

# Cloud storage in your datacenter

## Object, block and file system storage in a single storage cluster



### Ceph storage at a glance

- You can use Ceph for free, and deploy it on commodity hardware, keeping hardware expenses lower.
- Ceph replicates data and makes it fault tolerant.
- The system is both self-healing and self-managing by design.
- Proven Enterprise grade technology since 2011.
- Endlessly scalable and agile by design. The only limits to size and speed of your storage cluster is the hardware.
- Supported by major vendors and several service models possible, to guarantee uptime.
- Integrates object, block and file storage in a single unified storage cluster.
- Build as you grow: You can grow the cluster while migrating virtual machines, keeping the initial investment interesting enough.

### Storage growth for the coming years

The International Data Corporation (IDC) has released a report on the ever-growing collective world's data, a.k.a. the datasphere. Numbers are staggering: the IDC predicts that the collective sum of the world's data will grow from 33 zettabytes this year to a 175ZB by 2025, growing at a yearly rate of 61%.

Decimal	
Value	SI
1000	10 <sup>3</sup> k kilo
1000 <sup>2</sup>	10 <sup>6</sup> M mega
1000 <sup>3</sup>	10 <sup>9</sup> G giga
1000 <sup>4</sup>	10 <sup>12</sup> T tera
1000 <sup>5</sup>	10 <sup>15</sup> P peta
1000 <sup>6</sup>	10 <sup>18</sup> E exa
1000 <sup>7</sup>	10 <sup>21</sup> Z zetta
1000 <sup>8</sup>	10 <sup>24</sup> Y yotta

Some other remarkable stats for the year 2025 are:

- The storage industry will ship 42ZB of capacity over the next 7 years.
- 90ZB of data will be created on IoT devices by 2025.
- By 2025, 49% of data will be stored in public clouds.
- 30% of data generated will be consumed in real-time by 2025.

### Cloud datamanagement

To facilitate this growth, companies look at ways to store their data safely and effectively. But more over, ways to improve management of ever growing datasets. A great way to start this is by adopting cloud storage solutions in your own infrastructure. Integrating object, block and file storage in a single unified storage cluster while simultaneously delivering high-performance and infinite scalability.

### Ceph

Ceph is the storage solution that provides applications with object, block, and file system storage. All in a single unified storage cluster. It is flexible, highly reliable and easy to manage. Ceph storage is scalable for thousands of client hosts accessing petabytes of data. Applications can use any of the system interfaces to the same cluster simultaneously, which means your Ceph storage system serves as a flexible foundation for all of your data storage needs.



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*“Ceph Storage is an open, massively scalable storage solution for our current workloads such as our cloud infrastructure, data analytics and media repositories”.*

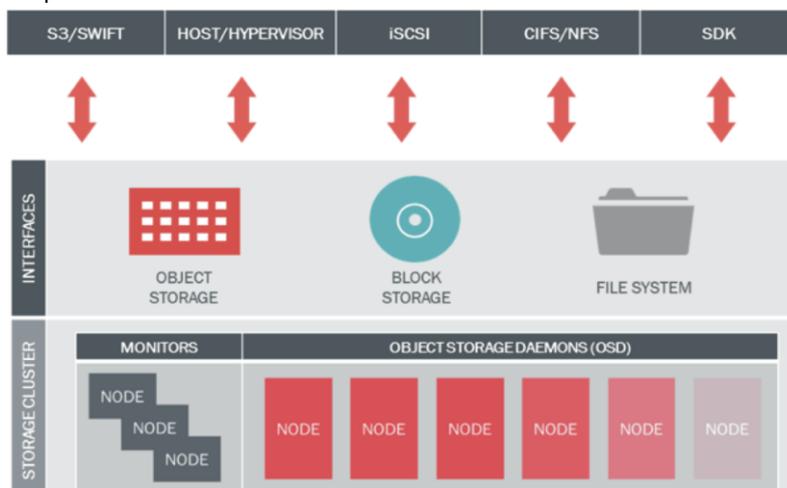
*“The main reason we choose for building a Ceph cluster was because our current storage SAN solution was ‘end of life’. Because of the ending service contract we were pressurized in making a decision for a new system. With the current growth in data, this way of working was no longer preservable for us. Because of this we choose to free ourselves from the expensive lock-in of proprietary, hardware-based storage solutions”.*

*“In the past every business decision we made had financial impacts on the SAN cluster. With Ceph we have unlimited growth possibilities on commodity hardware”.*

*“Fairbanks delivers managed services on our Ceph cluster, so that we do not have to worry about the uptime and can focus on developing business value to our customers”.*

### Scale out on commodity hardware

Ceph decouples the storage software from the underlying hardware. This enables you to build much larger storage clusters with less effort. You can scale out storage clusters infinitely, using economical commodity hardware, and you can replace hardware easily when it malfunctions or fails. If your cloud journey is going to be hybrid: Ceph integrates with private as well as public clouds like AWS and Azure. The following picture shows an overview of the Ceph services:



### Want to know more?

Do you want to know how Ceph can add value to your storage infrastructure, please contact our expert and support center at [info@fairbanks.nl](mailto:info@fairbanks.nl), <http://www.fairbanks.nl/> or + 31 (0)33 - 450 85 85.

### About Fairbanks

Fairbanks provides managed services, consulting, support, implementation, optimization, managed services, troubleshooting and training services for Open Infrastructure cloud solutions. With managed services Fairbanks makes sure that companies can focus on their core business and don't have to worry about their own cloud infrastructure.



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