Boston Igloo 2U-19T-Stor

The Boston Igloo 2U-19T-Stor addresses the needs of enterprise users looking for a high capacity, unified NAS and SAN system. It is a fully redundant and fault-tolerant solution with unlimited scalability and high performance, at the same time providing back-end storage for virtualization and backup.

The Boston Igloo 2U-19T-Stor is capable of running large workloads delivering high-bandwidth and industry-leading Ethernet connectivity for Enterprise Datacentre, High Performance Computing, and Embedded environments. For greater capacity, the Supermicro chassis is equipped with 24 x 2,5" hot-swap SAS/SATA HDD/SSD bays. A total of 18TB of SAS HDD capacity – for ultra-fast, low power SAS storage.

Suitable applications:

- **NAS Server**
- **iSCSI SAN**
- **Enterprise Data Center**
- **Cloud Infrastructure**
- **Virtualisation Storage**

With the Boston Igloo 2U-19T-Stor you can take advantage of the ZFS on Linux architecture and easily manage storage resources with intuitive navigation, predefined profiles and scriptable CLI / API. Unlike traditional infrastructures, the Boston Igloo 2U-19T-Stor allows for integrating with VMware, Citrix and Microsoft Hyper-V environments.

> Enhanced storage performance
> Optimal resource utilization
> Flexible scalability
> Simplified management
> Thin provisioning
> In-line data deduplication
> Tiered RAM and SSD Cache
> Unlimited number of snapshots
> and clones

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Boston Igloo 2U-19T-Stor

Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity; while also being fast, affordable and include reliable support. This is exactly what **Boston Igloo 2U-19T-Stor** has to offer. It is an innovative Hybrid Storage System which fuses the capacity of HDDs with the performance of SSDs in a single solution that offers high performance while lowering cost. Additionally, by leveraging capacity optimization technologies and advanced tiered SSD and RAM caching, **Boston Igloo 2U-19T-Stor** provides an overall efficiency boost and increased cache performance. On top of that, powerful tuning tools allow the system to optimize on I/O heavy databases or high throughput video editing equally well and predefined profiles save annoying testing time.

Optimal resource utilization

Boston Igloo 2U-19T-Stor fully utilizes your storage resources thanks to many high-end features included in Open-E JovianDSS. These features are especially crucial when deploying virtual 2 environments. With deduplication and compression you are able to virtually increase your storage size and use thin provisioning to easily grow physical storage capacity without downtime. More efficient use of disk space also allows for longer disk retention periods. Tiered caching will allow reaching high performance values from all disks which can be managed and monitored in **Boston Igloo 2U-19T-Stor.** This server fully leverages Hybrid Storage, combining high performance and high capacity at an affordable price.

Flexible scalability

The **Boston Igloo 2U-19T-Stor** will let you experience unlimited flexibility and minimize unappreciated downtime. JovianDSS uses a 128-bit file system that includes unlimited snapshots for easy backup, unlimited clones for sharing Snapshot content - with volume sizes up to one Zetabyte, as well as unlimited amount of disks which can be increased on the fly without effort by using thin provisioning. There are no limitations and you may easily control the total cost of ownership and expand your storage infrastructure as data grows.

Simplified management

Managing Open-E JovianDSS and its extensive features is easy and intuitive compared to many competing solutions on the market. The WebGUI provides a quick overview and management of all storage resources and features. After extensive analyses of storage usage and user interaction the clicks per step in each functionality have been reduced to a minimum, i. e. in creating iSCSI targets or when expanding the size of your storage. This way, you are able to quickly and easily manage **Boston Igloo 2U-19T-Stor** with Open-E JovianDSS, barely involving actions of a storage administrator.

Versatile storage server for all situations

Thin provisioning

Boston Igloo 2U-19T-Stor uses thin provisioning to improve your storage utilization by allocating just the exact amount of server space at the time it is required. You'll eliminate the cost of unused storage space and never again have to pre-allocate storage up front and buy too much hardware. In **Boston Igloo 2U-19T-Stor** there is no need for evaluating storage requirements and take the risk of rebuilding the entire system when it runs out of space. With this system it is easy to manage storage capacity and set notifications when physical space shrinks. This is a highly scalable solution, just add physical disks as your data grows.
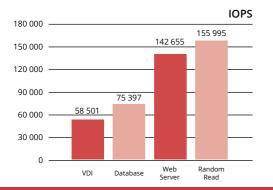
In-line data deduplication

The in-line deduplication feature on JovianDSS based **Boston Igloo 2U-19T-Stor** removes redundant data and minimizes your storage capacity usage. The software checks each block for redundancy in the system and if it finds a match - the new block isn't written; instead, a shortcut leading to the original block is created. Such a system can reach a deduplication ratio of 3:1 or more, which means that if you place 3 TB of data on **Boston Igloo 2U-19T-Stor** it will only use 1TB of physical disc space. This feature is especially interesting for highly repetitive data, i.e. in VDI, server virtualization or backup, where much higher deduplication ratios can be reached.
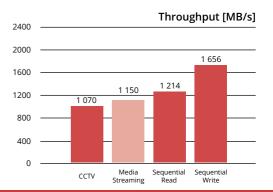
Tiered RAM and SSD Cache

JovianDSS based **Boston Igloo 2U-19T-Stor** works as a tiered storage solution - dramatically speeding up access to frequently accessed files. It uses a caching algorithm to cache "often used" and "recently used" data separately, and provides the best performance for your storage by tiering hot data between RAM and SDD Cache. In **Boston Igloo 2U-19T-Stor** data is always saved on HDDs and only Hot Data is stored in RAM and SSD, to ensure data safety and increase performance.

Unlimited number of snapshots and clones

Every **Boston Igloo 2U-19T-Stor** allows an unlimited number of snapshots and clones - greatly simplifying back-ups, replications and data recreation in case of accidental deletes and viruses. Snapshots are read-only points in time and allow to easily roll-back. They are a must-have option for effective disaster recovery scenarios and in **Boston Igloo 2U-19T-Stor** you may schedule snapshots for months, weeks, hours or even minutes. Whereas, a clone is a writable copy of a snapshot and allows to easily duplicate virtual machines and provides scalibility for virtual networks - instantly and without the necessity of coping data.

IOPS

Category	Value
VDI	58 501
Database	75 397
Web Server	142 655
Random Read	155 995

Throughput [MB/s]

Category	Value
CCTV	1 070
Media Streaming	1 150
Sequential Read	1 214
Sequential Write	1 656

Details

Hardware information

	Default configuration	Options
CPU	2 x Intel® Xeon® 8-core Processor 2.00GHz	High-frequency options available
RAM	64 GB DDR3 1600 MHz	Up to 256GB
RAW Capacity	20 TB	Scalable to petabytes
Read Cache	200 GB	Scalable to up to <1TB
Write Log	200 GB	-
Hard drive Interface	SAS 6 Gb/s	-
Network Interface	2 x 1 GbE (Copper) 2 x 10 GbE (Fibre)	Additional 10GbE Base-T or SFP+ ports available
Form Factor	2U Rack (16.93" x 27.95" x 3.44")	-
Weight	Will be done by Open-E	-
Power	2 x 750W AC PSU	-
Fan	3 x Redundant and hot-swap cooling fans	-
Power Consumption	Will be done by Open-E	-

About Boston Limited

Boston Limited has been providing first-to-market technology to a diverse client base since 1992. In 1994, Boston became the first company to bring Silicon Valley-based Super Micro Computer, Inc. (NASDQ: SMCI) to Europe, reselling their high-performance, energy efficient motherboards, chassis and server systems. Since then Boston has become one of Supermicro's most respected technology partners and a world renowned systems integrator, designing our own award-winning range of server, storage and workstation solutions.

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About Open-E

Open-E is a well-established developer of IP-based storage management software. Open-E JovianDSS and Open-E DSS V7 are robust, award-winning enterprise storage applications which offer excellent compatibility with industry standards, and are the easiest to use and manage. Additionally, they are some of the most stable solutions on the market and undisputed price/performance leaders. Open-E accounts for over 27,000 installations world-wide and has received numerous industry awards and recognition. Thanks to our reputation, experience and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies.

For further information about Open-E, its products and partners, visit **http://www.open-e.com/**

About the Open-E JovianDSS Server Certification

Open-E JovianDSS delivers software-defined storage which results in a wide variety of different hardware requirements such as performance range, capacity capability, and connectivity. To ensure compatibility and robust storage environments, all selected partners offer storage systems which are tested, benchmarked and certified by Open-E. This way, customers are able to use solutions that require exceptional security and redundancy, without compromising performance.