

Galaxy[®] Aurora

24 bay 8Gbit Fibre Channel/InfiniBand RAID

The Galaxy Aurora Advantage

The Aurora RAID family is a purpose-built, feature-rich RAID that can be used as a direct-attached system or as a SAN appliance. 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 that delivers 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. Aurora also 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 to assign meaningful names to complicated World Wide Names (WWN) of Fibre Channel clients.
- » Benefit: Provides the foundation for simplified SAN management. Client naming makes RTI and Bandwidth graphing simpler.

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 trouble shooting 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 makes SAN set-up, SAN troubleshooting, and Bandwidth graphing simpler.



- » Up to 2300+ MB/s
- » 4RU chassis with 24 drive bays
- » 78TB raw capacity
- » RAID 0, 1, 6 or 10
- » Up to 24GB allocatable RAM
- » 6x faster rebuild times than ASIC RAIDs maintains peak data performance
- » Eight 8Gbit Fibre Channel or two 40Gbit InfiniBand host connections
- » Backward compatible with 4Gbit and 2Gbit Fibre Channel
- » Nehalem Multi-Core Processor
- » Web-based GUI for monitoring status and troubleshooting
- » Supports Windows, Apple OSX, Linux and Solaris clients

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System and Controller Features

Chassis	Compact 4RU 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	Twenty Four (24) 3.5" 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

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; therefore 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 TCPIP; Operating System independent; Web based GUI, via Ethernet port; Basic CLI configurator and operational utility with monitor, keyboard; Ethernet, RJ-45, SAS is supported only with ATTO FC HBA 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 26" (660mm)
Power Supply	Dual 900W, 100-240 Vac auto-ranging, 50-60 Hz, dual hot swap and redundant with PFC, N+1 design
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]	Net weight (system only): 34.0 kg (75 lbs) without drives, 50.1 kg (111.0 lbs) with 24 drives Gross weight (including carton): 37.5 kg (82.7 lbs) without drives
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 on site 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.