



ScaleUp Technologies

OpenStack

PHP Usergroup Berlin, April 2011





# Company Overview

## History → Cloud Provider

ScaleUp is a spin-out of 12-year old German MSP internet4YOU

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

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**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**

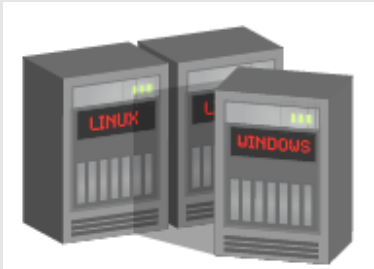
## Today → Offer the ScaleUp *Cloud Management Platform*

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?



OpenStack **Compute**

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

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



OpenStack  
**Object Storage**

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



# 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**.”



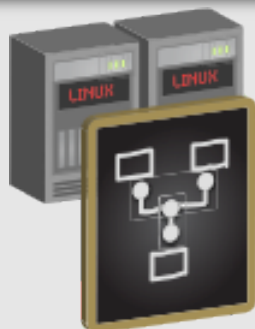
# Why is it important?

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

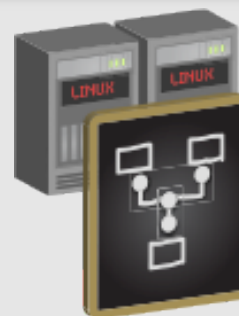


# Founding principles

- 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



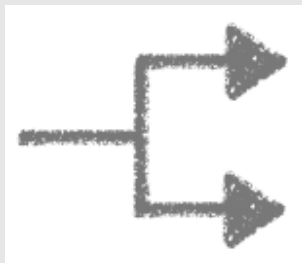
Re-Architect for service provider

Today's Reality

**Future with OpenStack**

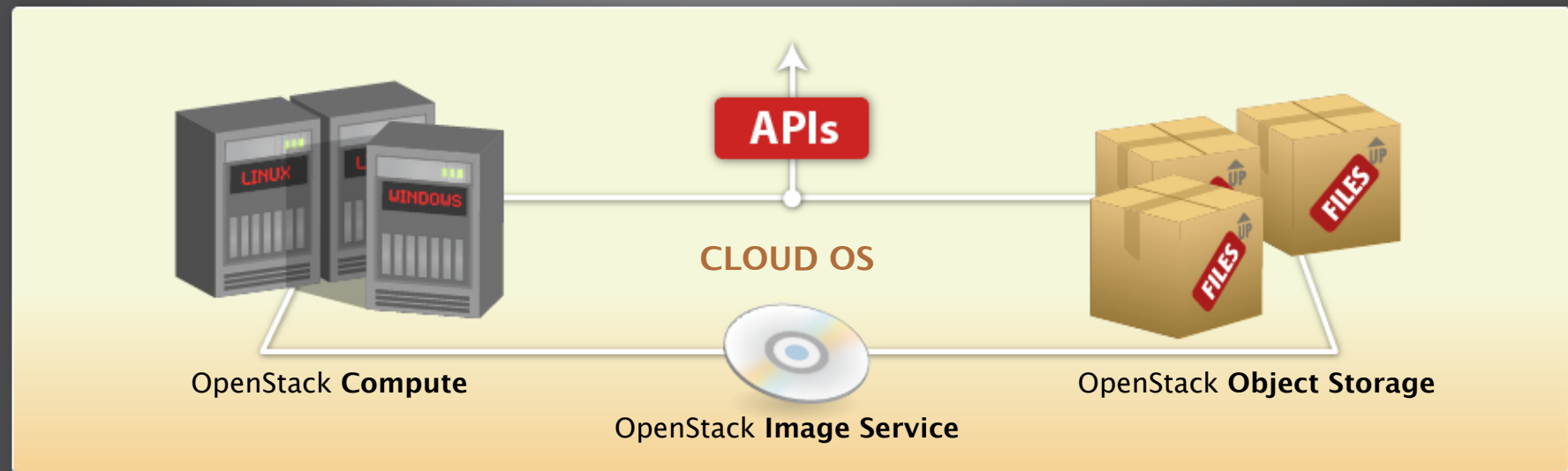


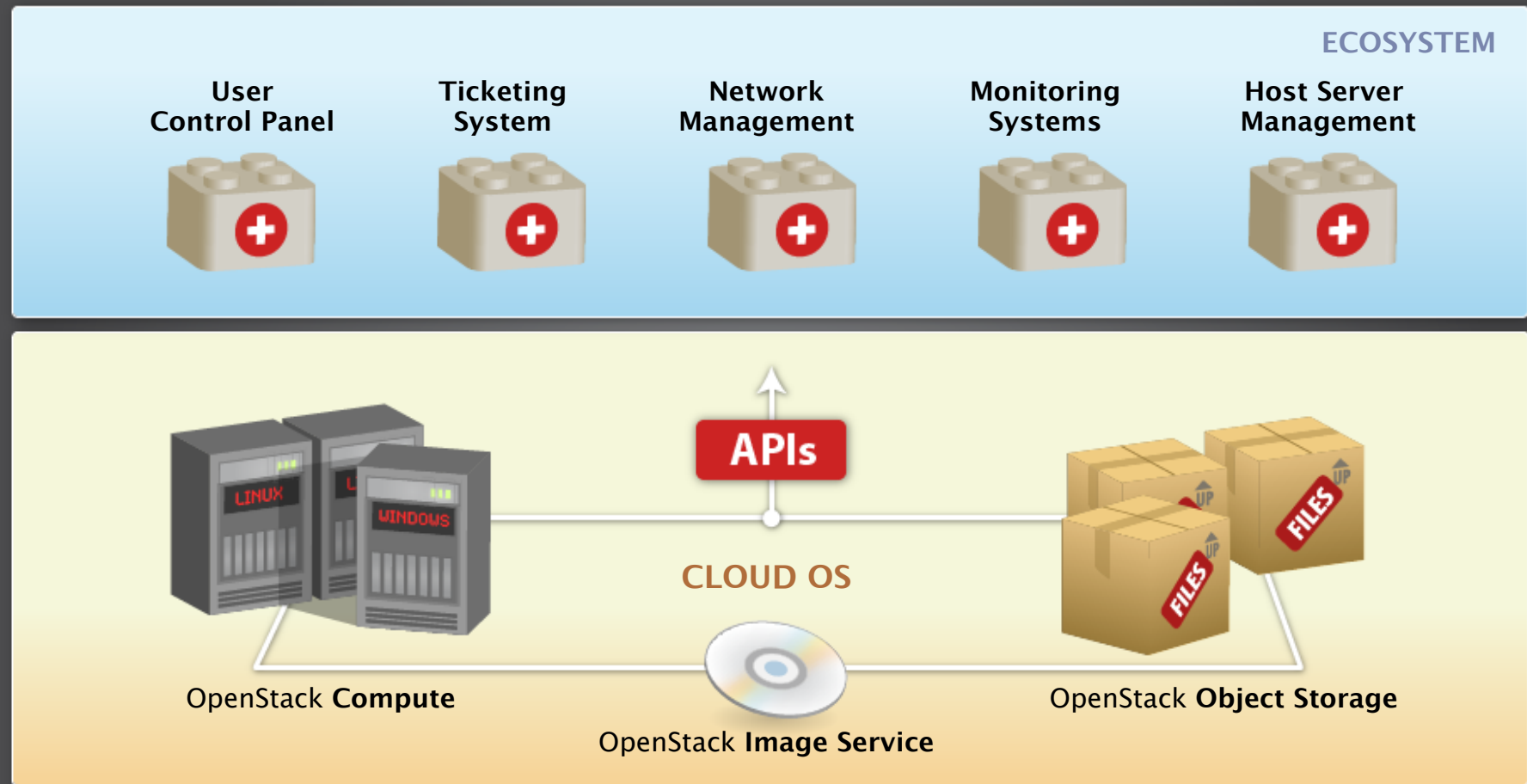
Architect once



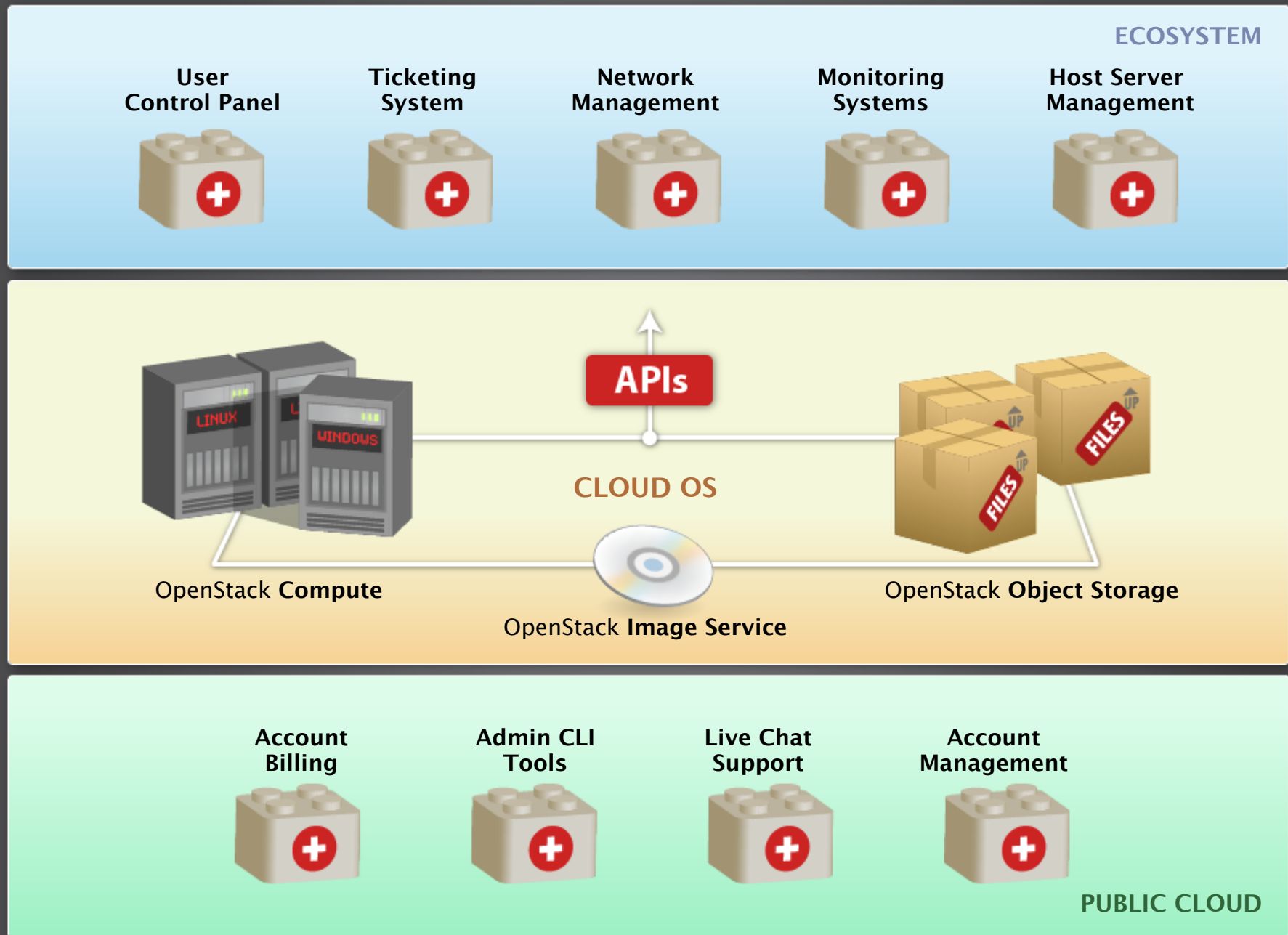
Deploy anywhere

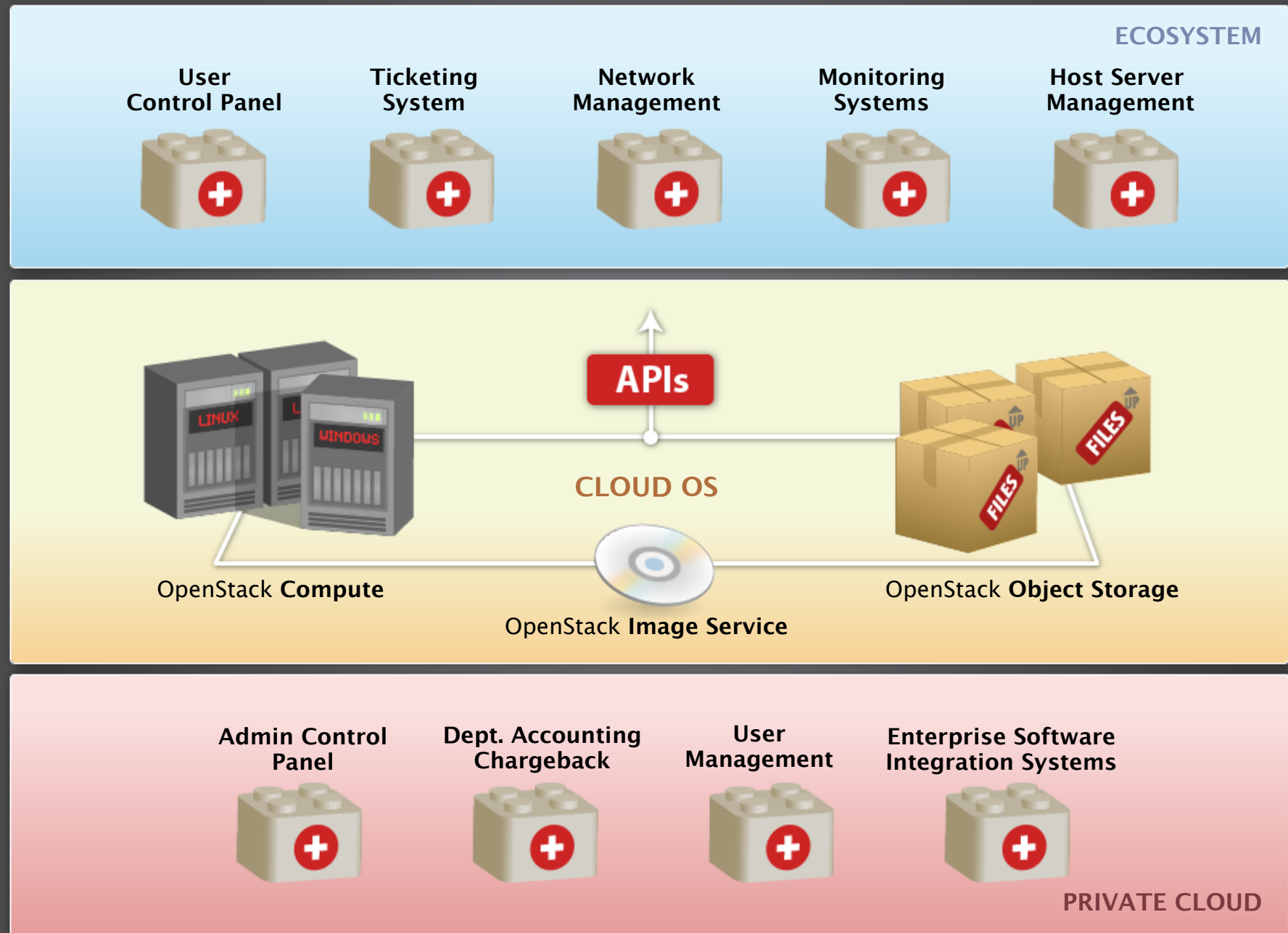
# Start with an open, scalable platform





Add 3<sup>rd</sup> party tools from the ecosystem

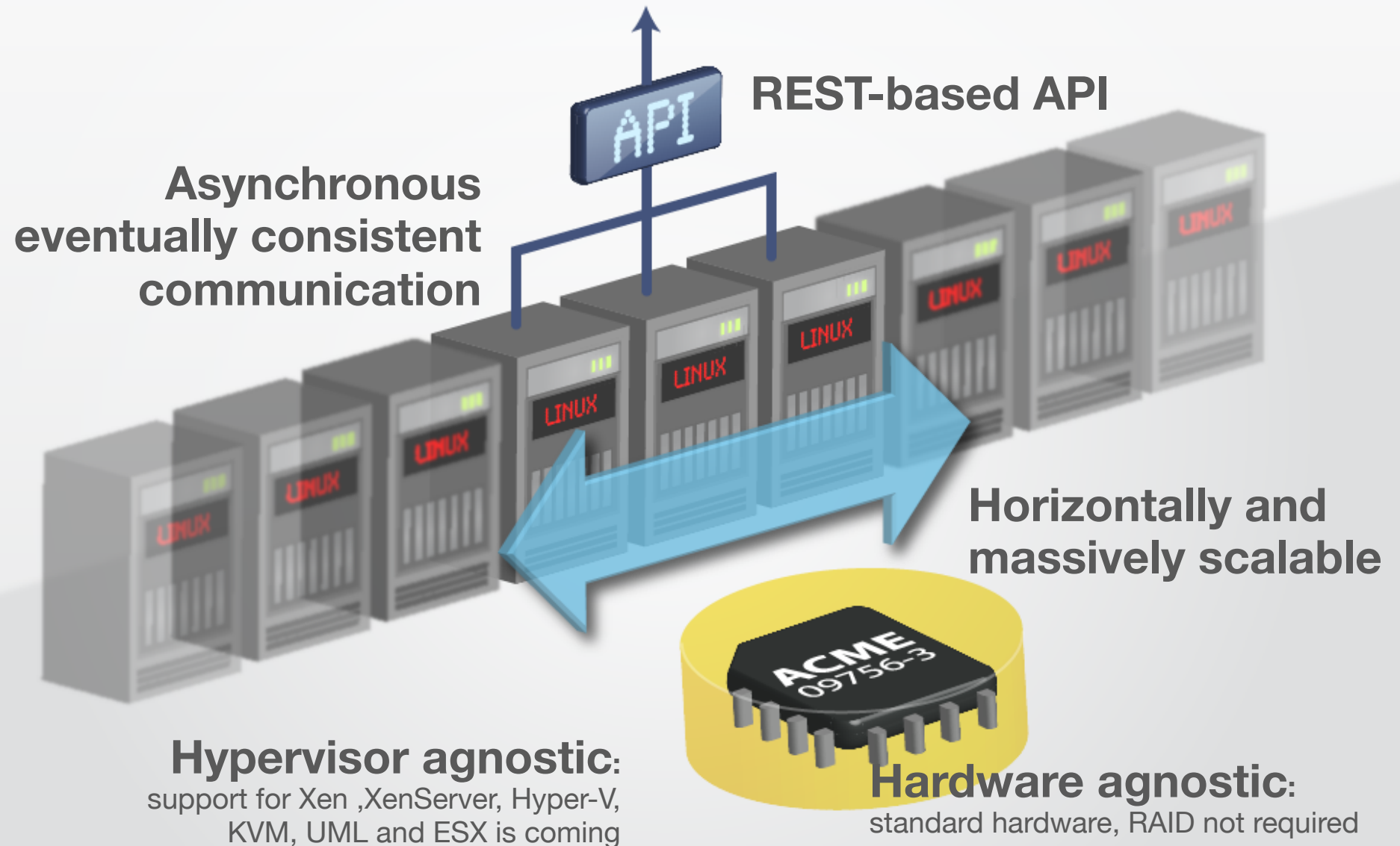




Integrate with existing enterprise systems

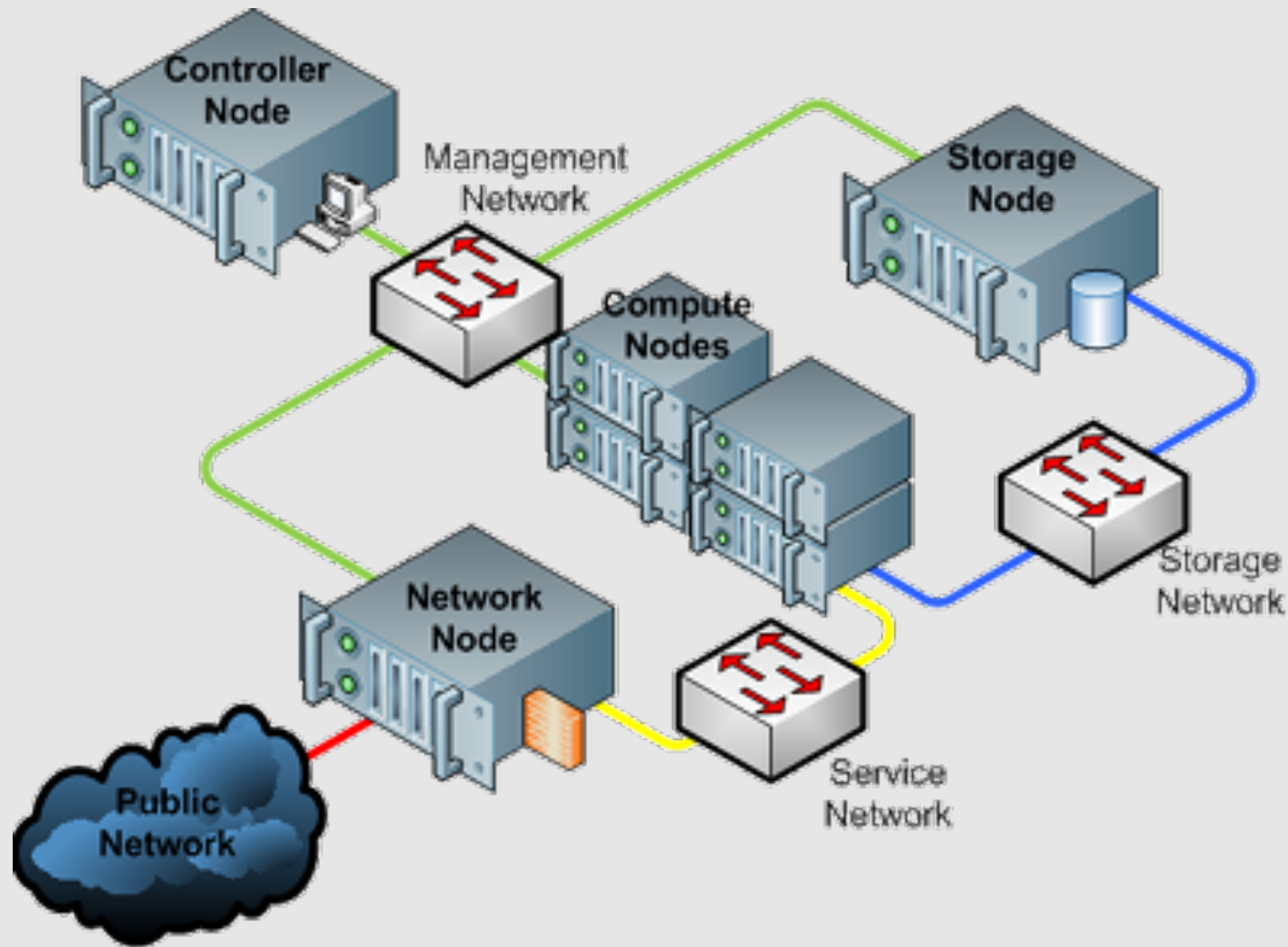


# Compute Details





## 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!



# How we integrated it

- 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 Management Platform ↑

↓ Provider or Enterprise Infrastructure



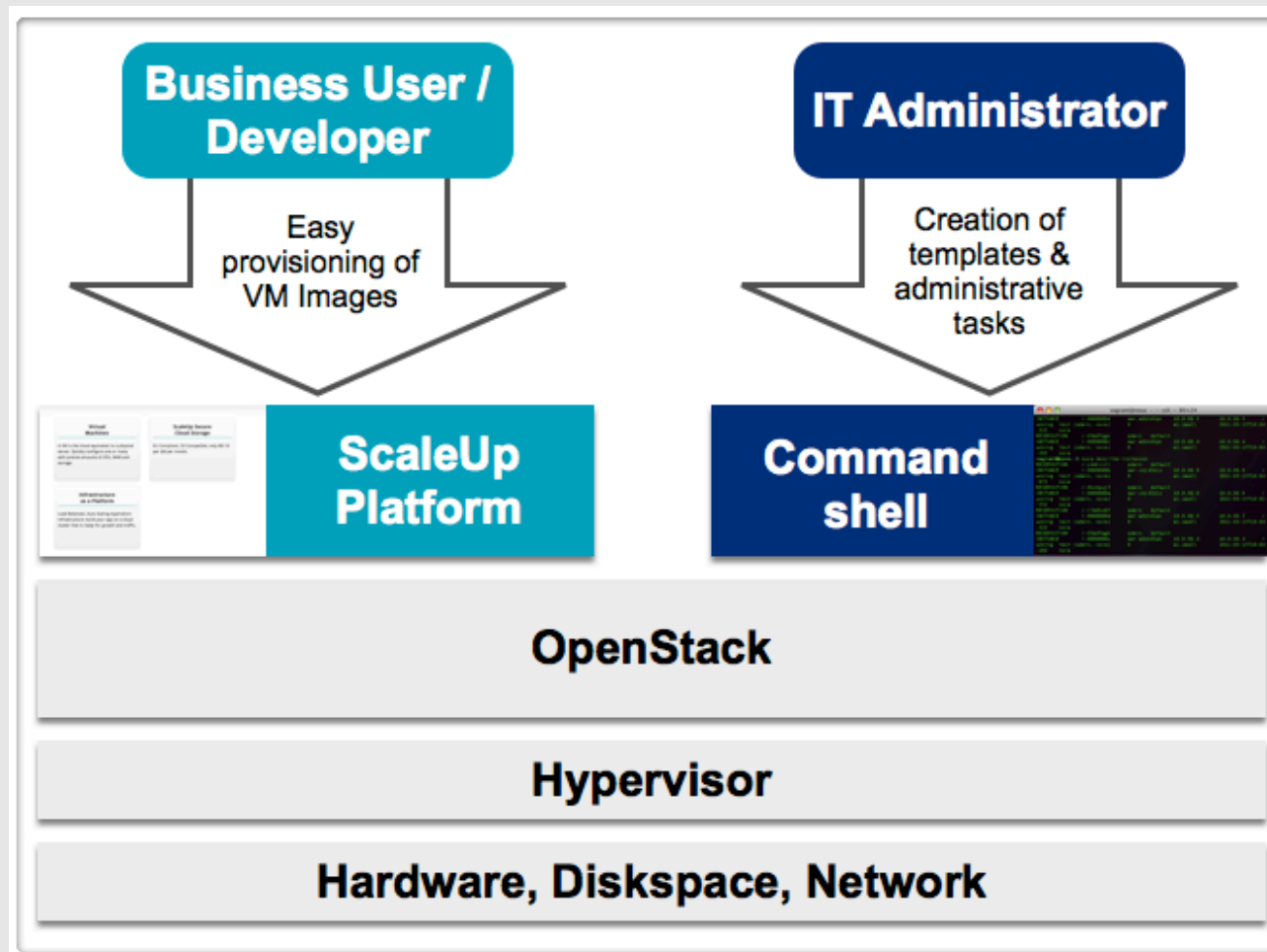
Cloud Stack



Hypervisor & Hardware



# OpenStack with ScaleUp





# Get started

- Our recommendation:  
Use StackOps distribution >> <http://stackops.org>
- You can install it within Virtualbox (if you have enough ressources)
- 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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