Platform Business Growth Strategy

February 9, 2011

Platform Business Unit

Senior Vice President

Masato Yamamoto
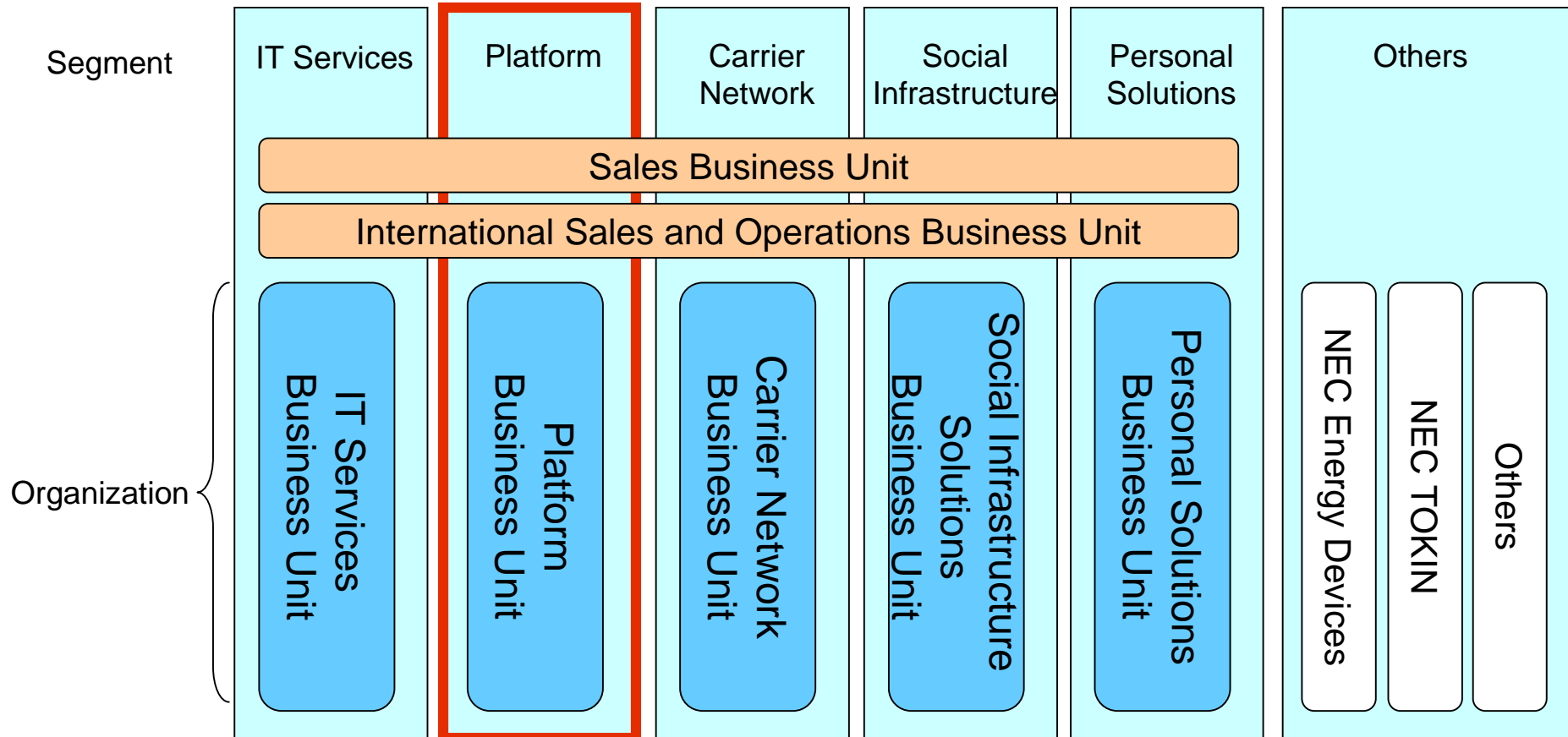
To be a leading global company
leveraging the power of innovation
to realize an information society
friendly to humans and the earth

NEC Group Vision 2017

1. Business Overview

2. Market Trends and Business Opportunities

3. Platform Business Growth Strategies
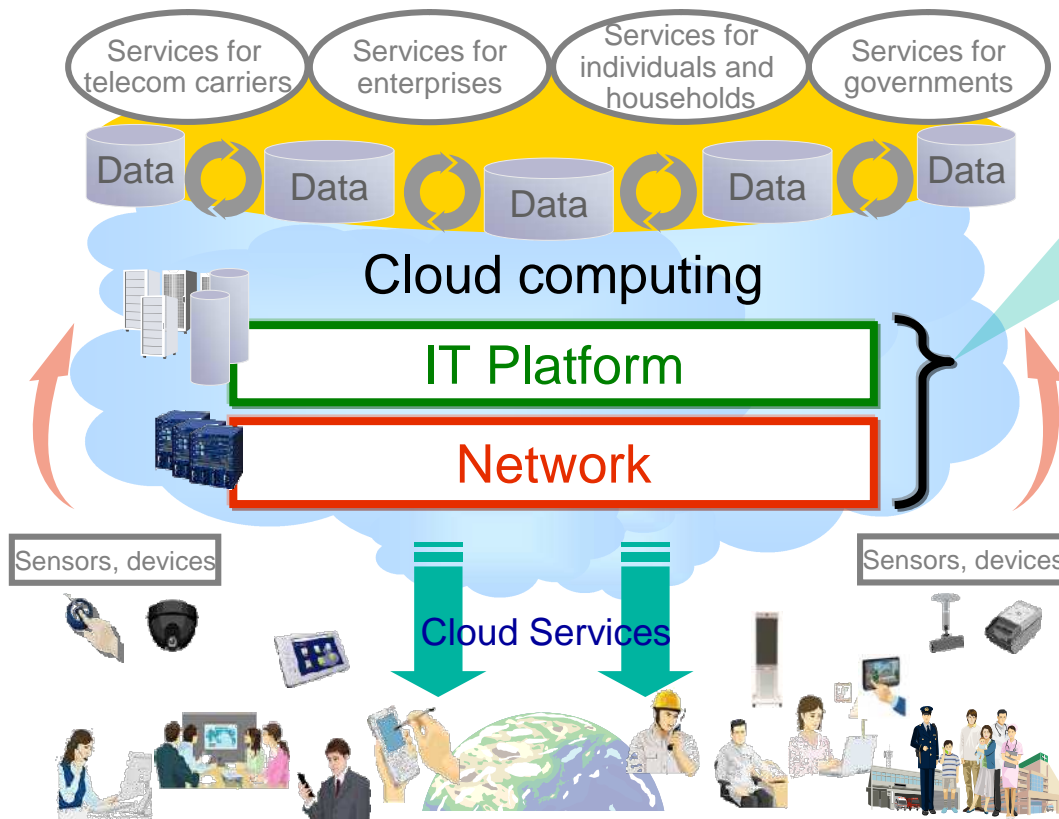
4. Towards Achieving 'V2012'

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Business Organization

Provide IT platform/network products globally with enterprises and governments (Product Sales)

Segment

IT Services	Platform	Carrier Network	Social Infrastructure	Personal Solutions	Others

Sales Business Unit

International Sales and Operations Business Unit

Organization

IT Services Business Unit	Platform Business Unit	Carrier Network Business Unit	Social Infrastructure Solutions Business Unit	Personal Solutions Business Unit	NEC Energy Devices	NEC TOKIN	Others

Empowered by Innovation NEC

Business Domain

Provide core products of cloud computing: IT platform products (IT hardware, IT software) and network products

<C&C Cloud : What's NEC's Cloud Computing?>

Services for telecom carriers

Services for enterprises

Services for individuals and households

Services for governments

Data Data Data Data Data

Cloud computing

IT Platform

Network

Sensors, devices

Sensors, devices

Cloud Services

Main Products Group

■ IT Platform Products

<IT Hardware>
• Server
• Storage
• ATM
• POS etc

Express5800

iStorage

<IT Software>
• OS
• Middleware
  - Operation Management
  - Service Execution Platform etc

CLUSTERPRO

WebSAM

WebOTX

■ Network Products
• PBX/Business Phone
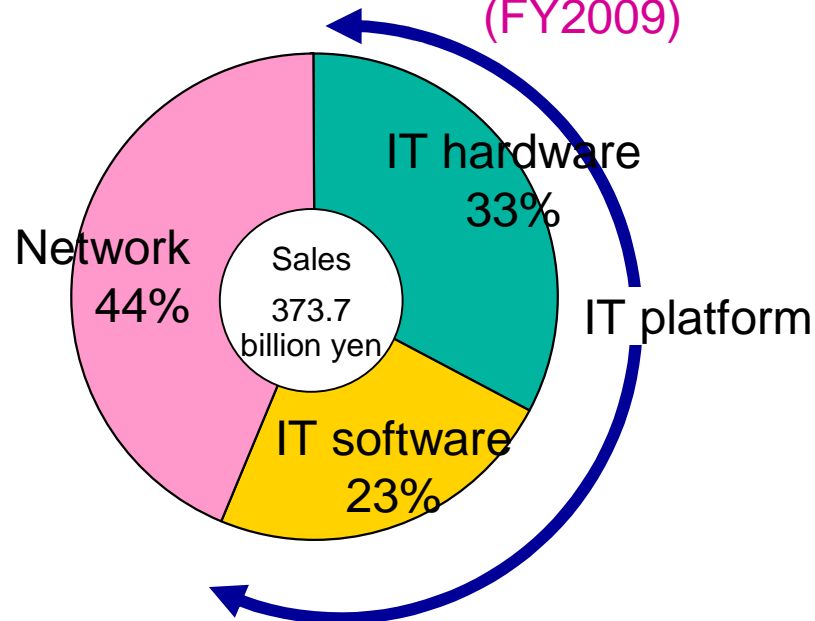• Unified Communications etc

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Sales Composition
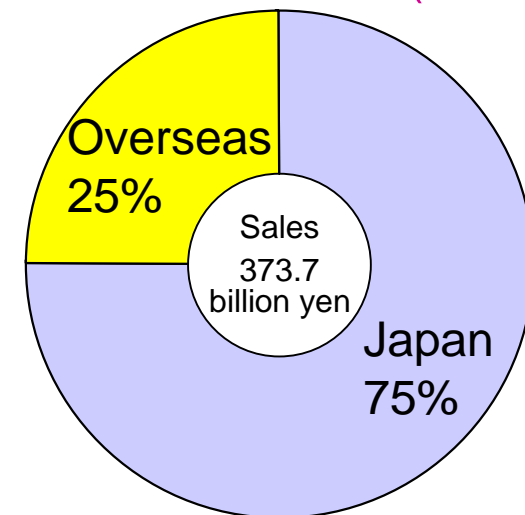
Well balanced sales composition

Overseas Sales Ratio: 25% (FY2009)

- Network business - Overseas sales ratio: 50%
  - Main market: U.S, Europe and Australia
- IT platform business - Main market: Japan

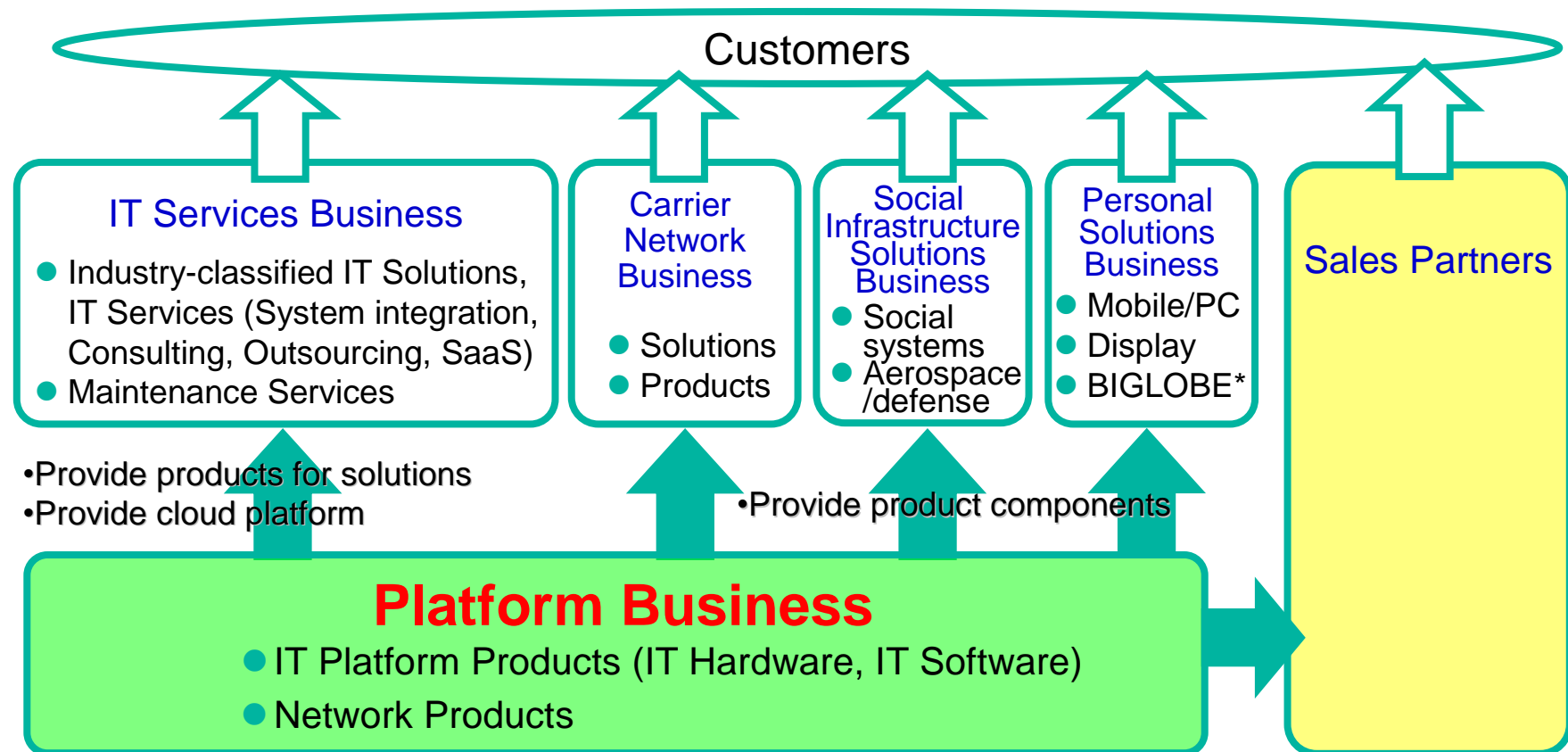<Sales Composition by Products>
(FY2009)

IT hardware
33%

Network
44%

Sales
373.7
billion yen

IT platform

IT software
23%

<Sales Composition by Regions>
(FY2009)

Overseas
25%

Sales
373.7
billion yen

Japan
75%

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Relations among Platform Business and Other Businesses

▌ Provide products to support solutions and services of IT services business

▌ Provide products for Carrier Network, Social Infrastructure, and Personal Solutions businesses.
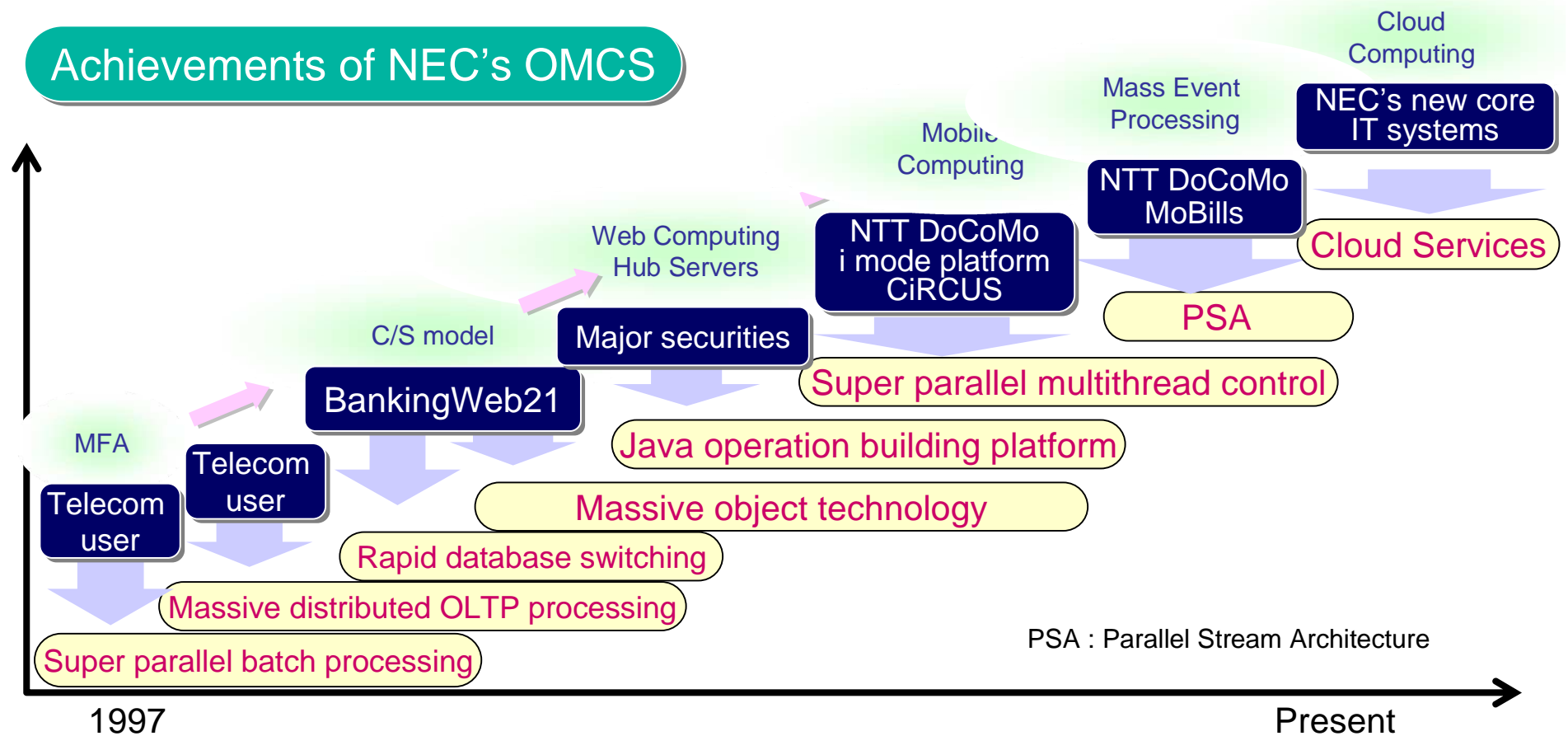
Customers

IT Services Business

- Industry-classified IT Solutions, IT Services (System integration, Consulting, Outsourcing, SaaS)
- Maintenance Services

Carrier Network Business

- Solutions
- Products

Social Infrastructure Solutions Business

- Social systems
- Aerospace /defense

Personal Solutions Business

- Mobile/PC
- Display
- BIGLOBE*

Sales Partners

•Provide products for solutions
•Provide cloud platform

•Provide product components

Platform Business

- IT Platform Products (IT Hardware, IT Software)
- Network Products

*BIGLOBE: Internet services

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(e.g) NEC's OMCS (Open Mission Critical Systems)

Support NEC's OMCS with our product technologies
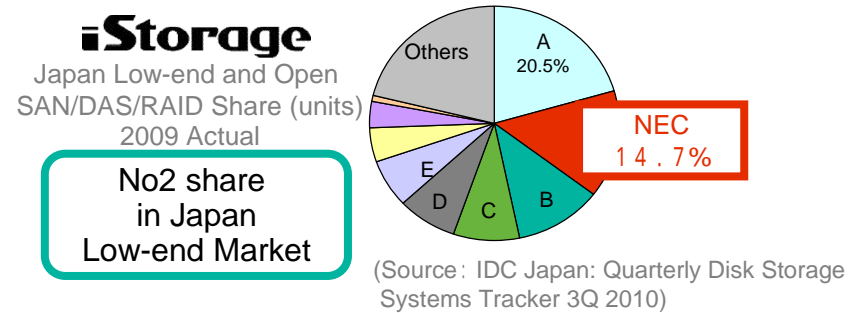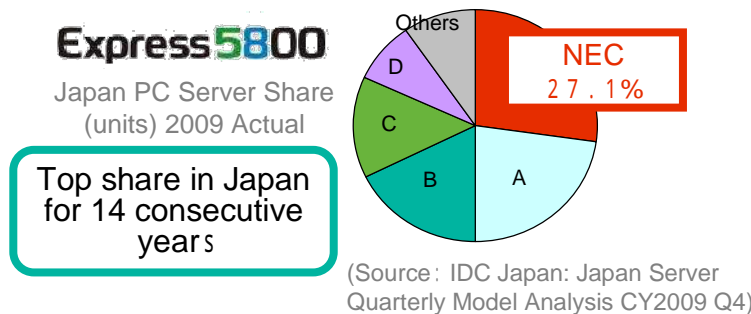→ Realize high reliable/available platform with our/others' products

Achievements of NEC's OMCS

Cloud Computing

Mass Event Processing

NEC's new core IT systems

Mobile Computing

NTT DoCoMo MoBills

Cloud Services

Web Computing Hub Servers

NTT DoCoMo i mode platform CiRCUS

PSA

C/S model

Major securities

Super parallel multithread control

BankingWeb21

Java operation building platform

MFA

Telecom user

Massive object technology

Telecom user

Rapid database switching

Telecom user

Massive distributed OLTP processing

Super parallel batch processing

PSA : Parallel Stream Architecture

1997

Present

Empowered by Innovation **NEC**

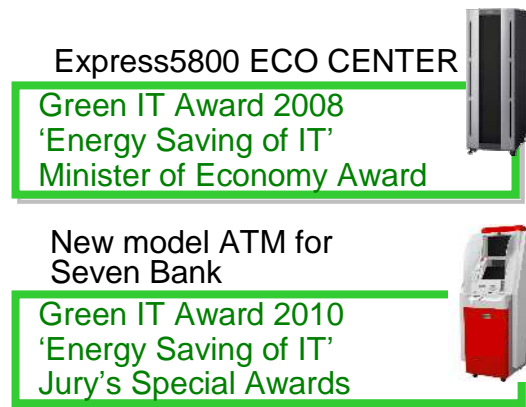# Platform Business – IT Platform Business (IT Hardware)

Provide products with enterprises/governments requirements

- PC Servers, UNIX Servers, mainframes, supercomputers, storages, ATM, and POS

- Optimized platform: Combine NEC and OEM products

Express5800

Japan PC Server Share (units) 2009 Actual

Others

NEC %

D

C

B

A

Top share in Japan for 14 consecutive year

(Source　IDC Japan: Japan Server Quarterly Model Analysis CY2009 Q4)

iStorage

Japan Low-end and Open SAN/DAS/RAID Share (units) 2009 Actual

Others

A 20.5%

NEC %

E

D

C

B

No2 share in Japan Low-end Market

(Source　IDC Japan: Quarterly Disk Storage Systems Tracker 3Q 2010)

Utilize mainframes/supercomputers technologies to common technologies

Express5800 ECO CENTER

Green IT Award 2008 'Energy Saving of IT' Minister of Economy Award

- Eco-technology　Auto power saving, hybrid power
- Maintenance　Prompt failure analysis

New model ATM for Seven Bank

- Reliability　High reliability with unique chipset

Green IT Award 2010 'Energy Saving of IT' Jury's Special Awards

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Platform Business – IT Platform Business (IT Software)

Provide middleware for OMCS

- Operation management, applications server, security, OS, database etc

Realize open and high reliable systems by combining NEC and OEM products

- NEC products
  Functions related to customers' needs
- OEM products
  De facto products such as OS and database
  - Support reliability of total systems
  - Long term alliances with major vendors
    Oracle, hp, Microsoft, VMware, etc

CLUSTERPRO

High availability software APAC share (amount) 2009 Actual

APAC share: No1 (Share No1 for 9 consecutive years in Japan)

NEC %
Others
A
B
C
D
E
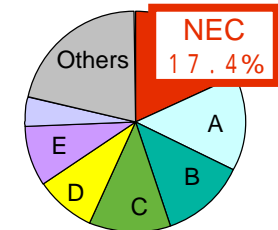
(Source IDC Asia/Pacific, 2010 'Asia/Pacific (Excluding Japan) Availability and Clustering Software 2010-2014 Forecast (AP2670310S)'

APAC: Asia Pacific

WebSAM
Integrated operation management software

BEST OF SHOW AWARD INTEROP グランプリ

Interop Tokyo 2010
'Best of Show Award'
Top award of the 'People's Choice' section

WebOTX
Service execution platform software
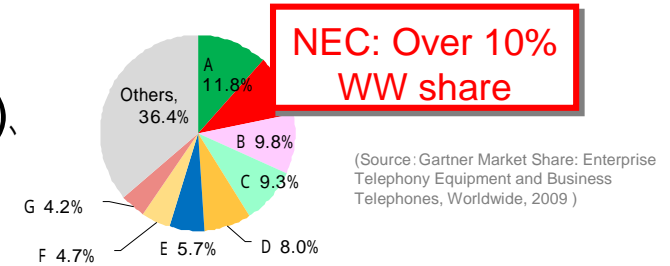
WebSAM
Integrated operation management software

第15回 顧客満足度 調査 日経コンピュータ

Nikkei Computer
The 15th CS Research: No.1

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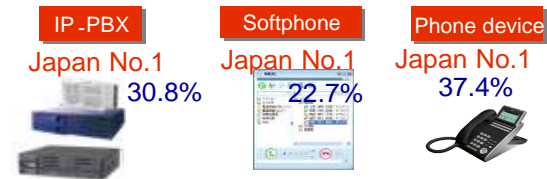
Platform Business – Network Business

Provide network products with enterprises/ governments

- Voice network system (communication server) WAN/ Wireless access system, LAN, Communication software

- Optimized solutions by combining NEC and OEM products

Expand global businesses with 'UNIVERGE'

- Utilize <u>3500 global sales channels</u> based on 5 regions

- Develop/provide systems to meet the <u>regional/industry needs</u>
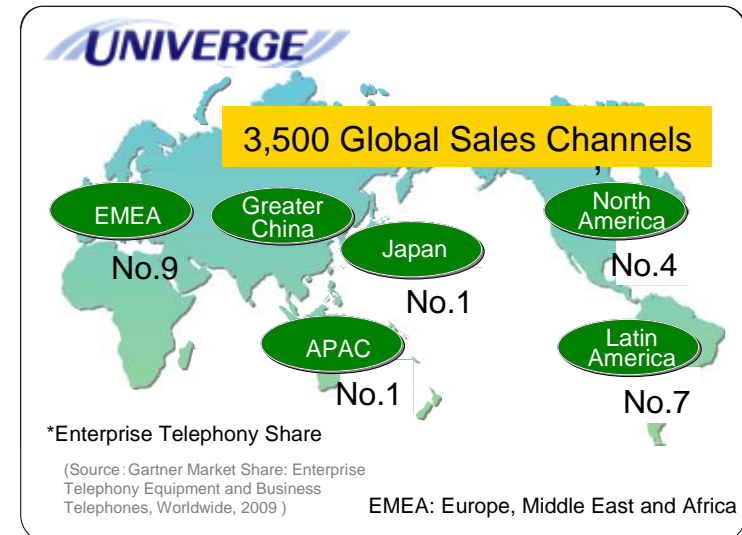
Hotel
Global hotel chain
Over 50% share in Las Vegas

Hospital
Over 1200 cases in global
(US, Europe, Australia, etc)

Enterprise Telephony Worldwide Share Gartner number of lines

NEC: Over 10% WW share

Others, 36.4%
11.8%
9.8%
9.3%
8.0%
5.7%
4.7%
4.2%

(Source Gartner Market Share: Enterprise Telephony Equipment and Business Telephones, Worldwide, 2009)

IP -PBX
Japan No.1
30.8%

Softphone
Japan No.1
22.7%

Phone device
Japan No.1
37.4%

(Source Fuji Chimera Research 2008)

UNIVERGE

3,500 Global Sales Channels

EMEA
No.9

Greater China

Japan
No.1

North America
No.4

APAC
No.1

Latin America
No.7

*Enterprise Telephony Share

(Source Gartner Market Share: Enterprise Telephony Equipment and Business Telephones, Worldwide, 2009)

EMEA: Europe, Middle East and Africa
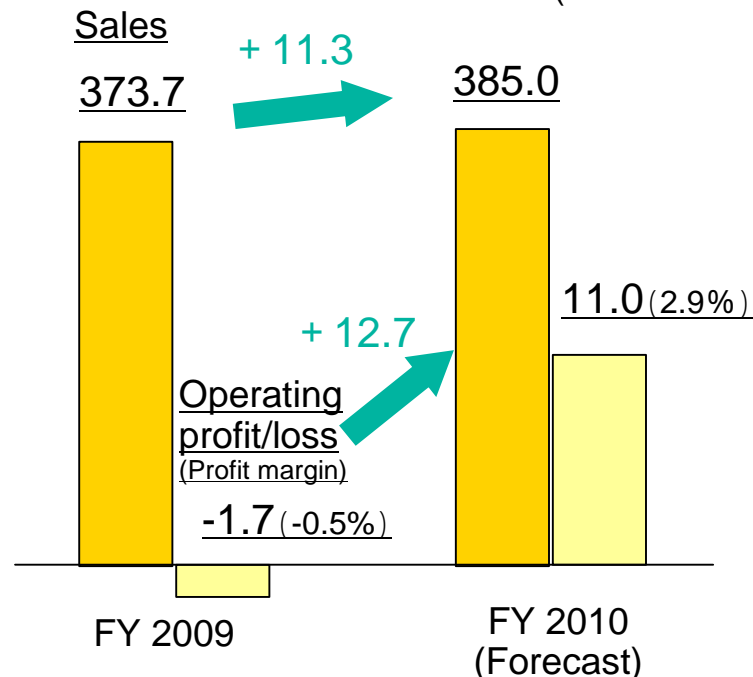
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Sales and Operating Profit of Platform Business

Sales Expect to increase sales from server consolidation with virtualization

Operating Profit/Loss Expect to increase the profit from improvement of efficiency and a sales increase while price erosion of hardware continues
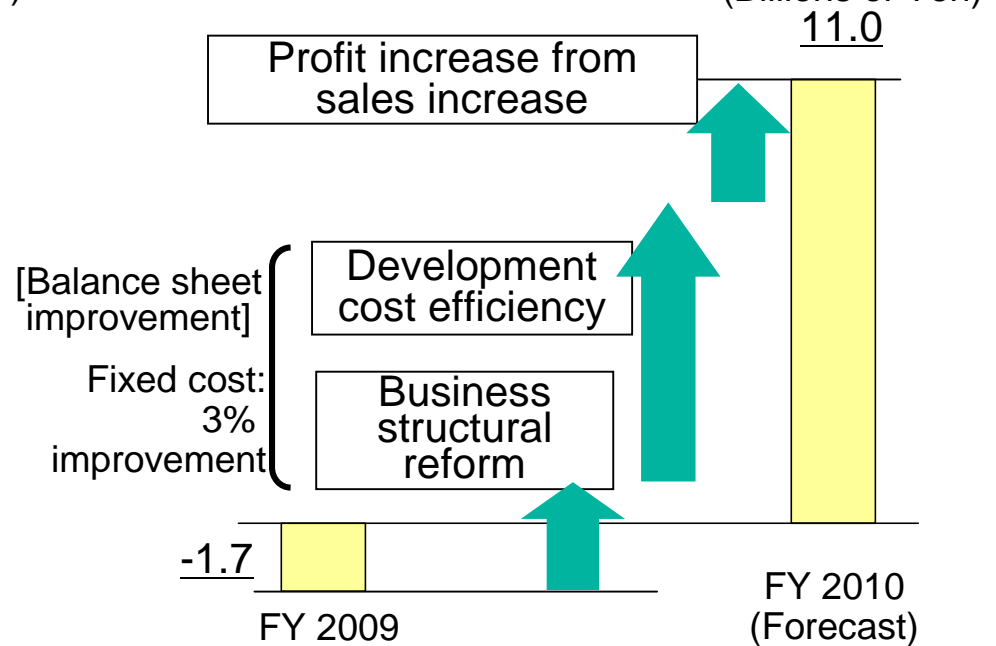
<Sales and Operating Profit/Loss>
(Billions of Yen)

Sales

11.3

373.7   385.0

12.7   11.0 2.9

Operating profit/loss
(Profit margin)

-1.7 -0.5%

FY 2009   FY 2010
(Forecast)

<Operating Profit/Loss Breakdown>
(Billions of Yen)

11.0

Profit increase from sales increase

[Balance sheet improvement]

Development cost efficiency

Fixed cost: 3% improvement

Business structural reform

-1.7

FY 2009   FY 2010
(Forecast)

Forecast is as of 9th February, 2011

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Improving Cost Structure (From FY2009 to FY2010)

Business structural reform

- Integrated former IT Platform Business Unit and former Enterprise Communications Solutions Operations Unit. Improved efficiency through organization change
- Improved our cost structure with total process reform

  (QCD reform from planning and development design phases)

Q: Quality reform
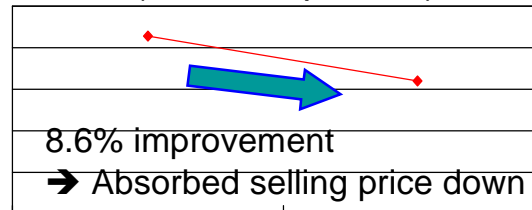
<Quality Loss Cost>
(Sales comparison)

0.5% improvement
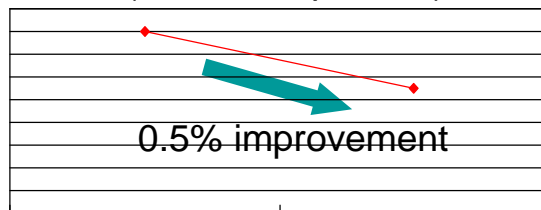
FY2009   FY2010
(Forecast)

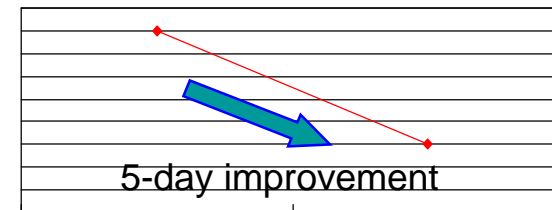### C: Cost reform

<Amount of Cost Reduction>
(Cost comparison)

8.6% improvement
→ Absorbed selling price down

FY2009   FY2010
(Forecast)

D: Delivery reform

<Inventory Turnover Period>

5-day improvement

FY2009   FY2010
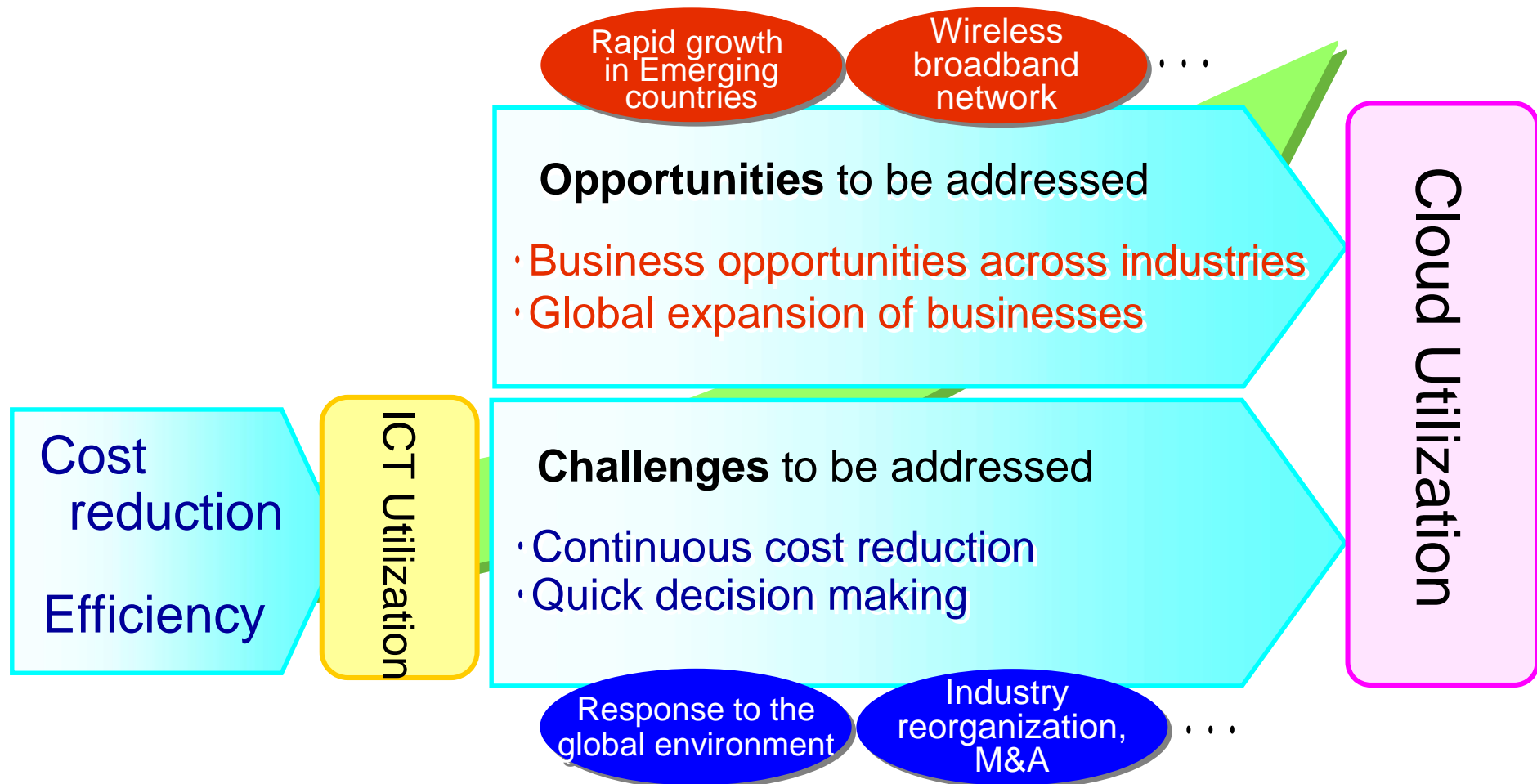(Forecast)

Development cost efficiency

- Review our product portfolio (Focusing on key businesses)
- Common development (Hardware, Software and Network)

Forecast is as of 9th February, 2011

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Changing Market Environment

- Shifting from ICT to Cloud to adapt to rapid environment changes
- Developing new global businesses using Cloud

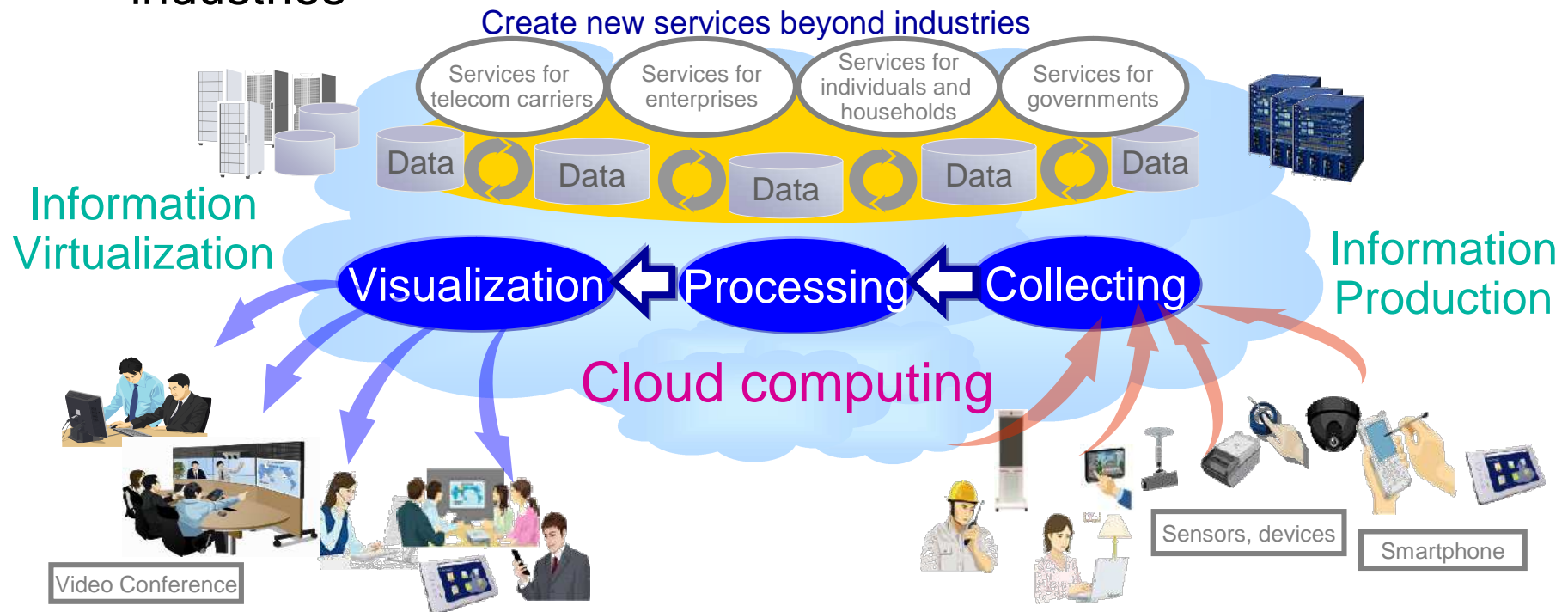Rapid growth in Emerging countries

Wireless broadband network

Opportunities to be addressed

Business opportunities across industries
Global expansion of businesses

Cloud Utilization

Cost reduction

Efficiency

ICT Utilization

Challenges to be addressed

Continuous cost reduction
Quick decision making

Response to the global environment

Industry reorganization, M&A

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Increasing the Roles of Platform in Cloud Era

▌ <u>Bursty increase of data processing</u> in cloud computing due to all information become electronics data.
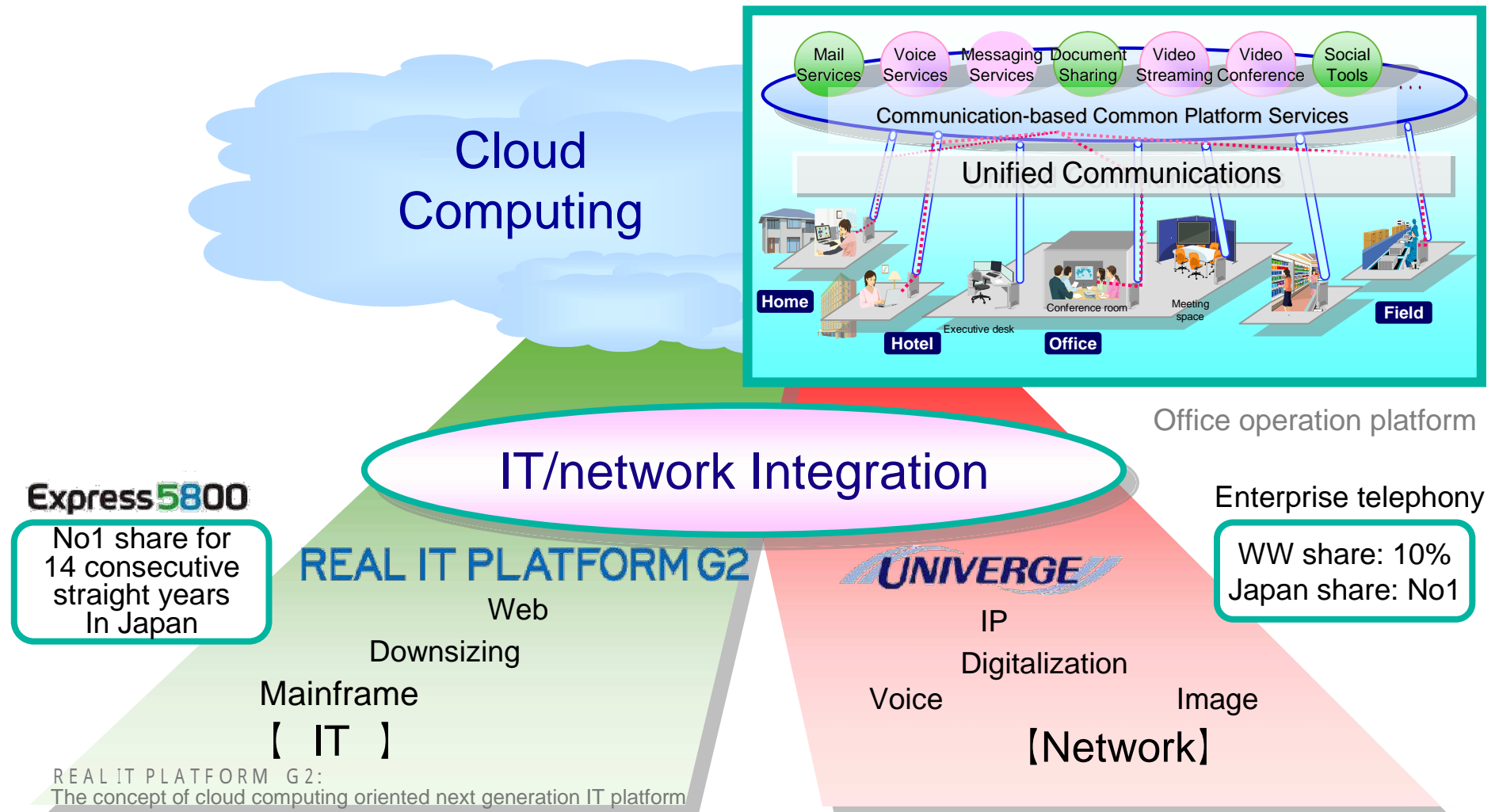
➔ <u>Needs for</u> collecting, processing and visualization of information <u>will continue increasing dramatically</u>

➔ <u>Create new services</u> by utilizing analyzed data among various industries

Create new services beyond industries

Services for telecom carriers

Services for enterprises

Services for individuals and households

Services for governments

Data · Data · Data · Data · Data

Information Virtualization

Information Production

Visualization ⬅ Processing ⬅ Collecting

Cloud computing

Video Conference

Sensors, devices

Smartphone

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Strengths and the Future of Platform Business

Realize Cloud Computing and Unified Communications by integrating IT/network technologies and knowhow

Cloud Computing

Mail Services | Voice Services | Messaging Services | Document Sharing | Video Streaming | Video Conference | Social Tools

Communication-based Common Platform Services

Unified Communications

Home | Hotel | Executive desk | Conference room | Meeting space | Office | Field

Office operation platform

IT/network Integration

Express 5800

No1 share for 14 consecutive straight years In Japan

REAL IT PLATFORM G2

Web

Downsizing

Mainframe

IT

:

The concept of cloud computing oriented next generation IT platform

UNIVERGE

IP

Digitalization

Voice

Image

Network

Enterprise telephony

WW share: 10%
Japan share: No1

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1. Business Overview

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Platform Business Vision

**ICT Platform Global Provider
to realize an information society friendly
to humans and the earth**

ICT Platform for Cloud Services
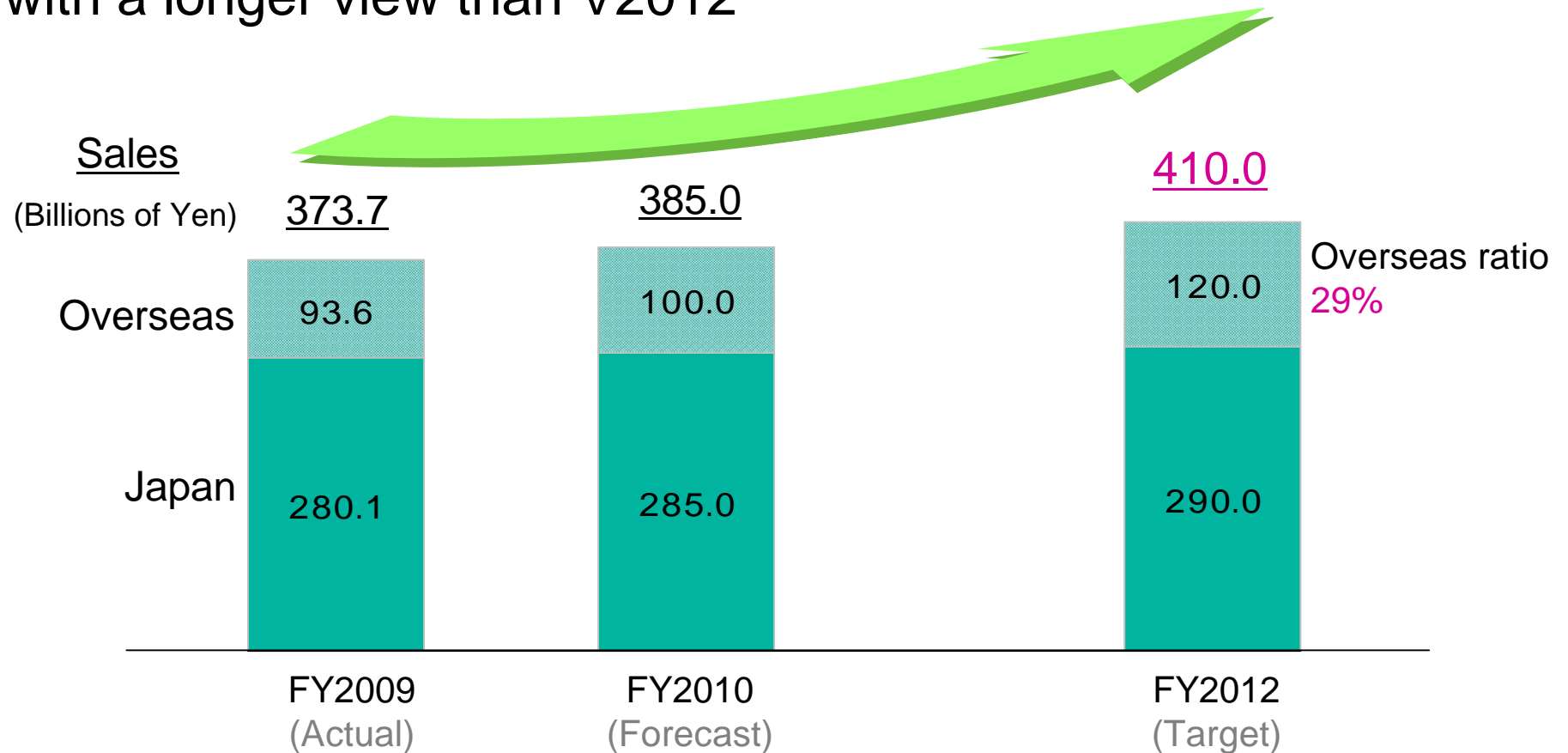
UNIVERGE
Cloud Oriented Communication Platform

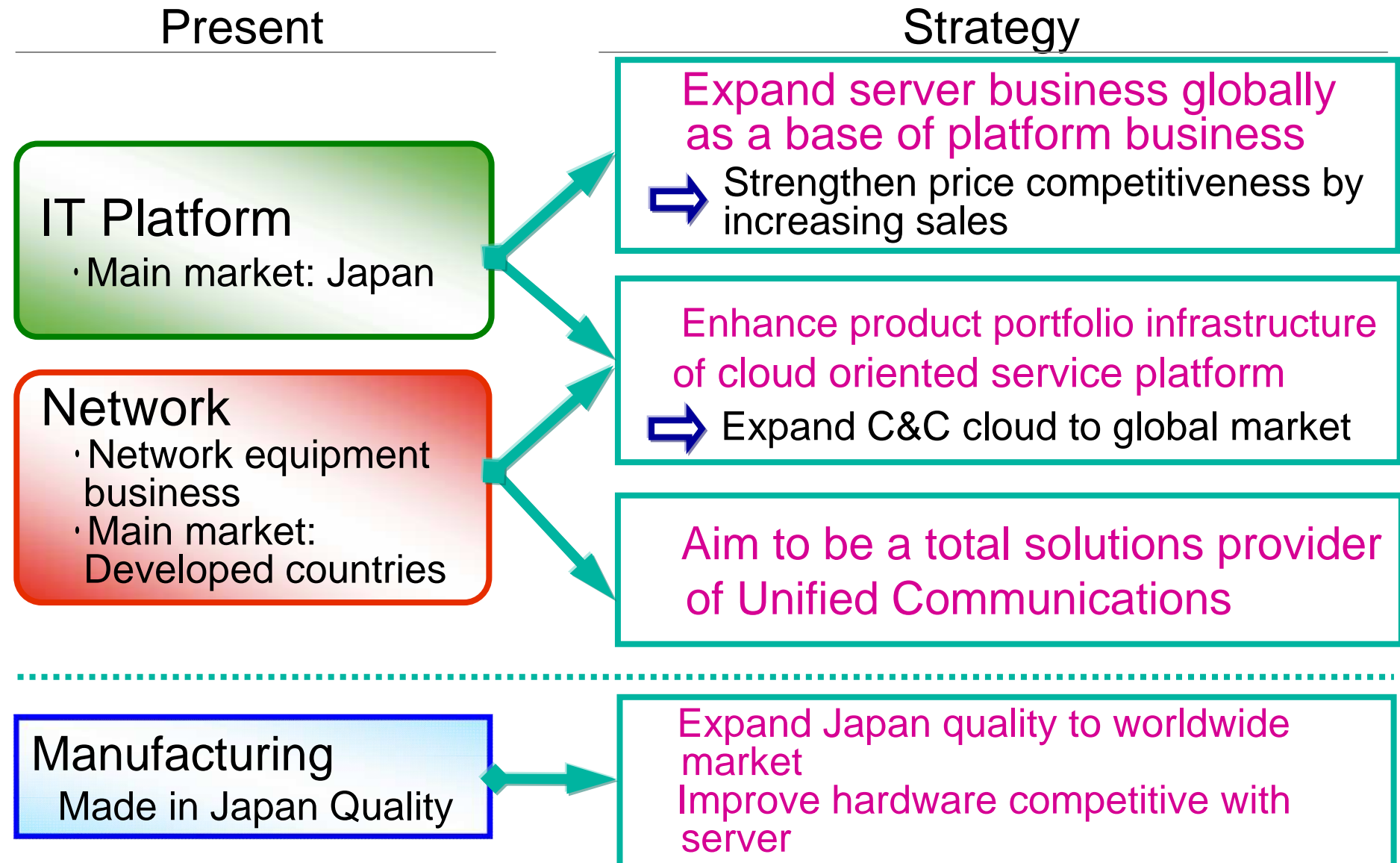**REAL IT PLATFORM G2**
Cloud Oriented Next Generation IT Platform

Empowered by Innovation   **NEC**
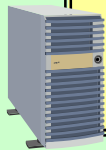
Mid-term Plan (V2012)

Keep increasing sales after FY2009

Aim for our goal (sales: 410 billion Yen, overseas ratio: 29%) with a longer view than V2012

Sales

(Billions of Yen)

	373.7	385.0	410.0
Overseas	93.6	100.0	120.0
Japan	280.1	285.0	290.0
	FY2009 (Actual)	FY2010 (Forecast)	FY2012 (Target)

Overseas ratio 29%

Forecast is as of 9th February, 2011

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New Platform Business Strategy for Global Market

Present

IT Platform
Main market: Japan

Network
Network equipment business
Main market: Developed countries

Manufacturing
Made in Japan Quality

Strategy

Expand server business globally as a base of platform business
⇒ Strengthen price competitiveness by increasing sales

Enhance product portfolio infrastructure of cloud oriented service platform
⇒ Expand C&C cloud to global market

Aim to be a total solutions provider of Unified Communications

Expand Japan quality to worldwide market
Improve hardware competitive with server

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Platform Business Domain and Key Business Domain

▌ Develop NEC's strengths/new technologies to IT/network integrated three businesses

- Unified Communications: IT/network integrated office operation platform products
- Common Infrastructure for Cloud: Cloud services supported platform products
- Server: Environmentally durable server products

▌ IT/network 'Common Platform' based on server technology

Market

Network Business

Sales

IT Platform Business

...

Network System Business

PBX/ Biz Phone Business

Unified Communi -cations Business

Common Infra -structure for Cloud Business

Server Business

Middle -ware Business

Storage Business

ATM/ POS Business

...

Common Platform

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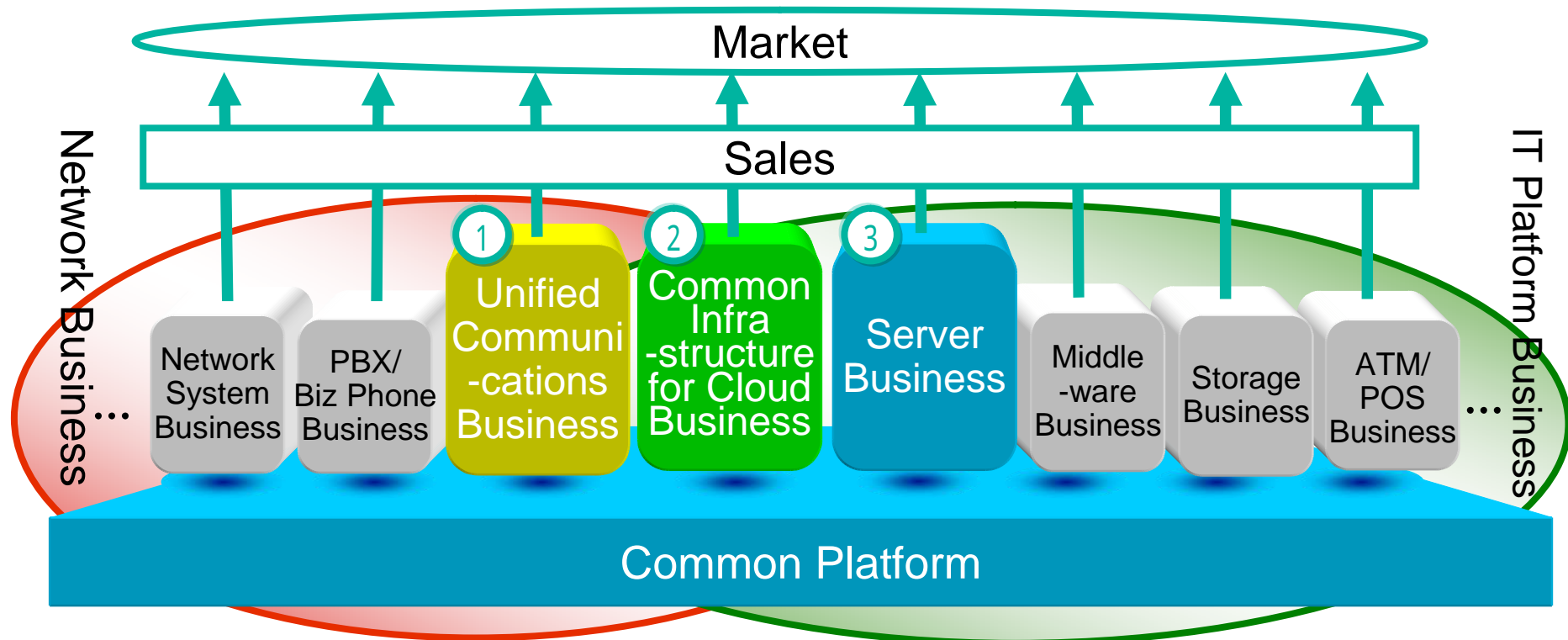
Unified Communications Business

- Office environments have been changing to the new collaboration tools (integrated voice and data)
- Combine cloud services and existing office solutions to stimulate internal/external collaborations

UC WW Market NEC Forecast 2009   2017
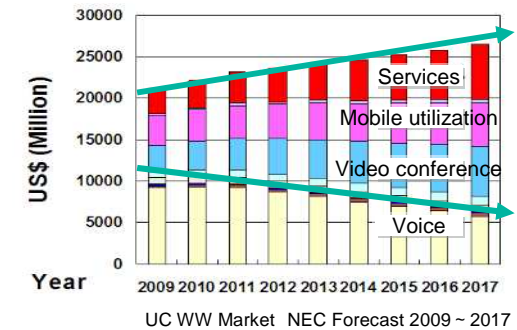
Working Style Renovation Concept

C&C Office ➡ When needed, whenever, and globally

Working Space Expansion
Remote Access
VPN
VPCC+VoIP

Paperless
Documents management
Teleconference

Office Cloud Services

Collaboration Everywhere
Mobile utilization

Communications Enhancement
Phone
Groupware
Video conference

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Unified Communications Business

Expand our business by leveraging strength in IT/network integration and global sales channels

Enhance Products Competitiveness

- Cloud services of C&C Office
  - 'UNIVERGE Live' (Launched in September 2010)
- Utilize new devices (smartphone)
- Launch strategic products to promote IP/ unified communications in emerging countries and small and medium-sized enterprise market
  - Low-capacity communication server UNIVERGE 'SL1000' for emerging countries

UNIVERGE SL1000
(Launched Jan/2011)

Strengthen Sales Channels

- Expand services business with partners
  - Expand UNIVERGE Live with partners' resources
  - Offer cloud services (Swisscom hotel telephony)
- Develop solutions specific to each industry segments (ex: hotel, hospital)
  - From Japan and North America to Emerging countries

Aim to be a global top player

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"Common Infrastructure for Cloud" Business

Cloud platform suitable for data explosion/new services creation
➔ Flexible, secure and comfortable platform based on 'REAL IT PLATFORM G2'

REAL IT PLATFORM G2 Enhancement Points

Multi-tenant processing
High-speed processing

Cloud operation
- Operation cost reduction

New service creation

Service execution platform
- Execution platform
- Information management
- Development environment

System service management
- Service execution management
- Efficiency infrastructure management

Cloud collaboration
- Hybrid cloud

Efficiency infrastructure
- Server
- Storage
- Network
- Datacenter facility

Optimized use of resources

Optimized use of resources +Operation cost reduction

Remarkable technology

Network virtualization

Network visualization + Ecology + Operation cost reduction

Common infrastructure to support existing C&C Cloud
- Basic functions of cloud-oriented datacenter platform
- Common infrastructure of enterprise/carrier/social cloud for customers

Lead the NEC's C&C Cloud Business

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Network Virtualization Platform

Remarkable Technology

New network control technology 'OpenFlow'

- Network control technology mainly advocated by Stanford University
- Innovate the mindset of complicated network management
  → Network visualization, optimized data transfer and equipments

< Present >   < Future >

Band control system   Band control system

Switch
Firewall

load balancer   load balancer

Switch   Switch

Server

Optimized equipments

Switch   Switch

Switch   Switch

Standard

Server

Optimized network

Switch control   Firewall   Load balancer

Controller

Visualization
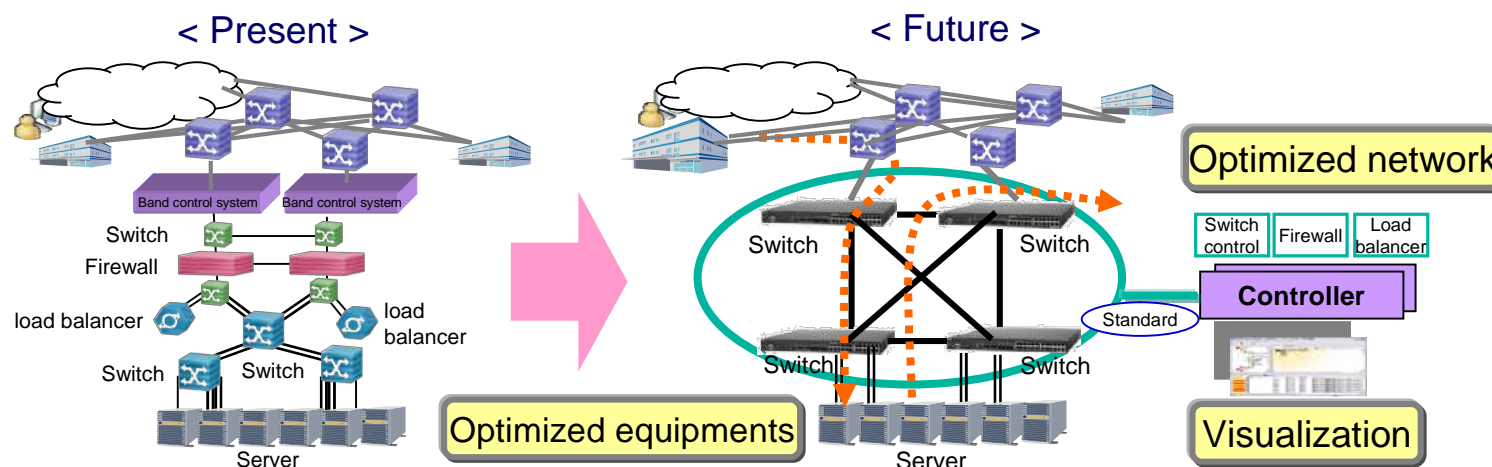
Bring it to activate phase with advanced technology, experience and performance

- NEC is the first company to commit to commercialize Openflow technology
- Performance of the proving evaluation in Japan/Overseas
- Release our first product for datacenter soon

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Server Business

Differentiate NEC's servers from others with high environmentally durable servers

● **Low Power Consumption Servers**

  ✓ Power saving, high-density, and reduce weight

  ✓ Use unique power saving technology and cooling technology

Maximum power consumption when mount 80 servers

Cut 70%

Conventional Model   ECO CENTER
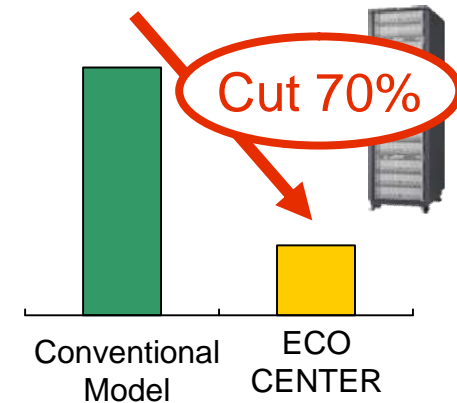
● **Environmentally Durable Servers**

  ✓ Indoor installation → Outside installation

  ✓ Customized servers for plants/built-in (dust tolerance/ easy maintainability/ long-term supply)

For outdoor

Dust tolerance

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Server Business

Expand business to global Datacenter Market

- Servers specialized for datacenter
  - Overwhelming power-saving and small-footprint
- Expand servers for C&C cloud

<Prediction: Server Demands for Worldwide Cloud Computing>

117% Growth
(09-14CAGR)

$M

6,000
5,000
4,000
3,000
2,000
1,000
0

2009 2010 2011 2012 2013 2014
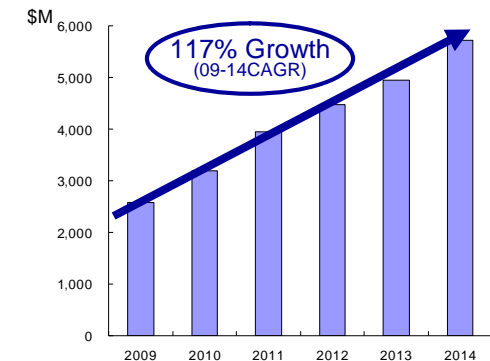
Source: IDC, Worldwide Enterprise Server Cloud Computing
2010-2014 Forecast, April 2010, #223118

Leverage sales channels with network business

- Utilize global sales channels of our network business to expand server sales
- Develop new channels in emerging countries

Aim to be a global provider

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< Common Measure >
Enhance Competitive Hardware by Common Platform

Server based common platform across the product line
➔ Provide the latest technology at a low price

Present

Server	Storage	PBX	ATM
Hardware	Hardware	Hardware	Hardware

Future

Server	Storage	PBX	ATM

Common Platform

<Advantages>
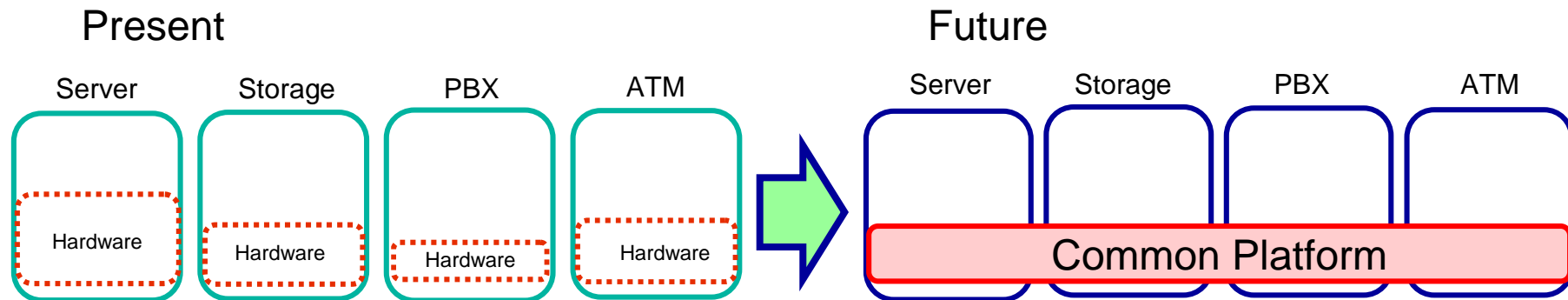
■ Early introduction of latest technology (environment, virtualization, high-reliability, high-availability)

■ Provide special purpose hardware at a low price

■ Reduce development/production/ maintenance cost

Common Hardware Range of Competitors

A company

B company

NEC

Only NEC can enhance hardware with common platform from server to storage, network and other complex devices

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< Common Measure >
Global Supply Chain Management

Timely and stable supply to the global market

- Consolidate sellout information to the HUB and control inventories appropriately
- Put together flexibly in consuming areas

BTO
Sellout information
Supply
BTO
BTO
Sellout information
BTO
Under consideration
HUB
BTO
Supply
Sellout information
Supply
Supply
BTO
Under consideration
Sellout information
BTO
Under consideration

Mother production sites

Production, BTO sites

BTO : Build to order

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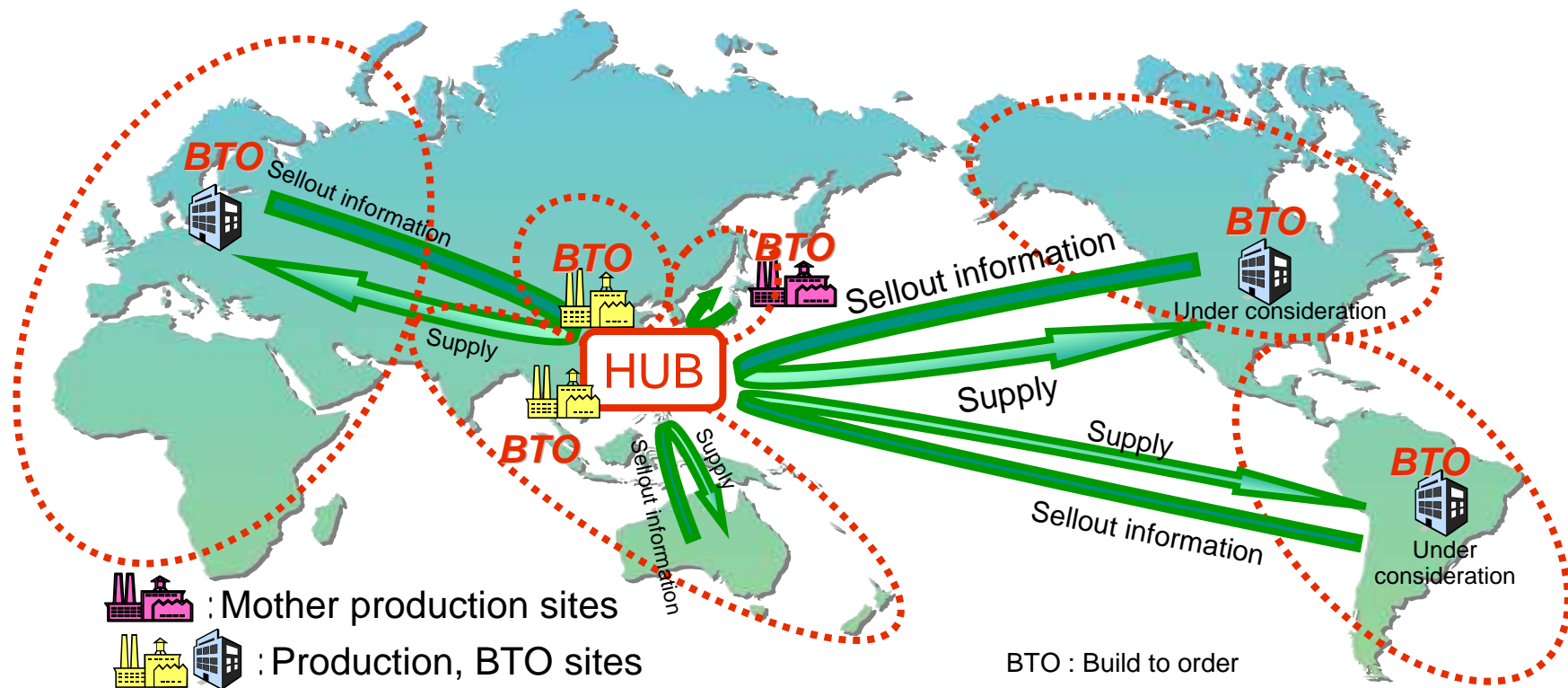
< Common Measure >
Software Productivity Improving Plan

■ Standardize high quality software development method accumulated more than 20 years of experiences

■ Establish Software Factory to realize high quality/ productivity software including overseas

ソフトウェア
品質会計

NECの高品質ソフトウェア開発を
支える品質保証技術

現場・現物・現実を重視する
NECのソフトウェア品質管理手法「品質会計」
20年以上にわたる経験と
ノウハウの集積が凝縮された

Published in 6/2010

Software Factory

Japan Office — Overseas

Standardization

Reuse

Project management

Centralization

Automation

Requirements → System design → Details design → Code → Combine

Tool / Tool / Tool / Tool

Deliverables

Test

Improve QCD

Managed information

Administrator

Standard management process

Estimate examination → Risk examination → Process examination → Task management

Improve management level

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1. Business Overview

2. Market Trends and Business Opportunities

3. Platform Business Growth Strategies

4. Towards Achieving 'V2012'

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Sales Plan

Our goal:

410 billion yen in sales (operating profit margin 5%) by FY2012

(Billions of Yen)

Sales

CAGR (FY09-12)
Total 103%

- Key business 108%
- Existing business 100%

- Overseas 109%
- Japan 101%

	FY2009 (Actual)	FY2010 (Forecast)	FY2012 Plan
Sales	373.7	385.0	410.0
Overseas	93.6 (25)	100.0 (26)	120.0 (29)
Key business	143.3 (38)	155.0 (40)	180.0 (44)
Japan	280.1 (75)	285.0 (74)	290.0 (71)
Existing Business	230.4 (62)	230.0 (60)	230.0 (56)
Operating Profit/Loss (Operating Profit Margin)	1.7	11.0 3%	20.0 5%

Forecast is as of 9th February, 2011

FY2009: Network 44%, IT hardware 33%, IT software 23%, Sales 373.7 billion yen

FY2012: Network 45%, IT hardware 30%, IT software 25%, Sales 410.0 billion yen

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Efforts for Improving Profitability

- Reduce cost by standardization/overseas utilization
- Focus investment on key businesses and promote efficiency

Operating profit/loss

(Billions of Yen)

9.0

20.0

Sales/profit increase of key businesses

Sales: 385.0 billion yen   410.0 billion yen

11.0

Investment in key businesses

Development cost efficiency

1.7

- Offshore enhancement mainly in India/China
- Software Factory development

Cost reduction (Exceed price erosion)

Price erosion

FY2009   FY2010 (Forecast)   FY2012 (Target)

- Standardized design
- Common platform
- SCM expansion

Forecast is as of 9th February, 2011

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Towards Achieving 'V2012'

Improve our business structure to secure profit steadily

Leverage IT/network assets to expand global business

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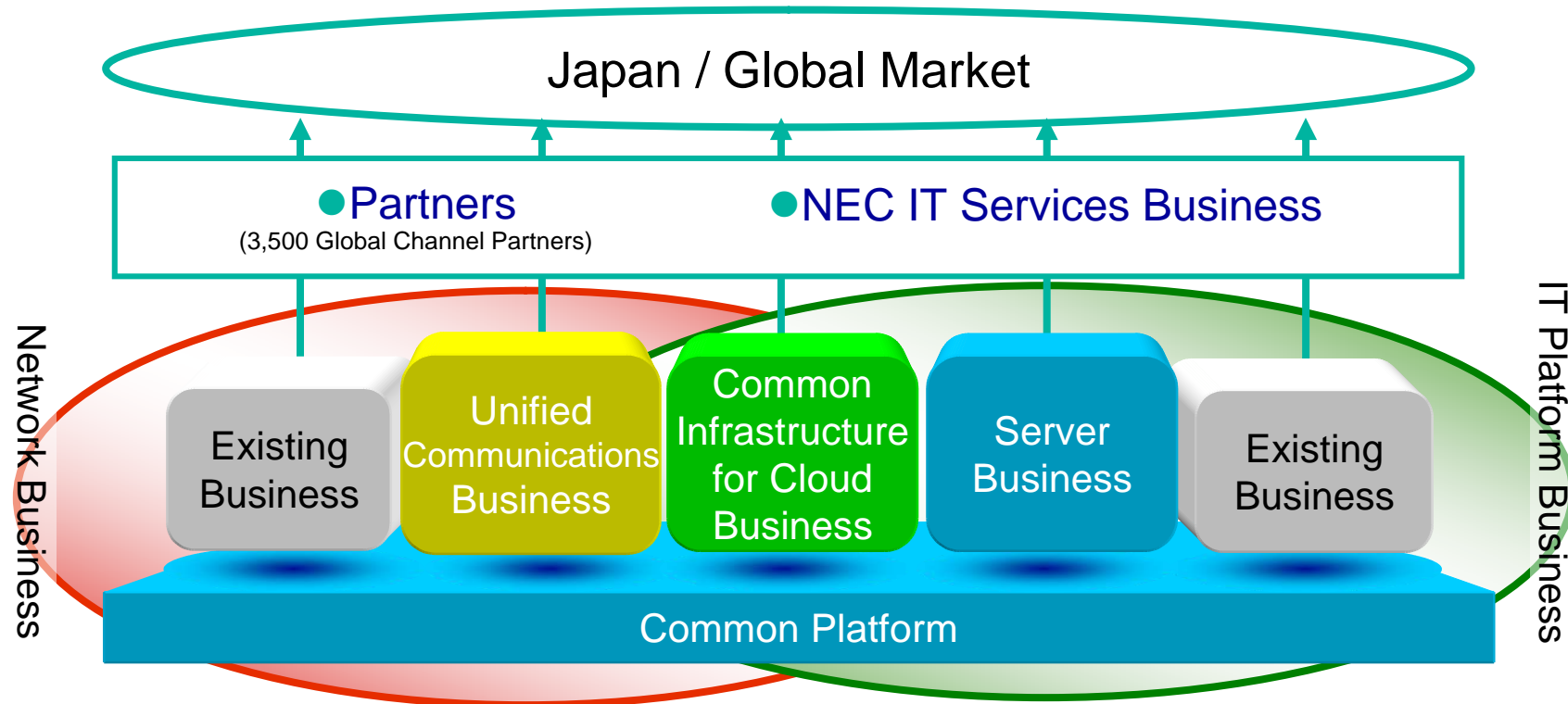
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Abbreviations

- ATM   : Automated Teller Machine
- BTO   : Build to Order
- C&C   : Computer & Communication
- C/S   : Client-Server
- DAS   : Direct Attached Storage
- DB   : Database
- HW   : Hardware
- ICT   : Information and Communications Technology
- LAN   : Local Area Network
- MFA   : Mainframe Alternative
- NW   : Network
- OEM   : Original Equipment Manufacturing
- OLTP   : Online Transaction Processing
- OMCS   : Open Mission Critical System
- PBX   : Private Branch eXchange
- PF   : Platform

- POS   : Point of sale system
- PSA   : Parallel Stream Architecture
- RAID   : Redundant Array of Independent (Inexpensive) Disks
- SaaS   : Software as a Service
- SAN   : Storage Area Network
- SCM   : Supply Chain Management
- SI   : System Integration
- SL   : Solution
- SW   : Software
- UC   : Unified Communications
- VoIP   : Voice over IP
- VPCC   : VirtualPCCenter
- VPN   : Virtual Private Network
- WAN   : Wide Area Network

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