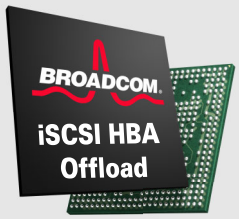
iSCSI STACK FOR CONVERGED NIC



Highlights

- No-compromise multiprotocol support with simultaneous networking traffic and storage traffic over a single 10 GbE connection.
- Industry-leading performance with measured 1.1M IOPS, optimized for high throughput and high I/O per second, with lowest latency and CPU utilization.
- Seamless and efficient management with centralized, cross-platform BACS 4 management suite.
- Broad, established interoperability with ecosystem partners.

	Broadcom iSCSI
Service Provider	●
Data Centers	●
Enterprise	●

◐ Supported ● Best Choice

Overview

Broadcom's iSCSI offering is based on our hardware offload architecture and is designed to deliver industry-leading performance, low CPU utilization, high reliability, and unified NIC and storage management using the Broadcom Advanced Control Suite (BACS) management application for both 1 GbE and 10 GbE networks. Benefits include:

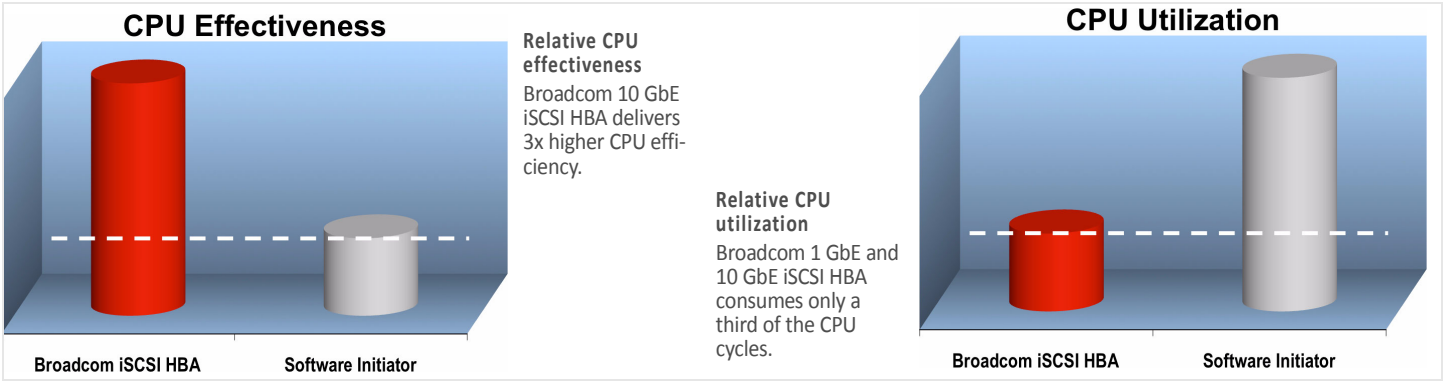
- Industry-leading performance: By fully offloading the iSCSI and TCP/IP stacks, the Broadcom iSCSI HBA does not need to compete with upper layer applications, such as e-mail or Web applications, for CPU processing cycles. The iSCSI performance is unaffected by application workload.
- Low CPU utilization: Software-based iSCSI initiators consume considerable CPU cycles when handling I/O-intensive workloads, leaving little headroom for growing user application requirements. Broadcom's iSCSI HBA architecture minimizes the CPU overhead so that valuable CPU cycles are allocated to process user applications.
- Highest reliability: The iSCSI header/data digest computation of Broadcom's iSCSI HBA prevents data corruption that can occur in large networks with multiple switch hops so that iSCSI HBAs can be used in a wide variety of IP network topologies.
- Unified NIC and storage management: The BACS management application provides a single management platform for your network and storage I/O management.

Benefits

- World-class performance, optimized for high throughput, high I/O per second, and low CPU utilization.
  - Offloaded and accelerated iSCSI for block storage with high I/O per second and high bandwidth.
  - Frees host CPU to run application code.
  - No need to compete with host applications for resources.
  - Minimal load on host memory subsystem with zero copy.
  - Adaptive interrupt coalescing.
  - Avoids bottlenecks by using RSS (distributing network processing across multiple CPUs).
  - Interrupt distribution in a multi-CPU system using MSI/MSI-X.
- Significant power savings (up to 60 watts per 10 GbE port) over software initiator through iSCSI HBA deployment.
- Simplified administration of iSCSI-enabled controllers across the data center and reduced complexity by using a common driver.
- Robust, flexible, seamless management using management application software
- High IOPS performance:
  - Over 1.1 million IOPS for 10 GbE. (BCM57712) and 240K IOPS for 1 GbE (BCM5709 dual-port).

Features

- Hardware iSCSI HBA
  - iSCSI HBA offload including header and data digest
- Common iSCSI driver stack
  - NetXtreme II® 1 GbE controllers (5709C/S, 5708C/S)
  - NetXtreme II 10 GbE controllers (57710, 57711, 57712)
- iSCSI HBA features
  - iSCSI initiator IPv4 and IPv6
  - iSCSI boot IPv4 and IPv6 HBA offload
  - iSCSI boot IPv4 and IPv6 host software stack
- Operating systems support:
  - Windows® Server
  - Red Hat® Enterprise Linux®, and Novell® SUSE Linux Enterprise Server
  - VMware® vSphere®
- Robust Ethernet support (see page 2)



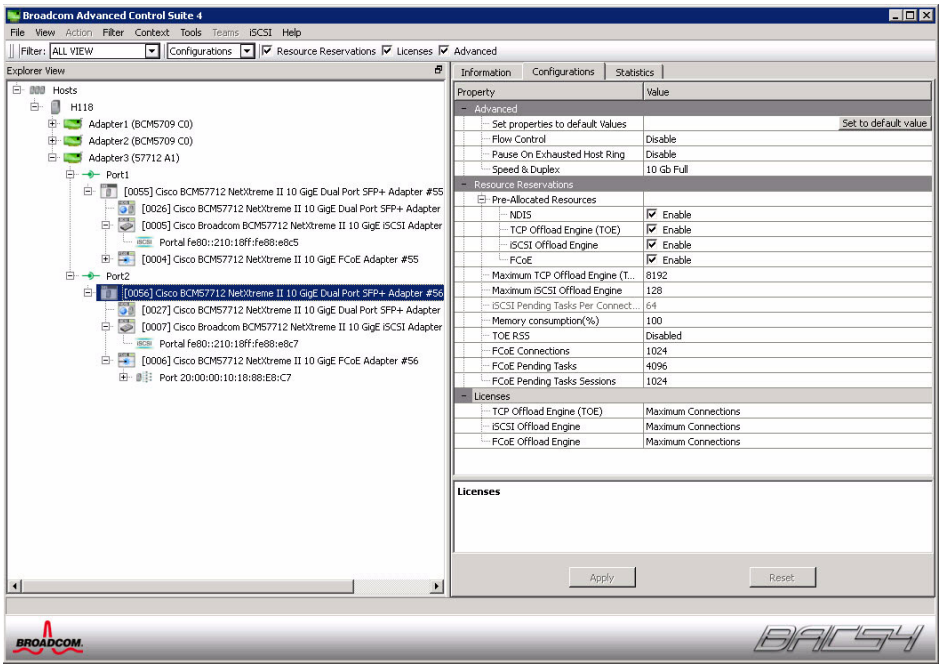
These figures show the relative CPU effectiveness (IOPS per CPU%) and CPU percent utilization of Broadcom's iSCSI HBA versus iSCSI software initiator (in a dual-quad core Intel® XEON® 5500 server, running the Microsoft® Windows® 2008 operating system at 4K read block size)

Ethernet Features

- Jumbo frame support (9600 bytes)
- Flow-control support (IEEE 802.3x)
- Stateful offload (TOE and TPA)
- TCP/IP checksum offload for IPv4 and IPv6
- UDP/IP checksum offload for IPv4 and IPv6
- RX/TX multiqueue
- VMware NetQueue and Micosoft VMQ
- Message signal interrupt (MSI, MSI-X) support
- VLAN support

Unified Management Application

- Centralized, cross-platform management suite for configuration and management across all protocols.
- Integrated multiprotocol dashboard with all management functions across iSCSI HBA, TOE, L2, and FCoE HBA.
- Comprehensive DCB and FCoE configuration and controller.



About Broadcom

Broadcom Corporation is a major technology innovator and global leader in semiconductors for wired and wireless communications. Broadcom® products enable the delivery of voice, video, data and multimedia to and throughout the home, the office and the mobile environment. We provide the industry's broadest portfolio of state-of-the-art system-on-a-chip and software solutions to manufacturers of computing and networking equipment, digital entertainment and broadband access products, and mobile devices.

These solutions support our core mission: Connecting everything®.

Broadcom, one of the world's largest fabless communications semiconductor companies, with 2010 revenue of $6.82 billion, holds more than 4,800 U.S. and 2,000 foreign patents, and has more than 7,800 additional pending patent applications, and one of the broadest intellectual property portfolios addressing both wired and wireless transmission of voice, video, data and multimedia.

A FORTUNE 500® company, Broadcom is headquartered in Irvine, Calif., and has offices and research facilities in North America, Asia and Europe. Broadcom may be contacted at +1.949.926.5000 or at www.broadcom.com.

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