ixia

BYOD Wi-Fi Testing

Are APs and Controllers Ready for Everything?

Taking their laptops, smartphones, and a host of other Wi-Fi-enabled devices with them everywhere they go can make employees (and customers) more productive, but quickly overburdens the wireless LANs (WLANs) carrying the fast-changing traffic mix. With the "Bring Your Own Device" or BYOD movement causing exponential growth in the sheer numbers of Wi-Fi clients, managing and controlling these devices proves daunting.

To keep users from blaming the network when devices don't perform, makers of WLAN access points (APs) and controllers must anticipate and validate the performance of their products against BYOD scenarios. Modeling today's dynamic Wi-Fi environments verifies the ability of new devices and capabilities to meet the growing complexities:

- Device recognition and management
- Newly added Deep Packet Inspection (DPI) capabilities
- Application recognition and traffic management
- Fast-changing application requirements
- Unpredictable spikes in traffic volumes
- Device/network interoperability
- Backward compatibility / support for legacy devices

To ensure a high quality of user experience, BYOD assessments must scale to encompass a wide variety of current and future usage scenarios. Enter Ixia, with the industry's most-relied-upon Wi-Fi performance test solution.

Ixia's BYOD Solution

With new client devices appearing every day, the IxVeriWave test solution helps manufacturers cope with the seemingly endless diversity. The Ixia BYOD solution addresses speed and performance, range and roaming, DPI and policy server operation, backward-compatibility, and compliance with industry standards.

IxVeriWave uniquely delivers:

- *Realistic client simulation* with different device types and manufacturers e.g. Samsung Galaxy, Apple
- *Extensive library of pre-defined real application flows* to simulate end-user interactions and devices
- *High-scale load testing* involving tens of thousands of clients and hundreds of APs
- *Extended-duration testing* to validate stability and robustness
- *Real-world scalability* with up to 500 fully independent, stateful 802.11ac clients per port
- *Precise measurement of critical performance metrics* at data rates reaching up to maximum theoretical limits
- *Simplified workflow* for multi-application testing
- *Real-time analysis* of per-flow statistics

With extensive flexibility and automation, IxVeriWave increases test coverage while speeding development, QA, and regression testing. As new devices go live, Ixia Wi-Fi testing replicates field issues to fast-track solutions.

IxVeriWave Capability	Description
IxVeriWave Traffic Generation and Analysis (TGA) modules	• 1- & 2-port MIMO 11ac modules • 4-port SISO 11ac module; up to 36 ports in a WT90 chassis • Ethernet and Wi-Fi supported • IEEE 802.11ac multi-client traffic generation and performance analysis
Automated Test Appliance (ATA)	• BYOD Soak Web Application allows easy configuration of existing ATA and new BYOD tests over the ATA platform • BYOD Web Monitor App provides a detailed analysis of CLI & Soak test sessions
AppLibrary with IxVeriWave bundle	• Uses Ixia BreakingPoint Application Threat Intelligence (ATI) technology to provide an extensive library of pre-defined application flows that simulate end-user interactions and devices • Simplified workflow and framework speeds and streamlines testing • IxVeriWave bundle simulates general, financial and security applications • Device finger-printing (unique device identification and operation for smartphones, tablets, etc.) • Yearly subscription service with applications continually updated

About IxVeriWave

The industry's premier Wi-Fi test solution, IxVeriWave is used by hundreds of WLAN and Wi-Fi device manufacturers, service providers, and enterprises worldwide. The solution addresses the end-to-end Wi-Fi ecosystem with

• AP testing

• Controller testing

• Mobile device assessment

• Site readiness assessments in the field

Ixia Wi-Fi test experts and Professional Services engineers bring unique front-lines expertise in dealing with complex specialized applications such as unified communications (UC), mobile medical devices, and carrier offload.

IxVeriWave features:

• User-defined traffic generation

• Emulation of complex Wi-Fi ecosystems

• Measurement of QoE from the user perspective

• Application quality measured in relevant metrics -- mean opinion scores (MOS) for voice, MDI for video, and the like

Solutions typically include a WaveTest Chassis, WaveBlade modules, and a host of specialized test suites for enterprise and carrier network applications. For more information about BYOD solutions, visit: http://www.ixiacom.com/products/ixveriwave.