



Sun and BridgeHead Software Healthcare Enterprise Archive Topology



Healthcare data is growing exponentially — unlike hospital budgets. Regulatory requirements have increased. The need for fast access to medical images and patient records under any condition remains high. To address these challenges, Sun Microsystems and BridgeHead Software have joined forces to create Healthcare Enterprise Archive Topology — HEAT, the intelligent solution for cost-effective long-term retention and compliant management of healthcare data.

Highlights

- A complete data lifecycle management platform
- Centralized healthcare data management for fast, reliable access when it's needed
- Seamless integration with PACS, healthcare information systems (HIS), and medical records systems
- Sun Fire™ servers for outstanding capacity and power efficiency
- Scales from 12 TB to 48 TB (raw) in a single configuration
- Automated to manage data across Sun storage tiers for maximal cost-effectiveness
- Reduce backup windows for medical system servers to raise clinical productivity

Healthcare data management

HEAT provides seamless integration with PACS, HIS, and medical records systems to protect, preserve, and provide centralized access to healthcare data. While the solution provides the “plug and go” convenience of an appliance, it has been designed on a scalable platform that supports your current and future storage requirements. As such, HEAT complements the Sun Open Storage initiative.

BridgeHead intelligent data management policies automatically transition content between Sun disk and tape storage tiers to ensure that data is stored both cost-effectively and in accordance with the access-and-preservation requirements of individual records. As a result, clinicians have constant and reliable access to healthcare data, and because this process is completely transparent to the applications generating the data, hospital IT teams have reduced data management burden.

In addition, all data managed by HEAT is fully indexed and searchable. This means users can search data that originates from numerous sources — all from a single, convenient, Web-based interface. In this way, HEAT enables you to build an electronic health record comprising all the data sources that sit outside your core HIS.

Tiered storage

HEAT provides three storage tiers to support the availability-and-retention requirements of your critical healthcare data. High-performance SAS storage provides quick access when it's needed. Dense, cost-effective SATA storage enables prolonged retention of high volumes of data. Convenient tape storage offers additional protection and the flexibility to store data offline and offsite.

Tier 1: The Sun Fire X4240 server with 16 2.5 in. SAS internal disk drives offers up to 2 TB of internal storage.

Tier 2: The Sun Fire X4540 server with eight cores of AMD Opteron processing and 12 TB, 24 TB, or 48 TB of storage (raw) in 4U.

Tier 3: Small and medium HEAT. Sun StorageTek™ SL48 Tape Library: high-density, highly automated, entry-level tape storage solution. Native capacity of 38.4 TB with a Sun StorageTek LTO4 tape drive.

Tier 3: Large HEAT. Sun StorageTek SL500 Modular Library System: scales from 30 to 575 LTO slots (or 24 to 494 mixed-media slots) with a maximum capacity of more than 460 TB of uncompressed data — more than 40% more capacity than other libraries in this class. The library also enables you to use up to 18 tape drives, with a native throughput rate of more than 7 TB per hour.

Size	Tier 1	Tier 2	Tier 3
Small	Sun Fire X4240 server; x64; two quad-core processors; 16 GB RAM; 6x 146 GB 10,000 rpm 2.5 in. SAS disk	Sun Fire X4540 server; two quad-core processors; 32 GB RAM; 48x 250 GB 7,200 rpm 3.5 in. SATA disk	Sun StorageTek SL48 Tape Library; 48 slots; two LTO4 half-height drives
Medium	Sun Fire X4240 server; x64; two quad-core processors; 24 GB RAM; 8x 146 GB 10,000 rpm 2.5 in. SAS disk	Sun Fire X4540 server; two quad-core processors; 32 GB RAM; 48x 500 GB 7,200 rpm 3.5 in. SATA disk	Sun StorageTek SL48 Tape Library; 48 slots; four LTO4 half-height drives
Large	Sun Fire X4240 server; x64; two quad-core processors; 32 GB RAM; 16x 146 GB 10,000 rpm 2.5 in. SAS disk	Sun Fire X4540 server; two quad-core processors; 32 GB RAM; 48x 1,000 GB 7,200 rpm 3.5 in. SATA disk	Sun StorageTek SL500 Modular Library System; 50 slots; eight LTO4 half-height drives

Learn More

To learn how much storage space — and money — you can save by automatically moving older, static data off of your primary storage tier, download the free data analysis tool at: bridgeheadsoftware.com/sunheat.

Features

- Preconfigured appliance with all the hardware and software required for long-term healthcare data management
- 12 TB to 48 TB of online storage, with virtually unlimited offline storage, all controlled and managed by BridgeHead Software
- Full self-protecting — automatic backup of metadata; archived content is held in multiple storage systems and locations simultaneously
- Optional active file archiving with seamless stubbing for existing Microsoft Windows and Linux file systems
- Available full DICOM storage class server (SCP and SCU) and HL7 interface to integrate with any PACS systems that support third-party DICOM archive

Benefits

- Low TCO achieved by tiered storage, easy implementation, and rapid adoption
- Self-protecting system reduces backup headaches
- Archiving is transparent to applications and end users; does not impede normal workflow
- Standards-based interfaces (e.g., DICOM and HL7) facilitate integration with existing systems
- Fully indexed and searchable content support building an electronic health record from data sources external to the core HIS
- Upwardly scalable, so it fits your current and future strategy

BridgeHead and Sun

The HEAT solution powered by BridgeHead Software delivers results. Clinicians have constant and reliable access to healthcare data. Hospital IT teams have reduced management burden. Hospitals spend less on healthcare data management.

Sun in healthcare

Sun aims to “enable the eHealth enterprise” with our vision of the future, showing a world where technology comes to the aid of everyone — not just patients and practitioners but also labs, clinics, hospitals, insurers, and administrators. We see the healthcare enterprise of tomorrow as a single, integrated community, a place where patient information flows seamlessly across departments, facilities, regions, and even nations through a secure, cost-efficient network. With our healthcare partners, we’re making that vision a reality.



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