d&d ict solutions
Complete ICT support for businesses

open-e

D&D ICT Solutions

Pointer Systems Blackney 4 SS – R710 ZFS Series

Organizations continue to have immense and unique storage requirements and a lot of times they are not sure which storage platform is best for them. Regardless of your storage requirements, **Pointer Systems Blackney 4 SS – R710 ZFS Series** powered by Open-E JovianDSS is a powerful storage platform tailored exactly to fit your needs.

This certified solution was designed to exceed in a wide range of configurations and tested with the fastest available high-end components – achieving great stability and high levels of performance. This is not only useful for enterprise environments but can be adapted for high performance VDI, virtualization or more low demanding usages, such as backup or disaster recovery. No matter if you need a top configuration or a base platform, rest assured knowing that this certified solution can handle your specific workload.

- **Adaptable to any needs**
- **Tested with high-end components**
- **Easy to scale**
- **Build-to-order**
- **Professional expertise**

D&D ICT Solutions is able to offer a professional support with its JovianDSS Certified Engineers. This strategy allows us to ensure that you are supported on every step of the way: from the initial installation to daily business.

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

www.dddistribution.be

Pointer Systems Blackney 4 SS – R710 ZFS Series

> " We're in agreement with Open-E and Intel that as big data and the Internet of Things become part of everyday business, the need for robust cloud storage will be ever more important. For this reason, we're continuing to work together to develop new solutions and investigate new technologies."
>
> *Kris De Smet, Technical Manager D&D ICT Solutions*

Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity; while also being fast, affordable and include reliable support. This is exactly what **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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, **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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

Pointer Systems Blackney 4 SS – R710 ZFS Series 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series.** This server fully leverages Hybrid Storage, combining high performance and high capacity at an affordable price.

Flexible scalability

The **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** with Open-E JovianDSS, barely involving actions of a storage administrator.

Versatile storage server for all situations

> " We have a great three-way collaboration model, where we work with engineers from Intel and Open-E to ensure all the technologies work seamlessly together to deliver the best performance and availability. This way, we can be confident that when we come to design a new solution for a reseller's end customer, it's going to be robust and long-lasting."
>
> *Kris De Smet, Technical Manager D&D ICT Solutions*

Data integrity check

The **Pointer Systems Blackney 4 SS – R710 ZFS Series** storage system effectively detects data corruption, as even minor integrity violations could cause loss of data. **Pointer Systems Blackney 4 SS – R710 ZFS Series** ensures reliability by checksumming individual blocks of data and once faulty blocks have been detected – they are automatically rewritten. If the same error is found several times - the data blocks are moved to different parts of the HDD. Each read/write is checked automatically plus you can schedule to perform checks on not accessed blocks. All actions are done in atomic writes to ensure consistency of your data and to reduce data loss, even during power cuts.

Thin provisioning

Pointer Systems Blackney 4 SS – R710 ZFS Series 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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.

Data compression

The JovianDSS-based **Pointer Systems Blackney 4 SS – R710 ZFS Series** offers data compression for minimizing your storage capacity usage. Smaller data blocks means that the system can read and write quicker, ultimately boosting performance and taking less space on your storage. In **Pointer Systems Blackney 4 SS – R710 ZFS Series** You will find resource-friendly compression protocols (lz4) with low system resource utilization at medium compression rates, but also protocols that are able to achieve very high rates for archiving or backup (as gzip-9). Compression in combination with deduplication, virtualization or high availability solutions further reduce acquisition costs, power and cooling costs, and rack space throughout system lifecycle.

In-line data deduplication

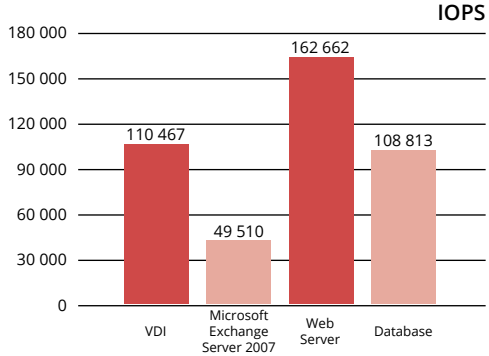
The in-line deduplication feature on JovianDSS based **Pointer Systems Blackney 4 SS – R710 ZFS Series** removes redundant data and minimizes your storage capacity usage. The software checks each block for redundancy in the system and if it finds a match - the new block isn't written; instead, a shortcut 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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.

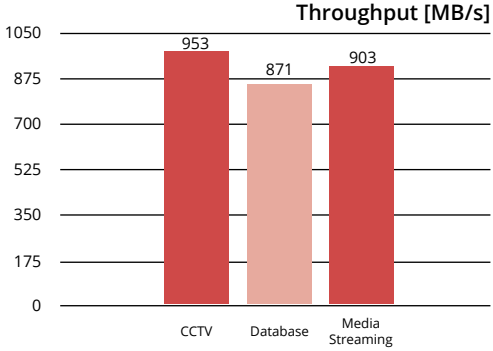
Tiered RAM and SSD Cache

JovianDSS based **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** allows an unlimited number of snapshots and clones - greatly simplifying backups, 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 **Pointer Systems Blackney 4 SS – R710 ZFS Series** 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.





Details

Hardware information

	Default configuration	Options
CPU	2 x Intel® Xeon® E5-2690v2 10-core processor 3.0GHz	up to 12-core Intel® Xeon® E5-2600v2 series processors
RAM	128 GB DDR3 Registered ECC	up to 768 GB
RAW Capacity	20 TB	up to 3 extra JBODs with 3.5" or 2.5" HDD/SSDs
Read Cache	400 GB	200 GB – 800 GB
Write Log	200 GB	200 GB – 800 GB
Hard drive Interface	SAS 6 Gb/s	-
Network Interface	4 x 1 GbE Intel® I350 (Copper) 2 x 10 GbE Intel® X520 (Fibre)	up to 4 PCIe expansion slots available for extra 1 GbE and/or 10 GbE network connections (Copper and/or Fibre available)
Form Factor	2U Rack (16.93" x 27.95" x 3.44")	-
Weight	18.1 kg	-
Power	2 x 750W AC Platinum Certified PSU	-
Fan	5 x redundant and hot-swap cooling fans	-
Power Consumption	251W (idle) 411W (load)	-

About D&D

D&D ICT Solutions, a division of D&D Distribution, is a Belgian system builder and solution provider, specialized in building and providing best-in-class server and storage solutions, using the right components as well as expertise to meet each customer's needs. We rely on industry standards, latest technologies and know-how to provide a stable and custom-built platform under our brand name Pointer Systems. With 25 years of experience, our certified technical staff is offering excellent service and support to ensure the highest possible reliability and quality. For further information about D&D Distribution, its solutions and partners, visit **http://www.dddistribution.be/**

Contact us:

D&D Distribution C.V.B.A.
Oostjachtpark 6A
9100 Sint-Niklaas
Belgium

Email: servers@dddistribution.be
Website: www.dddistribution.be / www.ddict.be
Tel.: +32 (0)3 780.20.82
Fax: +32 (0)3 707.07.01

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.