

# Mobile Cloud Services In KOREN

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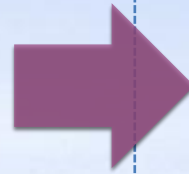
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# I . Why Cloud?

# Paradigm Shift of Computing

- **Change in way of ownership of computing resources**
  - Outsourcing of IT resources and services expanded
- **Expansion of Internet-based services**
  - SW and the content of the online service enablement



**Cloud Computing**

# NSF Future Internet Architecture

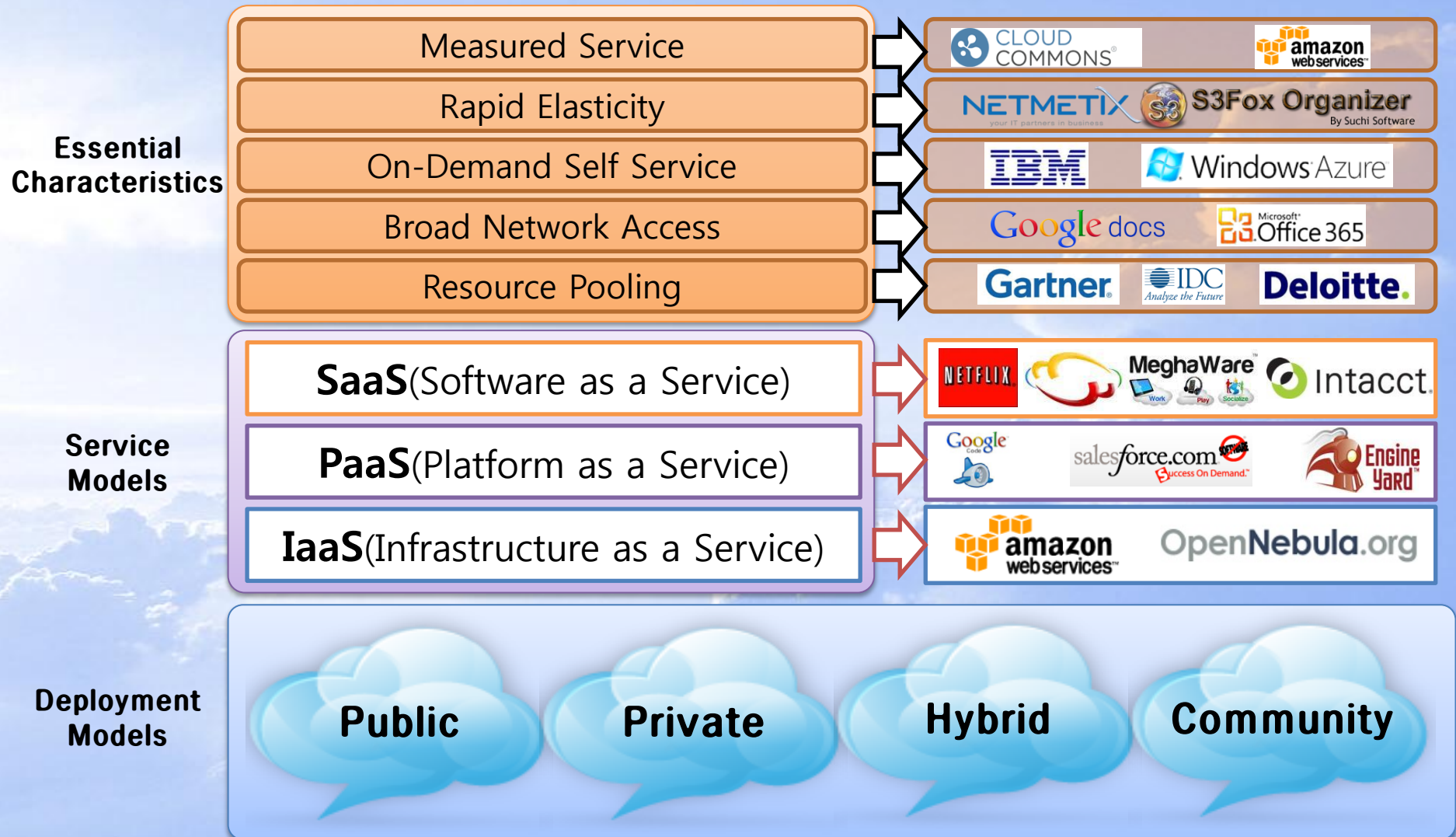


- Program focuses on new architectural features for the Internet
  - address challenges in fundamental way
  - Want to keep the good features of today's network

# NSF Future Internet Architecture

- ◆ • Four teams were selected in the second phase:
  - Named Internet Architecture: content centric networking - data is a (the) first class entity
  - Mobility First: mobility as the norm rather than the exception – generalizes delay tolerant networking
  - Nebula: Internet centered around cloud computing data centers that are well connected
  - eXpressive Internet Architecture: focus on trustworthiness, evolvability

# Introduction to Cloud Computing Architecture



# II. Mobile Cloud Services

# Amazon

Amazon Cloud's long-term strategy focuses on B2C

1 Cloud encompasses infrastructure(uphill) and usage(downhill)



**Cloud infrastructure**

Google can boast as much Experience in cloud technologies



**Consumer usage**

Apple's digital content approach is strong

2 Amazon is approaching the market with a two-fold strategy



The **B2C cloud market** will Flourish thanks to pervasive fiber and wireless connectivity.



3 By introducing new devices, Amazon reaches more customers



Kindle



Amazon Media Center

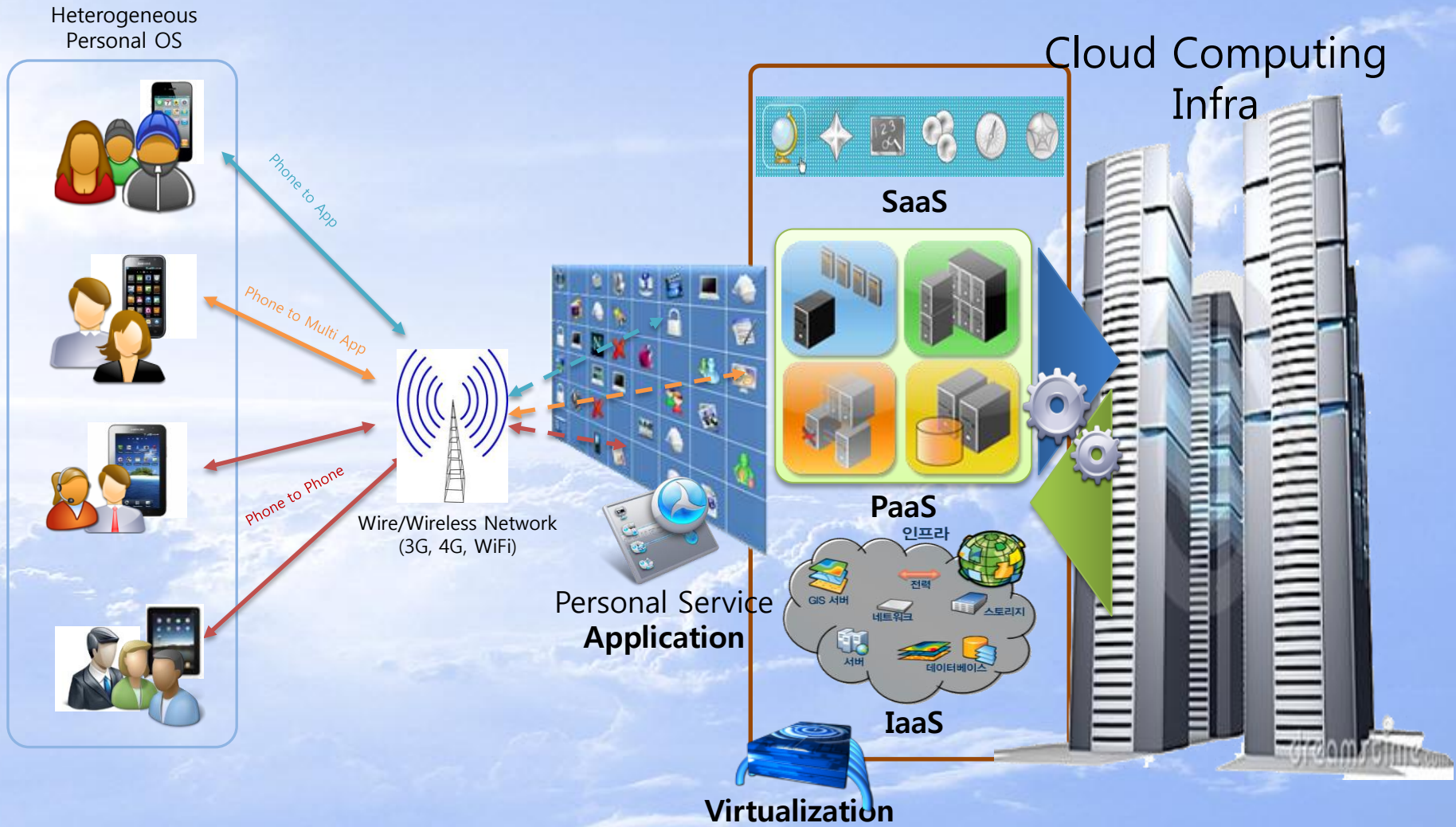


Amazon Tablet



Amazon Silk

# Mobile Cloud Service



# III. Open Cloud Technologies

# Mobile Services for Cloud


## ➤ Hardware Resources

- Server, Network, Storage, Load Balance ...



## ➤ Rapid Develop & Deploy Software





➤ Use "Service" for Mobile Service Development

➤ Cloud

- IaaS for Network Architect
- PaaS for App Developers
- SaaS for End User

# Programmable & Automated

➤ No Ops

# Amazon web services cloud

## Asgard: Web-based Cloud Management and Deployment

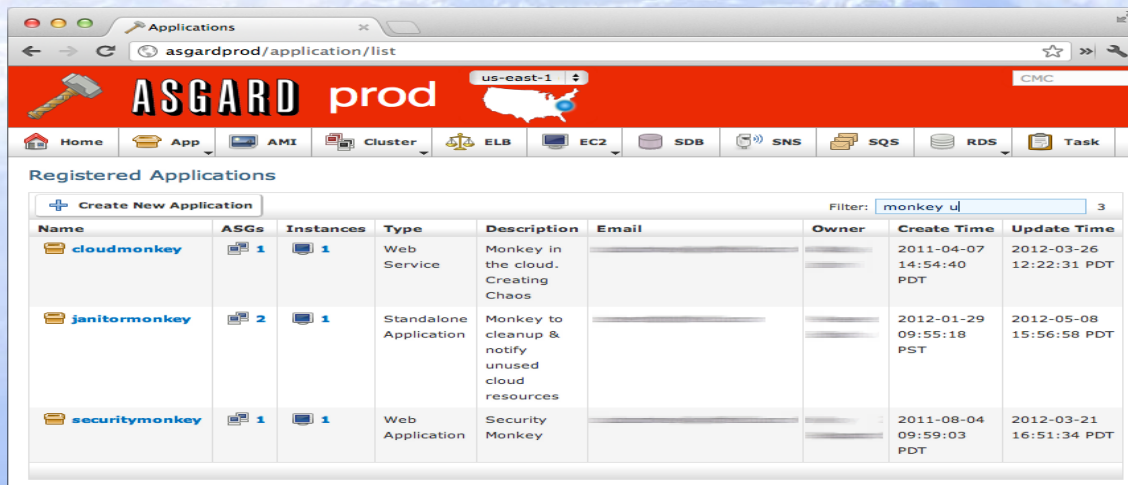
By Joe Sondow, Engineering Tools

<http://techblog.netflix.com/2012/06/asgard-web-based-cloud-management-and.html>

➤ For the past several years Netflix developers have been using self-service tools to build and deploy hundreds of applications and services to the Amazon cloud. One of those tools is **Asgard**, a web interface for application deployments and cloud management.

### ➤ Features

- Visual Language for the Cloud
- Resource Creation & Mgt
- AWS application install / distribute
- Fast Rollback
- Rolling Push
- Task Automation
- Auto Scaling
  - Center Deployment & fast rollback



The screenshot shows the Asgard web interface in a browser window. The URL is `asgardprod/application/list`. The page has a red header with the "ASGARD prod" logo and a "CMC" button. Below the header is a navigation bar with icons for Home, App, AMI, Cluster, ELB, EC2, SDB, SNS, SQS, RDS, and Task. The main content area is titled "Registered Applications" and features a "Create New Application" button and a filter input containing "monkey u" with a count of 3. A table lists three applications:

Name	ASGs	Instances	Type	Description	Email	Owner	Create Time	Update Time
cloudmonkey	1	1	Web Service	Monkey in the cloud. Creating Chaos			2011-04-07 14:54:40 PDT	2012-03-26 12:22:31 PDT
janitormonkey	2	1	Standalone Application	Monkey to cleanup & notify unused cloud resources			2012-01-29 09:55:18 PST	2012-05-08 15:56:58 PDT
securitymonkey	1	1	Web Application	Security Monkey			2011-08-04 09:59:03 PDT	2012-03-21 16:51:34 PDT

# OpenStack

- Open source software for building private and public clouds
- Open Cloud OS
  - OpenStack Software delivers a massively scalable cloud operating system
- <http://www.openstack.org/>



# OpenStack Foundation

- Platinum Membership
  - AT&T, IBM, HP, Rackspace, RedHat,
- Canonical, SUSE, Nebula
- Gold Membership
- Cisco, Dell, NetApp, ClearPath,
  - Cloudscaling, DreamHost, ITRI, Mirantis, Morphlabs, Piston Cloud, Yahoo, VMware, NEC, Intel

# OpenStack Community

- Community Site: <http://www.openstack.org>
- Wiki: <http://wiki.openstack.org>
- Project: <https://launchpad.net/~openstack>
- OpenStack Sandbox: <http://trystack.org>
- OpenStack Installation: <http://devstack.org/>

# IV. Concluding Remarks

# Concluding Remarks

- Open API & Open Source for Mobile Cloud Service: AWS, OpenStack
- Mobile Cloud for Rapid Development & Deployment: NoOPS
- Automation of Infra Technology, Programming Environments, and Scalability
- Collaborations in KOREN are Important