.ese-web.com **Products/Services:** Master clock systems, digital and analog displays. GPS, NTP, WWV, modem, crystal or line frequency-based units. The company also manufactures standalone clocks and timers, audio level interfaces and indicators.

#### EUROCOM

Parc du moulin Roissy en Brie 77680 France Bruno Guers, CEO +33-1-60-64-21-21 *Email:* Infoweb@eurocom.fr *Website:* http://www.eurocom.fr **Products/Services:** For 20 years Eurocom has been importing and selling professional equipment and offering integration and training for turnkey solutions in the broadcasting industry. Eurocom has an international presence for turnkey installations in France, overseas French territories and African countries.

#### EVENTIDE

One Alsan Way Little Ferry, N.J. 07643 Ray Maxwell, VP Sales and Marketing 201-641-1200 *Email:* rmaxwell@eventide.com *Website:* http://www.eventideaudio.com **Products/Services:** In 1977 Eventide invented the profanity delay, replacing costly analog tape-based solutions with a rack-mounted digital delay. Today, Eventide's flagship, the BD600 offers 80 seconds of profanity protection, unprecedented programmability, micro-precision delay capability and stellar audio performance. Eventide broadcast delays are found in more stations

#### **FACTUM RADIOSCAPE**

than its competitors combined.

United House, North Rd. London, N7 9DP United Kingdom Andy Joseph, International Sales Manager +44-20-7406-7990 *Email*: sales@factumradioscape.com *Website:* http://www.factumradioscape.com

**Products/Services:** Factum Radioscape is a dynamic participant in development and deployment of digital audio broadcasting worldwide. Experience with DAB transmission networks enables the highly experienced engineering team to offer a long-term commitment to product evolution and enhancement. Our capabilities include audio encoding, data insertion, multiplexing, distribution and multiplex management. Monitoring products cover supervision, monitoring and analysis. A voice-break-in system for road tunnels provides information and instructions in the event of an emergency.

#### **FINE PRODUCTIONS**

PO Box 661959 Los Angeles, Calif. 90066 Stephen Knight, Owner 310-283-7959 *Email:* stephenknightvo@gmail.com *Website*:https://voiceoversstephenknight.wordpress.com **Products/Services:** FINE Productions can in whole or in part create copy, voice and edit voiceover commercials, radio imaging, narration, animation, video

mercials, radio imaging, narration, animation, video games, corporate and eLearning projects. We also voice ADR looping in post. Most important to us is serving our client's needs. Call, write or email for your free consultation.

#### **FM SERVICES**

Wilkesboro, N.C. 336-667-7091 Email: info@towermonitor.com Website: http://www.towermonitor.com Products/Services: Manufacturer of TLM-1 tower light monitor.

#### FRAUNHOFER IIS

Am Wolfsmantel 33 Erlangen 91058 Germany Matthias Rose, Marcom +49-9131-776-0 *Email:* amm-info@iis.fraunhofer.de *Website:* http://www.iis.fraunhofer.de/audio **Products/Services:** Fraunhofer IIS has been working in digital audio technology for more than 25 years and remains a leading innovator of technologies for cuttingedge multimedia systems. Fraunhofer IIS is universally credited with the development of MP3 and co-development of AAC, and has licensed its software to at least 1,000 companies worldwide.

#### **FRONT PANEL EXPRESS**

5959 Corson Avenue So., Ste. I Seattle, Wash. 98108 206-768-0602 *Email*: info@frontpanelexpress.com *Website*: http://www.frontpanelexpress.com **Products/Services:** Customizable panels.

#### **FUTURI MEDIA**

4141 Rockside Road, Ste. 300 Seven Hills, Ohio 44131 877-221-7979 *Email:* VIPsupport@futurimedia.com *Website:* http://futurimedia.com **Products/Services:** Futuri Media is at the forefront of developing social and mobile audience engagement technology for broadcasters. We pride ourselves on providing turnkey solutions for your busy team

technology for broadcasters. We pride ourselves on providing turnkey solutions for your busy team that won't blow your budget. And our 24/7 support team is the best in the business.

See Profile in Excellence, page 8

#### **GARUDA ROBOTICS PTE. LTD.**

Singapore Email: hello@garuda.io Website: http://garuda.io Products (Services: Garuda B

**Products/Services:** Garuda Robotics is a leading provider of end-to-end enterprise robotics solutions. We enable clients in telecommunications, infrastructure management and security to enhance operations using our products such as Garuda TowerSight, a complete UAV system for tower surveys, and Garuda Plex, a cloudbased enterprise software suite for UAV operators.

#### GATESAIR

5300 Kings Island Dr., Ste. 101 Mason, Ohio 45040 Keith Adams, Marketing Communications Manager 513-459-3447

Email: Americas@gatesair.com

Website: http://www.gatesair.com

**Products/Services:** GatesAir Inc. provides complete solutions for over-the-air radio and television broadcasting, leveraging wireless spectrum to maximize performance for multichannel, mission-critical services. Powering over-the-air networks worldwide with unparalleled reliability for nearly 100 years, GatesAir leads the industry in innovation and design breakthroughs, improving efficiency and reducing total cost of ownership.

#### **GENELEC INC./USA**

7 Tech Circle Natick, Mass. 01760 508-652-0900 *Email*: Genelec.usa@genelec.com *Website*: http://www.genelec.com **Products/Services:** Manufacturer of powered audio monitors.



Voice: 610-925-2785

Email: Sales@Studiotechnology.com Web: www.studiotechnology.com





RADIO WORLD 2018 SOURCE BOOK & DIRECTORY

## VENDOR & PRODUCT DIRECTORY

#### **GENELEC OY**

Olvitie 5 lisalmi 74100 Finland Lars-Olof Janflod, Marketing and PR Director +358-17-83881 *Email*: genelec@genelec.com

Website: http://www.genelec.com

Products/Services: Genelec has been designing and manufacturing active studio monitors for more than 35 years. Genelec's range of monitors covers every possible audio monitoring need. The company's addition of Smart Active Monitors to its product line is a groundbreaking invention that puts the user in control of their monitoring environment.

#### **GEOBROADCAST SOLUTIONS**

875 North Michigan Ave., Ste. 3708 Chicago, III. 60611 Hal Keller, VP Global Sales & Business Oevelopment 941-347-8415 *Email:* hal@geobroadcastsolutions.com

Website: http://www.geobroadcastsolutions.com Products/Services: GeoBroadcast Solutions LLC of-

fers proprietary products and solutions to enhance radio station coverage areas to maximize both coverage and revenue, as well as the ability to zone audio (pending FCC approval) and RBDS/ROS.

#### **GLENSOUND**

6 Brooks Place Maidstone, Kent ME14 1HE United Kingdom Gavin Oavis, Managing Oirector +44-1622-753662 *Email:* sales@glensound.co.uk *Website:* www.glensound.co.uk **Products/Services:** Designing and building the highest quality audio systems for the broadcast and commercial audio market.

#### **GORMAN REDLICH MFG. CO.**

257 W. Union St. Athens, Ohio 45701 James Gorman 740-593-3150 *Email:* jimg@gorman-redlich.com *Website:* http://www.gorman-redlich.com **Products/Services:** Gorman-Redlich manufactures EAS encoder-decoders for radio and TV. The CAP-DEC1 decoder unit will translate received CAP V1.2 alerts into EAS headers for both the U.S. and Canada.

alerts into EAS headers for both the U.S. and Canada. Other equipment — NOAA weather receivers with SAME decoding and digital antenna monitors (Model CMR) for directional AM antenna arrays.

#### **GRACE BROADCAST SALES**

225 SW Skyline Dr. Pullman, Wash. 99163 Rod Schwartz, Owner 509-332-8423 *Email:* Ros@gracebroadcast.com *Website:* http://Gracebroadcast.com **Products/Services:** GBS has been helping radio stations sell more advertising for over 25 years. The company provides :30/:60-second audio features ("sales boosters") for holidays, special events, retailers and

boosters") for holidays, special events, retailers and professionals. Free demos and sales materials at https://gracebroadcast.com/sales-boosters

GRAHAM STUDIOS

1805 E Lincoln Ave.

Ft. Collins, Colo. 80524 Rod Graham, Founder 970-225-1956 *Email:* rod@graham-studios.com *Website:* http://www.graham-studios.com **Products/Services:** Manufacturer of studio furniture.

#### **GRAHAM-BROCK INC.**

5971 B New Jesup Hwy. Brunswick, Ga. 31523 912-638-8028 *Email*:rsg@grahambrock.com *Website:* http://www.grahambrock.com **Products/Services:** Broadcast technical services for radio.

#### GSSNET/ALERT FM

600 Jefferson St., Ste. 1102 Lafayette, La. 70501 Matthew Straeb, Executive Vice President 601-709-4240 *Email:*mstraeb@gssnet.us *Website:*http://www.alertfm.com **Products/Services:** GSS provides EAS and FM RDS technology to radio stations as part of its emergency notification systems available to states, counties, cities, tribal nations and colleges/ universities.

#### HARMAN

8500 Balboa Blvd. Northridge, Calif. 91329 Rob Lewis, Senior Sales Oirector 415-867-9550 *Email*: Rob.Lewis@harman.com *Website*: http://pro.harman.com **Products/Services**: Studer is a worldwide leader in digital mixing technology. Visionary in the broadcast industry since 1948, Studer delivers high quality, innovative products, includng digital mixing systems. I/O routing hardware and software and workflow solutions. Studer is a member of Harman Professional, whose brands together provide end-to-end solutions.

#### **HATFIELD & DAWSON CONSULTING ENGINEERS**

9500 Greenwood Ave. N Seattle, Wash. 98103 Ben Dawson 206-783-9151 *Email:* straume@hatdaw.com *Website:* http://www.hatdaw.com **Products/Services:** Hatfield & Dawson is a Washington State consulting engineering firm with a specialized practice in telecommunications and electromagnetic engineering.

#### HEIL SOUND LTD.

5800 N. Illinois St. Fairview Heights, III. 62208 Sarah Heil, President 618-257-3000 *Email:* info@heilsound.com *Website:* http://www.heilsound.com **Products/Services:** Manufacturer of microphones and booms

#### **HENRY ENGINEERING**

PO Box 3796 Seal Beach, Calif. 90740 Hank Landsberg, CEO 562-493-3589 *Email:* henryeng@aol.com *Website:* http://www.henryeng.com **Products/Services:** Henry Engineering provides products for digital and analog audio interface, USB audio, distribution, mixing, headphones and mic control, tally light and logic control. The New Zero-Oelay AES digital OA 2x4 and AES OigiSwitch 3x1 provide solutions for AES digital audio distribution and switching.

#### HIGH SOUND

Paroissien 2236 CABA Buenos Aires C1429CXH Argentina Humberto Savoca, CEO +54-11-4703-3199 *Email*: highsoundbroadcast@gmail.com *Website*: http://www.highsoundbroadcast.com **Products/Services**: High Sound manufactures analog digital audio processors for broadcasting, antenna systems for AM, ATU, antenna diplexer systems, static dampers, directional antenna design. The company also provides technical and engineering consultancy.

#### **HODGE STRUCTURAL ENGINEERS**

22 Chestnut St. Evansville, Ind. 47713 Oavid Davies, Project Manager, Tower Division 812-422-2558 *Email:* ddavies@hodgestructural.com *Website:* http://hodgestructural.com **Products/Services:** Specializing in tall towers, from design to analysis and reinforcement, we work with tower owners/station engineers, managing every step of the project. PEs licensed in 49 states.

#### **ICE KRACKERS INC.**

273 Circle Or. Springfield, III. 62703 Jim Newbanks, President 800-747-8921 *Email:* icekrackers@comcast.net *Website:* http://icekrackers.com **Products/Services:** The Ice Kracker is used on guy wires of towers to protect the anchoring hardware and dampeners from damage due to ice slides coming down the guy wires. The Ice Kracker is galvanized and comes with mounting hardware. The Ice Krackers are installed just three feet above hardware being protected.

#### **IK MULTIMEDIA US**

590 Sawgrass Corporate Pkwy. Sunrise, Fla. 33325 954-846-9101 *Website:* http://www.ikmultimedia.com **Products/Services:** Manufacturer of audio equipment such as microphones, speakers, USB devices, interfaces and input devices, mixing, processing and editing software and other accessories.

#### INOVONICS

5805 Hwy. 9 Felton, Calif. 95018 Gary Luhrman, Sales & Marketing Manager 831-458-0552 *Email:* sales@inovonicsbroadcast.com *Website:* http://www.inovonicsbroadcast.com **Products/Services:** Inovonics manufactures highquality products for the radio broadcast professional. From our successful range of audio processors and RDS/RBDS encoders to test/monitoring equipment, Inovonics continues to explore the latest developments in broadcast technology and practices, and is dedicated to building products that are smart, powerful and intuitive to use.



#### **INSOFT LLC**

20725 NE 16th Ave, A17 North Miami, Fla. 33179 Alex Bonello 786-292-2811 *Email:* info@insoftus.com *Website:* insoftus.com

**Products/Services:** Insoft LLC is a U.S.-based company that specializes in radio solutions, with headquarters in North Miami, Florida. Our team has more than 20 years of experience in the fields of broadcast and digital communications. As a pioneer in visual radio, our company has been helping hundreds of broadcasters from all over the world enter the era of visual radio; allowing them to increase their market share, while making extra revenue from visual advertising, VOD contents, and social media monetization.

#### **INTERNATIONAL DATACASTING**

50 Frank Nighbor PI. Kanata, Ont. K2V 1B9 Canada 613-596-4120 *Email*: sales@datacast.com *Website*: http://www.datacast.com **Products/Services**: Manufacturer of audio encoders and receivers, network distribution devices.

JAMPRO ANTENNAS INC. 6340 Sky Creek Dr. Sacramento, Calif. 95828

Sonia Del Castillo, Sales/Marketing Administrator 916-383-1177 *Email*: sonia@jampro.com *Website:* http://www.jampro.com

**Products/Services:** Jampro Antennas Inc. offers complete DTV/DVB-T and HD Radio solutions. With over 50 years of experience, the company also provides FM and TV antennas, combiners, filters, rigid transmission line, towers and field services.

#### **JAVAJAVA RADIO**

1849 N Yulan Springfield, Mo. 65803 Rick Jesse, Installer/Commissioner 417-741-2158 *Email:* rick@javajavaradio.com *Website:* http://javajavaradio.com **Products/Services:** SBE-certified CBRE, we travel worldwide with the talent to install-rebuild-upgrade your

worldwide, with the talent to install-rebuild-upgrade your equipment on time and on budget. The company also provides translator/transmitter installation and can rewire and reprogram remote control systems.

#### JBL

8500 Balboa Blvd. Northridge, Calif. 91329 818-894-8850 *Website*: http://www.jblpro.com **Products/Services**: Manufacturer of powered and unpowered audio monitors.

#### JEBBIT

4 S. Market St. Boston, Mass. 02109 Jonathan Lacoste, President and Co-Founder 330-564-6379 *Email:* jonathan@jebbit.com *Website:* http://www.jebbit.com **Products/Services:** We help digital sales teams create interactive mobile solutions to drive more revenue and retain current clients. Our interactive content gets white-labeled for each broadcast partner and helps them create solutions that engage, profile and convert any audience.

#### JK AUDIO INC.

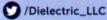
1311 E 6th St. Sandwich, Ill. 60548 815-786-2929 *Email:* info@jkaudio.com *Website:* http://www.jkaudio.com **Products/Services:** JK Audio provides a full line of audio interfaces for broadcast professionals. Phone hybrids for interviews and talk shows, field mixers for remote broadcasts, wired and wireless interface tools for mobile communications.

#### JUMP2GD

1752 Market St., Ste. 928 Seattle, Wash. 98107 425-641-9043 Allen Hartle







# LOUD & CLEAR FOR 75 YEARS



*Email:* allen@jump2go.com *Website:* http://www.jump2go.com **Products/Services:** Developer of RDS equipment and software for radio.

#### **JUTEL OY**

Elektroniikkatie 4 Oulu 90590 Finland Jarmo Manninen, V.P., Customer Services & Solutions +358-207-476-200 *Email*: sales@jutel.fi *Website*: http://www.jutel.fi

Products/Services: Jutel is one of the most experienced suppliers of radio automation and digital broadcasting systems. Our solutions — like cloud-native radio automation platform Jutel RadioMan Access — turn innovations into new business models for radio stations and broadcasters, system integrators and audio distribution service providers around the world.

#### **KALTMAN CREATIONS LLC**

Seneca, S.C. 29678 864-885-0500 *Email:* sales@kaltmancreationsllc.com *Website:* https://kaltmancreationsllc.com **Products/Services:** Developer and distributor of RF test and measurement software and hardware.

#### **KATHREIN-WERKEKG**

Anton-Kathrein-Strasse 1-3 Rosenheim DE-83022 Germany Wolfgang Niedhammer, Director, Broadcast Sales — Partner Management +49-8031-184957 *Email:* broadcast@kathrein.de *Website:* http://www.kathrein.com **Products/Services:** Kathrein is an international enterprise active in antenna and communications technology. Since 1919 the group of companies has been developing, producing and marketing a range of antenna systems.

#### **KINTRONIC LABS**

PO Box 845 Bristol, Tenn. 37621 Tom King, CEO/President 423-878-3141 *Email:* ktl@kintronic.com *Website:* http://www.kintronic.com **Products/Services:** Kintronic Labs (KTL) is a world

leader in design/manufacture/installation of analog and HD/DRM-capable AM/MW broadcast transmission systems for 1 kW to 1.5+ MW. KTL also offers FM combiners, outdoor racks, isocouplers, isocoils and patch panels for FM translators. New Products: LAB4.5, LAB9.5 dehydrators; PowerAIM 150 analyzer; LPTV isocouplers/isocoils.

#### **KLINE CONSULTING GROUP LLC**

Atlanta, Ga. 30339 Gary Kline, Owner 470-285-2855 *Email:* gary@klineconsulting.com *Website:* http://klineconsulting.com **Products/Services:** Consulting engineering firm specializing in capital budget management and cost cut-

Products/Services: Consulting engineering firm specializing in capital budget management and cost cutting; corporate and enterprise engineering support; telecom expense reduction; studio and facility design; visual radio; cutting edge technologies; vertical real estate advice; unlocking land value underneath towers; transmitter site design; signal upgrades; audio processing; and staff recruitment.

#### **KLOTZ COMMUNICATIONS EUROPE**

Moriz-Seeler-Str. 3 Berlin 12489 Germany Robert Trebus, CEO +49-89-4-51-08-63-0 Email: info@klotzcommunications.com Website: http://klotzcommunications.com Products/Services: Klotz Communications offers high-tech audio networking and signal processing solutions for the broadcast, public address and conference markets. Broadcast products include audio mixing and control consoles, audio engines, fiberoptic and AoIP networks and audio routers, network and audio processing solutions for professional audio markets, stage and mixers. It also provides audio systems for evacuation and announcements in public buildings.

#### **KOZACKO MEDIA SERVICES**

6890 E. Sunrise Dr., #120-40 Tucson, Ariz. 85750 George Kimble, Associate Broker 520-465-4302 *Email:* georgeWkimble@aol.com *Website:* http://www.radio4sale.com **Products/Services:** Whether owning your first station has been a lifelong dream, or you are growing an existing group, we can help you find the radio station that matches your needs and budget. And if it's time to sell we can help you get top dollar.

#### LAWO GROUP USA

12520 Magnolia Blvd., Ste. 308 Los Angeles, Calif. 91607 Jamie Dunn, Global Sales Director 888-810-4468 *Email*: sales-us@lawo.com *Website*: http://www.lawo.com **Products/Services:** Lawo designs and manufactures network, control, audio and video technology for broadcast, developed and manufactured in Germany to highest guality standards. Lawo radio products

#### broadcast, developed and manufactured in Germany to highest quality standards. Lawo radio products include digital mixing consoles, virtual radio applications and both traditional and AoIP routing systems.

#### LBA TECHNOLOGY INC.

3400 Tupper Dr. Greenville, N.C. 27834 Mike Britner, VP Sales 252-757-0279 *Email*: LBAT@lbagroup.com *Website*: http://www.lbagroup.com **Products/Services:** LBA Technology supplies and fabricates RF and antenna equipment for AM mediumwave stations worldwide. Our systems include ATUs, diplexers, folded unipoles, mobile towers, FM/TV isocouplers, ground systems and more. LBA makes AM radio towers and masts more effective and efficient to "Reach further, sound better!"

#### LIGHTNER ELECTRONICS INC.

1771 Beaver Dam Rd. Claysburg, Pa. 16625 Matthew Lightner, President 814-239-8323 *Email:* sales@lightnerelectronics.com *Website:* http://www.lightnerelectronics.com **Products/Services:** Lightner Electronics Inc. is a full-

> – **34 –** World Radio History

service broadcast engineering, audio/visual integration and equipment supply firm providing design, repair, fabrication, sales and installation. We offer professional bench repair of all types of broadcast equipment. We also offer an online store that specializes in refurbished broadcast equipment.

#### LINEQ

1324 Helmo Ave. North Oakdale, Minn. 55128 Brenda Stadheim, Vice President 866-815-0866 *Email*: sales@lineq.com *Website*: http://www.lineq.com **Products/Services**: LineQ is a full-service distributor specializing in audio over IP solutions, with a complete portfolio of premium, networked endpoint solutions from IP audio specialist Barix. LineQ's customized approach ensures tailored systems to meet the needs of systems integrators and end users.

#### LOGITEK ELECTRONIC SYSTEMS

5622 Edgemoor Dr. Houston, Texas 77081 Frank Grundstein, Director of Sales 713-664-4470 *Email:* info@logitekaudio.com *Website:* http://www.logitekaudio.com **Products/Services:** Logitek's IP-based console and routing systems for IP networking, on-air and production applications bring maximum flexibility to radio operations. Latest is the Helix, which combines standard console functions with multiple touchscreens.

#### LYNX STUDIO TECHNOLOGY

190 McCormick Ave. Costa Mesa, Calif. 92626-3307 714-545-4700 *Email:* sales@lynxstudio.com *Website:* http://www.lynxstudio.com **Products/Services:** Manufacturer of digital audio interfaces and computer audio cards.

#### **MACINMIND SOFTWARE INC.**

583 Orchard St. Antioch, III. 60002 Jay Lichtenauer, Developer 847-603-8865



LBA Technology supplies and fabricates RF and antenna equipment for AM medium wave stations worldwide. Our systems include ATU's, diplexers, folded unipoles, mobile towers, FM-TV isocouplers, ground systems, and more, LBA makes AM radio towers and masts more effective and efficient to "Reach Farther, Sound Better"<sup>41</sup>



*Email*: jay@macinmind.com *Website*: http://macinmind.com/Radiologik **Products/Services**: Developer of Mac software specializing in radio automation playout.

#### **MAGER CONCEPTS**

Phoenix, Ariz. 85027 602-791-0045 *Email:* mager@magerconcepts.com *Website:*http://www.magerconcepts.com **Products/Services:** Manufacturing high-quality, custom studio furniture for the broadcast industry for over 35 years, accommodating every budget from economy to showplace with on-site installation.

#### **MAGIX SOFTWARE**

Quedlinburger Strasse 1 Berlin 10589 Germany 305-722-5810 *Website:* http://www.magix.com/us **Products/Services:** Developer of digital audio editing software.

#### **MANDOZZI AUDIO SOLUTIONS**

Via Volta 2 Ponte Capriasca, Ticino 6946 Switzerland +41-91-935-78-00 Lucio Gerelli *Email:* contact@mandozzi.ch *Website:*http://www.mandozzi.ch **Products/Services:** The engineers working for Mandozzi Audio Solutions design professional products

dozzi Audio Solutions design professional products for audio broadcasting that satisfy all operational and technical requirements of the user.

#### **MARKETRON BROADCAST SOLUTIONS INC.**

101 Empty Saddle Trail Hailey, Idaho 83333 Deborah Esayian, Chief Revenue Officer 208-788-6800 *Email:* desayian@marketron.com *Website:* http://www.marketron.com

**Products/Services:** Marketron Broadcast Solutions is a trusted leader in providing enterprise revenue management and digital software solutions for radio broadcasters. We provide a revenue workflow solution for any size broadcaster as well as mobile messaging service and location-based advertising solutions. Proud to be radio's premier partner for 50 years.

#### **MEDIA MASTERS**

Sonje Marinkovic 149 Sremska Kamenica, Vojvodina 21208 Serbia Vladimir Musicki, Founder & CEO +381-641789789 *Email*: info@admaster.info *Website*: http://www.admaster.info

**Products/Services:** Media Masters offers AdMaster, an affordable and powerful traffic scheduling software that integrates with most any automation/playout capable of importing externally created traffic logs. The software is used by broadcasters around the world, literally from A(ustralia) to Z(ambia).

#### MEDUCI

PO Box 2 Boyertown, Pa. 19512-0002 Jeff Deck, Sales Engineer 407-879-0002 *Email*: amstereo@meduci.com

#### Website: http://meduci.com

**Products/Services:** Manufacturer and direct sales for specialized AM stereo tuners and decoders, meduci is an innovative organization that specializes in custom freelance engineering, research, design and production of electronic products in prototype quantities, up to large-scale manufacturing.

#### MOORETRONIX

5311 S. Green Ave. Fremont, Mich. 49412 Bob Moore 231-924-7818 *Email:* rrmoorejr@aol.com *Website:* www.mooretronix.com/ **Products/Services:** Mooretronix specializes in the

sale and service of Pacific Recorders & Engineering consoles, modules and accessories for the broadcast community.

#### **MOSELEY ASSOCIATES INC.**

82 Coromar Dr. Santa Barbara, Calif. 93117 Bill Gould, Broadcast Sales Manager 805-968-9621 *Email:* sales@moseleysb.com *Website:* http://www.moseleysb.com **Products/Services:** Moseley is a pioneer and a leading manufacturer of digital audio and video microwave

links. The first to bring a totally transparent studio-totransmitter link to the crowded, hostile RF environment, Moseley now has over 15,000 microwave systems in service around the world.

#### **MR. MASTER**

28720 Roadside Dr., #310 Agoura Hills, Calif. 91301 818-879-8349 *Email*: aim@mrmasteronline.com *Website*: http://new.mrmaster.com **Products/Services**: Digital programming content delivery service.

#### **MUELLER BROADCAST DESIGN**

613 S La Grange Rd. La Grange, Ill. 60525 Mark Mueller, Owner 708-352-2166 *Email:* rw@muellerbroadcastdesign.com *Website:* http://www.muellerbroadcastdesign.com **Products/Services:** Mueller Broadcast Design is a broadcast technical consultant with over 30 years' experience specializing in AM directional antennas and diplexing, troubleshooting, rebuilds and in-place upgrades. We can also help with technical compliance, system planning and disaster recovery, and we do FM and translator work too!

#### **MULTICAM SYSTEMS INC.**

60 Broad St., Ste. 3502 New York, N.Y. 10004 Paul Stewart, Director of Business Development, North America 248-973-7167 *Email:* usa@multicam-systems.com *Website:* http://www.multicam-systems.com **Products/Services:** multiCAM Systems designs and develops live video production systems, which feature advanced video switching capabilities and PTZ camera technology for recording, live streaming and podcasting visual radio.

#### **MUSIC1**

Steve Warren, CEO 512-392-2415 *Email:* Steve@music1.pro *Website:* https://gomusic1.com **Products/Services:** Radio automation and business software developer.

#### **MUSICMASTER SCHEDULING**

8330 LBJ Freeway, Ste. B1050 Dallas, Texas 75243 469-717-0100 *Email:* sales@musicmaster.com *Website:* http://www.musicmaster.com **Products/Services:** MusicMaster Scheduling is the fastest-growing, most powerful music scheduling software for radio and television stations worldwide. Known for its unparalleled flexibility, MusicMaster offers a user-defined database, enhanced third-party system integration, dedicated customer care and cus-

tomizability designed to meet the needs of all users,

#### MXL MICROPHONES/ MARSHALL ELECTRONICS

formats and platforms.

20608 Madrona Ave. Torrance, Calif. 90503 310-333-0606 *Email*: inquiries@mxImics.com *Website:* http://www.mxImics.com **Products/Services:** Manufacturer of microphones.

#### **MYAT INC.**

360 Franklin Turnpike Mahwah, N.J. 07430 Dennis Heymans, RF System/Filter Sales 201-684-0100 *Email:* dheymans@myat.com *Website:* http://www.myat.com **Products/Services:** Highest-quality broadcast products since 1951. Myat's FM products include rigid and flex transmission lines, bandpass filters, multi-station combiners, coax switches, switchless combiners, N+1 switching matrix, adapters, elbows, couplers, patch panels and other related items.

#### NAUTEL

10089 Peggy's Cove Rd. Hackett's Cove, N. S. B3Z 3J4 Canada 902-823-5131 *Email*: sales@nautel.com *Website*: http://nautel.com **Products/Services:** Nautel offers a broad portfolio of

digital/analog solid-state radio transmitters: 1–2000 kW AM/MW and 300 W–88 kW FM transmitters; VS300LP for LPFM and solutions for HD Radio. Nautel transmitters offer comprehensive monitoring and control instrumentation via touchscreen or web, outstanding reliability, compact footprints, high efficiency, easy maintenance and 24/7 support.

See story, page 42

#### NEOGROUPE

14 rue des selliers Marolles-en-Brie, FR-94440 France Philippe Halin, CEO 210-757-4700 *Email:* philippe.halin@neogroupe.com *Website:* http://www.neogroupe.com **Products/Services:** NeoGroupe develops software solutions for radio and television broadcasters. Applications include call screening, promotions manage**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

# VENDOR & PRODUCT DIRECTORY

ment, budgets/purchases and assets inventory solutions dedicated to customers ranging from high-profile talk shows to major public organizations worldwide. New functions focus on VoIP, social media and smartphone applications.

#### NETIA

120 Allée John Napier Montpellier 34000 France Isabelle Sost Michoux, Communication & Field Marketing Director +33-467-590-807 *Email*: contact@netia.com *Website:* http://www.netia.com

**Products/Services:** Netia provides radio automation and playout software, as well as media asset and workflow management solutions to major radio and media groups around the world. Relied on by more 20,000 users in 200 installations, Netia radio automation and broadcast software covers the entire workflow from ingest to delivery.

#### **NEUMANN**

One Enterprise Dr. Old Lyme, Conn. 06371 877-736-6434 *Website:* http://www.neumann.com **Products/Services:** Manufacturer of microphones and audio monitors.

#### **NEUTRIK USA INC.**

4115 Taggart Creek Rd. Charlotte, N.C. 28208 704-972-3050 *Email:* info@neutrikusa.com *Website:* http://www.neutrik.com

Products/Services: Neutrik manufactures connectors and fiber systems for the professional entertainment, broadcast, music and fixed installation industries. From XLRs and patch panels, to Ethernet and fiber optics, Neutrik offers innovative solutions and superior quality in all of its products. Connectors you can depend on show after show.



#### **NEWBAY**

5285 Shawnee Rd., Ste. 525 Alexandria, Va. 22312 Paul McLane, Editorial Director, Broadcast/Video 703-852-4628 *Email*: radioworld@nbmedia.com *Website:* www.nbmedia.com

**Products/Services:** Parent of Radio World. Our mission is to connect audiences to authoritative, informative and compelling content in print, digitally and in person, and to offer unsurpassed value and innovation to our advertisers, sponsors and business partners. Brands also include TV Technology, Radio magazine, Government Video, Broadcasting & Cable, TWICE and many other leading professional titles.

#### **NEXTRADIO**

40 Monument Cir., Ste. 500 Indianapolis, Ind. 46204 Libby Hiple, Sales Manager 317-684-2952 *Email:* sales@nextradioapp.com *Website:* http://www.nextradioapp.com **Products/Services:** The free NextRadio app is the best way for listeners to experience the music, sports and talk via a smartphone's FM chip or stream on unsupported devices. It is an industry initiative supported

talk via a smartphone's FM chip or stream on unsupported devices. It is an industry initiative supported by the National Association of Broadcasters, Radio Advertising Bureau and major owners and operators.

#### NORTHWEST MONITORING SERVICE

PO Box 70144 Eugene, Ore. 97475 James Bradley, Owner 541-3345-2236 *Email:* jbradleynwms@gmail.com **Products/Services:** Monthly frequency measurements for AM-FM-TV-DTV. Mobile service includes California, Oregon, Washington, Idaho and Nevada. Special frequency measurement quotes on request.

#### **NOVA ELECTRONICS**

Box 740482 Dallas, Texas 75374 Mike Vanhooser, President 214-725-5621 *Email:* sales@novaelectronics.net *Website:* http://novaelectronics.net **Products/Services:** Broadcast engineering and construction, buildouts/upgrades/repairs of AM, FM, TV and SW stations. AM directionals, LPFM/translators, towers and AM ground systems, buried or elevated. New and used transmitter sales, STL systems and field measurements. Services available worldwide.

#### **NPR SATELLITE SERVICES**

1111 North Capitol St. NE Washington, D.C. 20002 Dan Riley, Sales Representative 202-513-2624 *Email*: driley@npr.org *Website:* http://www.nprss.org **Products/Services:** Satellite content uplink services, systems and equipment dealer.

#### **NTI AMERICAS INC.**

PO Box 231027 Portland, Ore. 97281 Brian MacMillan 503-684-7050 *Email:* ntisales@ntiam.com *Website:* http://www.nti-audio.com **Products/Services:** NTI manufactures and distributes the full line of Exel and Minstruments handheld audio test tools and Flexus modular engineering and lab audio analyzers. Our Exel line includes the XL2 audio/ acoustics analyzer, the DR2 digital audio generator and the DL1 digital audio analyzer; MR2 & MR-PRO analog generators.

#### O.C. WHITE CO.

4226 Church St. Thorndike, Mass. 01079 Richard May Jr., Industrial Sales Manager 413-289-1751 *Email:* info@ocwhite.com *Website:* http://www.ocwhite.com **Products/Services:** A standard bearer in n

**Products/Services:** A standard bearer in mic booms since the 1960s. Our newest Ultima line of ultralowprofile mic booms was honored by Radio Magazine at the 2015 NAB Show. Our ProBoom Elite mic arms are in use by professional studios, podcasters, hobbyists and ham radio operators around the world. We also offer monitor arms and lighting products.

#### **OMB AMERICA**

3100 NW 72 Ave., Unit 112 Miami, Fla. 33122 Rafael Arreaza, Sales Manager 305-477-0973 *Email:* arreaza@omb.com *Website:* http://www.omb.com **Products/Services:** International sales division of OMB Broadcast, manufacturer of FM, TV transmitters, antennas, STL units.

#### **OMNIA AUDIO, A TELOS ALLIANCE CO.**

1241 Superior Ave. Cleveland, Ohio 44114 Krissy Rushing, Marketing Manager 216-241-7225 *Email:* inquiry@telosalliance.com *Website:* http://www.telosalliance.com **Products/Services:** Omnia Audio was founded by Frank Foti, who used audio processing to enable stations to craft a "signature sound" sounding louder than rivals. This processing is the core of Omnia products.

#### **OMNIRAX FURNITURE CO.**

PO Box 1792 Sausalito, Calif. 94966 Philip Zittell, President 415-332-3392 *Email:* philip@omnirax.com *Website:* http://www.omnirax.com **Products/Services:** What differentiates Omnirax furniture is our blend of style. functionality and eroonom-

niture is our blend of style, functionality and ergonomics, collaborative custom design ability and attention to detail. Let us furnish your entire facility — studios, offices, reception, conference and seating. Trust us with your next project and become a customer for life!

#### **OMT TECHNOLOGIES INC.**

Unit 1-1717 Dublin Ave. Winnipeg, MB R3H 0H2 Canada Gary Kristiansen, Sales Manager 888-665-0501 *Email:* sales@imediatouch.com *Website:* http://www.imediatouch.com **Products/Services:** OMT Technologies Inc. is a solutions provider to the broadcast and media industries. OMT's suite of products includes three suites of iMediaTouch broadcast automation and radio's top-selling digital logger, iMediaLogger. OMT's technology is heard daily by millions of people worldwide through television, radio, satellite and internet broadcasts.

#### **ONAIR MEDYA LTD.**

Yukari Dudullu Mah. Necip Fazil Blv.Keyap Sitesi D1 Blok No: 44/56 Umraniye Istanbul 34775 Turkey Lüfti Aysan, CEO +90-216-5407045 *Email:* info@onair.com.tr *Website:* http://www.onair.com.tr **Products/Services:** OnAir Medya is an expert in design and manufacturing of FM and TV broadcasting equipment. Our production includes FM and TV trans-

equipment. Our production includes FM and TV transmitters, microwave links, FM-VHF–UHF pallet amplifiers, antenna systems and professional radio studio products. We have been exporting to more than 80 countries for 20 years.

#### **ONETASTIC**

Via Ghislandi, 47 Brescia 25125 Italy Alessandro Sponchioni, Sales Director +39-030-3539080 *Email:* sales@onetastic.com *Website:* http://www.onetastic.com

**Products/Services:** ONEtastic designs, manufactures and distributes equipment for the transmission of digital radio and television signals. Products include DVB-T/H/T2, ISDB-T/Tb, DAB/DAB+/T-DMB and PAL/NTSC transmitters; gap-fillers; spectrum restorers (EDOCR); GPS synchronization systems, automatic changeovers, multichannel transmitters; and custom-designed RF amplifiers for special applications.

#### OPTELATOR-STORMIN PROTECTION PRODUCTS INC.

243 21st Ave. N. St. Petersburg, Fla. 33704 John Pecore, President 727-823-6100 *Email:* jpecore@earthlink.net *Website:* http://www.opticshield.com

**Products/Services:** Power quality engineering company. Fiber-optic remote modem isolation (Optelator) used on Gentner, Burk and other remote monitoring equipment. AVR UPS 2200VA rack-mount and floor models — handle backup generators with wide frequency bandwidth issues. Industrial 100BASET surge suppression and low-voltage protection devices.

#### **ORBAN LABS**

7209 Browning Rd. Pennsauken, N.J. 08109-4602 Mike Pappas, V.P. Business Development 856-719-9900 *Email*: sales@orban.com *Website:* http://www.orban.com **Products/Services:** For over 45 years, Orban has been

a benchmark for professional audio processing worldwide and continues today to provide state-of-the-art audio solutions for live performance venues and content creators, as well as radio, TV and internet broadcasters.

#### **ORBITAL MEDIA NETWORKS INC.**

76 Inverness Dr. E, Ste. C Englewood, Colo. 80112 Jonathon Hagans, Sales 303-925-1708 *Email*: sales@orbitalmedianetworks.com *Website*: http://www.orbitalmedianetworks.com **Products/Services**: Satellite program distribution network.

#### **PARAVEL SYSTEMS**

41 W. Lee Hwy., Ste. 59, #124 Warrenton, Va. 20186 Fred Gleason, President 877-447-2728 *Email:* sales@paravelsystems.com *Website:* http://www.paravelsystems.com

**Products/Services:** Paravel Systems is a leading provider of innovative broadcast solutions, like the Radio World and Radio Magazine Best of Showwinning WallTime NTP Clock and Notification System and the open source Rivendell Radio Automation System.



**P-CUBE INC.** 

510 County Rd. Westbrook, Maine 04092 Spencer J. Smith, Managing Director 207-318-3349 *Email:* spencer@pcube207.com *Website:* http://www.pcube207.com

**Products/Services:** P-Cube, with 90 years of combined design experience of its team members, supplies RF components from 100 W to 50 kW for both radio and TV. Products include filters, patch panels, couplers, power dividers and complete systems and subsystems from the output of the transmitter to the input for the antenna line.

#### **PICO DIGITAL**

8880 Rehco Rd. San Diego, Calif. 92121 858-546-5050 *Email*: sales@picodigital.com *Website*: http://picodigital.com **Products/Services**: Radio program distribution equipment.

#### **PRISTINE SYSTEMS INC.**

PO Box 6489 San Pedro, Calif. 90731 Kevin Loper, President 310-831-2234 *Email:* kevin@pristinesys.com *Website:* http://pristinesys.com **Products/Services:** Pristine Systems Control Room-7 is a complete line of live assist, satellite and music-onhard drive digital audio systems. It is user-friendly yet powerful enough to handle the demanding tasks with metadata capabilities.

#### **PROAUDIO.COM**

1320 Post & Paddock Rd., #200 Grand Prairie, Texas 75050 Mark Bradford, VP/GM 972-660-6100 *Email:* mbradford@proaudio.com *Website:* http://www.proaudio.com **Products/Services:** ProAudio.com with over 400 lines of equipment has been serving the broadcast market as well as other pro audio markets since 1971.

#### **PRO-COMM INC.**

1105 Industrial Pkwy. Brick, N.J. 08724 Frank Visone, Production Manager 732-206-0660 *Email:* procomm222@aol.com *Website:* http://www.procomm222.com

Products/Services: Pro-Comm designs high-power RF microwave devices: RF amplifiers, triode cavity oscillators, sources, transmitters, test equipment for cellular, military, medical, sterilization, university and private labs, etc. Operating frequencies range from 600 MHz to 3000 MHz with powers from 500 W peak to 50 kW peak nominal. Also designs, manufactures and services RF drivers.

#### **PROGRESSIVE CONCEPTS**

305 South Bartlett Rd. Streamwood, III. 60107 Eric Hoppe, Owner

#### 630-736-9822

*Email:* sales@progressive-concepts.com *Website:* http://www.progressive-concepts.com **Products/Services:** FM radio broadcast and LPFM radio broadcast transmitters, coaxial cables, antennas, towers, microphones, mixing consoles, audio processors, accessories and more. Also distributes D&R radio broadcast consoles.

#### **PROPAGATION SYSTEMS INC. — PSI**

719 Pensacola Rd., PO Box 113 Ebensburg, Pa. 15931 Doug Ross, President 814-472-5540 *Email:* sales@psibroadcast.com *Website:* http://www.psibroadcast.com **Products/Services:** PSI designs and manufactures high-quality solutions for FM and TV broadcasting. Products include FM and TV broadcast antennas, combiners, filters and transmission lines. Also available are antenna designs available for all power levels, directional or nondirectional, pattern optimization, customization and multistation requirements. In addition full

FM and TV turnkey transmission systems are available.

#### R.V.R. USA

7782 NW 46 St. Miami, Fla. 33166 Juan Carlos Sampedro 305-471-9091 *Email:* juancarlos@rvrusa.com *Website:* http://www.rvrusa.com

**Products/Services:** R.V.R. Elettronica was founded in 1979 and during the following 36 years R.V.R. has formed an established group of companies, consolidating its leader position in the worldwide FM and TV market. R.V.R. can supply analog and digital, air and liquid-cooled FM and TV transmitters, antennas, filters, combiners and accessories.

#### **RADIAL ENGINEERING LTD.**

1588 Kebet Way

Port Coquitlam, B.C. V3C 5M5 Canada

604-942-1001

Email: info@radialeng.com

Website: http://www.radialeng.com

**Products/Services:** Radial Engineering Ltd. is a Vancouver, B.C. –based manufacturer of professional audio products. Brands include: Radial, Primacoustic, Reamp, Hafler and Jensen. Quality construction and exceptional audio performance are the underpinnings that have served to make Radial one of the most respected brands in the industry.

#### **RADIO SALES CAFE (RADIOSALESCAFE.COM)**

RadioSalesCafe.com

Rebecca Schwartz, Administrator Email:rebecca@gracebroadcast.com

Website: http://www.radiosalescafe.com

**Products/Services:** Radio Sales Cafe is the online community exclusively for radio advertising sales professionals. With thousands of members worldwide sharing ideas and resources, solving sales problems, brainstorming, etc., Radio Sales Cafe has become "the preeminent resource" for radio sales today (Small Market Radio Newsletter). Join us! Membership is free at RadioSalesCafe.com.

#### **RADIO SYSTEMS**

601 Heron Dr. Logan Township, N.J. 08085 Katie McDowell, Office Manager

#### 856-467-8000

Email: sales@radiosystems.com Website: http://www.radiosystems.com Products/Services: Manufacturer of hybrid and digital consoles, distribution amplifiers, clocks and timers, telephone interfaces and StudioHub+ Cat-5 complete studio wiring systems.

#### **RADIO WORLD**

5285 Shawnee Rd., Ste. 525 Alexandria, Va. 22312-2334 703-852-4600 *Email:* radioworld@nbmedia.com *Website:* www.radioworld.com

**Products/Services:** Radio World is the leading news source for radio managers and engineers, serving the global broadcast and new media marketplace. Visual radio, digital media, streaming, IP audio, new transmission standards, tech tips, newsmaker profiles and more. Part of the NewBay Media family of publications, parent of TV Technology, Radio magazine, Broadcasting & Cable and much more.

#### RADIODNS

96a Curtain Rd. London EC2A 3AA United Kingdom +44-1600-888-335 *Email:* feedback@radiodns.org *Website:* http://www.radiodns.org **Products/Services:** Hybrid radio combines broadcast

radio and the internet. A broadcast signal (FM, HD Radio, DAB, DAB+) continues to carry audio (and some data), but a radio with an internet connection (Wi-Fi, 3G, 4G, LTE) can seamlessly connect back to a station for multimedia and interactivity. It's an app-like experience for broadcast radio. RadioDNS creates and maintains the open technical standards for hybrid radio. We're a not-for-profit organization that promotes and supports the growth of hybrid radio.

#### **RAM SYSTEMS**

27992 West Route 120, Ste. 138 Lakemoor, III. 60051 Ron Mitchell, President 815-679-6574 *Email*: sales@ram68.com **Products/Services**: Manufacturer of studio furniture, acoustic treatment products. Also distributor of Dixon System mixers; Studio Items booms and accessories; and Torpey Time clocks and displays.

#### RCS

445 Hamilton Ave. White Plains, N.Y. 10601 Philippe Generali, President/CEO 914-428-4600 *Email*: sales@rcsworks.com *Website:* http://www.rcsworks.com **Products/Services:** RCS is a technology company that

has been developing solutions for the broadcasting industry for over 30 years. Our products and services are used at more than 14,500 radio stations, TV music channels, cable companies, satellite radio networks and internet stations worldwide.

#### **RFE BROADCAST**

via Sila Snc Nocera Terinese, CZ 88047 Italy Elena Ditadi, Sales Manager

#### +39-0968-1945299

Email: elena@rfebroadcast.com Website: http://www.rfebroadcast.com **Products/Services:** RFE Broadcast is an Italian company founded in 2015 by professionals with long experience in broadcast. Our products feature experienced engineering, high-efficiency and complete customization. We have offices in Miami; Curitiba, Brazil; Beirut; and Jakarta. We design and produce FM and TV broadcast products, providing turnkey solutions.

#### **ROHDE & SCHWARZ USA INC.**

6821 Benjamin Franklin Dr. Columbia, Md. 21046 410-910-7800 *Email:* info@rsa.rohde-schwarz.com/USA **Products/Services:** Rohde & Schwarz is a leading supplier of solutions for broadcast and media. The company offers products for post-production, ingest, storage, playout, encoding, multiplexing and transmission. Established over 80 years ago in Munich, Rohde &

#### RUSHWORKS

network in over 70 countries.

800 Parker Square, Ste. 200 Flower Mound, Texas 75028 Rush Beesley, President 888-894-7874 *Email:* solutions@rushworks.tv *Website:* http://www.rushworks.tv **Products/Services:** Developer and manufacturer of turnkey video systems for radio broadcast use.

Schwarz has a global presence and a dedicated service

#### **SABRE INDUSTRIES INC.**

7101 Southbridge Dr. Sioux City, Iowa 51111 Terrence Becht, Broadcast Sales Representative 800-369-6690 *Email*: towerinfo@sabreindustries.com *Website:* http://www.sabreindustries.com **Products/Services:** Manufacturer of broadcast towers.

#### SAFE2CLIMB

Evansville, Ind. 47715 Julie Flittner, Principal 812-598-7433 *Email*: info@safe2climb.com *Website*: http://safe2climb.com **Products/Services**: Pre-Climb Report: Site specific risks for corrosion of buried steel anchors in contact with soil. Valuable addition to Job Hazard Analysis.

#### **SAGE ALERTING SYSTEMS**

800 Westchester Ave. Ste. 641 North Rye Brook, N.Y. 10573 Harold Price, President 914-872-4069 *Email:* info@sagealertingsystems.com *Website:* http://www.sagealertingsystems.com **Products/Services:** Emergency Alert System and Common Alerting System hardware and software for the international broadcast industry. Sage's flagship product, the Sage Digital ENDEC, provides combined EAS and CAP support in a fully certified solution. Sage has provided EAS solutions since 1996.

#### SANDIES

225 Lincoln Hwy. Ste. 167 Fairless Hills, Pa. 19030 David Strode, Owner 215-547-2570

*Email:* dstrode@comcast.net *Website:* http://www.sandiesusa.com **Products/Services:** SANDIES manufactures the DY-NAMAX MX Series of ON AIR Broadcasting Consoles in 6-18 channel configurations. SANDIES also manufactures the Model 340, 343 and 393 Series Studio Warning Lights displaying "ON AIR," "RECORDING" as well as custom text requests in a multitude of languages and fonts.

#### **SAVE DIFFUSION**

23 Rue de la Talaudiere Saint-Etienne 42000 France Paul Guibouret, Director +33-4-77-79-46-79 *Email*: contact@savediffusion.fr *Website*: http://www.savediffusion.fr **Products/Services**: Since 1988, Save Diffusion has maintained its position as a market leader for the distribution and integration of broadcast solutions. Providing turnkey solutions, the firm's team offers advanced knowledge of broadcast technologies and associated products.

#### SCMS INC.

10201 Rodney St. Pineville, N.C. 28134 Bob Cauthen 800-438-6040 *Email*: bobc@scmsinc.com *Website*: http://www.scmsinc.com **Products/Services**: Distributor of radio and TV studio and transmitter products.

#### **SECURENET SYSTEMS**

356 SW 12th Ave. Deerfield Beach, Fla. 33442 Diego Baeza, President of Sales 954-481-9402 *Email:* dbaeza@cir.st *Website:* http://cir.st **Products/Services:** All-in-one streaming and podcasting solution for stations and broadcasters all over the world. We offer several player options for live streaming and podcasting/on-demand that allow full control ad serving, a programmatic ad network to earn additional revenue, and free mobile web apps.

#### SENNHEISER

One Enterprise Dr. Old Lyme, Conn. 06371 860-434-9190 *Website:* https://en-us.sennheiser.com/ **Products/Services:** Manufacturer of wired microphones, wireless mic systems and headphones.

#### SHIVELY LABS

PO Box 389, 188 Harrison Rd. Bridgton, Maine 04009 Dale Ladner, Sales Manager 207-647-3327 *Email:* sales@shively.com *Website:* http://www.shively.com **Products/Services:** Shively Labs manufactures FM antennas, filters, combiners, coax components and related transmission products. Shively is the industry leader for supplying FM transmission equipment for HD Radio implementation including interleaved antennas, dual antennas, dual-feed multi-station systems and special filtering and combining techniques.

#### SHOUTCAST

Bd International 55K Brussels, 1070 Belgium Bruno Grost, Audience & Publisher Business Development Manager +32-2-526-20-50 *Email:* contact@shoutcast.com Website: http://www.shoutcast.com **Products/Services:** SHOUTcast, the broadcasting in-

**Products/Services:** SHOU cast, the broadcasting industry's streaming solution, offers radio professionals an end-to-end solution for creating and broadcasting radio stations online. Premium servers and bandwidth, powerful analytics for audience measurement, an automation system, a large directory (50,000+ radio stations) and the possibility to monetize the audience are all provided.

#### SHURE INC.

5800 West Touhy Ave. Niles, III. 60714-4608 847-600-2000 *Email*: info@shure.com *Website*: http://www.shure.com **Products/Services:** Manufacturer of wired microphones, wireless mic systems and headphones.

#### SIERRA AUTOMATED SYSTEMS/SAS

2821 Burton Ave. Burbank, Calif. 91504 818-840-6749 *Website:* http://sasaudio.com **Products/Services:** Developer and manufacturer of digital audio consoles and audio networks.

#### SINE CONTROL TECHNOLOGY INC.

PO Box 3796 Seal Beach, Calif. 90740 Hank Landsberg, CEO 562-493-3589 *Email:* hank@sinecontrol.com *Website:* http://www.sinecontrol.com **Products/Services:** PowerClamp TVSS is the industry leader in surge suppression and power protection. PowerClamp TVSS units will help prevent equipment

PowerClamp TVSS units will help prevent equipment damage by eliminating spikes and surges on the AC power line. PowerClamp's ultra-low Clamping Level assures your gear will operate reliably for years without damage caused by AC power line spikes.

#### SINE SYSTEMS

4835 North St. Marcellus, N.Y. 13108 Kevin Smith, Sales / Technician 315-673-3570 *Email:* kevin@armstrongtx.com *Website:* http://sinesys.com/ **Products/Services:** Sine Systems produces the popular RFC-1/B Remote Control and monitoring equipment for broadcast transmitter sites.

#### SKYWAVES CONSULTING LLC

PO Box 4 Millbury, Mass. 01527-0004 Dave Doherty, Chief Consultant 401-354-2400 *Email:* dave@skywaves.com *Website:* http://www.skywaves.com **Products/Services:** Strategic technical planning and mapping services. Transmitter site relocation planning. FCC applications.

#### SMARTS BROADCAST SYSTEMS

2508 Main St. Emmetsburg, Iowa 50536 Johnny Schad 800-747-6278 Email: johnnyschad@smartsbroadcast.com Website: http://www.smartsbroadcast.com

#### SONIFEX LTD.

61 Station Rd. Irthlingborough, Northamptonshire NN9 5QE United Kingdom Richard Butlin, Sales Manager +44-1933-650-700 *Email*: sales@sonifex.co.uk *Website*: http://www.sonifex.co.uk **Products/Services**: Sonifex has been manufacturing

high-quality audio and video equipment for radio and TV studios for 48 years and has a reputation for quality and reliability. The constant need to innovate is an integral part of the Sonifex culture, combining outward-looking ideas with sound and efficient practices.

#### SPRITE MEDIA INC.

0

71-15 Loubet St. Forest Hills, N.Y. 11375 Jeff Schick, President 646-893-8040 *Email:* info@sprite-media.com *Website:* http://www.sprite-media.com **Products/Services:** Sprite Media introduces state-ofthe-art video displays specifically for the radio industry. We provide digital signage for lobbies, studios, newsrooms, sales departments and staff. The content for each display is custom designed using each station's unique colors, logos and presentations.

#### STREAMGUYS

2212 Jacoby Creek Rd. Bayside, Calif. 95524 Jonathan Speaker, COO 707-667-9479 *Email*: info@streamguys.com *Website*: http://www.streamguys.com **Products/Services:** StreamGuys is an industry-leading service provider of live and on-demand streaming, pod-

service provider of live and on-demand streaming, podcasting delivery and SaaS toolsets for enterprise-level broadcast media organizations. The company brings together price-to-performance ratio, a robust and reliable network and an infinitely scalable cloud-based platform to process, deliver, monetize and playout professional streaming content.



#### **STREAMS-MODULATION INDEX, LLC**

1249 S. Diamond Bar Blvd. #314 Diamond Bar, Calif. 91765-4122 Greg Ogonowski, President 940-206-7702 *Email*: info@streamindex.com *Website*: http://www.streamindex.com

**Products/Services:** Offering a full line of audio streaming encoders both in software-only and systems for both Legacy ICY and new StreamS HLSdirect, eliminating the need for costly media servers. PAD:Bridge PAD distribution software, IODigi2 AES to USB interface, AoIP Audio Master Clocks, RadioDJ Playout Automation and *free* HLS HTML5 Players.



Accurately generate time code with ESE's Master Clock via the 12-channel GPS receiver and output multiple types of Time Code, SMPTE-LTC/EBU, ESE, IRIG-B, ASCII (RS-232 & USB), and an extremely accurate 1PPS signal. Further reliability with dual battery back-up, and new control panel software. ESE's NTP6 feature provides an NTP server compatible with the latest version of Internet Protocol, IPv6.

You can also easily interface with new or existing computers, automation and clock systems.

Visit www.ese-web.com for all your time synchronization needs.



#### STUDER

8500 Balboa Blvd. Northridge, Calif. 91329 Rob Lewis, U.S. Sales Director 415-867-9550 *Email:* studer-usa@harman.com *Website:* http://www.studer.ch **Products/Services:** Studer by Harman designs and

manufactures IP, HD and SD audio mixing systems for radio and TV. The line extends from powerful IP-based routing and control, to traditional hardwired audio workflows. Award-winning radio solutions include the Micro Series and Glacier Series, and the standalone call management system, CMS.

#### **STUDIO EQUIPMENT**

Ave. Haldimand 87 Yverdon-les-Bains, Vaud 1400 Switzerland Terence Nelson, Owner +41-24-420-25-75 *Email*:studio.equipment@bluewin.ch *Website*:http://www.studioequipment.ch **Products/Services:** Systems and acoustic design for studios. Digital and analog consoles from Harrison

and Cadac plus analog processors and preamplifiers and microphones. Products for broadcast from Studio Technologies. We also offer consultation services.

#### **STUDIO TECHNOLOGY**

529 Rosedale Rd. #103 Kennett Square, Pa. 19348 Vince Fiola, President 610-925-2785 *Email*:vfiola@studiotechnology.com *Website*: http://www.studiotechnology.com **Products/Services:** Studio Technology designs, constructs, delivers and installs technical furniture for the broadcast industry nationwide. We provide both custom and standard furniture lines.

#### SUMMIT SOFTWARE SYSTEMS INC.

PO Box 6489 San Pedro, Calif. 90734 Kevin Loper, Technical Support Manager 310-831-2234 *Email:* kevin@summitsoftware.com *Website:* http://www.summitsoftware.com **Products/Services:** Formed in 1983, Summit Software Systems Inc. has been working continuously with the broadcast and cable industries to create traffic, billing and ad sales management systems that far surpass the capability of other systems available in the market today.

#### SURCOM ASSOCIATES INC.

5674 El Camino Real, Suite K Carlsbad, Calif. 92008 760-438-4420 *Email*: link@surcom.com *Website:* http://www.surcom.com **Products/Services:** A stocking distributor of vacuum, ceramic and mica RF transmitting capacitors.

#### TASCAM

1834 Gage Rd. Montebello, Calif. 90640 323-726-0303 *Website:* http://www.tascam.com **Products/Services:** Manufacturer of audio products such as rackmount and handheld analog and digital recorders, microphones, mixers, speakers, converters, accessories and more.

#### **TEAMCAST INC.**

100 North Main St., Ste. 203 Elmira, N.Y. 14901 312-263-0033 *Email:* salesUS@teamcast.com *Website:* http://www.teamcast.com **Products/Services:** TeamCast is a renowned and active member of digital radio and TV ecosystems worldwide, with innovative technology offerings based on a solid expertise in satellite, digital radio, digital TV and mobile TV transmission. Digital radio products include DAB/DMB modulators, DVB-T2-Lite modulators, repeaters and gap-fillers, DVB-T2 professional receivers.

#### **TELOS SYSTEMS, A TELOS ALLIANCE CO.**

1241 Superior Ave. É Cleveland, Ohio 44114 Krissy Rushing, Marketing Manger 216-241-7225 *Email:* inquiry@telosalliance.com *Website:* http://www.telosalliance.com **Products/Services:** Telos Systems — part of the Telos Alliance — was founded in 1985 and has since become the industry leader in broadcast telephone systems and IP and ISDN coders. Telos VoIP broadcast telephone

the industry leader in broadcast telephone systems and IP and ISDN codecs. Telos VoIP broadcast telephone systems are used by top radio stations, offering ROI in as little as 18 months.

#### **THE TELOS ALLIANCE**

1241 Superior Ave. Cleveland, Ohio 44114 Krissy Rushing, Marketing Manager 216-241-7225 *Email*: inquiry@telosalliance.com *Website:* http://www.telosalliance.com **Products/Services:** For three decades, the brands of

the Telos Alliance, including Telos, Omnia, Axia and 25-Seven, have revolutionized radio by pioneering disruptive, cutting-edge audio technology with the goal of helping global networks and local stations produce better programming, improve audience engagement and bolster ratings via pioneering technology and products.

See Profile in Excellence, page 12

#### **TIELINE USA**

7202 East 87th St. Ste. #116 Indianapolis, Ind. 46256 Dawn Shewmaker, VP U.S. Operations 317-845-8000 *Email:* sales@tieline.com *Website:* http://www.tieline.com **Products/Services:** Digital audio codecs for remotes, STLs and multi-point audio distribution. Tieline delivers broadcast-quality 22 kHz FM audio over cellular

ers broadcast-quality 22 kHz FM audio over cellular networks, wired IP, SIP, Wi-Fi, POTS, ISDN and satellite. Codecs include ViA, the Genie and Merlin families, Bridge-IT, Bridge-IT XTRA and Report-IT apps, plus the G3 codec range.

See Profile in Excellence, page 14 and story, page 44

#### TITUS TECHNOLOGICAL LABORATORIES 77 Kreiger Ln.

Glastonbury, Conn. 06033 Lawrence Titus, Owner 800-806-8851 *Email*: sales2@tituslabs.com *Website*: http://www.tituslabs.com **Products/Services:** Manufacturer of analog and digital switching equipment, warning light fixtures and custom electronic equipment for radio, television and network stations/facilities.

#### **TRAFFIC DIRECTOR'S GUILD OF AMERICA**

26000 Avenida Aeropuerto Bldg. 114 San Juan Capistrano, Calif. 92675 Larry Keene, CEO-Publisher 949-429-7063 *Email*:tdga@cox.net *Website*:http://www.tdga.org

**Products/Services:** Broadcast trade association serving approximately 5,000 traffic scheduling professionals in radio, TV, cable, stations and networks in U.S., Canada and 15 English-speaking countries. Traffic professionals are the revenue management specialists who schedule programs, commercials and create program logs.

#### TRANSCOM CORP.

2655 Philmont Ave., Ste. 200 Huntingdon Valley, Pa. 19006 Martin Cooper, President 215-938-7304 *Email:* transcom@fmamtv.com *Website:* http://www.fmamtv.com **Products/Services:** Transcom has been providing used transmitters to the radio and TV broadcast industry since 1978. In addition, we offer new antenna, cable, STL/MW and other RF equipment.

#### **TRANSMEDIA RADIO NETWORKS**

3201 Danville Blvd. Ste. 150 Alamo, Calif. 94507 Dave Adams, President 925-678-1940 *Email*: dave@transmediasf.com *Website*: http://www.transmediasf.com **Products/Services**: Syndicators of "Point Of Law," America's longest-running short-form feature. We also operate the Spottraffic radio commercial distribution

#### **TRANSMITTERS 'R' US**

network.

35, Brompton Square Knightsbridge London SW3 2AE United Kingdom David Shapiro, Manager +44-203-290-8399 *Email:*info@transmittersrus.com *Website:* http://www.transmittersrus.com **Products/Services:** With outlets in London, UK & Limassol, Cyprus, Transmitters 'R' Us are now established as an international distributor of both studio & transmission broadcast equipment. We are dealers for all of the major brands and are able to service our customers across the clobe.

#### **TUNWALL RADIO LLC**

15250 NW 50th Ave. Trenton, Fla. 32693 Steve Tunwall, Owner 330-995-9642 *Email:* info@tunwallradio.com *Website:* http://www.tunwallradio.com **Products/Services:** Tunwall Radio LLC manufactures broadcast switch and transmitter control systems. In addition to standard units offered in the TRC Series, we produce custom AM and FM controllers, from simple one-switch modifications to multi-switch and antenna systems.



#### UncompressedMusic.com

#### UNCOMPRESSEDMUSIC.COM

307 Brown St. Waxahachie, Texas 75165 Dave Scott, CEO 866-500-0500 *Email:* orders@uncompressedmusic.com *Website:* http://uncompressedmusic.com **Products/Services:** Music for radio stations, CD-quality .WAV files for automation with auto-import of artists, ti-

tles, intros, segues and endings. With database for music scheduler. Better quality, faster startup, cleaner radio versions and less expensive than any other source.

#### **VIDHI TECHINNOVATION**

B 003, The Ivy Sushant Lok 1, Block A Gurgaon, Haryana 122009 India Arpana Dawane, Director +91-705-307-7777 *Email:* director@vtion.in *Website:* http://www.vtion.in **Products/Services:** VTION Pvt Ltd is a media technol-

ogy innovation firm. Our current focus is media technolsumption and audience measurement techniques for broadcast radio on smartphones in particular. We have developed patent-pending technology that can measure radio usage instantaneously in a passive manner.

#### **V-SOFT COMMUNICATIONS**

1600 Picturesque Dr. Cedar Falls, Iowa 50613 Doug Vernier, President 319-266-8402 *Email*: info@v-soft.com

Website: http://www.v-soft.com

**Products/Services:** Software products and support for broadcast allocation and propagation predictions analysis. Used for finding new frequencies or mapping comparative transmitter sites for AM, FM, TV and microwave. Our products are in routine use at the FCC and Industry Canada and with broadcast engineering consultants and engineers worldwide.

#### WARD-BECK SYSTEMS

945 Middlefield Rd., Unit 9 Toronto, Ont. M1V 5E1 Canada 416-335-5999 *Email:* sales@ward-beck.com *Website:* http://ward-beck.com **Products/Services:** Manufacturer of analog and digital audio intercommects, networking equipment, audio

distribution equipment, cables, audio monitors, audio meters, accessories and more.

#### WEDEL SOFTWARE BV

Regulusweg 5 The Hague 2516 AC Netherlands Timothy Paulissen, Key Account Executive +31-79-34-34-721 *Email:* welcome@wedelsoft.com *Website:* http://www.wedelsoft.com

Products/Services: Wedel Software is global leader in traffic management and media sales for the broadcast and advertising industries, offering a powerful integrated system of customizable interlinking modules, which deliver seamless end-to-end processes across every part of the sales lifecycle. Headquartered in Europe but with a worldwide presence that includes the U.K., USA, Asia, Australia and New Zealand.

#### WHEATSTONE CORP.

600 Industrial Dr. New Bern, N.C. 28562 Jay Tyler, Director of Sales 252-638-7000 *Email*: jay@wheatstone.com *Website*: http://wheatstone.com

**Products/Services:** Wheatstone Corp. designs and manufactures professional broadcast audio equipment under the Wheatstone, Audioarts Engineering, PR&E and VoxPro brand names. Products include digital audio consoles and control surfaces, analog audio consoles, networked digital audio systems, audio-over-IP, digital audio editing hardware, software and signal processing for on-air and studio applications.

See Profile in Excellence, page 16

#### WHIRLWIND USA

99 Ling Rd. Greece, N.Y. 14612 585-663-8820 *Email:* sales@whirlwindusa.com *Website:* http://whirlwindusa.com/ **Products/Services:** Whirlwind manufactures and distributes a variety of products through our worldwide network of independent dealers.

#### **WHISPERROOM**

109 S Northshore Dr., Ste. 303 Knoxville, Tenn. 37919-4925 Debbie Sweany, Sales Manager 865-558-5364 *Email*: info@whisperroom.com *Website*: http://www.whisperroom.com **Products/Services**: Manufacturer of portable/modular sound isolation booths. We have 26 sizes and two levels of isolation available, a Standard (single-wall) and an Enhanced (double-wall). Sizes range from a modest 3.5 x 2.5-foot one-person unit to a room size 8 x 16-foot booth. A range of application specific optional features

#### WIDEDRBIT

are available.

1160 Battery St., #300 San Francisco, Calif. 94111 415-675-6700 *Email:* radiosales@wideorbit.com *Website:* http://www.wideorbit.com **Products/Services:** WideOrbit is a technology platform for media companies to connect audiences and ads, everywhere. Our core solution, WO Traffic, streamlines the workflow for customers in radio, cable and TV, while our programmatic platform is an innovative approach to the buying process, increasing demand for broadcasters and efficiencies for advertisers.

#### WINMEDIA AMERICA

495 boul. St. Martin Quest, Ste. 310 Laval, Quebec H7M 1Y9 Canada Francois Beaumier, CEO 514-984-4912 *Email:* francois@winmedia.ca *Website:* http://www.winmedia.ca **Products/Services:** Founded in 1995, WinMedia meets the needs of the radio and TV industries by delivering

the needs of the radio and TV industries by delivering comprehensive solutions that streamline scheduling and playout. More than 4,100 radios and televisions worldwide rely on the power, flexibility and reliability of WinMedia solutions for their mission-critical operations.

#### **WORLDCAST SYSTEMS**

19595 NE 10th Ave. Ste. A Miami, Fla. 33179 Tony Peterle, U.S. Manager 305-249-3110 *Email:* ussales@worldcastsystems.com *Website:* www.worldcastsystems.com **Products/Services:** WorldCast Systems designs professional, reliable and innovative systems for broadcasters worldwide. Encompassing leading brands APT, Ecreso & Audemat. WorldCast offers everything from

casters worldwide. Encompassing leading brands APT, Ecreso & Audemat, WorldCast offers everything from audio codecs, RDS encoders, audio processors, FM transmitters, monitoring, test and control equipment through to a unified NMS Software Solution. The company also offers turnkey packages and services.

#### WORLDDAB

Radio Centre, 55 New Oxford St. London WC1A 1BS United Kingdom Bernie O'Neill, Project Director +44-20-70100700 *Email:* projectoffice@worlddab.org *Website:* http://www.worlddab.org **Products/Services:** WorldDAB is the global industry forum responsible for defining and promoting DAB digital radio.

#### **XPERI**

5220 Las Virgenes Rd. Calabasas, Calif. 91302 818-436-1000 *Website:* http://www.xperi.com **Products/Services:** Owner and developer of many media technologies, including HD Radio and DTS entertainment audio.

#### **XYTECH SYSTEMS**

9410 Topanga Canyon Blvd., Ste. 200 Chatsworth, Calif. 91311 818-698-4900 *Email*: sales@xytechsystems.com *Website*: http://www.xytechsystems.com **Products/Services**: Developer of broadcast business management software.

#### **YELLOWTEC USA LLC**

3630 Tivola St. Santa Ynez, Calif. 93460 Jeff Williams, General Manager 805-931-6081 *Email*: jeff@yellowtec.us *Website*: http://www.yellowtec.us **Products/Services:** Solutions for radio, audio and multimedia production studios, Yellowtec products are known for intelligent design. Whether it is for elegant microphone arms, functional support for video monitors, lighted signaling. USB sound cards and production mixers.

ed signaling, USB sound cards and production mixers, Yellowtec offers ultimate simplicity in form and function.

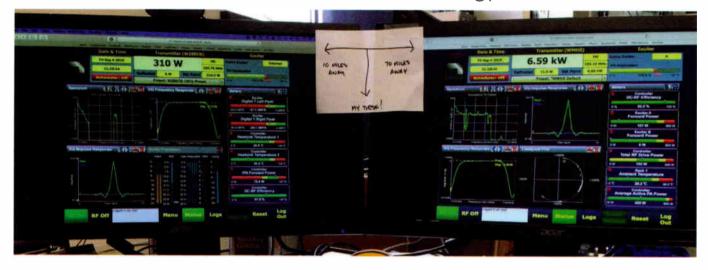
#### **ZENON-MEDIA GMBH**

Carl Benz Str.16 Willstätt 77731 Germany Dominique Wenger, CEO +49-7852913330 *Email:* info@zenon-media.com *Website:* http://www.zenon-media.com **Products/Services:** Zenon-Media is an international company developing radio automation for on-air radio broadcasting. Zenon-Media has offices in Germany, France and Malaysia with and partners all around the world. Reprinted from March 15, 2017

## PRODUCT STORIES

## **Nautel Plays Well in Wisconsin**

Advanced User Interface saves time and effort on solving problems



### **USERREPORT**

#### BY CHRISTOPHER TARR Director of Engineering Entercom/Madison, Wis.

HALES CORNERS, WIS. — I oversee six radio stations in two markets, with the two farthest transmitter sites over 90 miles away from each other. To say that I need all the help I can get is an understatement.

I have four Nautel transmitters with Advanced User Interfaces: an NV7.5LT at WMHX(FM) in Waunakee (Madison), Wis.; a GV20 at WOLX(FM) in Baraboo (Madison); a GV7.5 at WMMM(FM) in Verona (Madison); and a VS1 at W289CB in Milwaukee.

In Milwaukee, I use the VS1 for a translator carrying the programming of our AM station. We needed to get this station on the air quickly and reliably. Nautel was the best option, specifically because of the AUI and the VS1's big transmitter features. Typically I feed the programming to the VS1 via a T1 line; however, I wanted to provide a backup feed in case the T1 or IP link went down. The AUI provides for creating a "failover" preset that can be activated after a certain amount of silence. This preset can play a local playlist of files or even connect to a Shoutcast server.

In my case, I created a Shoutcast server at the studio, and if the T1 goes down, the VS1 automatically connects through its backup internet connection to the server, putting us back on the air. It's kicked in a few times in the past year, and the best part? It's a complete backup to our audio path, and it's free — built right into the AUI. How cool is that?

In the case of the Madison transmitters, the decision to install Nautel transmitters was a no-brainer. My "home base" is 60 miles from Madison, and about 90 miles from WOLX in Baraboo. When there's an issue, I often need more information than "Plate Voltage, Plate Current, and Power Output." I need to know if this is a minor issue or a major headache. I need to know if there's something I need to bring with me to the site. In short, I need all the data I can gather. The Nautel AUI, and all of the information it provides is critical in a remote installation such as these.

Any time, even a few minutes, that I can shave of my tasks is a win. Today's engineer doesn't have any time to waste, and I'm always looking for ways to save even five minutes. Nautel's AUI provides me with all of the information I need to assess a given situation. In fact, with Phone Home I can get an email from Nautel before I know there's an issue. No more wondering what I'm going to find at the transmitter site — I know ahead of time what is going on before I walk in the door. In some cases, that can save me hours of driving. The ability to receive an email from your transmitter with alerts is a game changer.

One of the questions Nautel asked me is how the AUI has "saved the day." It's kind of a different answer for me. I use the AUI on my transmitters all the time, to the point that it's become routine. I find myself wishing everything in my life had one! So really, it saves me time, which saves the day every day.

For information, contact Wendell Lonergan at Nautel in Nova Scotia at (902) 823-5131 or visit www.nautel.com. Reprinted from Aug. 2, 2017

# PRODUCT STORIES

## **Barix Delivers for New World Radio Group**

Simplicity and savings sell multicultural broadcaster

### **USERREPORT**

BY BRIAN C. EDWARDS Vice President New World Radio Group

WASHINGTON — New World Radio Group has been broadcasting international radio content since 1992, and now it encompasses a trio of stations: WNWR(AM)/1540 in Philadelphia, WCRW(AM)/1190 in Leesburg, Va., and our flagship station, WUST(AM)/1120 in Washington. WUST is known as "the multicultural voice of the nation's capital," providing foreign language and English programming to the region's diverse ethnic communities.

I've been a fan of audio over IP for years now, and moved our infrastructure away from traditional telco solutions. With the bandwidth available today, moving to IP just made total sense, as it offers greater scalability and virtually unlimited flexibility. We want to stay on the forefront of technology, and for our paying clients who are supplying

programs, we want to get their audio into our studios at the best possible quality.

We chose Barix audio over IP devices, which are distributed in the U.S. by LineQ, to connect our stations and our remote contributors. We were attracted to Barix because of how much functionality their products offer at a cost-effective price point. Beyond affordable pricing for the equipment itself, our IP-based links provide ongoing cost savings versus alternative distribution methods.

The primary application for our Barix units is enabling our client programmers to do remote shows from their own studios, while delivering studio-quality audio into our stations. With numerous Barix units deployed across multiple clients, the cost savings are amplified. We use additional Barix units as backup studio-transmitter links to our transmitter sites, and to backhaul satellite audio inexpensively from WUST to our other two stations. In this latter case alone, we realize big cost savings



by not needing an expensive satellite installation at each location.

We use a Barix Instreamer at WUST to encode audio for distribution to our other sites, and Barix Exstreamer 500s to receive and decode the resulting IP audio streams. For connecting clients' remote studios, we use Exstreamer 500s at both ends. We chose the Exstreamer 500 because it's a broadcast-grade model with balanced audio inputs and outputs, which is important given some of the environments we're installing them in such as transmitter sites. We also have a handful of Exstreamer 1000s for deployments that require AES/ EBU digital audio.

The Exstreamer 500 and 1000 are versatile, able to function as either encoders or decoders. That flexibility comes in handy when we get new program producers, as I can grab a Barix unit off the shelf to supply to the client without worrying about its specific capabilities.

Security is crucial to us, and again, Barix

gives us the tools we need. There has been lots of press attention given to hacked radio stations in recent months, but they all shared a common fault — the users had never configured a password on the STL devices. The Barix units do offer security; you just need to use it, which is easy. It takes literally five seconds to set up a password and secure the device.

While the Exstreamer units could be connected point-topoint with static IP addresses, I use the cloud-based Reflector service — offered by Barix in partnership with streaming specialists StreamGuys — for almost all our Barix-driven links. The Reflector service makes setup plug-and-play, without having to manually configure network and streaming parameters.

This simplicity is particularly valuable when supplying Barix encoders to our contributors. I can set up a Barix unit to use Reflector, configure its security and hand it to the client, and

they can take it to their studio. They essentially just plug their studio output into the Barix box, connect it to their internet service, and they're on the air, with Reflector taking care of the details.

We also like the monitoring functions of the Reflector service, which give me visibility of the performance of the system and notify me of any issues. Like the Barix units themselves, I can access the Reflector service through a browser-based interface, letting me remotely manage and control the equipment at multiple stations from anywhere I go.

From STL to connecting remote studios and occasional on-location remote broadcasts, the Barix Instreamer and Exstreamer devices and Reflector service have securely delivered studio-grade audio with great reliability and remarkable ease of use, all while saving us money.

For information, contact Brenda Stadheim at LineQ/Barix at (866) 815-0866 or visit www.barix.com. Reprinted from Aug. 2, 2017

# PRODUCT STORIES

## **Tieline Climbs New Heights in Colorado**

Bridge-IT XTRA links remote mountaintop transmitters to studios

### **USERREPORT**

BY BRYAN WATERS Chief Engineer Cheyenne Mountain Public Broadcast House and KILO(FM), KRXP(FM)

#### COLORADO SPRINGS, COLO.

— Think of Colorado and you think of mountains, and in a broadcast sense this presents challenges. As a broadcaster, you learn to work within the confines of what's possible based on the rugged terrain and inhospitable weather conditions encountered.

#### **MOUNTAINTOP CHALLENGES**

One such example is how we transport STL audio from KCME(FM)'s studio in Colorado Springs to three remote mountaintop locations. These include Breckenridge in Summit County, Methodist Mountain above Salida, and Cripple Creek. KCME has an "all-classical" radio format, so we need to achieve great quality audio. None of these sites has wired network available; previous-

ly we used an expensive high-bandwidth satellite receiver to transport audio to each transmitter site. At around \$17,000 per

### REPORT-IT FOR TEMPORARY STLS

When I speak of versatility, I have to mention that I once ran a station for around four hours using Tieline's Report-IT Enterprise smartphone app while I performed some transmitter site servicing tasks. To achieve this, I fed audio from the studio down the return path of a Report-IT smartphone connection and fed this into a Matchbox D.I. box and then into the transmitter. It worked solidly and proved to me that with a bit of lateral thinking, anything is possible in the world of broadcast.



year, this was prohibitively expensive for a member-supported station. Plus, the connections experienced frequent dropouts due to poor weather conditions.

I first started using Tieline codecs years ago at Citadel Communications (now Cumulus Colorado Springs), and I have broadcast with them in just about every way imaginable; they are versatile and reliable. For KCME, I believed we could improve our results by installing Tielines, so in 2016 we purchased a six-input Tieline Genie Distribution codec with WheatNet-IP and installed it at KCME in Colorado Springs. We also installed a Tieline Bridge-IT XTRA codec at each remote transmitter site. To transport the audio we are using satellite IP data service attached to the codecs at Salida and Cripple Creek. Breckenridge uses a different service provided by the owners of the translator site on Mount Baldi, in Summit County, and is maintained by engineer Gary Peterson.

This has been a complete transformation for us. The connections are so much more reliable. We are not bothered too much about latency, so have employed conservative fixed jitter strategies with remarkable results. Our bandwidth is limited, so we connect using HE-AAC v2 at 64 kbps and the audio sounds much better than before. Lots of listeners have called and written to us to remark about how much better the station sounds which is extremely pleasing.

The other benefit is the cost savings. With lower bandwidth satellite links, we now save significantly on data costs, in fact we recouped the cost of the codecs in less than a year. The ongoing savings are also huge.

The codecs have to be reliable because we are unable to get to the mountaintop transmitter sites for around three months out of the year due to the weather

conditions. They haven't missed a beat and we can remotely log-in to the codecs using the Toolbox web browser configuration tool to effect any configuration changes.

The studios for KILO(FM) and KRXP(FM) are at the foot of Pikes Peak, the most visited mountain in North America and reaching 14,000 feet above sea level. Our transmitter for KILO and KRXP is situated at the top of Cheyenne Mountain and we feed audio to the transmitter over multiple paths.

We use a Moseley 900 MHz STL encoder to feed linear audio directly up the mountain to a Moseley decoder for both stations. As a backup, we use a Genie Distribution codec at the studio to stream two stereo feeds over a 5.8 GHz Ubiquiti link to a Genie Distribution codec top side. Inputs 5 and 6 of the Genie Distribution top side are used to feed an older Marti RF transmitter, which is used to bring audio (continued on page 46)



RADIO WORLD 2018 SOURCE BOOK & DIRECTORY

Reprinted from Sept. 27, 2017

# PRODUCT STORIES

## **ENCO DAD Is a "Game Changer" for WAHS**

High school/community radio station finds ENCO automation makes the difference

### **USERREPORT**

BY KIMBERLY MCKNEE Station Manager WAHS 89.5 FM, Avondale High School

AUBURN HILLS, MICH. — Owned and operated by Avondale School District in Auburn Hills, Mich., non-profit WAHS 89.5 FM — branded as "Avondale Community Radio" — provides practical educational experience in radio broadcasting for students at Avondale High School while also serving the local community.

Launched with 10 watts of power in 1975, we now have the furthest-reaching high school radio signal in Michigan at 2,400 watts.

When I was asked to rebuild the program in 2013, WAHS had been dormant for years because of funding cuts; it was simply rebroadcasting another station's programming. Notably, from a technology standpoint, we had no automation system, which we needed to make our vision of growth a reality.

As an English teacher, I was new to radio, so I started researching automation software. I visited ENCO at a trade show, and the user-friendliness of the DAD platform stood out right away. ENCO also showed a genuine interest in helping our small station achieve big goals. Add to that ENCO's training offerings and local support, and DAD became the obvious choice.

As our educational justification and funding processes took time, we deployed ENCO DAD in September 2016. ENCO provided extensive on-site training including a one-on-one session with me, and two days with the students.

Our students produce most of WAHS' content and run many of the day-to-day operations. Our workflow starts with students loading music and other content into the DAD library, with the DAD Dropbox utility making it easy for them to ingest music ripped from CDs or downloaded material. The kids simply drag and drop the files into a folder, and Dropbox performs any necessary conversions and inserts them into the library. We use the same method to bring in original content such as liners, show intros, PSAs and sponsor promotion



spots that students record in our studio and edit with Adobe Audition.

We love producing live-assist shows with DAD's intuitive Presenter interface. The students bring their content into the daily playlist, set the system to manual operation and do their live show, setting DAD back to full automation afterwards. ENCO also makes it easy to record those shows, do some basic editing and schedule them as replays. We can do a live show during class time in the morning, and by the end of the school day, we have it saved and scheduled to replay in the evening.

Another great ENCO tool we use is the Enconveyor utility. Last year, we expanded our programming to include nationallysyndicated programs alongside music, locally-produced content, along with high school football coverage. Enconveyor makes it easy to bring in syndicated content, automatically downloading the audio files from the web or FTP sites and bringing them into DAD in the format we need.

ENCO DAD's ease of use has enabled our kids to learn and accomplish a tremendous amount in a very short period of time. In our on-air studio, our everyday student operators start doing live-assist productions with a mentor, and typically master it themselves by the second or third show. Students performing other functions do a brief tutorial and are mentored a couple of times, then are comfortable enough to go solo.

The system truly has been a game changer for us. Before we had it, the students would go live, but that was the end of the road. They could record something, but there was no way to replay it unless someone was in the studio. We were rebroadcasting another school's signal and just doing our own small live spots.

Now, with our own production systems, live studio and ENCO automation, we're fully our own station — in fact, one of the best in the state. Less than six months after we went live with ENCO, we were honored as High School Radio Station of the Year by the Michigan Association of Broadcasters — an accolade that reflects not only our creativity and content, but also the production values that DAD helps us achieve.

Everyone associated with WAHS is happy we chose ENCO DAD, from the board of education right down to newbie pupils. Our users are students, not professionals, but ENCO is enabling us to produce really good, professional-grade radio broadcasts.

For information, contact Ken Frommert at ENCO Systems in Michigan at (248) 827-4440 or visit www.enco.com.



**RADIO WORLD 2018 SOURCE BOOK & DIRECTORY** 

# PRODUCT SHOWCASE

## WEATHER RADIO

Model CRW-S With Same Decoding

Sensitivity .28 microvolts for 12 dB quieting. All seven frequencies. SAME decoding demutes receiver, closes relay and gates audio to 600 ohm rear terminals. Another set of rear terminals has continuous 600 ohm audio output. Double conversion crystal controlled, crystal filter in first I.F., ceramic filter in second I.F. Dual gate MOS FET front end. 50 ohm coaxial input. Adjacent channel (±25 kHz) down to 70 dB. 19" rack mount, 1.75" H, all metal enclosure. In stock — available for immediate delivery. THE WEATHER RADIO WILL NOW DRIVE A REMOTE SIGN BOARD

GORMAN REDLICH MANUFACTURING CO 257 W. Union Street Athens, Ohio 45701 Phone: 740-593-3150 jimg@gorman-redlich.com

www.gorman-redlich.com



Coaxial Dynamics (a CDI Industries, Inc. Company) 6800 Lake Abram Orive - Middleburg Hts, OH 44130 Phone: 440-243-1100 Toll Free: 800-COAXIAL Fax: 440-243-1101 sales@coaxial.com = www.coaxial.com

#### TIELINE, continued from page 44

down as a remote broadcast backup for each station. There is also a transmitter for KCME on Cheyenne Mountain. We use a Moseley Starlink 900 MHz STL for the primary HD system into a BE FMi703 transmitter.

**Price \$740** 

As a sidenote, Pikes Peak is not too far from Summit House, the purveyor of world-famous Pikes Peak doughnuts. So if time allows, it is definitely worth the trip!

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





Tel: 800-532-6626 Web: www.econco.com Intl +1-530-662-7553 Fax: +1-530-666-7760



ECONCO

The following distributors serving the broadcast industry would be glad to help you with any of your requirements.





**GRAHAM BROCK, INC** BROADCAST TECHNICAL CONSULTANTS Full Service From Allocation to

Operation AM/FM **Field Work: Antenna and** Facilities Design Over 45 years engineering and consulting experience 912-638-8028 202-393-5133 www.grahambrock.com

### SPACE AVAILABLE CALL MICHELE 212-378-0400 x523

ECONCO

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.

## Ad Index

| Page   | Advertiser                   |
|--------|------------------------------|
| 20     | AudioScience Inc.            |
| 13     | <b>Broadcast Electronics</b> |
| 5      | BSI                          |
| 46     | Coaxial Dynamics             |
| 7      | Comrex Corporation           |
| 19     | DAWNco                       |
| 33     | Dielectric                   |
| 39     | ESE                          |
| 2      | Eventide                     |
| 9      | Futuri                       |
| 46     | Gorman Redlich               |
| 23     | Henry Engineering            |
| 11     | Inovonics Inc                |
| 29     | Lynx Studio Technology       |
| 18     | Ram Broadcast Systems        |
| 21     | RCS                          |
| 25     | Sage Alerting Systems        |
| 31     | Studio Technology            |
| 3, 15  | Tieline Technology           |
| 17, 48 | Wheatstone Corporation       |

#### Website

www.audioscience.com www.bdcast.com www.bsiusa.com www.coaxial.com www.comrex.com www.dawnco.com www.dielectric.com www.ese-web.com www.eventide.com www.futurimedia.com www.gorman-redlich.com www.henryeng.com www.inovonicsbroadcast.com www.lvnxstudio.com www.ram68.com www.rcsworks.com www.sagealertingsystems.com www.studiotechnology.com www.tieline.com www.wheatstone.com

#### -EDITORIAL STAFF-Paul J. McLane Editor in Chief, U.S. Marguerite Clark Editor in Chief, International Terry Hanley Listings Coordinator Brett Moss Gear & Technology Editor Thomas R. McGinley Technical Adviser Cris Alexander Technical Editor, RWEE Emily Reigart Contributing Editor Contributing Editor John Bisset Michael Balderston Web Editor

#### -ADMINISTRATION & PRODUCTION-John Casey Publisher Paul J. McLane Editorial Director Karen Lee Production Manager & Production Editor, RWEE Caroline Freeland Advertising Coordinator Peter Brown Web Management Kwentin Keenan Circulation Manager

| _  | ÇÜK  | PUR | A L | 5  |
|----|------|-----|-----|----|
| No | aRav | Mor | fia | 11 |

| 1961             | NDAY MOUR LLO                   |
|------------------|---------------------------------|
| Steve Palm       | President and CEO               |
| Paul Mastronardi | Chief Financial Officer         |
| Tom Rousseau     | Chief Revenue Officer           |
| Joe Territo      | Chief Content Officer           |
| Jack Liedke      | Controller                      |
| Robert Ames      | Vice President of Digital Media |
|                  |                                 |

Video Broadcast Group Carmel King Executive Vice President Vice President / Sales Director Fric Trabb



Copyright 2017 by NewBay Media LLC. All rights reserved.

| -ADVERTISING SALES REPRESENTATIVES-  |   |  |  |  |
|--|---|--|--|--|
| U.S. Regional: John Casey  | Phone: 212-378-0400 x51                                     |  |  |  |
| Fax: 330-247-1288  | Email: jcasey@nbmedia.com                                   |  |  |  |
| U.S. Regional & Canada,<br>Classified & Product Showcase: Michele Inderrieden<br>Fax: 301-234-6303 | Phone: 212-378-0400 x523<br>Email: minderrieden@nbmedia.com |  |  |  |
| Europe, Middle East & Africa: Raffaella Calabrese  | Phone: +39-320-891-1938                                     |  |  |  |
| Fax: +39-02-700-436-999  | Email: rcalabrese@nbmedia.com                               |  |  |  |
| Japan: Eiji Yoshikawa  | Phone: +81-3-3327-5756                                      |  |  |  |
| Fax. +81-3-3322-7933   | Email: callems@world.odn.ne.jp                              |  |  |  |
| Asia-Pacific: Wengong Wang   | Phone: +86-755-8386-2930                                    |  |  |  |
| Fax: +86-755-8386-2920   | Email: wwg@imaschina.com                                    |  |  |  |
| Latin America: Susana Saibene  | Phone: +34-607-31-40-71<br>Email: susana saibene@ormail.com |  |  |  |





## VoxPro7 Kills Dead Air

No matter how concise your callers are, you're going to get words that slow your show down. Let VoxPro7 be your hit man.

Research shows that tighter programming dramatically retains listeners. Retained listeners = higher ratings. Download our free white paper, "The Business Case for VoxPro" at voxpro.wheatstone.com



#### **Speed To Air**

VoxPro's software tools let you edit, remove silence, re-record your voice, add effects, and be ready to go...in seconds.

**Obsessive Organization** 

Hot buttons put a library of clips and tracks at your fingertips. Have your entire LIVE show programmed before you even start.

#### **Creative Controller**

With VoxPro hardware, you control every aspect of the software. Designed and laid out for maximum speed and agility.

**VOX PRO** RECORD/EDIT/PLAYBACK AUDIO LIVE, IN REAL-TIME, ON THE AIR





phone 1.252.638-7000 Wolterstring om I sales@wheatstone.com