Today I would like to provide some thoughts on Fujitsu's system integration business and its future prospects. First I would like to tell you a little about myself. I joined Fujitsu in 1977. At that time, hardware was where the value was, and software and system engineering services were complimentary. My experience has mainly been as a project manager overseeing large-scale projects. The Digital Transformation Business Group was formed last year in January, and I am in charge of fostering the development of our employees.

These are the topics I will be covering today. First, I will talk about the demand-supply balance in Japan's IT business using data from the Information-Technology Promotion Agency (IPA). The current situation is that demand is strong, and supply cannot keep up. Next, I will talk about the status of Fujitsu's system integration business. Even though it is not growing significantly, I will describe how it is growing at a stable pace. Third, I will talk about why Fujitsu's system integration business is strong, and, lastly, about its future prospects.

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Demand-Supply Balance in Japan's IT Business

From "IT Personnel White Paper 2018," Information-Technology Promotion Agency (IPA)
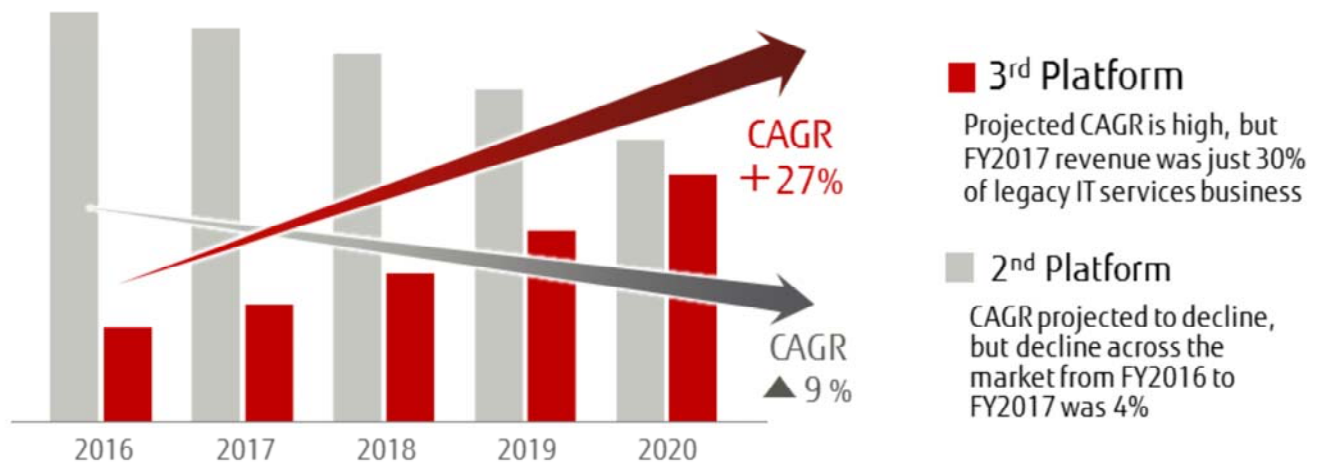
Today, amid a declining system integration market and growing digital market, I think many of you are asking whether Fujitsu will be OK, and your assumptions are based on this graph from IDC. The 3rd Platform in red is the digital market. It is a platform business in which new businesses are launched based on digital technology. The 2nd Platform in grey is the existing system integration business. The CAGR of the digital 3rd Platform market is 27%, but the 2nd Platform market is declining at a rate of 9%. When we look at this graph, it certainly appears that the system integration market will shrink in a few years. But this is simply a forecast, and it is not based on any quantitative evidence. As you can see, if you look at the bar graphs for the 2nd and 3rd Platforms for 2017, the most recent year, the grey 2nd Platform market is about 4 trillion yen, whereas the red 3rd Platform market is 1.2 trillion yen. In other words, it is still only about one-third the size. The decline in the 2nd Platform market between 2016 and 2017 was 4%, but the reality is that the scale of the existing IT market is very large.
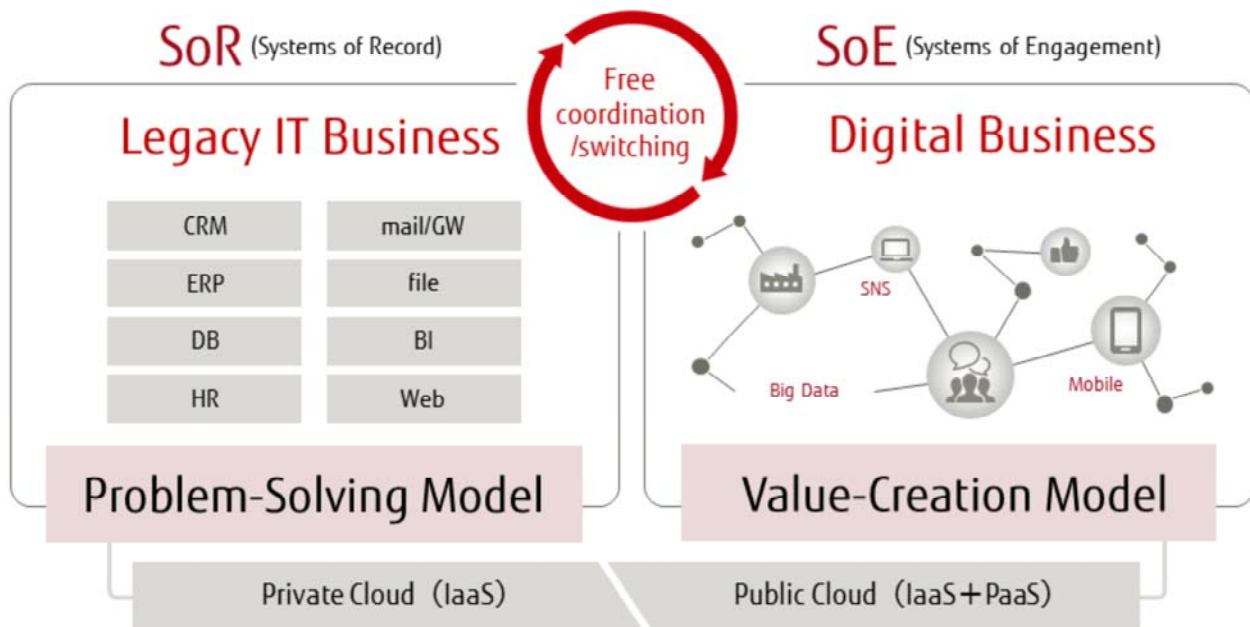
Next, this maps out the IT systems. On the right is the 3rd Platform classification IDC just mentioned, the Systems of Engagement (SoE) for digital business. On the left is the legacy IT business using Systems of Record (SoR), the 2nd Platform market. This legacy IT business on the left is the area in which I have worked for many years, where we use IT to focus on the customers' challenges and make their processes more convenient. Using an example from banking, it used to be that only tellers could perform deposits or withdrawals, but now we can make withdrawals anywhere using ATMs. Moreover, by building stable infrastructure, we are able to make deposits and withdrawals 24 hours a day, every day of the year, even using a different bank, anywhere in the world, not just in Japan. This is the problem-solving model. This is the type of IT system that many of our customers in Japan have. On the other hand, for digital business on the right, there are examples such as Uber and Airbnb. In terms of platforms, the services of GAFA (Google, Apple, Facebook, Amazon) also fall in this category. For the business of creating new value, you need not create a system from scratch. By using the cloud to combine APIs, you can create a new business, and this is the value-creation model. The platform used here will steadily shift to the cloud. There are public clouds and private clouds. In the end, both the legacy IT business and digital business will be on the cloud, and will exchange information with each other. In other words, rather than being a stand-alone business, digital business works in conjunction with the legacy IT business in a model in which customers launch new businesses.

Seeing Macro Demand and Supply in "IT Personnel White Paper 2018"

FUJITSU

- ■ Annual survey of IT companies and companies using IT

Classification of IT business/IT operations based on differences in features

IT business of IT companies

| Problem-Solving Model | With the objective of user companies being to increase efficiencies and reduce costs in their legacy business, their IT usage/requirement definitions are clear, and development is primarily through the Waterfall method, with an emphasis on reliability |
| Value-Creation Model | With the objective of user companies being value creation in their business, their IT usage/requirement definitions are uncertain, and development is primarily through the Agile method, with an emphasis on speed |

IT operations of user companies

| Problem-Solving Model | With the objective of user companies being to increase efficiencies and reduce costs in their legacy systems, their IT usage/requirement definitions are clear, and development is primarily through the Waterfall method, with an emphasis on reliability |
| Value-Creation Model | With the objective of user companies being value creation, their IT usage/requirement definitions are uncertain, and development is primarily through the Agile method, with an emphasis on speed |

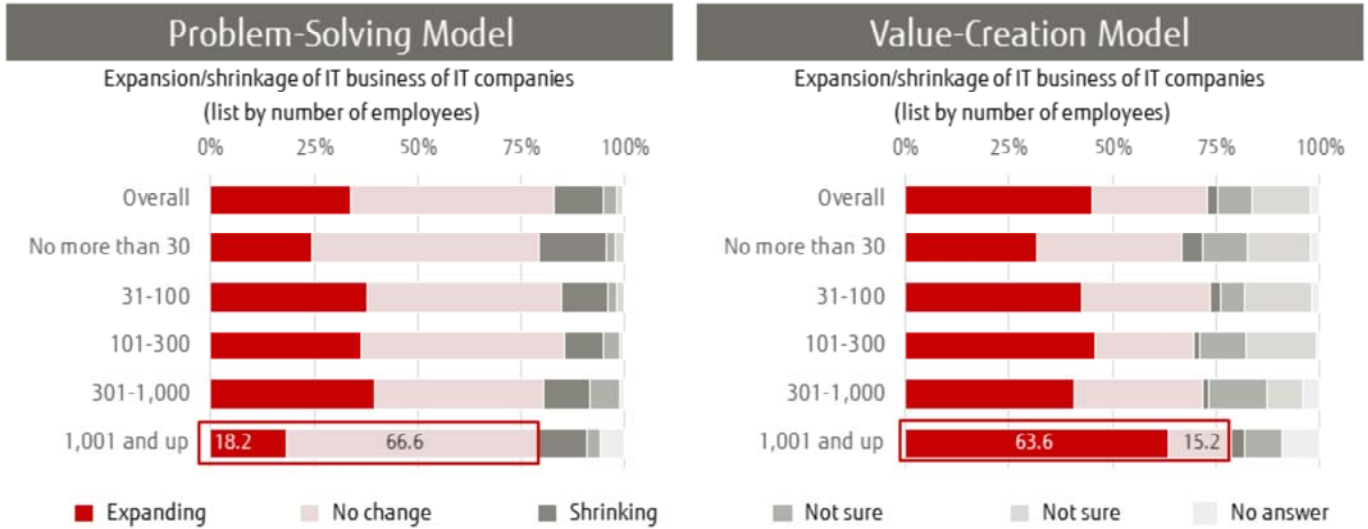Source: Fujitsu, based on "IT Personnel White Paper 2018," IPA

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Every year the IPA issues the "IT Personnel White Paper," and starting in this year's edition, it looks at IT companies and companies using IT, and, for each group, it looks at two completely different types of development work by defining the problem-solving model and the value-creation model.

Scale of IT Companies' IT Business is Expanding

- In addition to the value-creation model, problem-solving model business is also expanding

For IT companies like Fujitsu, the scale of our IT business is expanding. Looking at large companies like Fujitsu with more than 1,001 employees, we can see that the value-creation model business on the right is certainly expanding. Even for the problem-solving model business on the left, however, 18.2% were expanding, while 60.6% saw no change, so it is not as if there is a massive shrinkage of the overall market.
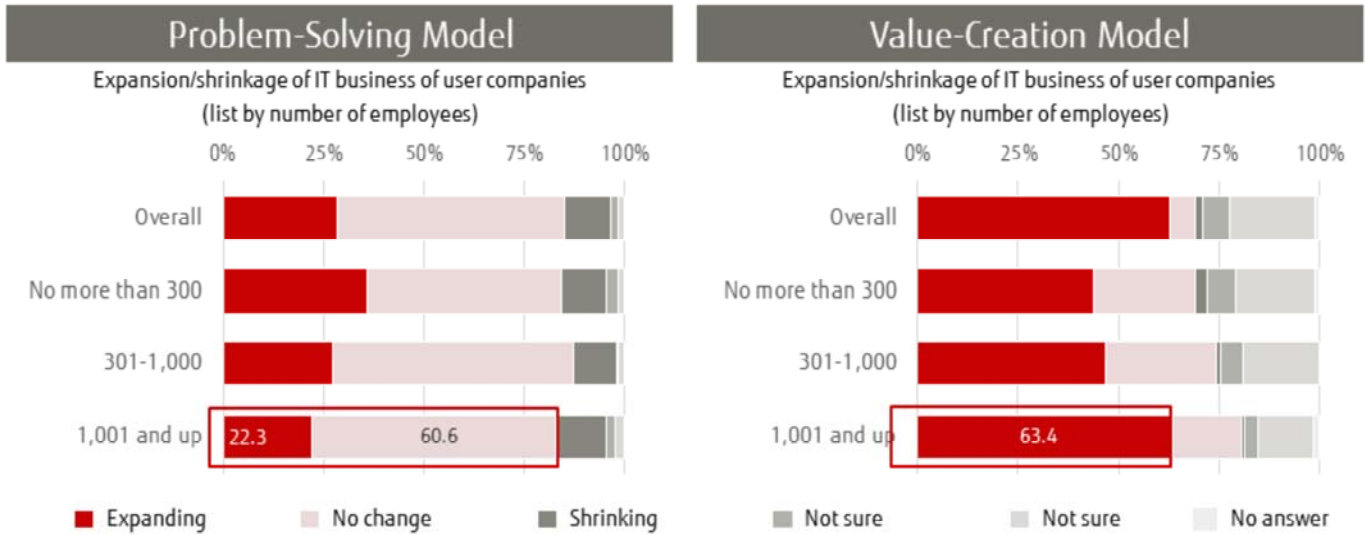
Next is the scale of the IT business of user companies. Here, too, along with the value-creation model, the problem-solving model business is also expanding. In other words, not only the business of the digital value-creation model, but also that of the problem-solving model is also expanding.

This is looking at IT personnel. IT companies are on the left, user companies are on the right, and for each it examines changes in IT personnel for both value-creation and problem-solving businesses, respectively. Here, too, while we see a substantial portion of IT companies increasing their IT personnel for value-creation model business, and 30.5% of the companies are increasing IT personnel for problem-solving model business.

User Companies' Growing Sense of Insufficient IT Talent, Both in Quality and Quantity

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■ Growing sense of insufficiency, both in quality and quantity, over past 10 years

Sufficiency of IT talent (quantity) by users

Survey	Significantly insufficient	Somewhat insufficient
FY2008 survey	22.7	58.5
FY2009 survey	17.9	60.1
FY2010 survey	12.4	59.6
FY2011 survey	16.5	61.3
FY2012 survey	14.0	59.5
FY2013 survey	15.4	60.6
FY2014 survey	16.2	59.3
FY2015 survey	20.5	63.7
FY2016 survey	24.7	59.8
FY2017 survey	29.3	54.5

Insufficiency of IT talent (quality) by users

Survey	Significantly insufficient	Somewhat insufficient
FY2008 survey	31.6	56.1
FY2009 survey	25.8	55.3
FY2010 survey	24.5	60.7
FY2011 survey	28.5	57.7
FY2012 survey	23.9	60.9
FY2013 survey	26.4	57.4
FY2014 survey	30.3	54.5
FY2015 survey	30.3	59.0
FY2016 survey	33.2	56.7
FY2017 survey	32.9	53.9

■ Significantly insufficient ■ Somewhat insufficient ■ Not insufficient ■ Somewhat of a surplus ■ No answer

Source: Fujitsu, based on "IT Personnel White Paper 2018," IPA

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These are survey results from user companies over the past ten years on the quality and quantity of IT talent. The graph on the left shows the insufficient quantity of IT talent. In fiscal 2017, 29.3% of companies had a serious shortage of IT talent, which indicates our customer's shortage of IT personnel. In terms of quality, customers have long felt dissatisfied. In other words, Japanese companies for the past 10 years have felt they have insufficient IT talent. Another way of saying it is that, for Japan's IT business, even though there is significant demand, supply is not keeping up.
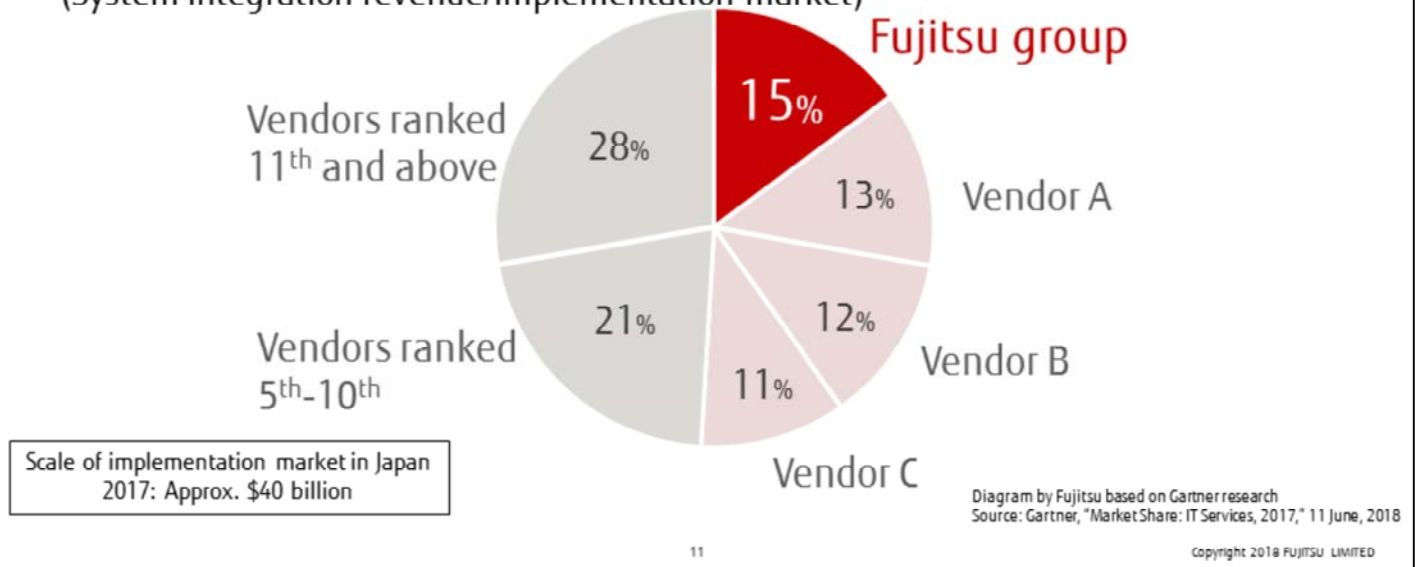
Now I would like to talk about Fujitsu's system integration business in the context of this environment.

These are the statistics from Gartner. Fujitsu has the top market share at 15%. Four large companies, including Fujitsu, make up over 50% of the market. The size of the market in 2017 was 4.4 trillion yen, and it grew by 3.6% compared to the previous year. This also proves what I said earlier about how customer demand for IT is growing.

In Japan, System Integration Market is Main Component, Where Fujitsu is Especially Strong

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■ 2017: Composition of system integration business in WW/Japan markets and in Fujitsu's ICT Services business

Infrastructure Managed Services
IaaS and Infrastructure Utility Services
Hardware Support
Application Managed Services
Business Process Outsourcing
Implementation (System integration business)
Consulting

WW Market — 21%, 17%, 25%, 17%
Japan Market — 23%, 39%
Fujitsu Revenue (In Japan) — 35%, 46%

Diagram by Fujitsu based on Gartner research
Source (market service segment and Fujitsu revenue breakdown):
Gartner, "Market Share: IT Services, 2017," 11 June, 2018

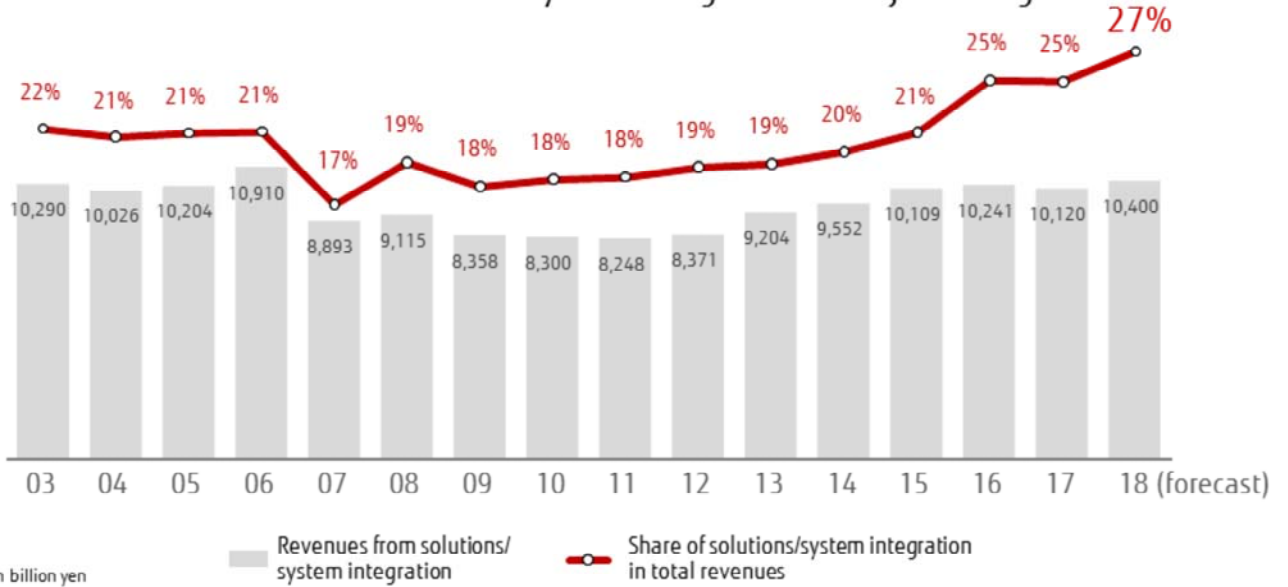Copyright 2018 FUJITSU LIMITED

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This is also Gartner data. It breaks the market into seven categories, from Infrastructure Managed Services to Consulting. For the worldwide market on the left, the share of the Implementation market—what we call system integration—is 25%. In Japan, however, the share is 39%, so you can see that a large share is devoted to developing customized systems for customers. You can also see that 46% of Fujitsu's business in Japan is Implementation, or system integration business. What we can take away from this is that the system integration market in Japan is still very much at the center of things, and within that market, Fujitsu is especially strong in system integration. If we can meet the current demand, there is still business for us. But we have almost no sales of Consulting and Business Process Outsourcing (BPO) services, so the point is that we can strengthen these areas.
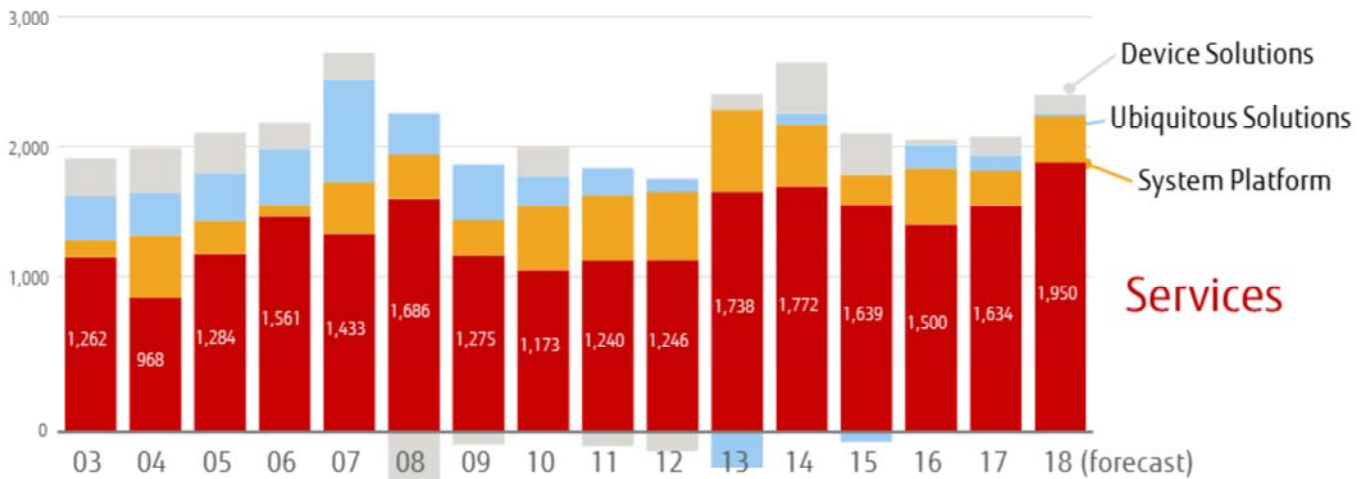
This graph shows the trend of Fujitsu's revenues from solutions and system integration. There is stable growth. There are business cycles, of course, so there are years in which sales have slipped, but there have been no steep declines, and, as the graph shows, we have been able to maintain sales just over 1 trillion yen.

Our Services business also accounts for most of our operating profit, as you can see from this graph.
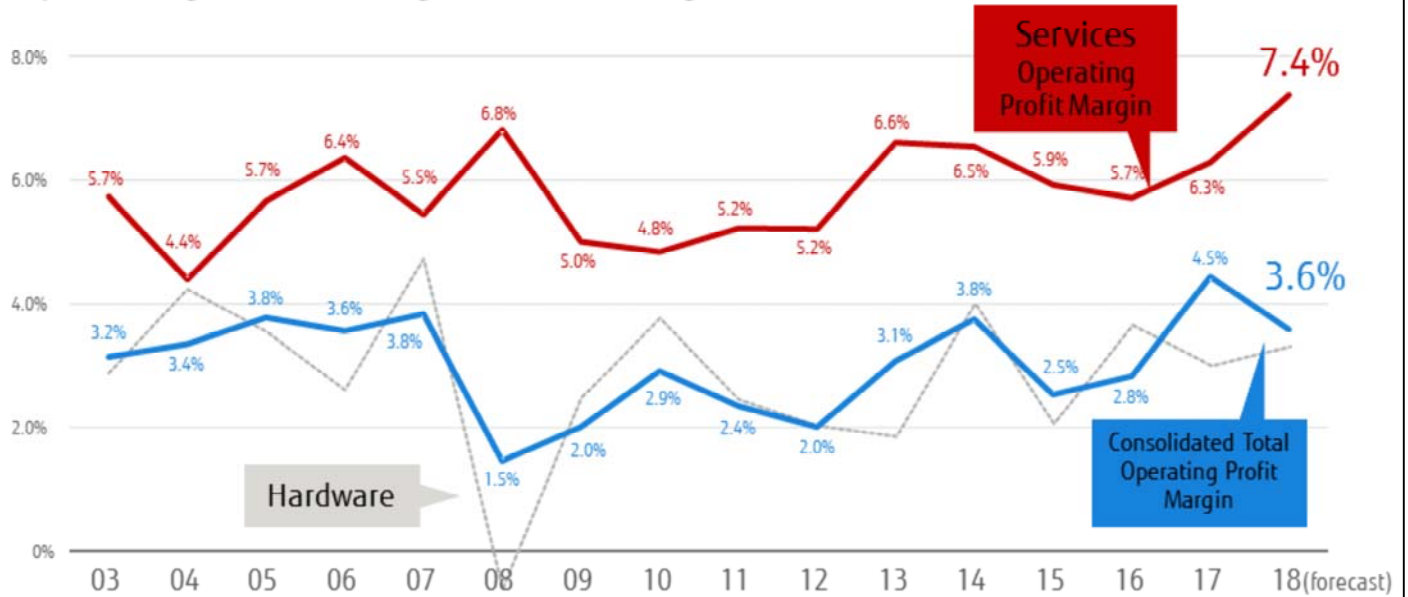
This shows the operating profit margin of our Services business. From last year to this year, the margin increased by six-tenths of a percentage point. Through various efforts to increase efficiencies and by concentrating in areas with high added value, Fujitsu is currently raising the operating profit margin of its Services business.

Now I would like to talk about why Fujitsu's system integration business is thriving.

I have prepared some materials to help you understand the unique features of the business model in Japan.

Inferior International Competitiveness of Japan's Software Industry

■ Significant widening of the trade deficit in software over past 10 years

(Contributed by Professor Yoshifumi Nakata, Doshisha University, SEC Journal, Vol 13, No. 4, March 2018)

(Millions of dollars)

	2007	2016	% Change from 2007 to 2016
Imports	856	1,459	70%
Exports	620	447	-28%
Trade Balance	-236	-1,012	329%

Source: Bureau of Economic Analysis, U.S. Department of Commerce

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Professor Yoshifumi Nakata of Doshisha University has written about the inferior international competitiveness of Japan's software industry. From the perspective of an economist, he analyzed why the IT industry did not become one of Japan's key industries. The main points here are taken from an article the professor wrote earlier this year in *SEC Journal*. If we look at Japan's trade balance in software and related information services in 2007, imports exceed exports by $236 million. Ten years later, in 2016, the trade deficit has widened, and imports dominate. The reality is that Japan was unable to turn software into a successful industry.

Where did Japan go wrong? In 2004, Professor Michael Cusumano published a book titled *The Business of Software.* At that time, the mainframe era was drawing to a close, and open standards were growing. Professor Cusumano examines this era of Microsoft and Intel, which we can call "Wintel." In terms of packaged software, it was a time when businesses like Oracle were growing very rapidly. In Europe, software was approached as a science. That is why there are so many wonderful computer science professors in Europe. SAP was also built from that foundation, and that is why I think the company was able to develop a business model around packaged software for ERP. The US approached software as a business. Accordingly, it was OK even if the quality was not great. What mattered was be first to create a de facto standard and win business around the world, which is exactly the world Microsoft created. Because Japan was a manufacturing country, it approached software in an analogous way to manufacturing. As a result, because excessive quality was demanded in software, the speed of development was slow, and costs were high. Accordingly, rather than investing in going on the offensive in IT, companies were forced to take a very defensive stance. In this way, I think the industry in Japan got off to the wrong start.
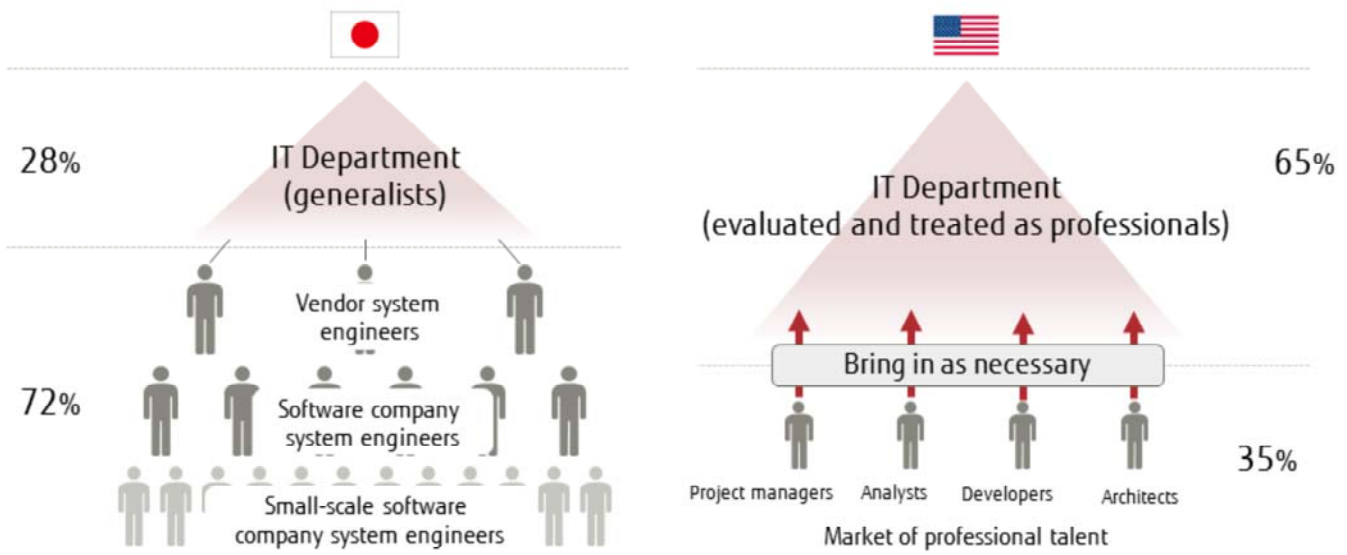
As a result, Japan created a multilayered subcontracting model in its software industry. The people in the IT departments of customers, the CIO, or the people in the company responsible for computer-related matters are not always IT professionals. Because of that, they have no choice but to outsource. That is where Tier 1 system integrators like Fujitsu come in, and then it cascades into a multilayered subcontracting model, with Tier 1 subcontracting to Tier 2 vendors, and Tier 2 subcontracting to Tier 3. Even though it is not a manufacturing industry, the business model created was like that of the manufacturing industry. It is not an issue of whether that was good or bad. That is the reality. It is under these circumstances that Fujitsu is also conducting business as a Tier 1 vendor. What about the US? The US uses a "made in-house" model in which IT engineers are valued as professionals within the company. Talented in-house engineers may go and get an MBA degree and participate in management. The CIO becomes the CEO's partner. The US created such a "made in-house" model, in which, when necessary, companies source additional professionals from the market. This is the structure of the market.

Analysis by Former Editor of Nikkei Computer

FUJITSU

"Eyes of a Reporter: 45 Harms from IT Industry's Approach to Selling Man-Hours per Month"
Part of series published in Nikkei Computer Itpro, July 24, 2015

- System integrators at top of a "hierarchical society"
- Foul play born from hotbed of multilayered subcontracting structure
- Young employees avoid Japan's IT field
- Suffering from "boiling frog" syndrome, IT departments and IT vendors lack sense of urgency

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An editor of *Nikkei Computer*, Mr. Kimura, pointed this structure out in a book he published in 2015. While I do not necessarily agree, he wrote that system integrators sit at the top of this multilayered subcontracting model, and the engineers at the bottom are forced to work under very difficult conditions. According to him, that is why young employees avoid Japan's IT field. Both customers and IT vendors are suffering from the "boiling frog" syndrome. Mr. Kimura emphasizes that, unless they change things and focus on new digital business, Japan's system engineers will become extinct.

Problems of Japan's Software Industry (Research Paper)

"The Japanese Software Industry: What Went Wrong and What Can We Learn from It?"
Professor Yoshifumi Nakata of Doshisha University Graduate School, UNIVERSITY OF CALIFORNIA, BERKELEY VOL. 57, NO. 1 FALL 2014
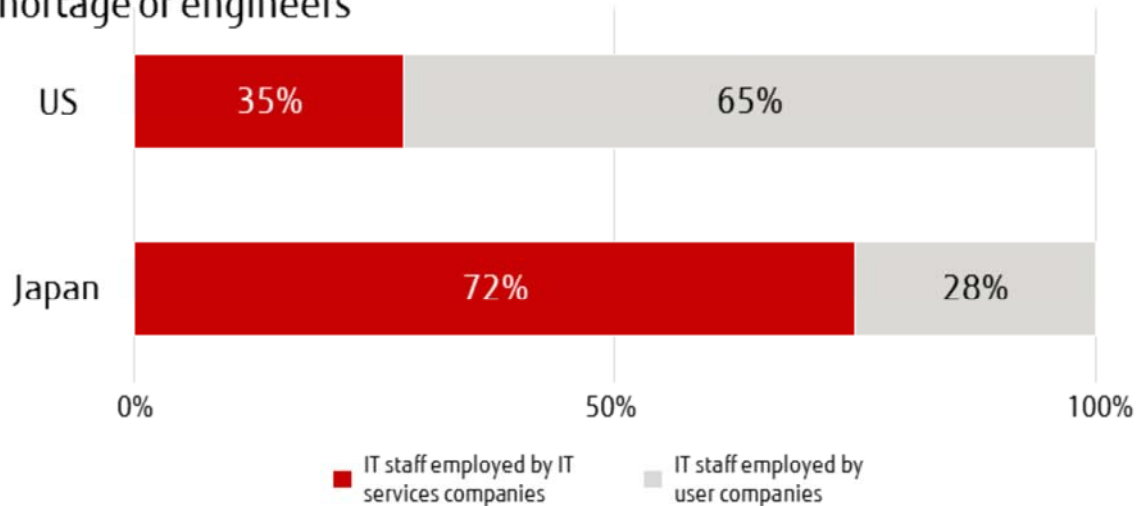
- Universities are not teaching state-of-the-art software methodologies
- Companies are not using iterative development approaches
- Instead of approaching IT strategically, managers view IT as a tool for raising efficiency and lowering costs; CIOs are not studying IT
- Many top managers of manufacturers have backgrounds in hardware and do not promote engineers who understand software
- There is a misunderstanding that confuses "high quality" with "innovation"

This is a paper from Professor Yoshifumi Nakata, whom I mentioned earlier, which was published in 2014 in a publication from Berkeley under the title, "The Japanese Software Industry: What Went Wrong and What Can We Learn from It?" You can access it online. The paper states that universities in Japan are not teaching state-of-the-art software methodologies. There are no professors qualified to teach them. Although iterative, agile development methods have essentially become a matter of course around the world, and instead of using that development method, everything is created using the waterfall method. This is the result of approaching software development in a way that is analogous to manufacturing, in which they prioritize the value of making high-quality products. Managers are not approaching IT strategically. They still view IT just as a tool for generating efficiencies and lowering costs. In the US, IT is regarded as a tool that is indispensable to management, but Japan does not have that perspective. Professor Nakata points out that many top managers of manufacturers have backgrounds in hardware and do not promote engineers who understand software, and that there is a misunderstanding that confuses "high quality" with "innovation." He feels these are the factors that caused Japan's trade deficit in software.

Unique Features of Japan's Market: Affiliations of IT Engineers

■ It is difficult to develop software in Japan, particularly for customers, because of a shortage of engineers

	IT staff employed by IT services companies	IT staff employed by user companies
US	35%	65%
Japan	72%	28%

Source: Fujitsu, based on "IT Personnel White Paper 2017," IPA
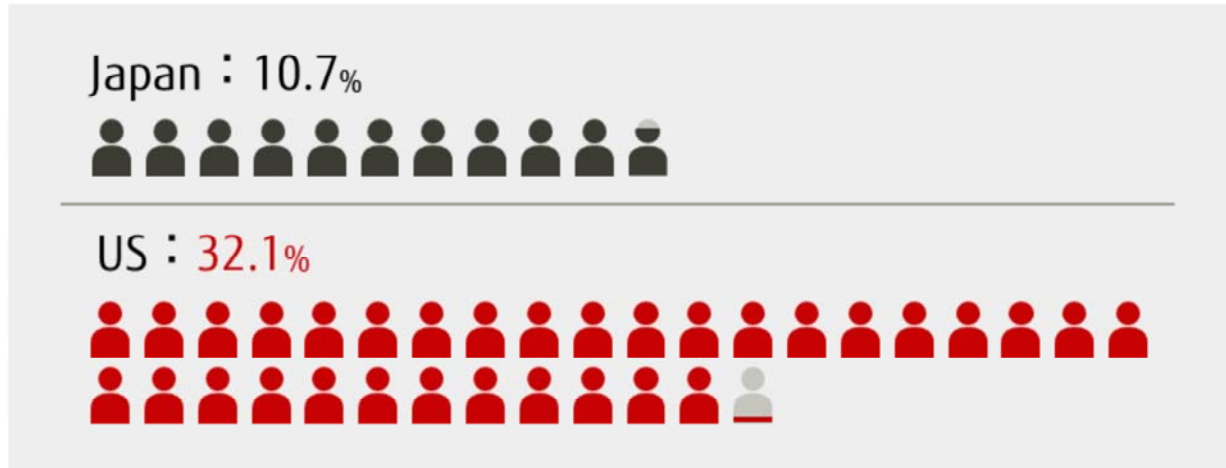
As a result, another unique feature of Japan's market is the affiliations of IT engineers. If you ask whether the IT engineers of our customers can be promoted, the answer is no. Companies in Japan foster the development of generalists, so even if they hire many IT engineers, they cannot get promoted. That is why, in Japan, system integrators like Fujitsu and software companies have one million engineers, accounting for 72% of the total. By contrast, in the US, 65% of IT engineers work in-house for customers. They can make decisions based on their internal needs and advance into new directions that elevate corporate value. This is the reality today. There are not enough IT engineers inside our corporate customers in Japan, and they are having difficulty with a wide range of development projects, as was also shown by the IPA data I discussed earlier.

Why is that? Simply put, it is because there is a gap in labor mobility. This is 2012 data, so it is a little out of date, but I do not think things have changed so much now, even if labor mobility in Japan is increasing a bit. In Japan, only about 10% of the IT talent moves around, whereas in the US it is slightly over 30%. In the US market, when engineers switch companies and handle big projects, their pay goes up. Because labor mobility is high, 65% of engineers work for customers, as I mentioned earlier. Japan is unique in that, even if customers want more engineers, they just cannot increase their numbers.

Unique Features of Japan's Market: System Integration Model Unique to Japan

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Multilayered subcontracting structure	To cope with fluctuations in demand for system development, created subcontracting structure analogous to structure used in the manufacturing industry. To cope with such fluctuations in the US and Europe, talent is sourced from a market of professionals.
Hollowing out of IT departments (With reference to *Reform Your IT Departments!* by Shinji Hasejima, former CIO of Sony Corporation)	A core function that should have been kept in-house was completely outsourced. As a result, IT departments were hollowed out, raising dependence on outside help. In the US and Europe, core IT functions were kept in-house as a management tool.
Wonderful Custom-Made Systems that incorporate the unique demands of the front lines	Given the importance placed on the front lines, with a culture of continuous improvement, Japan continued to build high-cost internal systems from scratch, incorporating detailed demands of the front lines. In the US and Europe, because it is felt that the front lines are for workers, and because not much management value is placed on administrative work, global standard packaged systems were selected to keep costs down, with IT investments concentrated on market-facing initiatives.

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We can organize the features that are unique to Japan in its system integration model. The first is the multilayered subcontracting structure. There are fluctuations in demand for system development, and companies have dealt with it by adopting a subcontracting structure analogous to the manufacturing industry. In the US and Europe, these fluctuations are dealt with by sourcing talent from a market of professionals. The next feature is the hollowing out of IT departments in Japan. This is from a wonderful book titled *Reform Your IT Departments!* by Shinji Hasejima, the former CIO of Sony Corporation who is now with Gartner, in which he describes how IT departments should work. Companies in Japan have completely outsourced to IT vendors even core functions that should have been kept in-house. As a result, IT departments have become hollowed out, raising their dependency on outside help. In the US and Europe, core IT functions were kept in-house as a management tool. Mr. Hasejima argues that IT departments in Japan also need to fulfill that role. The third feature is another big feature unique to Japan, and that is the desire to create "wonderful" systems that incorporate the demands of the front lines, resulting in the creation of customer-made systems that are just a bit too wonderful. Because of the priority placed on the front lines and the culture of continuous improvement in Japan, people on the front lines have no hesitation in making all kinds of requests that they think will make the system even better. These are customized systems built from scratch, at great cost, to create wonderful infrastructure for the company. This is really great. In the US and Europe, by contrast, the front lines are for workers, and their concerns are not of major importance. And they do not want to spend a lot of money. Because management value is not placed on administrative work, global

standard packaged systems were selected to keep costs down, with IT investments concentrated on market-facing initiatives. For better or worse, Japan created customized systems that were a bit too wonderful. These are the realities that created Japan's current system integration model. Last year I attended a symposium at Gartner, and I would like to share something that resonated with me from a presentation by Ms. Yuko Adachi from Gartner. She said it is a mistake to think that, because of the scarcity of human resources in Japan, companies need to foster the development of more engineers. Even if you wanted to do that, 75% of the IT talent is inside vendors, and it is impossible to find young talent in Japan. The second misconception she said companies are making is to think that, because the ability to create things in-house is important in this new era, they need to hire high-level engineers from outside, especially for digital business. Even if you are able to hire such engineers, there are all kinds of risks involved, because they may leave, they are expensive, they might clash with your existing employees, and you will need methods for evaluating the work of engineers. Even if you want that kind of talent, you will not find it in Japan. You cannot hire them if they do not exist. Therefore, she said, the only realistic solution is to start with "Mode 1 personnel"—the ones who will faithfully carry out your plans—and find the ones who can quickly adapt to become "Mode 2 personnel," who will search for new solutions, and thereby remobilize them. I agree. I would like Fujitsu to work with customers on this solution.

Next, I would like to talk about the strengths of Fujitsu's system integration business.
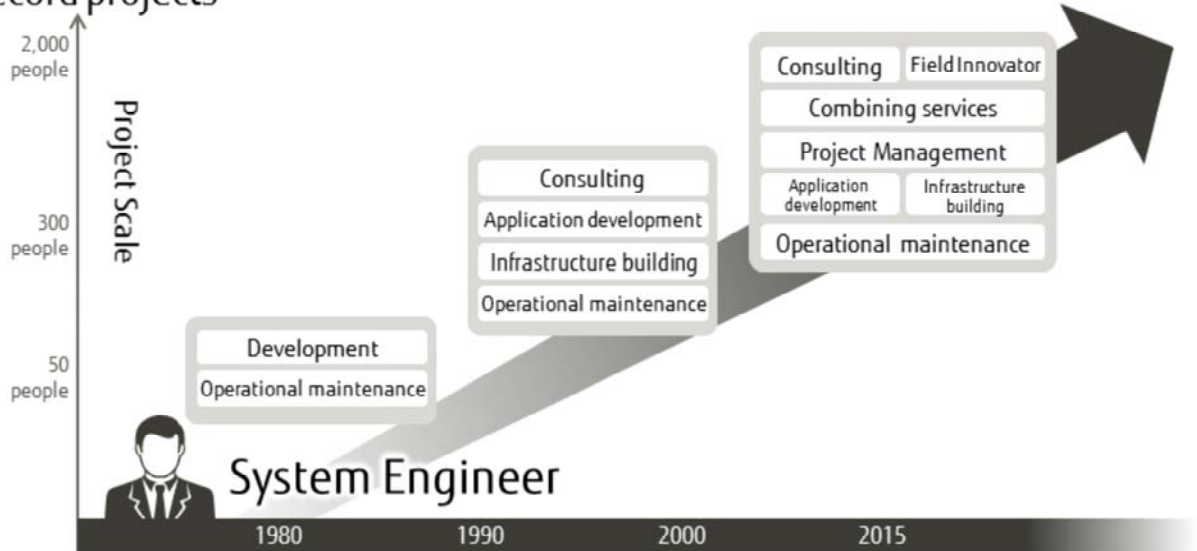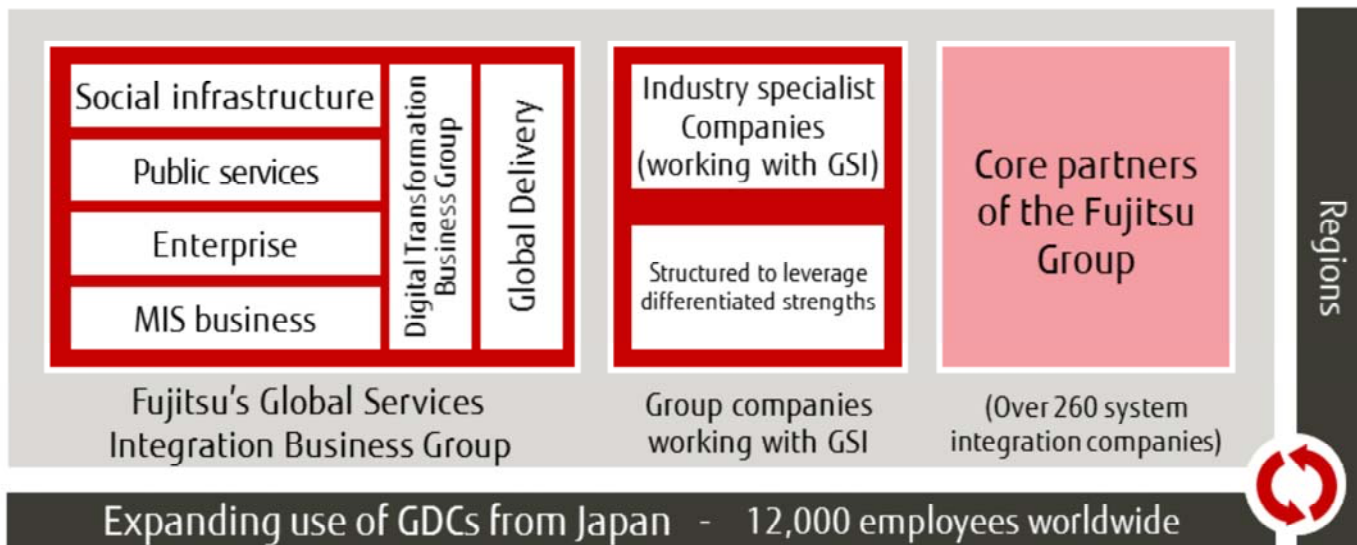
First, this is a diagram I created based on my own experience. I joined Fujitsu in 1977, and at first I worked with customers on development projects or operations and maintenance in teams of about 50 people. Later on, the size of teams continued to increase, with teams increasing to 300 people to also handle consulting roles, and ultimately I was the project manager on enormous projects with around 2,000 people. In the course of this work, many people developed their skills. Our capabilities grew, as did those of our partners and customers. Many of those people, including those within our corporate customers, are now beginning to retire, and as more of them leave, their knowledge of systems leaves with them, and systems are becoming something like a black box. Because of that, the role Fujitsu can play is important.

① The Power of 100,000 System Engineers, Largest in Japan   FUJITSU

■ Seeking to further increase IT engineers in accordance with demand from customers

Social infrastructure		
Public services	Digital Transformation Business Group	Global Delivery
Enterprise		
MIS business		

Fujitsu's Global Services Integration Business Group

Industry specialist Companies (working with GSI)

Structured to leverage differentiated strengths

Group companies working with GSI

Core partners of the Fujitsu Group

(Over 260 system integration companies)

Regions

Expanding use of GDCs from Japan - 12,000 employees worldwide

GSI : Global Services Integration GDC : Global Delivery Center
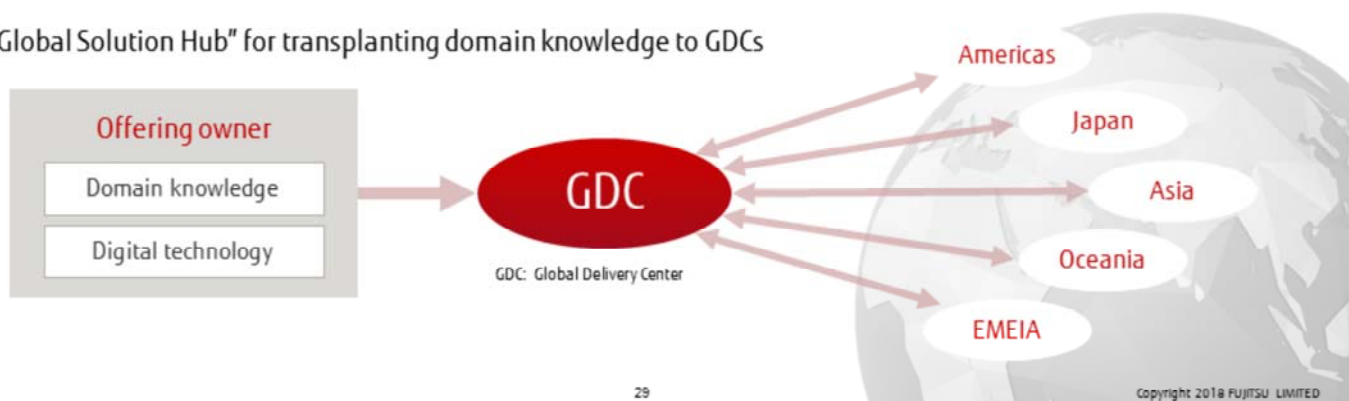
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I will describe three strengths of Fujitsu. The first is the scale of the human resources we are able to mobilize. Last year 10,000 engineers from our system engineering companies became part of Fujitsu, and we now have 16,000 engineers. We have another 25,000 in group companies, and 55,000 more with important core partners, for a total of nearly 100,000. The scale of our human resources is important when doing large projects, and it is one point of differentiation.

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■ Comment from large global company:

"The Japanese company we had been working with has exited the system integration business. With the globalization of our business, we still have a significant demand for system integration work. We want Fujitsu to allocate its engineering resources more quickly to keep pace with our needs. In Japan, there is only Fujitsu for us."

"Global Solution Hub" for transplanting domain knowledge to GDCs

Offering owner
- Domain knowledge
- Digital technology

GDC

GDC: Global Delivery Center

Americas
Japan
Asia
Oceania
EMEIA

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The second is our ability to dispatch talent to complete large-scale projects. I want to share with you something a customer told me. "The Japanese companies we had been working with are exiting the system integration business. With the globalization of our business, we still have a significant demand for system integration work. We want Fujitsu to allocate its engineering resources more quickly to keep pace with our needs. In Japan, there is only Fujitsu for us." I have heard views like this. There are customers who appreciate the value of Japan's customized systems, and when they expand their operations around the world, they do not have enough engineers, and we hear very many of them say that they want us to dispatch more engineers. To address these needs, because we ourselves do not have enough resources just in Japan, we want to transplant our domain knowledge to locations around the world through our Global Delivery Centers. By working with customers with those needs, we also strengthen our local resources. This process also serves to strengthen our global system integration capabilities.

Although Mr. Kimura referred to a "boiling frog" syndrome, I think our third strength is the complementary relationship we have with customers. I want to give you two examples. The first is a comment from a non-Japanese corporate provider of security services. This is a very famous company. I asked the head of that company, "You are a world-famous service provider, so why is it that, in Japan, you work with Fujitsu instead of doing direct sales?" He told me, "It is because Japanese customers lack professionals who can talk about specialized technology matters. Ninety percent of customers tell me they want to receive proposals through their system integrators." That is what the market is like in Japan. Global packaged software vendors and solutions vendors have learned this over the past dozen or so years, and that is why, in the Japanese market, instead of going directly to customers, they partner with system integrators. The second example involves something I was told over ten years ago. There was a bug in an important software package, and we were able to create a workaround, but when we reported it to the customer, we were told, "It is the job of system integrators to get somebody to fix the bug. Why do you say that a workaround is fine? I want you to make the vendor fix the bug themselves." We were in the position of the system integrator, so we asked the vendor to fix the bug. We were told, "Why correct bugs in the old version? Customers around the world prioritize new features, and have no interest in past bugs. Why can't Fujitsu properly control your customers?" This pointed to something Fujitsu needed to change, that, rather than simply taking orders from customers, we needed to co-create with customers, or be in a position to provide consulting to customers. In this way, Fujitsu strengths are the scale of our human resources, our ability to dispatch

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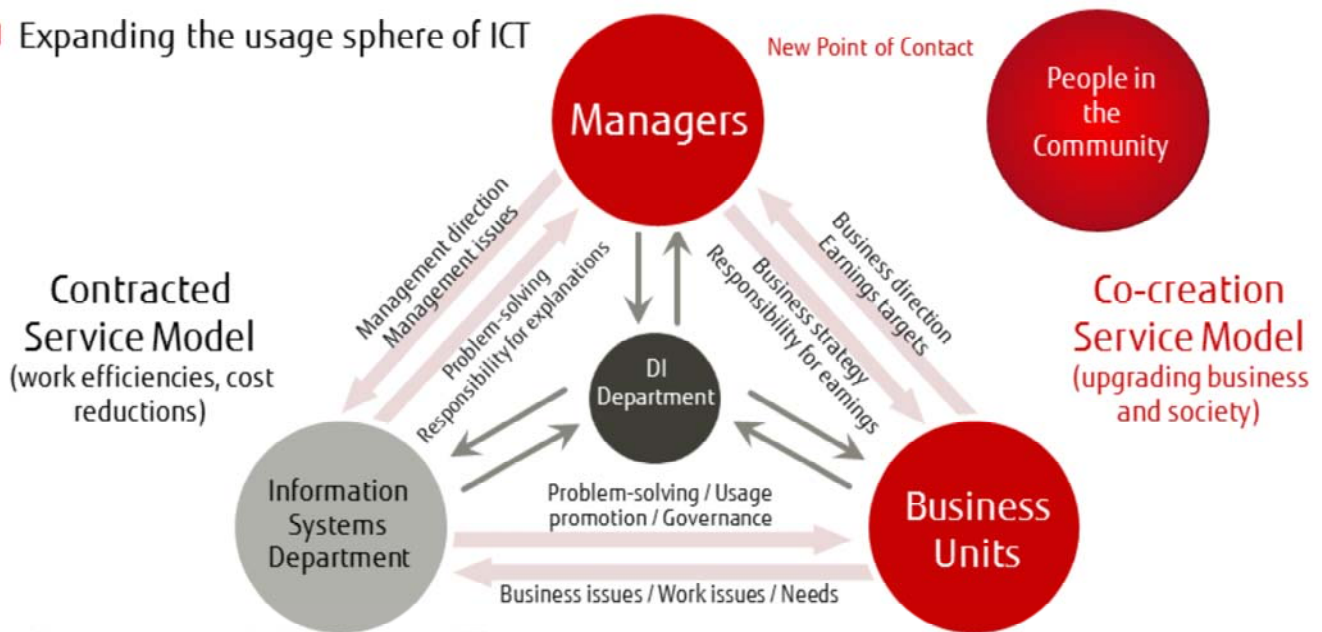talent to large-scale projects, and our complementary relationship with customers.

I think, however, this is not a business model that is very attractive to young people, and I think it is clear that Fujitsu must also move into the digital space for its future development.

New Point of Contact in the Digital Business Era

This diagram shows a triangle consisting of "Managers," "Business Units," and the "Information Systems Department" at customer companies. Recently, an increasing number of customers have also been creating Digital Innovation departments. Fujitsu created the sort of social systems I have laid out by working with customers through a close working relationship with these information systems departments. Now, however, new digital areas are being handled through repeated trial and error by the lines of business in customer business units. In light of this, Fujitsu must also create business based on a service model where we also take on risk, in a co-creation model, rather than our previous contracted service model. I think we can still make the change in time.
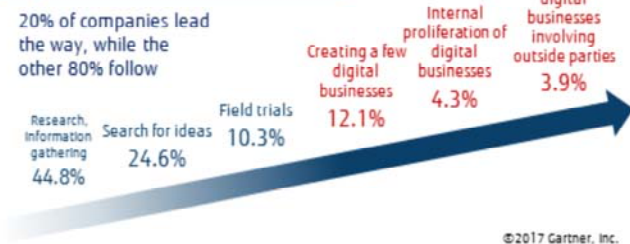
User Companies Worrying about Digital Initiatives

FUJITSU

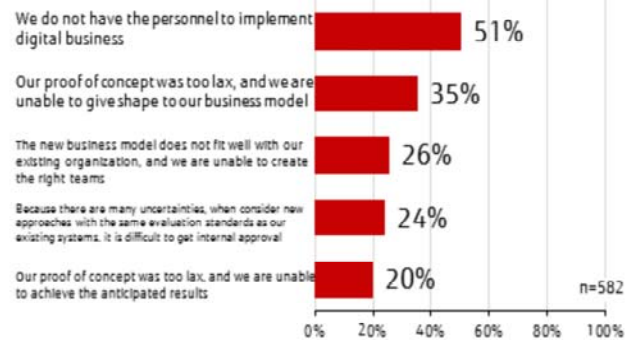■ While digital business initiatives are expanding, the problem is a lack of sufficient skills and expertise

Digital business initiatives by Japanese business *1

Approx. 70% are working on digital business initiatives

20% of companies lead the way, while the other 80% follow

Proliferation of digital businesses involving outside parties 3.9%

Internal proliferation of digital businesses 4.3%

Creating a few digital businesses 12.1%

Field trials 10.3%

Search for ideas 24.6%

Research, Information gathering 44.8%

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The top 5 points you anticipate having the most difficulty with in implementing digital business *2

We do not have the personnel to implement digital business — 51%

Our proof of concept was too lax, and we are unable to give shape to our business model — 35%

The new business model does not fit well with our existing organization, and we are unable to create the right teams — 26%

Because there are many uncertainties, when consider new approaches with the same evaluation standards as our existing systems, it is difficult to get internal approval — 24%

Our proof of concept was too lax, and we are unable to achieve the anticipated results — 20%

n=582

0% 20% 40% 60% 80% 100%

Source: Gartner
*1. Digital Business: Progress and Challenges of Japanese Companies (2017) (Publication Date: 20 October 2017, ID Number: INF-17-150, M. Suzuki)
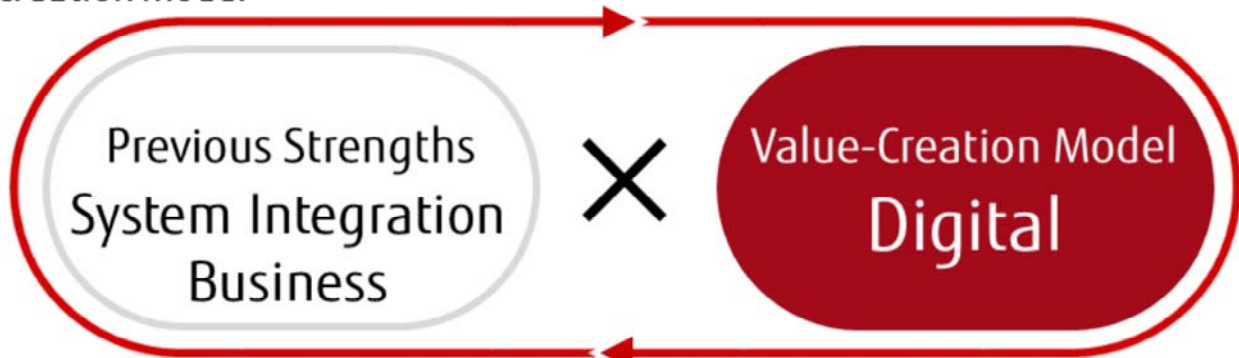Sample: Among Japanese companies with 500 or more employees, the percentage with digital business initiatives (n=281)
*2. 2017 Second-Half Survey of IT Demand from User Companies: Part 3, IT Latest Trend (Publication Date: 23 February 2018, ID Number: ITD: DMLT-JA-FR-1702, R. Narisawa). Graph created by Fujitsu based on Gartner Research (n=582) using the top 5 responses from "Diagram 2-1-10: The points you anticipate having the most difficulty with in implementing digital business (more than one answer is acceptable)."

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This data is from Gartner, but it shows the degree to which digital business has spread in Japanese companies. About 70% of customers are working on digital business. Those for whom it is going well, however, make up only about 20%, adding together all the categories in red here. The remaining 80% are still at the proof-of-concept stage, conducting field trials. This is the reality for customers in Japan. Let's look at the graph on the right-hand side. Since last year, even customers have felt a sense of urgency in needing to come to grips with digital, but why have they not made progress with the shift to digital? Of the top five reasons, the top is that they do not have the personnel to implement digital business, or in other words, our customers are saying they cannot do it on their own.
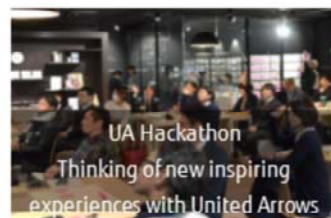
In light of this, the direction Fujitsu is moving in to expand digital business going forward is combining our strong pipelines to customer IT departments, our relationships of trust, and our mobilization and implementation capabilities, developed through our existing system integration business, with a value creation model for digital business.

For this reason, we have been holding a number of ideathons and hackathons like this in the system engineering business group since 2015. We are now being called Japan's largest ideathon and hackathon company. Over 3,000 people have visited our system engineering location in the Kamata district in Tokyo in the last three years. By holding these types of activities within Fujitsu, we have discovered within Fujitsu "Mode 2" solutions searcher-type personnel who were not realizing their full potential. For example, in the Packathon, shown on the top right of the pictures on this slide, held in 2015, a group that included customers gathered together to generate ideas, and the business we created out of it was the sports tech platform company announced in June of this year. The president is 36, and he built it with the help of a startup called RUN.EDGE. This company is operating under a startup management model. We are creating the sort of business model where this sort of new business can be incubated within Fujitsu.

"Digital Journey" is the concept I set up when I took over last year. The idea is that we will become a company that walks alongside our customers while searching, not knowing the goal, embarking on this sort of journey together.
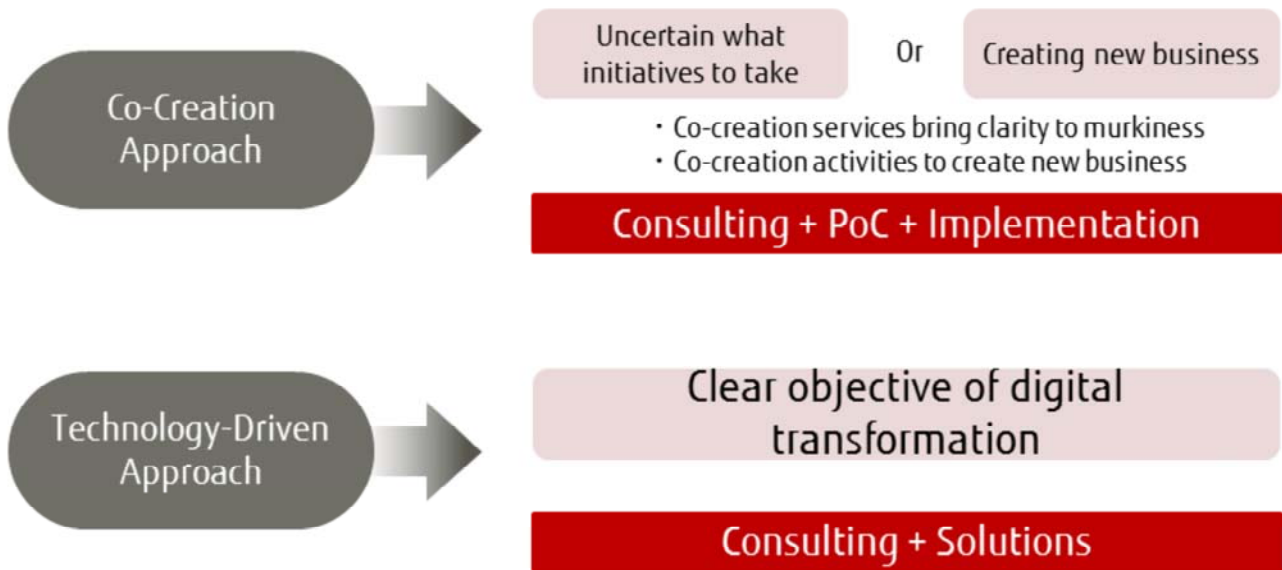
In the last year, since I took this position, I have come to understand the model. There are two types of digital business. The approach of the co-creation model we hear about in the market is to generate new things one after another. I think that platforms like Uber, Airbnb, and GAFA that constantly create new value are good examples. Fujitsu is now doing this sort of thing through initiatives like consulting and proofs-of-concept with customers. This takes time, however. The other type is a technology-driven approach. Likewise, Fujitsu is also working to expand digital business through consulting and solutions with regard to digital technologies like AI, IoT, and big data, which can solve issues that could not have been solved before.

Producing Business through Co-Creation

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■ Fostering the development of digital innovators

Producers (supervision)

Generating innovation and converting it to business

Designers (proposals)

Planning and proposing ideas based on customer needs

Developers (technology)

Quickly bringing ideas into reality

For this reason, we need the sort of personnel who can do these things. We have created a new type of job, called digital innovators, and began training them last year. Since last year, we have been training digital innovators, who have three types of roles, which are to serve as producers for business, to serve as designers—working with customers to design business—and to serve as people who can take an idea and put it into a usable form in a couple of weeks.
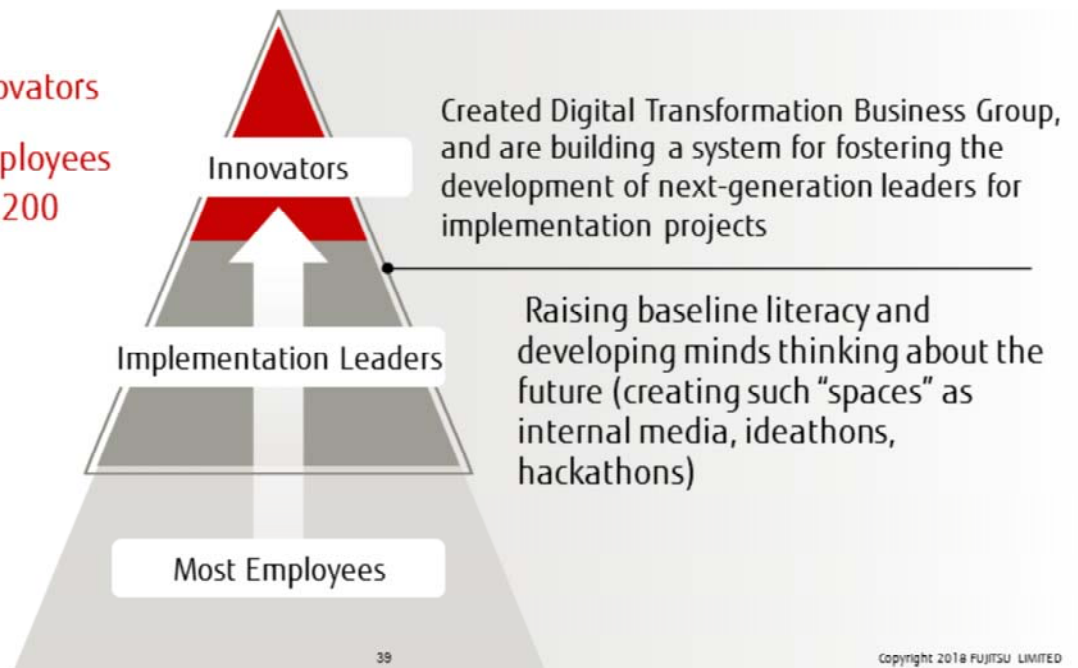
Starting to Develop Human Resources for Co-Creation
### Including from the Sales Unit in fiscal 2018

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DIer : Digital Innovators

➡ FY2017: 200 employees
In three years: 1,200 employees

Innovators

Implementation Leaders

Most Employees

Created Digital Transformation Business Group, and are building a system for fostering the development of next-generation leaders for implementation projects

Raising baseline literacy and developing minds thinking about the future (creating such "spaces" as internal media, ideathons, hackathons)

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Last fiscal year, we trained 200 people, and these 200 people are being dispatched to our customers as digital innovators beginning this July. In fiscal 2018, we will train 400 or so individuals, and train 1,200 people over three years. Fujitsu has a large number of employees. We will find those personnel among them who will search for solutions, who will take on new challenges, and who are self-motivated to try this kind of thing, and train them to work as implementation leaders within the company, or together with customers. In that process, they gain actual field experience, beginning their training in a process that will ultimately train them to be a new type of personnel called digital innovators. In fiscal 2018, 60 people from Sales have also begun taking this training to become digital innovators, and will be working as digital innovators. We will continue to work within Fujitsu to encourage more of this sort of movement.
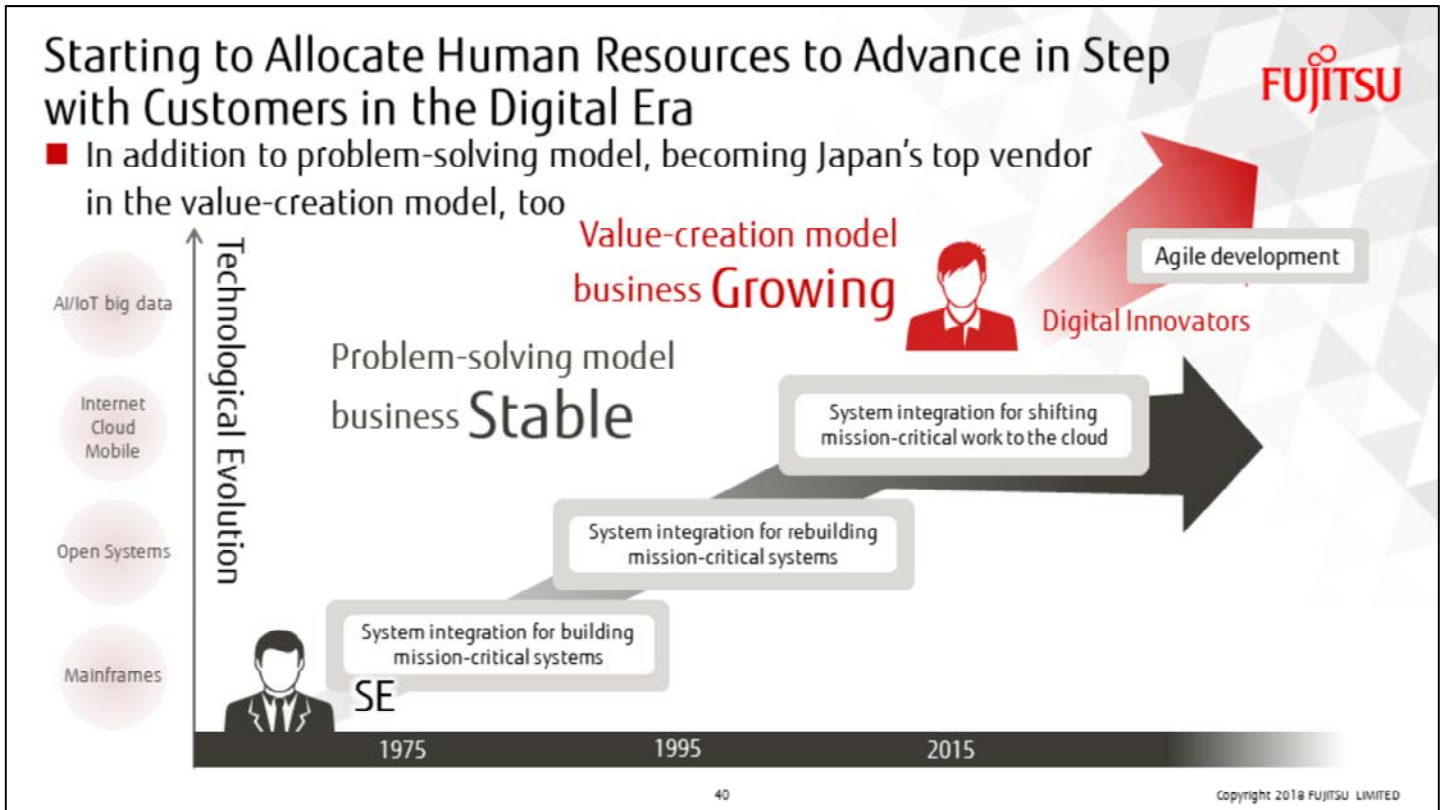
This is the final slide. The left axis is technological evolution. When I was young, we built mission-critical systems that had never existed before from scratch. Then, in the midst of a trend toward open standards, we began rebuilding mission-critical systems on top of open infrastructure. System integration for that sort of rebuilding is now our main focus. Then, in the current era of the internet and the cloud, things are shifting from mission-critical hardware owned by the customer to cloud native applications. For this reason, system integration for migrating to the cloud will become essential. I believe that we will also be able to maintain our problem-solving model business as a stable business. Furthermore, we aim for growth in our value-creation model business. Development in that business will use the agile model, not waterfall. We are working to train our personnel now with the thought that, by retraining in-house personnel as digital innovators and putting them into new businesses, Fujitsu will be able to grow like it did in the era of systems of record, when Fujitsu grew rapidly, even in this digital market.

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- Rapid technological change, fluctuations in customer demand and intensifying price competition in IT, telecommunications, and electronic device markets in which Fujitsu competes;
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