

Mit OpenStack zur eigenen Cloud

Martin G. Loschwitz
hastexo!



Wer?

















hastexo!

3 Teile

Cloud?!

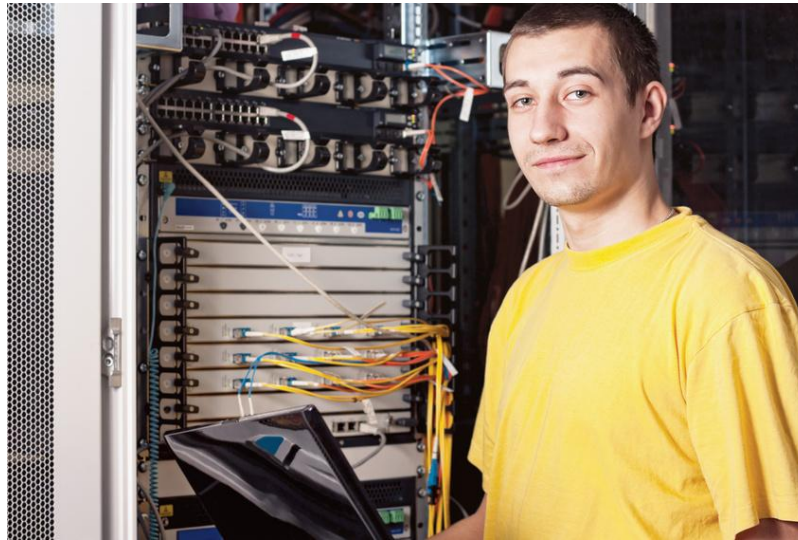
IaaS, SaaS, PaaS ...

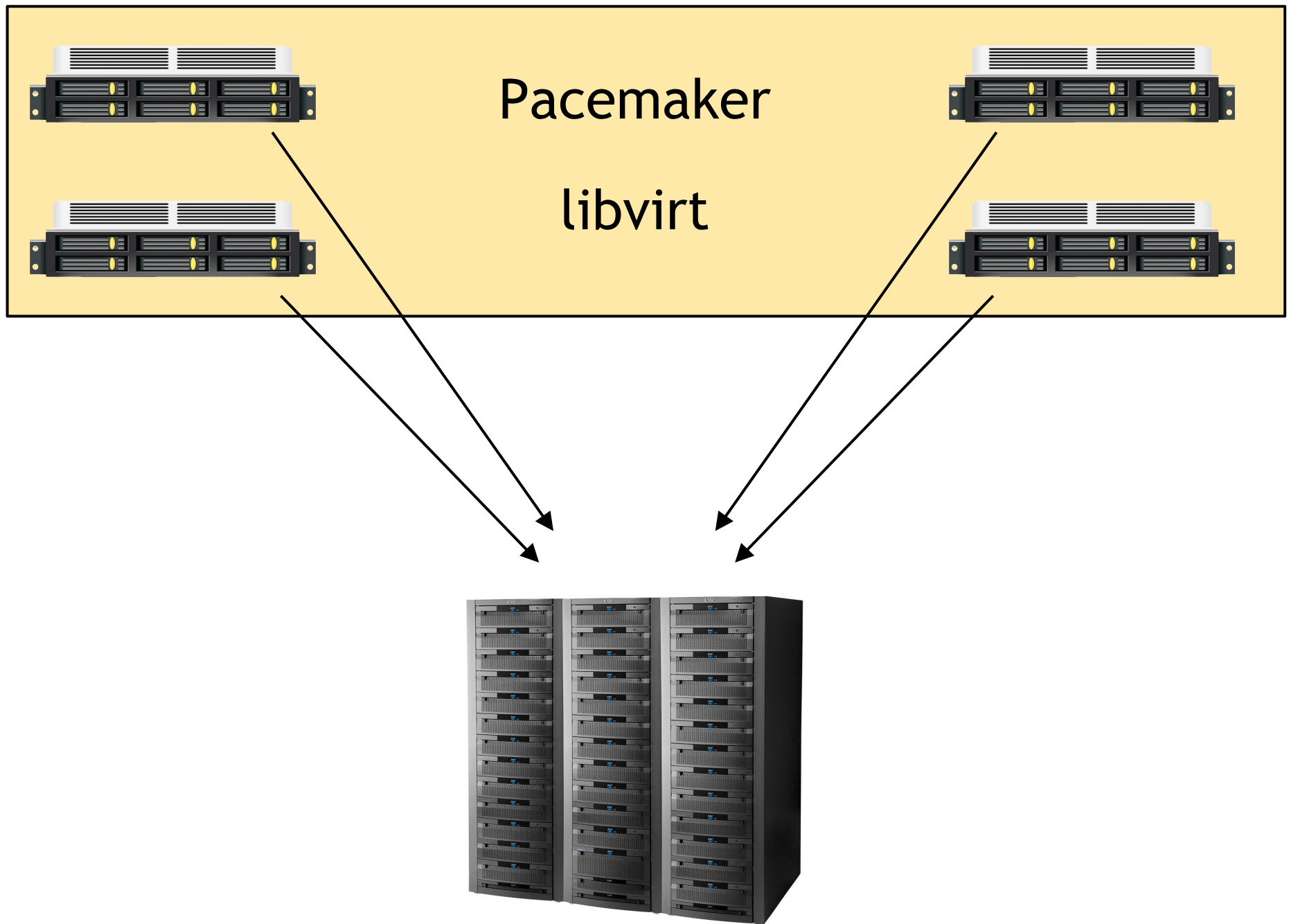
"Sie wollen also Cloud Computing ..."

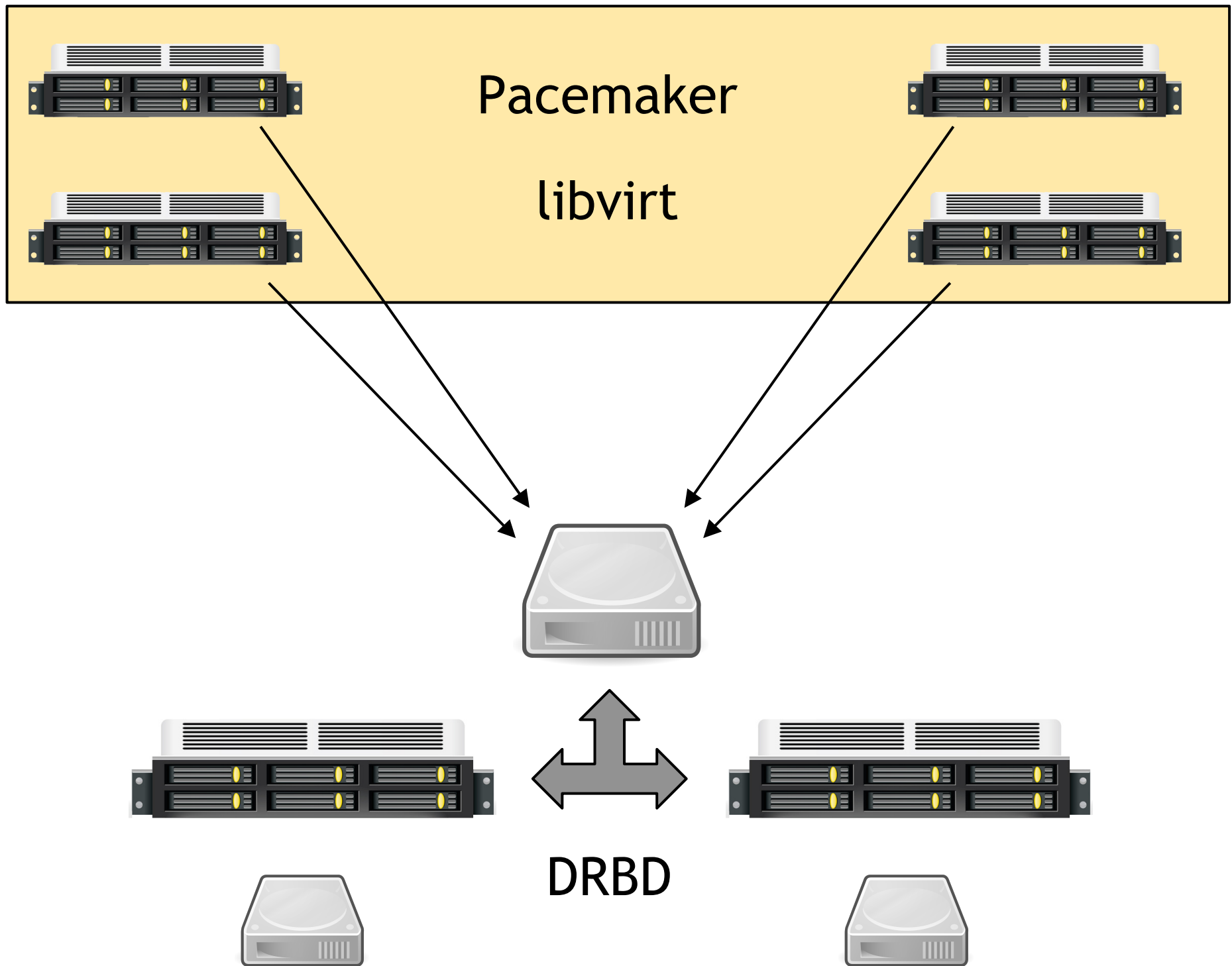


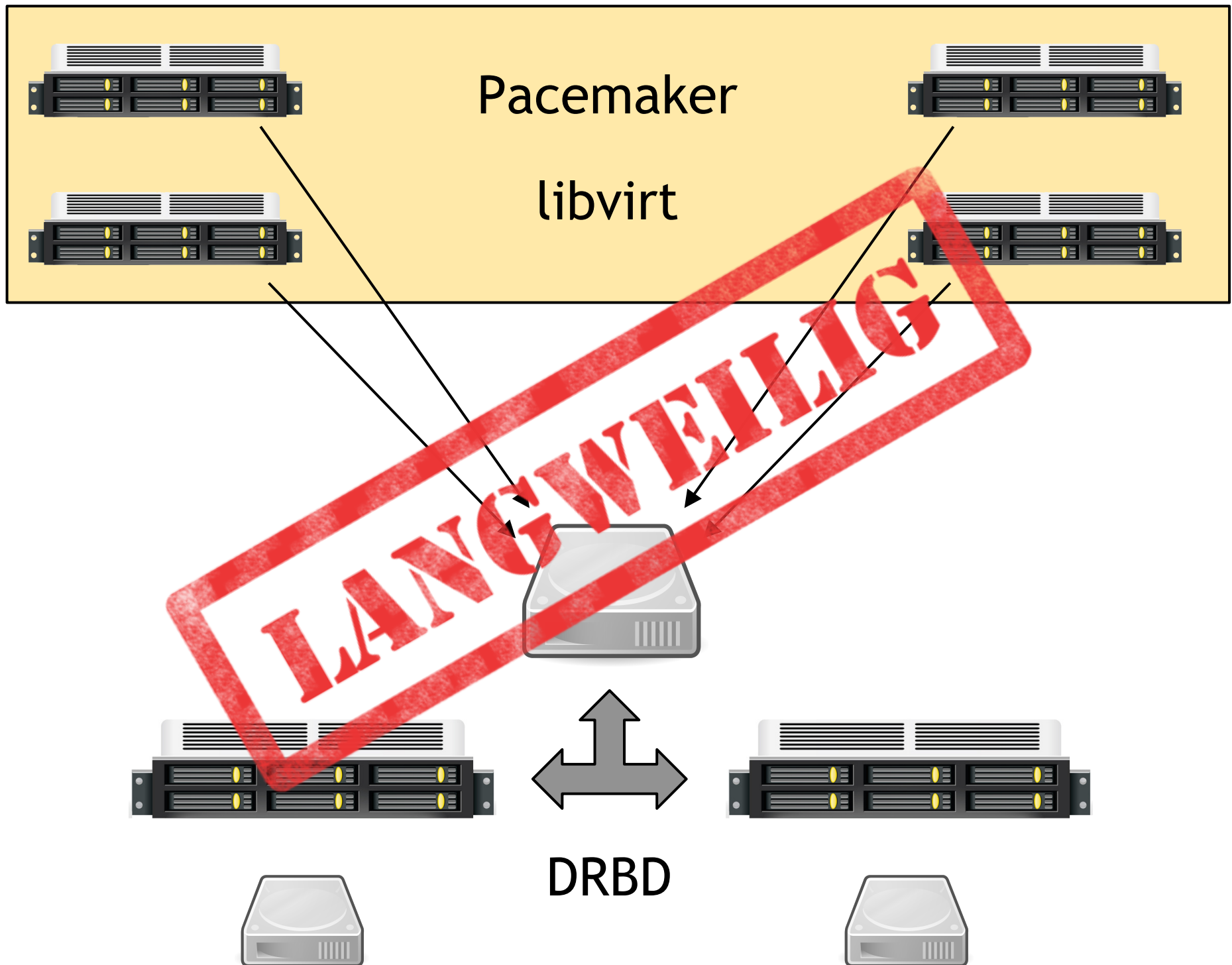












Automatisierung?

Storage einrichten

Virtuelle Maschine einrichten

Virtuelle Maschine integrieren

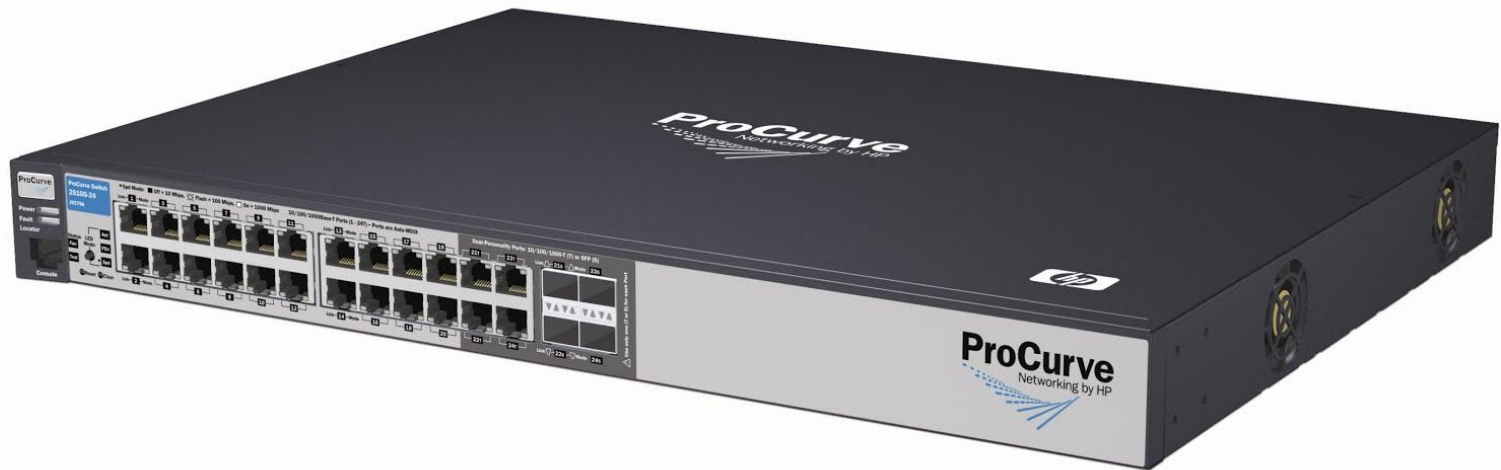
Automatisierung

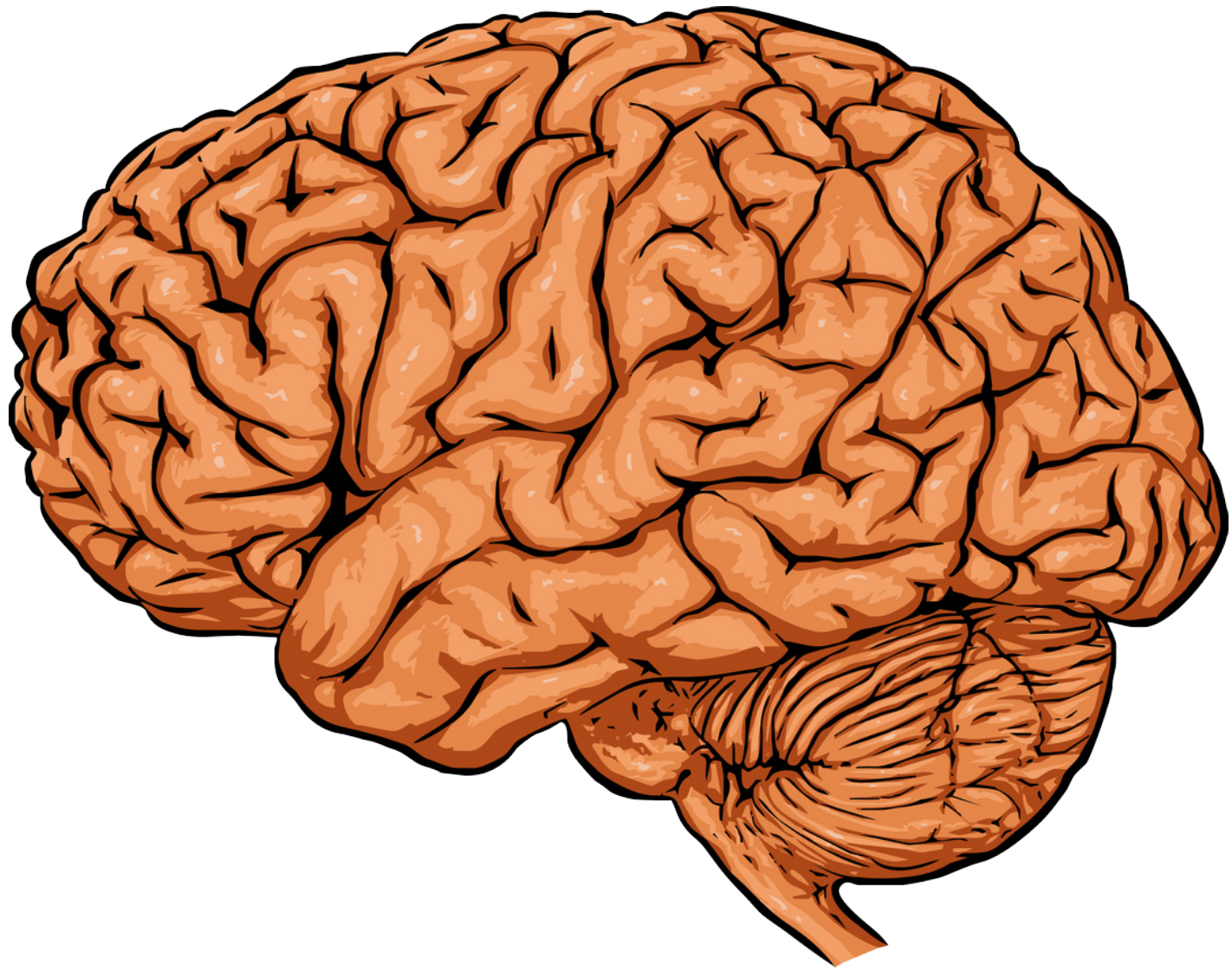




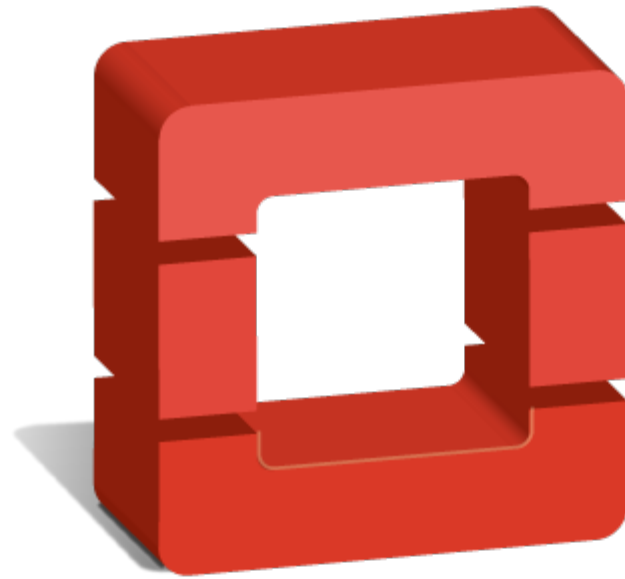








Die Lösung



openstack™

Start im Juli 2010

NASA & Rackspace

Companies » OpenStack Open Source Cloud Computing Software

https

www.openstack.org/foundation/companies/

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https://www.openstack.org/foundation/companies/profile/suse" in neuem Tab öffnen

Folsom

Grizzly

7 Komponenten

OpenStack Dashboard ("Horizon")

Horizon



Horizon

The screenshot shows the OpenStack Horizon dashboard for the 'admin' project. The page title is 'Instances & Volumes'. The sidebar on the left contains navigation links for 'Project', 'Admin', 'Manage Compute', 'Overview', 'Instances & Volumes', 'Images & Snapshots', and 'Access & Security'. The top header shows the 'ubuntu' logo, 'OpenStack Dashboard', and user information 'Logged in as: admin' with links for 'Settings' and 'Sign Out'. The main content area is divided into two sections: 'Instances' and 'Volumes'.

Instances Section:

Buttons: Launch Instance, Terminate Instances

<input type="checkbox"/>	Instance Name	IP Address	Size	Status	Task	Power State	Actions
<input type="checkbox"/>	superfrobnicator	192.168.22.34	512MB RAM 1 VCPU 0 Disk	Active	None	Running	Edit Instance

Displaying 1 item

Volumes Section:

Buttons: Create Volume, Delete Volumes

<input type="checkbox"/>	Name	Description	Size	Status	Attachments	Actions
<input type="checkbox"/>	test1	-	1 GB	Available	-	Edit Attachments

Displaying 1 item

10.42.0.6/nova/instances_and_volumes/

A solid blue vertical bar is positioned on the left side of the slide.

RabbitMQ

MySQL

OpenStack Compute ("Nova")

Nova



OpenStack ImageService ("Glance")

Glance



Glance

Launch Instance ✕

DetailsAccess & SecurityNetworkingVolume OptionsPost-Creation

Instance Source

Image

Image

✓ Select Image
Ubuntu 12.04 cloudimg amd64

Instance Name

Flavor

m1.tiny

Instance Count

1

Specify the details for launching an instance.

The chart below shows the resources used by this project in relation to the project's quotas.

Flavor Details

Name	m1.tiny
VCPUs	1
Root Disk	0 GB
Ephemeral Disk	0 GB
Total Disk	0 GB
RAM	512 MB

Project Quotas

Number of Instances (1)

9 Available

Number of VCPUs (1)

19 Available

Total RAM (512 MB)

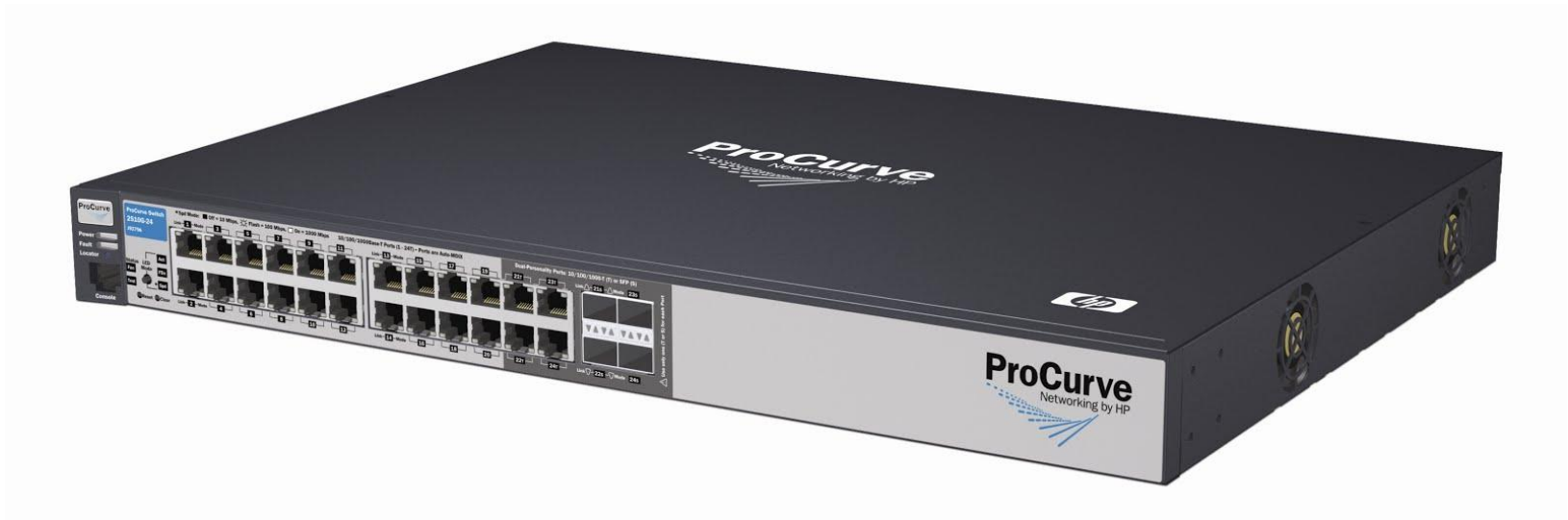
50,688 MB Available

Cancel

Launch

OpenStack Networking ("Quantum")

Quantum



Quantum

Manage Floating IP Associations ✕

IP Address

IP Address

10.20.7.133

+

Select the IP address you wish to associate with the selected instance.

Instance

superfrobnicator (8ff4fbc7-b188-4737-89ff-4443)

Cancel

Associate

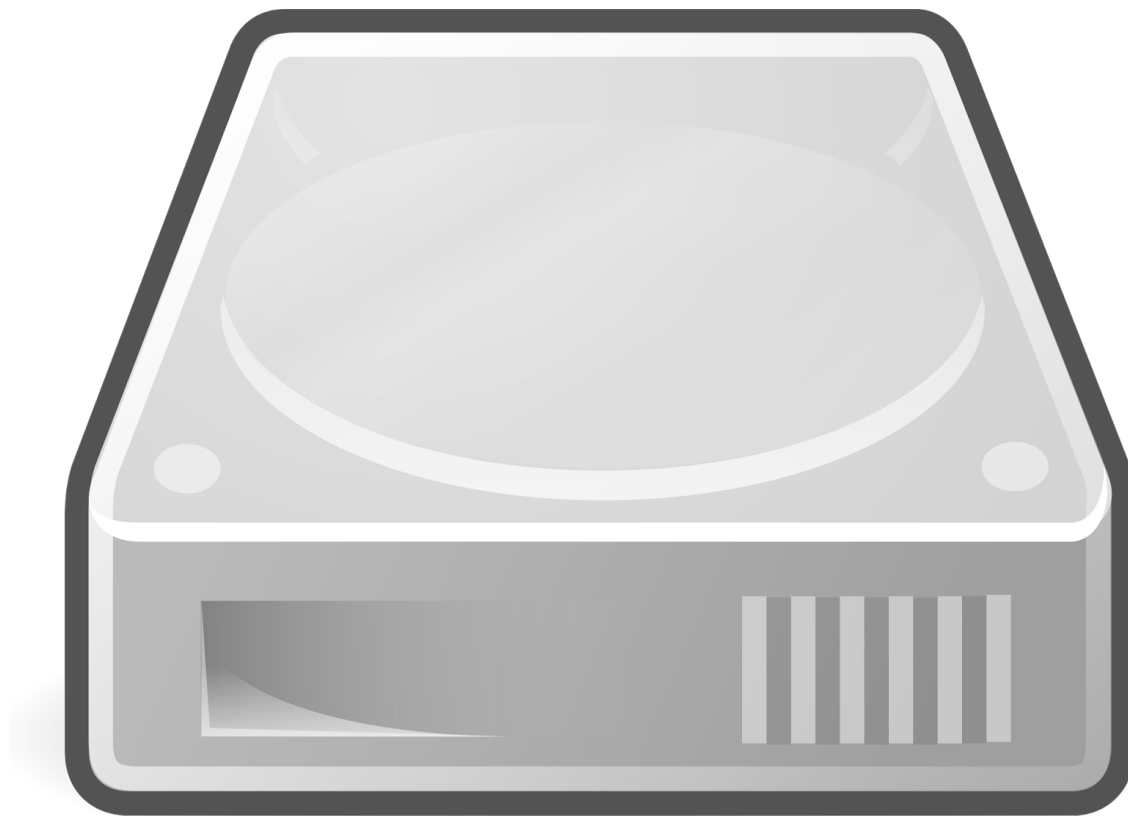
OpenStack Identity ("Keystone")

Keystone



OpenStack Block Storage ("Cinder")

Cinder



Cinder

Create Volume ✕

Volume Name

Description

Size (GB)

Description:

Volumes are block devices that can be attached to instances.

Volume Quotas

Total Gigabytes (1 GB)

999 GB Available

Number of Volumes (1)

9 Available

Cancel

Create Volume

Cinder

Manage Volume Attachments ✕

	Instance	Device	Actions
No items to display.			
Displaying 0 items			

Attach To Instance

Attach to Instance

superfrobnicator (8ff4fbc7-b188-4737-89ff-4443) ▾

Device Name

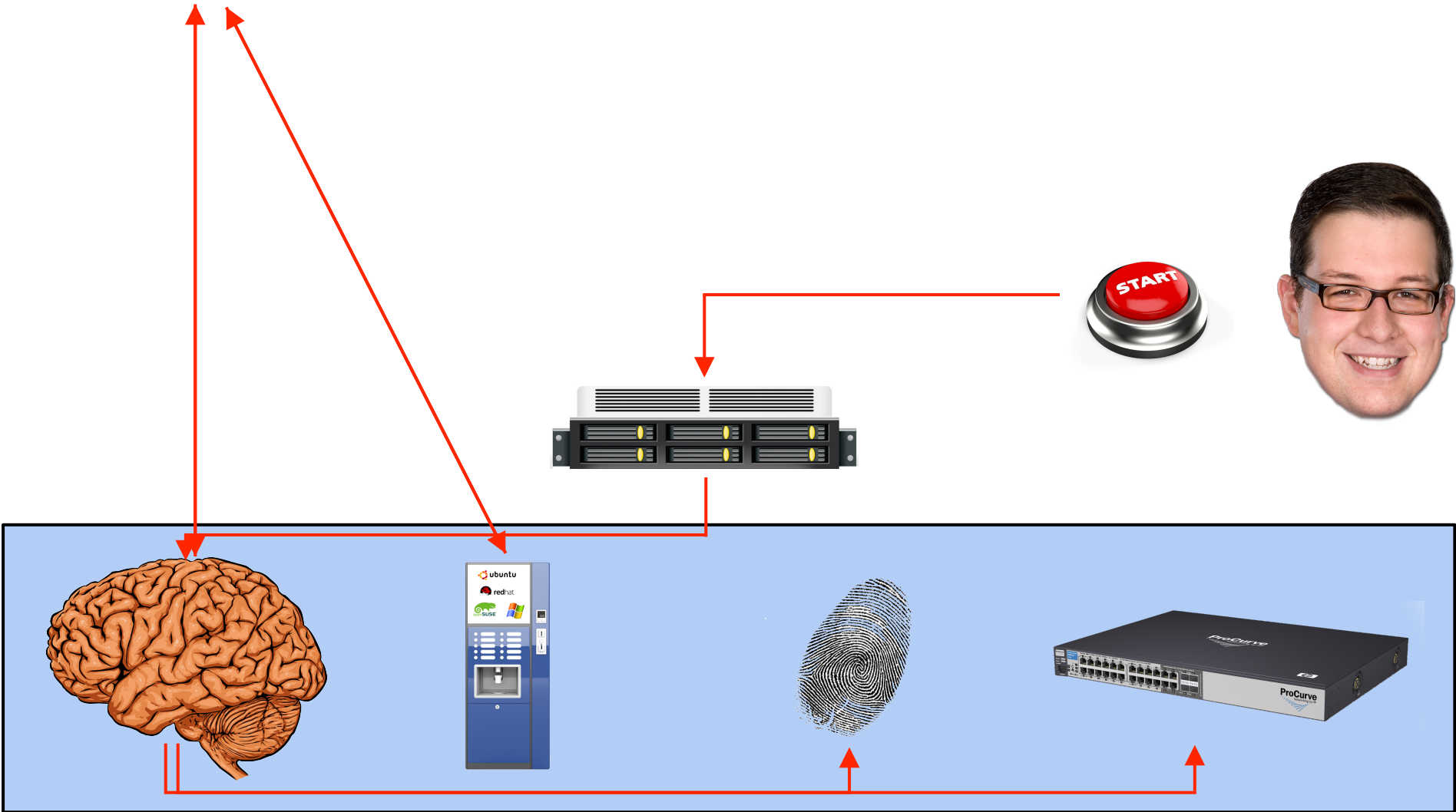
/dev/ydb

Cancel

Attach Volume

OpenStack ObjectStore ("Swift")

Automatisierung?

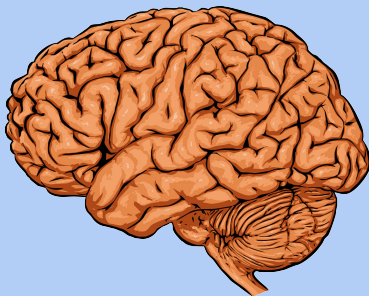
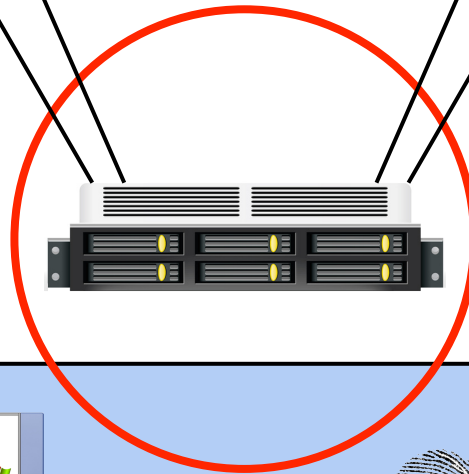


Automatisierung!

Was noch kommt

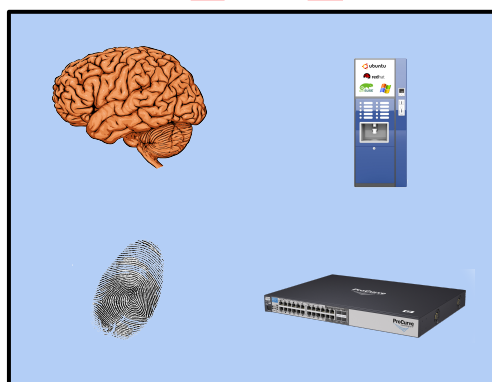
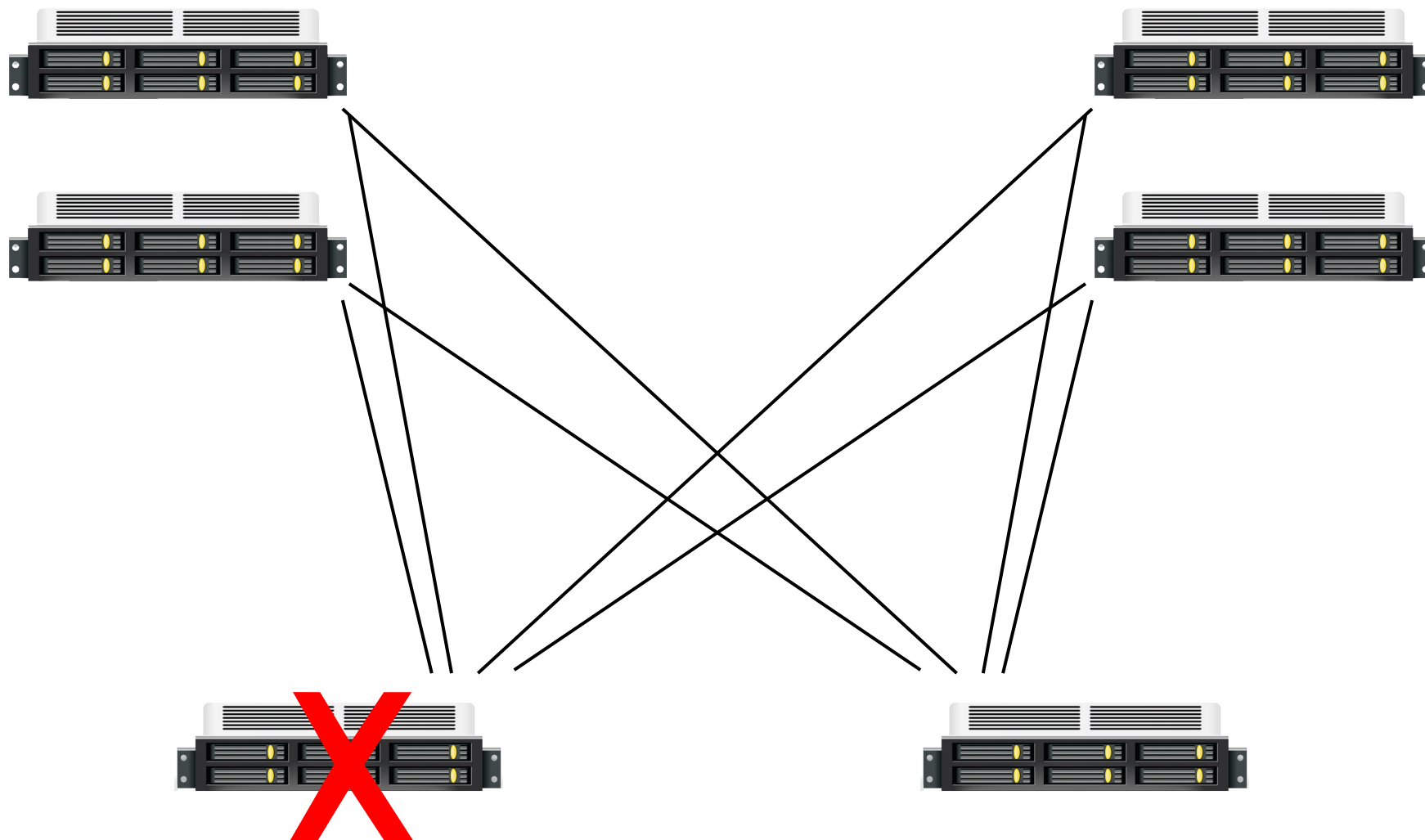
Hochverfügbarkeit

Infrastruktur-HA

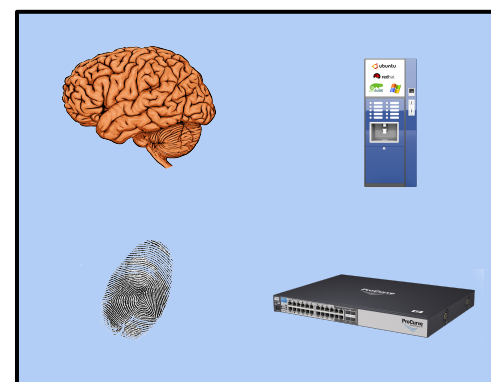


Y U HAZ

NO HA?



Pacemaker



VM-HA

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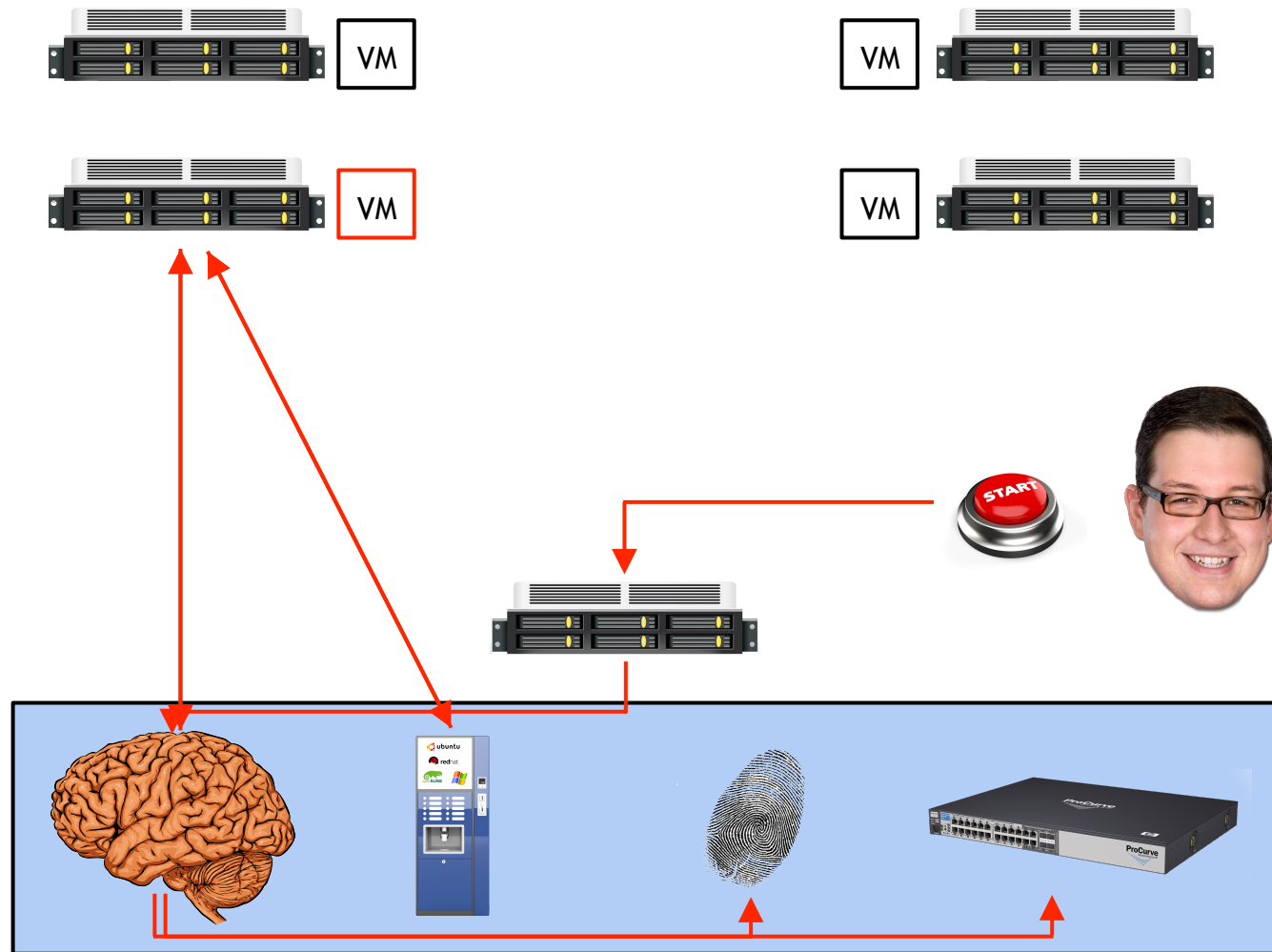
Billing

Monitoring



ubuntu





<http://www.hastexo.com/openstack-howto>

<http://www.hastexo.com/category/tags/openstack>

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