

Galaxy[®] Aurora

36 Bay 8Gbit Fibre Channel/InfiniBand RAID

The Galaxy Aurora Advantage

The Aurora RAID family includes purpose-built, feature-rich RAIDs that can be used as direct-attached systems or as SAN appliances. Aurora's performance and unique adaptable design integrates our RAID 6 engine technology (EOS™) with the latest industry-standard hardware components. This design allows Aurora to "leap-frog" other manufacturers' hardware ASIC-based RAID controller roadmaps. Our engineers have developed Aurora with a unique set of tools to simplify your storage environment and deliver industry-leading performance. The resulting solution is affordable, cross-platform storage for Mac, Windows and Linux users, while delivering reliable and sustained high-bandwidth performance.

Unique Set of Features

Zero Impact Drive Rebuild

- » Description: Aurora is robust enough to process failed RAID sets in the background during production, while ensuring full bandwidth to all users on the SAN.
- » Benefit: Aurora's Zero Impact Drive Rebuild feature keeps your facility running at full bandwidth despite occasional drive failure. This feature not only protects your data, but also your project deadlines and budget. Additionally, Aurora manages drive rebuilds up to 6x faster than traditional hardware RAID controllers.

Real-Time Initiator RTI (QoS)

- » Description: RTI is a quality of service (QoS) performance-tuning feature. RTI allows you to prioritize I/O bandwidth to specific client stations depending on their individual application requirements.
- » Benefit: The RTI QoS feature delivers prioritized bandwidth to systems that really require it, while lower performance apps only utilize what they need.

SAN Client Naming

- » Description: SAN Client Naming allows users to assign meaningful names to complicated World Wide Names (WWN) of Fibre Channel clients.
- » Benefit: Provides the foundation for simplified SAN management. Client naming simplifies RTI and Bandwidth graphing.

Real-Time Bandwidth Graphing

- » Description: Identify and graphically present network storage performance such as: MB/s, I/O response time, and I/O request size.
- » Benefit: A unique storage management tool that gives users a quick view of overall storage utilization. Therefore, users can identify and correct bandwidth problems on the SAN.

Drive Performance Tracking

- » Description: Identify and graphically presents individual drive storage performance.
- » Benefit: This allows users to pro-actively identify and replace poorly performing drives in the RAID set before these drives can cause data integrity problems.

Trace I/O Command Tracking

- » Description: Identify and graphically present every I/O command that an Aurora will process.
- » Benefit: A unique technical set up and troubleshooting feature. This allows engineers to monitor, trace and tune the Aurora storage system for your applications.

LUN Tracking

- » Description: LUN Naming allows users to assign meaningful names to RAID partitions.
- » Benefit: Naming LUNs such as Aurora1, Aurora2 enables simplified SAN management. LUN Naming simplifies SAN set-up, SAN troubleshooting, and Bandwidth graphing.



MSRP Starts at under 50¢/GB

Highlights

- » 4000+ MB/sec sustained transfer rate with 7200 RPM drives*
- » Up to 108TB in one 4U chassis
- » Supports up to 3 simultaneous streams of 2K with a single enclosure
- » Tuned for DPX and stereoscopic applications
- » SAN Agnostic: HyperFS, StorNext, CommandSoft, MetaSAN and Xsan
- » Multi OS Support: Windows, Mac, Linux
- » 8Gbit FC or 20/40 Gbit Infiniband hosts (6.0Gbit SAS Backplane)
- » Unique EOS RAID6 Engine using Intel processors
- » Supports 36 SAS or SATA drives
- » RAID Level 0, 1, 6 or 10

** A single Galaxy Aurora 36 can sustain even higher performance of over 4500+ MB/s supporting dual-stream 4K when using 15K RPM HDDs*

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System and Controller Features

Chassis	Compact 4U Steel and Aluminum Alloy enclosure with rack mount kit. Dual FRU power supplies and fan assemblies and 3Gbit Drive Backplane
Controllers	Aurora RAID 6 Single Controller Configuration based on the enhanced-high performance EOS RAID engine and 16GB of RAM [upgradeable to 128GB]
Drive Support	Thirty-six (36) 3.5-inch x 1- SAS or SATA 3Gbit/s hard drives in field replaceable canisters — direct connect in single I/O controller configuration Staggered physical drive spin-up, Drive LED support
External I/O Ports	Up to eight (8) 8Gbit Fibre Channel or Dual 20Gbit or 40Gbit InfiniBand host ports, plus Ethernet for out of band EOS management GUI
System Cooling	7x8cm hot-swap cooling fans, redundant cooling

Operational Features

RAID protection	RAID 0, RAID 1, RAID 6, RAID 10
Cold Spares	Galaxy Aurora RAID 6 configuration has 2 parity drives and therefore doesn't require a hot spare drive (it will be maintained with a cold spare drive)
Background Activities	Rebuild; SMART drive monitoring; Media health monitoring and repair
RAID Robustness	Physical Drive Error Recovery, Replacement drive rebuild and monitoring while maintaining maximized data rates while rebuilding RAID LUN, Bad Sector Re-mapping, SMART, Error recovery mechanisms and automated defect elimination

System Management

Supported Operating Systems	Windows, MAC OSX, Linux, Solaris
Management Tools	Embedded Web mgmt support — No host agent is needed using standard TCP/IP; Operating System independent; Web-based GUI, via Ethernet port; Basic CLI configurator and operational utility with monitor, keyboard; Ethernet, RJ-45; SSH; Easy-to-use tracing I/O commands, graphing real-time bandwidth, and uncovering poor performing drives in the RAID, plus error logs and status monitoring
Management Interfaces	Embedded Web server and mgmt support — No host agent is needed; Ethernet
Event Notification	Email, Audible (buzzer), and visible (LEDs) alerts for bad drives and power supplies

Mechanical Specifications

Voltage	100-240 Vac Auto-Ranging 50-60 Hz
Current (Maximum)	8 A @ 100 Vac; 4 A @ 200 Vac (current rating with two power cords)
Dimensions	Height 7" (178mm) Width 17.2" (437mm) Depth 27.5" (699mm)
Power Supply	1400W high-efficiency power supply with PMBus
Power Consumption	523 Watts (under load with SAS HDD)
Operating Temperature	10°- 35°C (-40° +70°C non operational)
Relative Humidity	Maximum 90%
Weight [Assume each hard drive 0.67 kg]	Gross weight: 80 lbs (36.3 kg)
Safety	CE, FCC Class A

Easy to Install and Manage

Since 1985, Rorke Data has been successfully bringing you easy-to-install products, and now continues that effort with the Galaxy Aurora. Pre-configured, tested and customized in our ISO 9001 integration facility, your Aurora is ready to use out of the box. Setting up minor configuration changes onsite is simple.

Service and Support

Rorke Data's Engineering Services delivers a unique value proposition for our customers. We offer customized and flexible service agreements, installation and training, call center with online support options, advance parts replacement to onsite 24x7 options, contracted phone, pager and web support, extended equipment warranty options, with US and EMEA customer support centers.