íxia

Storage Assessment Solutions



Optimize and future-proof your storage infrastructure

From lab to cloud, Ixia storage assessment solutions provide actionable insights to optimize and future-proof your storage infrastructure through user workloads that create real-world storage scenarios at any scale. Ixia solutions are scalable from cloud to 100Gbps+ appliances, easy-to-use, and adaptable to keep your business ahead of technology and operational changes across all block, file, and object storage elements. Ixia solutions make your storage reliable, scalable, and secure to guarantee the always-on user experience.

Ixia solutions go beyond traditional single-dimension measurement of storage performance and isolated functionalities. They raise the visibility of storage infrastructure's impact to the web, office, and mobile user experience through complex yet easy to use workloads that create taxing real-world storage scenarios. Storage infrastructure implementers can now capture systemlevel impacts of caching, database structures, dedup, compression, BOYD, and integrity of back-up replication across all block, file, and object storage elements.

Ixia's workload library is continuously updated on a monthly basis, adding newer weaponries to the user's testing arsenal to build on existing regressed test cases. Our workload library can be deployed on Ixia appliances or virtualized in the Cloud. With Ixia's storage assessment solutions, companies can quickly gain holistic visibility into the performance, security, data integrity, and stability of the storage networks, services, and applications used to manage business and delight users.

- Scalable
 - Virtualized in the cloud
 - 100+Gbps storage assessment appliances
 - Simulate 14M+ clients
 - Up to 144 ports and operators
 - 3M+ IOPS (input/output operations per second)
 - Comprehensive protocols support
 - SMB3
 - NFS v4.x
 - CDMI
 - HTTP
 - FC, FCoE, iSCSI
- Workload library
 - Cache stress
 - Data dedup
 - Compression
 - Windows command line
 - Windows explore
 - Locking

- Real-world scenarios
 - Authentication and access credential
 - Redundancy
 - File system integrity
 - Backup-recovery
 - Storage consolidation
 - Login storms
 - Quota enforcement
 - Synchronization of user actions
 - Emulate ramp-up, ramp-down user and load
- Usability for decision making
 - Easy to use GUI
 - Detailed analysis
 - Extensive reporting
 - Monthly updates to applications and workloads

The IxLoad-Storage Solution

Ixia's IxLoad-Storage is the ideal testing platform for benchmarking and validating, as well as tuning the functionality, performance, and capacity of infrastructure that comprise enterprise, data center, and cloud storage solutions. Ixia's storage testing solution is a comprehensive hardware and software solution. With a powerful and intuitive GUI, it integrates a full suite of storage protocols and application workloads, emulating millions of users to exercise the system at line-rate – for effective and efficient testing of unified storage deployments, including:

- Unified storage servers
- Data center switches
- Storage-protocol-aware optimizers
- WAN optimizers

- Enterprise application servers
- Storage server networking and security infrastructure
- Cloud infrastructure

Traffic Generation and Analysis for Virtualized Environments

Ixia's IxVM product family is specifically designed to test virtualized assets and environments while leveraging trusted tools that have been used for testing hardwarebased network equipment for over a decade. IxVM virtual ports provide a software-based version of a traditional Ixia hardware port that can be deployed in a virtualized environment. Virtual ports support Ixia software applications and can be combined with hardware ports to thoroughly test all aspects of the virtualized server and the impact of virtualization on the broader data center performance.

Powerful Hardware Platforms

Ixia's chassis and Xcellon-Ultra XT80 appliance deliver industry-leading performance and scale to your storage assessment solution:

- Newest-generation processors
- Dedicated per-port CPU
- Built-in hardware acceleration
- Port CPU aggregation
- Test-optimized TCP/IP stack
- Wide coverage of storage protocols for performance and scale measurement: CIFSv1, SMB2.1, SMB3.0, NFSv3, NFSv4.0, NFSv4.1, SCSI over FCOE

Platform Capabilities	Appliance (XT-80, 2U)	Chassis (12U, 12 Blade)
Port Density	8 10G ports	144 1G ports and 12 10G ports
# IOPS (SMB/NFS)	1.84M	3.6M
# IOPS (iSCSI)	2.4M	3.4M
# Clients (SMB/NFS)	4M	14.2M
# Clients (iSCSI))	1.6M	5.7M
Throughput (SMB/NFS)	108Gbps	90Gbps
Throughput (iSCSI)	108Gbps	90Gbps
iSCSI Target Discovery	4096 targets, 256 LUNs/target	4096 targets, 256 LUNs/target
Maximum Users	4	144

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