# Enhancing Campus Wi-Fi Performance for Large-Scale Events

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**Information**

As a student affairs professional, you play a critical role in organizing and managing large-scale events on campus. These events, from orientations to concerts, often rely heavily on technology, including the Event Check-In App (ECIA) for Engage. However, large gatherings and/or multiple concurrent events can strain the campus Wi-Fi network, leading to slow internet speeds and poor app performance. Understanding how Wi-Fi works and how to plan for high usage can help ensure a smooth and successful event.

# How Campus Wi-Fi Works

Campus Wi-Fi networks consist of multiple access points (APs) strategically placed around the campus to provide wireless internet access. These APs are connected to the university's network infrastructure, which is linked to an Internet Service Provider (ISP). The network is designed to handle everyday usage by students, faculty, and staff. However, large-scale events can create significant spikes in demand, leading to potential issues.

# Impact of Large-Scale Events on Internet Quality

When thousands of students gather for an event, the demand for Wi-Fi can skyrocket. This can cause:

- Network Congestion: Too many devices trying to connect simultaneously can overwhelm the network, leading to slow speeds and connectivity issues.
- Bandwidth Overload: High data usage from activities such as video streaming, social media, and app usage can consume available bandwidth, impacting all users on the network.
- Interference: Multiple devices operating in close proximity can cause signal interference, reducing Wi-Fi performance.

# How Internet Quality Affects Mobile Apps

The Event Check-In App relies on a stable and fast internet connection. Poor Wi-Fi performance can lead to:

- Slow Loading Times: ECIA may take longer to load, causing delays in check-ins and other processes.
- Connection Drops: Unstable connections can cause ECIA to disconnect, leading to repeated logins and lost data.
- Inconsistent Performance: ECIA may not function as intended, frustrating both staff and students.

# Steps to Improve Wi-Fi and ECIA Performance at Large-Scale Events

- Plan Ahead

    - Communicate with IT: Inform the IT department about the event well in advance. Provide details such as the expected number of attendees, location, and duration.
    - Assess Needs: Determine the specific internet requirements for your event, including critical applications and expected data usage.
- Optimize Network Usage
    - Dedicated Wi-Fi Networks: Request a dedicated Wi-Fi network for the event to separate event traffic from regular campus traffic. This can help prioritize event-related usage and reduce congestion.
    - Bandwidth Allocation: Work with IT to allocate additional bandwidth for the event, ensuring sufficient capacity to handle peak usage.
- Enhance Coverage and Capacity
    - Additional Access Points: Deploy extra access points in event areas to improve coverage and support more devices.
    - Signal Boosters: Use signal boosters to enhance Wi-Fi strength in large or challenging areas.
- Educate Attendees
    - Usage Guidelines: Provide attendees with tips to optimize their Wi-Fi usage, such as avoiding high-bandwidth activities (e.g., video streaming) during critical times.
    - Network Information: Clearly communicate the dedicated event network's name and password, ensuring attendees know how to connect.
- Real-Time Monitoring and Support
    - Monitor Performance: Use network monitoring tools to track Wi-Fi performance during the event. This allows for quick identification and resolution of any issues.
    - On-Site IT Support: Have IT staff on standby to address any connectivity problems promptly.

# Tracking Attendance with ECIA Offline

If improving Wi-Fi performance is not an option or connectivity issues persist, ECIA offers an alternative solution with the Offline Scan feature. This mode allows you to track attendance without relying on an active internet connection. Here's how it works:

- Offline Scan Mode: The ECIA Offline Scan feature lets you continue checking in attendees even if Wi-Fi becomes unreliable. All scanned data is stored locally on the device.
- Sync Later: Once a stable internet connection is available, attendance data can be synced with the system, ensuring that no information is lost.
- Limited Functionality: While using the offline mode, some features may be restricted. We recommend reading the full support article on using ECIA offline to understand these limitations.

For event organizers facing unreliable Wi-Fi, ECIA Offline provides a quick and effective way to maintain accurate attendance tracking without performance interruptions.

# Conclusion

By understanding the impact of large-scale events on campus Wi-Fi and taking proactive steps to manage network performance, you can ensure a seamless experience for both students and staff. Collaborating with the IT department, planning for increased demand, and optimizing network usage are key strategies to improve internet quality and ensure the Event Check-In App performs reliably. In cases where Wi-Fi performance is an issue, the ECIA Offline Scan mode serves as a valuable tool for tracking attendance effectively. With these measures in place, your events will run more smoothly, enhancing the overall campus experience.

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**KB Product**

Engage

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