

Facilitating the Open Source Community Transition to Cloud Storage

Giorgio Regni & Brad King

gr@scality.com, bk@scality.com



Who is Scality?

- ❑ Infrastructure Software
- ❑ Experienced Team – ex Bizanga
- ❑ Service Provider and Email Heritage
- ❑ Disruptive Technology (patent awarded)
- ❑ Offices in USA, EMEA, Japan
- ❑ 300 TB deployed, 1.5 million users

Less Buzzwords, More Facts !

The paradigm shift: *distributed, cloud, object based, scale-out, SaaS, RESTful...* Yeah right! Jargon much! Nevertheless, here are the *undisputed facts*:

- ❑ Storage is growing fast! 2x worldwide every 2 years
- ❑ Unstructured is growing faster than structured data
- ❑ HD size/speed ratio is getting worse
- ❑ Amazon S3 is meeting a need (over 100B object)
- ❑ Global Namespaces & Utility storage make sense
- ❑ Most applications were designed for block storage

Public cloud storage today

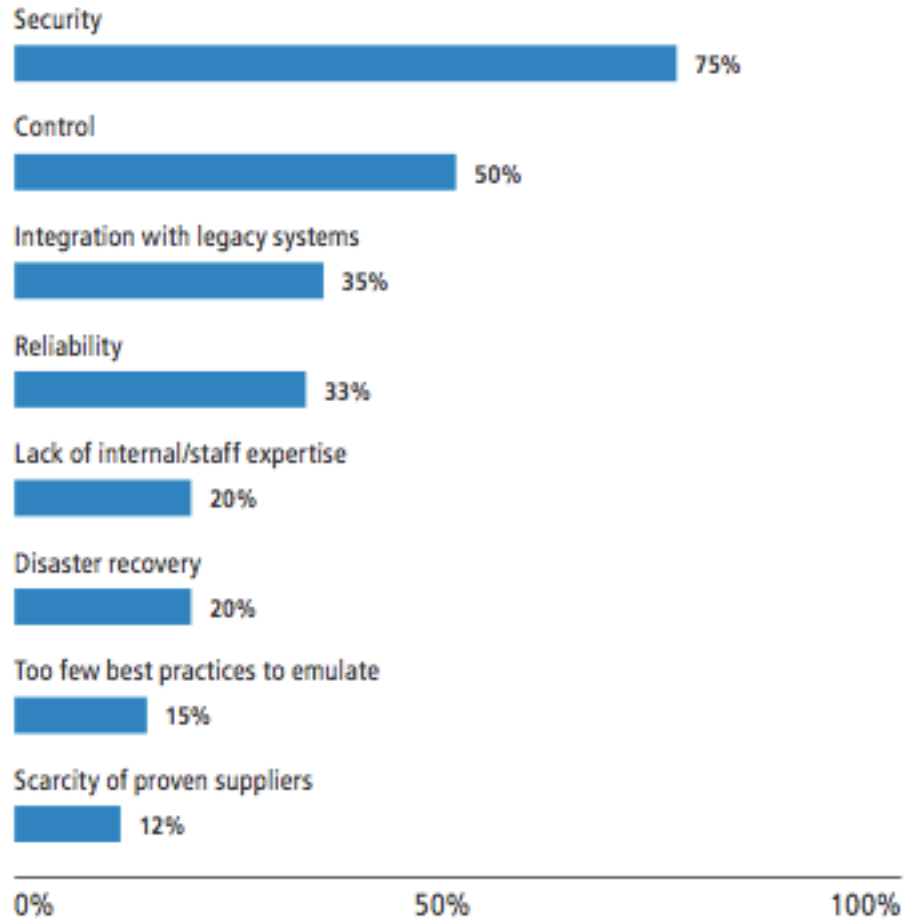
- ❑ Amazon dominates the market
- ❑ The model is appealing
- ❑ S3 protocol is becoming a standard
 - ❑ Ubuntu One cloud
 - ❑ Google Storage
 - ❑ Scality software (yes, that's us)
- ❑ There is a lot of work to be done on existing applications

COMMON CHALLENGES?



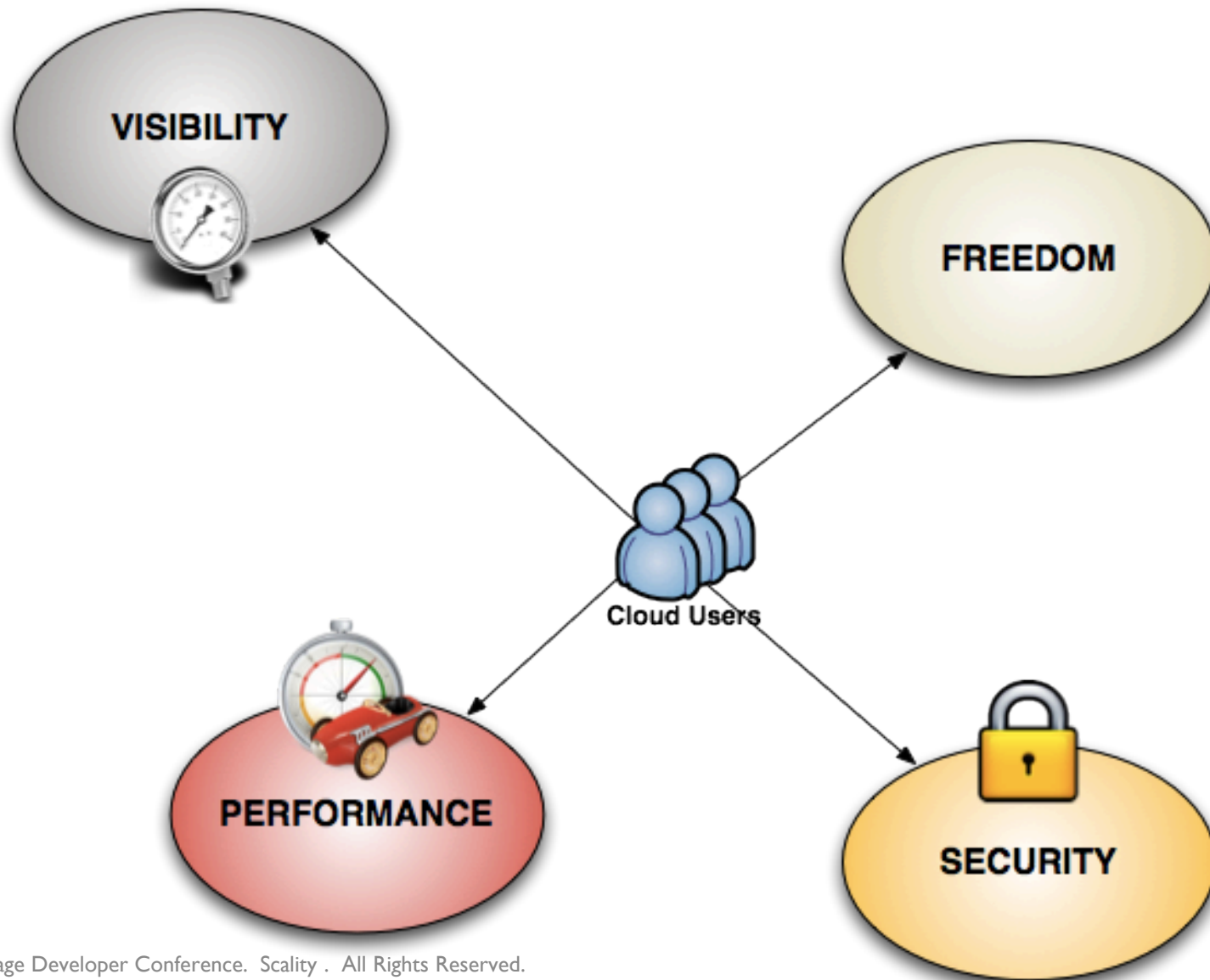
Top Concerns Study by Forbes

FIGURE 13: What are the top concerns you might have about implementing a public cloud computing solution at your organization?



Source: <http://www.forbes.com/forbesinsights/seedlingthecloud/>

What does a cloud user want?



- ❑ Cloud service provider
 - ❑ Being able to migrate
 - ❑ Not being locked
- ❑ Application interoperability
 - ❑ Split large files?
 - ❑ Standard encryption policies?
 - ❑ Standard compression settings?
 - ❑ Can I get my files using a different app?

- ❑ How much did I upload?
- ❑ How many requests?
- ❑ How much is this going to cost?



- ❑ Clients & apps designed for “far away” cloud
- ❑ Focus on write once read many access
 - ❑ Web facing content
 - ❑ Backups



- ❑ Client-side Encryption
 - ❑ Transparent encryption using AES
 - ❑ Private key scheme
- ❑ SSL connection

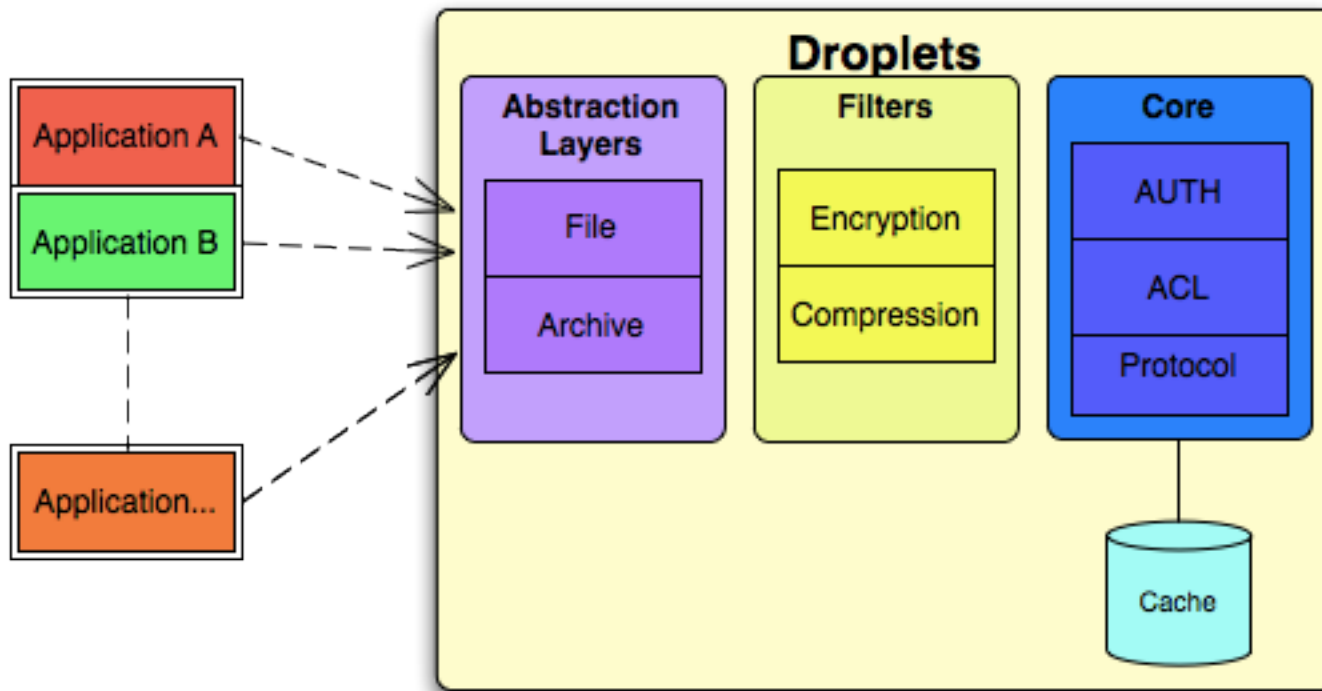


SCALITY DROPLETS LIBRARY



Clouds are made of droplets

- Portable C API with bindings for PERL, Python, Ruby & more



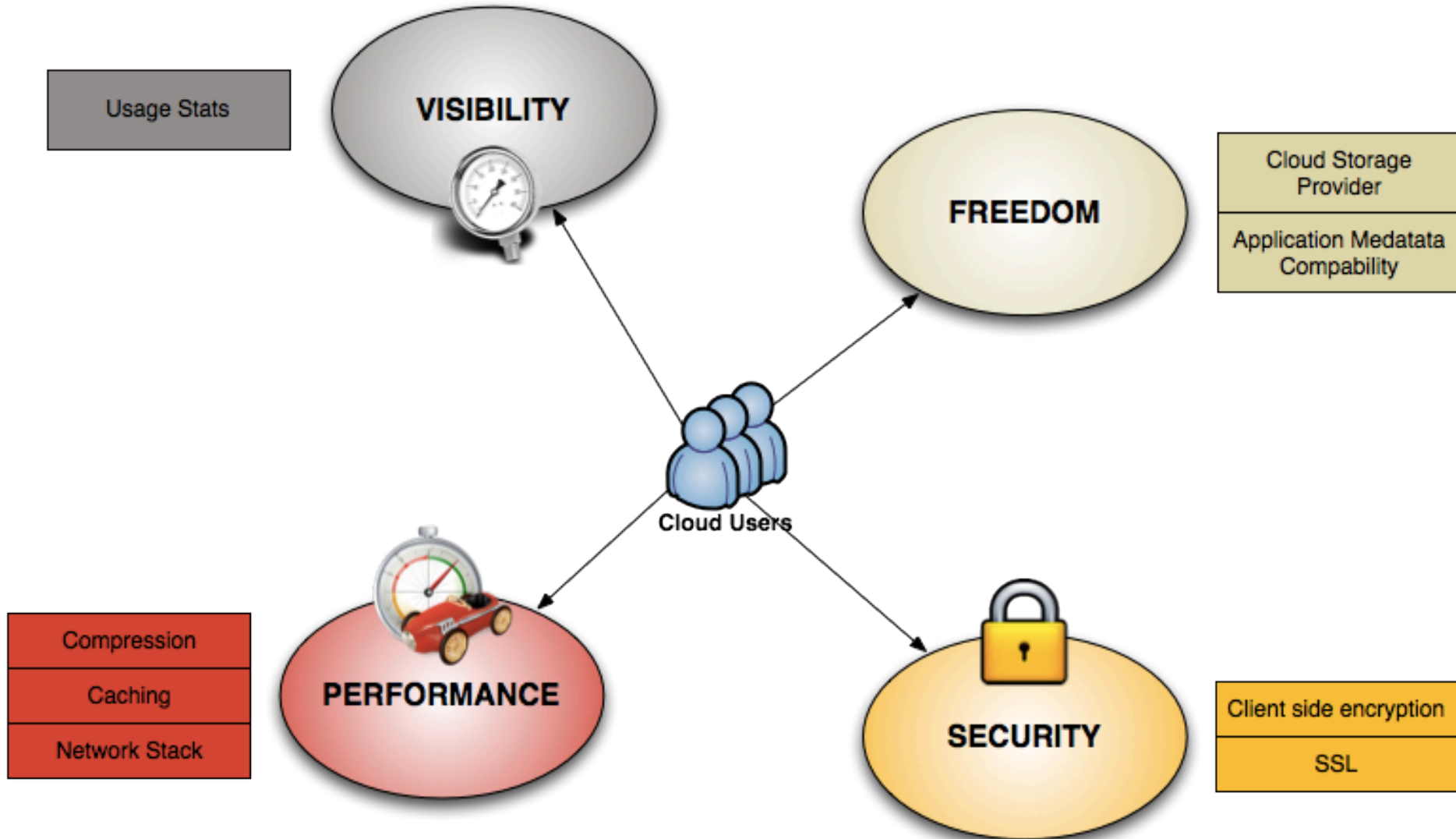
Interoperability

- ❑ File abstraction layer
 - ❑ Path encoding
 - ❑ Splitting large files
- ❑ Custom domains
 - ❑ Address any S3 compatible cloud server
 - ❑ Easily migrate data between clouds

Performance

- ❑ Transparent compression
- ❑ Local caching
 - ❑ Using any local volume as read and/or write cache

Droplets User benefits



Part 3

SCOP



Wednesday, September 08, 2010

Scality Open source Program – Goals

- ❑ Promote the object store model & promote a popular interface model
- ❑ Improve interoperability of applications and cloud storage services
- ❑ Create a canonical set of API features with the help of the Open Source community
- ❑ Jump-start existing applications with a Bounty Program

SCOP Bounty Program

- ❑ Propose your talent
- ❑ Your proposal is selected...
- ❑ Integrate the app using Droplets
- ❑ Collect a Bounty!



The SCOP Bounties

- Cloud migration tool \$XX
- Web server CDN \$YY
- Zope/Plone integration \$ZZ
- ...
- Your proposed Application

Participating in SCOP

- ❑ Download Scality Droplets from <http://github.com/scality/Droplets>
- ❑ Download the application form at <http://scop.scality.com>
- ❑ Applications due by November 1st 2010
- ❑ Acceptance Notifications by December 1st 2010
- ❑ Code your application
- ❑ Bounties awarded on functional completion

Q & A

