



Wireless

Take productivity and collaboration to the next level with a reliable, superior Wi-Fi experience



Get unsurpassed 'won't drop' wired style Wi-Fi connections every minute of every shift

Every day, your workers depend on their mobile devices to access the people and data they need to efficiently tackle any task, anywhere in your facility. And that access is dependent upon the reliability, quality and performance of your Wi-Fi connections. That's why Zebra developed Wireless, a Zebra-only collection of unique features that deliver it all — from unsurpassed 'won't drop' wired style Wi-Fi connections every minute of every shift, in every inch of your facility to superior application performance with near instant response times and exceptional voice quality and clarity on every call — everything you need to fully leverage your Wi-Fi network to increase workforce productivity and better serve your customers.

What makes Zebra's Wi-Fi technology so different? At the heart of Wireless is our Wi-Fi radio, enhanced to support Zebra's proprietary Wi-Fi features that enable unsurpassed management of the Wi-Fi connections at the device and network levels, placing the quality of the Wi-Fi connections on Zebra mobile devices in a class of their own. Part of the Mobility DNA toolkit, Wireless provides three Zebra-only advanced Wi-Fi capabilities: Fusion, Analyzer and Edge Insights.

Fusion's collection of advanced Wi-Fi radio hardware and software features enable the most robust Wi-Fi connections available today. The Analyzer software tool enables tech support personnel to rapidly identify and resolve Wi-Fi issues on specific networks through advanced device level Wi-Fi information no other mobile device manufacturer provides. And with Edge Insights, a new layer of never-before-available information infuses your standard Wi-Fi network analytics dashboards with the information required to proactively spot and resolve Wi-Fi network level issues — before they impact workforce connectivity and productivity.



Fusion

**Wi-Fi radios that are
pre-configured and ready for business.**

Our Fusion Wi-Fi radio firmware and driver are specially engineered to enable the collection of additional Wi-Fi data points from the Wi-Fi chip, which provide the additional details required to deliver an exceptional enterprise-class Wi-Fi data and voice experience, right out of the box.

The most advanced Wi-Fi firmware features

Zebra-only firmware and driver features deliver robust connections that provide the constant and consistent quality of service required to maximize productivity — no more waiting for a connection to the network, random network drops or roaming connectivity issues.

Pre-emptive Roaming

Ensures devices roam before connection quality erodes, eliminating latency and delivering fast roaming — faster than the average standard Wi-Fi radio.

Advanced Wi-Fi Network Fault Recovery

Virtually eliminates dropped connections and application interruptions that can occur when workers pass through Wi-Fi coverage fluctuations.

Increased standard Wi-Fi radio requirements

The enterprise class Wi-Fi radio in Zebra's supported Android mobile devices exceeds the Wi-Fi Alliance™ requirements for roam times, jitter and packet loss, setting a new standard for enterprise-class Wi-Fi radio baseline performance.

802.11k and 802.11v for proactive roaming

Zebra mobile devices intelligently decide when to send 802.11k and 802.11v requests during roaming to guarantee that the ideal access point is chosen at the right time to ensure the best voice experience during handoff.

With Fusion's advanced Wi-Fi firmware and feature configurations, your workers stay connected — and productive.

Advanced voice support

Get uninterrupted calls with superior voice quality and clarity through Call Admission Control and Voice Traffic Detection and Prioritization — features that standard Wi-Fi radios do not typically offer. These features work together to protect voice quality and prevent dropped calls by ensuring the volume of voice traffic matches the voice capacity of the Wi-Fi network. To maximize out-of-the-box control over the quality of service for Voice-over-IP (VoIP) calls, Call Admission Control and Voice Traffic Detection and Prioritization are enabled on all supported Zebra Android mobile devices. In addition, Dynamic Frequency Selection (DFS) channels are optimized for low jitter to provide access to the entire 5 GHz channel for voice solutions, increasing voice capacity without impacting voice quality.

Dual Band Simultaneous (DBS) support

With DBS support, the Wi-Fi radio in Zebra mobile devices can scan one 2.4 GHz and one 5 GHz channel simultaneously, enabling faster scan times for faster connection times and more seamless roaming, plus more resilient concurrency support.

Intelligent Band Preference

An advanced weighted algorithm utilizing numerous Wi-Fi parameters allows Zebra mobile devices to intelligently identify and select the best network with the least congestion — 5 GHz or 2.4 GHz. The result is the best user experience — the consistent delivery of the highest quality of voice available.

The most advanced Wi-Fi feature configurations

We took our deep understanding of Wi-Fi business requirements and developed a standard business-class Wi-Fi configuration that meets the needs of most businesses, right out of the box. And if you have a unique facility that requires a customized Wi-Fi radio configuration, we've made that easy too. You get the best of both worlds: Wi-Fi radios that are pre-configured for business right out of the box — and easy to customize.

Plug-and-play Wi-Fi radios that are ready for business

We pre-configure all Wi-Fi radios in all supported Zebra mobile devices with a special set of parameters that delivers high performance Wi-Fi in nearly all facilities, right out of the box.

No technical expertise required

While configuring Wi-Fi radios typically requires a highly technical worker, our simple interface makes it easy to pick and choose your Wi-Fi radio parameters to create a custom configuration that will maximize Wi-Fi performance and connection quality in challenging RF environments.

Easy remote deployment

Utilize your existing Enterprise Mobility Management (EMM) software to deploy your customized Wi-Fi radio configurations on all of your devices.

Analyzer

The only Wi-Fi troubleshooting tool with integrated data analysis for individual devices.

When a user reports Wi-Fi connectivity issues, you need to see what is happening between the device and the network — information that has been invisible, until now. With technology features in Zebra's powerful Analyzer tool, you can now recreate the user experience by viewing live data or running tests on demand, allowing you to easily identify and resolve issues to restore Wi-Fi performance and connection quality.

Real time troubleshooting information

See the behavior of the Wi-Fi network and device connection at the exact moment in time that the issue occurred, allowing you to see the problem in action.

The only Wi-Fi troubleshooting tool with integrated data analysis

In addition to data collection, the Wireless diagnostic application also instantly analyzes the data and presents the relevant information required to troubleshoot and resolve the issue in easy-to-understand screens. The result? Wi-Fi network performance is restored — without complex and expensive network monitoring tools.

Single tool simplicity: Just one tool uncovers Wi-Fi connectivity issues

This vendor-agnostic solution ensures compatibility with your existing Wi-Fi network by objectively analyzing the connections between Zebra mobile devices and your wireless LAN — there are no new tools to purchase and manage, such as probes.

**With Analyzer, you
get a single powerful tool
that provides all the information that
the universe of Wi-Fi network troubleshooting
tools can collect — and more.**

More data for faster and deeper insights

Get all the information that the universe of Wi-Fi network troubleshooting tools can collect and more, providing a new level of visibility for faster issue identification and resolution. Available information includes:

Device connection status. See the detailed Wi-Fi connectivity status of the mobile device, including: signal strength, channel type and number, IP address, gateway, DNS and DHCP.

Access point configuration. See, test and check the RF, security and power configuration of one or more SSIDs for all access points that are visible to the Zebra mobile device.

Initial connection failure analysis. Pinpoint failure-to-connect errors with reasons, including SSID, RSSI, channel, IP connectivity and authentication.

Roaming analysis. Real-time testing provides visibility into why roaming issues occur. Visible information includes the general performance and health of the Wi-Fi access points, the performance of access point handoffs during roaming, network traffic and related environmental parameters.

Voice analysis. Combines roaming analysis data with the results from voice traffic analysis, including packet loss, jitter, latency, the quality of the link and more. Reports provide a list of parameters outside of your pre-defined thresholds with suggested reasons, providing the information you need to resolve the issues and restore voice performance that meets your Quality of Standards (QoS) for voice in your facility.

Dual concurrent endpoint connection tests. Test reachability and network performance between the mobile device and any two IP addresses or URLs. This highly configurable feature allows you to define the type and volume of traffic you want to simulate — such as voice or video.

View live Wi-Fi device coverage. Interactive graphs make it easy to check and identify coverage issues for the access points in the connected network.

Packet-capture for offline analysis. Easily save packets coming and going to and from the Zebra mobile device for additional analysis. This comprehensive feature includes packets no other on-device tool can see. And unlike a standard over-the-air external onlooker sniffer, you do not need multiple sniffing adapters for each channel.

The impact of Wi-Fi radio configuration parameters. Easily modify Wi-Fi radio parameters in the mobile device to run tests in real time to determine the impact of advanced settings on performance, such as Power Save Mode or Band Preference.

Insights

Fast issue resolution for your entire wireless network with real time comprehensive Wi-Fi analysis.

Troubleshooting Wi-Fi connection issues on your mobile devices is time consuming and cumbersome. Standard third party network dashboards only provide half the picture — network-to-device data. The other half — device-to-network data — has been trapped inside your mobile devices, until now. Insights Application Programming Interfaces (APIs) enable integration of the real-time data stream directly into your third party network dashboard, where extensive analysis of the real-time data identifies and presents proactive resolutions for Wi-Fi issues — before users are impacted. The result? An industry-first network-wide single pane of glass that makes it easy to monitor, troubleshoot and resolve Wi-Fi connection issues for your Zebra mobile device users.

Provides device-side insights

Until now, your current network analytics dashboards were limited to a one-way view: you could only see information from the network to the mobile device. The data analysis from the mobile device back to the network was missing, only available on devices — and only accessible on one device at a time. Insights puts the full 'round trip' of information at your fingertips, providing the complete end-to-end network view you need to spot and resolves issues faster than ever.

Live analysis of all data on all devices

Real time analyzed information on all Zebra mobile devices that are connected to your Wi-Fi network is integrated into your network analytics dashboard. Emerging issues are now visible and can be addressed before they impact device uptime and user productivity.

Packet capture for offline analysis

When you need more information to troubleshoot an issue, you can save packets going to and from Zebra devices. You'll capture packets no other on-device tool can see, providing the most comprehensive Wi-Fi troubleshooting capabilities today.

Powerful voice analysis

Easily identify, troubleshoot and resolve issues with voice quality. Whenever a SIP call is placed, analysis can run in real time in the background to monitor voice quality and detect voice issues — or you can perform on demand synthetic voice tests to troubleshoot a specific issue. Tests include the quality of the VoIP and Wi-Fi link between a mobile device and any endpoint, with averages for latency, jitter and packet loss.

Flexible roaming analysis

Easily identify, troubleshoot and resolve roaming issues. Perform real-time or on-demand testing to determine why an issue occurred through real-time visibility into a wide range of data, including access point handoff during roaming of network traffic and general access point performance and health.

**Boost your workforce productivity with
superior Wi-Fi connectivity in a class of its own.**

For more information, please visit zebra.com/wireless



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