



**CASE STUDY: T-MOBILE ARENA**

## Fans Enjoy the Best in Entertainment and Mobile Communications

**OVERVIEW**

### Changing the Face of Las Vegas and the Fan Experience

Besides being known for its scorching desert climate, Las Vegas is famous for hosting many of the “hottest” sports and entertainment events happening today. Known as “The Entertainment Capital of the World”, the Las Vegas area readily welcomed the new T-Mobile Arena. This venue hosts not only world famous entertainers such as Keith Urban, the Rolling Stones and Barbara Streisand, but also basketball games, boxing matches, and the professional bull riding world finals. In 2017 it will even be the home of a new NHL team, the first professional sports franchise for the city. However, the ultimate fan experience at this 20,000 seat arena is not only achieved JMA Wireless Delivers Blazing Fast Cellular Connectivity with its impressive events, comfortable seats, and world class lounges, but the best

in wireless connectivity is a key element as well. Many concertgoers or sports enthusiasts share special moments via video, texts, emails or phone calls to family and friends, and robust cellular coverage is now an expected part of the entertainment experience. To achieve powerful connectivity for a crowd of 20,000 people, the multi-carrier, multi-band JMA DAS (distributed antenna system) platform from JMA Wireless was commissioned. It has become the solution of choice for many large arenas and stadiums around the country.

**SITUATION**

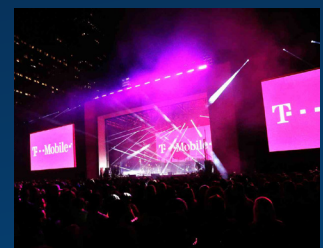
### Iconic Arena Presents Wireless Challenges

Providing cellular coverage and capacity for 20,000 people in a single location is never an easy feat. At T-Mobile Arena this issue was further compounded thanks to the concrete and 7,000 tons of steel used to construct it. These two materials naturally



JMA Wireless Delivers Blazing Fast Cellular Connectivity

Since opening its doors in April 2016 concertgoers and sports fans have been able to share their special experiences using their mobile devices





## The JMA Wireless JMA DAS provides robust cellular connectivity for a packed arena.

impede cellular signals from the outside. In addition, inside the structure is a concrete bridge, which presents a further barrier to wireless connectivity.

T-Mobile Arena is a very sleek, world class venue housing 44 luxury boxes, eight fully-furnished event level suites, two party suites, a Grey Goose Lounge and a Stella Artois Lounge, among other features. Fans using these upscale facilities not only expect the best in hospitality, but also the best in wireless service; therefore, it is particularly important to provide excellent cellular coverage in these areas. However, in order to maintain the upscale environment, the wireless equipment had to blend in or be concealed.

Every year over 40 million visitors from all over the world come to Las Vegas for pleasure and/or business. This can turn into a cellular connectivity nightmare for venues across the city, including T-Mobile Arena. Robust wireless coverage must support a variety of carriers and bands as well as the latest technologies.

Depending upon the type of event and the configuration of the stage, T-Mobile Arena can host anywhere from 12,000 to 20,000 attendees during a given event.

This can lead to the issue of densification, which is a term carriers use to describe a concentrated area of mobile phone users with a high demand for cellular connectivity.

Finally, it is critical that wireless connectivity is available for public safety purposes. During an emergency, first responders as well as fans and employees require access to mobile communications in order to ensure the situation does not turn into complete chaos.

### SOLUTION

## Industry Leading DAS

Since opening its doors on April 6, 2016 T-Mobile Arena has been providing world class cellular coverage for thousands of fans thanks to the industry leading JMA DAS from JMA Wireless. This multi-band, multi-carrier solution is enabling wireless coverage for four cellular carriers at this iconic venue. Furthermore, it supports the 700L, 700H, 850, 800S, 1900, and AWS bands. With its future proof design, the JMA DAS is ready to support AWS-3 and other new technologies.

The cellular connectivity is enabled by 84 five-band low power Remote Units (RUs), which are distributed across 41 remote locations, including in the far reaches of the building to support a 2X2 MIMO (multiple input, multiple output) network. Six low power RUs are dedicated just to the 700/800 public safety bands to ensure first responders have much needed connectivity during emergency situations. The system is comprised of nine sectors with a total of 145 antennas.

The JMA DAS not only provides robust mobile communications, but it accomplishes this goal in a very cost effective and efficient manner. Only a single fiber was used to connect each Remote Unit with the system's Master Unit, which reduces installation costs by a minimum of 50 percent compared to competitive offerings. The compact design of the Remote Units also results in not only a smaller unobtrusive onsite footprint, but a much easier and quicker installation as well. Due to its unique design and capabilities, the JMA DAS was commissioned in a few days by a team of two engineers.

## RESULT

### Triumph

Since opening its doors in April 2016 concertgoers and sports fans have been able to share their special experiences using their mobile devices. Whether they are enjoying a cocktail in the Grey Goose Lounge or sitting on the ground floor of T-Mobile Arena, robust wireless connectivity is available thanks to JMA Wireless' JMA DAS platform. Next year the wireless system will be used even more extensively when Las Vegas welcomes its first professional hockey team and hosts its share of games at T-Mobile Arena.



The Master Unit and sub-racks are housed onsite in the head-end room.



The Grey Goose Lounge extends over the arena, offering unparalleled viewing opportunities.

## About JMA Wireless

JMA Wireless is the leading global innovator in mobile wireless connectivity solutions that ensure infrastructure reliability, streamline service operations, and maximize wireless performance. Employing powerful, patented innovations their solutions portfolio is proven to lower the cost of operations while ensuring lifetime quality levels in equipment and unrivaled performance for coverage and high-speed mobile data.

JMA Wireless solutions cover macro infrastructure, outdoor and indoor distributed antenna systems and small cell solutions. JMA Wireless corporate headquarters are located in Liverpool, NY, with manufacturing, R&D, and sales operations in over 20 locations worldwide.

**FOR MORE INFORMATION:**

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