



Model: SANBlaze Initiator Emulation



OVERVIEW

The SANBlaze Initiator Emulator for FCoE, Fibre Channel, iSCSI and SAS provides simulation of a single to hundreds of Initiator ports.

SANBlaze Initiator Emulation provides unparalleled advantages over the real thing: smaller footprint, lower power consumption, centralized management and control and lower cost of ownership.

Features such as read/write/compare testing, error injection and a custom command builder provide the ideal environment in which to simulate Initiator test cases via script or an easy to use web interface.

Flexible User Interface

Powerful web-based GUI allows you to quickly create, save and restore multiple configurations. From a single console, a single port or multiple ports across multiple systems can be configured to begin read, write or read/write testing simultaneously. Real time statistics, trace mode and a script building tool are all available from the GUI. An interface with industry standard tools such as IOMeter provides a known user interface with which to use the system for testing. All emulator functionality is also available from a CLI interface and can be automated using batch scripting.

Configurability

Each emulator port can be configured to simulate a wide range of Initiator or host functionality. Read/write/compare tests, as well as custom command sets, can be configured to simulate a wide variety of initiator test cases. When using both target and initiator modes, a device under test (DUT) can be connected to two ports on a SANBlaze system, one configured as initiator, one configured as a target. The DUT can then be exercised and tested using one system, with traffic generated and/or errors injected on either side with the ability to generate custom commands and responses.

Performance

SANBlaze systems can act as a wire speed device. Tests can be run that eliminate the latency associated with real hosts or add latency in millisecond increments in a predictable manner.

KEY APPLICATIONS

- Capacity planning
- Error handling testing
- Error injection
- Custom IO generation
- Failover and multipath simulation
- Performance Testing
- Storage Software verification
- Virtual environment testing
- Scalability testing
- Software and hardware development
- FCoE, FC and iSCSI switch and network testing
- Network Congestion Simulation
- Validate and test storage arrays
- SAN management software verification
- Simulate single or multiple hosts
- Simulate 100's of simultaneous Fabric logins

SUPPORTED PROTOCOLS

- Fibre Channel (FC)
- FCoE
- iSCSI
- SAS

PLATFORM OPTIONS

- 1U VirtualLUN
- 3U GargantuLUN
- Software License

FEATURES

- Single button "Max Reads all Ports" testing for quick go/no-go
- Read / Write and Compare Tests for traffic generation and data integrity
- Multi-Initiator tests dispatch tests over all available initiators
- Sequential, random, Min/Max and Butterfly seeks
- Multiple data patterns including Random and User Defined
- Multi-path testing on all paths, one path, active path, optimal path
- Comprehensive "Generic" I/O capability
- Task Management functions
- Built in IOMeter interface allows Read/Write and test initiation and monitoring
- Real time statistics **
- Error Injection **

** See Protocol specific Datasheets for details

FCoE INITIATOR FEATURES

- Emulation of up to 256 Independent FCoE Initiators per port
- FC Initialization Protocol (FIP) Support
- Generate/Consume non-FCOE traffic
- UDP Network Generator with VLAN and Priority Class Support
- DCBX Support Versions 1.00, 1.01
- PFC and Standard Pause support
- LLDP Support with user override
- Traffic priority control
- Frame size control (MTU)
- Configurable MAC address
- FCOE header manipulation
- Congestion simulation
- Packet Capture and Decode
- Configurable Symbolic Port name
- T10 DIF emulation including corruption testing
- Generation/Validation of FCoE CRC
- Send ELS, user configurable Code, ID and Payload
- Ability to Record a target "profile", which can be used by an emulation port
- Configurable login parameters and behavior (FLOGI and PLOGI)

SAS INITIATOR FEATURES

- 1 initiator per phy (wide or narrow)
- Ability to offline/online individual phys
- Backplane Error injection
- Trigger on and repeat complex drive error conditions
- T10 DIF CRC support
- Ability to send any SAS primitive

FC INITIATOR FEATURES

- Emulation of up to 256 Independent FC Initiators per port
- Up to 512 LUNs per port (Disk and/or Tape)
- FCP2 Support with FCP Confirm
- Configurable WWNN/WWPN
- Configurable Symbolic Port name
- T10 DIF emulation including inbound and outbound verification
- Send ELS, user configurable Code, ID and Payload
- Configurable MTU size from 128 - 2048 bytes
- Configurable login parameters and behavior (FLOGI, PLOGI)

iSCSI INITIATOR FEATURES

- Up to 256 virtual initiators per port
- Configurable initiator IQN names
- Auto target portal discovery
- Scan for potential targets on network
- Quickly login to multiple targets with single click
- LLDP support
- DCBX version 1.00 and 1.01 support
- PFC pause support
- Configurable DCBX frames
- Configurable network parameters
- IP address
- MAC address
- iSCSI port number
- MTU size
- VLAN ID/Priority
- Configure iSCSI security parameters: CHAP user name and passwords for initiator and/or target

For more information please visit our web site at www.sanblaze.com or send email to info@sanblaze.com

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