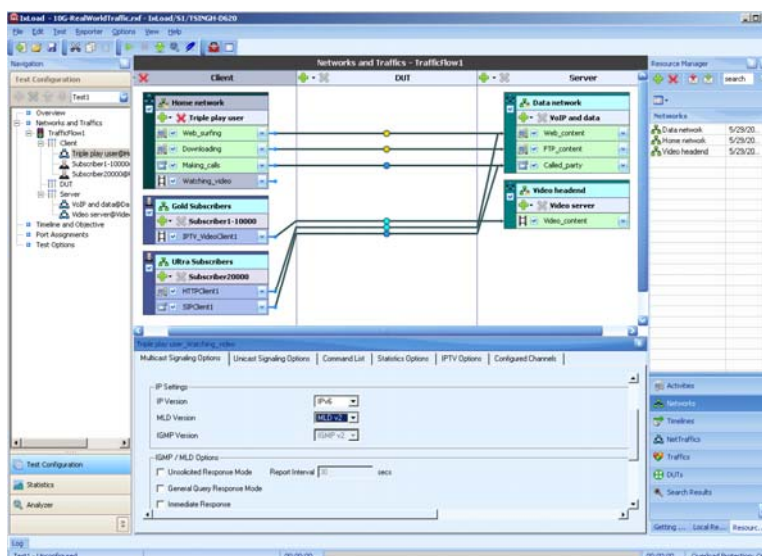




Aptixia IxLoad is a highly scalable, integrated test solution for assessing the performance of Triple Play networks and devices. IxLoad emulates IPTV and Triple Play subscribers and associated protocols to ensure subscriber Quality of Experience (QoE). Protocols supported include video protocols like IGMP, MLD, and RTSP; voice protocols like SIP and MGCP; and data protocols like HTTP, FTP, and SMTP. In addition, IxLoad can be used to test critical aspects of the infrastructure like DNS, DHCP, RADIUS, and LDAP services, as well generate malicious traffic to test for security.



Application Features

- Emulate Real World Traffic using Ixia's highly scalable Optixia test platform
- Support for running Data, Voice and Video protocols simultaneously to emulate triple play subscriber environment
- Flexible framework offering in depth functionality including local Resource Manager for component reusability, Getting Started for quick access to previous tests and results, and drag-drop and integrated automation capabilities
- Support for video quality metrics (TVQM, MDI) and voice quality scores (MOS) per session

- Built-in impairment - ability to introduce latency, jitter, packet drops, duplicate, reorder, and apply fragmentation at source
- Built-in packet capture and analyzer with ability to play media packet payloads in a media player
- Traffic mapping - Ability to configure the IP addresses and VLANs that will send and receive traffic to and from each other
- Support for real-time packet captures with filtering and ladder diagrams for analysis
- Capture file replay - ability to replay user-specified packet captures from Ixia test ports
- Support for IPv4 and IPv6
- Link layer protocols like PPPoE, IPSec and DHCP
- Automatic goal seeking of test objectives. Goal seeking metrics include concurrent connections, connection rate, simulated users and throughput
- Real World network configurations - multiple sub-networks, unique MAC addresses, 802.1q, 802.1p and emulated router support
- Real World user behavior using Think times, configurable responses, impairment etc.
- Standard Linux TCP stack
- Ramp-up, ramp-down user sessions - linear, step and adaptive modes
- Extensive statistics and reports
- Fully customizable statistics viewer, with advanced graphing capabilities
- Option to automatically log all collected statistics
- Integrated report generation

Supported Layer 7 Protocols

		IPv4 Support	IPv6 Support
Data	HTTP (1.0/1.1)	Yes	Yes
	SSLv2, SSLv3, TLSv1	Yes	Yes
	FTP	Yes	Yes
	SMTP	Yes	Yes
	POP3	Yes	Yes
	IMAP	Yes	Yes
	RTSP/RTP	Yes	No
	Telnet	Yes	No
	DNS	Yes	Yes
	DHCP	Yes	Yes

	LDAP	Yes	No
	RADIUS	Yes	No
	SSH	Yes	No
VoIP	SIP	Yes	Yes
	MGCP	Yes	No
Video	IGMPv1,2,3	Yes	N/A
	MLDv1, MLDv2	N/A	N/A
	RTSP/RTP	Yes	No

Supported Standards

Network	<ul style="list-style-type: none"> • RFC 826 - Ethernet Address Resolution Protocol • RFC 791 - Internet Protocol • RFC 2460 - Internet Protocol, Version 6 (IPv6) Specification • RFC 793 - Transmission Control Protocol • RFC 2581 - TCP Congestion Control • RFC 768 - User Datagram Protocol
HTTP	<ul style="list-style-type: none"> • RFC 1945 - Hypertext Transfer Protocol – HTTP/1.0 • RFC 2616 - Hypertext Transfer Protocol – HTTP/1.1 • RFC 2246 - The TLS Protocol Version 1.0
FTP	<ul style="list-style-type: none"> • RFC 959 - File Transfer Protocol
SMTP	<ul style="list-style-type: none"> • RFC 2821 - Simple Mail Transfer Protocol
POP3	<ul style="list-style-type: none"> • RFC 1939 - Post Office Protocol - Version 3
IMAP	<ul style="list-style-type: none"> • RFC 3501 - Internet Message Access Protocol - Version 4rev1
Web Application Test	<ul style="list-style-type: none"> • RFC 1945 - Hypertext Transfer Protocol – HTTP/1.0 • RFC 2616 - Hypertext Transfer Protocol – HTTP/1.1 • RFC 2246 - The TLS Protocol Version 1.0
SIP	<ul style="list-style-type: none"> • RFC 3261 - SIP: Session Initiation Protocol
MGCP	<ul style="list-style-type: none"> • RFC 3435 - Media Gateway Control Protocol (MGCP) Version 1.0
Video	<ul style="list-style-type: none"> • RFC 2326 - Real Time Streaming Protocol (RTSP) • RFC 3550 - RTP: A Transport Protocol for Real-Time Applications • RFC 3376 - Internet Group Management Protocol, Version 3 • RFC 4445 - A Proposed Media Delivery Index (MDI) • RFC 2250 - RTP Payload Format for MPEG1/MPEG2 Video

	<ul style="list-style-type: none"> • RFC 2327 - SDP: Session Description Protocol
Telnet	<ul style="list-style-type: none"> • RFC 854 - Basic Telnet protocol specification • RFC 855 - Telnet option specifications • RFC 856 - Telnet binary transmission • RFC 857 - Echo option • RFC 858 - Suppress Go Ahead option • RFC 859 - Status option • RFC 860 - Timing Mark option • RFC 1091 - Terminal Type option • RFC 1073 - Window Size option • RFC 1079 - Terminal Speed option • RFC 1372 - Remote Flow Control option • RFC 1184 - Linemode option • RFC 1408 - Environment Variables option
RADIUS	<ul style="list-style-type: none"> • RFC 2865 - Remote Authentication Dial In User Service (RADIUS) • RFC 2866 - RADIUS Accounting • RFC 3579 - RADIUS (Remote Authentication Dial In User Service) Support For Extensible Authentication Protocol (EAP) • RFC 2548 - Microsoft Vendor-specific RADIUS Attributes
SSH	<ul style="list-style-type: none"> • RFC 4251 – SSH Protocol Architecture • RFC 4252 – SSH Authentication Protocol • RFC 4253 – SSH Transport Layer Protocol • RFC 4254 SSH Connection Protocol* (with limitations)
DNS	<ul style="list-style-type: none"> • RFC 1034 - Domain names - concepts and facilities • RFC 1035 - Domain names - implementation and specification
DHCP	<ul style="list-style-type: none"> • RFC 951 - Bootstrap Protocol (BOOTP) • RFC 1534 - Interoperation Between DHCP and BOOTP • RFC 1542 - Clarifications and Extensions for the Bootstrap Protocol • RFC 2131 - Dynamic Host Configuration Protocol • RFC 2132 - DHCP Options and BOOTP Vendor Extensions (not all options are supported) • RFC 3046 - DHCP Relay Agent Information Option • RFC 3396 - Encoding Long Options in the Dynamic Host Configuration Protocol(DHCPv4)

LDAP	<ul style="list-style-type: none">• RFC 1777 - Lightweight Directory Access Protocol• RFC 1778 - The String Representation of Standard Attribute Syntaxes• RFC 2251 - Lightweight Directory Access Protocol (v3)• RFC 2252 - Lightweight Directory Access Protocol (v3): Attribute Syntax Definitions• RFC 2253 - Lightweight Directory Access Protocol (v3): UTF-8 String Representation of Distinguished Names• RFC 2254 - The String Representation of LDAP Search Filters• RFC 2255 - The LDAP URL Format• RFC 2256 - A Summary of the X.500(96) User Schema for use with LDAPv3• RFC 2829 - Authentication Methods for LDAP• RFC 2830 - Lightweight Directory Access Protocol (v3): Extension for Transport Layer Security• RFC 3377 - Lightweight Directory Access Protocol (v3): Technical Specification
RTSP and RTP	<ul style="list-style-type: none">• RFC 2326 - Real Time Streaming Protocol (RTSP)• RFC 3550 - RTP: A Transport Protocol for Real-Time Applications• RFC 2327 - SDP: Session Description Protocol

Ordering Information

925-3300

Aptixia IXLOAD-PLUS, Base Software Bundle, Layer 4-7 Performance Test Application Base Software IXLOAD; enhanced with additional protocols such as Telnet, DNS, DHCP, LDAP, and TraceFileReplay; Supports SSL Client, SSL Server, HTTP, HTTPS, FTP, and TCP; Includes Media Kit; Does not include ANALYZER [see IXLOAD-B2 (925-3320) or IXLOAD-B3 (925-3330)]

925-3310

Aptixia IXLOAD-B1, Software Bundle, Layer 4-7 Performance Test Application Base Software IXLOAD; plus optional software IXLOAD-MAIL, IXLOAD-STREAM, IXLOAD-DDOS and IXLOAD-U1; Supports HTTP, HTTPS, FTP, and TCP; Includes Media Kit; Does not include ANALYZER [see IXLOAD-B2 (925-3320) or IXLOAD-B3 (925-3330)]

925-3320

Aptixia IXLOAD-B2, Software Bundle, Layer 4-7 Performance Test Application Base Software IXLOAD, and media kit; plus optional software IXLOAD-MAIL, IXLOAD-STREAM, IXLOAD-DDOS, IXLOAD-U1, IXLOAD-VIDEO, and IXLOAD-VOICE; Supports SSL Client, SSL Server, HTTP, HTTPS, FTP, and TCP; Includes ANALYZER Base Software (932-0101) for packet capture and analysis, and ANALYZER Media optional software (932-0102)

925-3330

Aptixia IXLOAD-B3, Software Bundle, Layer 4-7 Performance Test Application Base Software IXLOAD, and media kit; plus optional software IXLOAD-MAIL, IXLOAD-STREAM, IXLOAD-DDOS, IXLOAD-U1, IXLOAD-VIDEO, IXLOAD-VOICE, IXLOAD-ADVNET, IXLOAD-SSH, and IXLOAD-RADIUS; Supports SSL Client, SSL Server, HTTP, HTTPS, FTP, and TCP; Includes ANALYZER Base Software (932-0101) for packet capture and analysis, and ANALYZER Media optional software (932-0102)

This material is for informational purposes only and subject to change without notice. It describes Ixia's present plans to develop and make available to its customers certain products, features and functionality. Ixia is only obligated to provide those deliverables specifically included in a written agreement between Ixia and the customer.