

# PRESENTING

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## ENTERTAINMENT

A/V trends in museums, hotels, theme parks, sports and other venues

# BELLAGIO SHARES THE MUSIC

*Las Vegas Mirage Resorts use networked digital music system*

**THE IDEA OF PIPING RECORDED MUSIC INTO RESTAURANTS, bars and dental offices isn't new.** But what was once derisively referred to as elevator music has evolved into multichannel digital services that spin original tunes from well-known and respected artists.

Mirage Resorts Inc. enlisted just such a service when it was recently putting the finishing touches on its newest Las Vegas resort—the upscale Italian-themed Bellagio—and looking for a way to outfit its entire three-resort Vegas empire (including the Mirage and Treasure Island hotel/casinos) with sound.

When it comes to the Las Vegas resort industry where Egyptian themes go sphinx to sphinx with pirate, Roman and Manhattan skyline motifs, atmosphere is crucial to gaining and maintaining clientele.

For the Bellagio, which themes itself with elegant Italian architecture, art, fashion and romance, music was needed to reinforce the mood. And it needed to be re-enforced in 3,005 guest rooms, 17 restaurants, a fine art gallery, a hair salon, an outdoor pool and surrounding cabana, as well as numerous other shops and common areas.

And since the ambiance of all these places is different, it couldn't be the same music. Enter DMX Music, which uses a network of satellites to deliver more than 100 channels of non-stop digital music, featuring rock, hip-hop, R&B, country, classical, Italian opera, and polka, among others, to more than 3 million homes and 64,000 businesses around the world.

For Mirage Resorts, DMX designed a vast music network, capable of delivering hundreds of different channels to virtually anywhere within its three Las Vegas properties.

Of course, outfitting a restaurant or mall store is one thing. Equipping an entire resort with a music system is quite another.

DMX covers almost every square inch of the Bellagio, says Martin Pucher, vice president of technology for DMX Music. Step foot on the property and you'll hear music in hundreds of different areas, from the lobby to the guest rooms.

### Sharing the signals

At the heart of Mirage Resorts DMX Music system are more than 140 Antex Electronics DR500 digital audio receivers, dispersed between the control rooms of the three hotels and linked by fiber-optic wire.

Each of the three hotels has its own roof-mounted 52.62- x 52.62-inch satellite dish, which gathers the digital music signals that are uplinked by DMX in Denver. The dishes connect directly to the onsite receivers via copper coax. The receivers, in turn, feed the hotels' various—and rather numerous—amplifier and speaker systems.

Although each receiver can only supply one music channel at a time, its line level audio can be output to all three properties at once via the fiber-optic network, Pucher explains.

Say for example that Olives, an Italian restaurant in the Bellagio, needs access to a polka channel for a private party. If none of the Bellagios 60 on-site receivers are carrying that channel, the hotel's onsite engineer—who controls all of the receivers from the control room—can probably find one at the Mirage or Treasure Island that is carrying the channel, and then route its line level audio to Olives public address system.



*The Bellagio hotel and casino in Las Vegas shares more than 100 channels of music with its sister hotels, the Mirage and Treasure Island, through a networked fiber-optic audio system using*

### A hit on 20

Along with the actual tunes, DMX also streams other data, such as the name of the artist, the title of the song and the album it's on. Bellagio uses this feature in its 3,005 guestrooms, allowing visitors to access 20 channels through stereo TVs. For that, one TV channel acts as a dedicated user interface, letting users scroll through a menu screen using the TV remote to select their channels.

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Finally, DMX created several custom channels for Mirage Resorts. For the Bellagio, a new channel was crafted featuring Italian artists performing Old Country classics, such as Andrea Bocelli's *Con Te Partiro*, as well as American crooners singing an arrangement of classic pop, jazz, swing and blues tunes.

When designing Bellagio, we promised to build the most romantic hotel in the history of the world, says Steve Wynn, chairman of Mirage Resorts. DMX has created an exclusive music blend that is both incredibly romantic and reminiscent of the Italian countryside. □

## TOOLBOX

- Antex Electronics DR500 digital audio receiver, [www.antex.com](http://www.antex.com)
- DMX Music DMX/DBS Antenna, [www.dmxmusic.com](http://www.dmxmusic.com)