## RELEASE SUMMARY



# IXVERIWAVE<sup>™</sup> 6.6 EA – 6.10 EA APPLICATION FEATURES

Ixia IxVeriWave™ helps deliver great Wi-Fi networks through a comprehensive test approach—delivering powerful independent Wi-Fi benchmarking, real-world ecosystems, functional, soak, and stability testing for wireless local area networks (WLANs). This is done in a controlled, repeatable, automatable, and easily configured environment that provides extensive visibility and debugging of results. Enterprises, carriers, network equipment manufacturers (NEMs) and chipset manufacturers all have testing roles to play to ensure world-class delivery and operation. The business benefits of using IxVeriWave include faster time to market for products, superior networks, and proactive problem resolution.



To enhance user ROI, IxVeriWave is continually updated with the new features and functions most-requested by our customers. To aid your upgrade planning, this document highlights the primary new features and enhancements of the past three releases of IxVeriWave.

RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9 EA	RELEASE 6.10/6.10.1EA
NEW FEATURES/ENHANCEMENTS IMPLEMENTED		
16	16	23

Number of new features and enhancements added to lxVeriWave in the past 3 releases

RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9/6.9.1EA	RELEASE 6.10/6.10.1EA
IxVeriWave General		
<ul> <li>MU-MIMO clients Default 'Average SNR per Spatial Stream' value is now 40 dB</li> <li>Now remember last used chassis host name or IP address in chassis information of ports page</li> </ul>		

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RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9/6.9.1EA	RELEASE 6.10/6.10.1EA	
<ul> <li>Various improvements in client PHY properties for 802.11ac clients. Now default client interface type is 802.11ac for Wi-Fi client groups</li> <li>802.11ac clients support in 2.4 GHz band</li> <li>MU-MIMO/SU-MIMO clients support in 2.4 GHz band</li> <li>Added support to handle incoming DELTS from AP</li> </ul>			
	Benchmark (WaveApps)		
<ul> <li>Throughput test now reports         Offer Load information in a         PDF report</li> <li>Support for Client Group         Names starting with numbers in         Roaming Delay test</li> </ul>	Wi-Fi simulated clients allows to configure Rx/Tx data rate separately  Wi-Fi simulated clients' configuration of management frames data rate  MU-MIMO V <sub>k</sub> setting configuration  TCP Goodput Bidirectional traffic capability	Updates for SNR based ACK Withholding     JSON support for test config params and csv statistics results, for the following test types: Max Client, Rate vs Range, UDP (Unicast Unidirectional Throughput), TCP Goodput	
F	Real World Ecosystem (WaveQoE)		
The 802.11a/b/g/n/ac Mixed Clients test was updated to include 802.11ac clients	<ul> <li>Wi-Fi simulated clients allows to configure Rx/Tx data rate separately</li> <li>Wi-Fi simulated clients allows to configure management frames data rate</li> <li>Support added for new traffic types AMR, AMR-WB and H.264</li> <li>MU-MIMO Vk setting configuration</li> </ul>	<ul> <li>Updates for SNR based ACK Withholding</li> <li>Additional statistics are now reported from desktop and mobile WaveAgent platforms. The list is platform dependent and may include SSID, BSSID, RSSI, PHY Rate, Noise Floor</li> </ul>	



RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9/6.9.1EA	RELEASE 6.10/6.10.1EA	
Functional Test (WaveDynamix)			
<ul> <li>Measurement menus have been resized in order to make the values displayed easily readable</li> <li>Raw traffic send by connection sequence was overwritten (BUG1387080)</li> </ul>	<ul> <li>WaveDynamix allows user to set duration for flow group under traffic configuration</li> <li>Wi-Fi simulated clients allows to configure Rx/Tx data rate separately</li> <li>Wi-Fi simulated clients allows to configure management frames data rate</li> </ul>	Updates for SNR based ACK Withholding	
	IOT Interop		
		Added support for Traffic Reporting for Ecosystem Clients. For each ecosystem group, the application reports the number of connected clients per Phy Rate, Aggregated Throughput, Retransmissions and Media Utilization.	
		<ul> <li>WaveAgent traffic can be configured with 1kbps increments in the available test types</li> </ul>	
		<ul> <li>Added support for Ixia</li> <li>Wireless Tap and</li> <li>Attenuator device.</li> </ul>	
		<ul> <li>Added support to configure NAV field in RTS and CTS- to-self frames.</li> </ul>	
		<ul> <li>Added support to configure sending of RTS and CTS- to-self from IxClients (ecosystem).</li> </ul>	



RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9/6.9.1EA	RELEASE 6.10/6.10.1EA
IOT Golden AP		
		Throughput Channel- Frequency Sweep (GDPT style test across all channels)
		New Country Codes to the Golden Access Point configuration page: China (CN), Germany (DE), India (IN), Japan (JP)
		802.11ac on 2.4Ghz and MCS 8 on 20MHz bandwidth
		SNR based ACK Withholding
		Added support to configure sending of RTS and CTS to self from lxClients (ecosystem).
		<ul> <li>Added support to configure NAV field in RTS and CTS-to- self frames.</li> </ul>
	BYOD Scale (ATA)	
<ul> <li>doProbe command updated to automatically include SSID s when SSID is not included as a parameter</li> <li>Implement "probeap" without clients being associated to the AP</li> </ul>	<ul> <li>High client/AP ATA Soak test enhancements</li> <li>Wi-Fi simulated clients allows to configure Rx/Tx data rate separately</li> </ul>	<ul> <li>Support for Proactive Key         Caching (aka Opportunistic         Key Caching), by using the         option "PKC=on/off" in         createClient and         createClientGroup.</li> </ul>
	<ul> <li>Wi-Fi simulated clients allows to configure management frames data rates</li> </ul>	Support for MCS 24-31 (4x4 MIMO) for 802.11n emulated clients
		API support for standard begin end command responses, by using set options rspDelimiter=true
		<ul> <li>Support for SNR based ACK Withholding (AckWithholding and SNRLevel only works for downstream traffic)</li> </ul>
Wireshark		
<ul> <li>Ixia VeriWave version of Wireshark is upgraded from 1.12.9 version to open source code version 2.0.2</li> </ul>	Support added to fully decode VHT Beam Forming Report	<ul> <li>Integration with Wireshark</li> <li>2.2.1</li> </ul>



RELEASE 6.6/6.7 EA	RELEASE 6.8/6.9/6.9.1EA	RELEASE 6.10/6.10.1EA
<ul> <li>Decoding of VHT Compressed Beam forming Report</li> <li>Allow to convert kia VeriWave format (. vwr) capture file to generic (. pcap) format – use</li> </ul>	<ul> <li>IxVeriWave Wireshark RF Header dissector extended to support filtering of AVG. EVM</li> </ul>	
'Save As' option in file menu  WaveDFS		
	WaveAgent	New FCC requirement for Long Pulse Radar Type 5
		- Auto atom by default when the
		<ul> <li>Auto-start by default when the application is launched on Android devices</li> </ul>

### MORE INFORMATION

- IxVeriWave Web Portal: https://www.ixiacom.com/products/ixveriwave
- IxVeriWave Chassis: https://www.ixiacom.com/products/ixveriwave-chassis
- IxVeriWave Wi-Fi Modules: https://www.ixiacom.com/products/ixveriwave-waveblade-wi-fi-modules

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