Defend IT Ares64i

Through our expanded product portfolio, Defend IT is able to showcase a budget orientated entry level storage solution in the Ares 64i Single Node. Open-E certified, the Ares 64i Single Node is also an really efficient storage system.

Ares 64i offers a reliable enterprise grade storage and can be configured according to customer needs. To ensure the greatest possible flexibility, the server can be configured as a NAS- and SAN system.

The default configuration of Ares 64i includes onboard 10GbE network card, a powerful Intel® Xeon® Processor E3-1240 v6 @3.70GHz that contributes to smooth workflow. Unlimited options to architect allow differentiation of data storage environments, such as when iSCSI, FC and NFS, SMB (CIFS) client protocols are given. Various expansion options in terms of storage or high availability are possible. SAS or Metro clusters can be implemented without interruption during production.

Ares 64i is supplied exclusively by Defend IT as a turnkey, pre-configured solution. Ares 64i includes integrated backup and disaster recovery. The system does allow for local or remote options. Our mission: Individual system solutions and consulting services tailored to customer infrastructure.

Defend IT would appreciate the opportunity to showcase the true value of this technology and our commitment to client support.

- Guaranteed data protection
- Enhanced storage performance
- Optimal resource utilization
- Flexible scalability
- Simplified management
- Optimized for Private Cloud
- Optimized for Data Centers

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Defend IT Ares64i single node

**Guaranteed data protection**

Data is your most important resource. This is why the Open-E JovianDSS-based Ares64i includes several mechanisms for data protection. Automatic and scheduled multi-layer data integrity checks ensure data consistency, while unlimited snapshots and clones make it easy to implement a disaster protection strategy and to instantly roll back to a previous point-in-time. At the same time, a scheduled self-healing mechanism fixes malfunctions and automatically restores full data redundancy in the system. Even when a disk fails, the software-based spare function offers one disk to several RAID arrays, saving you money on extra hardware without compromising data safety.

**Optimal resource utilization**

Ares64i fully utilizes your storage resources thanks to many high-end features included in Open-E JovianDSS. These features are especially crucial when deploying virtual 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 Ares64i. This server fully leverages hybrid storage, combining high performance and high capacity at an affordable price.

**Enhanced storage performance**

Nowadays, enterprise storage has to provide big capacity while also being fast, affordable, and include a reliable support. This is exactly what Ares64i has to offer. Open-E JovianDSS-based Ares64i is an innovative hybrid storage system fusing the capacity of HDDs with the performance of SSDs in a single solution that offers high performance while lowering cost. By leveraging capacity optimization technologies and advanced RAM caching, Ares64i 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.
Defend IT Ares64i single node

Flexible scalability

The Ares64i will let you experience unlimited flexibility and minimize unappreciated downtime. Open-E JovianDSS uses a 128-bit file system that includes unlimited snapshots for easy backup, unlimited clones for easy duplication, unlimited capacity 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 Ares64i with Open-E JovianDSS, barely involving actions of a storage administrator.

Optimized for Private Cloud

A private cloud combines flexibility and scalability of a public cloud with the isolation and security required by many large organizations, since the storage system is located at your desired location. It is an ideal solution for service providers (MSPs), independent software vendors (ISVs), and resellers that manage resources for their end users. With Ares64i, you get to design your own redundant environments and can easily distribute access to resources across various teams in your organization. It is a very secure solution that gives you total control over your data and allows you to grow as your company grows.

Optimized for Data Centers

The Ares64i is optimized for the modern data center and ready for compute-intensive applications that involve big data, intensive virtualization workloads and higher-density server configurations. The server allows administrators an intuitive management of storage infrastructures and maintaining continuous operations during updates or refreshes. By choosing Ares64i, you benefit from flexible CPU power, networks running 1, 10 or 40 Gb Ethernet, as well as knowledge and experience of Defend IT in Ares64i and developing servers specialized for a datacenter.

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**Graphs:**

**IOPS**

- Random Read: 392,906
- VDI: 204,299
- Database: 167,028
- WEB server: 208,501

**Throughput [MB/s]**

- Fileserver: 1,415.69
- 50/50: 1,317.6
- Database: 1,304.91
- Media streaming: 1,263.44

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**Images:**

- Ares64i server
- WebGUI interface

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**Web:**

www.defendit.de
## Hardware details

<table>
<thead>
<tr>
<th>Default configuration</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motherboard</strong></td>
<td></td>
</tr>
<tr>
<td>Supermicro MBD-X11SSH-CTF-O</td>
<td></td>
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<tr>
<td><strong>CPU</strong></td>
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</tr>
<tr>
<td>1x Intel® Xeon® Processor E3-1240 v6 3.70GHz</td>
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</tr>
<tr>
<td><strong>RAM</strong></td>
<td></td>
</tr>
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<td>4x 16GB Samsung M391A2K43BB1-CTD</td>
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</tr>
<tr>
<td><strong>Storage raw capacity</strong></td>
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<tr>
<td>96TB</td>
<td>Up to 432TB</td>
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<tr>
<td><strong>HDDs</strong></td>
<td></td>
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<tr>
<td>12x 8TB Toshiba MG06SCA800A</td>
<td>36x 12TB Toshiba MG07SCA12TE</td>
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<tr>
<td><strong>Read cache</strong></td>
<td></td>
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<tr>
<td>-</td>
<td>Available</td>
</tr>
<tr>
<td><strong>Write log</strong></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>Available</td>
</tr>
<tr>
<td><strong>Hard drive interface</strong></td>
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<tr>
<td>1x Supermicro AOC-S3008L-L8e (onboard)</td>
<td>Available</td>
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<tr>
<td><strong>Network interface</strong></td>
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<td>1x Intel® Ethernet Converged Network Adapter X550T</td>
<td>Available</td>
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<td><strong>Form factor</strong></td>
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<tr>
<td>2U</td>
<td>up to 4U</td>
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## About DefendIT

Defend IT - Stefan Pata is an independent system integrator of outstanding optimized server solutions. IT Service made in Bavaria – Germany – since 2001.

His expertise focuses on data management with high availability clusters, storage design, implementation, support, cyber security, and remote monitoring to ensure the perfect operation of IT infrastructure in all environments.

As a former trainer of the Open-E Certified Engineer for Open-E JovianDSS, he has a profoundly deep knowledge that is trusted and valued by SME’s as well as by large companies. Furthermore, based on many years field-proven experience of data storage and cyber security, Defend IT is capable of developing customized solutions accompanied by outstanding service for our customers. Such service includes individual installations of Open-E JovianDSS, along with technical training and workshops in a complete offering.

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## About Open-E

Open-E, founded in 1998, is a well-established developer of IP-based storage management software. Its flagship product Open-E JovianDSS is a robust, award-winning storage application which offers excellent compatibility with industry standards, and is the easiest to use and manage. Additionally, it is one of the most stable solutions on the market and undisputed price performance leader.

Thanks to its reputation, experience and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies. Open-E accounts for over 37,000 installations world-wide and has received numerous industry awards and recognition, also with its product Open-E DSS V7.

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

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## Partner Contact

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<thead>
<tr>
<th>Stefan Pata</th>
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</thead>
<tbody>
<tr>
<td>Pförrenstr. 13</td>
<td>Website: <a href="https://www.defendit.de">https://www.defendit.de</a></td>
</tr>
<tr>
<td>86845 Großaitingen</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
</tbody>
</table>

## 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.