



Media &
Entertainment
Division

Product Overview >

ISO 9001:2008 &
ISO 13485:2003 Certified

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Celebrating
25 Years
1985-2010



Aurora RAID & Simple SAN

Storage Solutions for Video, Film & Broadcast

The Aurora is a purpose-built direct-attach RAID or SAN appliance that is a natural addition to Rorke's open architecture philosophy. The Aurora platform offers a compelling cost per gigabyte / performance ratio and is available as direct-attached RAID or integrated into an affordable shared storage solution, aka Simple SAN. We designed Aurora's unique set of advanced storage features and SAN management tools specifically for Video, Film, and Broadcast workflows

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 while delivering reliable sustained high bandwidth performance.

Aurora 24 Bay RAID



- » Up to 2300+ MB/S
- » 4RU chassis with 24 Bays
- » 48TB of usable storage with RAID 0, 40TB with RAID 6
- » Up to 128GB allocatable RAM

- » 6x faster rebuild times than ASIC RAID 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
- » Attach up to 8 workstations without the need of a FC switch
- » SD-HD-2K-4K and Stereoscopic workflows
- » Web-based GUI for monitoring status and trouble shooting
- » Supports Windows, Apple OSX, Linux and Solaris clients

Rorke Data's Aurora LS combines the highest sustained performance at the lowest cost per GB in the industry. The Aurora LS was specifically designed for the video post production market targeted at giving our clients both capacity and performance of an enterprise RAID solution at a desktop price point. Aurora LS is the perfect solution for cost effective shared collaborative workflow environments.



Aurora LS 12 Bay RAID

- » Up to 1000+ MB/S.
- » Ultra quiet desk-side or 4RU chassis with 12 Bays
- » 22TB of usable storage with RAID 0, 20TB with RAID 6
- » Up to 24GB allocatable RAM

Specification available at <http://www.rorke.com/aurora.cfm>

Aurora's unique set of features and storage management tools were designed for post production workflows

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 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 like ingest or a critical playback workstation in order to minimize the effects of a fast file copy or editing from lower priority SAN clients.

SAN Client Naming

- » **Description:** SAN Client Naming allows to assign meaningful names to complicated World Wide Names (WWN) of Fibre Channel clients.
- » **Benefit:** Naming clients such as EditBay1, Smoke1, or FCP2 provides the foundation for simplified SAN management. Client naming makes RTI, Bandwidth graphing and LUN mapping 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 for Post Production facilities that gives users quick view of overall storage utilization. Therefore, users can identify and correct bandwidth problems on the SAN.

Aurora GUI Main Page - 1.2.14 RORKE data

RAID Status						
	RAID Name	Cache Size(M)	RAID Level	Prod Slot	Device Count	RAID Size(G)
Details	RAID0	3000	0	0	12	13812

Configuration Status	
	Type
Details	Configurations and Log Files
Details	Users
Details	Parameters
Details	Data Rate Statistics

RAID Enclosure Status		
	Type	Status
Details	Slots	OK
Details	Sensors	OK
Details	Adapters	
Power Control: Power Off		

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 dropped frames.

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 post production applications.

LUN Naming

- » **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, Bandwidth graphing and LUN Mapping simpler.

Simple SAN & Aurora: Share and Collaborate with Ease

Whether you're working in video and film or creating effects and graphics, Rorke Data's affordable shared storage solution, Simple SAN, enables seamless end-to-end integration for all your post production systems. Shared storage equates to efficient collaboration, uniting all of the post production systems in an easy-to-install and easy-to-use SAN (storage area network), effectively streamlining post, from ingest and capture, to final output.



Simple Shared Storage for Content Creators

Ideal for Avid, Final Cut Pro, and Smoke for Mac

Shared storage does not have to be expensive or complex, and Simple SAN is neither. Our customers are professional content creators, and naturally their technical expertise lies with the tools of their trade. Our customers win awards for editing, creating visual effects, 2D and 3D animation, or mixing sound for feature films — so they rarely have the time or desire to learn how to become SAN or I.T. Administrators.

Simple SAN is designed for small- to medium-size facilities. There's no need for a metadata server, IT administrator, ethernet connectivity, or even a Fiber Channel switch! We've stripped out the complexity and many of the costly components typically associated with SAN to deliver the most affordable high-performance shared storage solution available. Simple SAN is scalable in capacity and client connectivity; allowing you to start small and easily upgrade capacities and connect up to 8 clients without adding any more hardware.

Simple Shared Storage with Zero Dropped Frames

With Simple SAN, you'll get consistent, high-bandwidth shared storage performance to accurately capture rich media data from an ingest station directly onto the SAN, without dropped frames. This eliminates the need to copy files locally and our intuitive, easy-to-use volume-level SAN application allows users to collaborate effectively. There are simple-to-use tools to manage content access, storage, and bandwidth between users — from capture to finish.

Simple Shared Storage = ROI

By using the native file system of the existing clients, Simple SAN creates an instantaneous, shared networking environment which future proofs the solution. This just enhances and streamlines the creative process, as well as enabling you to meet important deadlines and budgets. The storage capacity is sized to your shared data requirements and not wasted on individual workstation requirements. The cost is paid for many times over in terms of editor time saved, enhanced creativity, storage efficiency, schedules met, and projects accomplished within budget!

Simple SAN bundles include:

- » Aurora LS 12 bay or Aurora 24 bay RAID
- » 8Gbit FC HBAs
- » 10M Cables
- » SAN Software
- » Cold spare disk drive
- » 1st year Advanced Parts Replacement
- » 8x5 Phone Support



HIGHLIGHTS

- » Simple Design 8Gbit FC SAN
- » Supports 2-8 FC clients
- » Volume Level SAN
- » Supports RAID Level 0 and 6
- » Easy to implement and maintain
- » All SAN components bundled into a kit form
- » No Ethernet Network nor Metadata Controller Server needed
- » Supports HD and 2K applications
- » Support for MAC & PC

OPTIONS

- » Available with 15K SAS HDDs for higher performance
- » Professional Services including: on site support contracts, extended warranties, and installation
- » Backup and Archive Packages from standalone LTO-4 to Libraries
- » File-level SAN hardware and software configurations

Simple SAN

Just Set it and Edit!

- » Pre-configured and ready to go for Mac & PC
- » Aurora offers 48TB raw capacity with over 2300MB/s in RAID 6 mode
- » Aurora LS offers 24TB raw capacity with over 1000MB/s in RAID 6 mode
- » Ultra-quiet (less than 30dB) 4U Rackmount or desk side enclosure
- » Real Time Initiator (RTI) is a quality of service performance tuning feature that allows the user to prioritize I/O bandwidth to specific stations
- » The LUN Identification Tool (LUN ID) simplifies overall SAN management for administrators by replacing complicated World Wide Names (WWN) with meaningful user names
- » Client LUN Management (CLM) allows admin to assign a single writer with multiple readers without additional SAN management tools names
- » Additional tools include tracing I/O commands, graphing real-time bandwidth, and identifying poor performing drives in the array

Galaxy Aurora RAID Video Stream Performance Chart

Video Format Criteria				Rorke RAID Storage Systems	
Video Format	Data Rate	GB Used	Hours Used	Aurora LS	Aurora
Assumes video @29.97 / film @24fps	MB/S	Per hour	Per TB	Stream Count	Stream Count
DV / HDV 25Mb/S	3.25	13	75	45	60
DVCPPro / XDcam 50Mb/S	7	26	37	35	45
DVCPPro HD 100Mb/S	13	46	22	23	32
Uncompressed SD 8bit	21	76	13	20	30
Uncompressed SD 10bit	28	101	10	16	24
ProRes HQ	28	101	10	16	24
HD 720P 8bit	55	198	5	8	14
HD 720P 10bit	72	266	3.75	6	12
HD 1080i 8bit 4:2:2	124	448	2.25	3	8
HD 1080i 10bit 4:2:2	135	597	1.6	2	6
HD 1080P 10bit 4:4:4	248	895	1.1	2	4
HD film DPX 1920x1080	192	691	1.4	1	2
HD 2K film DPX 2048x1556	288	1037	0.96	1	2
HD 4K film DPX 4096x3112	1152	4147	0.24	—	1

Rorke's Value Add and Differentiators:

- » Proof of concept testing
- » Qualification and certification testing
- » Pre-staging of installs
- » Trained and certified engineers for video and broadcast applications
- » Configuration and Best Practices Consulting
- » Creation of work instructions and statement of work
- » Equipment for re-creation of customer environment
- » Lab open to our partners and customers
- » Support call center

Aurora OEM Partners / Certifications

Adobe	Assimilate	Blackmagic	Drastic Technologies	Matrox	ProTools	Sony
AJA	Autodesk	Bluefish	daVinci	MTI Film	Quantel	Telestream
Apple	Avid	Digital Vision	Iridas	Pandora	Grass Valley	Thomson
Cintel	FilmLight	DFT	Panasonic P2	RED	Fission	Lasergraphics

Corporate Overview

Our parent company, Bell Microproducts is one of the largest storage, server and system component distributors in the world.

The unique relationship between Rorke and Bell Micro drives multiple benefits for our customers such as:

- » Global footprint with direct access to over 250 product lines
- » Direct access to our supplier partner's support and engineering team
- » World class buying power
- » Wide range of technical, product, OS and applications certification

Thanks to our customers, Rorke Data continues to grow. We have recently relocated to a new facility, doubling our system integration, R&D and interoperability capability. We also enhanced our company's ISO 9001 quality-control procedures and added a state-of-the-art call center.



Professional Services

World Class Integration Facility

Rorke's new state-of-the-art facility doubles our system integration and interoperability capability.

Our team of technical personnel, including Integration Teams, Solution Architects, and Field Engineers work together to provide custom configurations, proof of concept, and pre-staging of complex systems. These same teams manage installation services and pre and post sales support.

- » ESD compliant integration facility
- » 3-shift manufacturing capability
- » ISO 9001:2008 Certification
- » ISO 13485:2003 Certification
- » Custom integration services
- » Technical pre-sales consulting
- » Support Engineers with broadcast and post application knowledge
- » Custom work instruction development
- » Interoperability testing and certification services

Global Service and Support

Rorke Data's Engineering Services Division provides a single point of contact for a wide range of maintenance and support services.

- » 24x7 on site maintenance contracts
- » Call center for global 24x7 response, with Service and repair portal
- » Installation and training services
- » Multiple warehouse and manufacturing facilities
- » Experienced, Certified field engineers
- » Call escalation procedures
- » Data Migration services
- » Supportforce™ application for service event tracking
- » Extended parts and replacement warranties

Rorke has over 10.000 Storage Solutions in production today, customers include:





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» www.rorke.com