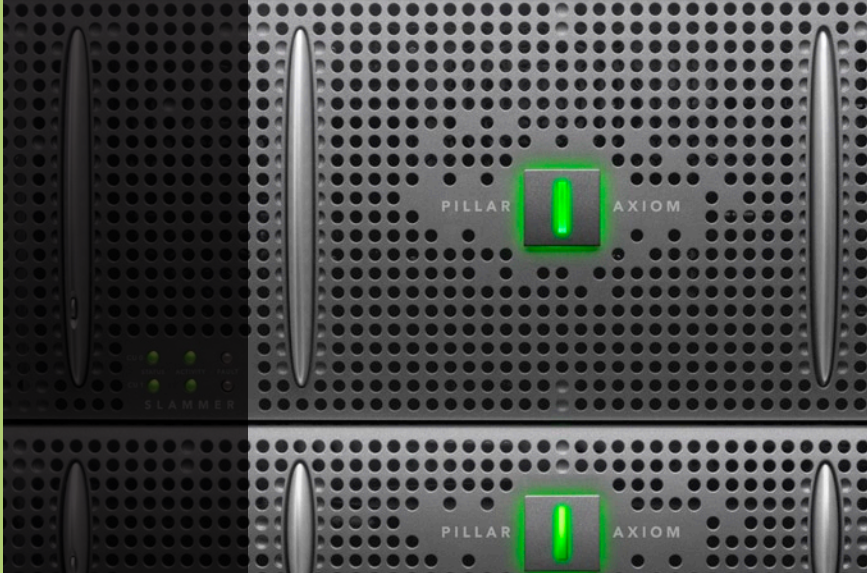


# Pillar Axiom 300 Storage System



## Application-Aware Storage Advantages

- **Simplify.** An intuitive management interface enables policy-based provisioning, capacity planning, and management; provisioning a LUN takes six clicks.
- **Utilize.** Axiom's architecture reduces data center operational costs and delivers utilization rates double the industry average.
- **Scale.** Independent capacity, performance scaling, and a single licensing fee per system deliver savings in time and money.

Optimized for mid-sized deployments and budgets, the Pillar Axiom® 300 storage system brings enterprise-class storage capabilities to mid-range applications.

Its unique ability to tailor performance per application; its ease of use; and its ability to scale and support NAS, FC SAN or iSCSI SAN with a common user interface make it the most powerful entry to mid-tier storage offering available.

Comprised of a Pillar Axiom Pilot policy controller, a Pillar Axiom NAS or SAN Slammer storage controller, one Pillar Axiom Brick storage enclosure, and the power of Pillar AxiomONE™ software, the Pillar Axiom 300 bridges the gap between low-feature, low-cost storage and high-feature, high-cost storage with a turnkey, easy to use solution that offers industrial-strength capabilities at a low cost of ownership.

With the Axiom 300, you can start small and upgrade later without losing your initial investment. When you upgrade to the Axiom 600, you are refunded for your prior purchase of options for the Axiom 300, and your Pilot, Bricks, and disks will all upgrade seamlessly to the new system.

## AxiomONE Software

Pillar AxiomONE software delivers the power of ONE: one management interface of a common storage pool. It enables true multitenancy of all storage tiers in one platform, offers a choice of SAN or NAS technology, and optimizes performance of SATA Bricks.

AxiomONE offers unique features such as Copy Services, Thin Provisioning, Pool RAID 10, and Wide Stripe, providing a higher level of data protection, performance, availability and application integration.

## Axiom Pilot Policy Controller

The Pillar Axiom Pilot policy controller is the management interface for the system. Its simple, graphical console and AxiomONE software enables policy-based provisioning with Dynamic Performance prioritization, fault management, capacity planning, and Guided Maintenance for the entire system.

Dynamic Performance enables provisioning of multiple classes of service. It allows operators to align system performance with application requirements, enabling co-existence of Tier-1, Tier-2, and Tier-3 storage in a single array without compromising performance of individual filesystems or LUNs.



## Axiom 300 Slammer

The Pillar Axiom 300 Slammer storage controller is fully redundant. It has a dual-processor architecture with automatic failover and restoration, redundant power supplies, and a maximum 6GB battery-backed cache memory. It operates as a storage controller for one to four Bricks, supporting 6.5 to 52TB raw storage capacity and delivering enterprise-class throughput performance.

A choice of SAN or NAS network connectivity in the Slammer allows storage managers to align their data storage resources with application requirements.

The SAN Slammer is available with either Fibre Channel or iSCSI connectivity, offering flexibility of a high-performance and low-cost deployment.

## Axiom 300 Brick

The 500GB/1TB Serial ATA drive Brick storage enclosure provides the Axiom 300 a highly available storage pool to meet your performance and budget demands.

## Each Axiom 300 System Consists of the Following Items:

- One Slammer (NAS, SAN, iSCSI), NAS includes one Protocol (CIFS or NFS) and SNAPfs
- One Pilot
- One Brick (with 500GB/1TB SATA drives)
- 6.5/13TB of raw storage
- AxiomONE software Suite
- 1 year NBD hardware and software warranty

## Optional features that can be added include:

- Three additional bricks, scaling to 26TB (with 500GB Bricks) and 52TB (with 1TB Bricks)
- CIFS protocol license
- NFS protocol license
- Copy Services
  - Volume copy
  - CloneLUN/CloneFS
  - Volume backup
- Pillar Cabinet
- Thin Provisioning
- SecureWORMfs
- Additional year of NBD hardware and software warranty
- Additional year of Onsite NBD hardware and software warranty

## Part Numbers and Ordering

Product	Part Numbers
<b>Axiom 300 NAS Optical with NFS</b> includes Base unit, 500GB/1TB Brick, Pilot, QOS-OS, and NFS	300-BNDL-NAS-OPT-NFS-500GB 300-BNDL-NAS-OPT-NFS-1TB
<b>Axiom 300 NAS Optical with CIFS</b> includes Base unit, 500GB/1TB Brick, Pilot, QOS-OS, and CIFS	300-BNDL-NAS-OPT-CIFS-500GB 300-BNDL-NAS-OPT-CIFS-1TB
<b>Axiom 300 NAS Copper with NFS</b> includes Base unit, 500GB/1TB Brick, Pilot, QOS-OS, and NFS	300-BNDL-NAS-CPR-NFS-500GB 300-BNDL-NAS-CPR-NFS-1TB
<b>Axiom 300 NAS Copper with CIFS</b> includes Base unit, 500GB/1TB Brick, Pilot, QOS-OS, and CIFS	300-BNDL-NAS-CPR-CIFS-500GB 300-BNDL-NAS-CPR-CIFS-1TB
<b>Axiom 300 SAN Fibre Channel</b> includes Base unit, 500GB/1TB Brick, Pilot, and QOS-OS	300-BNDL-SAN-FC-500GB 300-BNDL-SAN-FC-1TB
<b>Axiom 300 SAN iSCSI Copper</b> includes Base unit, 500GB/1TB Brick, Pilot, and QOS-OS	300-BNDL-SAN-ISCSI-500GB 300-BNDL-SAN-ISCSI-1TB
<b>AxiomONE Copy Services – NAS</b> includes CloneFS, Volume Copy, and Volume Backup	QOS-300-COPYSVCS-NAS
<b>AxiomONE Copy Services – SAN</b> includes CloneLUN, Volume Copy, and Volume Backup	QOS-300-COPYSVCS-SAN
<b>AxiomONE Thin Provisioning</b>	QOS-300-THINPROVISIONING

## Axiom 300 Slammer Storage Controller



## Axiom 300 Pilot Policy Controller



### Features and Specifications

#### External Interfaces

Four 1-Gb Ethernet interfaces for host-to-LAN connectivity on NAS Slammers or SAN connectivity on iSCSI Slammers  
 Four 4-Gb Fibre Channel ports for host-to-SAN connectivity on SAN Slammers

#### Internal Interfaces

Six 10/100 Base-T Ethernet interfaces for Slammer/Pilot connectivity  
 12 2-Gb Fibre Channel interfaces for Brick/Slammer connectivity

#### Control Unit Components (Two per Slammer)

One Intel Xeon 2.4GHz processor  
 Up to 3GB of RAM  
 Optional Fibre Channel or Ultra SCSI card for tape attachment

#### Redundant and Hot-Swappable Components

Two load-balancing power supplies and fans per Slammer  
 Two active/active control units per Slammer  
 Fibre Channel interface modules  
 Gigabit Ethernet interface modules  
 Motherboards

#### Supported Protocols

##### Network Protocol Support:

NFS V2/V3 over UDP or TCP  
 CIFS  
 NDMP

##### SAN Protocol Support:

Fibre Channel Protocol (FCP) for SCSI;  
 fabric-attached and direct attached  
 iSCSI

#### Interfaces

Four 10/100 Base-T Ethernet private management interfaces (PMI)  
 Two 10/100 Base-T Ethernet interfaces for management LAN connectivity

#### Control Unit Components

Two control units per Pilot with active/passive failover  
 Intel Celeron 2.5GHz processor per control unit  
 2GB of RAM per control unit

#### Supported Protocols

SNMP NTP  
 SSH FTP  
 HTTP SMTP  
 NDMP

### Dimensions

#### Enclosure Dimensions

<b>Height</b>	7 in	17.78 cm (4U)
<b>Width</b>	17.7 in	45 cm
<b>Depth</b>	26 in	66 cm
<b>Weight</b>	91 lbs	41 kg

#### Enclosure Dimensions

<b>Height</b>	3.5 in	8.89 cm (2U)
<b>Width</b>	17.7 in	45 cm
<b>Depth</b>	26 in (max)	66 cm
<b>Weight</b>	40 lbs	18.2 kg

### Power

<b>Frequency</b>	50 – 60 Hz
<b>AC Voltage</b>	90 – 264 VAC
<b>Max Power Consumption</b>	685 VA
<b>Max Heat Dissipation</b>	2,336 BTU/hr
<b>AC Plug Type</b>	IEC 320 C13 connections

<b>Frequency</b>	50 – 60 Hz
<b>AC Voltage</b>	90 – 264 VAC
<b>Max Power Consumption</b>	280 VA
<b>Max Heat Dissipation</b>	989 BTU/hr
<b>AC Plug Type</b>	IEC 320 C13 connections

### Environmental

<b>Operating Temperature</b>	10 – 40 degrees C
<b>Temperature Gradient</b>	10 degrees C/hr
<b>Relative Humidity</b>	10 – 85 percent non-condensing
<b>Humidity Gradient</b>	10 percent/hr non-condensing

<b>Non-Operating Temperature</b>	-40 – 70 degrees C
<b>Temperature Gradient</b>	30 degrees C/hr
<b>Relative Humidity</b>	5 – 95 percent non-condensing
<b>Humidity Gradient</b>	10 percent/hr non-condensing

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## SATA Brick Storage Enclosure



### Storage Enclosure

#### Interface to Slammer or Cascaded Bricks

Four Fibre Channel interfaces per controller,  
200 Mb/s (2 Gb) with port bypass

#### Disk Drive Interface

Dual-ported Serial ATA

#### Performance

350 Mb/s, in excess of 1000 random IOPS

#### RAID Controller Specifications

400MHz XScale ARM  
128MB ECC memory per controller  
4MB flash memory

#### Features

Two RAID controllers per Brick (active/active)  
Automatic, transparent failover  
Two RAID 5 5+P arrays

### Features and Specifications

#### 13-drive enclosure

#### Redundant and Hot-Swappable Components

Two RAID controllers  
13 disk drives (one hot spare)  
Two load-balancing power supplies  
Enclosure Services Module

#### Enclosure Dimensions

<b>Height</b>	3.5 in	8.89 cm (2U)
<b>Width</b>	17.7 in	45 cm
<b>Depth</b>	22 in	55.5 cm
<b>Weight</b>	59 lbs	26 kg

### Disk Drive Information

<b>Capacity</b>	500GB/1TB
<b>Rotational Velocity</b>	7,200 RPM
<b>Standard</b>	SATA II

### Power Requirements

<b>Power Frequency</b>	50 – 60 Hz
<b>AC Voltage</b>	90 – 264 VAC
<b>Max Power Consumption</b>	255 VA
<b>Max Heat Dissipation</b>	870 BTU/hr
<b>AC Plug Type</b>	2 IEC 320 C13 connections

### Environmental

<b>Operating Temperature</b>	10 – 40 degrees C
<b>Temperature Gradient</b>	10 degrees C/hr
<b>Relative Humidity</b>	10 – 85 percent non-condensing
<b>Humidity Gradient</b>	10 percent/hr non-condensing
<b>Non-Operating Temperature</b>	-40 – 70 degrees C
<b>Temperature Gradient</b>	30 degrees C/hr
<b>Relative Humidity</b>	5 – 95 percent non-condensing
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