Executive Summary

University of Wisconsin—Madison

Industry: Higher education
Location: Madison, Wisconsin
Combined Venue Capacity: 97,551 seats

CHALLENGE

- Need to provide fans with better Wi-Fi accessibility and mobile phone coverage
- Need to update athletic facilities with more modern and manageable equipment
- Desire to interact with fans on a deeper level and learn more about game-day behaviors

SOLUTION

- Deployed 1118 Wi-Fi access points as part of a high-density platform to increase accessibility and connectivity in two athletic venues
- Launched a 10-GB network to power online mobility and provide better insight to the Badger fan base
- Installed Cisco StadiumVision to deliver fans a more visually stimulating experience using 1153 high-definition (HD) displays

RESULTS

- Improved fan experience with increased mobile capabilities and HD video experiences throughout the venues
- Achieved safer and more navigable stadium environment for both guests and staff on game day
- Enabled frequent and more timely communications for improved emergency broadcasts
- Improved usage of online user feedback to enable deeper connections with fans
- Created a digital platform for the university to enhance partner communications and brand engagement

Challenge

The University of Wisconsin (UW) is the State of Wisconsin’s largest and oldest public university with nearly 30,000 undergraduate students and more than 9000 graduate students enrolled every year. One of the nation’s top universities, it’s athletic department has grown to become one of the most competitive programs in the NCAA—especially the school’s varsity football team.

As the fourth-oldest stadium in Division 1 college football, Camp Randall Stadium seats more than 80,000 UW fans that come to watch home games during the season. Two years ago, UW surveyed its fans to get their feedback on how the school could make game day even more memorable. The fans’ top request? Wi-Fi coverage and improved cell phone service in both Camp Randall and the university’s indoor athletic arena, the Kohl Center.

“If you worked in the stadium, on game days it was hard to get online or even send a text,” says UW associate athletic director Justin Doherty. The university understood that fan experience is what drives the Athletic Department’s success, and although the stadium has undergone renovations and upgrades since its construction in 1917, the lack of Wi-Fi and unreliable cell phone coverage was affecting fans’ experience.

The UW Athletic Department established a vision for something better that truly reflects a modern, one-of-a-kind game day experience. Without knowing what options were available, UW decided to explore advanced Wi-Fi options so that it could provide the best possible game day experience to its loyal fans in both Camp Randall and the Kohl Center.

Solution

As UW began its search for Wi-Fi and cell coverage solutions, university management toured other venues and met with various providers and stakeholders to understand what was available. After issuing a competitive request for proposal (RFP), UW chose Cisco and AT&T to help revolutionize what game day would mean for Badger fans.

To help provide more extensive cell phone coverage and dependable high-density Wi-Fi connectivity, UW chose to install 844 Wi-Fi access points throughout Camp Randall and 274 more in the Kohl Center. These Wi-Fi access points connect to UW’s new 10-GB Connected Stadium network and are regularly adjusted for each game by engineers for optimal user performance based on environmental and human factors. By working together, UW’s 1118 Wi-Fi access points provide Camp Randall and the Kohl Center with a more robust solution so that voice and text traffic on the distributed antenna system (DAS) is minimized, and fans can use their mobile devices without problems throughout the game.

In the process of installing these access points, Camp Randall’s open-bowl concept created challenges for Cisco and AT&T. Because of the stadium’s old structure, there was a lack of extra space for additional wiring closets and even less usable surface to mount the Wi-Fi access points. Because aesthetics and tuning are important to UW’s game day presentation, Cisco and AT&T designed special enclosures for the hardware that were then installed in accessible
locations and painted to match the stadium. This way, the wiring closets and Wi-Fi access points are easy to maintain and go unnoticed by Badger fans on game day.

In addition to the improved Wi-Fi and cell coverage, Cisco and AT&T have also outfitted Camp Randall and the Kohl Center with Cisco StadiumVision—a next-generation HD video and digital-content distribution and management solution. As a part of this initiative, the stadium installed 1153 HD displays located throughout concourses and next to major gates so that, when fans leave their seats, they won’t miss a second of the game. In addition, this serves as a dynamic and customizable communication platform for the university and its partners to target content delivery, ultimately allowing them to engage fans in a more compelling and relevant manner.

While UW’s new 10-GB network provides clear benefits to those attending the game, the infrastructure has also allowed for the university to connect with its fans on an entirely new level. Prior to installing Wi-Fi in the stadium, UW didn’t have the tools to analyze and completely understand its fan base. Now through a simple login process, UW offers its fans the opportunity to sign up for more information on UW sports and provide direct feedback to the Athletic Department. Not only can the University interact with its fans on a more personal level, but the network also provides UW with reports that analyze repeat visitors, data usage by seating section, and which type of apps and sites fans are using during the game. For instance, the university has become more active on social media after learning that a significant amount of its fans are posting on their own social media accounts during the game.

An additional benefit to Camp Randall and the Kohl Center’s updated Wi-Fi network is that the university can now integrate its emergency notification system (ENS) in the large venues. In a gathering of more than 80,000 excited fans, all within a confined space at Camp Randall, emergency personnel can reach a specific individual quickly and provide immediate care. The Wi-Fi network now serves as a critical component of its ENS plan for the venues, enabling video-to-video communication and serving as a secure platform to communicate time-sensitive and private information.

Results

After a year of planning, designing and implementation, UW has seen extremely positive results with its updated network. With its 1118 Wi-Fi access points that easily blend with venue environments, UW is able to provide reliable and efficient coverage to its fans so that they can enjoy the game without losing connectivity. This change has been widely noticed and appreciated by Badger fans. Many have shared, “This is great,” and “We love going to games here.”

In the fall of 2014, shortly after UW installed its new infrastructure, Camp Randall experienced its first data inversion. This occurs when more data leaves the stadium than is received by fans, press, and staff, and would normally mean slowed connectivity because of the immediate increase in usage. As a legendary Badger running back broke the single-game rushing record with 408 yards, fans immediately took to their mobile devices to share the news. Camp Randall
was prepared to handle it. Since the first inversion in 2014, fans have been sharing photos and videos, especially of the third-quarter “jump around” tradition, using the new Badger Game Day smartphone application. UW fans have been sharing and posting from the stadium at record levels ever since—something that would have been impossible without UW’s high-density Wi-Fi solution.

Making sure that fans on game day have the best possible experience is something that the UW Athletic Department doesn’t take lightly. To address their connectivity issues, UW chose Cisco and AT&T to offer and implement an advanced, efficient and manageable solution. Now, UW can ensure that its fans can text, post, search, and use the Game Day app effortlessly throughout the game, and the Athletic Department can interact with its fans like never before to continue making game day memorable.

The UW Athletic Department is dedicated to honoring the fan experience. Camp Randall and the Kohl Center’s new digital capabilities gives fans the modern game day experience that they had been looking for, and it also allows the University to better understand its fan base to continue adjusting and improving its operations. “The StadiumVision platform is not only elevating the fan experience to new heights for Badger fans,” says Doherty. “It enables the University to deliver relevant event and promotional information more effectively—and in a more compelling manner—to our students, alumni, and fans, as well as serving as a brand engagement platform for our Badger sponsors and partners. There is value in this for all parties.”

Next Steps

While the Cisco StadiumVision powered HD displays and Wi-Fi access points have already transformed Camp Randall and the Kohl Center’s performance, UW is excited to further improve fan experience now that it has a solid network foundation. With the Wi-Fi system installed, UW is looking to incorporate additional applications that provide fans with other convenient amenities, such as ordering concessions directly from their seats. As one of the most competitive athletic departments in the country, UW is taking steps to make sure that it is updating its facilities with modern technology and providing its dedicated fans with the best game–day experience.

For More Information

