History → Cloud Provider
ScaleUp is a spin-out of 12-year old German MSP internet4YOU

In 2009, ScaleUp launched the first public cloud in Germany (3Tera AppLogic as cloud OS)

Pain Point → Needed a Cloud Business Platform with a self-service solution to user management, provisioning, automation and everything else needed to offer a public or private cloud service

Today → Offer the ScaleUp Cloud Management Platform

ScaleUp has transformed into a cloud business software company

Our focus is the cloud “point of purchase” — the magical spot where the provider and consumer meet.
What is OpenStack?

→ Software to **provision virtual machines** on standard hardware at massive scale

OpenStack **Compute**

A community creating open source software to build public and private clouds

→ Software to reliably **store billions of objects** distributed across standard hardware

OpenStack **Object Storage**
OpenStack Mission

“To produce the ubiquitous open source cloud computing platform that will meet the needs of public and private cloud providers regardless of size, by being simple to implement and massively scalable.”
Why is it important?

• **Open** eliminates vendor lock-in
• Working **together**, we all go faster
• **Freedom** to federate, or move between clouds
Founding principles

- Apache 2.0 license (OSI), no paid ‘enterprise’ version
- Open design process, 2x year public Design Summits
- Publicly available source code repository
- All community processes documented and transparent
- Commitment to drive and adopt open standards
- Modular design for deployment flexibility via APIs
Architect for in-house

Re-Architect for service provider

Today’s Reality

Future with OpenStack

Architect once

Deploy anywhere
Start with an open, scalable platform

- OpenStack Compute
- OpenStack Image Service
- OpenStack Object Storage

CLOUD OS

APIs
Add 3rd party tools from the ecosystem
Integrate with existing enterprise systems
Asynchronous eventually consistent communication

REST-based API

Horizontally and massively scalable

Hypervisor agnostic: support for Xen, XenServer, Hyper-V, KVM, UML and ESX is coming

Hardware agnostic: standard hardware, RAID not required
Compute Details (2)
What did we learn

- We only worked with Nova (Compute)
- Some Releases are not as stable as they should be
  - More than 30 files missing in Bexar release
- If using current branches, watch out for changes several times a day, breaking things
- Get involved with the community, you will need their help!
• There is an OpenStack dashboard for Admins

• We enhanced our own Cloud Management Platform to support OpenStack Compute (nova)

• Abstracting the technical underlyings of OpenStack and making its power available to business users
  • No business user can talk to an API
The Technology Stack

- ScaleUp User Interface
- ScaleUp API’s and Logic Engine
- Cloud Stack
- Hypervisor & Hardware
- Provider or Enterprise Infrastructure

Cloud Management Platform
OpenStack with ScaleUp

Business User / Developer
- Easy provisioning of VM Images

IT Administrator
- Creation of templates & administrative tasks

ScaleUp Platform

Command shell

OpenStack

Hypervisor

Hardware, Diskspace, Network
• Our recommendation: Use StackOps distribution >> http://stackops.org
• You can install it within Virtualbox (if you have enough resources)

• Alternatively: Use a vagrant package from AnsoLabs http://ansolabs.com/deploy

• If you have more budget: Start a real PoC with an Integrator or Rackspace
Contribute

• OpenStack is driven by the community
• You can be part of the community
• The community needs good developers
• Get involved at: http://openstack.org
Thanks for your attention!

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