Hitachi Freedom Storage™
Lightning 9900™ Series

Taking the New Economy by Storm

HITACHI
DATA SYSTEMS

Hitachi Data Systems®—Built for fast times™

Are you ready to succeed in the New Economy?

You'll be ready for success with the Lightning 9900 Series, the most advanced enterprise storage systems available. Specifically designed to meet the challenges of the New Economy, the Lightning 9900 Series won't just prepare you to satisfy customer demand, it will have you conducting business in ways you had previously only dreamed possible.

As your workloads continue to rapidly evolve and expand, so will your need for around-the-clock instantaneous data access. With an information infrastructure based on the Lightning 9900 Series, you can manage the data deluge and provide continuous availability. And you have a choice of storage systems. The 9960's highly sophisticated, exponentially-scalable, and inherently flexible architecture will allow you to accommodate today's data flow and be ready for unpredictable future growth. And the 9910 will help you address smaller capacity applications and critical data protection strategies for which a fast, scalable single unit is clearly the best answer. These choices make way for happy customers *and* an exceptionally high ROI.

Does your current information infrastructure give you a competitive edge? If not, with the Lightning 9900 Series as a foundation, your company will be more efficient, more productive, and more nimble than ever before—and for years to come.

9900

Storage

No Limits

In today's knowledge-based economy, information is central to the successful enterprise. Hitachi Data Systems will help you build an intelligent information infrastructure to provide your enterprise with the availability, scalability, and performance you need to transform data into knowledge. This bulletproof architecture combines our industry-leading enterprise storage and software with Hitachi-developed solutions and strategic alliances. We embrace industry standards and protocols, while capitalizing on advances in storage area networks and storage resource management. With our intelligent information infrastructure, our ability to deliver the "Storage—No Limits" vision is fully realized. Where will it take you? You will acquire a powerful, truly open alternative that allows you to enhance your business agility, improve capital utilization, achieve operational excellence, and minimize risk.

Taking the New Economy by Storm

In the New Economy, business is moving faster than ever. As a result, your company has to drive change faster—make decisions faster, identify customers faster, bring products to market faster, interact with business partners and suppliers faster—to successfully compete in the global marketplace.

In this highly competitive environment, information, and the ability to collect, analyze, and act on it quickly, is the enabler for success. Your information infrastructure needs to deliver 24/7 availability and provide the scalability and performance to withstand the incoming tidal waves of data.

The Hitachi Freedom Storage™ Lightning 9900™ Series is designed specifically to be the foundation for this infrastructure featuring Hi-Star™, a revolutionary internal switched-fabric architecture that delivers unmatched performance and scalability so you can anticipate the rigors of the New Economy.

The Model 9960 allows nearly unlimited storage expansion for the largest enterprise applications and massive consolidation. The Model 9910 is ideal for smaller capacity, application-specific or distributed deployment. Coupled with industry-leading Hitachi Freedom Storage software and services, the Lightning 9900 Series provides business continuity capabilities to ensure seamless backup and rapid recovery, while reducing management complexity and costs.

100% Data Availability—Guaranteed

System downtime is costly—regardless of whether your business is built on bricks or clicks. With no single point of failure, the Lightning 9900 Series supports non-stop business operations. An extremely resilient internal switched-fabric architecture, combined with redundant, on-line replaceable active components, and mirrored cache set the foundation for non-disruptive service, and 24/7 data protection. We are so confident about the Lightning 9900 Series' reliability that we've put our money on it. Hitachi Data Systems is the first to offer a 100% data availability guarantee for enterprise storage. Building on this solid platform, our unique advanced copy software tools—Hitachi TrueCopy, ShadowImage™, and NanoCopy™—plus proven support for GDPS™, further ensure that your Lightning 9900 Series system will keep your business running.

Absolutely Bottleneck-Free

Today's customers, partners, and employees expect instantaneous information access. On the Web, you have four seconds to capture them with a rich media experience, or they're gone—most likely forever. Put simply, if your site is busy, it's unavailable and might as well be down. Your lost opportunities are your competitors' gains. Lightning 9900 systems, powered by the revolutionary Hi-Star architecture, are the world's first truly bottleneck-free enterprise storage systems, supporting "no wait" experiences. What's more, with a fully configured system, the internal bandwidth of the Model 9960 is at least four times faster than any enterprise storage system currently available. This means no costly disruptions of service due to a busy system.

... designed

Managing Growth and Performance

Consolidate and Save

With the Model 9960 you can consolidate several of your current enterprise storage systems into one footprint. This will result in significant savings, not only in initial purchase costs, but also over the lifetime of the system. You will reduce complexity and save on operating and resource costs, while gaining unmatched capacity and performance to support your anticipated business growth. The 9910 is a highly cost-effective system in its own right. It offers a smaller, yet scalable capacity designed to support specific mission-critical applications, *plus* all the speed, reliability, and advanced software functions that only the Lightning 9900 Series can provide.
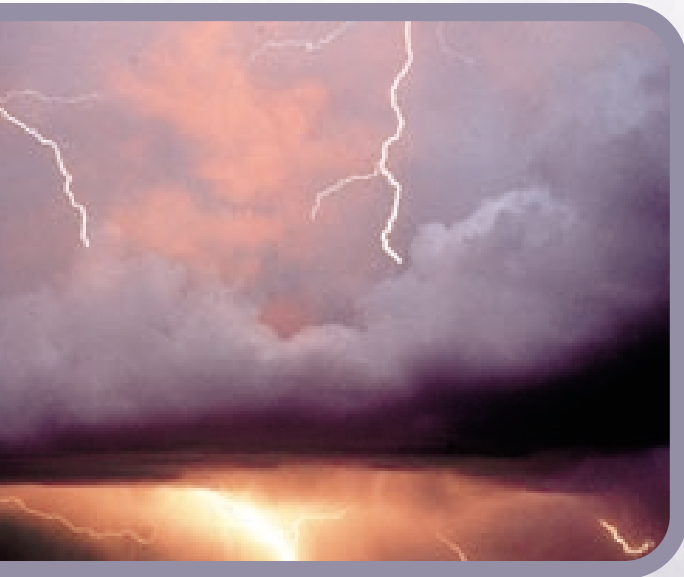
Scale Infinitely Without Slowing Down

Your data is growing exponentially along with your e-business transactions. As your need for capacity increases, both Lightning 9900 systems leverage your initial investment and scale up seamlessly without disrupting your mission-critical business applications. Unlike traditional shared-bus storage systems, the Lightning 9900 Series' Hi-Star internal switched-fabric architecture lets you add capacity without slowing down. This means faster information access and faster conversion of information to knowledge that you can act on. And, more time for you to make decisions.

Maintain Performance Despite Spikes

The New Economy calls for a storage system that can adapt to changing conditions and anticipate spikes in user demand. Beyond the Lightning 9900 Series' bottleneck-free architecture, Hitachi CruiseControl™ provides automatic self-tuning, eliminates "hot-spots" through load balancing, and maintains predetermined performance levels. Further, Hitachi FlashAccess™ brings lightning-fast speed to both Lightning 9900 systems by "locking" (and unlocking) data into cache in real time. Read and write functions are performed at cache speeds without any disk access delays.

SAN Optimized and Ready for NAS

Storage Area Networks (SANs) deliver lasting benefits, from shared pooling and better utilization of storage resources to improved performance, better security, and higher availability. SANs also place new demands on storage systems: switches allow more hosts—possibly hundreds—to access storage ports; I/O rates increase while access becomes more dispersed; and cache hit rates decrease, leading to more data being retrieved directly from disk. From its Hi-Star architecture, all-Fibre backend pathing, and high-performance disks, to its support for World Wide Names, and SAN security, the 9960 is ready to support the largest SAN configurations, including our own Hitachi Freedom SAN™. Plus with attachment of our Freedom NAS™ file server, the Lightning 9900 Series can do double-duty as networked storage—SAN and NAS within the same system. Of course, direct server-attached storage is also an option.

Flexibility for the Dynamic Enterprise

The Lightning 9900 Series can support both open systems and S/390® servers simultaneously, allowing you to choose the optimal server for your applications while gaining a boost in performance and availability from your storage systems. With capacity that scales to over 37TB of raw storage, and memory cache that can grow to 32GB, the 9960 can support the information management demands of today's dynamic, fast growing enterprises—no matter how big your data warehouse, how high your transaction rates, or how many hits your Web site takes. On the other hand, you may be looking for the highest availability, performance, and throughput to apply a distributed strategy for data replication, disaster recovery, or data sharing. If so, the 9910 is the best response to your storage requirements, featuring all the Lightning Series architecture advantages and scalable up to 3.5TB of raw capacity.

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Superlative Service and Support—Ranked Number One

When you partner with Hitachi Data Systems, we're with you every step of the way. Our storage experts provide experienced consultation—backed by comprehensive assessment, planning, and implementation services—to help you develop your enterprise information strategies and deploy your systems. In fact, respondents to recent surveys by FIND/SVP and Wit SoundView placed Hitachi Data Systems *number one in overall service and support as well as technical performance.*

Risk Analysis

Our Professional Services consultants can work with your business continuity planners to fully exploit the capabilities of the 9960 and 9910 storage systems. Our Cost of Risk Analysis methodology (CORA), can help to identify the cost, benefit, and ROI in your computing infrastructure to reduce outage windows and their impact on your business. Our findings and recommendations will be in accordance with your business drivers and in terms that you can take to your executive team.

Data Protection Services

Our Data Protection Services team is trained in architectural analysis, configuration planning, and enterprise assessment. We work with structured methodologies that promote consistent results. Our industry-leading software, Hitachi TrueCopy and ShadowImage based on high-performance Lightning 9900 Series platforms, allows us to implement essential copy solutions. We perform data relocation and migration tasks and establish rock-solid backup and disaster recovery copy facilities to keep your business running. Better still, we eliminate the need for you to allocate staff for these infrequent challenges.

You Can Rest Assured

Once we've installed your Lightning 9900 Series system, we monitor it from our support center and handle the routine system maintenance to keep it running at maximum efficiency. And rest assured that you will continue to have complete access to our honored service and support team throughout the life of your Freedom Storage investment.

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