

# Ensuring 80,000 Football Fans' Ticket Entrance with NetBeez

# How a A Top-Ranked American Research University Ensures Seamless Stadium Admission with NetBeez

This Top University relies on wireless ticket scanners to validate Saturday game-day admission, a critical part of revenue generation, for almost 80,000 spectators. These scanners must operate seamlessly, as any failure can lead to long lines, customer dissatisfaction, and potential revenue loss. When scanners go offline, it becomes difficult to distinguish legitimate tickets from fraudulent ones.

# Background



The University's ticketing vendor operates its own data center, limiting the university's ability to monitor the system's health. The vendor does not permit direct server monitoring, making it challenging to diagnose connectivity issues.

The primary error message on the scanners, "Scanned Offline," suggested a network problem, but the University's IT team of eight engineers' initial investigations showed that the devices were consistently connected to Wi-Fi. Despite this, the vendor suggested multiple potential causes, including Wi-Fi interference and firewall issues, leading to extensive troubleshooting efforts.

# Challenges Faced

1. **Lack of Visibility into Vendor Systems:** the University had no direct monitoring capabilities for the vendor's data center, making it difficult to determine whether issues were network-related or server-side.
2. **Troubleshooting Complexity:** The “Scanned Offline” message implied network issues, yet the IT team's internal checks showed that Wi-Fi was functioning correctly.
3. **Vendor's Diagnostic Methods Were Inadequate:** The vendor relied on basic Wi-Fi signal tests using cell phones, which failed to identify the root cause.
4. **High Traffic Periods Exacerbated the Issue:** The problem occurred most frequently during peak entry times, such as 20 minutes before football kickoff when thousands of attendees attempted to enter simultaneously.



# Solution: Implementing NetBeez

The University deployed NetBeez Wi-Fi monitoring agents in key scanning locations at gates around the field to collect real-time performance data. The team customized their monitoring to:

- Measure Wi-Fi connectivity and response times at scanner locations.
- Conduct TCP connection tests to the vendor's ticketing server.
- Analyze response time patterns to detect server-side latency issues.



Front



Back

**Figure 2** - Front and back pictures of a NetBeez WiFi 6E sensor.

# Results and Impact

1. **Definitive Proof of the Root Cause:** With NetBeez data, the IT team demonstrated that the primary issue was server response time, not network connectivity.
2. **Improved Vendor Accountability:** By providing clear evidence, the University was able to escalate concerns with the vendor and advocate for increased server resources during peak traffic periods.
3. **Optimized Troubleshooting:** NetBeez helped eliminate unnecessary Wi-Fi diagnostics, allowing IT to focus on actionable solutions.
4. **Enhanced Event Operations:** During the University's last playoff game, nearly all scanning issues were resolved, likely due to adjustments made by the vendor based on the presented data.

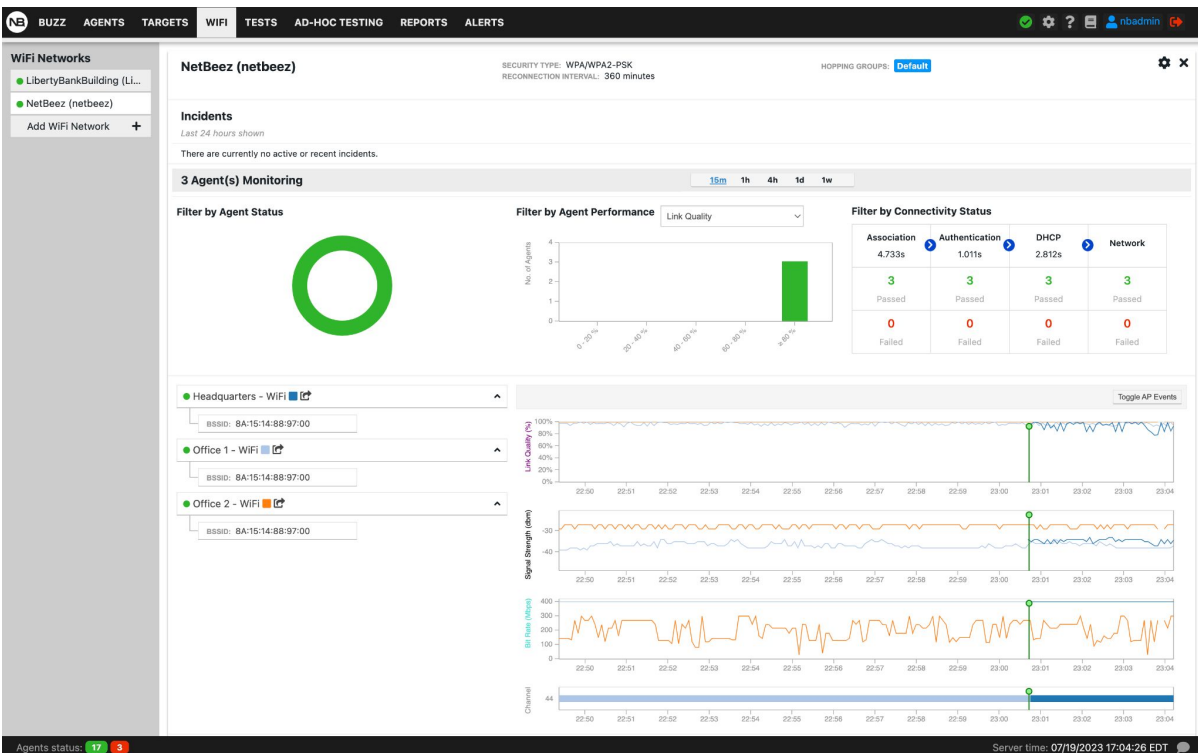


Figure 1 - Screenshot of the NetBeez WiFi dashboard.



# Future Plans

The University is considering further NetBeez deployment, including:

- Placing Wi-Fi monitoring agents directly on new pedestal ticket scanners to monitor connectivity at the exact point of use.
- Expanding monitoring capabilities to capture broader network conditions.
- Exploring additional NetBeez features further, such as alerting mechanisms, to provide real-time notifications

# Conclusion

NetBeez provided the University with the visibility and data needed to diagnose and address a critical operational issue, transforming a cycle of vendor finger-pointing into a data-driven problem resolution process.

With improved monitoring, the University can now proactively manage ticket scanning reliability, ensuring a seamless experience for fans and event attendees.

Do you want to learn more about NetBeez and monitoring WiFi networks from the client's perspective? Schedule a demo via phone or email or request a trial online at <https://netbeez.net>



