

Matrix Does the Job in Ohio

*Columbus Station Discovers Benefits of Codec
With POTS, ISDN and Wireless Functions*

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COLUMBUS, Ohio It's one of a broadcast engineer's worst nightmares: going out on site to set up a morning-drive remote broadcast and discovering that the ISDN circuit that you were going to use isn't working.

This situation happened to us at WNCI in Columbus, Ohio, a few months ago, but the **Comrex Matrix** really came through for us and saved the remote. The Matrix is a codec that has ISDN, POTS and wireless capabilities.

The WNCI Morning Zoo came up with an idea for female singer/songwriters to send in tapes of their performances to the radio station in order to find an up-and-coming diva. The Diva Search contest was born. The prize was a meeting with a national record rep.

Diva search

The next several weeks, WNCI received nearly 400 tapes. After going through all of the tapes, listeners helped to choose the eight Diva finalists. The ladies then were asked to perform at a local club before a panel of judges, who would select the winner.

The first challenge with this remote was the scene. The club had an indoor stage, so engineering would be responsible for mixing the live music for the show as well as broadcasting the Morning Zoo on the air. Some of the performers sang along to accompaniment CDs, while others sang and played instruments.

Several months before the remote, we



Dave, Shawn and Jimmy of the WNCI Morning Zoo join PD Jimmy Steele with the Diva Search finalists and judges.

received a portable Matrix unit. It was being shared among the five stations in the market using it with the Comrex Vector on the studio end. Our new Rackmount Matrix showed up the day before the "Diva Search" remote.

I was in the middle of a couple projects that day, but decided to install it before I left that evening, as I was excited to check this new toy out.

My assistant and I worked the morning of the diva remote. Ben was at the club while I stayed at the studio.

After setting up, Ben called to tell me that the ISDN circuit at the remote site was not working. He established an RPU link as a backup. At this point, I thought, "Why don't we try out the Matrix pair?"

The Matrix base unit delivers 15 kHz duplex audio on a single POTS phone line; it works with the company's Vector and HotLine codecs. An optional slide-in module allows operation on ISDN using ISO-MPEG Layer III or G.722; a different

module is available for audio over GSM wireless phones.

Ben was able to borrow a fax line at the club and he dialed up the studio unit. Initially we had the MaxRate setting off and the two units connected at 24 kbps. Then we reconnected with the MaxRate set to 21.6 kbps.

We were able to maintain this connect rate for the duration of the broadcast — over four hours — without the Matrix having to renegotiate the modem connection.

Everyone was thrilled with audio quality of the remote, especially given the fact that we were originating live music from the location. Our first experience with Comrex Matrix was given the thumbs-up by the Morning Zoo, the station PD and all of us in engineering. I'm really glad I stayed late the night before to get the Matrix installed.

A few weeks after the Diva Search remote, the Morning Zoo was doing an



Comrex Matrix

hour-long bit at an indoor shooting range about 30 minutes outside of Columbus. This gave me the opportunity to go out in the field and try out the Matrix.

When I got to the location that morning, I established an RPU shot but wasn't pleased with the quality. The terrain was not in my favor for this one. I borrowed a fax line and the morning show bit came off perfectly. Once again, the Matrix came through for us.

On occasion we've even used the Matrix to send RPU and IFB audio feeds between our two studio facilities here in Columbus, when our ISDN units are being used for other things. It's a handy thing to have around the studio and riding around

in the remote truck.

The WNCI Morning Zoo keeps engineering on its toes with a lot of remotes and some last-minute, "can we do this tomorrow?" bits. The Matrix is a great backup to our ISDN gear as well as an outstanding system for those last-minute drops.

The portable Matrix unit is small and simple enough to operate; non-technical personnel can handle it in the field. The menus are easy to navigate; the well-written manual almost isn't needed.

The unit has a small, built-in mixer with two XLR inputs (one

switchable for mic/line level) and a 1/8-inch mini jack for a portable tape or MiniDisc recorder.

The Rackmount Matrix occupies a single rack space and functionally is identical to the portable unit. The only difference: the Rackmount version has one line-level input and output with XLR connectors.

Other interesting notes: The Matrix includes a store-forward feature so you can send 15 kHz audio cuts in non-real time. Comrex points out that this is handy when a circuit won't sustain adequate data rates. Also, you can obtain durable rubber rack "feet" that let you stack the studio version in the field more easily.

Overall, we've been pleased with our Matrix units. After six months, we have come to rely on the consistently good audio the Matrix provides.

With a creative and demanding morning show, I'm sure the Matrix will continue to be a valuable tool in WNCI's remote gear arsenal.

For information contact Comrex in Massachusetts at (978) 263-1800 or visit www.comrex.com.