NTT Com
Global Cloud Services

NTT Communications Corporation

November 1, 2013

Agenda

1. Group Structure

2. Vision

3. Offering Strategy (Global Cloud)

1. Group Structure

NTT Group at a glance

NTT（Holding Company）

NTTEAST	NTTWEST	NTT Communications	docomo	NTT DATA	dimension data
Regional Communication	Regional Communication	**Global IaaS and ICT Solutions**	Mobile Communication	Application Integration	Managed ICT Service
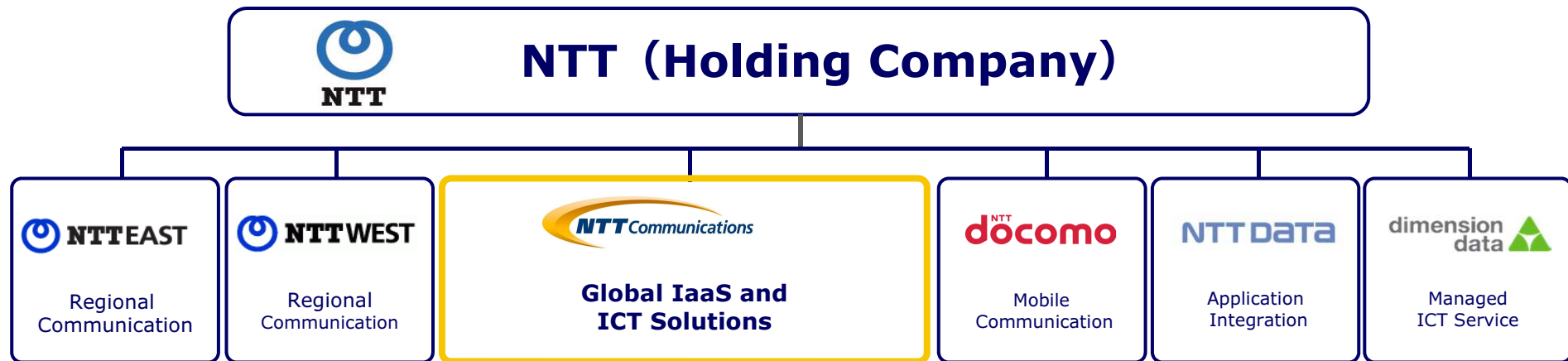
FY 2012 Financial Result (As of end of March 2013)
- Operating Revenues: JPY 1,194 B (USD 11.9B)
- Operating Income: JPY 116 B (USD 1.2B)

Global Deployment (As of end of July 2013)
- Offices in **31** countries/regions, **84** cities (excluding Japan)
- Global Network Service in **160** countries/regions
- Largest Global Tier1 IP backbone provider in Asia
- More than **140** self-owned data center with a combined server space of over **180,000m^2** with strong expansion in Asia and Europe
- Since 2006, invested **USD 750 million** to acquire 13 companies

* Figures in USD are not official data but reference (USD 1 is JPY 100)

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NTT Communications Group Deployment

NTT Com Group supports Customers based on subsidiaries and offices in 87 cities in 31 countries on a global scale.

EMEA
- Employees: Approx. **1,350**

Japan
- Employees: Approx. **11,200**

Asia/Pacific
- Employees: Approx. **4,300**

Americas
- Employees: Approx. **1,000**

As of end of March

4

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Key Subsidiaries of NTT Communications

NTT Com Group supports Customers based on subsidiaries and offices in 87 cities in 31 countries on a global scale.

Major M&A activities

Secode *re-branded as NTT Com Security in June 2013.
Acquired: 2010
Business: Managed Security Services

Arkadin
Acquired: planned in 2013
Business: Audio/Video Conferencing Services

Integralis *re-branded as NTT Com Security in June 2013.
Acquired: 2009
Business: Managed Security Services

Gyron
Acquired: 2012
Business: Data Center Services

Netmagic Solutions
Acquired: 2012
Business: Data Center and Regional Cloud Services

Virtela
Acquired: Oct 2013
Business: Virtualized Overlay Network

Raging Wire
Acquired: Oct 2013
Business: Datacenter

Pacific Crossing
Acquired: 2009
Business: Construction of Submarine Cabling System

DTSI Group
Acquired: 2012
Business: Contact Center Solution, System Integration for BPO, etc.

Emerio GlobeSoft
Acquired: 2010
Business: IT Outsourcing Services (ie. IT Help Desk)

Frontline Australia
Acquired: 2010
Business: Managed Security Services

2. Vision

Our Vision

"Vision 2015" (Corporate Vision)

NTT Communications is becoming
a global leader of ICT services
(**Global ICT Partner**)

To achieve "Vision 2015," NTT Communications
is providing globally seamless services

"Global Cloud Vision" (Service Vision)

Provide Global Total ICT Outsourcing by leveraging the **strength as a telecom carrier**, taking advantage of the customers' transition to Cloud-based ICT systems.

Global Cloud Vision extends beyond Cloud services to encompass the entire service vision of the NTT Com Group.
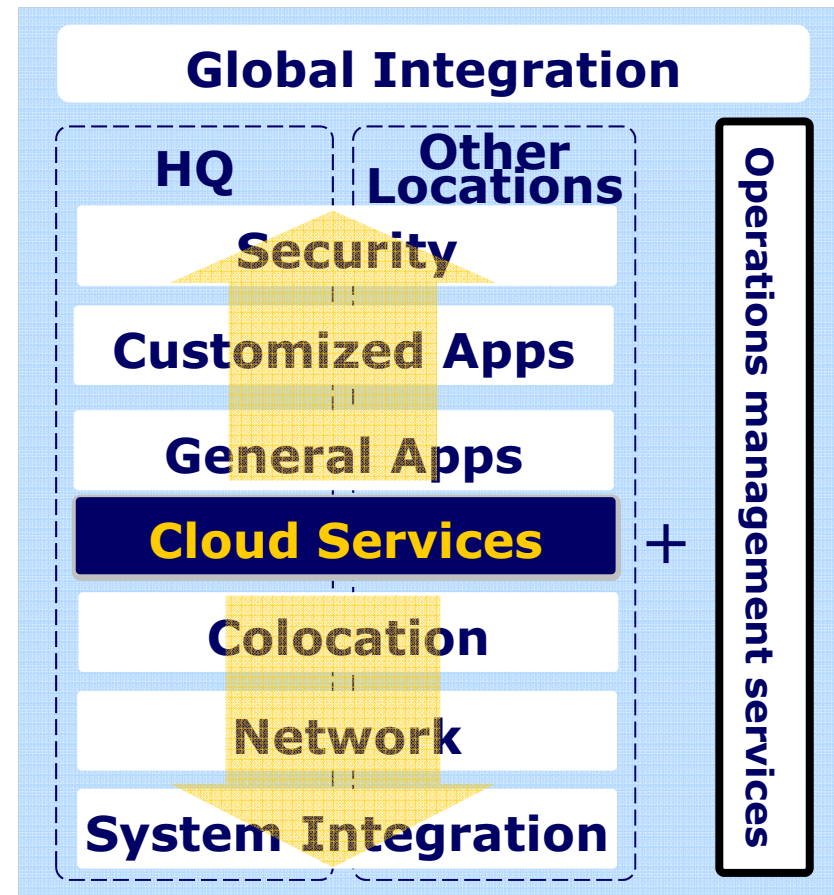
Our Value Proposition

Global Total ICT Outsourcing based on Global Cloud Vision enables customers to focus their resources on the innovation

(1) **Build flexible, low-cost ICT environments to respond to business challenges**

(2) **Optimize ICT environments on a global scale**

(3) **Strengthen businesses through safe, secure ICT environments**

Example of Global Total ICT Outsourcing

Global Integration

HQ | Other Locations

Security

Customized Apps

General Apps

Cloud Services

Colocation

Network

System Integration

+

Operations management services

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9 Key Features of Global Cloud Vision 2013

Develop competitive advantage through the 9 key features below

Infrastructure	**General Application**	**Cloud Migration**
Network	**Managed Security**	**Operations Management**
Cloud	**Customer Portal**	**Partnership**

Our Target for Cloud and DC Businesses

Cloud and DC Businesses Target Revenue with Organic Growth

Over 200 billion JPY

(2 billion USD*)

99 billion JPY

(990 Million USD*)

2012

2015

(*1 USD = 100 JPY)

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3. Offering Strategy

Major Submarine Cable Systems

Infra-structure

ASE *1 Hong Kong Route
Launched February 2013

PC-1 *2
Launched
December 1999

Korea Japan

US

APG *3
Scheduled for
June 2014

Hong
Kong

Taiwan

Vietnam

Thailand

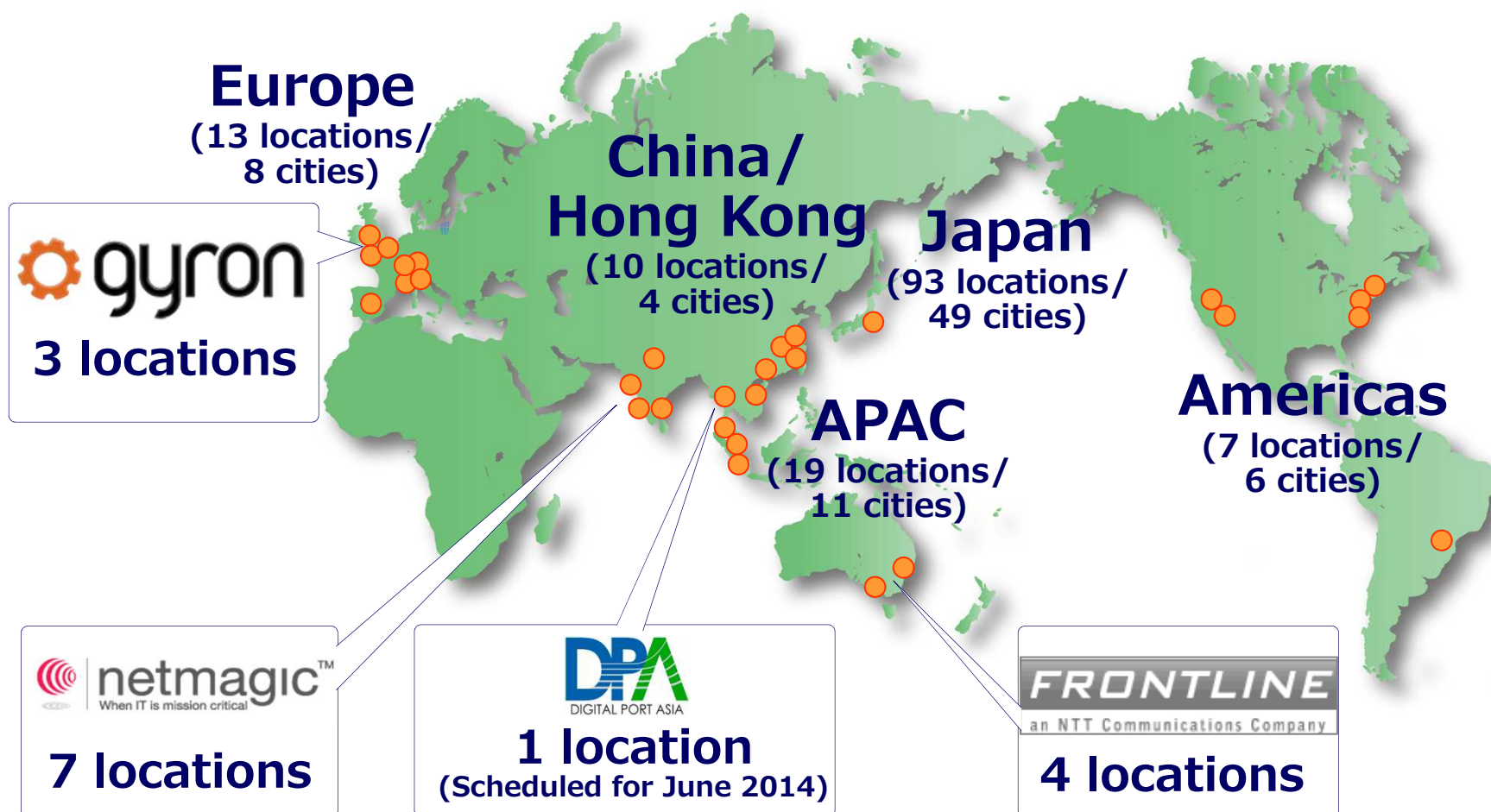Philippines

ASE *1
Launched August 2012

Malaysia

Singapore

*1 ASE : Asia Submarine-cable Express
*2 PC-1 : Large Capacity, Low Latency cable system
          between Japan and the US
*3 APG : Asia Pacific Gateway

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13

Global Deployment of DCs

Deploy 142 DCs with 170,000㎡ Server Floor Space

Europe
(13 locations/
8 cities)

**China/
Hong Kong**
(10 locations/
4 cities)

Japan
(93 locations/
49 cities)

gyron

3 locations

APAC
(19 locations/
11 cities)

Americas
(7 locations/
6 cities)

netmagic™
When IT is mission critical

7 locations

DPA
DIGITAL PORT ASIA

1 location
(Scheduled for June 2014)

FRONTLINE
an NTT Communications Company

4 locations

Newly launched global brand: **Nexcenter**

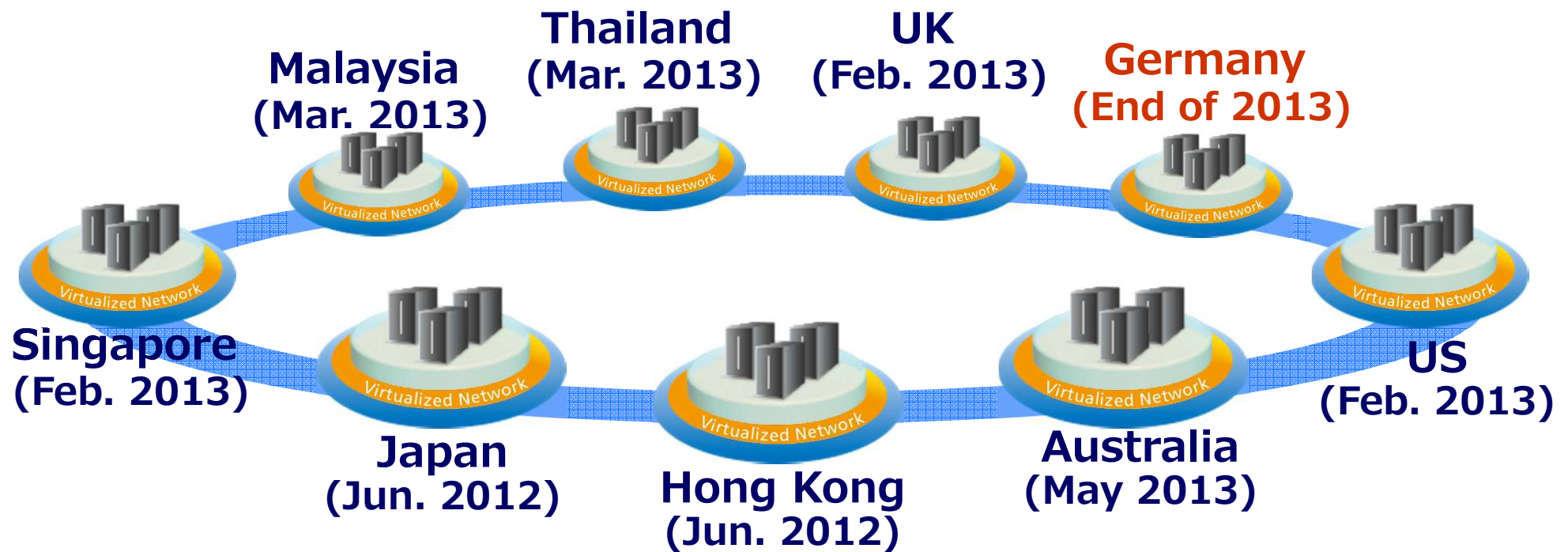**NTT Communications** **Global ICT Partner**
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Our Cloud Services

Customers can optimize their Cloud environment from 2 Cloud services based on their workload requirements and expectations

Quality/
Support
Sensitive

Customer Expectation

Price
Sensitive

Virtualized Network

Enterprise Cloud

Cloud^n

Developer-centric
Workload

Traditional
Workload

Target Workload

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Cloud Seamless Network

Arcstar Universal One provides Network connections to Enterprise Cloud without additional charge
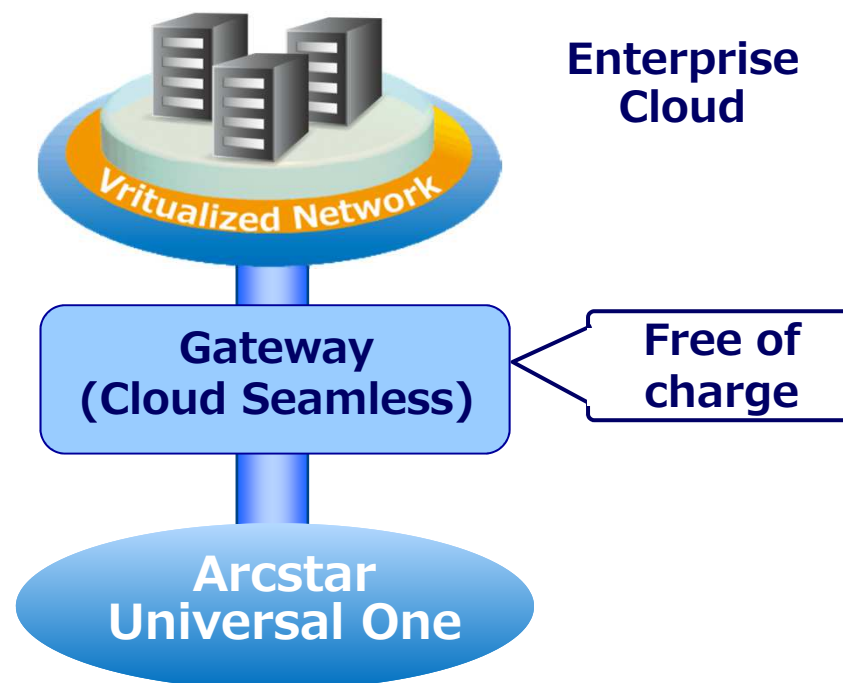
Other Cloud Providers

NTT Communications

Cloud Services

Enterprise Cloud

Vritualized Network

Extra charges required for network and data transfer between Cloud and VPN

Gateway (Cloud Seamless)

Free of charge

VPN Services

Arcstar Universal One
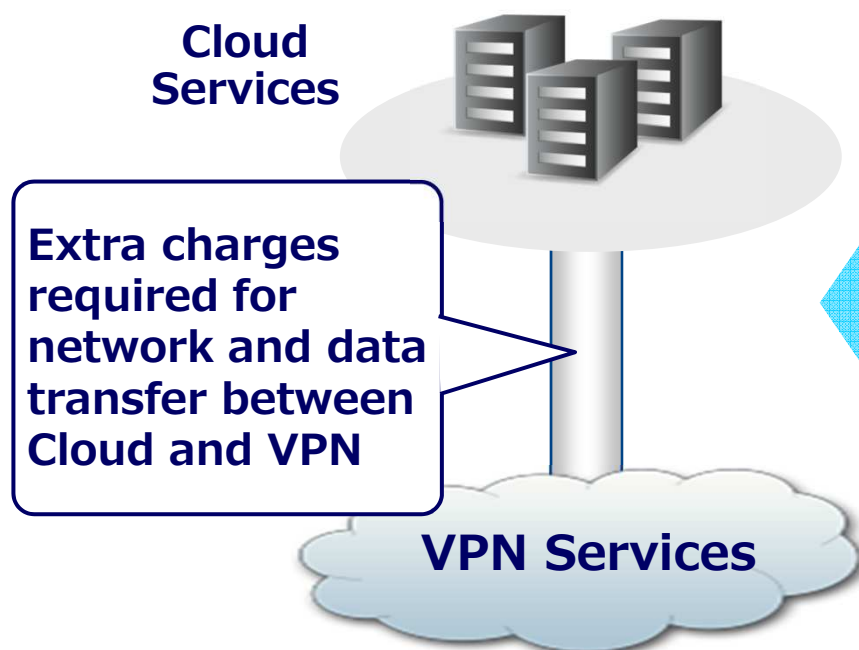
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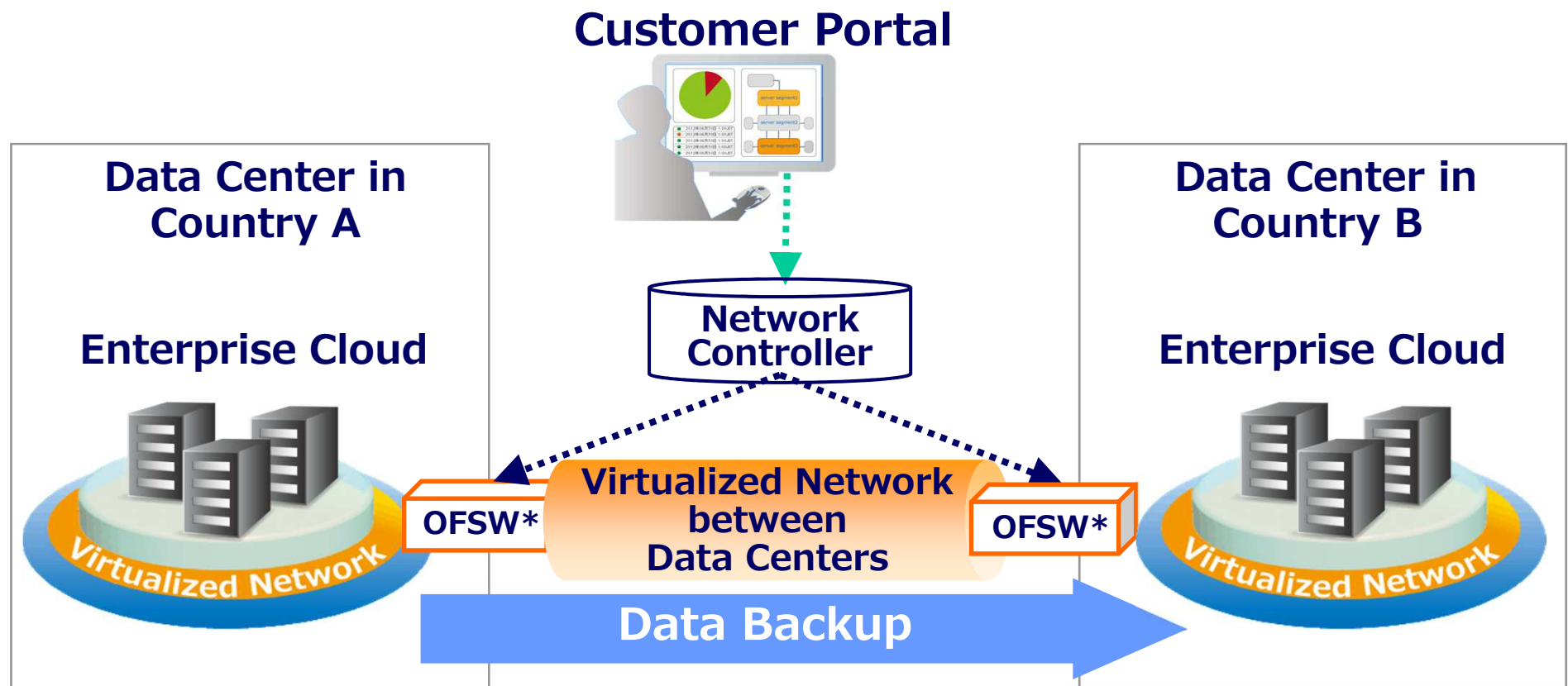
Backup utilizing Virtualized Network

On-demand and low-priced Global Data Backup Service through Customer portal

Customer Portal

Data Center in Country A

Enterprise Cloud

Data Center in Country B

Enterprise Cloud

Network Controller

OFSW*

Virtualized Network between Data Centers

OFSW*

Virtualized Network

Virtualized Network

Data Backup

* OFSW : OpenFlow Switch

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Hybrid Services utilizing SDN

Hybrid service utilizing Virtualized Network Technology

Data Center (Nexcenter)

Cloud infrastructure and Network device reside in the same DC

Enterprise Cloud

Virtualized Network

Hybrid Service

Virtualized Network (SDN)

Colocation

Customer's Physical Servers

Gateway

Arcstar Universal One

Customer's Office

On-premise Systems

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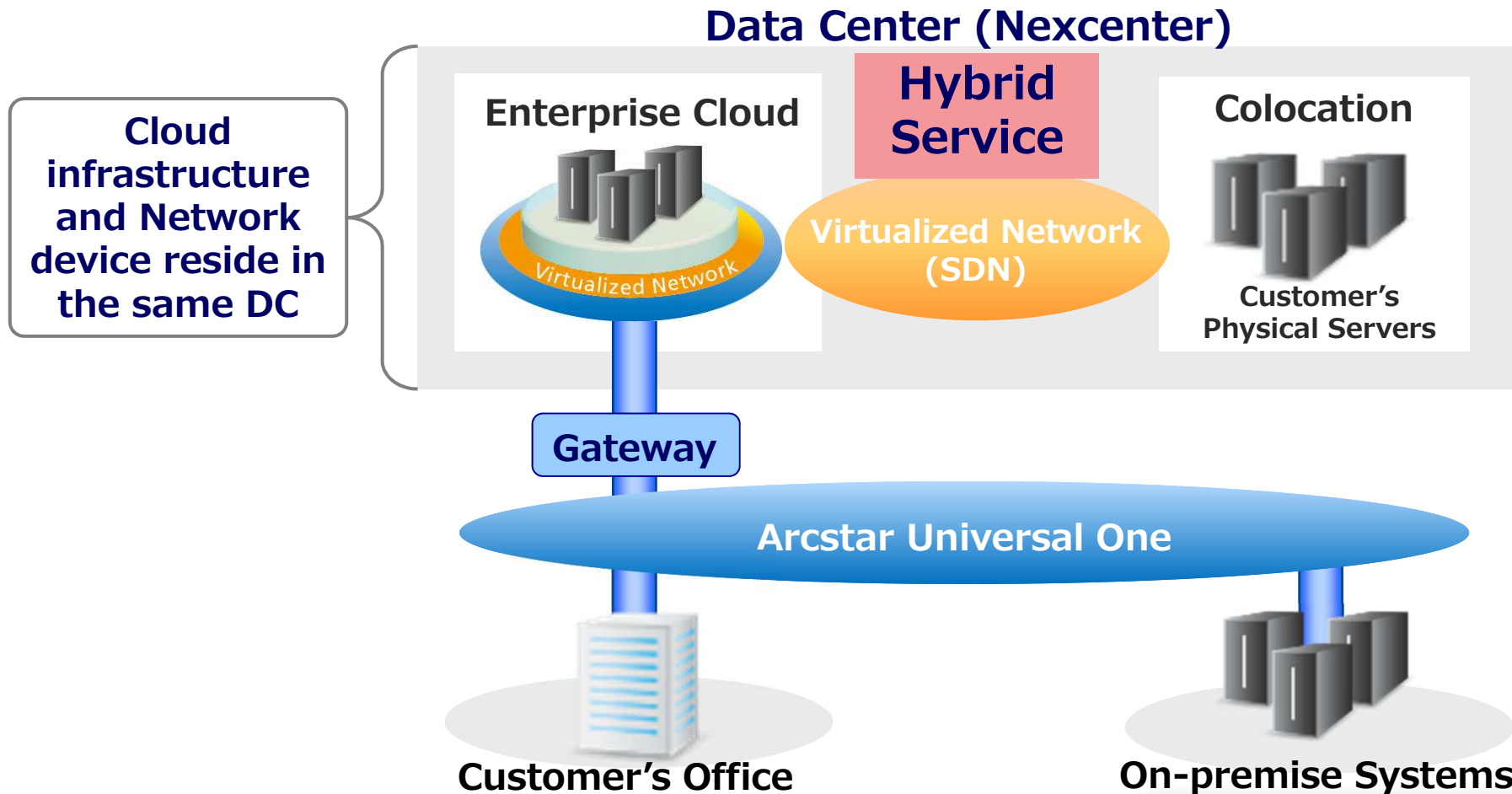
Cloud^n Deployment

Cloud

Service Expansion into APAC location with Frequent Function Enhancement

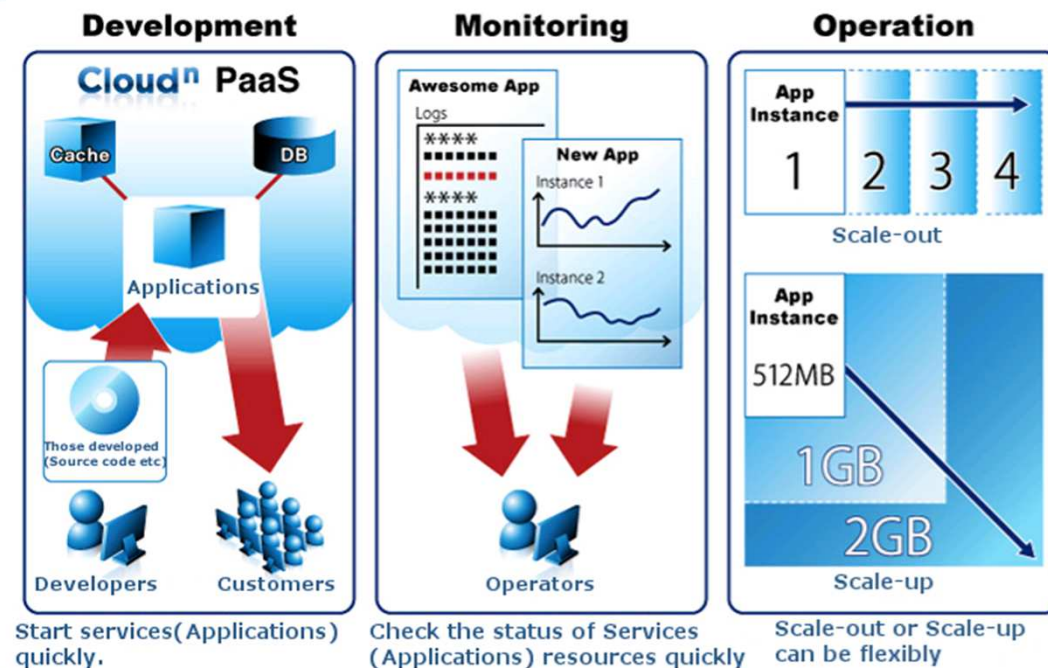**2 countries, 4 locations ⇒ 3 countries, 5 locations (End of 2013)**

US (Mar. 2012)

Japan (3 locations) (Jun. 2012／Mar. 2013)

APAC (Scheduled in 2013)

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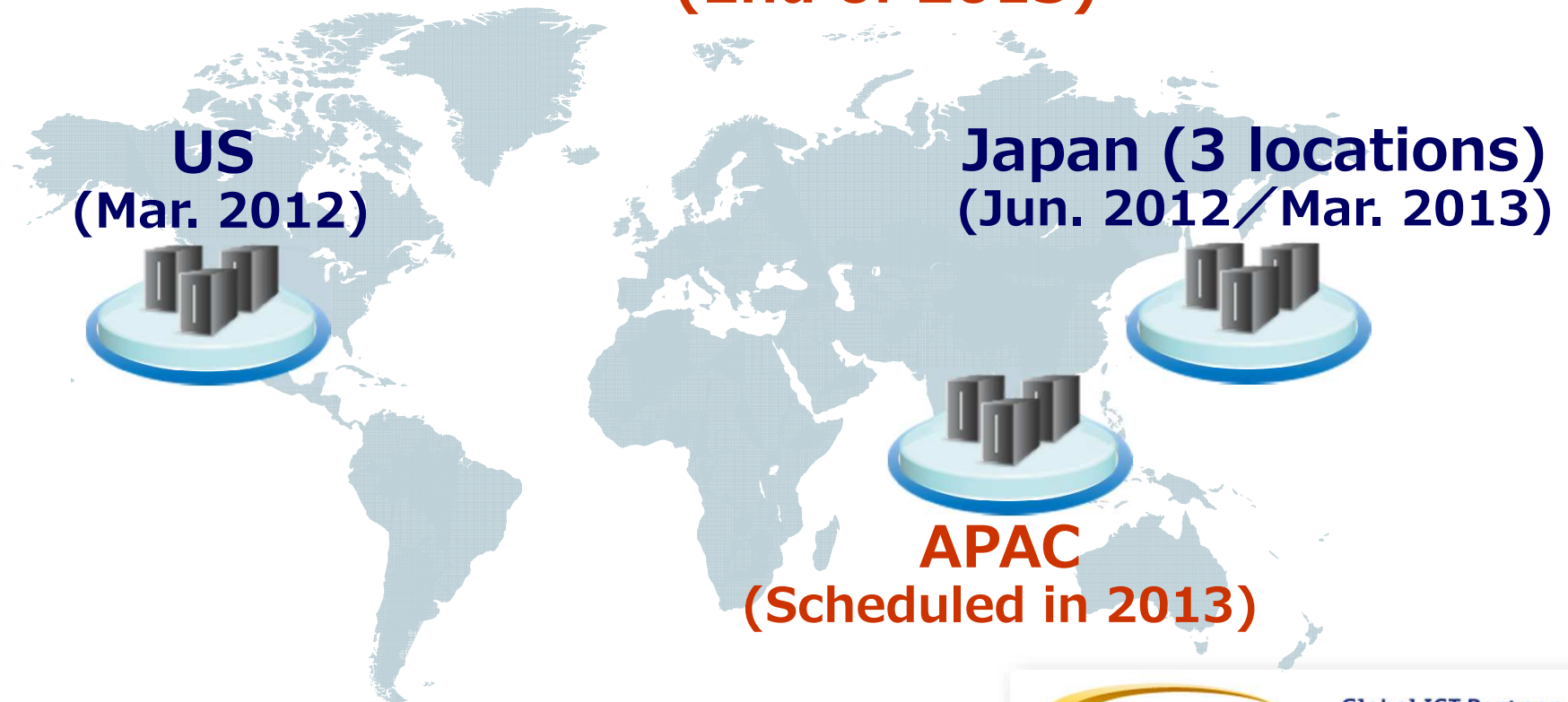
Cloud^n Enhancement

Cloud

Launched on October, 2013

	FLAT type	VPC type	
		Open Network	**Closed Network**
Use case	**Web system**	**Integrated Web system**	**Intranet system**
Network — Internet	✓	✓	✓
Network — VPN	–	**Internet VPN**	**Arcstar Universal One**
Private Network Segment	–	✓	
Auto scale	✓	✓	–
Self Management	through Customer Portal		
API	over 150 including AWS compatible	Planned	

Function

Cloud^n PaaS

Agile and flexible development environments for developer-centric market with low operation cost

Development

Cloud^n PaaS

Cache — Applications — DB

Those developed (Source code etc)

Developers   Customers

Start services(Applications) quickly.

Monitoring

Awesome App

Logs
****
****

New App
Instance 1
Instance 2

Operators

Check the status of Services (Applications) resources quickly

Operation

App Instance
1 2 3 4
Scale-out

App Instance
512MB
1GB
2GB
Scale-up

Scale-out or Scale-up can be flexibly

Product strategy:
- **Ensure application portability to relieve lock-in fear**
  - **- Cloud Foundry open source**
  - **- Pivotal relationship**

Product status:
- **Implement PaaS over Cloudn**
- **Other cloud native services**
  - **- RDB, mySQL, CDN, etc.**
- **Support languages**
  - **- Java, Ruby, etc.**
    (Cloud Foundry compatible)
- **Potential deployment over Enterprise Cloud**

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Awards

Telecom Asia Awards 2013
[April 17th, 2013]

-Best Cloud-Based Service
Enterprise Cloud was highly evaluated

-Best Asian Telecom Carrier
Business innovation, market leadership, etc., as a telecom operator were highly evaluated

Asia Communication Awards 2013
[June 20th, 2013]

-Wholesale Operator of the Year
Global IP Network (GIN)

Awards

6th Annual Cloud Ranking
[Nikkei Computer, March 7th, 2013 Edition]

-Best Service

- Cloud Platform Service (IaaS/PaaS) Division
  Biz Hosting *1
- Data Center Division
  Data centers
- General Purpose Information SaaS Division
  Biz Managed Security Services *2
- General Purpose Process SaaS Division
  Salesforce over VPN
- Private Cloud Construction Support Service Division
  Cloud Migration Service

-Best Brand

- **NTT Communications**

*1. Enterprise Cloud and Cloud^n
*2. WideAngle Managed Security Services

Nikkei Computer × ITpro
Cloud
Ranking
2013

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Awards

World Communication Awards 2013 Shortlist

-Best Cloud Service

-Best Global Operator

-Best Wholesale Carrier

-The Innovation Award

wca 2013 finalist

[Source]
http://www.terrapinn.com/2013/worldcommsawards/C46982.stm

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Thank you

NTT Communications Group contributes to customers' management innovations through Global Total ICT Outsourcing