

Summary of Q&A at the Small Meeting

Date: Tuesday, December 1, 2020 First meeting: 13:30 to 15:00
Second meeting: 15:30 to 17:00

Form: Video conference

Panelists: Ichiro Tsuge, President & CEO; Tadataka Okubo, Senior Managing Executive Officer

Eiji Haraguchi, Managing Executive Officer (Service Design Group); Yasuhiko Terada, Managing Executive Officer (Telecommunication Group); Hisashi Eda, Managing Executive Officer (Regional & Social Infrastructure Group); Toshiyuki Awai, Managing Executive Officer (IT Services Group); Takanori Minatohara, Managing Executive Officer (Enterprise Group); Noboru Omoto, Managing Executive Officer (Distribution Group); Junji Hirooka, Managing Executive Officer (Financial Services Group, Global Business Group)

Q: I have a question about the outlook for growth in the top line of the Telecommunication Group. I expect that investment in 5G will increase and investment in 4G will peak out. Describe the outlook for overall growth.

A: What we are focusing on are two things, one is to obtain business in a new field and another is to expand our share in the existing field. Through working on these things, we think that sales at CTC will not fall even if carriers' total IT investment is smaller than investment in 4G. We expect our sales to grow moderately by combining the above focuses.

Q: The Telecommunication Group said that there were front-loaded orders in Q2. Could there be an air pocket in Q3, Q4, or Q1 in the next fiscal year as a result?

A: We are conducting sales activities to avoid those situations. We do not think 5G services in Japan are inferior to those overseas. However, it has been said that the progress of the service advancement has been behind compared with that of overseas, and carriers are telling us to start services earlier. Since investment in 5G has started worldwide, product procurement is becoming difficult. We told carriers to place orders ahead of schedule to ensure the procurement of products.

Q: Although I think having share is advantage, do you intend to win deals even if the profit margin is low in the future?

A: We have been paying careful attention to our profit margin. However, we may seek to win deals despite low profit margins if they lead to expanding the share or continued orders or even if the profit margin for a single deal is low, the margin is expected to improve from a comprehensive perspective.

Q: Although mobile carriers' 4G investment will fall, 5G investment will rise. Against this backdrop, will the top line at CTC increase significantly?

A: We expect the top line in total to rise moderately, reflecting a fall in 4G investment and a rise in 5G investment. Until two to four years ago, there was only 4G investment. Subsequently, 4G investment started to decline, and 5G investment has been accounting for increasing percentages of investment in mobile communications

systems. Of the three factors of 5G (ultra-high speed, ultra-low latency, and multiple concurrent connections), NSA can achieve only ultra-high speed. Only SA can achieve all three factors, and investment in SA is going to start.

Q: Mobile carriers are front-loading and increasing capital expenditure on 5G. Meanwhile, the government is requesting reductions in mobile phone charges, and carriers are expected to face difficulties in terms of earnings. Explain the impact of this situation on the business of CTC.

A: Capital expenditures on base station facilities are being front-loaded. At CTC, certain orders planned in the second half were received in the first half. We will continue to seek to receive orders early.

While the government is requesting reductions in mobile phone charges, mobile carriers understand that end-users have expectations for high-quality 5G. We do not think capital expenditures will fall significantly, but carriers will raise cost awareness.

Cooperating with vendors, we will create a business environment where CTC can secure profits, while meeting customers' expectations.

Q: Describe the differences in 5G investment between the three mobile carriers doing business with CTC.

A: All three companies are actively investing in capital expenditure. There are no big differences.

Q: Are there any differences in major fields where CTC receives orders between the carriers?

A: We receive orders primarily for fronthaul and backhaul lines and core systems. Orders for core systems are not received by certain carriers.

Q: Are there any opportunities for CTC to receive orders for core systems, which CTC has not received from certain carriers?

A: We are striving to receive orders in certain fields. However, global telecommunications equipment vendors, among other competitors, are very strong in those areas, and it is very difficult to penetrate their strongholds.

Q: Describe the current situation of 5G business in new fields related to the base station and the wireless side.

A: Last year, we established a joint venture with a mobile carrier and have enhanced technology. Taking advantage of the enhanced technology, we are striving to win deals in the Radio Access Network (RAN) area. We received an order in the area earlier than expected in the second half, on which we want to build. We will sell servers to replace dedicated routers and virtualization software.

Q: You said that you have received an order in the RAN area, which you had described as a challenging area. Describe it in detail.

A: The order is not for the entire RAN area, but for OpenRAN infrastructure. It is an area in the base station where IT is used, particularly virtualization technology. CTC's ability to connect open equipment and technologies earned high marks, which resulted in the order. We focused on the IP network, but have been conducting activities in new challenging fields in 5G-SA for the past few years. The order resulted from those activities. We have made a step forward in a new field. The order is worth over 1 billion yen.

Q: Why should CTC enter new fields? How can we enter new fields?

A: We examined what CTC can do as a business partner, not as just one of vendors. Which has born a fruit as our OpenRAN proposal and we have received orders. We intend to establish CTC's position as a business partner and to create new demand, by contributing to creating communications environments that customers want.

Q: What is a difference between NSA and SA in terms of the size of the project?

A: In NSA development, we cultivate 5G using 4G facilities as well. Therefore, the size of the investment is small. We think that the investment scale for SA is bigger.

Q: In what areas can CTC demonstrate its strengths by improving cooperation with the trading company group?

A: The trading company group is actively working to improve logistics efficiency in value chains, primarily those of convenience stores, and to consolidate the data of group companies that provide services to consumers and use that data in business. CTC builds system infrastructure and consolidates, prepares, and analyzes data.

The trading company group is making group-wide efforts to promote paperless offices with initiatives such as making business investments in companies that have strengths in form data analysis. We will build a system where CTC can offer support in that area.

Q: Describe advantages that we will have by cooperating with the trading company group in digital transformation?

A: The entire trading company group is making investments in digital transformation. It is already examining the upstream process with a partner that has the ability to analyze data. CTC will cooperate to aid system development.

A: In addition, for example, we are considering having the trading company group invest in a U.S.-based company and CTC tying up with the U.S. company when it develops business in Japan or establishing a joint venture with it to provide services.

Q: You plan to cooperate with WingArk1st Inc. to expand into a new business field. Describe that business.

A: We will provide form solutions and BI tools on the cloud. We are also considering cooperating with Idein Inc., a company that offers an edge computing platform using AI in which CTC has invested, to create new services.

Q: A retail company of a trading company group has become a wholly owned subsidiary of the trading company. Is the IT investment plan reviewed or delayed as a result?

A: There have been no plans which needed a review or caused a delay because of the retailer becoming a wholly owned subsidiary.

Q: Describe the stance towards the management of the overseas business.

A: The overseas business started around 2012. In 2019, we acquired an SI company in Indonesia, and we have established a business base in the ASEAN region. We have entered a phase where we will develop the foundation.

A: If we consider the ASEAN region an entity, it is possible for us to cover other countries from a main base. Therefore, we do not necessarily consider the need to have our own base in each country. The overseas business has a high risk and our policy is to develop the business carefully. In the ASEAN region, there are a number of seeds for the growth of business fields where CTC is strong in Japan (including networks, 5G, and digital transformation). We will make adequate preparations.

Q: Describe the significance and purpose of CTC doing business overseas.

A: We consider the overseas business in the medium to long term, not in the short term. The purpose of our overseas business is to aid Japanese customers in doing business overseas (Phase 1) and to become directly involved in local business (Phase 2). We are in Phase 2. After Phase 3, the age of 5G and digital transformation will arrive in the ASEAN region. We think there will be fields where CTC has strength and can contribute. We will focus on the business of such fields.

A: Vendors watch sales of products in the entire Asia and Pacific region, including Japan. The overseas business is boosting the status of the CTC Group. As a matter of fact, at a certain overseas base of the Company, they can procure products at lower rates than before after it became a CTC Group company. In this way, we are contributing to boosting profits in CTC.

Q: Which is the main part of the overseas business, business for Japanese companies or local customers?

A: We acquire local IT companies doing solid business and provide CTC's expertise to them. In that way, we support Japanese companies and local customers. I estimate that business with Japanese customers accounts for about 10%.

Q: Will the profit margin of the overseas business exceed that in Japan? Describe your estimate of the profit margin overseas in the medium term.

A: The ASEAN base is focusing on the infrastructure business, which is in fact in an expansionary phase. It may be difficult to exceed the profit margin in Japan in the short to medium term.

Q: Due to the COVID-19 pandemic, telework-related projects are emerging. Can those projects be a factor for profit decline in the future? Or, will demand for telework-related projects increase in the medium to long term as a result?

A: VDI projects were a positive factor in the first half. There are inquiries about VDI projects in the second half. Even if there would be a factor for a reactionary decline in the future, we think we can recover it since we have been proposing a range of business products in the digital transformation field, which is not limited to VDI.

Q: Is it more appropriate to expect stable demand than expansion in the medium term?

A: We expect that VDI projects will contribute to results in a variety of forms. In addition to demand for general projects related to telework, there is demand for CAD-VDI, among other projects.

Q: Does CTC's hybrid agile* feature unique strengths which competitors can not follow?

*A hybrid methodology that incorporates the advantages of agile development and waterfall development.

A: We have knowledge about agile development, including low-code development, and a track record of waterfall development. We will combine the advantages of both methodologies. We have a track record of large-scale, low-code development, which is our advantage. Other business groups have started to apply low-code development methodology.

Q: You use agile development to support in-house development for customers. Will the existing business decline if customers come to be able to create systems by themselves? If agile development increases productivity and shortens the delivery period, there will be downward pressure on prices, won't there? Can you maintain rates for SE?

A: The low-code development business involves the sale of licenses and development. Although we think that, as a general trend, customers will develop simple software by themselves, there will be still much more to do for us such as providing human support or consulting until customers are able to complete the whole process by themselves. Regarding rates for SE, we cooperate with a major software development company in Vietnam (FPT) in agile development and have established a base for maintaining profits. This initiative has been being developed in other business groups now.

A: If low-code development systems become more common, customers' in-house development will definitely increase. We expect it will become an era where CTC and similar companies will be expected to handle difficult, specialized technologies, such as systems to link smartphones and applications on the server side, methods for increasing the speed of processes and developing services, and interactions with in-vehicle embedded software. In this sense, for fields that require more advanced expertise and where we can demonstrate our technology, we think the rate for each product/project tends to increase.

Q: Describe users' appetite for investment in WiFi6 and local 5G, and the situation of CTC's business.

A: The Telecommunication Group has been redoubling its focus on those technologies and has won some projects. We think we will have opportunities in the future as well.

A: In the Enterprise Group, business development is slow in terms of the needs of existing users. Certain users are conducting verification experiments and demonstration experiments and making steady progress. We want to expand those initiatives to other users.

A: Also at the Regional & Social Infrastructure Group, progress is slow overall. We are seeking applications for local 5G. On the other hand, POC is making progress with a cable television operator, a telecommunications subsidiary of a power company, and a manufacturer.

Q: Who is target of the hyperscale cloud sold by CTC?

A: We do not focus on specific lines of business or customers. For example, multiple departments of a company use AWS for LOBs and the company wants to consolidate contracts for AWS. To meet demand, we have a

solution to visualize and centrally manage AWS instances using the technology of Megazone, which we have introduced you previously. This solution is well received by customers' information system departments, and we have won projects that provide hundreds of millions of yen per year.

Q: Many business groups have mentioned human resources development and human resources recruitment for strengthening the management base. What kinds of human resources are lacking and under what themes are you developing them?

A: For example, one of the tasks that we must tackle is to upskill engineers. Specifically, they must improve their skills for handling AI and UX. In the short term, we need more human resources for 5G alone. To that end, the alliance strategy is important.

A: Regarding digital transformation, for business process reengineering for an entire company, we need the consulting capability to make existing procedures visible, find points of improvement, and create systems. We do not yet have a sufficient number of engineers with that capability for this consultation. But we will need them more in the future.

A: We have formed a technology strategy committee in the company. Key engineers from each business group participate in the committee and discuss how we will cultivate human resources. When we ask overseas vendors about CTC's strengths, they say that we provide full-stack services. Full-stack means that we have engineers who can handle data centers, infrastructure, networks, middleware, and applications. Many system integrators in Japan focus on applications, but CTC has engineers who can also handle infrastructure, and facilities in some cases. This kind of company is rare except for manufacturers. One field that CTC has not covered but customers request us to cover is creating user interfaces with good designs and game functions for smartphone applications. This has not been requested often so far, but engineers in this field are needed also in the United States. Customers ask us whether we have those human resources or request us that we hire those kinds of engineers. We have discussed OpenRAN, which is mostly composed of software. The architecture uses container technology. Even network operating systems use containerization now. To put it simply, engineers with knowledge about specific vendors, such as Cisco, and products for engineers who can create and maintain container-type applications, need to handle new technologies in each stack. They must steadily take on challenges. Considering the situation, we are working to create a new system for human resource development.

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