

Digitally transform campus venues to help improve student experiences.

Solution brief

Verizon's smart connected campus solutions help you deliver personalized, immersive experiences to attract and retain students.

Colleges and universities face fierce competition in attracting and retaining students. Athletics and similar experiences—like live concerts and performing arts—can play a critical role in exciting students about attending the school and building school spirit.

Verizon smart connected campus solutions help colleges and universities build deeper connections to students and guests through dynamic messaging, augmented reality (AR), streaming content and more.

These solutions can help solve the challenges of congested gate entries and long lines at concessions and restrooms, so students spend less time waiting and more time enjoying events. And bad seats now become a thing of the past. A connected campus can help enhance the viewing experience for students, whether they're standing in line, spectating from their seats or watching from their dorm room.

None of this is possible without a great network. Connecting an entire venue and providing the bandwidth required aren't easy. We operate America's most reliable 5G network¹ and offer a variety of network solutions, including Wi-Fi throughout the venue, private onsite networks, 5G mobile edge compute (5G Edge) and network services to make it all seamless and easy to manage.

Make it easier for fans to enter the venue.

A younger generation of fans have become accustomed to frictionless transactions online and now expect similar experiences in person. Technology from Verizon and our partners helps make it easier for fans to enter stadiums and entertainment venues so they can enjoy the action sooner.

For example, students and guests can opt into Verizon 5G Edge Accelerated Access² facial recognition software, upload a photo of themselves and then link their tickets—all from home. Once at the stadium or venue, attendees can simply show their faces at the tablet for verification and walk right in. The secure, reliable connectivity of Verizon's fixed wireless access and the low lag times and high performance of 5G Edge enable the processing and authentication of ticketed attendees in near real time to help minimize wait times.

Maximize traffic flow and promote venue safety.

Crowded venues and long lines don't make for a great fan experience. Verizon 5G Edge Crowd Analytics³ helps optimize the way guests move through and interact with stadiums and entertainment venues. This solution combines 5G Edge, Amazon Web Services (AWS) Wavelength and monitoring sensors placed throughout the event location. These sensors collect nonpersonal data to help improve overall venue efficiency by enabling you to view information on crowds and crowd behavior, congestion patterns, and traffic flow.

5G Edge Crowd Analytics analyzes data and then can display insights on publicly viewable digital-signage monitors or share them directly in near real time using wayfinding and mobile application programming interfaces (APIs). Students and fans can now look at their phones to find out the least-busy entry gate or which snack bar to use.

How 5G Edge Crowd Analytics benefits guests:

- Provides useful information, such as restroom wait times, shortest concession lines and more, helping guests to reach their destinations more quickly using heat mapping and lidar sensors to track traffic and congested areas to keep congestion down, increase safety and deliver a great experience

How 5G Edge Crowd Analytics benefits operations:

- Offers a computer-vision-based analytical software solution designed to help elevate customer experiences, reduce wait times, and increase food and beverage sales based on crowd density data

Increase concession sales and reduce costs.

5G Edge Cashierless Checkout⁴ provides a simple way for schools to optimize frictionless shopping experiences within the venue. This solution combines 5G Edge, AWS Wavelength and computer-vision technology to match preauthorized payers as they pick items from shelves or beverages out of coolers.

The solution analyzes individuals' body movements, captures when an item is placed on or removed from a shelf location, and matches items to a store inventory map. As the customer leaves the store, all the items picked are then charged to the customer's credit card or to the payer on the preauthorized mobile app.

Change the way fans interact with the game.

Students can stream action in 4K resolution to their smartphones with Verizon 5G Multiview, making it feel like they're on the field or on stage with the band. The solution uses 5G-enabled cameras deployed around the stadium or venue to capture video footage simultaneously from different viewpoints.

The footage is then processed using edge computing and streamed in a 4K, 360-degree view to students' devices. If they're watching a game, 5G Multiview displays near-instant player and team stats overlapping in augmented reality. Plus, 360-degree instant replay gives fans the ability to review key plays from multiple angles.

How 5G Edge Cashierless Checkout benefits guests:

- Provides a transformational shopping experience with reduced wait times in line

How 5G Edge Cashierless Checkout benefits operations:

- Reduced wait times can result in greater shopping volume, which results in greater profitability. The reduced personnel required to operate the store can provide savings on labor costs



5G Ultra Wideband available in select areas.

1 Most reliable 5G network based on more first-place rankings in the RootMetrics® 5G data reliability assessments of 125 metro markets conducted in 2H 2021. Tested with best commercially available smartphones on three national mobile networks across all available network types, excluding C-Band. Your experiences may vary. RootMetrics rankings are not an endorsement of Verizon.

2 Verizon 5G Edge Accelerated Access not yet available; Verizon makes no representation that it can or will provide the proposed product/service/features depicted herein at any specific time in the future or at all.

3 Public Sector support for Crowd Analytics is provided via standalone agreements using commercial terms. Specific government contract vehicles are targeted for a later date.

4 5G Edge Cashierless Checkout not yet available; Verizon makes no representation that it can or will provide the proposed product/service/features depicted herein at any specific time in the future or at all.

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Additional services and solutions to transform campus venues

In addition to 5G Edge Crowd Analytics, we offer a number of complementary solutions and services to help transform your venues for better fan engagement and public safety, such as:

- Venue safety solutions, like Verizon Intelligent Video, Verizon Intelligent Street Lighting, and Frontline public safety solutions
- Venue operations, including intelligent facility management
- IP television, digital signage and displays
- Player performance applications like ShotTracker, biomechanical analysis and other tools to capture video and force data on player movement for use by coaches and trainers
- Professional Services, expert IT support and much more

Truly immersive venues require a powerful network—and an experienced network provider.

We're a partner committed to helping you achieve your vision. With more than 20 years of education experience, we're here to help you address your strategic goals now and in the future. We can help you deliver more immersive and engaging experiences to students all across your campus. We offer:



Wi-Fi

Verizon's experienced Wi-Fi experts can deploy ubiquitous coverage to power your operations, student life and fan experiences.



Private LTE Network and Private 5G Network

We can deliver a private cell network for fast, secure, reliable connections, whether it's for coach and staff onfield communications, back-of-house operations or supporting Internet of Things (IoT) solutions.



5G Edge

Cutting-edge solutions like those listed above use lots of data and require low latency to work their best. The high performance and low latency found in 5G Edge helps make immersive, connected venues a reality.

Verizon has the networking expertise and products to provide a converged network for your campus. So whatever kinds of connectivity you need, we can deliver a complete and unified solution.

Learn more:

To learn more about how Verizon smart connected campus solutions can help you create and deliver innovative, immersive experiences to attract and retain students, contact your Verizon Government or Education Account Manager or visit verizon.com/highereducation