

Supporting Digital Innovation: Fujitsu's Digital Business Platform Summary Translation of Q&A Session at Investors and Analysts' Briefing

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Questioner A

Q1: *One of the features of MetaArc and K5 you mentioned was the ability to connect with other companies' products, but what sort of non-Fujitsu products specifically does it connect to?*

A1 (Nakamura): With regard to connections and collaboration with other companies, Fujitsu is already providing Microsoft's Azure as part of its A5 service. Beyond that, we have wide experience in connecting with Salesforce, Oracle and so on, as well. Our current efforts are focused on creating a system where customers using K5 don't have to go through a cumbersome process involving a different portal to use other companies' cloud service, where K5 and other companies' clouds can be used seamlessly. We will make further announcements on this subject as things progress.

Q2: *It seems like you're trying to increase your share of the IaaS and PaaS fields in particular, but what is the state of the competition? Also, what are the strengths or features of K5 that you're using to increase your share?*

A2 (Nakamura): Amazon's AWS really has to be considered as the leader in the field. However, they are more focused on providing a platform in the IaaS space, but in the application services layer above it, they prefer the various service vendors to have freedom, and take the stance that customers using those services should combine and choose applications themselves. Fujitsu offers similar IaaS functionality to AWS, but we also offer additional cloud services in the PaaS and SaaS areas on top of that, structured to make developing applications easier for customers. Fujitsu has built a wide variety of systems through its system integration (SI) business, and we are offering items from that business that can be used in common as services, as SaaS or PaaS for our customers to use, which we think will benefit them. Moreover, it's not just that our customers can build applications. The question of how they can connect them to profitable businesses is more important. It's about our engineers *co-creating* with customers. Essentially, that means undertaking actions that maximize the potential benefit of using the cloud by working with our customers to understand their business issues and see how we can solve those issues together by using ICT.

Q3: *So your primary competitors for IaaS and PaaS market share are basically large, existing companies outside Japan, like Amazon and Microsoft?*

A3 (Nakamura): We do see large vendors outside Japan like Microsoft and Amazon as our competitors. They are platform providers, however, and they don't really customize the applications services that sit on top of their platforms for their customers, so that's where we

think Fujitsu's business model is really different. We are not trying to compete head-on with, for example, Amazon's IaaS, but rather we think the core of our business is first to cover essentially the same functionality, and then to get to the bottom of what our customers want to do, and how they want to grow their business, and provide them with a system that can achieve that.

Q4: Amazon's AWS and Microsoft both seem quite cheap, so what sort of price range are you looking to compete in with Fujitsu's K5?

A4 (Nakamura): In the previous presentation, we introduced the 4+1 cloud model that fits the customer's needs, and the public cloud model on the far left will be provided at a price that compares favorably with Amazon. More dedicated services and services with a higher usage rate will be provided at a corresponding price. For those who demand a more robust and secure environment, the price will be that much higher, but they will receive meaningful benefits. We guarantee the 99.99% availability of our IaaS, while Amazon says its IaaS has 99.95% availability and does not offer a 'guarantee'. 99.95% means fairly frequent downtime, while 99.99% is basically no downtime. Basically, if you are running mission-critical systems, availability around 99.99% is a necessity. For customers who demand that kind of level of service, we can offer that but there is a price that corresponds to that. That price, though, is still cheaper than building conventional on-premise systems.

Q5: You've said that you will compete at the same price as Amazon, but Amazon is operating on an immense scale that allows it to provide these services at such a low price. What systems enable Fujitsu to provide services at the same price? Truthfully speaking, wouldn't it be correct to say that actually you don't want to take on Amazon in the public cloud business?

A5 (Nakamura): As you pointed out, Amazon is utilizing the advantages of its massive scale. Its main business is not cloud but its distribution business and in order to secure customers there, it is using profits from its main business to grow its cloud business. Fujitsu also doesn't make its profits from the cloud itself; rather our business is centered on profits from providing SI and solutions. By setting prices for the cloud based on those profits, we can offer lower prices. Further, by shifting about 640 internal systems entirely to the cloud, we will be able to achieve huge cost reductions. Our company is investing about 100 billion yen per year in internal IT systems, but if we are able to reduce that by, say, 30%, we can put that toward sustained growth in the cloud, creating a system that can provide services at as low a price as possible.

Questioner B

Q1: AWS and Azure are improving their profitability by providing a platform, but it seems MetaArc has a strong SI feel to it. I don't think focusing on customization, which is the most troublesome part, is a good strategy for improving profitability. Can you really improve your profitability by expanding MetaArc as a compatible platform?

A1 (Nakamura): The issue of improving profitability is always with us, but in addition to using MetaArc in customers' SI, it is also used by Fujitsu's own system engineers (SE), which in turn enables us to increase our number of shared services. This means that by using these shared services in SI for customers, we don't have to recreate them for each project. We are making efforts to reduce SE operations costs this way, increasing profitability and covering costs as a

whole. If we were only in the cloud business, offering the same services as other companies, it would indeed be hard to stand up to the volume of the big players, but Fujitsu is improving efficiency and reducing costs by advancing digitalization in its own processes.

Q2: Where are your competitors with this business model?

A2 (Nakamura): I don't think there are any competitors with this same business model. However, I think there are many companies that are only operating in each area. For example, Microsoft and Oracle are both entering the SoR (Systems of Record) business. They are strengthening the functionality of their platform and improving quality. However, they are leaving the building of applications and systems on that platform to their customers. We think that the cloud is moving in the direction of being used for mission-critical systems going forward. I think there are a variety of companies moving in the same direction, but there is no place that's trying to cover it all with one company. I think that there are models that gather multiple players together, but I don't think there are any companies trying to take on the challenge alone.

Q3: I get the impression that Fujitsu is specializing in services going forward, but what is the meaning or strength from having hardware at this point?

A3 (Nakamura): The old Fujitsu aimed to provide excellent servers and middleware. Now, however, if you just provide hardware or middleware as individual products, I think it is difficult to convey its value to customers. Rather, by combining them properly, and offering them as a service that will help customers achieve their goals, I think customers begin to understand, and may choose to use it. It is because Fujitsu has hardware technology that we are able to provide systems with no downtime and offering high quality and high security. I think it is because we offer this kind of value that we will continue to keep hardware and middleware technology going forward, providing high-quality services that other companies can't achieve. We see this as something that will be a strong support, which will enable us to develop our business, using the cloud even in areas where the cloud previously couldn't reach.

Questioner C

Q1: I understand you are currently primarily using Fujitsu products, but if other companies' hardware products can be bought for cheaper than Fujitsu's hardware, do you think you would use them?

A1 (Nakamura): Going forward, if we can maximize our cost advantage with excellent products, even from other companies, we will use them. However, we will not shift completely to other companies' products, because we want to retain and accumulate core technology within Fujitsu. We will compartmentalize the areas we cannot relinquish, grow our technology in those fields, and focus our products in those areas. On the whole, in order to maintain our technology and cost balance while providing our customers with services at an optimal price, we will use other companies' products as long as they are good.

Q2: Please explain more about the core technology you 'cannot relinquish'.

A2 (Nakamura): Anomaly detection when something goes wrong and systems that have no downtime are extremely difficult areas, and technology such as redundant configurations is an example I can give. We also have supercomputers, a technological area we are strong in. It is not correct to say supercomputer technology is only used in specific fields as the experience gained from developing high-density chips, and avoiding heat generation in a high density environment, which are extremely difficult, enable us to provide high-performance computing in an even denser environment with PRIMERGY.

Q3: MetaArc was announced in September of last year, so as of now how many inquiries have there been, and if you achieve your market share goal for fiscal 2020, what scale of revenue do you suppose will be MetaArc-related?

A3 (Nakamura): With regard to business deals since MetaArc was announced, at present about 1,000 are in progress. Of those, 180 systems are in operation, making for a very good start. They are primarily centered on migrating from existing systems, but once they are migrated to the cloud, we think customers will then expand to further new business such as modernization. We are planning on 350 billion yen in revenue for the cloud business as a whole in fiscal 2016. That's a growth of 121% compared to the previous year, and we want to maintain this high level of revenue growth.

Q4: You've said that since Fujitsu itself implemented K5 and is aiming for 35 billion yen in cost savings over five years, but how are you planning to use the savings from using K5 for proactive investments?

A4 (Nakamura): At the present time, we are still in the midst of migrating internal systems to the cloud, so the amount saved is still being invested in growing our cloud services. We have not reached a point where expenses have been allocated to other businesses. With regard to the cloud, however, we have created a spiral where many more services are being created and offered with even more speed, so I think we will reach a new investment phase further down the line.

Q5: I think there are many among your customers as well who don't know what sort of proactive investment would be best. For example, what do you think about working with consultants?

A5 (Nakamura): We are approaching customers in connection with a variety of consulting vendors both inside and outside Japan. We are working with consulting vendors to define the advantages of using K5 or MetaArc, the things the customer has to do themselves, and what we can do together, and to think together about the shape of our customers business in response to their needs.

A5 (Ooishi): It was also announced at FF2016, but we are now announcing MetaArc Grand Design Service. This will use a number of methods Fujitsu has always had, as well as the experience we accumulated in building internal systems, and offer them to customers.

Questioner D

Q1: Japan's local governments are strict with their finances, but is there a business model, or a way of doing ICT investment that will make both local governments and IT vendors happy?

A1: We are seeing in internal results that by using MetaArc and the cloud, ICT expenses as a whole, including hardware, software, and operating expenses, might be reduced by about a third. That would make it possible for local governments to move about a third of their ICT budget to something else. It might be used to expand services for residents, or for new fields such as cooperation between local governments or between local government and healthcare. I think the positive elements for local government will become huge. On the other hand, one could see this as a reduction in profits for Fujitsu, leaving the issue of how to compensate for that, but if we can extract shared services it becomes possible to use them in a number of fields. I think we can tailor them as micro-services, and use them in other fields, for links between industries, or in the global market. It might be difficult to establish a system that's win-win for both sides, but we are thinking seriously about it.

Questioner E

Q1: *Rather than comparing MetaArc with AWS, isn't it closer to the platforms being offered by NTT Data and NS Solutions.*

A1 (Nakamura): As a platform, thinking of it like that would be correct.

Q2: *I think that, as you fill out your offerings of mashups and software parts, profitability will improve, and system integrators that are already using these tools have operating profit margins that exceed 10%. To what extent can you raise the operating profit margin for MetaArc, and what kind of timeline do you have in mind?*

A2 (Nakamura): We have gone through similar initiatives in the past at Fujitsu. All of the parts we had up to now are now being consolidated and incorporated into our cloud platform. Now we need to see how we can use this in our business with customers, but I do not think this will take all that long. In terms of improving our operating profit margin, for systems integration work we are aiming to exceed 10% within a few years.

Q3: *Looking at past experience, by keeping software components and reusing them, productivity can be improved. On the other hand, I have heard that there are many cases in which personnel systems and incentive systems have needed to be adjusted so that bonuses can be paid to system engineers or sale personnel who reuse software. What are your thoughts about the relationship between productivity improvements and personnel costs (performance evaluations)?*

A3 (Nakamura): I think that, as digitalization becomes mainstream, there are many aspects of personnel performance evaluation systems that need to be significantly changed. There are now even efforts underway to prepare metrics for evaluating how effective HR divisions are in delivering value to customers. Still, as of now, we have not yet reached that point.

Q4: *With Microsoft, for example, it appears that you collaborate very closely at the security level in Azure centers, but with the collaborations with third parties, do you plan to create a MetaArc consortium?*

A4 (Nakamura): With partners, we will create a consortium in which we share data with each other and use data. With alliance vendors, we have started initiatives to collaborate at the API level and create seamless connections.

Questioner F

Q1: *Salesforce.com, Amazon, and Oracle have each announced alliances with other companies in the cloud business. I think Salesforce.com and Oracle are also partners of Fujitsu, but what immediate changes do you see on the horizon for your business model, and what are the potential risks for Fujitsu?*

A1 (Nakamura): I cannot comment on the alliances of other companies, but we are in the midst of various discussions on strategic alliances and collaborations that far exceed anything we have done before. Among them, rather than just alliances at the product level, we are beginning to consider structures in which we step into each other's business areas and create something like a revenue sharing model.

Questioner G

Q1: *Aside from the beneficial impact to Fujitsu of cost reductions, if we were just to look at IaaS delivery with the same functionality as AWS and the same pricing, would it be unprofitable for you?*

A1 (Nakamura): If we provided the same functionality as AWS in the form of IaaS, that part alone would be unprofitable.

Q2: *Can financial institutions, from a practical standpoint, use MetaArc? If the availability is 99.99%, doesn't that still fall far short of what is needed? What kinds of business can it be used for?*

A2 (Nakamura): Use among financial institutions is expanding. It may be difficult for the megabanks to use it right away, but in internet banks, for example, there are areas where it is possible to have operations with some degree of excess capacity, and customers are now considering actively using MetaArc for those types of operations.

Q3: *Even in the manufacturing sector, I think the availability needs to be nearly 99.9999% before companies could use it, but what types of businesses should we imagine can operate with an availability rate of 99.99%?*

A3 (Nakamura): Our actual record of performance is much higher than 99.99%. So while we are promising 99.99%, if, for example, we were to provide it to a financial institution, we would provide a structure in which the availability exceeds 99.99%, and for that we are considering the 4+1 model.