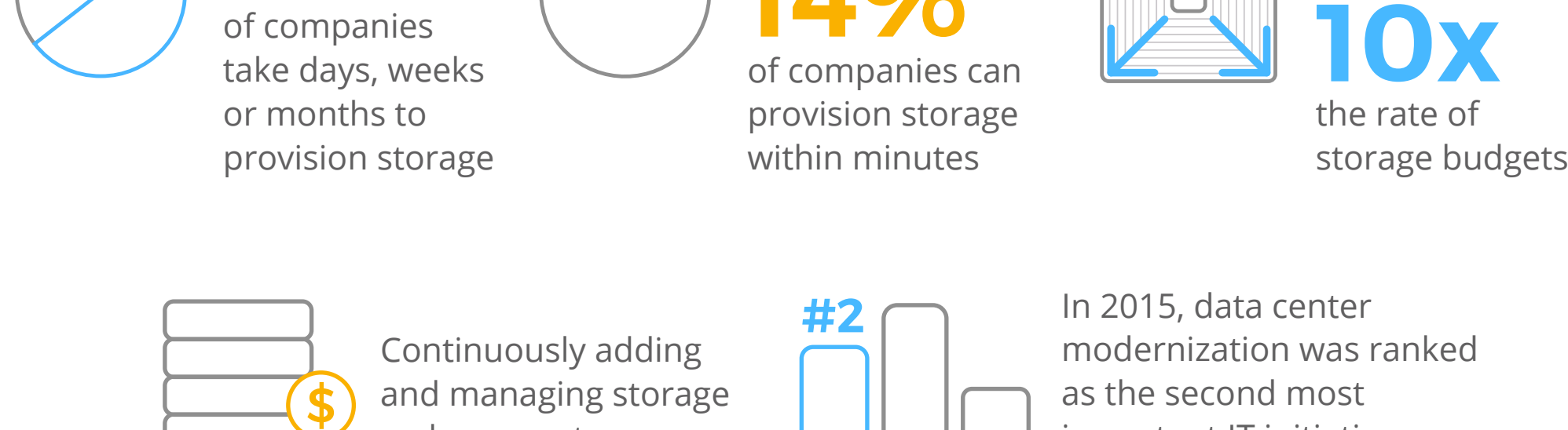




How To Choose the Right Architecture for a Modern Datacenter

The need for efficient storage and application compute is undeniable – and not just for larger companies like Facebook and Google. Traditional storage is no longer keeping up with the volume of data and the demand for workloads for enterprises, leading to the inception of hyperconverged and hyperscale storage approaches. Customers who come to Hedvig looking for an appropriate storage solution for their business have the option to choose either **Hyperconverged** or **Hyperscale**.

Traditional Storage Doesn't Keep Pace.



Two Approaches - Hyperconverged & Hyperscale

Hyperconverged

An IT infrastructure framework that integrates application compute and storage in one unit designed to scale out by adding more units.

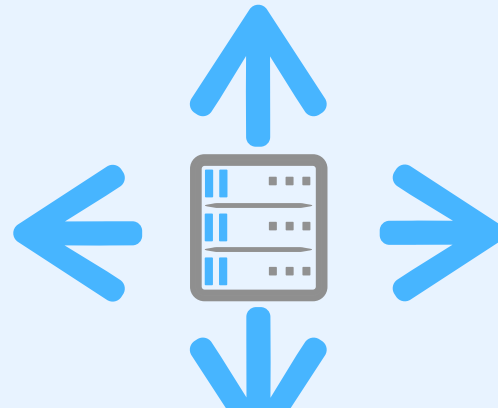
Hyperscale

An environment that decouples application compute and storage, enabling each to scale independently.

How Do They Work?

Hyperconverged

Integrates software-defined compute along with software-defined storage.



- < Scales compute linearly and in lockstep
- < Data and workloads are auto-balanced to new nodes added to the system

Hyperscale

Allows separate scaling of resources needed for application compute and storage.



- < As storage needs grow, just add more servers running SDS
- < As compute needs grow, add servers to expand CPU power

Large enterprises have spearheaded the hyperscale approach.

Companies like

- < Facebook
- < Google
- < LinkedIn
- < Yahoo
- < Netflix
- < Amazon

rely on hyperscale architectures.



It is estimated that

50%

of global enterprises will adopt a hyperscale approach by 2017.

What's Under the Hood?

Hyperconverged

- < Typically uses commodity x86 servers
- < Leverages a virtualization hypervisor (VMware vSphere, Microsoft Hyper-V, KVM) and scale-out software
- < The controller, disk capacity and hypervisor reside on the same server
- < Hyperconverged systems link together in a cluster for one resource pool

Pros

- Best for small, predictable environments
- Keeps things simple
- Lower TCO
- Easier for lean IT organizations to manage

Cons

- Cannot scale compute or storage separately

Hyperscale

- < Scale-out storage software installs on servers
- < Servers network together to form a storage resource pool
- < Compute tiers connect to the storage pool through a software client, proxy, or through an API
- < Each tier scales independently

Pros

- Best for more dynamic and cloud-like environments
- Keeps things flexible
- Lowest TCO
- Easier for DevOps and faster, automated provisioning

Cons

- Requires dedicated commodity servers to run SDS

How to Choose



- < Consider your company's technology consumption.
- < Consider potential demands on the system over the course of the following months and years.

Consider these parameters:

Hyperconverged

You have **5 OR FEWER** staff managing your virtual infrastructure

You're looking to lower the overhead of expanding and deploying a cloudlike infrastructure

You're in a remote or branch office

You need more of a **1:1 scaling**

Your organization is well below the numbers for hyperscale (right)

Hyperscale

Your organization needs more flexibility to scale compute and storage

Your organization has more than **500** applications

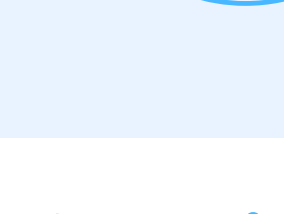
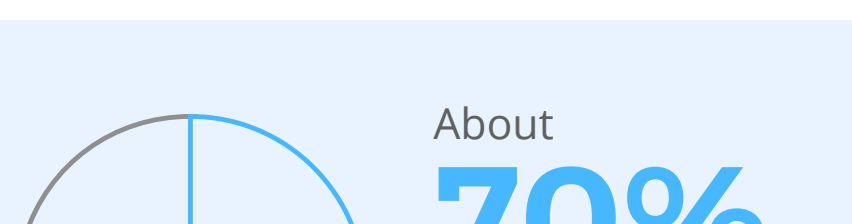
Your organization has more than **500** VMs

Your organization has more than **1,000** terabytes of data

Your organization has **5,000** employees or more

How Hedvig Can Help

Hedvig supports both hyperscale and hyperconverged architectures.



With Hedvig, you also have the option to mix and match deployment options with the same platform.

More on "The Hedvig Distributed Storage Platform"

Hedvig's approach changes the way companies deliver storage by harnessing the power of distributed systems, the simplicity of the cloud, and a complete set of enterprise capabilities. Hedvig gives your company the option to tailor a high-performance, elastic storage system to support any application, hypervisor, container or cloud.



To further your understanding of hyperconverged and hyperscale, make sure to read Hedvig's "Hyperscale Storage for Dummies" available here: <http://hed.vg/UVIshE>