Abakus

Open source
storage system

**Powerful, reliable, fast,
efficient and secure**

Why choose Abakus plus?

About Abakus plus

Abakus plus is a leader in implementing Oracle's newest products on the market. A company specializing in building High Availability systems for Oracle and Open Source Systems infrastructure. Building its own brand of InfiniBand and Ethernet SAN storage systems, clustering and/or virtualization nodes, backup servers using the latest technologies available. If you are looking for top quality products and excellent support, look no further. Abakus plus is the right partner for you.

What does Abakus plus do?

Develops innovative solutions and products for Oracle infrastructure.
Builds the most performance demanding database systems.
Maintains and supports Linux operating systems.
Optimizes and maintains Oracle databases.
Builds high availability systems.
Provides training in its fields of specialization.

Open source storage systems

Abakus storage systems are open, straightforward and efficient.

Abakus storage systems are built on top of open standards philosophy. Open source software is used and systems are built using commonly accesible hardware components.

Abakus storage systems feature:

1

FUTUREPROOF DESIGN
Generic hardware components are used, which are widely available on the market. Ability to adapt to newer technologies (100Gb Ethernet or InfiniBand, CEPH, ...).

2

EXTREME SCALABILITY
Scale disks, racks or even make your systems geo-redundant. Use different disks (HDD and SSD), RAID arrays (all RAID levels), network technologies (iSCSI, Ethernet or InfiniBand).

3

FLEXIBLE WARRANTY
At the end of warranty period systems can be renewed and warranty period can be extended.

Powerful

Up to 500 disks can be used in a single storage system. One system can include a variety of disks from different vendors and even different technologies (SATA, SAS, SSD or PCIe).
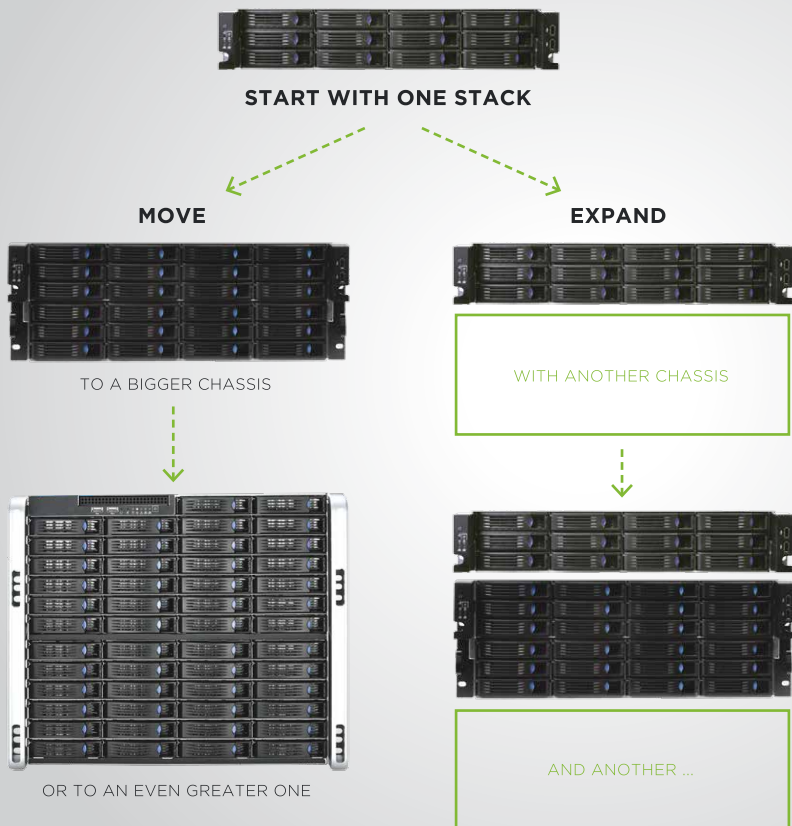
Most powerful configurations support up to 100 Gb Ethernet or InfiniBand network infrastructures, providing higher throughput than currently fastest commercially available Fibre Channel solutions.

Besides superior network specifications, InfiniBand also introduces RDMA (Remote Direct Memory Access) that enables high-throughput and low-latency networking, therefore being especially useful in massively parallel computer clusters.

Scalable and modular

You can scale Abakus storage systems exactly to your needs.

START WITH ONE STACK

MOVE

TO A BIGGER CHASSIS

OR TO AN EVEN GREATER ONE

EXPAND

WITH ANOTHER CHASSIS

AND ANOTHER ...

Reliable, available, disaster tolerant

Build disaster tolerant infrastructure affordably.

Disaster tolerant systems are built as clusters of multiple servers that operate in parallel and simultaneously. Those servers are geographically distributed with displacements ranging up to hundreds of kilometers. If a single server fails system continues to function without interruption.
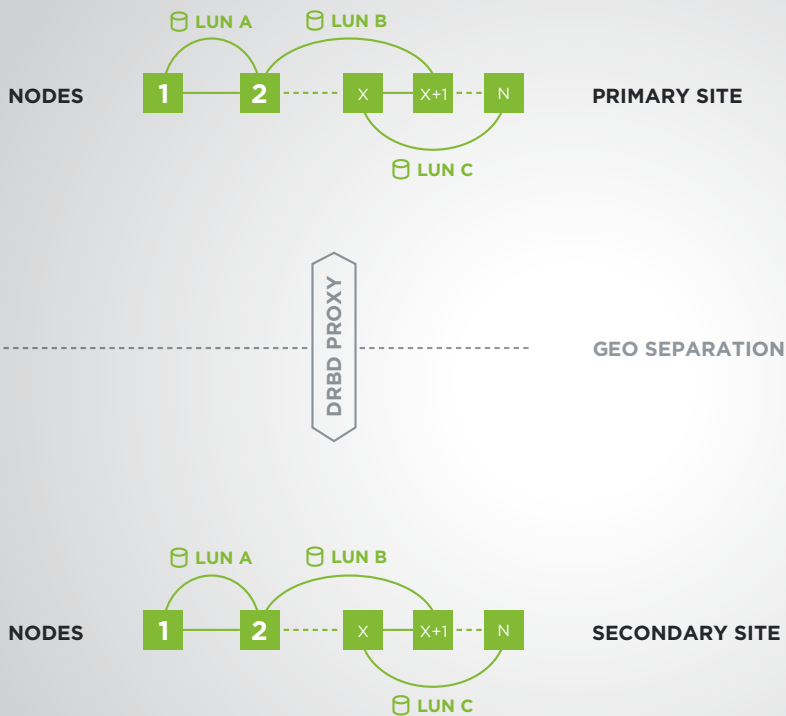
Competition speaks about of disaster recovery, but using Abakus plus storage systems disaster consequences can be avoided completely and recovery becomes obsolete.

Data synchronization is achieved using DRBD. This technology does not require expensive dedicated network infrastructure for data synchronization, because data can be synchronized over Internet.

DR:BD®

Geographically redundant

Geographical redundancy is supported natively.

NODES   1 — 2 --- X — X+1 --- N   **PRIMARY SITE**

LUN A   LUN B   LUN C

DRBD PROXY   **GEO SEPARATION**

NODES   1 — 2 --- X — X+1 --- N   **SECONDARY SITE**

LUN A   LUN B   LUN C

Secure

Using Abakus storage systems you do not have to worry about your data, because it will be kept safe using the following security features:

MANAGEMENT
over secure protocols

ISCSI
CHAP authentication option

IPSEC
data encryption option

SLA
with full system access and configuration disclosure

Features

Abakus storage systems come packed with features.

✓ All RAID levels are supported.

✓ System can be configured and upgraded during operation.

✓ HW components that fail most often can be replaced during operation (disks, power supply units, fans).

✓ Network enabled data mirroring between different storage systems (asynchronous, synchronous and even bidirectional synchronous).

✓ Snapshots provide consistent data copies during system operation and can be used to provide testing, development or preproduction environments.

✓ Can function as SAN or NAS.

✓ Data deduplication is used to reduce amount of disk space required to store data.

✓ Thin provisioning for optimizing utilization of available storage.

All-flash storage systems

Extreme performance for demanding environments.

In addition to hybrid systems that use a combination of HDD and SSD drives within a single system, all-flash storage systems can be built as well.

All-flash storage systems are stand-alone storage arrays or appliances comprised entirely of solid-state storage media, with no hard disk drives.

These systems are designed to either augment performance for an environment that includes spinning disk arrays or to replace traditional hard disk storage arrays altogether.

Feature comparison and references

Abakus storage systems compared to commonly used storage systems.

Feature	ABAKUS STORAGE SYSTEMS	COMMONLY USED STORAGE SYSTEMS
Software architecture	Open source SW	Proprietary SW
Hardware architecture	Generic HW	Proprietary HW
Bandwidth capability	Up to 100 Gb/s Ethernet or InfiniBand	Up to 16 Gb/s Fiber Channel
Hardware compatibility	No restrictions	Vendor specific hardware
Replacement parts cost	Low – generic hardware	High – vendor specific
Geo-redundancy	Out of the box	Licensed separately

Iskra

Gorenjska Banka

Aerodrom Ljubljana

DELO PRODAJA

HRANILNICA LON

Mestna občina Ljubljana

MESTNA OBČINA KOPER
COMUNE CITTÀ DI CAPODISTRIA

PSIHIATRIČNA KLINIKA LJUBLJANA
UNIVERSITY PSYCHIATRIC HOSPITAL

Abakus plus information engineering d.o.o.,
Ljubljanska cesta 24a, Kranj, Slovenia

Homepage: www.abakus.si
E-mail: abakus@abakus.si
Phone: +386 4 287 11 00
Fax: +386 4 287 11 05

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