

MetaArc / K5
Meeting for
Investors

June 24, 2016



shaping tomorrow with you

Supporting Digital Transformation: Fujitsu's Digital Business Platform

Fujitsu Limited
Global SI Technology Unit
Head of Unit

Noriyuki Nakamura

The Era of the Digital Transformation

- Utilizing the most advanced ICT to rapidly respond to business changes
- Collaboration and co-creation that transcends business and industry boundaries



Destruction and Creation Brought by the Shift to Digital

- The state of business and society can be rewritten through ICT

Marc Andreessen, cofounder of Netscape and someone who continues to shape technology trends in Silicon Valley, once said that you can either have software take away your job or you can use it to increase your profits.



3 Directions of Digital Innovation

- An era where consumer technology is diverted for use in enterprise business units and the military field



Society and Industry

ICT is moving to an era where on-site activities are added to information systems

- IoT/M2M
- Smart cities/smart grid
- Mobile payments



Relationships with Customers

Relationships with customers are shifting to digital

- Digital consumers
- Digital marketing
- Open service innovation



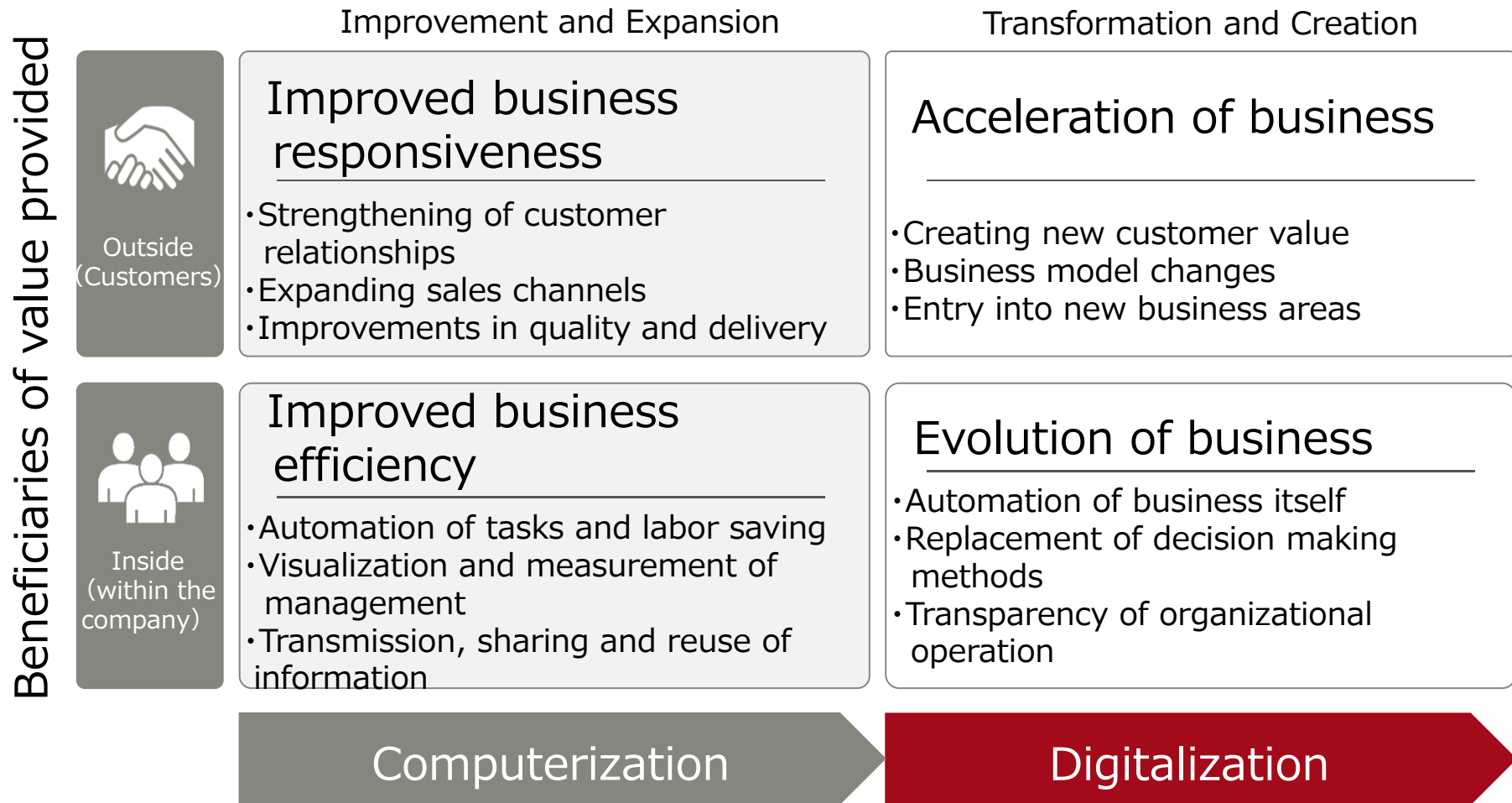
Organizational Operation and Ways of Working

Organizational Operation and Ways of Working From individual mobile use to team information sharing

- Transformation of ways of working
- Tribalization of organizations and human resources
- Transformation of decision-making processes

Destruction and Creation Brought by the Shift to Digital

- Transforming business and creating new businesses through the use of digital technology and digital information.



Customer Efforts toward Digital Transformations

- Promoting ecosystem building through co-creation with customers
- Carrying out over 300 PoC*/operational trial ※ PoC : Proof of Concept (testing new technology and ideas)

Top 8 areas of PoC/operational trials



Customer analysis/
marketing
About 60 trials



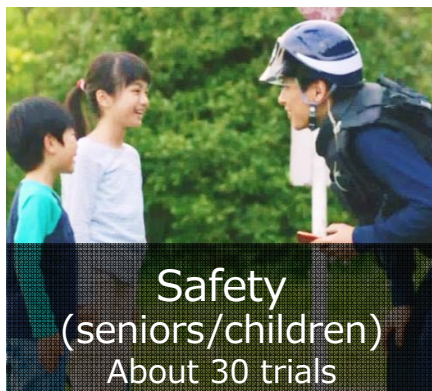
Transportation info./
disaster prevention
About 40 trials



Product traceability
About 30 trials



Factory visualization
About 30 trials



Safety
(seniors/children)
About 30 trials



Advanced agriculture/
husbandry
About 30 trials



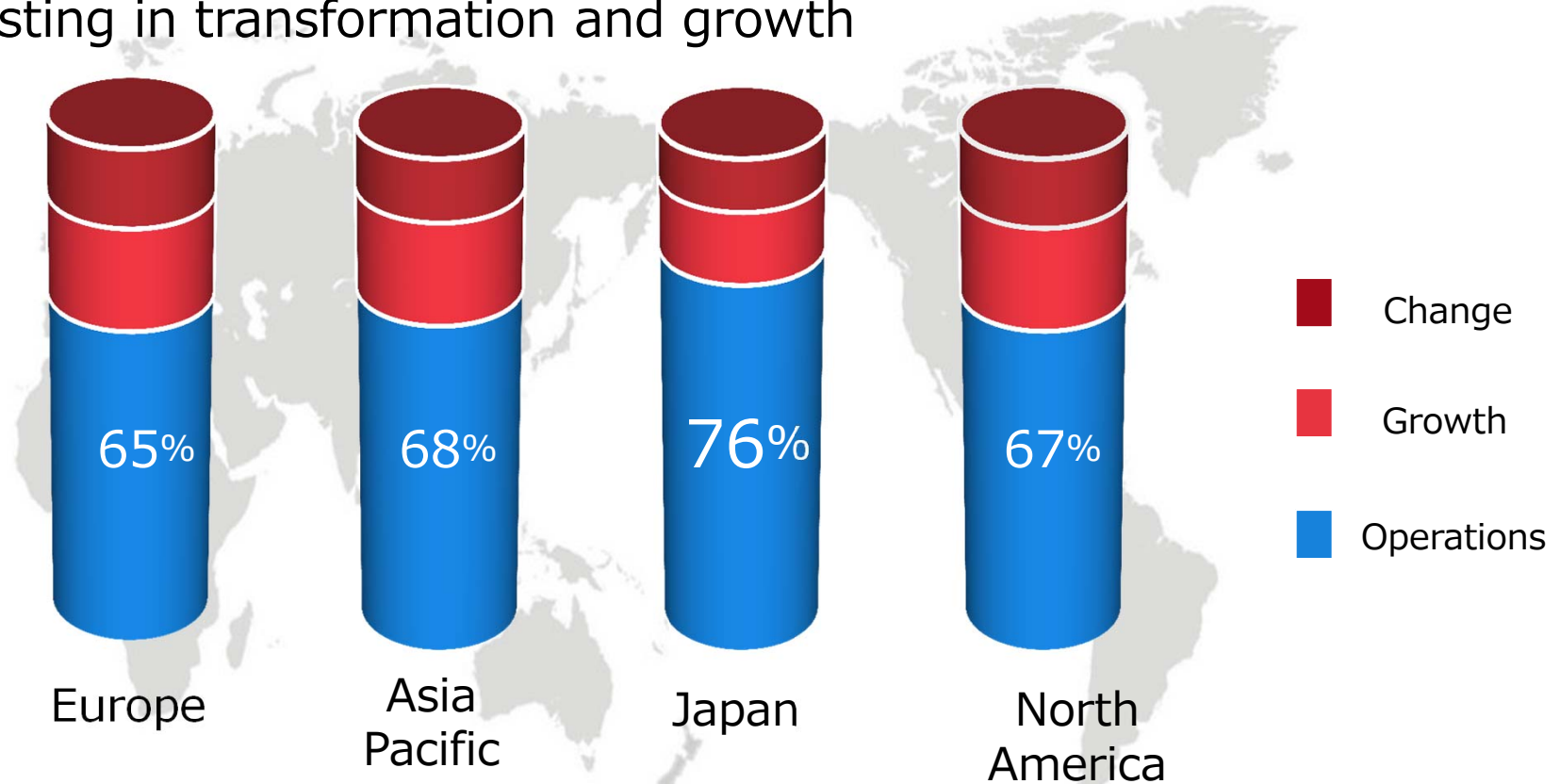
Facility monitoring/
maintenance
About 20 trials



Retail customer
movement analysis
About 20 trials

Companies' Status: Percentage of ICT Spending

- An issue of conflict between reducing operating expenses and investing in transformation and growth



Total IT budget for 2014 broken down by percentage, by business region (Average value: %) (Budgets for Japanese companies are by accounting fiscal year, companies outside Japan are by calendar year)

Source

Japan: Gartner (IT Demand Research) Survey: November 2014 "2014 Second Half Company User IT Demand Survey Report: Part 1 Computer Systems", valid responses = 518

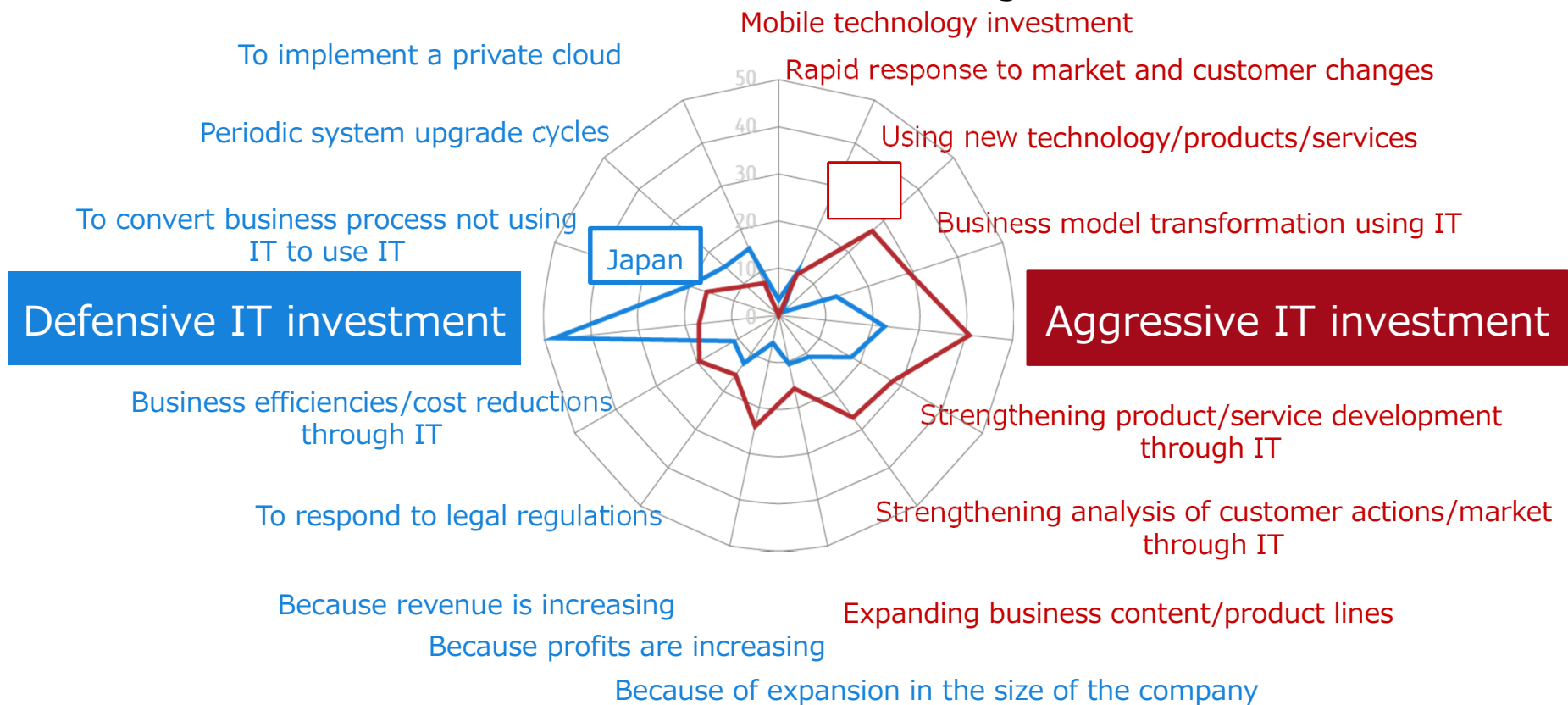
Outside Japan: Gartner, "IT Key Metrics Data 2015: Executive Summary," Linda Hall et al., December 15, 2014.

Graph created by Fujitsu on the basis of research by Gartner

IT is Indispensable in Responding to Market Changes

- More than half of companies undertaking “disruptive IT investment” have increased revenue and profits

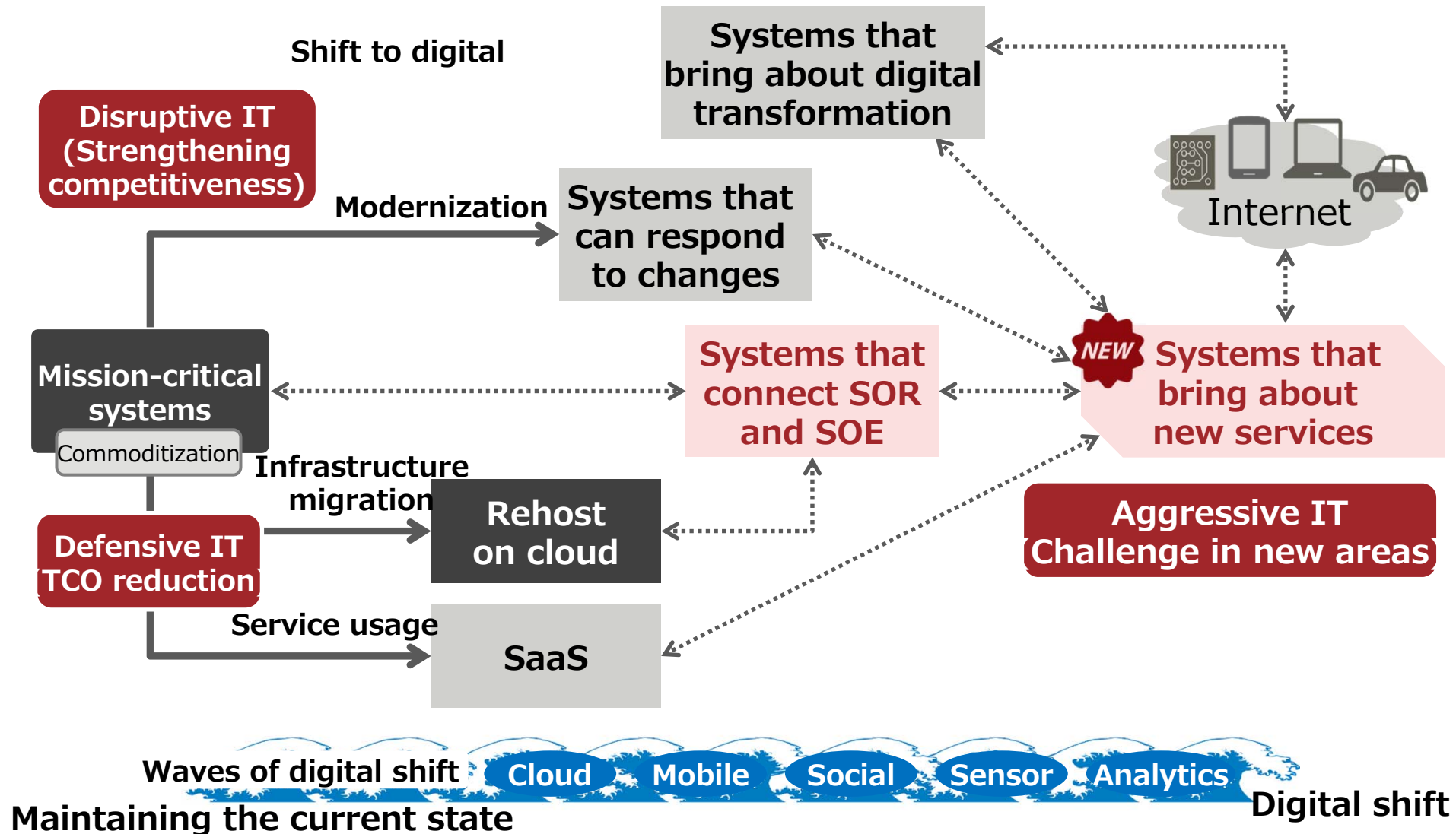
Uses of increased budgeted funds in companies that have increased IT budgets



Source: JEITA/IDC Japan – Analysis of the differences of Japanese and US companies in regard to management using IT, survey results (October 2013), State of “disruptive IT investment” by companies in Japan, survey results, (February 2015) 1

The Shape of IT in the Digital Era

- Urgent need for an approach to use ICT for value creation



Creating New Businesses through Disruptive IT Investment



■ Expansion of new business areas

- The appearance of engagement businesses, such as Airbnb and Uber
- IT investment that leads to change and growth in new business areas, such as SoE, Fintech, and cross-industry business, is even more indispensable

■ The burden of ICT expenditure

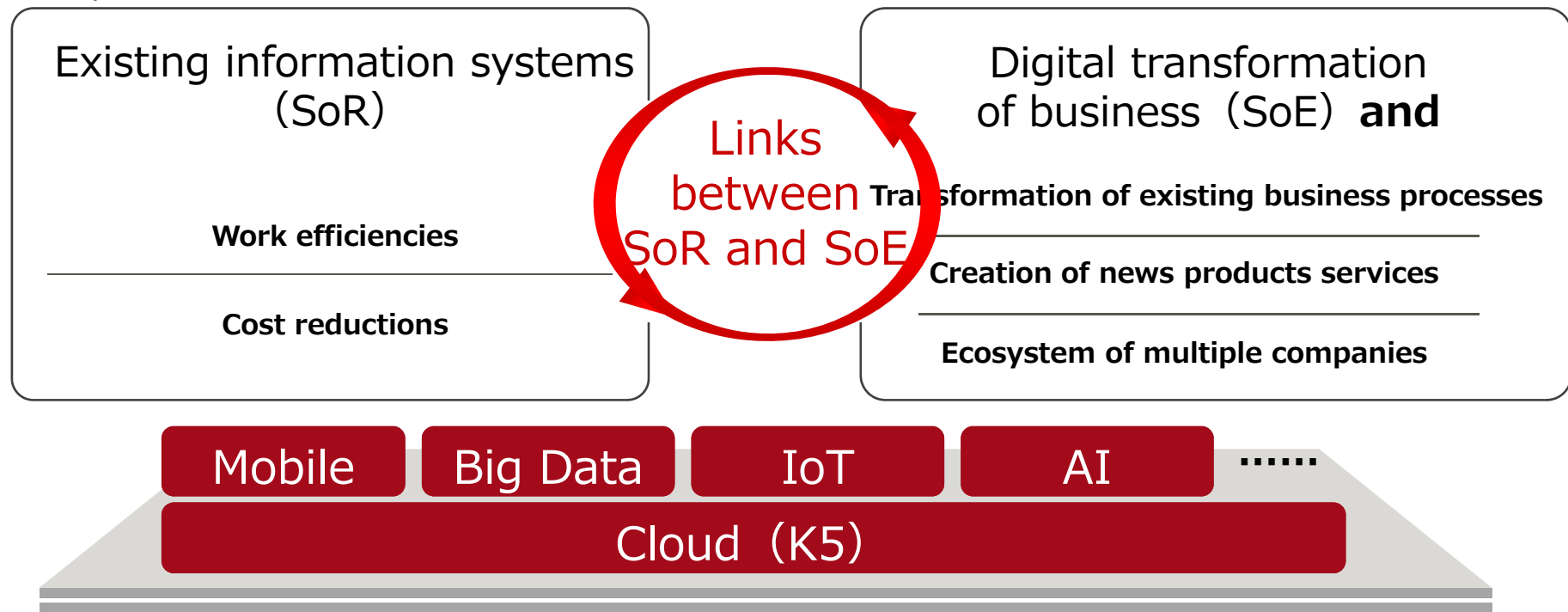
- The necessity of IT investment in transformation and growth has been thoroughly recognized
- Against a background of the burden of operating costs for existing systems, new investment is difficult

■ The difference between market needs and technology

- The necessary individual technologies are coming out one by one
- Combining individual technologies is not properly meeting the needs of the market

Fujitsu's Next-Generation Cloud-Based Digital Business Platform

- A platform that can achieve customers' digital transformations
- Provides the most advanced ICT, such as the cloud, mobile, big data, IoT, and AI

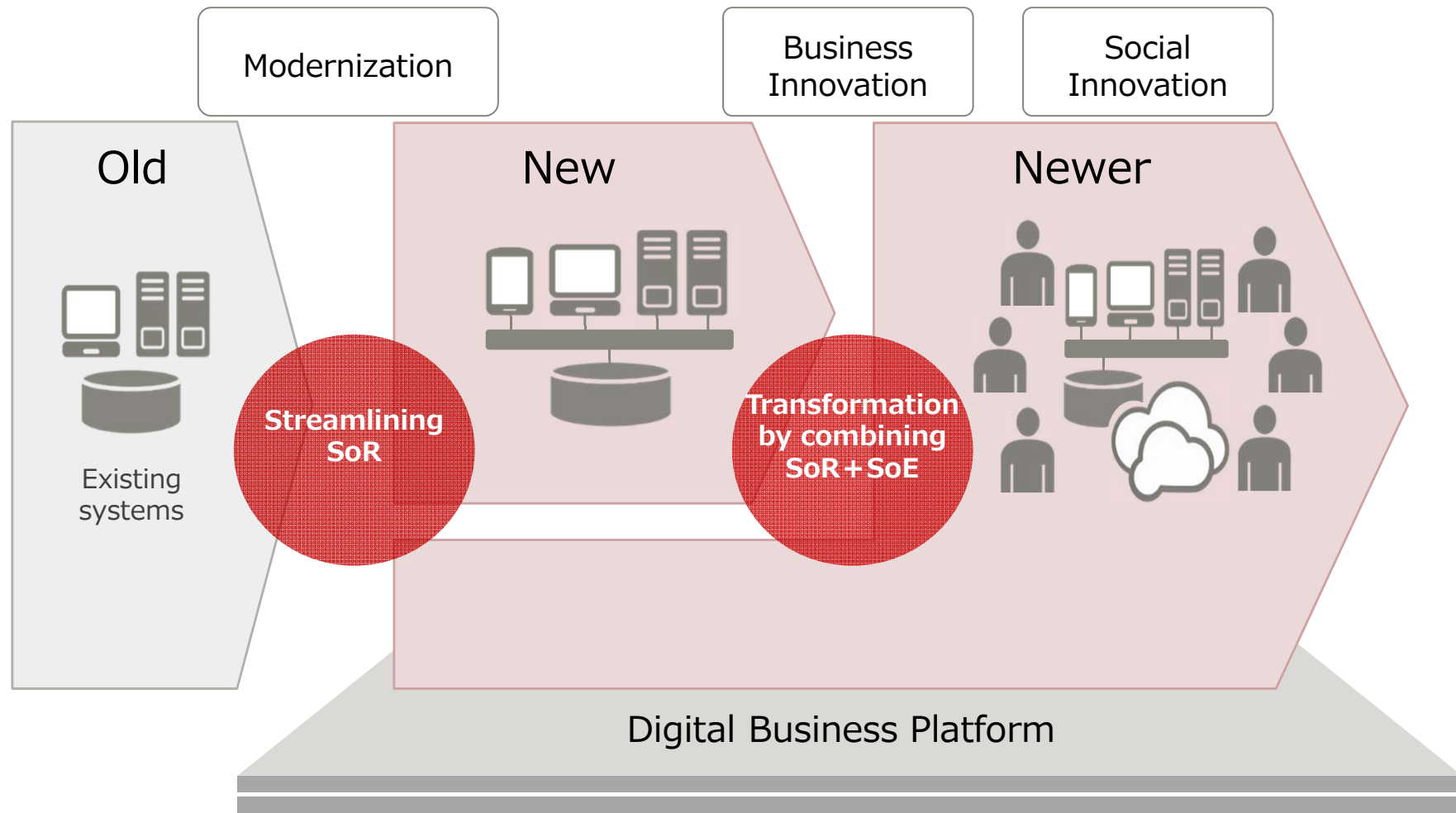


Digital Business Platform 「MetaArc」

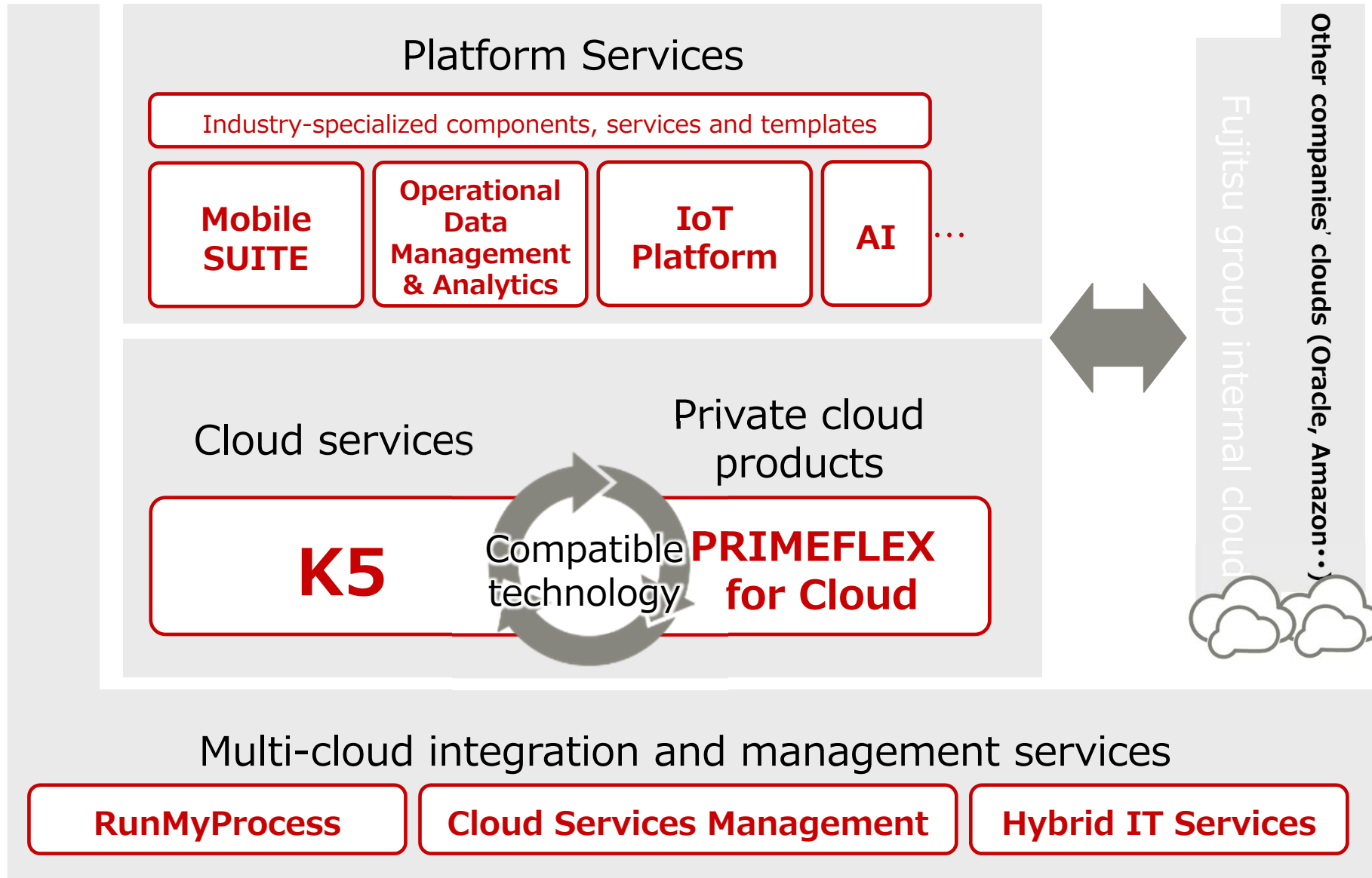
AI : Artificial intelligence
SoE : Systems of Engagement (systems related to people or things)
SoR : Systems of Record (systems that handle business processes and records)

Grand Design of Next-Generation Corporate Information Systems

- It is necessary to create a state of readiness in order to face the newest developments, and to make efforts at innovation easier.



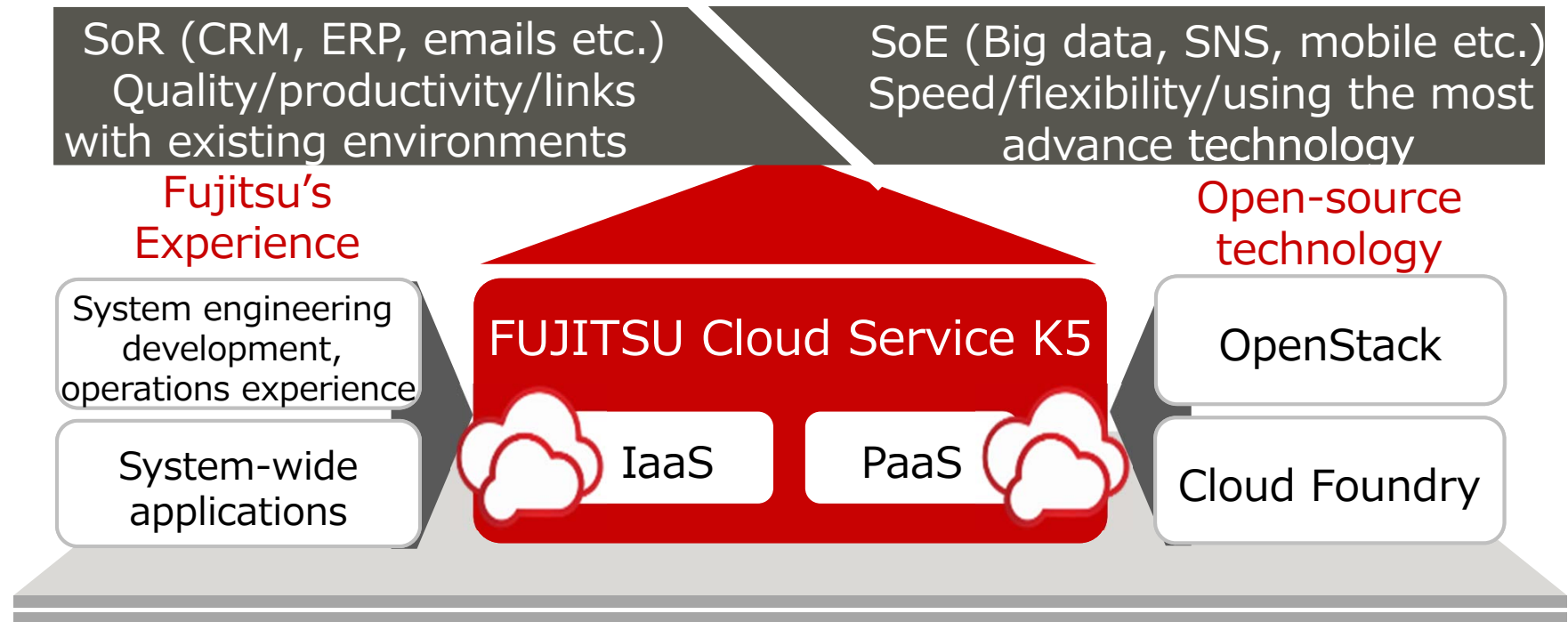
Product Composition of MetaArc



New Cloud Platform K5, Core of MetaArc

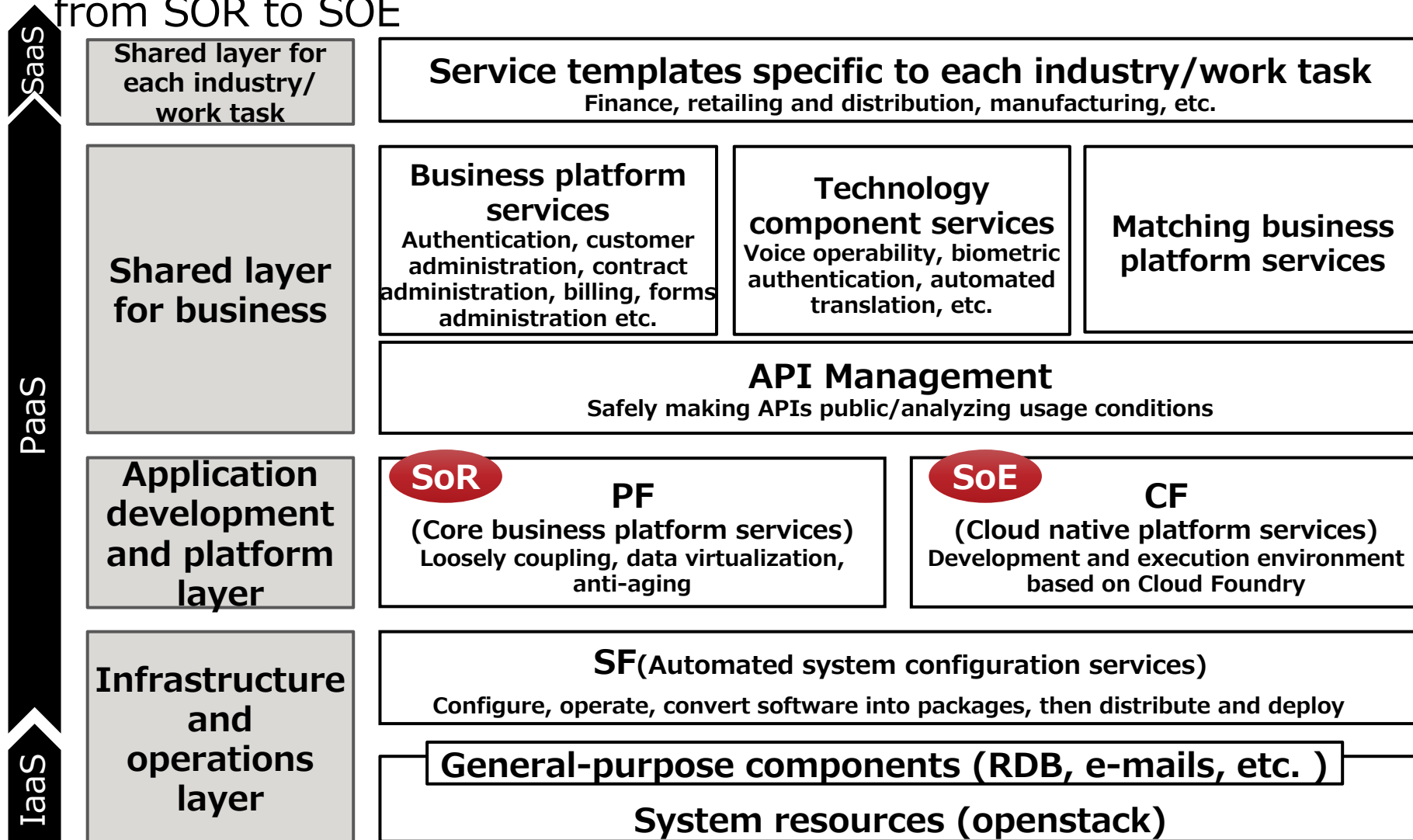
K5 ➡ **K** = Knowledge, **5** = the five continents

- A new cloud service fusing Fujitsu's experience with open-source technology
- Provides IaaS/PaaS that support SoR and SoE
- High-quality total support, safe for mission-critical systems



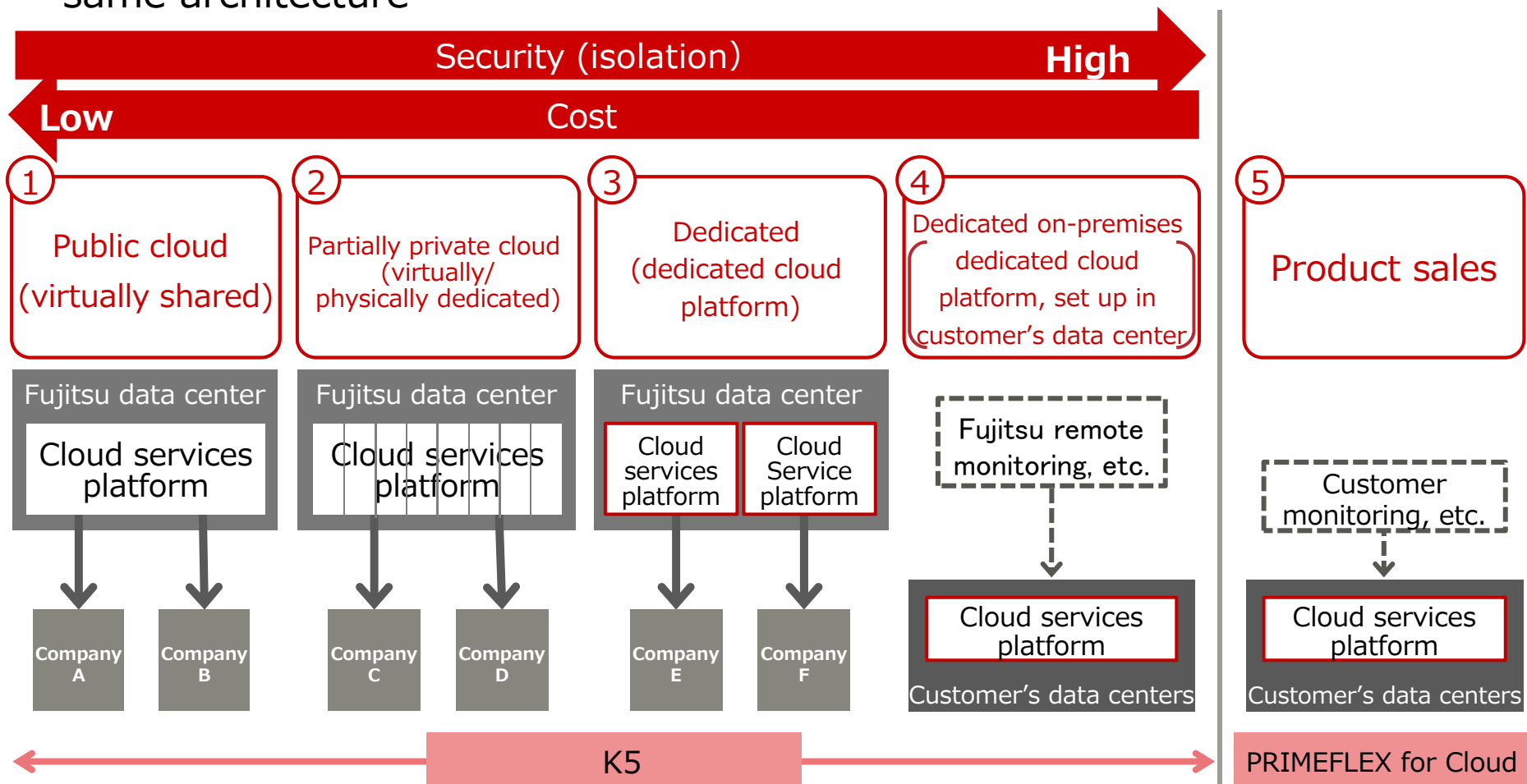
Main functions of K5

- In addition to system resource IaaS functions, K5 provides PaaS functions incorporating knowledge applicable to all sorts of systems, from SOR to SOE



Cloud Model Tailored for Customers

- A 4+1 product model, from public cloud to on-premises
 - Providing a model to fit security, performance and cost requirements
- Also providing products that can build a customer environment with the same architecture



24/7/365 Exhaustive Security Measures

- Operating 24/7/365, the cloud service platform implements information security measures such as vulnerability diagnosis and monitoring.

Strongly supported by Fujitsu Cloud CERT or the trusted status that is even more necessary for cloud environments

■ Vulnerability diagnosis

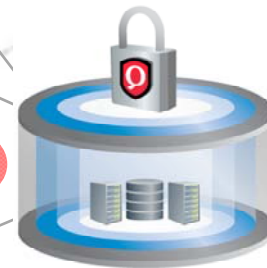
Fujitsu has established a security operations center (SOC). It carries out daily diagnoses of the K5 platform, linked with a patch management system.

■ Collecting, analyzing and managing vulnerability diagnoses

Fujitsu is constantly collecting vulnerability information on the cloud service platform, and reflecting that information in update and patch management on the basis of influence rate analysis.

■ Monitoring and detection

- Monitoring for unauthorized access and malware
- Correlation analysis of logs and events



Fujitsu Cloud CERT



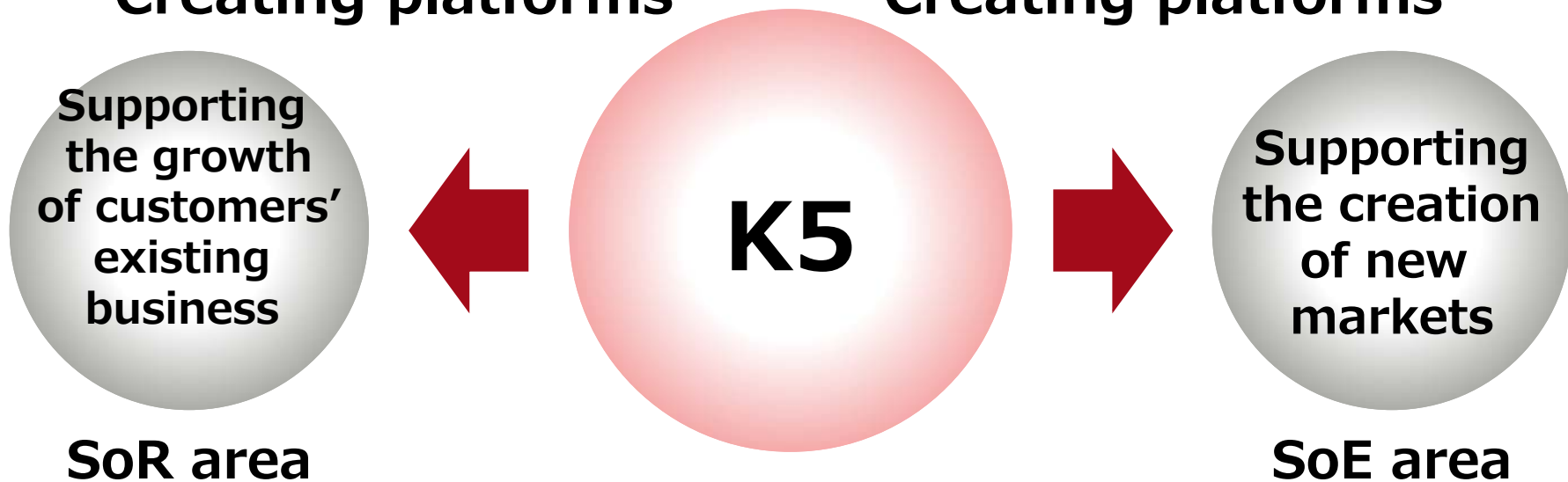
- Fujitsu plans to successively apply a variety of standards and best practices, such as FISC/ISO 27001

Customer Value provided by K5

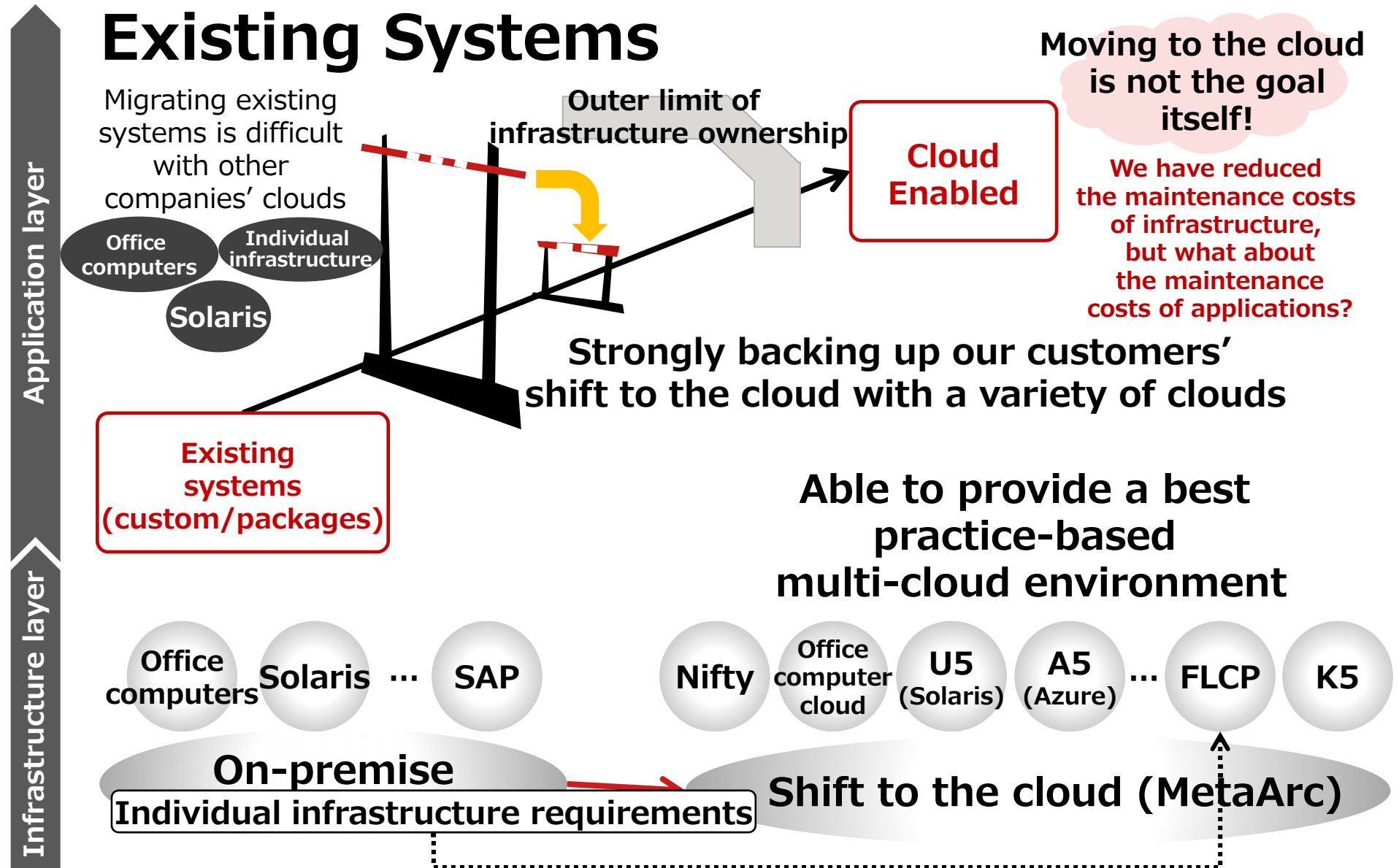
- To grow while supporting the growth of our customers' businesses, take on the dual task of "growing the existing business" and "creating new markets"

Digital Evolvable Apps
Creating platforms

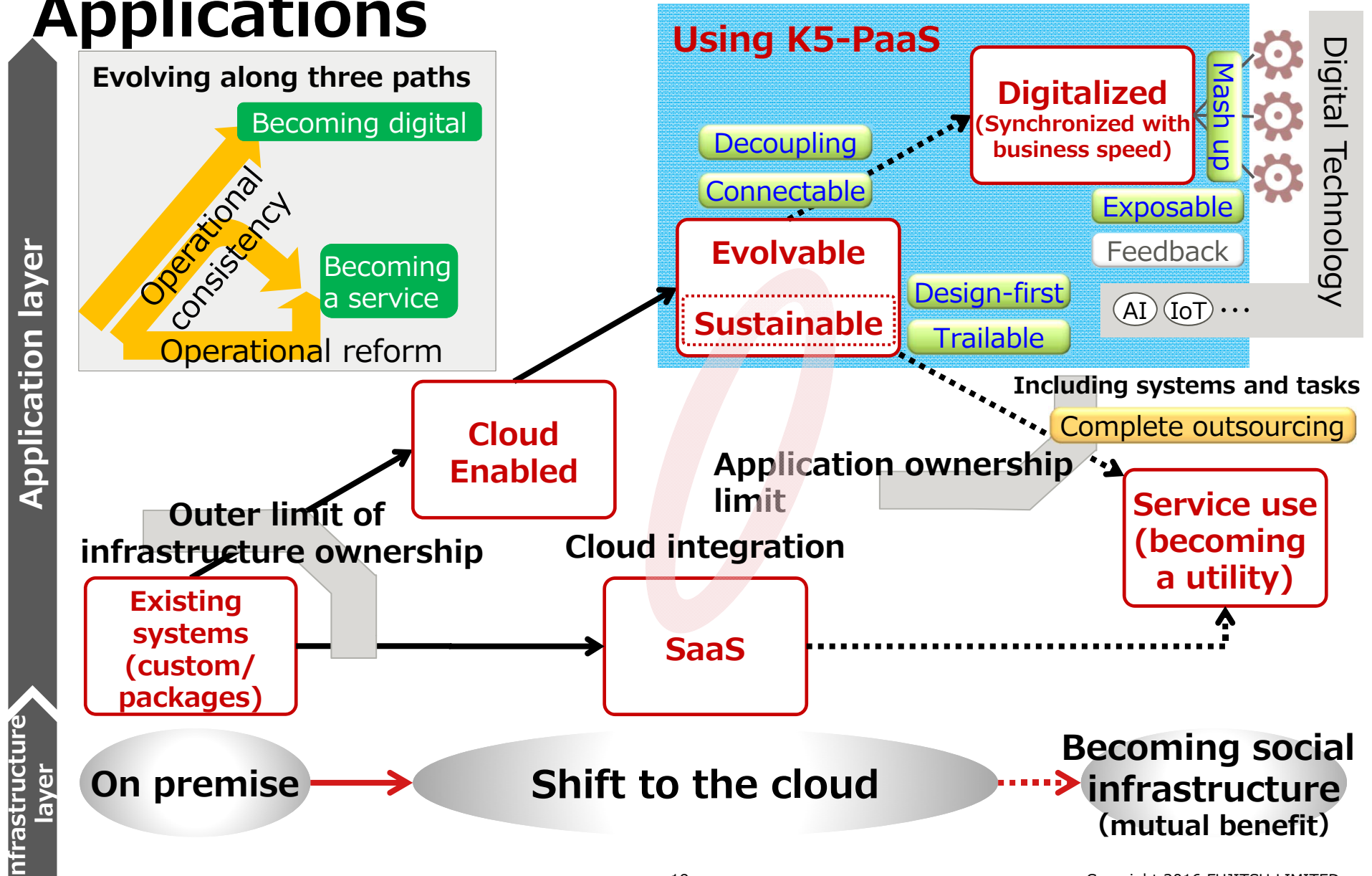
Digital Economy
Creating platforms



The First Step in the Evolution of Existing Systems

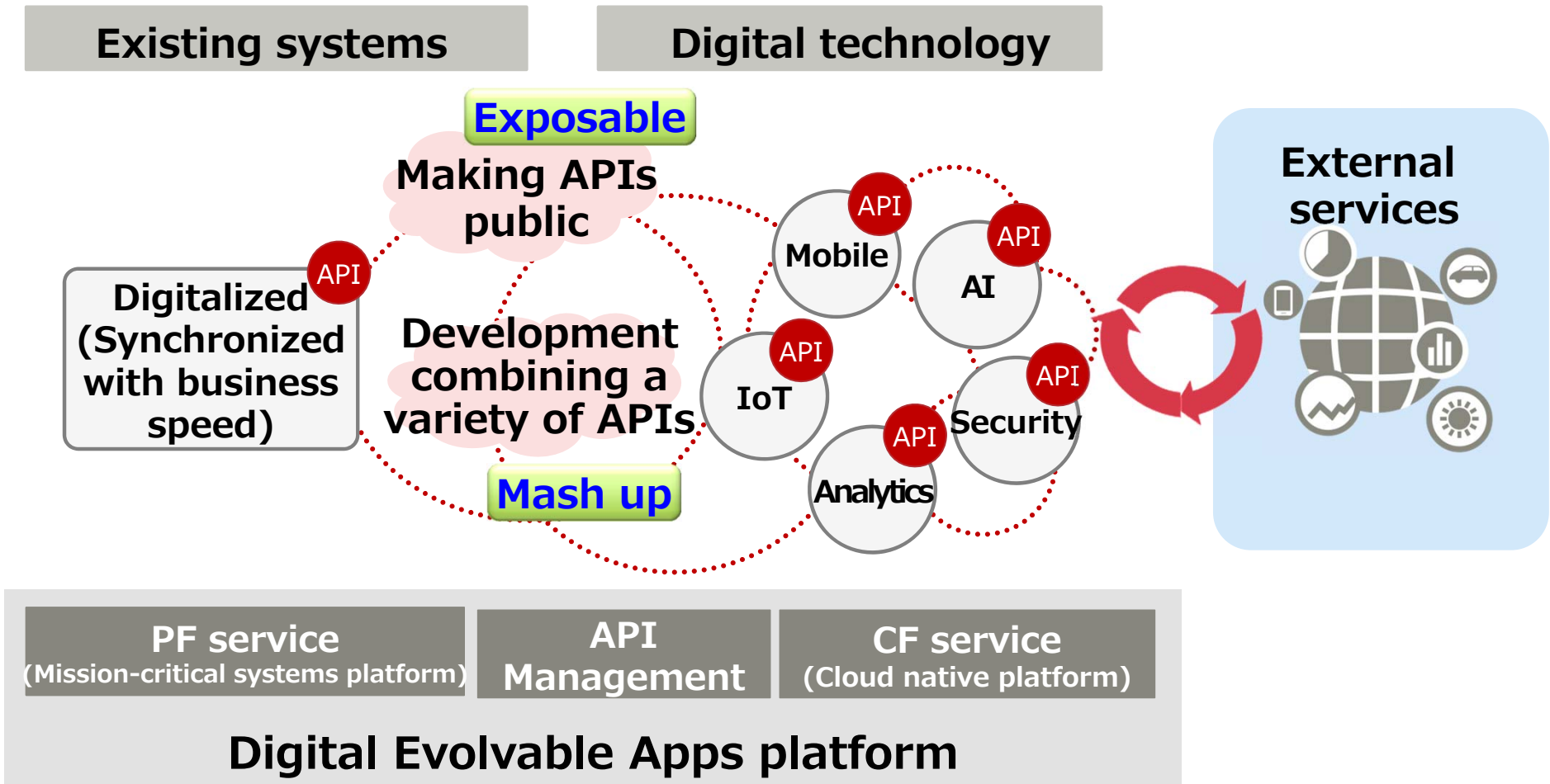


The Direction of Evolution of Existing Applications



A Digitalized World

- Accelerate the digital shift of business by combining existing systems with digital technology and external services



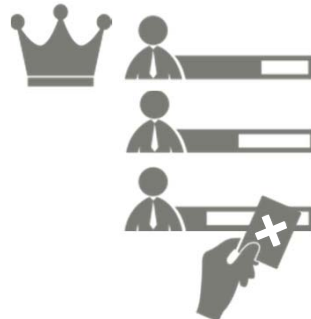
Base Models in Digital Business

- Creating value through increasing the sophistication of digital information and optimized matching
- Matching is the base model of digital business

Increasing the sophistication of digital information



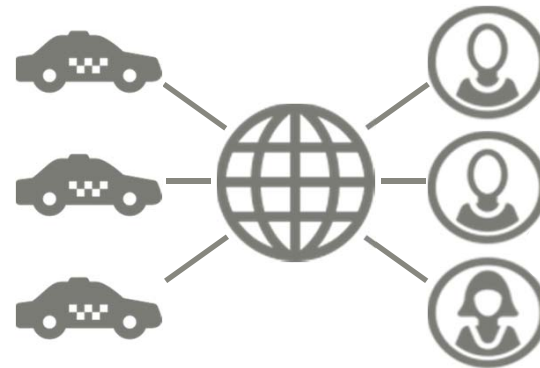
Digitized location information



Digitized evaluation information

By increasing the sophistication of digital information, it becomes possible to make attribute information more detailed and to access it in real time (such as locational information and evaluation information)

Optimized matching through digital information



When and where can cars be provided?

When and where do users want to use a car?

It becomes possible to optimally match a variety of needs with supply information on the basis of sophisticated digital information

Digital Economy Platform

- Platforms that support companies taking on the challenge of the matching business, which is the base model in digital business

I want to make my systems thoroughly prepared for growth

I want to quickly set up a matching business

I want to easily use a variety of technologies

Service operator

Service operator

Service operator

Service operator

Service operator

Service operator

Service operator

Thorough business model support

Matching business platform services

Business platform services

A structure that supports business models based on SoR experience

Providing a variety of technology components

Technology component services

Technology component services (other companies)

A structure that provides a variety of technology components to mix and match

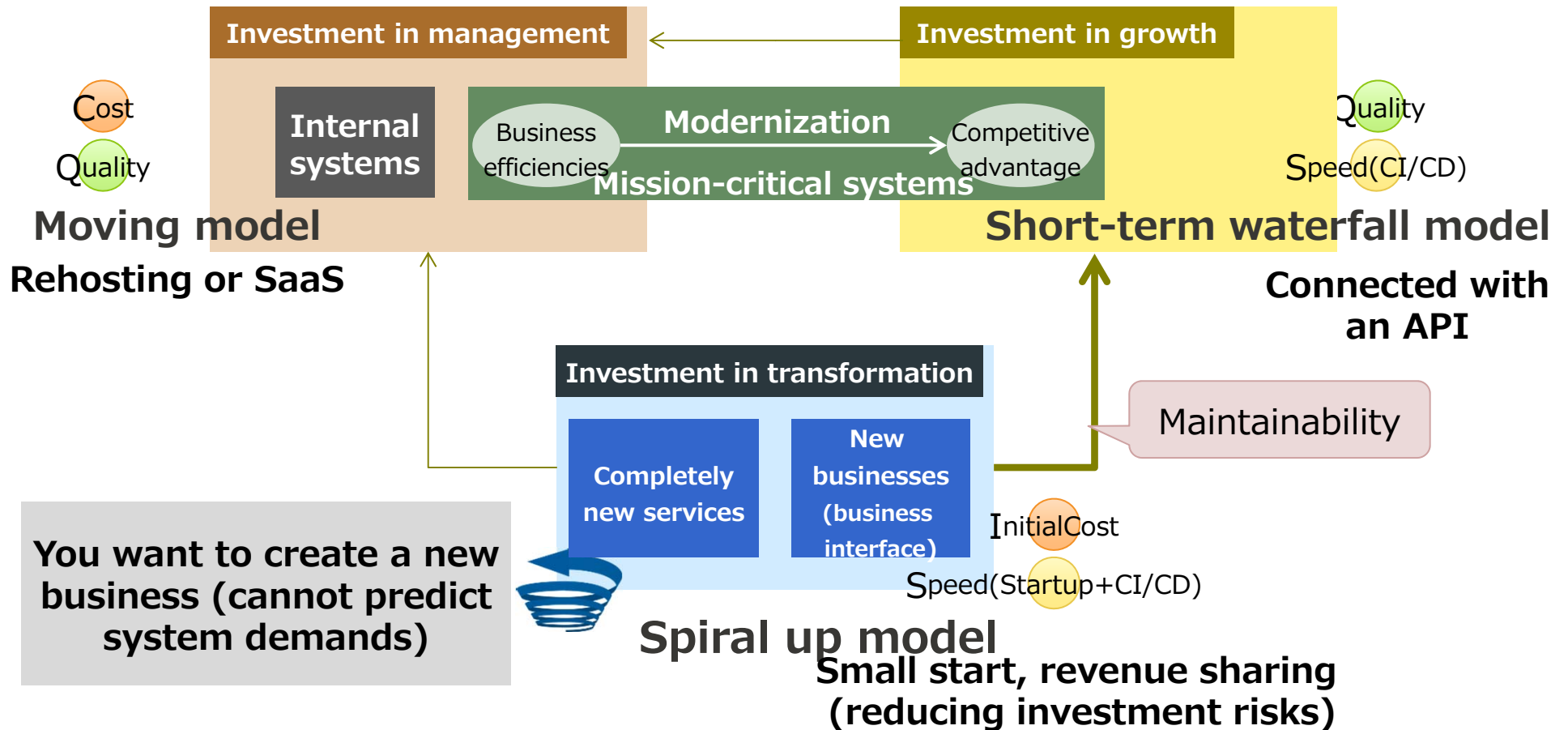
Digital Economy Platform

Contributions to Management by K5

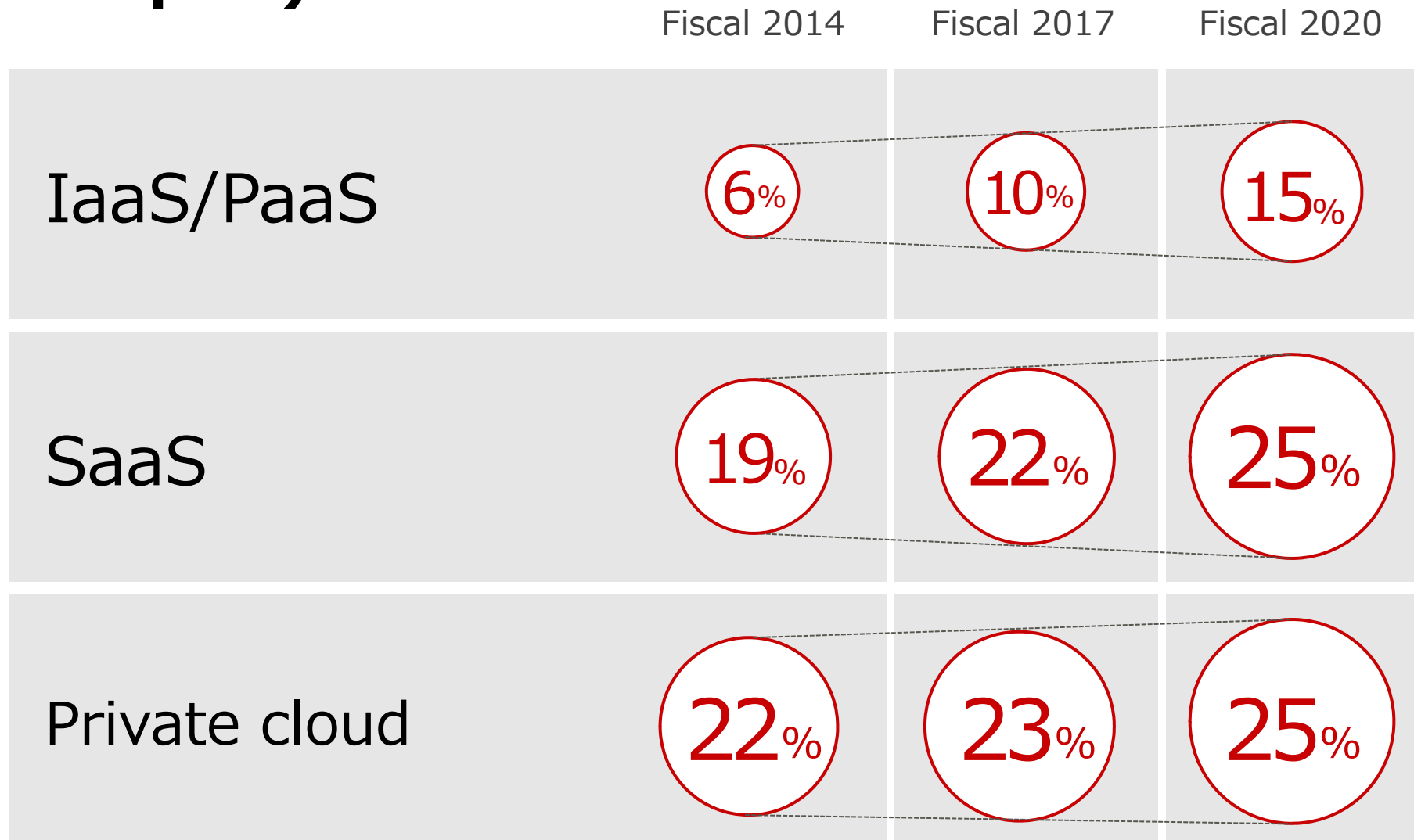


You want to lower operating costs without lowering quality (without major system changes)

Your business is competing or growing (your system needs a competitive edge)



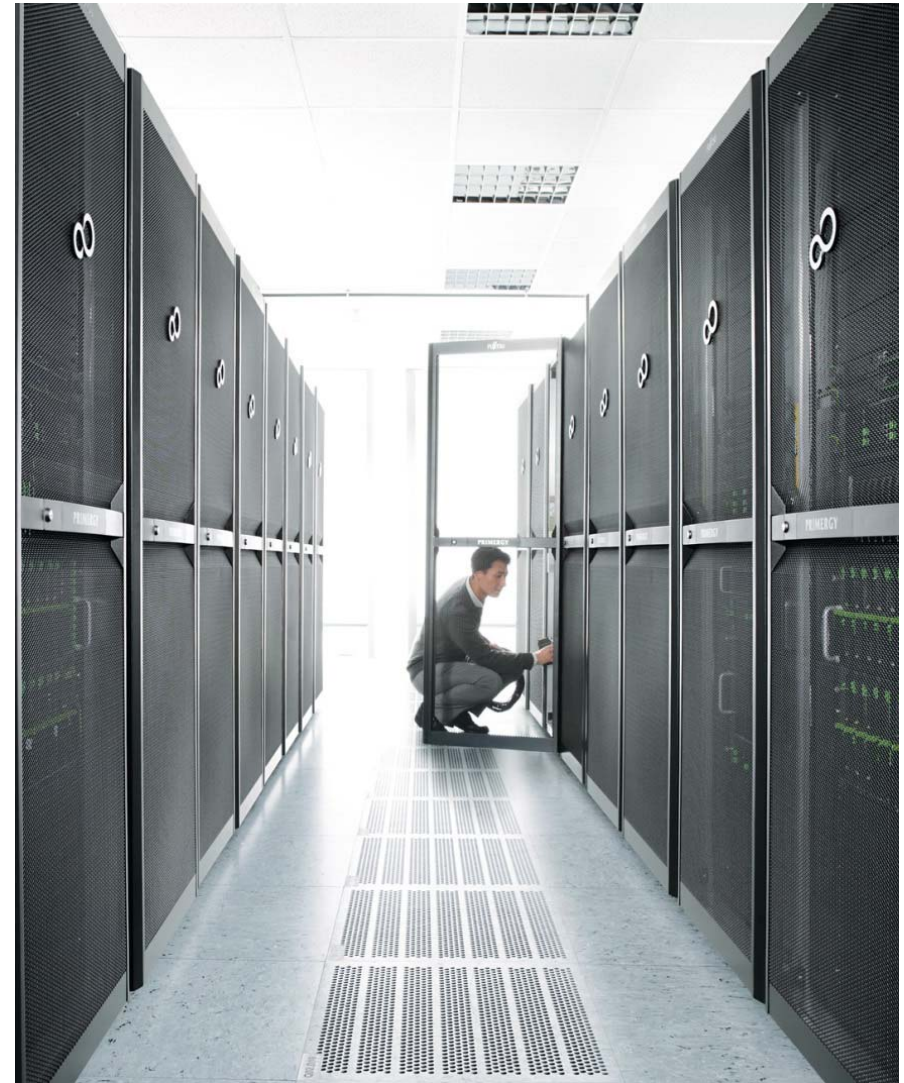
Cloud Business Goals (Market Share in Japan)



Continuously Providing Services Honed in Internal Use

Fujitsu Group's internal systems inside and outside Japan are being completely overhauled to run on this next-generation cloud platform

- Approximately 640 systems within the group (13,000 servers) will have been migrated – approximately JPY35.0 billion reduction in TCO over 5 years
- The development experience gained in migrating internal systems to the cloud is being provided to customers as a reference, including tools, environments, etc.



Building Internal Systems Using the Public Cloud

- Using the public cloud (virtual private hosted) as much as possible

First Goal: Slimming down systems and reducing costs
(Enjoying the full benefits of the cloud)

Using shared services

Maximizing the effect of shared resources

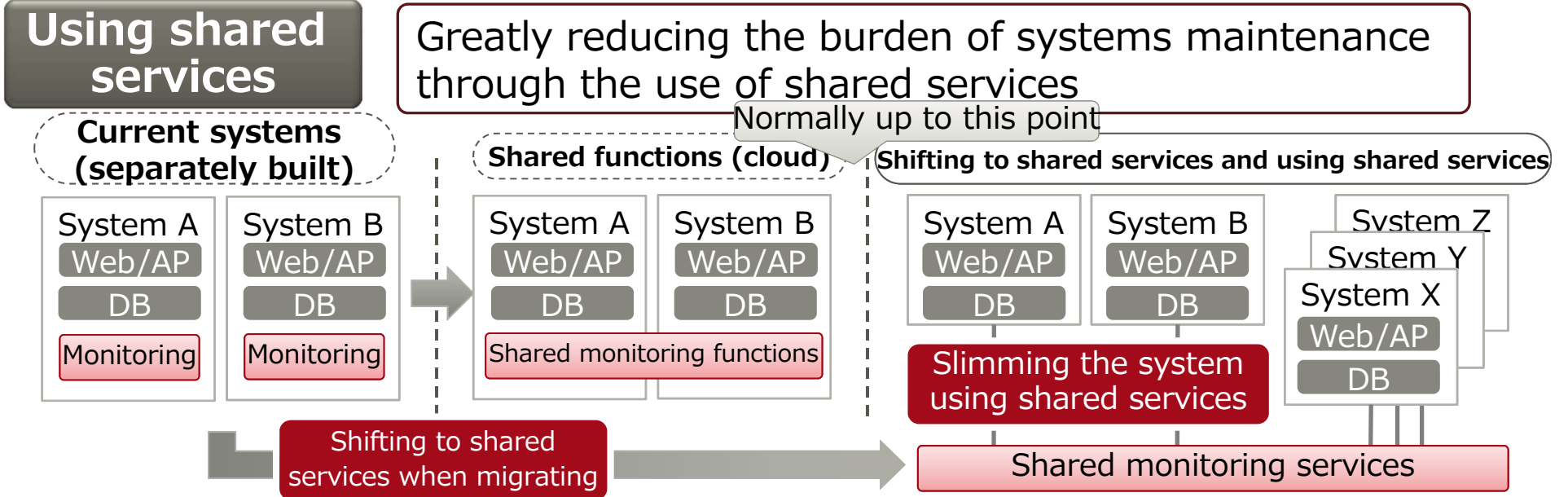
Second Goal: Developing reference points from our experience and offering it to customers

(Pursuing the possibilities of the public cloud, giving added value to K5)

Security guarantees

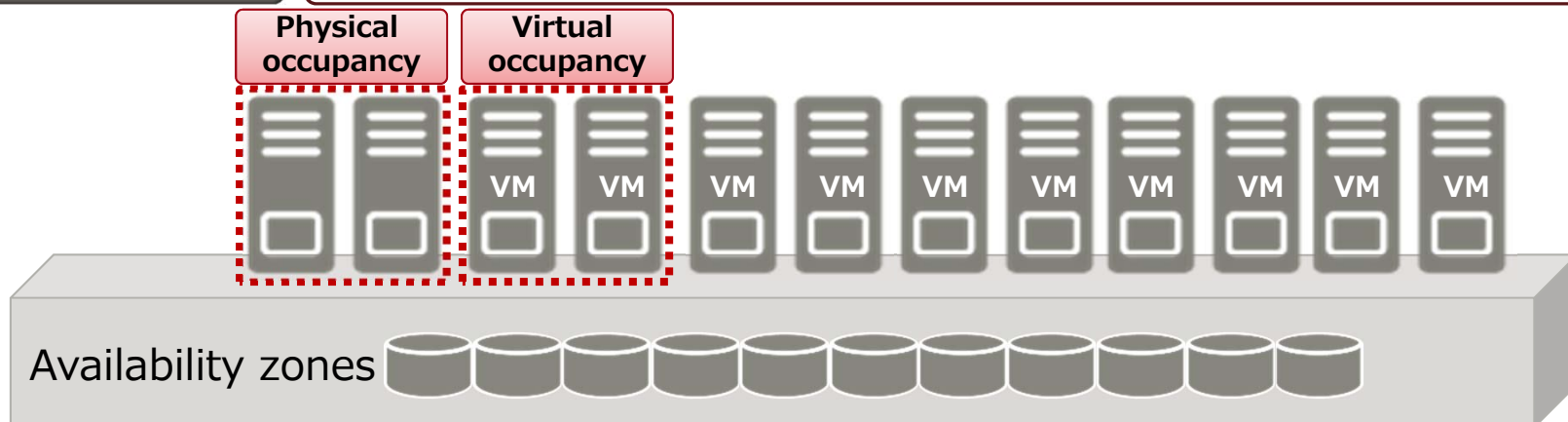
Developing knowledge of using the public cloud

Enjoying the Full Benefits of the Cloud



Maximizing the effects of shared resources

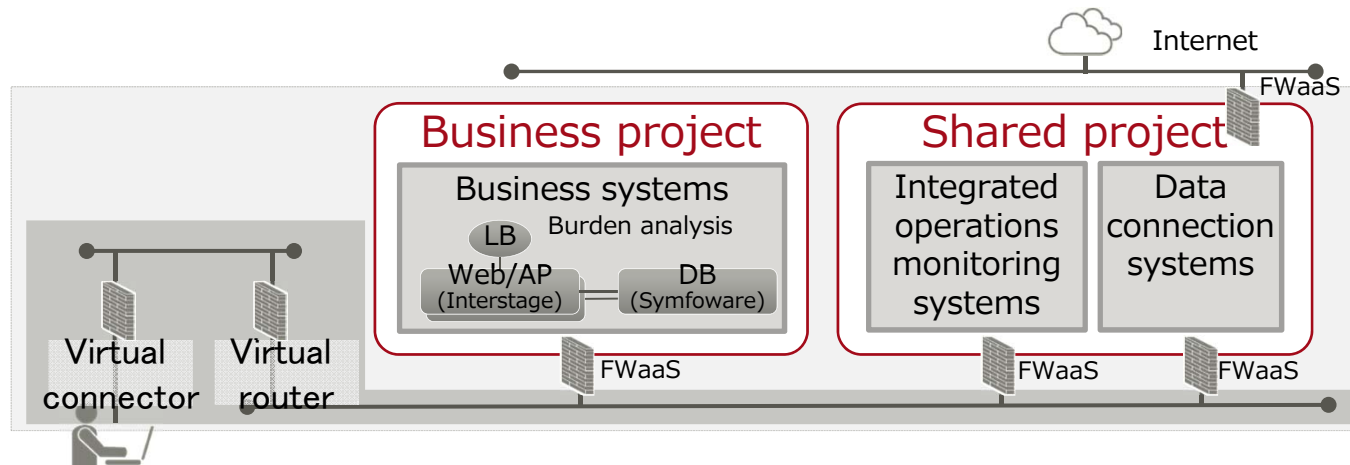
Fully enjoying the benefits of effectively using of resources and holding down costs by sharing resources with many users



Pursuing the Possibilities of the Public Cloud

Security guarantees

Demonstrating that we can build and operate fully secure systems

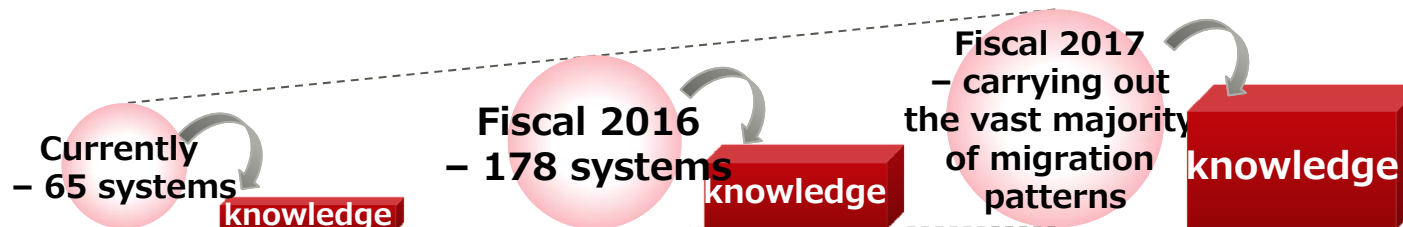


- Achieving secure systems operations even in a physically shared environment connected to the internet

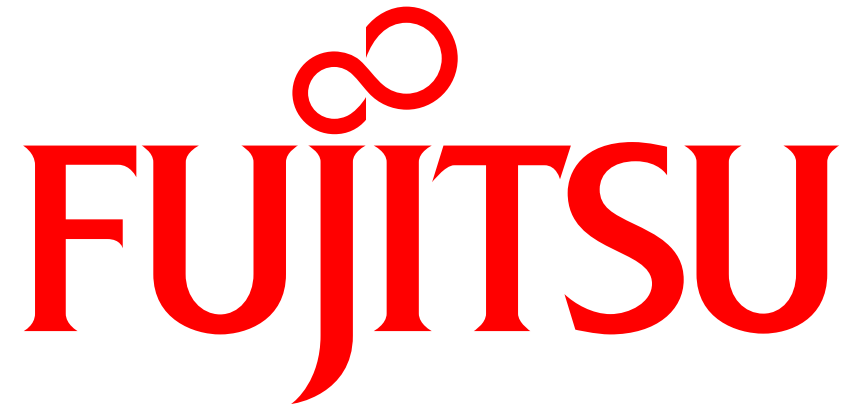
Developing knowledge of using the public cloud

Accumulating knowledge derived from using the public cloud and providing it to customers

Promoting complete migration of internal systems to the cloud



- By migrating the wide variety of Fujitsu's mission critical systems, we accumulate knowledge of using the public cloud



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- Macro-economic environments and market trends in the principle geographic markets for Fujitsu's services and products, which are Japan, EMEA, the Americas, Asia, Oceania and elsewhere, particularly such conditions that may effect customers' IT spending;
- Rapid technological change, fluctuations in customer demand and intensifying price competition in IT, telecommunications, and electronic device markets in which Fujitsu competes;
- Fujitsu's ability to dispose of non-core businesses and related assets through strategic alliances and sales on commercially reasonable terms, and the impact of losses which may result from such transactions;
- Uncertainties as to Fujitsu's access to, or protection for, certain intellectual property rights;
- Uncertainty as to the performance of Fujitsu's strategic business partners;
- Declines in the market prices of Japanese and foreign equity securities held by Fujitsu which could cause Fujitsu to recognize significant losses in the value of its holdings and require Fujitsu to make significant additional contributions to its pension funds in order to make up shortfalls in minimum reserve requirements resulting from such declines;
- Poor operating results, inability to obtain financing on commercially reasonable terms, insolvency or bankruptcy of Fujitsu's customers, or any such factor that could adversely impact or preclude these customers' ability to timely pay accounts receivables owed to Fujitsu; and
- Fluctuations in rates of exchange for the yen and other currencies in which Fujitsu makes significant sales and profits or in which Fujitsu's assets and liabilities are denominated, particularly between the yen and Euro, British pound and U.S. dollar.