



Postal Savings Bank of China embraces mobile Internet by using OpenStack

EasyStack Inc.

Chongyi Zhou, Cheng Zhen

About us

Name	Zhou, Chong-Yi (周崇毅)
Location	Beijing , China
Company	EasyStack Inc.
Job Role	VP for Solution
Years of Experience	17 years
Education	<ul style="list-style-type: none">• Beijing University of Chemical Technology, Bachelor Degree• University of Science & Technology Beijing, Master Degree



Name	Zheng, Chen (郑晨)
Location	Beijing , China
Company	EasyStack Inc.
Job Role	Product Manager
Years of Experience	5 years
Education	<ul style="list-style-type: none">• Northeastern University for Bachelor, Master Degree

Agenda

- 01** Number One
Postal Savings Bank of China (PSBC) introduce
- 02** Number Two
Traditional banking business pressures in this time
- 03** Number Three
Financial Cloud solution base on OpenStack for PSBC
- 04** Number Four
Why EasyStack ?

About PSBC (Postal Savings Bank of China)

History

PSBC was original a department of China Post. In 2007, China Post separate this department to establish PSBC which is youngest big bank in China.

Features

PSBC's customer mainly come from country not city.

Size of Business

There are almost 40 thousands departments in China, nearly 490 million persons served, 7% of the global people has become its customer. It distribute 2.3 trillion to small and micro companies, help 12 million small and micro companies to solve financing problem.

Position

The asset of PSBC ranked 23rd in the global bank ranking of the top 1000 which is named by "The Banker" London-based magazine.



中国邮政储蓄银行
POSTAL SAVINGS BANK OF CHINA
进步 与您同步

36000个网点
与您一道编织美好未来

沟通城乡，服务大众。一直以来，我们致力于为城乡大众提供安全、便捷、全面的金融服务，36000个网点在您身边，与您相知相融，相携共进。

客户服务热线: 95580
网址: www.psb.com

个人业务 | 公司业务 | 信贷业务 | 理财业务 | 外汇业务 | 信用卡 | 资产业务

Fifth Largest Bank in China

- In September 28th 2016, PSBC has completed its own IPO and listed in Hong Kong with the market value approximate HK \$100 billion. This is nearly the world's largest IPO this year.

Bank Name	Total assets at the end of 2015 (Billion RMB)	Total assets at the end of First Quarter in 2015 (Billion RMB)
ICBC	22209.780	22883.325
CCB	18349.489	19143.791
ABC	17791.393	18413.470
BOC	16815.597	17039.969
PSBC	7296.364	7707.634
CBC	7155.362	7404.417



Agenda

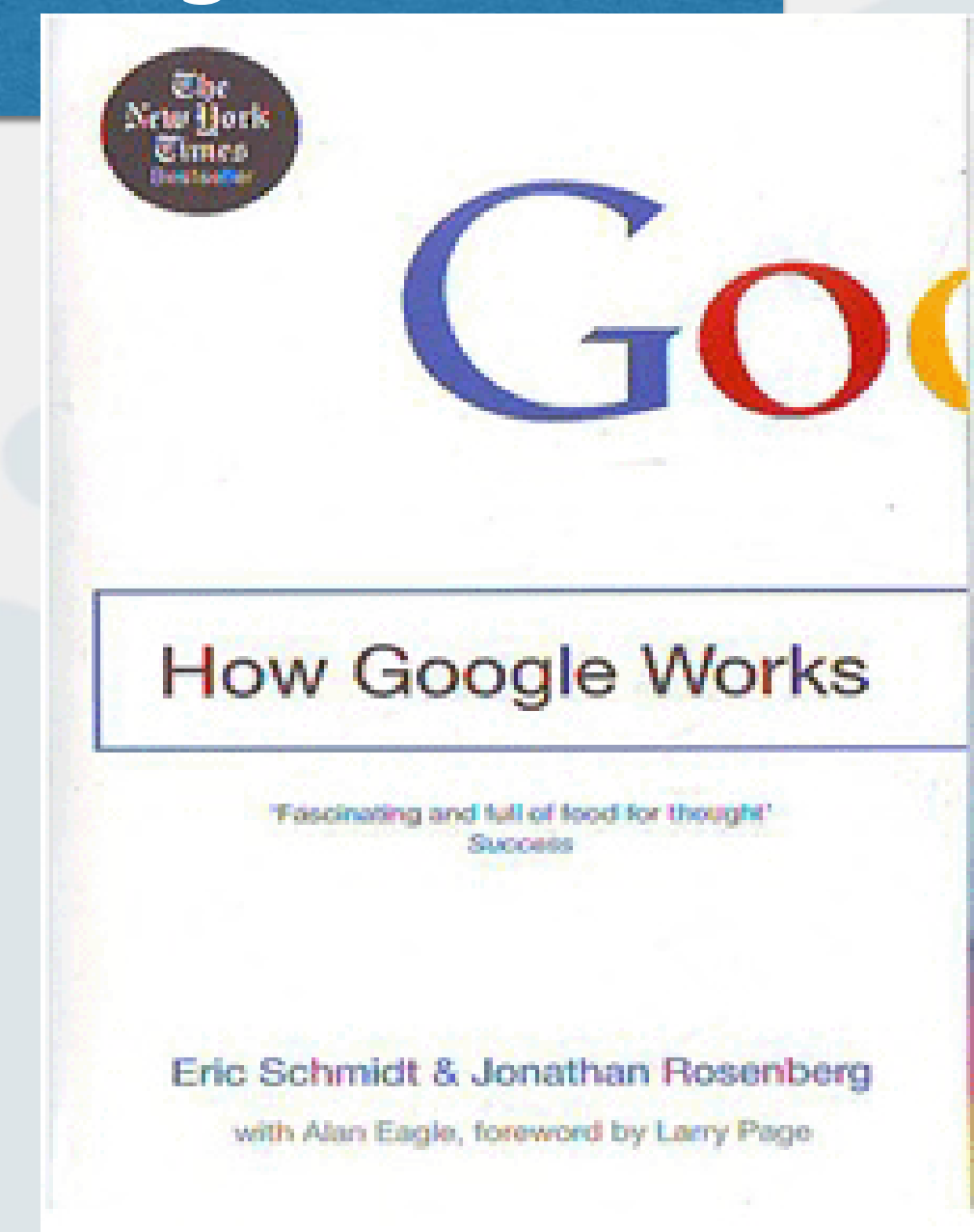
- 01 Number One
Postal Savings Bank of China (PSBC) introduce
- 02 Number Two
Traditional banking business pressures in this time
- 03 Number Three
Financial Cloud solution base on OpenStack for PSBC
- 04 Number Four
Why EasyStack ?

What are the Giants Worried about ?



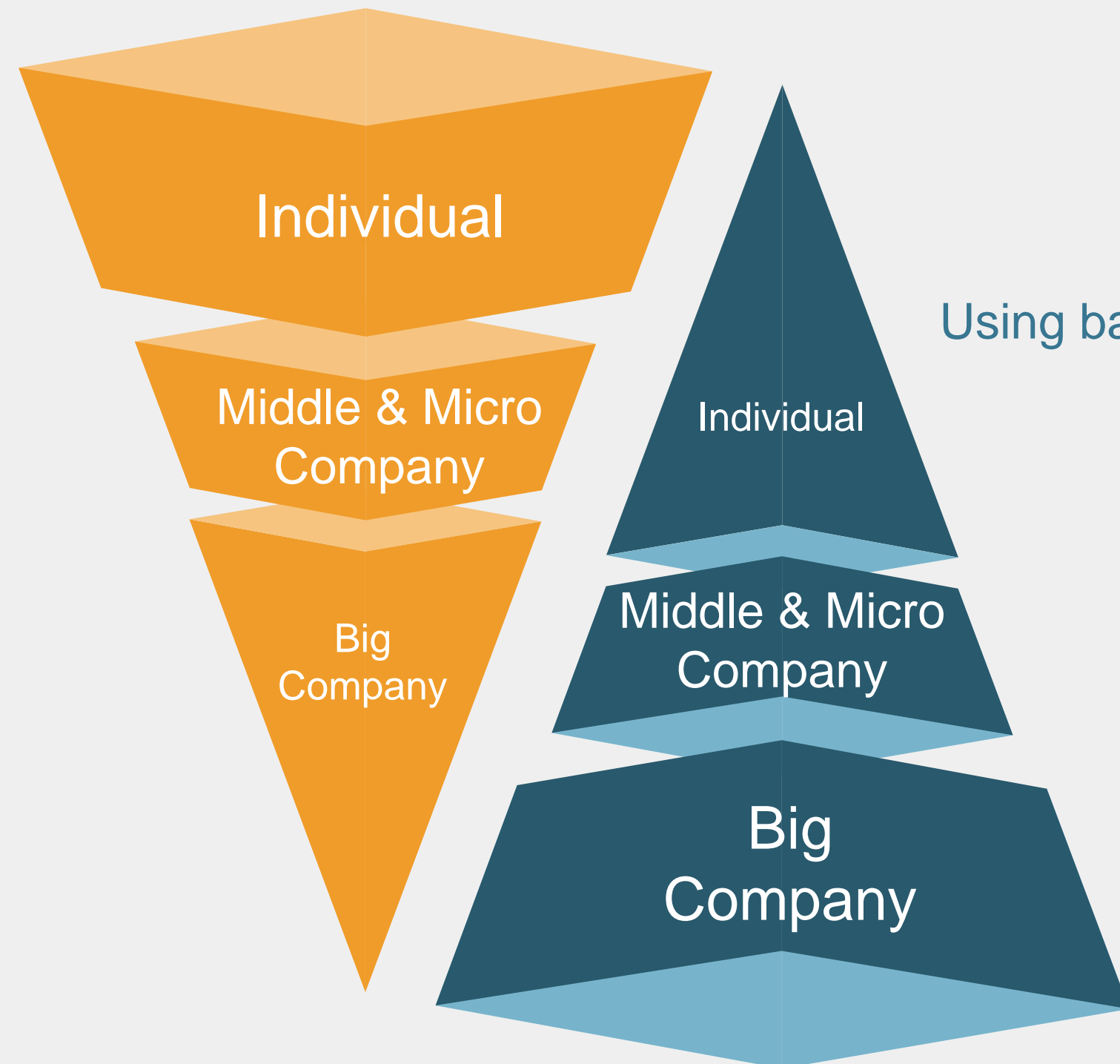
“If the cost curve of the main factor of a certain industry decline, this industry will be changed.”

—— 《How Google Works》



Internet Company Launch a Battle to Banks

Capability distribution of Internet Company



Capacity distribution of Traditional Banks

Mobile payment,
Using balance to attract deposits.



Competition for small &
micro loads market.



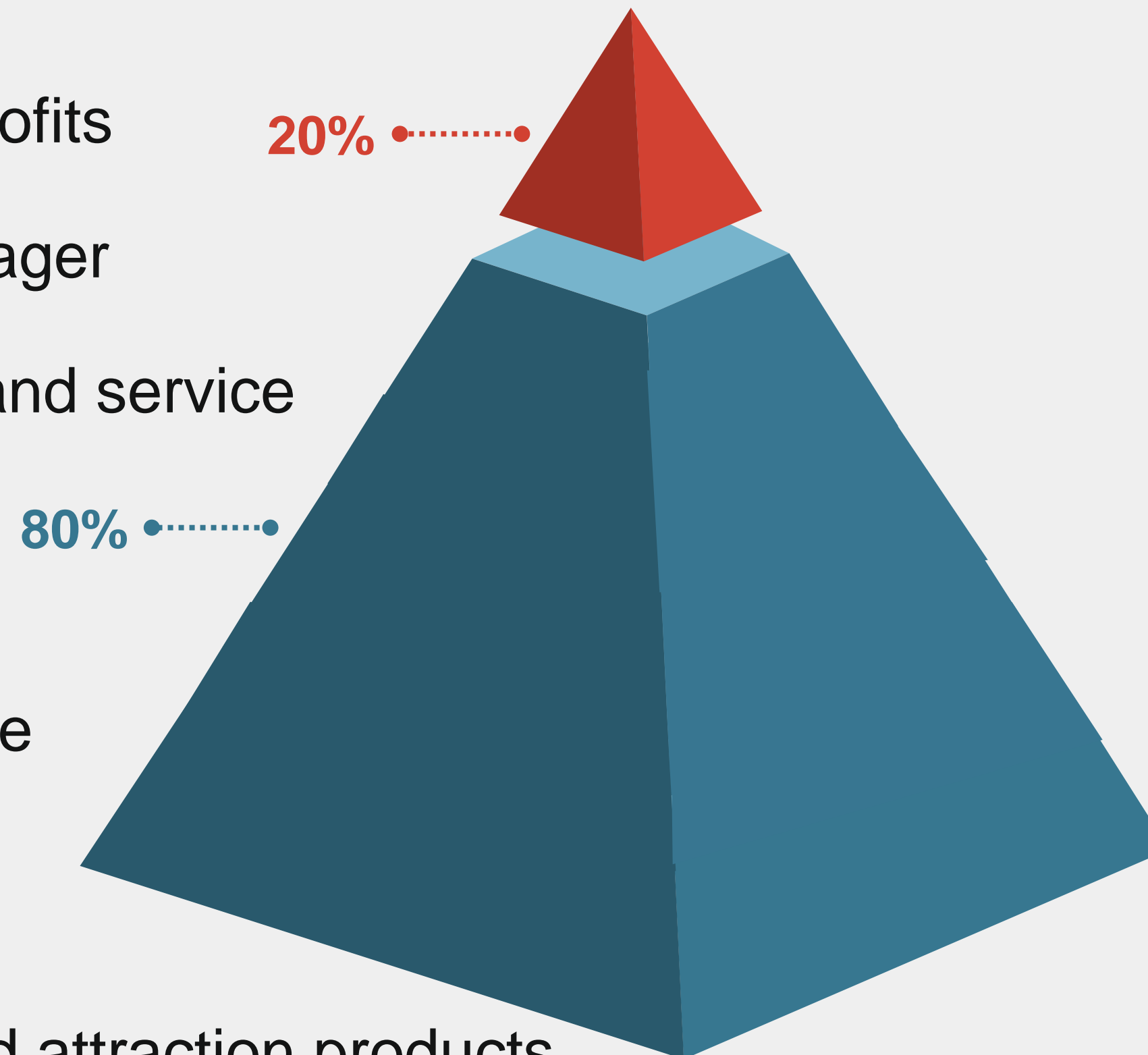
Interactive online banking,
Reduce middle business income
of the traditional banks.



There will not be any advantage to traditional banks by the site location to serve the core customers as business model. There is more advantage for Internet Company which do business on the Internet.

Competition for Long Tail

- Core and elite customers
- Main source of current profits
- Proprietary account manager
- Customization products and service
- **Silent majority**
- Don't understand what the majority really need
- High cost & low profit
- Lack of differentiation and attraction products



Internet Financial :

Refer to the Internet business model and technology, to provide more and better financial and non-financial services to a wider population.

- Using Internet financial risk control model
- Providing financial and non-financial services through the platform strategy
- Make promotion for small and medium user experience
- Using Big data

- How to add new users?
- How to retain users?
- How to improve the user's activity?
- How to improve the income of a single customer?
- How to control the risk?

全能金融、金融集团



The Value of Cloud Computing for Banks

Internet financial business requirements

● Mobile direct sales

Definition: New business model relies on Internet channels not physical outlets

IT Challenge: Difficulty to predict the peak of the business

● Interactive online banking

Definition: Based on customer interaction behavior, enhance user experience, provide real-time personalized marketing capabilities.

IT Challenge: These need big data outlets

● Production and financial collaboration

Definition: Provide embedded financial products and third party services.

IT Challenge: Complex product and customer management.



Driving force of cloud computing

Cost reduction

- Ways to cost reduction–
 - SaaS – Infrastructure Sharing
 - PaaS – Faster deployment cycle
 - IaaS – Increasing usage of infrastructure components
- Improve the ability to control the IT infrastructure
- Unstable economic environment bring elastic and management cost

Rapid delivery

- Rapid apply to the changing environment.
- Faster initial deployment by reducing the learning cycle of hardware and the audit of investment projects.

Flexible deployment

- Rapid adjustment of IT resources according to the business peak.
- Massive data and very high transaction volume bring huge business risk.
- Integration of servers, data centers by using cloud computing, providing a higher rate of server usage, reducing costs.

Agenda

- 01** Number One
Postal Savings Bank of China (PSBC) introduce
- 02** Number Two
Traditional banking business pressures in this time
- 03** Number Three
Financial Cloud solution base on OpenStack for PSBC
- 04** Number Four
Why EasyStack ?

Case Background

Business Challenge

Along with the spread of Internet , on-line payment, china younger customer will be more self control and care more about user experience. In result of that, customers have more requirement of mobile and usable, will wish to based on mobile device in stead of local department. The challenge of Banking is much more about branding and service.

Cloud Solution

China Post Saving bank use ESCloud solution, which adopted centralizing adoption and directly adoption method. There will be 63, 115 and 650 servers will be deployed to support mobile bank, internet loan, self-service banking and other services.

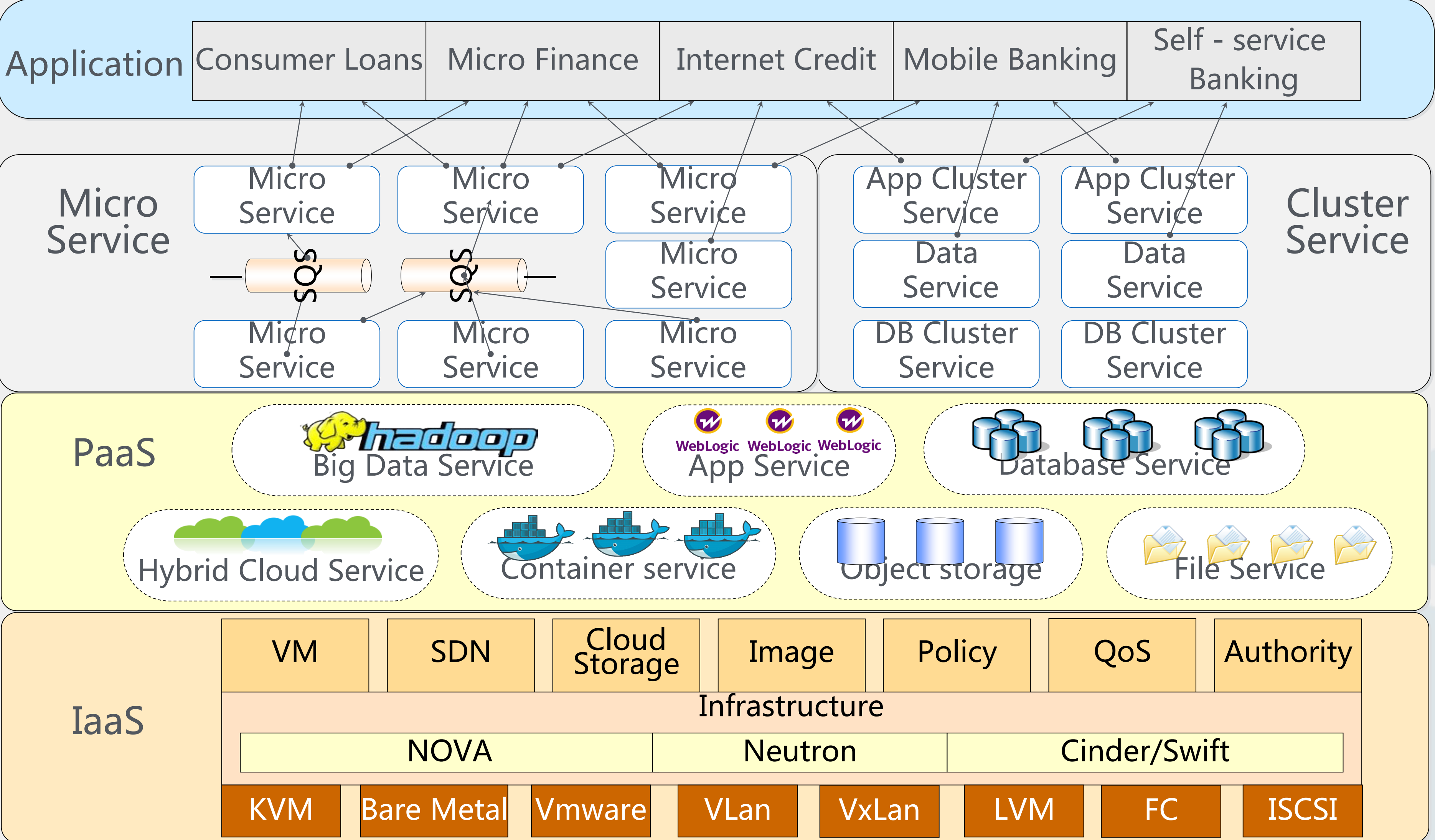
System using centralized storage solution, including HP, HDS, Huawei equipment, to isolate the business.

Customer benefits

China Post Saving bank transfer all the internet business to ESCloud and keeping running till now one year more, which fulfill the reliability and stability requirement. ESCloud could saving much costing, at the same time, customer can continue innovate with open, controllable technology.



Architecture Design



Cloud Security

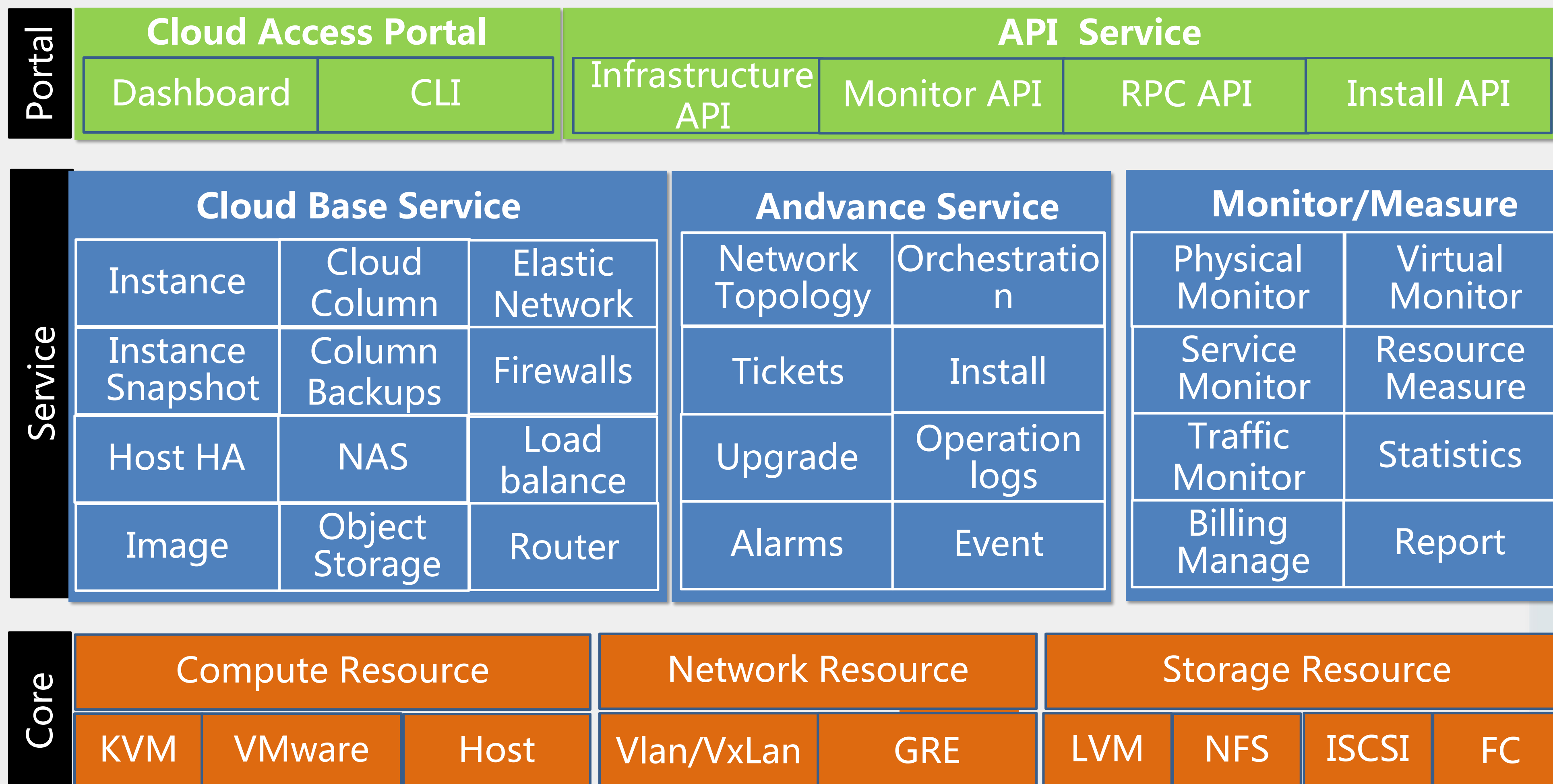
Monitor

- PM
- VM
- Storage
- Network
- Service

Monitor

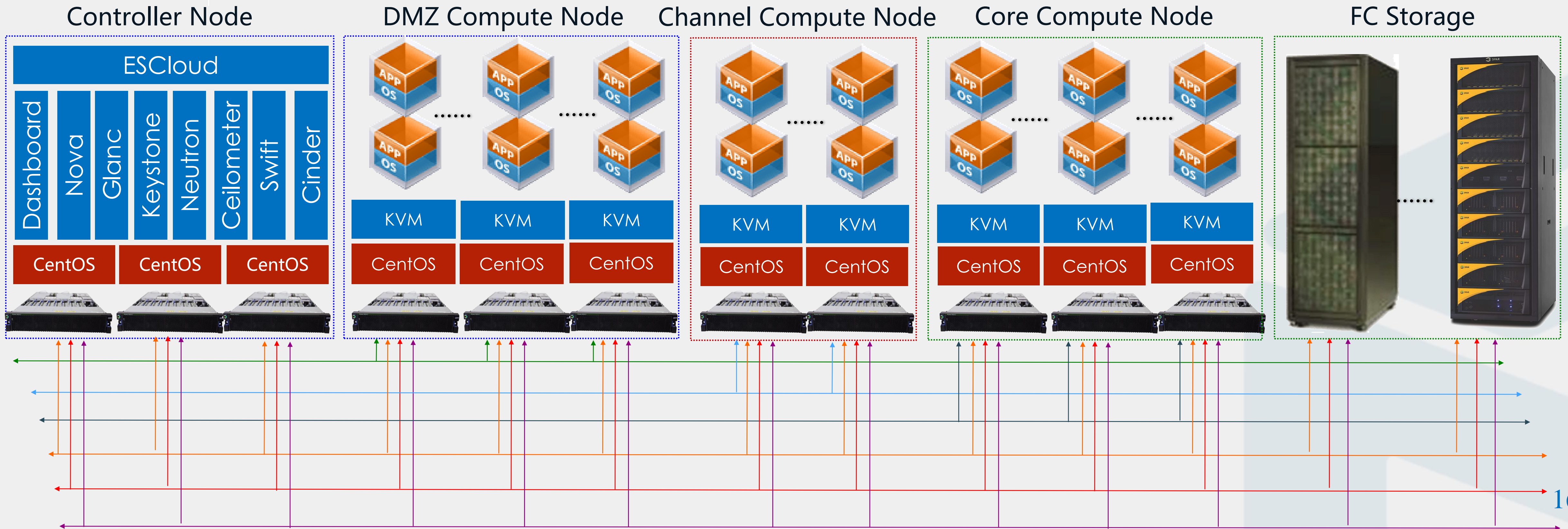
- CPU
- Storage
- Network
- Service
- Billing

Application Function Design

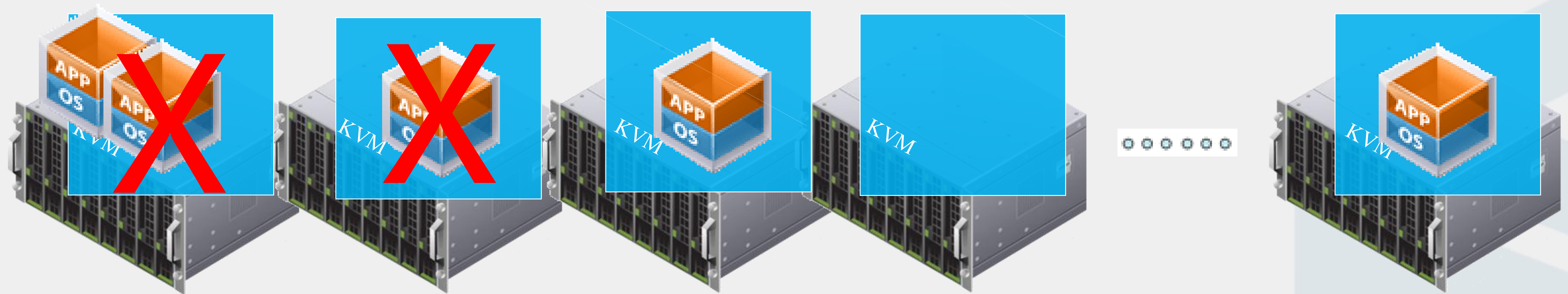


Network Architecture Design

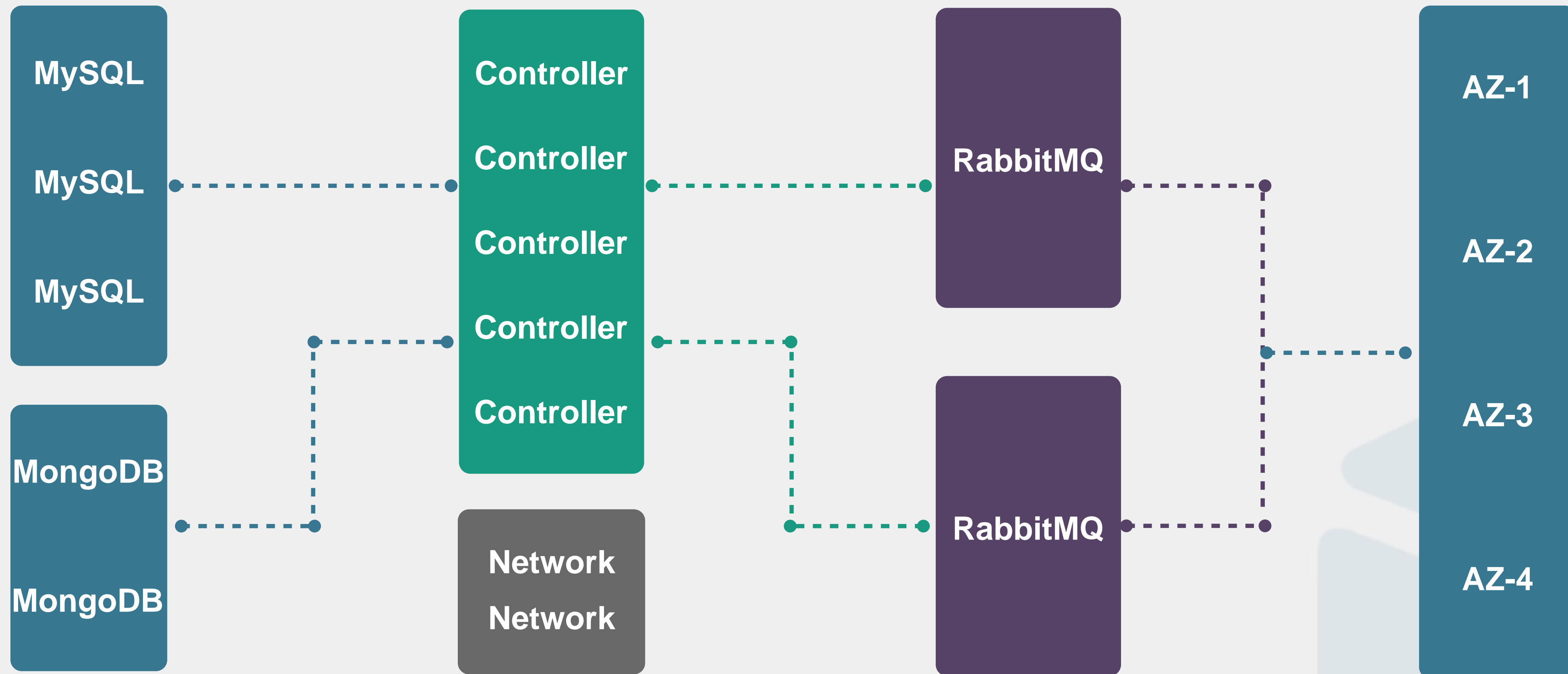
- DMZ private network
- Channel private network
- Core private network
- FC SAN
- Management network
- Install & Monitor network



High Reliability Design — Host HA



600+ Nodes Architecture Design



Agenda

- 01** Number One
Postal Savings Bank of China (PSBC) introduce
- 02** Number Two
Traditional banking business pressures in this time
- 03** Number Three
Financial Cloud solution base on OpenStack for PSBC
- 04** Number Four
Why EasyStack ?

EasyStack Strength



Leadership

Leading OpenStack Enterprise Solution and Service Provider

Found OpenStack China Community

The Ministry of "cloud computing, open source Industry Alliance" Member units

Delivered to State Grid, Post Savings Bank, China UnionPay, industrial Bank, S.F Express, China Telecom, China Mobile, Lenovo, Tsinghua University, China's large OpenStack project



Development

OpenStack Mitaka Commits No.11

OpenStack Mitaka TC-Approved Commits No.10

OpenStack Newton Total Commits No.12

OpenStack Newton Total Commits No.8

Ceph Community Contribution No.7



Creativity

Industrial Dedicated Cloud ESCaaS

Gartner 2016 Cool Vendor

OpenStack Foundation Gold Members

Gold Members

OpenStack Foundation Gold Members provide funding and pledge strategic alignment to the OpenStack mission. There can be up to twenty-four Gold Members at any given time, subject to board approval. If your organization is highly involved with OpenStack and interested in becoming a Gold Member, read more about joining the Foundation. Thank you to the following Gold Members who are committed to OpenStack's success.



Linux Foundation SILVER MEMBERS



Having Top OpenStack Engineer In China



#	Contributor	Commits
1	ChangBo Guo(gcb)	480
2	Tang Chen	177
3	aohuanxuan	120
4	LiuNanke	112
5	Bo Wang	73
6	Javeme	69
7	Allen Gao	69
8	tingwang	68
9	Chaozhe Chen	67
10	Yang Hongyang	63
11	HouMing Wang	54
12	PanFengyun	44
13	Yang Li	38
14	zheng yin	38
15	guo yunxian	37
16	jian.song	34
17	Hanxi Liu	33
18	caoyue	32
19	shizhihui	30
20	Lu lei	29
21	xiaozhuangqing	27
22	sunyajing	23
23	Shu Yingya	21
24	lilintan	20
25	Chen Fan	15

#	Module	Commits
1	python-openstackclient	298
2	nova	136
3	magnum	84
4	tempest	54
5	horizon	51
6	kolla	50
7	oslo.messaging	46
8	cinder	42
9	astara	37
10	trove	37

Showing 1 to 10 of 166 entries

First Previous 1 2 3 4 5 Next

Contribution Summary

Commits: **1879**
 LOCs: **87092**
 Do not merge (-2): **3**
 Patch needs further work (-1): **400**
 Looks good (+1): **1043**
 Looks good for core (+2): **823**
 Approve: **519**
 Abandon: **15**
 Change Requests: **2741** (671 of them abandoned)
 Patch Sets: **7103**
 Draft Blueprints: **35**
 Completed Blueprints: **12**
 Filed Bugs: **392**

郭长波成为中国首个OpenStack Oslo Core Reviewer

从地域而言，目前中国已成为OpenStack贡献最多的国家，北京则是OpenStack贡献最大的城市。来自中国的OpenStack组件Core数量的不断增加，显示出中国的OpenStacker的杰出贡献不断被社区、基金会认可，中国的OpenStacker正在从参与走向核心角色，将进一步在OS的技术发展方向、实现方式等方面产生更为积极的作用。

发布时间：2015-11-30 22:18 来源：赛迪网 作者：赛迪网

11月27日，一直在社区贡献出色的郭长波受OpenStack Oslo PTL Davanum Srinivas邀请，正式成为OpenStack Oslo Core Reviewer。作为EasyStack创始工程师的郭长波，成为首位来自中国创业公司的OpenStack核心组件的Core Reviewer。

OpenStack Core的中国力量——从“参与”到“核心”

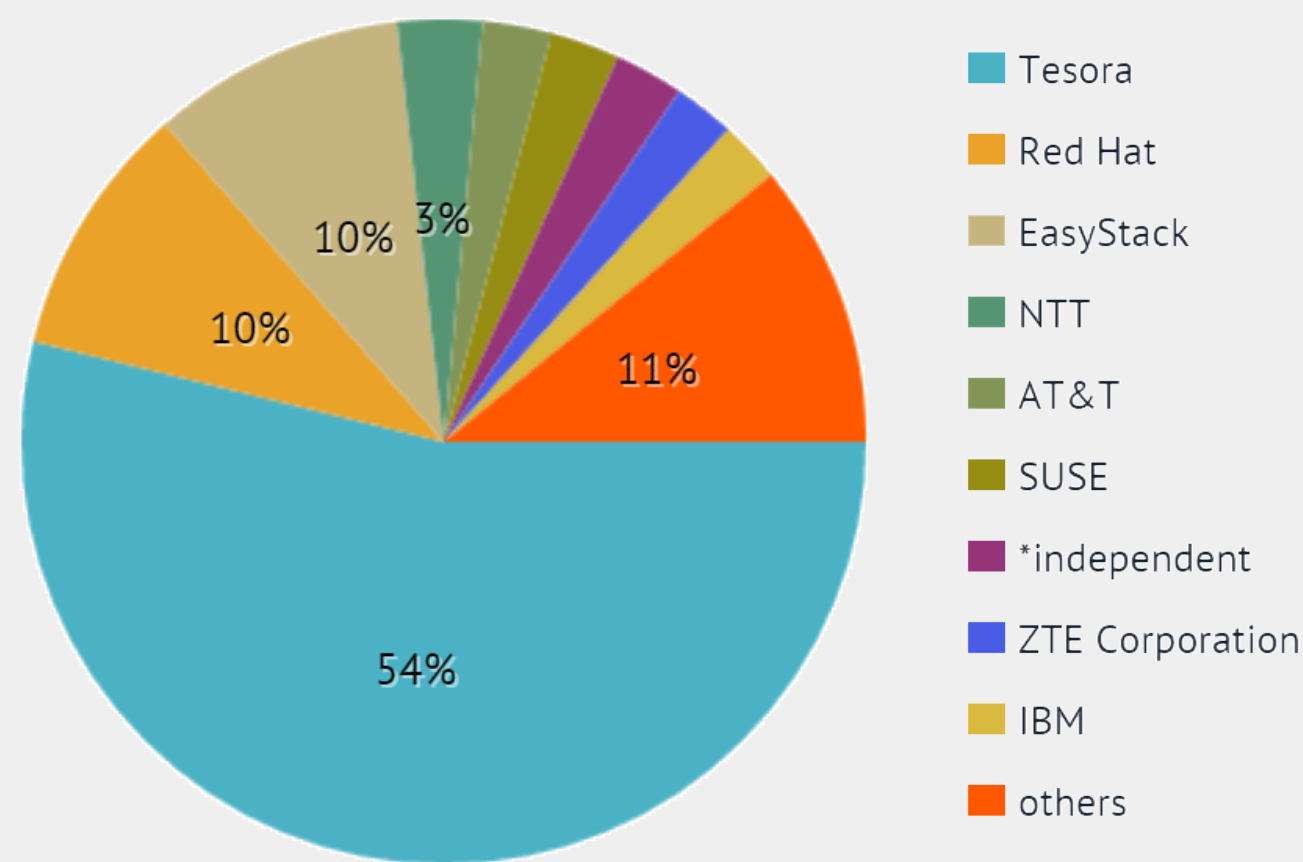
汤晨成为OpenStack Client Core reviewer

2016-02-23 00:47:00 [中关村在线 厂商稿] 分享到 暂无评论

由于高质量的代码贡献与审阅，EasyStack工程师汤晨新晋成为OpenStackClient项目的Corereviewer。这是继郭长波成为中国第一个来自创业公司的OpenStack基础类库项目Oslo的Corereviewer之后，EasyStack再添一员，已拥有2名Corereviewer！

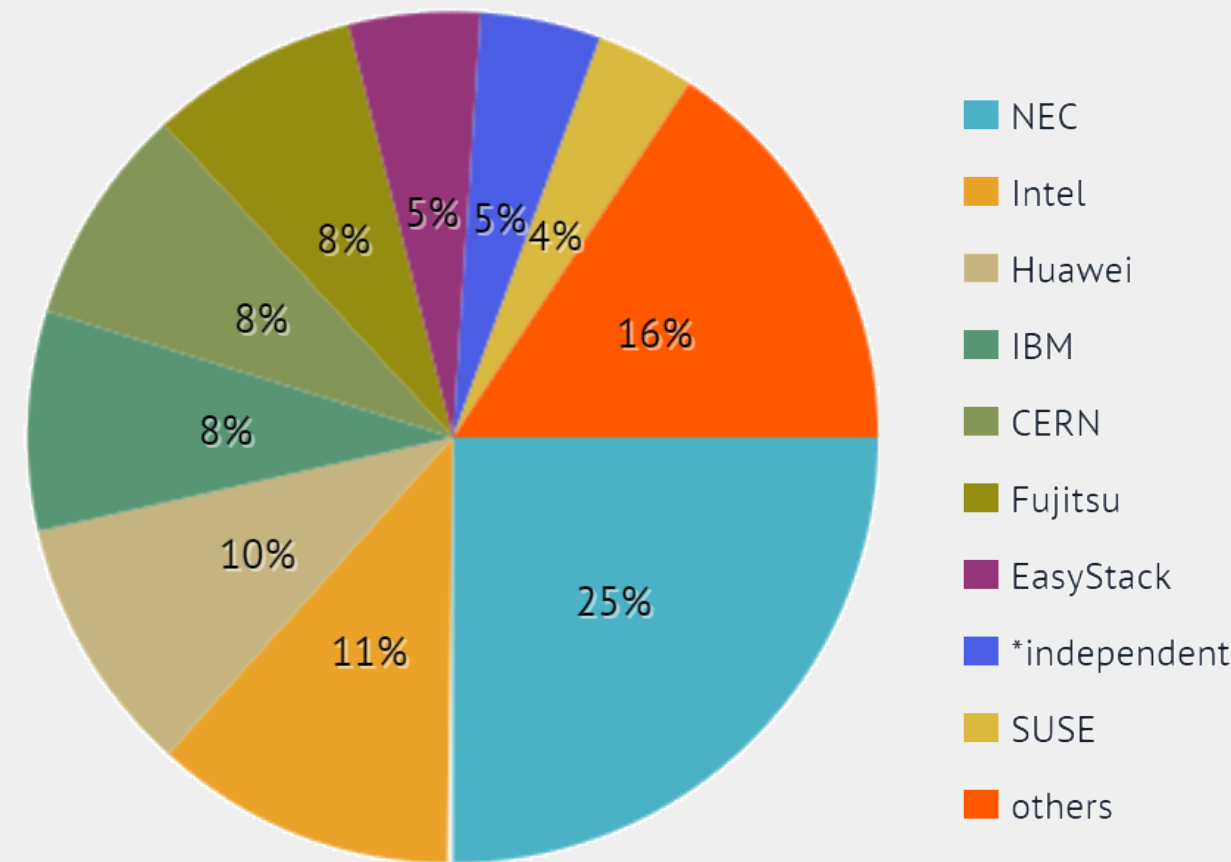
Intel资深软件工程师DeanTroyer在给OpenStack-Dev的邮件中宣布了这一喜讯，他表示，“特别在OpenSackSDK集成与新网络命令方面，由于在高质量的代码贡献与审阅，我宣布汤晨与RichardTheis新晋成为OpenStackClientCore团队中的一员。欢迎！”

EasyStack Contribution in PaaS (Newton)



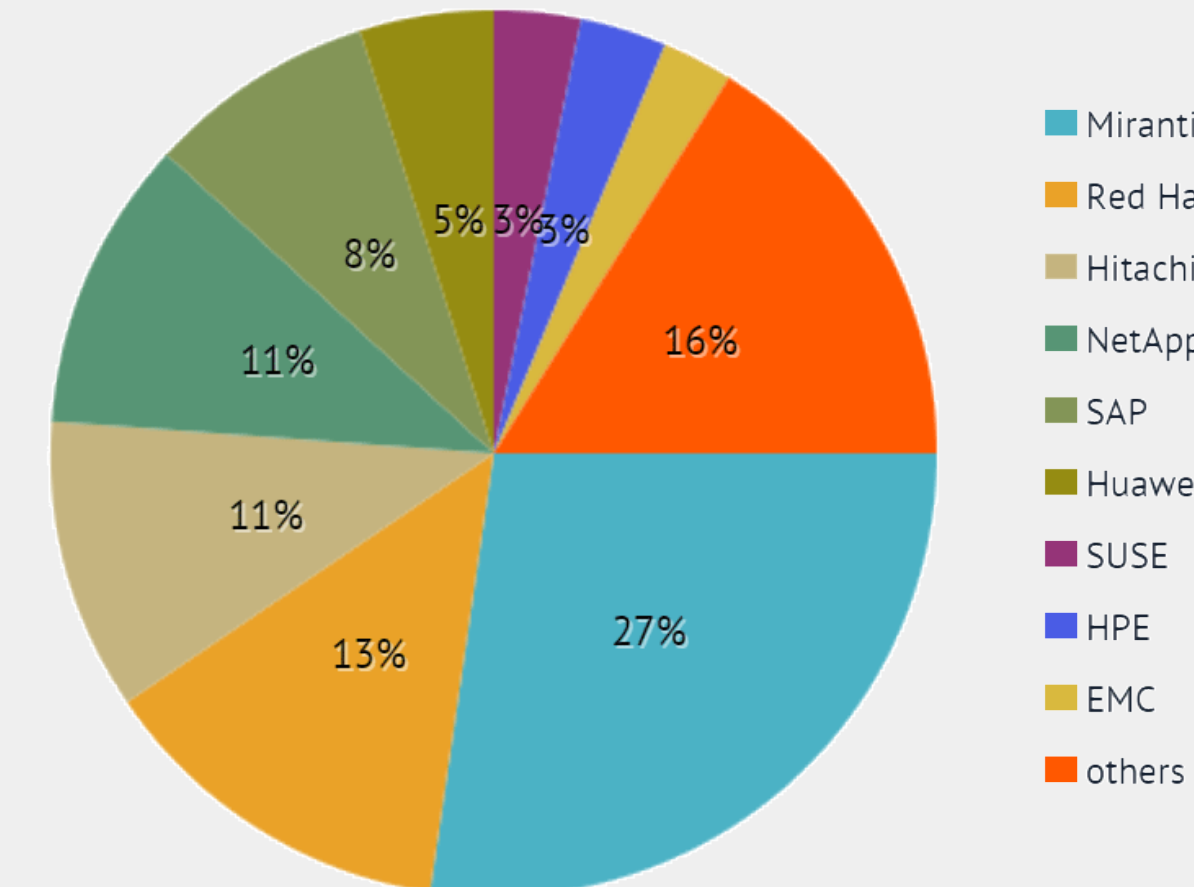
Trove

China No.1 , Global No.3



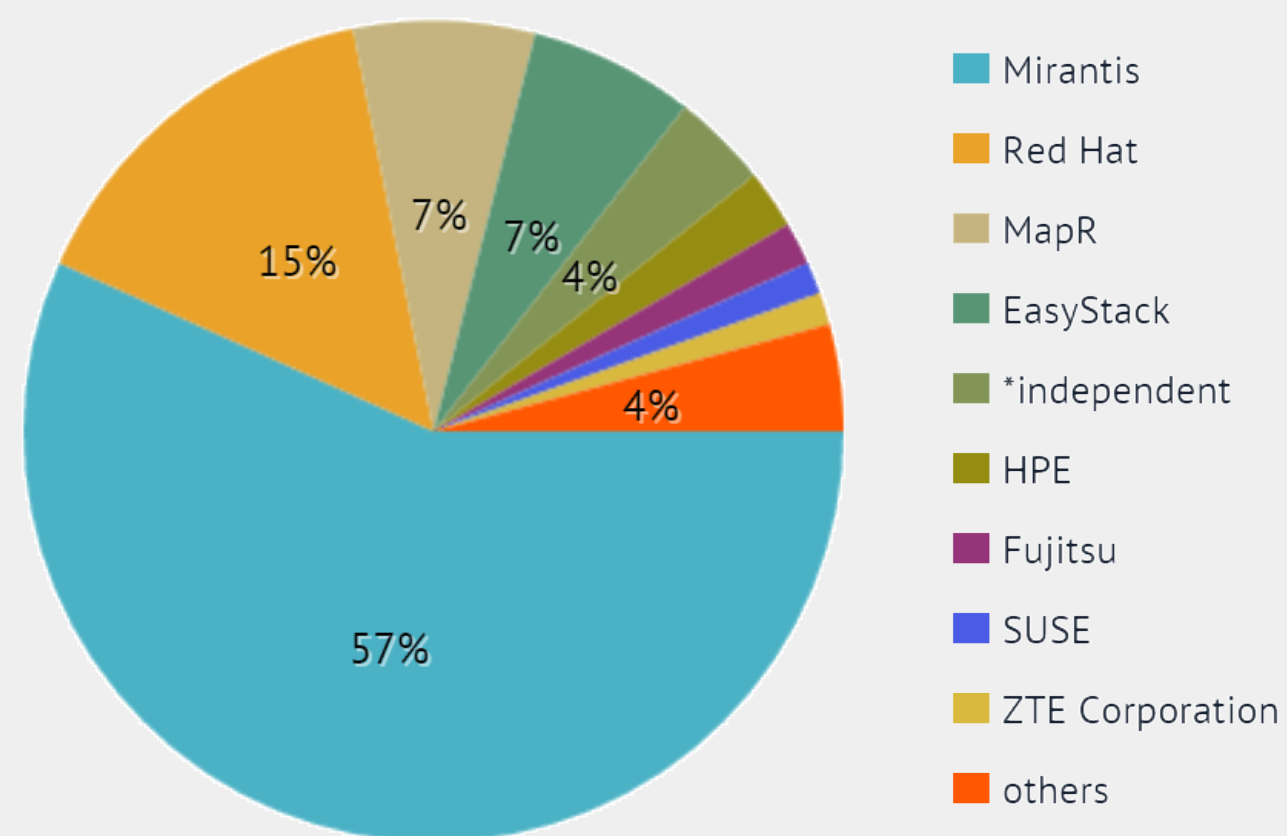
Magnum

China No.2 , Global No.7



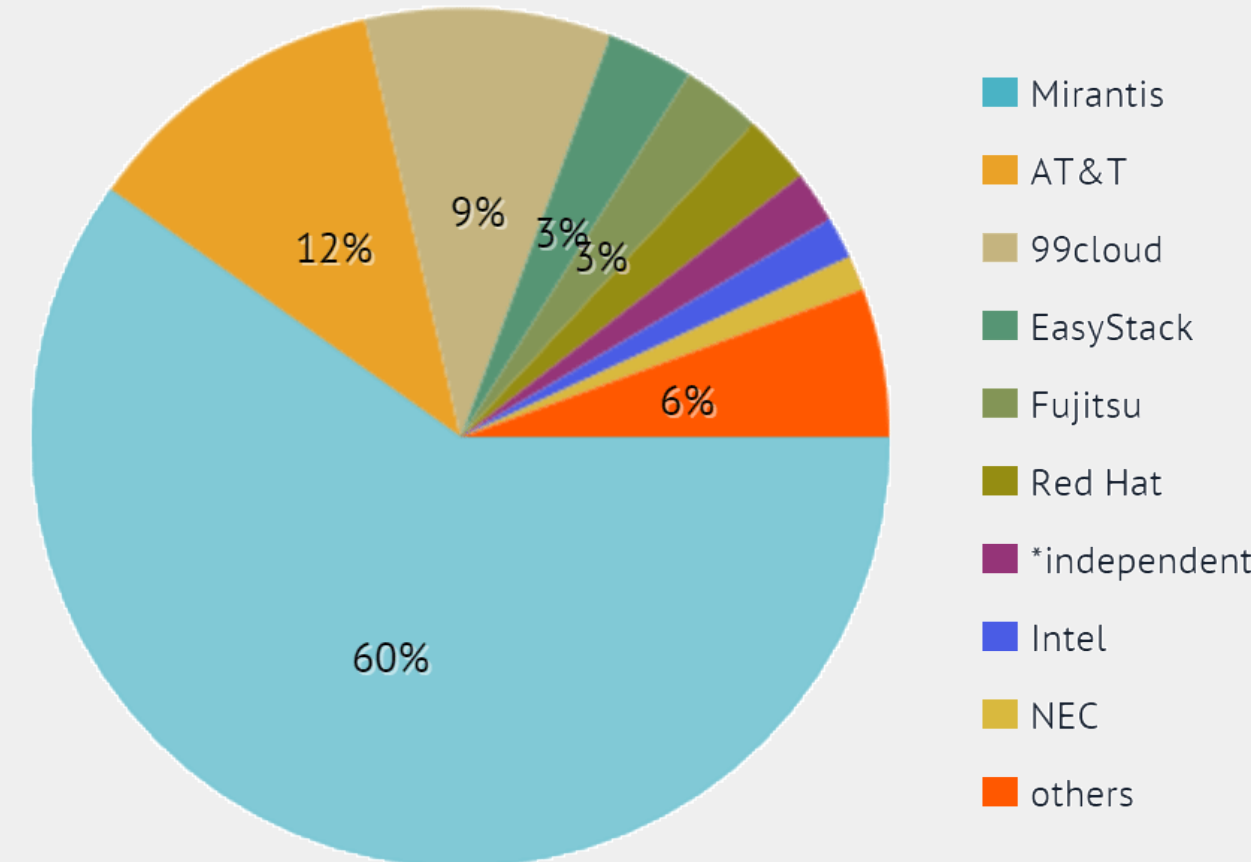
Manila

China No.2 , Global No.10



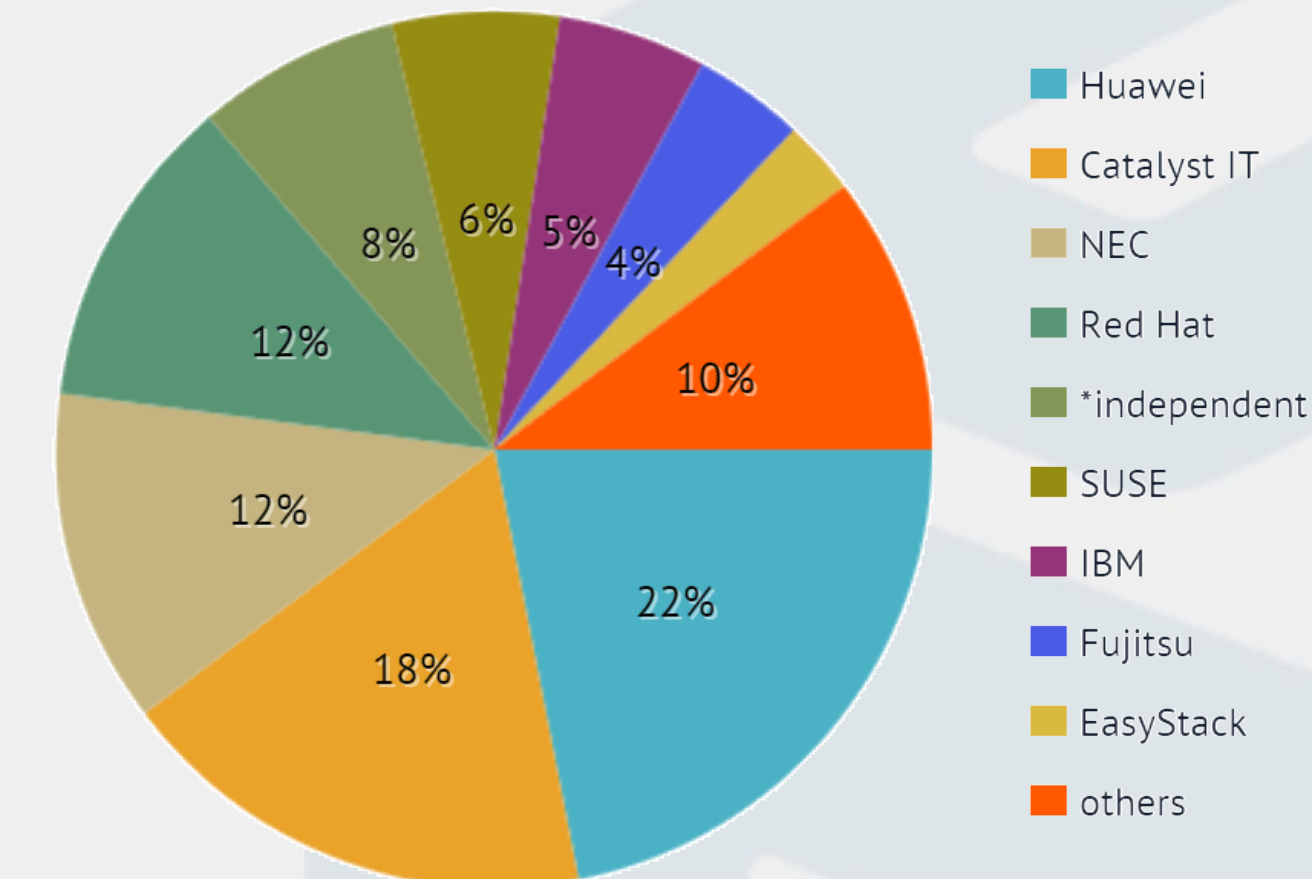
Sahara

China No.1 , Global No.4



Murano

China No.2 , Global No.4



Zaqr

China No.2 , Global No.8

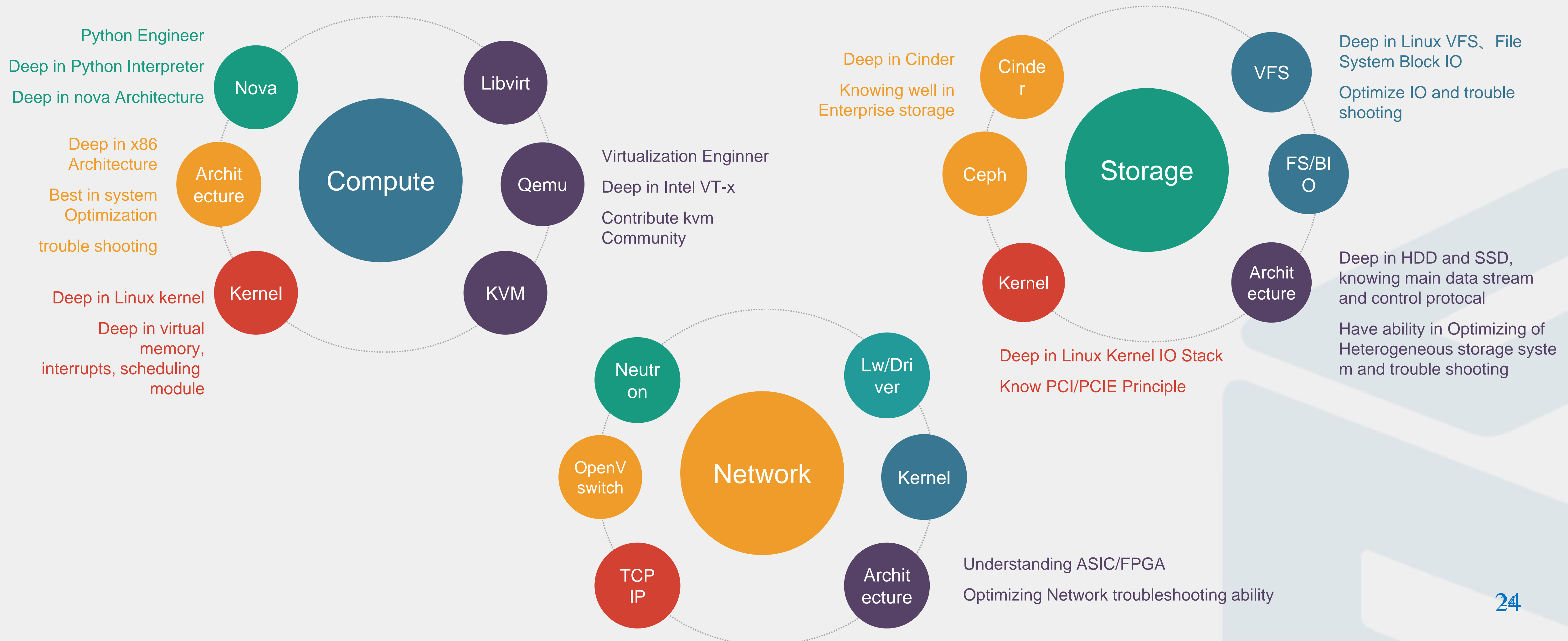
Top China System Engineering Team



System Engineering	Community	commits	Components
Linux Kernel	Linux Kernel	373	Scheduler, perf, btrfs, MTD, DMA, Networking, NFS, OCFS2, EXT3/EXT4, KVM, SELinux, VFS, Drivers, XFS, VFS, Btrfs, cgroup
Virtualization, Storage, Network	LXC	9	Linux Containers
	Qemu	54	Author of QEMU space netfilter
	Xen	44	1.5w LOC
	libguestfs	75	Co-author of virt-sysprep
	Ceph	57	Distributed object store and file system
	OpenvSwitch	1	virtual switch
System Quality	AutoTest	38	Fully automated tests on Linux
	LKP+	273	Linux Kernel Performance
	LTP	671	Co-maintainer, Linux Test Project
System Tools	Coreutils	7	Linux Tools

OpenStack Requirement for Engineer Team

Except OpenStack Community
EasyStack Totally Contribute Linux Kernel over 400 Commits



EasyStack Support Customer Innovation



ESCloud

Enterprise Private Cloud



ESConnector

Hybrid Cloud Connector



ESCaaS

Elastic Dedicated Cloud

Product Lines

- *Dedicated reliable and manageable EasyStack Enterprise Product*
- *Provide high quality EasyStack Supporting Service*
- *Create OpenStack Ecosystem with Corporation, Win-Win and Open Strategy*

EasyStack Success Story (Part)



- Postal Savings Bank of China
- China UnionPay
- Industrial Bank of China
- Industrial Bank Hangzhou Branch
- Agricultural Bank of funds clearing center
- Guangdong Agricultural and Commercial Bank
- Taizhou Bank
- Shun Fung Financial
- Hebei campus financial cloud
- Shenzhen Stock Exchange
- Soochow Securities Company
- China Telecom
- China Mobile
- China Unicom
- Tibet Mobile
- Tianwei Xintong
- Tianhe Cloud
- Great Wall Broadband
- Tianan Zhongzhi
- Tsinghua University
- Renmin University of China
- Beijing industry university
- Hebei North College
- Changzhou Institute of Technology
- State Grid
- Heilongjiang State Grid
- Zhejiang State Grid
- Zhejiang Power Group
- TCL Group
- Shanghai Automotive Group
- Beiming software
- SF Express
- Best Express
- BOE
- Leyou
- Lenovo
- National Geographic Information Bureau of Surveying and Mapping
- Ministry of Water Resources
- Chongqing Environmental Protection Bureau
- Nanning Education Bureau
- Surveying and Mapping Institute of Shenyang City
- Wuhu Public Security Bureau
- Anqing Public Security Bureau
- Guang'an E - government Cloud
- Capital Library
- Liberation Army Daily

THANKS

<http://www.easystack.cn>