

INTEGRATED R E P O R T 2 0 18

ITOCHU Techno-Solutions Corporation

# **The Power to Connect**

The Power to Connect is the driving force behind our business.

Using our expertise in advanced technologies and our strong support capabilities, we connect and combine IT solutions and cloud services to create optimum systems and services for clients.

We help create new business models by connecting different clients in a wide range of industries and by bringing together startup firms to share innovative ideas.

CTC will continue working to change the future for the global good by using its Power to Connect IT and people.



# President's Preface



# Seeking New Challenges and Driving Sustained Growth

CTC's head office is located in Tokyo's Kasumigaseki Building, which marked its 50th anniversary in April 2018.

An aerial photo on display at the event to mark the occasion showed the building just after it was built, with Tokyo Bay to the left and Mount Fuji in the far distance. The Kasumigaseki Building – Japan's first skyscraper – and the Tokyo Tower are the only tall structures visible in the picture. Another photo of the Kasumigaseki neighborhood, taken not long after the building was completed, shows a myriad of signs for banks, stores, offices and other businesses. Most of the business names on the signs are now long gone.

Both photos show how much can change in 50 years.

Even in the last decade, we have seen some major changes in areas related to our business – smartphones and tablet devices have emerged on the scene and cloud computing is now commonplace. On business trips in the US, ride sharing services are now my main way of getting around. Meanwhile, many companies and teams around the world are working



Aerial photo of the Kasumigaseki Building just after completion

to make autonomous vehicles a reality. All that points to the accelerating pace of change in IT.

If I could, I would love to see how the world looks in 50

years' time, but the outlook for the next three years is exciting enough.

Our new Medium-Term Management Plan is called Opening New Horizons. The name of the plan conveys our desire to open up new horizons for our business by targeting new fields and new business opportunities, an approach that will lead the actions of the CTC Group in the years ahead.

The best way to visualize the plan is as a moun-

tain climb. First, we prepare to climb the peak. After choosing our route, we head off, making adjustments to the schedule as we go if the weather deteriorates. When we finally reach the summit, new horizons appear before us.

We have time to enjoy the view, but we also have to look for the next peak on the horizon. And so our preparations begin again. That continuous process is key to driving growth in any company.

So, what does CTC need to do to achieve the goals in Opening New Horizons?

Personally, I think CTC has to continue to grow while seeking new challenges. Three years ago we reconfigured the CTC Group Philosophy and Vision. During internal discussions to identify CTC's key qualities, the first word that came to mind was "challenge." That became the basis for our corporate slogan – Challenging Tomorrow's Changes – which expresses perfectly who we are as a company.

I often tell our employees that growth is important, but it doesn't have to be in a single strong spurt. Growing at a steady annual rate of 7% would roughly double the size of the Company in 10 years. The important thing to ensure is that we are heading in the right direction and continuing to grow steadily each year.

IT is set to be the most important industry in the 21st century. Given that outlook, I want to make CTC the kind of company where every single employee can also feel a sense of fulfillment by continuing to grow as individuals while seeking new challenges. To help our people take on new challenges, we will offer even greater opportunities to grow and develop, while also stepping up efforts to improve workplace health and conditions. I hope we can count on your continued support as the CTC Group charts a course for new horizons.

Satoshi Kikuchi
President & CEO
August 2018

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■ Editing Policy

CTC's Integrated Report 2018 highlights key information from the CTC Group's business activities, business results, CSR activities and management framework, with a particular focus on management strategy designed to increase corporate value over the medium and long term, and presents it to readers in a concise and integrated manner. CTC has designed this report to be used in conjunction with the CTC website as part of efforts to promote more effective communication with website as part of efforts to promote more effective communication with shareholders, investors and other stakeholders.

### Scope of Report

This report covers ITOCHU Techno-Solutions Corporation (CTC) and its consolidated subsidiaries and includes information about non-consolidated subsidiaries and affiliates.

### ■ Notes on Financial Amounts

Figures less than one unit have been rounded down, based on IFRS.

# Forward-Looking Statements

Statements made in this report with respect to CTC's plans, strategies and beliefs, and other statements that are not historical facts, are forward-looking statements about the future performance of CTC based on management's assumptions and beliefs in light of

information available at the time of publication and involve certain risks and uncertainties. CTC assumes no obligation to publicly update forward-looking statements to reflect events, changes in the operating environment or unforeseen developments that occur after the date of publication.

# Website Information

This report is designed to provide in-depth information about CTC's management strategy, messages to stakeholders and other topics. For the latest financial data and news about our business initiatives and projects, please use the following links.

- ■IR Information (ctcir.ctc-g.co.jp/rose/en/index.htm)
  IR documents such as financial results and securities filings, as well as the
- CSR (www.ctc-g.co.jp/en/corporate/csr/)

  Detailed information about the Group's relationships with clients, business partners, employees and communities, as well as corporate governance and environmental initiatives
- Corporate Governance Report (ctcir.ctc-g.co.jp/rose/profile/pdf/cor\_gov.pdf)
- Project Reports (http://www.ctc-g.co.jp/report/index.html)
  Project case studies, event reports and articles

# Chapter 1 | CTC's Sustainable Growth Story

# CTC is using its Power to Connect to increase client corporate value and change the future for the Global Good

CTC, our corporate brand, is derived from the phrase "Challenging Tomorrow's Changes."

This slogan embodies our corporate mission of "leveraging IT's potential to change the future for the Global Good."

Our clients face various challenges in their businesses. Our goal is to increase client corporate value by providing an integrated package of support – consulting services that give them optimal solutions to overcome those challenges, systems integration that puts the solutions into practice, and support services after the systems have been delivered.

Our Vision for CTC

# Take responsibility for the evolution of the IT industry, as the industry's leading company

CTC Group Philosophy

# Slogan

Challenging Tomorrow's Changes

**MISSION** 

Leveraging IT's potential to change the future for the Global Good.

**VALUES** 

Action Guidelines

### Challenge the Change

Are you determined? Are you constantly trying new things without ever giving up?

### Challenge the Value

Are you creative?
Do you create value that
exceeds customers' expectations?

### Challenge the Future

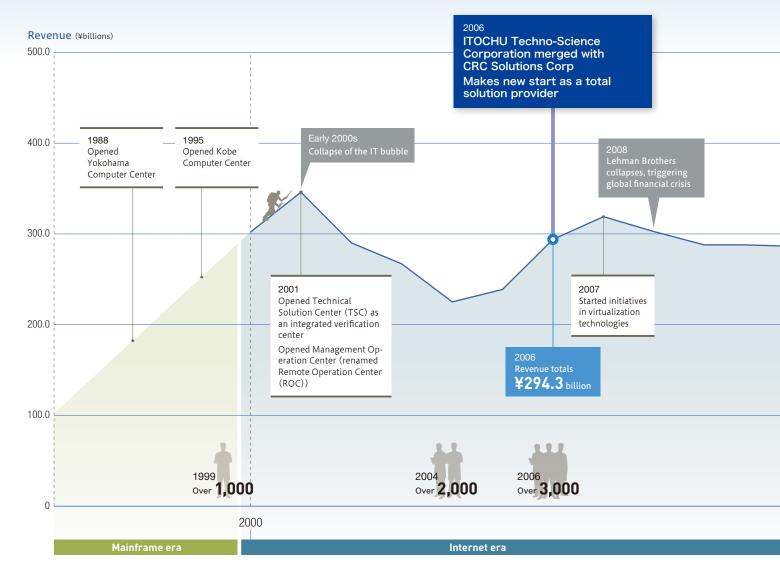
Are you free thinking?
Do you strive to map out a brighter future?

### **CTC Group Code of Conduct**

We at CTC will endeavor to fulfill our corporate social responsibility in accordance with the CTC Group Philosophy, and always conduct ourselves with a strong sense of ethics and responsibility based on an understanding of the code set forth to the right:

- **1** Full Commitment to Compliance
- ②Offering Services and Products Useful to the World
- ③Fair Trade and Prevention of Corruption ④Strict Management of Information
- ⑤Creation of a Work Environment with Respect for Human Rights
- ©Consideration for a Sustainable Environment ⑦Contribution to Society
- **®**Standing Against Antisocial Forces and Organizations
- ® Reporting and Preventing the Recurrence of Violations® Taking the Initiative and Setting Good Examples

# CTC has built on its strengths by evolving with rapid advances in IT





1980s Started sales of Oracle products

In 1983, CTC concluded a sales agent contract for the Japanese market with Sun Microsystems (now Oracle).

CTC and Sun Microsystems subsequently built up a solid partnership, with CTC becoming the world's largest reseller of Sun Workstations in 1995 on the back of Sun Microsystems' dramatic global growth.





990

Established ITOCHU Technology Inc. as US research hub

Established as a research and development hub in the US, the company is tasked with monitoring market trends and conducting research into the latest technologies, services and products. The company became a subsidiary in 2012\*. In addition to leading the CTC Group's research and development activities, the company helps tech startups move into the Japanese market and works to grow the Group's business with Japanese businesses based in the US.

\*Name changed to ITOCHU Techno-Solutions America, Inc





1996

Launched Japan's first online weather information site

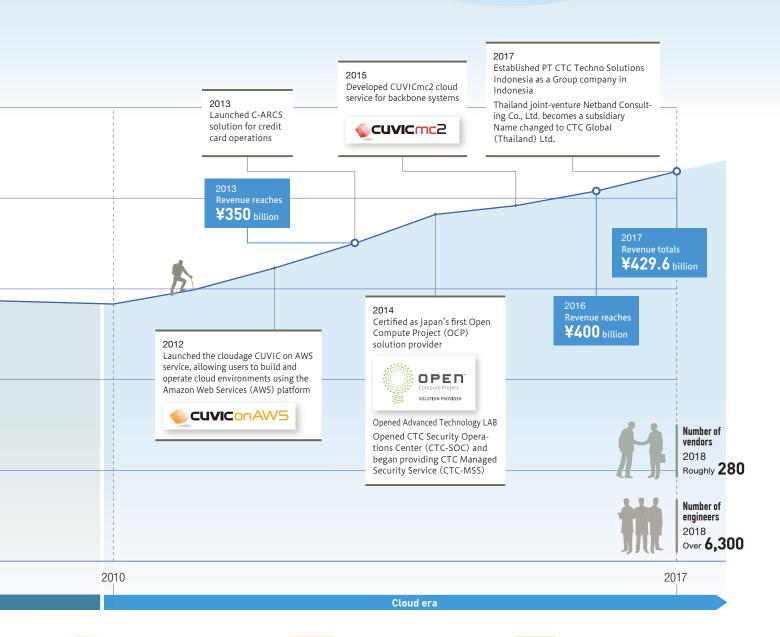
1999

Telecom carriers

Supported pioneering initiatives to develop the mobile Internet for a leading mobile carrier

Convenience stores

Collaborated on satellite digital communication system project





2009

First steps in cloud computing

CTC started providing the TechnoCUVIC public cloud service from its data centers in Japan. TechnoCUVIC and two other in-house developed cloud services, ElasticCUVIC and CUVICmc2, are supporting growth in CTC's cloud business.





2013

Acquired two ASEAN region companies to drive the Group's globalization

CTC acquired CSC Automated and CSC ESI\* to gain access to their broad client bases in Singapore and Malaysia and their technological capabilities. The acquisitions have supported CTC's move into the fast-growing IT sector in the ASEAN region and became the springboard for the Group's further globalization.

\*Renamed CTC Global Pte. Ltd. and CTC Global Sdn. Bhd.





2017 Open

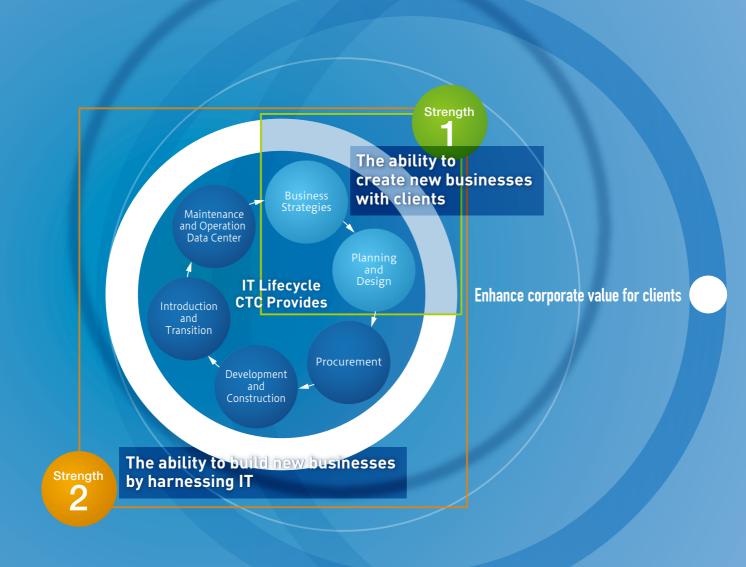
Opened Institute of Open Innovation Research "MIRAI"

The new facility was established to bring together experts in the cloud computing, AI, IoT and other fields and personnel involved in identifying the latest technologies in the US and launching new businesses. The institute's mission is to uncover and develop cutting-edge technologies and create new business models. In October 2017, we also opened DEJIMA, a dedicated space for open innovation.



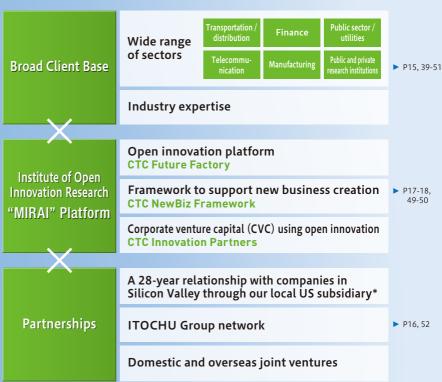
# Part 3 CTC's Strengths

CTC leverages two strengths to generate new value – the ability to create new businesses with clients and the ability to build new businesses using IT.



# Strength 1 The ability to create new businesses with clients

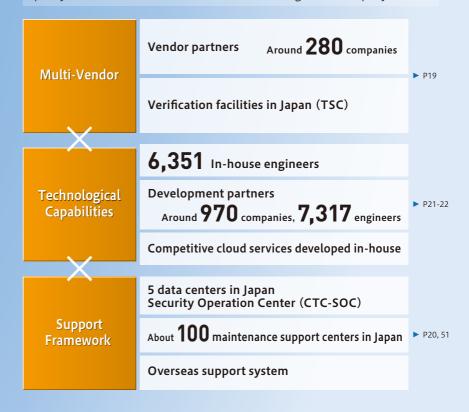
CTC works with clients to create businesses that utilize cutting-edge IT, drawing on many years of experience in a wide range of sectors and its network of partners in Silicon Valley.



\*ITOCHU Techno-Solutions America, Inc.

# $\lceil$ Strength 2 $\rceil$ The ability to build new businesses by harnessing IT

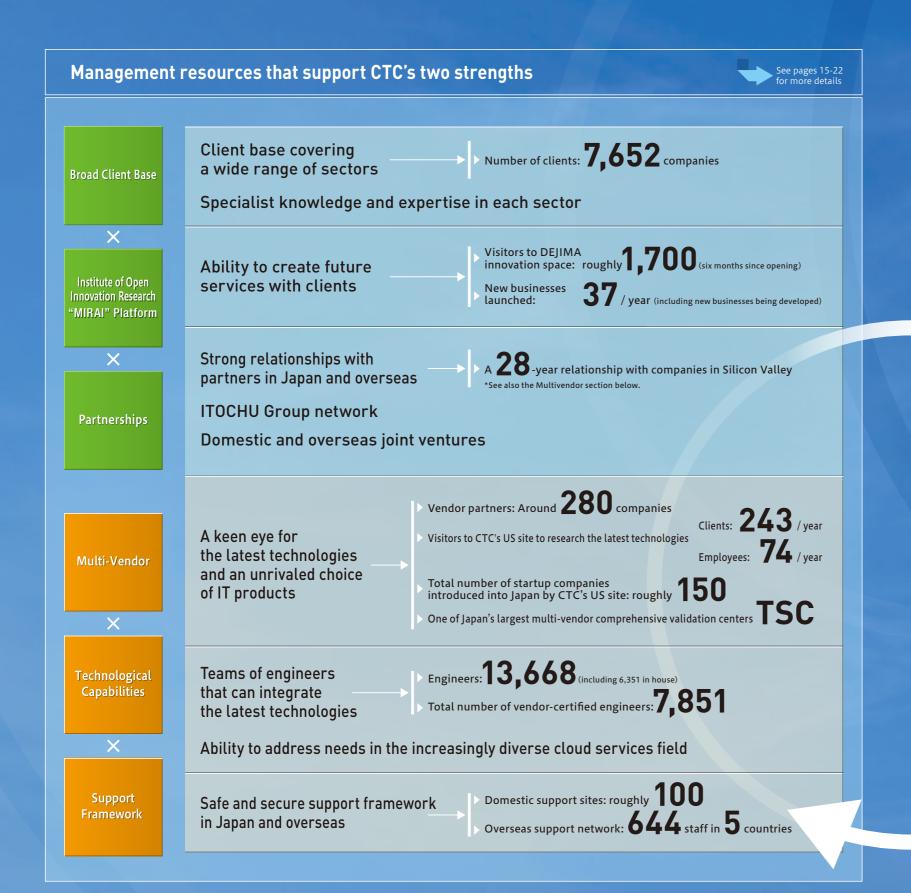
CTC selects the best products and services for client needs from a vast array of IT options, combines them into systems and ensures they operate securely. Our capacity to deliver across all those areas is our strength as a company.

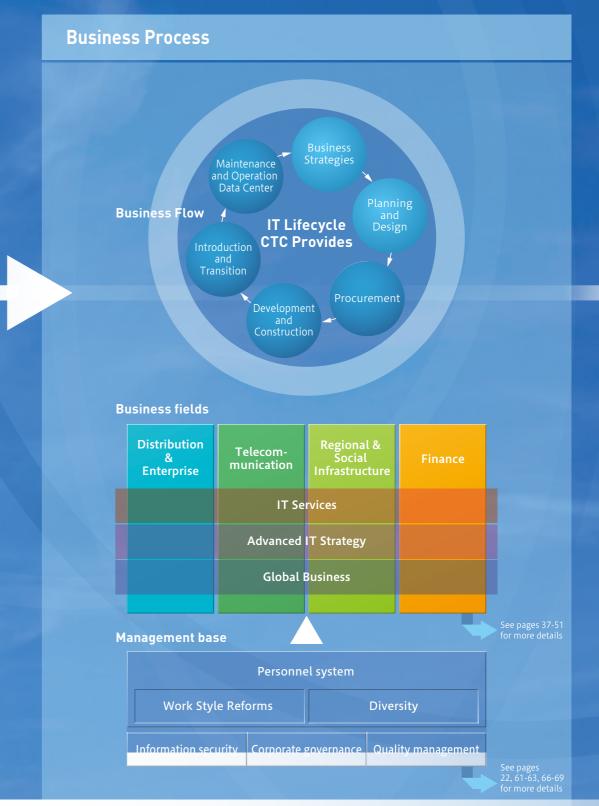


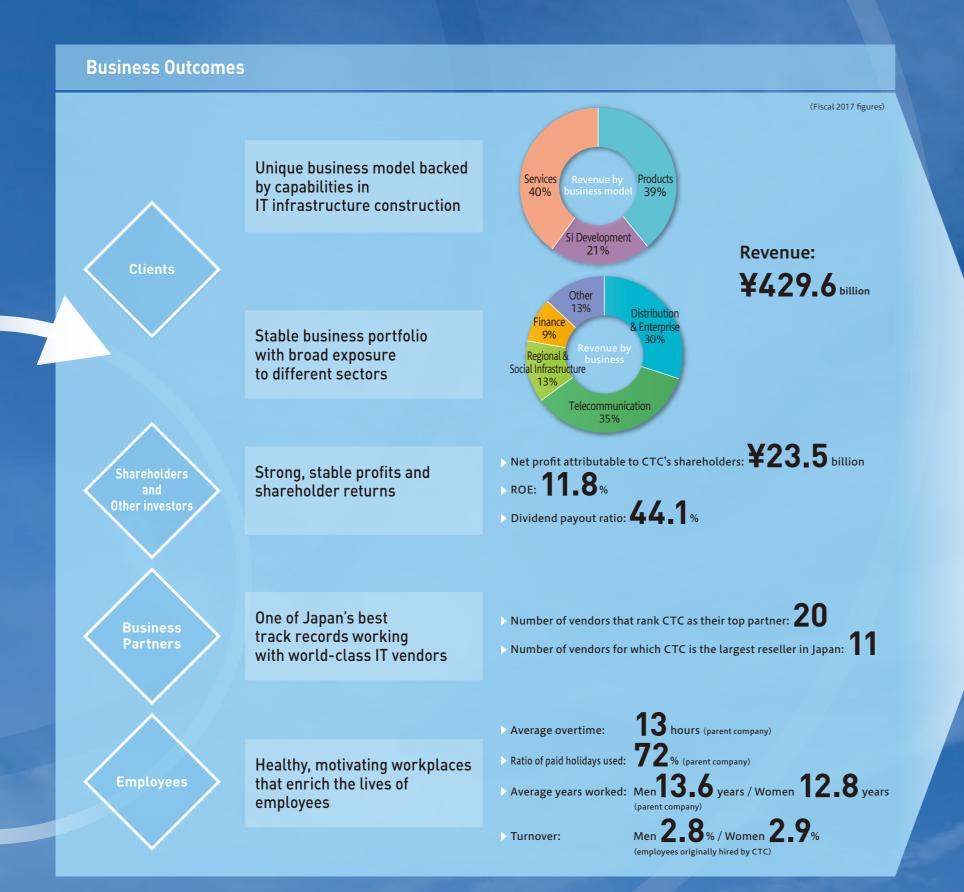
To change the future for the Global Good

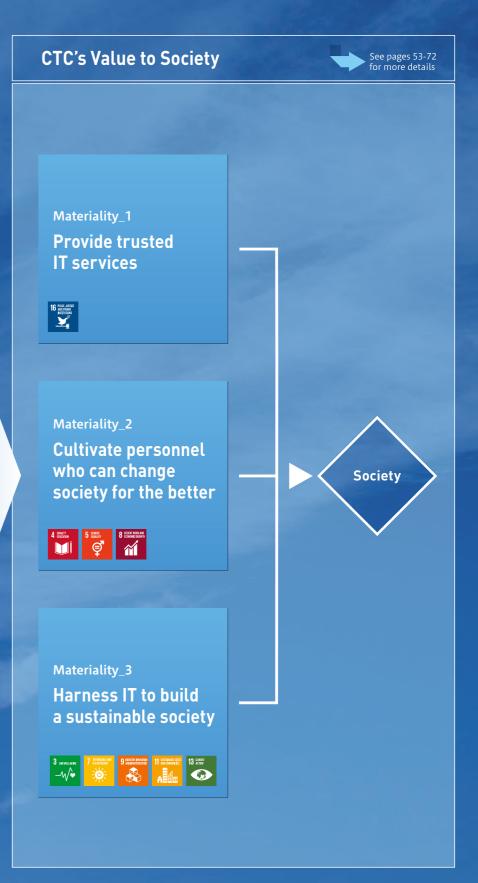


As a total IT solutions provider, CTC draws on two strengths to create new businesses and provide optimal solutions for all areas of IT systems that support those new businesses.









# Six key management resources support new business



**Broad Client Base** 

CTC has a broad range of clients in different sectors, from telecom and financial firms that need reliable IT systems 24/7, 365 days a year, to manufacturers and public utilities that operate large-scale IT systems. We have served various types of clients over many years, helping us build up specialist knowledge and advanced operational expertise in each sector, which we use to create even more sophisticated and advanced IT solutions.

### Client base covering a wide range of sectors Main client sectors Revenue by CTC business group Information / Other Communication 54.5 billion (13%) Large-scale networks, Distribution & Enterprise large databases, Transportation / **Finance** capacity for high-131.2 billion (30%) distribution volume transactions Backbone systems, Market systems, data analysis systems, risk management systems, digital transactions client channel systems Specialist knowledge and 429.6 advanced operational expertise hillion (Fiscal 2017) in each sector (system construction example) Public & Private Manufacturing **Research Institutions** Telecommunication Product design / Scientific computing 149.8 billion (35%) solutions for the construction development support, **Public Sector** product management systems and energy sectors Regional & Social Infrastructure 54.2 billion (13%) Utilities large-scale infrastructure Finance 39.7billion (9%)

# Measures to increase client satisfaction

CTC believes it is important to listen to clients and use their feedback to improve services. Based on that approach, the CS Improvement Committee leads efforts to increase customer satisfaction. Feedback and opinions from clients are used across the Group and within specific teams to help develop remedial measures, which are then incorporated into marketing and project activities. We will continue to work on retaining our position as an "irreplaceable" business partner and on increasing customer satisfaction.

Results of fiscal 2017 client satisfaction survey

Positives

• Frontline capabilities
• Marketing

Room for improvement

• Response to system failures and issues

# creation - IT makes those businesses happen

Links to firms in Silicon Valley

28
years

Subsidiaries and affiliates in Japan and overseas

# **Partnerships**

CTC has built strong relationships with partners in Japan and overseas. Using that network, we gather operational expertise from various sectors and source cutting-edge technologies as soon as they become available, helping us to create new businesses with clients.

# Domestic and overseas joint ventures

CTC operates contact centers, beverage businesses and other specialized operations through joint ventures with clients. By harnessing cutting-edge technologies and the CTC Group's ability to support all phases of the IT life cycle, we help clients grow their businesses while accumulating operational expertise in various sectors.

▶ See page 52 for more details about Group companies.

# A 28-year relationship with companies in Silicon Valley through our local US subsidiary

ITOCHU Techno-Solutions America, Inc., which is headquartered in Silicon Valley, is tasked with R&D in North America, such as conducting research into the latest technological and IT market trends and developing new products. For 28 years, since it was established in 1990, the company has continued to supply clients with the latest world-class technologies and products sourced from Silicon Valley.

► See page 19 for more details about CTC's multi-vendor approach.

# We leverage ITOCHU Corporation's extensive global business network to reinforce the CTC Group's business structure and support the creation of new client businesses. We also work with the ITOCHU Group's venture capital firms to support and provide the latest technologies and services to startup companies.

Institute of Open Innovation Research "MIRAI" Platform

The Institute of Open Innovation Research "MIRAI" was established in fiscal 2017. The institute uses the CTC Group's long-running partnerships with multiple vendors and its powerful connections with US subsidiaries and the ITOCHU Group to identify the latest advances in AI, IoT and other technologies in Japan and overseas. The institute also leverages those new technologies to create new business models with clients.

MIRAI Platform

# Harnessing collaboration to create future services and solutions for issues faced by companies, sectors and society

Open Innovation

Open innovation platform CTC Future Factory

### SPACE (innovation space)

- Workspaces for corporate innovators
- Residency for startups and business accelerators
- Support platforms (cloud, AI, IoT\* and other resources)



 Support cooperation between business partners

Producing (Cooperation / enablement)

- Planning, technology research, market studies
- Cooperation with startups, accelerators, external partners

### Engineering (Agile\* and scrum development approaches)

- Support for PoC using agile\* and scrum development approaches
- Joint prototype development
- Hands-on advanced technology development
- Ideathons, hackathons



### Community (community and events)

- Communities for innovators
- Events to encourage interaction between different industries
- Community marketing



# Lean Startup

Framework to support new business creation

CTC NewBiz Framework

GATE management system

Internal business creation program

# Corporate Venture Capital (CVC)

CVC using open innovation
CTC Innovation Partners

Investment in startup firms / investment in joint business creation

# **Open Innovation**

# **CTC Future Factory**

CTC Future Factory is a platform that connects companies and public agencies involved in open innovation with venture companies to develop new ideas. CTC provides venues and opportunities for ideathons and hackathons, helping participants examine potential joint research projects and business ideas. We also offer consulting services for each project phase.

Meanwhile, US subsidiary ITOCHU Techno-Solutions America, Inc. has set up the Open Innovation Lab to realize open innovation. The lab will work with DEJIMA to support open innovation on a global scale.



► Innovation space DEJIMA



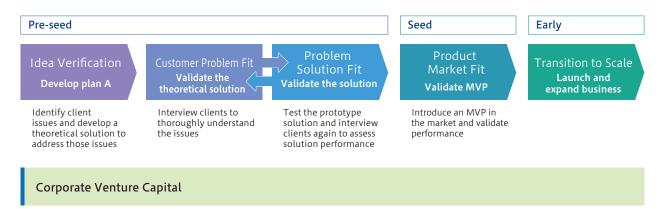
# ► What is a Lean Startup?

Lean startup refers to a process for developing businesses, products and services. New ideas and concepts are rapidly coalesced into a minimum viable product (MVP), which is tested on actual customers to gain feedback. That feedback is used in an iterative process of development, measurement and learning. Developers and other participants establish and validate hypotheses, using insights from that process to increase the chances of commercial success for new products and services.

Lean Startup

# **CTC NewBiz Framework**

The lean startup approach is organized along set procedures, tasks and decision-making processes (GATE management) designed to eliminate unnecessary time and costs and improve the chances of success for new businesses and services.



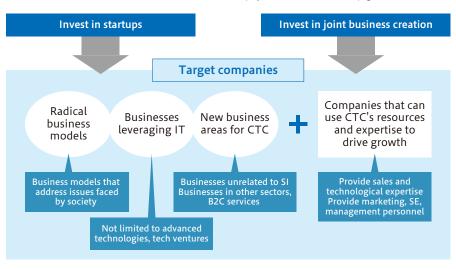
# **CTC Innovation Partners**

CTC established corporate venture capital firm CTC Innovation Partners in December 2017 to accelerate new business creation through open innovation. The company helps promising startups grow by providing funds and business support and sets up joint ventures with clients to extend their business reach.

(Two investment projects as of June 2018 ▶ see page 46 for more details)

# Investment selection criteria

- Companies with radical new business models
- Businesses using IT, not limited to technology companies
- Companies operating outside CTC's core business field of information technology
- Companies that can benefit from CTC's business resources, as well as funding, to drive growth





Multi-Vendor

One of CTC's strengths is its multi-vendor, multi-solution, multi-cloud capability, which is anchored by partnerships with leading IT vendors in Japan and overseas. Those partnerships allow us to test a wide range of different products and services. We then select the best options to create high-quality solutions optimized to the needs of each client.

A keen eye for the latest technologies and an unrivaled choice of IT products

# Working with leading IT vendors in Japan and overseas

Centered on its business site in the US, CTC has developed a keen eye for the latest IT trends, allowing it to rapidly identify and introduce cutting-edge products and services. This has helped CTC build a network of more than 280 leading IT vendors in Japan and overseas, allowing us to offer a vast choice of IT technologies to clients. Our track record with vendors is one of the best in Japan, underscored by the numerous certifications and awards received by the CTC Group.

CTC also holds regular meetings with the world's leading IT vendors. These meetings give us the opportunity to pass on the opinions of our in-house engineers and discuss client requests, helping vendors to develop higher quality products. We combine the expertise of vendors with our know-how in system construction to provide optimal solutions to clients.

# Major vendors and awards

AWS	APN Premier Consulting Partner AWS MSP Partner
Cisco	Gold Partner Japan Award  Japan Partner of the Year 2017  Service Partner of the Year
DELL EMC	Titanium Black Partner  DELL Technologies World 2018  • Server Partner of the Year  • Japan Special Contribution  • 2018 Dell EMC Partner Services Quality award
НРЕ	Platinum Partner The 2018 HPE Partner of the Year Awards Global Solution Provider of the Year 2018

IBM	Silver Partner IBM Choice Awards 2016 • Top Transformational Partner-Japan	
NetApp	Star Partner NetApp Japan Partner Award 2018 • Partner of the Year • Support Partner of the Year • Technology Innovation Award	
ORACLE	Platinum Partner Oracle Excellence Awards 2018 • Advanced Cloud Service - Japan Oracle MySQL Partner Advisory Forum 2018 • MySQL Partner of the Year 2018	
VMware	Solution Provider Premier Partner APJ SDDC Partner 2017 • APJ SDDC Partner of the Year • APJ NSX Partner of the Year	

















# Award received at the SAS® Global Forum SSAS



In April 2018, CTC was selected as 2018 SAS Global Channel Partner of the Year, recognizing our world-leading sales of SAS licenses and training of SAS credentialed engineers. Going forward, we plan to provide SAS-powered solutions tailored to the financial solutions and manufacturing sectors and reinforce the AI business.

# One of Japan's largest multi-vendor comprehensive validation centers

CTC's Technical Solution Center (TSC) is equipped with a broad and balanced range of the latest equipment, totaling roughly 26,000 items. The center also has purpose-built environments (LABs), such as the IoT Digital LAB and the Hybrid Cloud Validation LAB, which enable the testing of client IT systems under various conditions.

Domestic support sites

Roughly 100

Domestic data centers

7 at 5 centers sites

Coverseas support network 644 staff in 5 countries

# Support Capabilities

The CTC Group has a safe and secure support system in Japan and overseas that covers backbone system development, infrastructure construction, comprehensive system verification services that increase reliability and security, client system operation and monitoring, and maintenance services with consistent quality for clients worldwide.

# Maintenance support

CTC has around 100 maintenance support centers nationwide, each providing a range of services 24/7, 365 days a year, such as equipment maintenance, system operation, monitoring and information security services.

# **Data Centers**

The CTC Group has seven data centers at five domestic locations. Based on total floor area of 84,000m², CTC has one of the largest data center networks in Japan. Certified to ISMS and FISC standards, the facilities are equipped with secure and reliable equipment. In the 30 years since CTC opened its first data center, there have been no interruptions to services or data center shutdowns.

Yokohama Computer Center East Wing / West Wing (YCC)
Yokohama Computer Center North Wing (NYC)

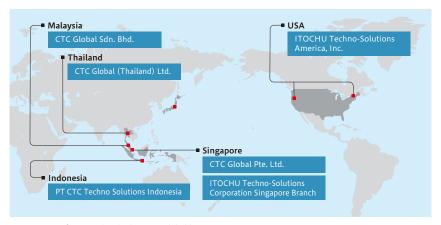
Kobe Computer Center (KCC)

Otemachi Internet Data Center (OiDC)

Shibuya Data Center (SDC)

Meijirozaka Data Center (MDC)

# **Overseas Support Sites**



# **Development Centers**

# Sapporo

CTC has established development centers in Sapporo and Osaki as near-shore development bases. The centers utilize the strong system development capabilities of their regional city locations while also providing high-quality development services in secure environments. The sites reduce development costs, but also help address a number of social issues facing Japan at the moment, such as the shortage of engineers in the Tokyo metropolitan area and efforts to stimulate regional economies.

Osaki

# ▶ See page 51 for more details about our global business

# Remote Operation Center (ROC)

We provide remote system operation and monitoring services for client IT systems, 24/7 all year round (ROC monitoring services), which can also be linked to automated notification and system operation services.

# CTC Security Operations Center (CTC-SOC)

CTC-SOC plays a key role in the CTC Group's provision of solutions to combat cyber security threats. Operating 24/7 all year round, the center provides security threat assessment and analysis through the CTC Managed Security Service (CTC-MSS).



# Technological Capabilities

In the fast-moving IT industry, where new technologies and services are emerging all the time, CTC has consistently created optimal solutions for clients over many years by sourcing and integrating the latest IT technologies. We have also put considerable energy into training personnel to address growing needs for new technologies, such as AI, IoT and cloud computing. Backed by our experience and track record, as well as our partnerships with developers in Japan and overseas, we will continue to leverage our technological capabilities to develop solutions for clients and create new businesses.

# Building the future as a cloud system integrator

Hyperscale public cloud services are gaining ground in the enterprise field, where their use by businesses continues to grow.

In parallel with that trend, hyperscale cloud vendors are leading efforts to replace existing IT system infrastructure with serverless computing environments that take IT system infrastructure out of the picture for users.

Those trends are set to merge with new IT system infrastructure such as industrial IoT (IIoT) environments, which are designed for operational technology used in industrial settings, as well as artificial intelligence (AI), which is leading the new wave of digital transformation, and robotic process automation (RPA) technology that enhances operational efficiency. Those technologies are likely to drive a shift to new IT systems that go beyond conventional IT system models.

In response, system integrators like CTC will need to link these new technologies and approaches to enable the processing and analysis of large-scale, large-volume data, create private cloud environments to operate highly secure applications – something that is hard to do in the public cloud – and link the new IT systems with less-sophisticated existing

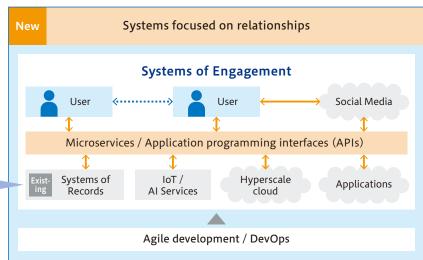
systems. They will also have to build new system infrastructure while ensuring compatibility with various environments and applications.

To make it easier to build those systems with a high degree of flexibility, system integrators will have to create cloud native system environments such as microservices, which bring together various application programming interfaces (APIs) and technology that wraps or containerizes each environment. That kind of project will require engineers who have a wide range of technical skills (full stack engineers) to handle various technologies, such as IT system infrastructure, cloud environment and application construction, and microservice development.

The CTC Group has the personnel and skills to adapt to those changes. Drawing on those resources, CTC will develop hybrid cloud environments as a full stack system integrator, covering areas such as business consulting, IT system construction (proprietary and in partnership with external parties), application linkage, maintenance, and system operation.

# How the IT system model is changing





Engineers

Development partners Roughly companies

Vendor-certified engineers **7,**85<sup>°</sup>

# Working with development partners

CTC has built a network of roughly 970 development partners in Japan and overseas to help address the diverse needs of clients. These companies support and strengthen the CTC Group's system development capabilities. In IT system development, high levels of quality and productivity are obviously crucial. But protecting the information assets of our clients is one of our most important considerations. That's why, when selecting development partners, we look at various aspects of supplier businesses, such as their management base, technological capabilities and business track record, as well as their information security management framework. In addition, the best suppliers are awarded certified partner status, which gives them access to the latest technologies and initiatives to enhance quality. Certified partners also receive access to various development environments and quality standards.

# Improving quality

CTC is working to improve quality in all aspects of development by standardizing project management, quality management, IT system development and construction processes and the development environment under an SI standardized framework (SINAVI).

Also, in particularly challenging large-scale projects, we use third parties to conduct regular reviews while the project is underway to ensure consistent levels of quality in management processes and project outcomes.



International quality management standard ISO 9001 Please visit our website for details about the scope of certification

# Training personnel for the cloud native era

# **Established Advanced IT Architect Human** Resource Development Council

IoT

In July 2017, CTC established a group to train highly skilled IT architects for the IoT era. The group develops and provides a systemized learning curriculum for engineers who want to acquire relevant new skills and learn about technologies such as SDN and NFV. It also sets up venues for joint business-academia training courses. The goal is to develop engineers who can operate and manage IT infrastructure based on software for the IoT era

# **Advanced Technology LAB**

Advanced Technologies

The Advanced Technology LAB enables all the CTC Group's engineers to share experience and expertise in new technologies that are compatible with changes in the IT environment – a key factor that will support growth in the system development and SI business.

# Aims of Advanced Technology LAB

Keep up with advances in technology

Share knowledge specific to each type of customer

Increase the motivation of young engineers

Encourage individuals to try new equipment for themselves

**Share information** about technologies across the Group

Stimulate collaboration between teams using social media

### AI Business Development Department set up as a specialist AI team

In November 2017, CTC established a new office to grow its AI business and train and enhance AI-related personnel. The office is tasked with energizing CTC's AI business by (1) developing AI strategy and proprietary CTC AI solutions, (2) supporting AI development, (3) working with partner companies and (4) training AI personnel.

# **AI Business Promotion Consortium**

In December 2017, CTC and its partners established a consortium (23 companies as of March 31, 2018) to reinforce the development of AI services in Japan and accelerate adoption of AI by industry. The consortium will

bring together the respective expertise of each company and share and collaborate on AI applications with the goal of creating useful real-world AI and energizing AI business and research.



# Training personnel and promoting businessacademia cooperation in data science

Data Science

In February 2018, CTC signed an agreement with Shiga University to train personnel and promote cooperation between business and academia in the field of data science.

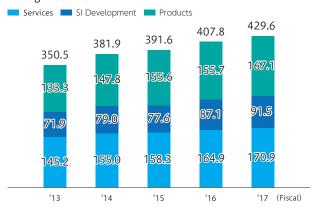
▶ See Initiatives in Our Core Business (2) on page 65 for more details

# Key Financial and Non-Financial Data

Revenue (by business model)

CAGR: +5.2%

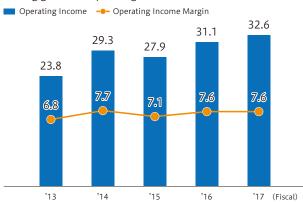
Steady growth in all business models from fiscal 2013 through fiscal 2017



Operating Income / Operating Income Margin (billion/%)

# Operating Income CAGR:+8.2%

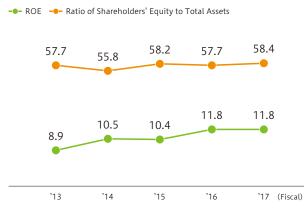
Rising revenue and improvement in operating income margin driving growth in operating income



ROE/Ratio of Shareholders' Equity to Total Assets (%)

# ROE: +2.9 p vs. fiscal 2013

Growth in net profit and proactive shareholder returns lifting ROE



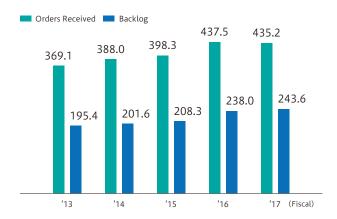
Orders Received / Backlog

(billion)

(billion)

Orders Received CAGR: +4.2% Backlog CAGR: +5.7%

Rising orders behind firm growth in order backlog

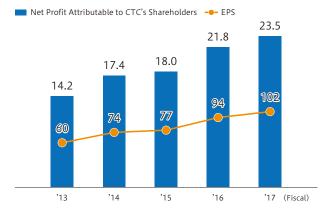


Net Profit Attributable to CTC's Shareholders / EPS (Net Profit Attributable to CTC's Shareholders per share) (billion/yen)

21 3 (Net 11010) Manager to C 1 C 3 Share Notice 15 per 3 hare / (billion)/yen,

Net Income CAGR: +13.5% EPS CAGR: +14.2%

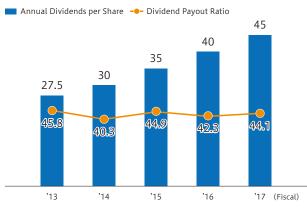
Growth supported by rising operating income and drop in effective tax rate



Annual Dividends per Share / Dividend Payout Ratio (yen/%)

# +17.5 yen vs. fiscal 2013

Nine consecutive years of dividend hikes (starting fiscal 2009)



In fiscal 2017, revenue, all profit items and the backlog reached the highest levels since the merger between ITOCHU Techno-Science Corporation and CRC Solutions Corporation in 2006.

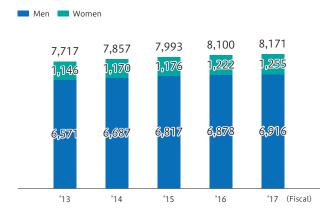
Employees

People)

\*Number of employees at the end of period

 $+454_{\,\text{vs. fiscal 2013}}$ 

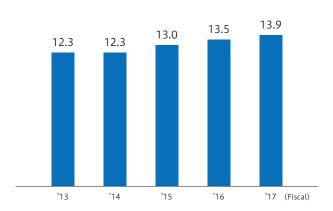
+5.2% for men, +9.5% for women vs. fiscal 2013



Annual Average Number of Holidays Taken (non-consolidated) (Day)

# +1.6 days vs. fiscal 2013

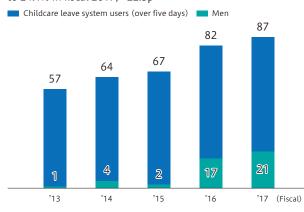
Ratio of annual leave used reached 70% in fiscal 2017



Number of Childcare Leave System Users (non-consolidated) (People)

# +30 people vs. fiscal 2013

Ratio of men using system up from 1.8% in fiscal 2013 to 24.1% in fiscal 2017, +22.3p

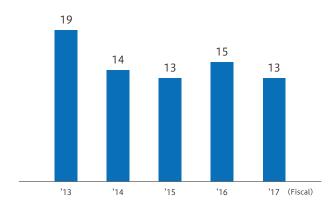


Average Overtime Work (non-consolidated)

(hour)

# -6 hours vs. fiscal 2013

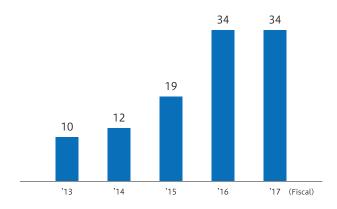
Workstyle reforms implemented since fiscal 2013 have reduced overtime



Number of Time Off for Caregivers System Users (non-consolidated) (People)

# +24 people vs. fiscal 2013

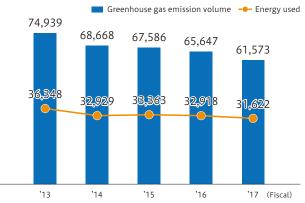
Increase due to improvements to systems that help employees balance work and home life



Greenhouse Gas Emission Volume/Energy Used (t-CO2/kl)

# -13,366<sub>t-CO2</sub> vs. fiscal 2013

Decline due to energy saving measures, efforts to reduce environmental impact, drop in overtime



# ${ t Chapter 2} \mid { t CTC's Growth Strategy}$

# **Connect to the Future**

The global economy is currently expanding. The Japanese economy is also doing well amid growth in consumer spending and corporate earnings. In the IT market, investment in Japan is projected to rise, supported by increasing use of new technologies related to digital transformation and workstyle reforms, and by improvements in network infrastructure, particularly 5G. The ASEAN IT market also continues to expand at a strong pace.

Against that backdrop, we have released a new three-year Medium-Term Management Plan, Opening New Horizons, which is anchored by our corporate mission of "leveraging IT's potential to change the future for the Global Good," to take responsibility for the evolution of the IT industry, as the industry's leading company.

During the plan, which runs through fiscal 2020, we will implement initiatives in four priority areas called Horizons, aiming to drive growth in all parts of the CTC Group and connect our business to the future.



# **VISION**

Take responsibility for the evolution of the IT industry, as the industry's leading company

Go Forwards!

**New Medium-Term Management Plan** Three years Opening New Horizons

Go Upwards! Horizon

Go Outwards!

Consolidate Footholds!

Goal

**Numerical Goal** (Fiscal 2020)

Strengthen profitability

Net profit attributable to CTC's shareholders

30 billion

Goal 6

Drive growth in core businesses

Cloud and IT outsourcing business

60 billion

Global business

Goal 12

Increase capital efficiency

ROE target of

12% or more

# Operating Environment and CTC's Stance

The operating environment in the IT sector continues to change at a relentless pace. CTC will rapidly respond to change and also take steps that anticipate new developments in the sector.

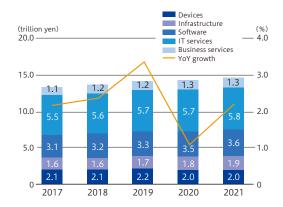
# Operating environment

- Emergence of new business fields that use 5G infrastructure to spur IT investment
- System environments becoming more advanced and complex due to growth in cloud services
- ◆ Japan's IT market projected to expand, supported by strong demand related to 5G, AI, IoT, cloud computing, RPA and workstyle reforms
- ◆ Demand rising in ASEAN against backdrop of global economic growth ●

# IT market trends by business model

# Average growth of 1.7% in Japan's IT market over the next three years; infrastructure and software fields expanding

- In the infrastructure market, growth is being driven by the shift to IaaS, particularly among large enterprises and companies based in major urban areas. The market is projected to grow at an average rate of more than 4% over the next three years between fiscal 2018 and fiscal 2021.
- In the software market, the delayed hike to consumption tax is likely to spur demand for upgrades to accounting and sales management software, while growth in public cloud users should also support growth. The market is projected to see average growth of more than 4% over the next three years.

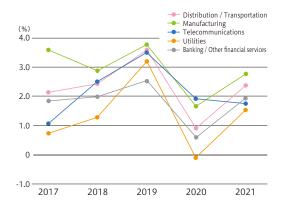


Source: Domestic IT Market Forecast by Sector / Company Size, 2018-2022(IDC#JPJ42863118, published May 2018)

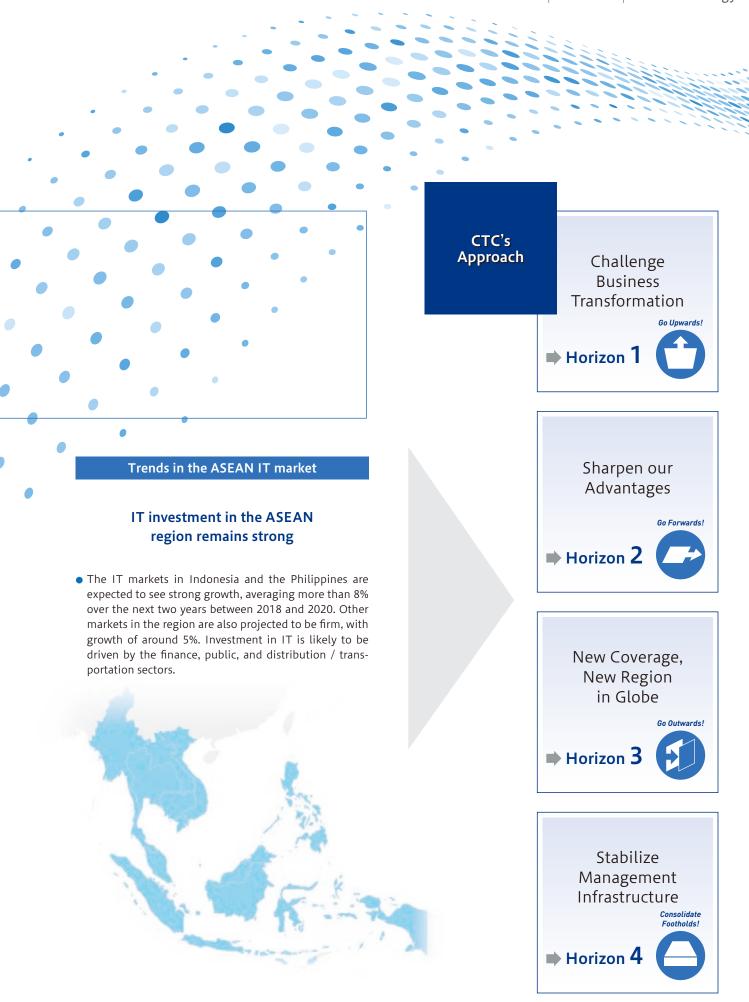
# IT market trends by industry

# Growth to be driven by the distribution / transportation, manufacturing and telecommunication sectors

- Investment in public infrastructure is set to gain momentum in the lead up to the 2020 Tokyo Olympic and Paralympic Games.
- The use of AI and IoT is gaining ground across all industries, and companies are increasingly turning to IT to implement workstyle reforms and improve business efficiency to eliminate labor shortages. The distribution / transportation, manufacturing and telecommunication sectors are projected to see average growth of more than 2% over the next three years.



Source: Domestic IT Market Forecasts by Sector / Company Size, 2018-2022(IDC#JPJ42863118, published May 2018)



# **Opening New Horizons**



President & CEO Satoshi Kikuchi

# Targeting sustained growth Adopting the right strategic direction will support steady growth

Digital transformation and workstyle reforms are gaining momentum in Japan, spurring wider use of new technologies. That is forcing business leaders to drastically rethink their stance on IT, which is now increasingly seen as a strategic business tool rather than a cost. Those trends are likely to drive further growth in corporate IT investment.

In the eight years since 2010, the CTC Group has delivered sustained growth – revenue has increased 50%, net profit 100% and market capitalization 200%. We have achieved that growth by setting the Group

in the right strategic direction based on the changes unfolding in the IT sector. Also, importantly, we have taken concrete steps to increase corporate value in line with that strategic direction.

We recently launched a new Medium-Term Management Plan to maintain the Group's growth trajectory.

# Review of previous Medium-Term Management Plan Three years focused on increasing earnings capabilities and investor appeal

First, I would like to talk about the outcomes of our previous Medium-Term Management Plan, which ran from fiscal 2015 to fiscal 2017. Under the plan, we targeted "two 500 billions": revenue of ¥500 billion and market capitalization of ¥500 billion. We fell short of our revenue target due to slower-than-expected progress with M&A deals, but excluding that factor, organic growth was in line with our forecasts.

However, we achieved our second target for market capitalization of ¥500 billion. Aiming to increase market capitalization is not a common goal for companies, but we used it as a combined indicator of the Group's earnings capabilities (net profit) and our appeal to equity market investors (price-to-earnings ratio). The target was disclosed internally and externally. Ultimately, the market gave the CTC Group a vote of confidence, which also raised awareness about CTC's attractiveness to investors among our employees.

The plan also set out "three shifts" that CTC needed to achieve to reach its goal of two 500 billions. In the first of the three shifts – shift to a service-type business – revenue from services increased steadily, including a nearly doubling in sales from the cloud business over the last three years. However, over the same period, revenue from our mainstay product sales and system development businesses also continued to expand, so the ratio of revenues from services was largely unchanged at 40%, versus our target of 50%.

Second, as part of our efforts to shift to management that generates synergies, we implemented a major overhaul of our organization, which included realigning the Group's business segments. We also put in place sys-

tems to enable the flexible use of human resources. Those measures have been a success, leading to an increase in joint projects between divisions and business groups and reinforcing our ability to handle large-scale orders.

Shift to growth investments was the third and final shift in the plan. There were no M&A deals during the plan's three years, as we did not identify any compelling targets at the right price, partly because of the buoyant conditions in our industry at the moment. However, we established new offices in Thailand and Indonesia, creating a network that gives us coverage across the ASE-AN region. We also invested in advanced technologies and personnel. Examples include the establishment of our Institute of Open Innovation Research "MIRAI," the release of CUVICmc2, an IaaS specifically designed for backbone systems, and training programs to prepare our personnel for the approaching AI and IoT era.

► For more details, see Sources of Value Creation – Technological Capabilities on pages 21-22.

During the plan, we also strengthened the Group's management base to support the three shifts in our business. Specifically, we implemented a range of measures related to workstyle reforms, rolled out our new backbone system and raised the dividend for nine successive fiscal periods. CTC is likely to face challenges securing enough highly skilled engineers who can flexibly adapt to change in our industry. To address that issue, we actively implemented workstyle reforms aimed at boosting employee motivation by giving every single person opportunities to reach their full potential.

► For more details, see Implementing Work Style Reforms and Creating a Diverse Workforce on pages 61-63.

# New Medium-Term Management Plan Three years to open up new horizons

CTC's business model is slightly different to business models used by rival system integrators. CTC is strong in infrastructure (IT platforms) and networks, while our competitors are focused more on application development. Investors often ask me whether CTC is exposed to the risk of IT product commoditization due to our presence in the products business. I don't think that is the case. Commoditization is definitely happening in IT products, so the type of products we sell could change as the power of brands declines and less well-known "white box" products gain ground in the market. Also, as cloud computing and network virtualization become more common, we will have to constantly keep abreast of new technologies amid an increasingly complex IT landscape. Other trends include the growing importance of IT in business and a decline in the number of companies in the sector that can handle large-scale infrastructure projects. Those trends are a tailwind for our infrastructure business. Our new three-year Medium-Term Management Plan, Opening New Horizons, is designed to take the CTC Group into new fields while continuing to leverage those existing strengths, based on our vision for CTC - take responsibility for the evolution of the IT industry as the industry's leading company. The plan's name conveys our desire to open up new horizons for our business by targeting new fields and developing new business opportunities. The plan has four concepts to help us achieve that goal.

Review of Medium-Term Management Plan – Fiscal 2015 to Fiscal 2017							
Two 500 Billions				Basic themes	Goals	Achieved	
		Targets	Results		Shift to a service-type business	Launched various proprietary services     Expanded cloud services business	Partially
Growth	Revenue	¥500 billion	¥429.6 billion	Shift to management that generates synergies		Major reorganization of the Group     Improved ability to handle large projects using Groupwide resources	Yes
Profit- ability	Operating income	¥40 billion (Operating margin 8%)	¥32.6 billion (Operating margin 7.6%)				
Capital efficiency	ROE	10% or higher	11.8%		Shift to growth investments	<ul> <li>Improved skills of engineers to deal with advanced technologies</li> <li>Opened offices in Thailand and Indonesia</li> </ul>	Partially
Corporate value	Market capital- ization	¥500 billion or higher	¥534.5 billion (as of March 30, 2018) *Record high of ¥614.4 billion (as of January 16, 2018)		Strengthen manage- ment base to support three shifts	Implemented workstyle reforms     Upgraded the backbone system     Raised dividend for nine consecutive fiscal periods	Yes

# Message from the President

# 1. Go Upwards!: Challenge Business Transformation

As society's digital transformation gathers pace, companies are stepping up efforts to create new digital businesses that analyze and effectively utilize data assets. That trend is leading to a major change in the role of IT companies, which now need to partner closely with clients to help them harness the power of IT and create new businesses. In response, CTC will actively promote new technologies in the application development field, such as Agile development, DevOps and other rapid, flexible approaches, as well as low-code and no-code development, which require almost no software coding work.

### 2. Go Forwards!: Sharpening our Advantages

As mentioned earlier, building IT infrastructure is one of CTC's strengths. We already sell more products from leading US vendors than any other company in Japan. Those economies of scale give us a cost advantage that can help us establish a dominant position in IT infrastructure. In cloud computing, we are targeting further growth by leveraging our expertise in hybrid cloud services. For more details about our recurring fee businesses, see Goal 6: Drive growth in core businesses (Cloud and IT outsourcing business) on page 32.

# 3. Go Outwards!: New Coverage, New Region in Globe

Reinforcing overseas operations and expanding our global sites will be crucial to growth. In fiscal 2017, we moved into the Indonesian market and converted a Thailand joint-venture to a subsidiary. We have now created a network that will allow us to provide services across the ASEAN region. We next plan to expand our presence in the US and establish research and development sites in Europe and China.

▶ For more details, see Global Business on page 51.

We will also focus on achieving open innovation through our Institute of Open Innovation Research "MIRAI," which was established in the previous fiscal year.

► For more details, see Sources of Value Creation – Institute of Open Innovation Research "MIRAI" on pages 17-18.

# 4. Consolidate Footholds!: Stabilize Management Infrastructure

To reinforce the Group's management base, which supports all our business activities, we will continue to train personnel and promote diversity, implement workstyle reforms, increase quality and client satisfaction, and continue to improve shareholder returns.

We will also reinforce corporate governance, aiming to maximize corporate value by further increasing management transparency and integrity.

▶ See pages 66-69 for more details about corporate governance.

### Our 3-6-12 Goals for Fiscal 2020

The CTC Group sets clear, easy-to-understand quantitative targets to make them more accessible to employees. We missed our revenue target of ¥500 billion in the previous plan, but we aim to achieve it through organic growth by fiscal 2020. However, we have not included a concrete revenue target in our goals this time.

# Goal 3: Strengthen profitability

This refers to our target for net profit attributable to CTC's shareholders of ¥30 billion over the next three years, including a new stance on M&A. Previously, we

# Basic Themes in New Medium-Term Management Plan - Fiscal 2018 to Fiscal 2020

### Horizon 1

# **Challenge Business Transformation**



- Co-Create of Digital Transformation Businesses with Major Clients
- **Expand Businesses in Application Services** Laver

# Horizon 2

# **Sharpen our Advantages**



Go Forwards!

- No.1 Cloud-Computing Integrator
- No.1 IT Infrastructure & Network Environment Provider
- Accelerate Expanding of Recurring Businesses

### Horizon 3

# New Coverage, New Region in Globe



Expand Global Activities

Create "Open Innovation" Activities as New **Business Models** 

# Go Outwards! Horizon 4

# **Stabilize Management Infrastructure** Skill Transition & Workstyle Transformation



Consolidate

Footholds!

- Strengthen & Consolidate CTC Group Governance
- Quality First & Customer Centric
- Keep Shareholders Value & Returns

31

used M&A to acquire companies and make them subsidiaries. Under our new plan, we have reduced the emphasis on M&A to focus on net profit attributable to CTC's shareholders. M&A deals are still part of our strategy, but we do not think a majority stake is always necessary to drive growth. Our target of ¥30 billion comprises underlying net profit of ¥28 billion, supported by organic growth of around 6% each year, and the remaining ¥2 billion from M&A deals as a stretch goal.

# Goal 6: Drive growth in core businesses Cloud and IT outsourcing business

This refers to our goal of ¥60 billion from recurring fee businesses in order to expand and stabilize revenues. Focusing on cloud services and IT outsourcing, we aim to increase revenue from cloud services, operating system applications, and managed security services to ¥60 billion.

### **Global business**

We are also aiming for revenue of ¥60 billion in our global business as part of our Go Outwards concept, including continued use of M&A deals. Our ¥60 billion target is quite bullish, but we think this is an area where we should aim high.

# Goal 12: Increase capital efficiency

This refers to our return on equity (ROE) target of 12% three years from now. Our target does not look that ambitious, given that we achieved ROE of 11.8% in fiscal 2017. However, it will not be easy to achieve, as we will need to keep in mind efficient use of shareholders' equity while working to increase profits. To reach our ROE target, we want to continue growing profits as before and also carefully control shareholders' equity. Our decision to raise the dividend payout ratio target to around 45% from fiscal 2018 also reflects that approach.

In terms of investment, we will continue to actively channel investment into new fields where we need to work closely with clients, and into improving the skills of our engineers, who will be responsible for making those joint projects happen.

▶ For more details, see Message from the CFO on pages 33-34.

The CTC Group will steadily implement the strategies in the new Medium-Term Management Plan, aiming to reinforce its position in new business fields by building up its track record.

# CTC's value to society

# Creating value through our core businesses

The CTC Group's mission is to "leverage IT's potential to change the future for the Global Good," which expresses our belief that CTC has a meaningful role to play in society through its business activities.

To realize our mission, we signed up to the United Nations Global Compact in fiscal 2015, making a commitment to 10 principles in 4 key areas: human rights, labor, the environment and anti-corruption. Also, in March 2016, we identified areas of materiality that we aim to tackle as a company that continues to drive the evolution of the IT industry and contributes to the creation of a sustainable society through its core businesses. In our new Medium-Term Management Plan, we have linked the United Nation's Sustainable Development Goals (SDGs) with the CTC Group's areas of materiality to help our employees see a clear connection between their roles and the SDGs.

We aim to increase the CTC Group's presence in new business fields by steadily implementing the strategies in the Medium-Term Management Plan. We will also continue to work on achieving our mission by creating workplaces where every employee can reach their full potential and create value for society through their work every day. I look forward to your continued support as we implement our new strategies.





We are targeting ROE of 12% or higher by steadily growing profits and investing in growth, while also ensuring consistently high shareholder returns.

Director & Executive Vice President Assistant to the President & CAO In charge of Corporate Administration Group / Global Business Development CFO & CCO

# Toru Matsushima

# Fiscal 2017 results and fiscal 2018 business plan

### Overview of fiscal 2017 results

The Japanese economy recovered at a modest pace overall in fiscal 2017, supported by firm corporate earnings and improving conditions in the job market.

The business climate was also favorable in the IT market, with investment recovering in the manufacturing and distribution sectors.

In fiscal 2017, revenue, all profit line items and the backlog reached the highest levels since the merger between ITOCHU Techno-Science Corporation and CRC Solutions Corporation in 2006. Net profit attributable to CTC's shareholders also rose to a record-high for the fourth consecutive year since the merger, lifting ROE to 11.8%. ROE has now exceeded 10% for four straight years.

► For more details, see Financial Analysis on pages 75-78.

# Fiscal 2018 business plan

In fiscal 2018, continued uncertainty in overseas economies and fluctuations in financial and capital markets are potential risks, but we expect the Japanese economy to continue recovering at a moderate pace. In the IT market, we also anticipate continued firm investment in IT, particularly in the distribution, manufacturing and telecommunication sectors.

Based on that outlook, we have formulated a new Medium-Term Management Plan. Under the plan, we are continuing to work towards our vision for CTC – take responsibility for the evolution of the IT Industry, as the industry's leading company.

► For more details, see Message from the President on pages 29-32.

For fiscal 2018, we are targeting consolidated revenue of ¥450 billion, operating income of ¥35.0 billion and net profit attributable to CTC's shareholders of ¥24.0 billion.

(Y billion)

Consolidated financial highlights

				(# DIIIIOII)
	'16	'17	YoY Change	'18 Forecast
Revenue	407.8	429.6	+21.7	450.0
Gross profit	96.7	101.6	+4.8	108.0
Gross profit margin	23.7%	23.6%	(0.1p)	24.0%
Other income and expenses	(65.5)	(68.9)	(3.3)	(73.0)
Operating income	31.1	32.6	+1.4	35.0
Operating income margin	7.6%	7.6%	0.0p	7.8%
Net profit attributable to CTC's shareholders	21.8	23.5	+1.7	24.0
Orders Received	437.5	435.2	(2.3)	455.0
Backlog	238.0	243.6	+5.6	248.6
ROE	11.8%	11.8%	0.0p	_

# Capital policy

# Key principles of our medium-term capital policy

Under our new Medium-Term Management Plan, we are targeting ROE of 12% or higher as one of the numerical goals. We are also aiming for net profit attributable to CTC's shareholders of ¥30 billion in fiscal 2020. Those targets imply shareholders' equity of ¥250 billion. Given that shareholders' equity currently stands at ¥206.5 billion, we will have to work hard to grow profits while also carefully controlling total equity in order to achieve our targets. That is reflected in our decision to raise the dividend payout ratio target from around 40% to approximately 45%, which was announced at the same time we released our new Medium-Term Management Plan. We aim to achieve ROE of 12% or higher by growing profits and lifting shareholder returns.

### Investing in growth

Investing in growth is vital to ensure we continue increasing profits and expanding our business. When allocating capital, we put priority on investing in growth, along with returning profits to shareholders. Investment is used to expand into new business areas and enhance human resources and technologies. In 2017, we converted an affiliate in Thailand to a wholly owned subsidiary and set up a new subsidiary in Indonesia. We also established the Institute of Open Innovation Research "MIRAI," developed a new open innovation platform at the same institute, and invested in business alliances and personnel training in advanced technology fields such as AI and IoT. In addition, in December 2017, we established CTC Innovation Partners as a corporate venture capital firm, creating a framework to invest in companies with radical new business models. As of June 2018, we had invested in two projects, giving us a foothold in new business fields.

▶ For more information, see the section on the Finance Group on page 46.

CTC is also focusing on M&A opportunities. In line with our priority investment themes, we are targeting system integration (SI) firms that can enhance our system engineer (SE) resources and expand our global footprint, as well as promising business startups with innovative technologies and services. Our basic stance on M&A is to take a majority stake in target companies, but we intend to use a flexible approach that may also include minority investments in startups.

Going forward, we aim to continue growing profits to generate cash for investment in new fields in order to further increase CTC's corporate value.

### (Background) CTC's investment criteria

We use a holistic approach when assessing M&A targets and other potential business investments, based on quantitative criteria such as the number of years needed to reduce losses, the size of profits and investment efficiency, as well as our own predetermined qualitative standards.

We use the net present value (NPV) method to measure business efficiency, which is calculated using the discount rate below

\*NPV discount rate (expected rate of return) = CTC cost of capital + size premium + country risk premium

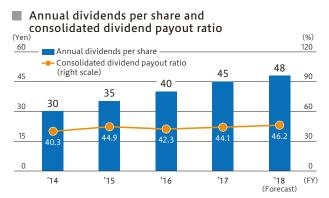
# Policy on shareholder returns

Returning profits to shareholders is one of our main considerations at CTC. Our basic policy is to pay stable dividends in line with earnings performance.

For fiscal 2017, we paid a full-year dividend of ¥90 per share, an increase of ¥10 year on year, resulting in a consolidated dividend payout ratio of 44.1%. We have now raised the dividend for nine consecutive fiscal years.

As mentioned earlier, we have also lifted the dividend payout ratio target from around 40% to approximately 45%. In addition, in order to facilitate investment in CTC and improve the liquidity of our shares, we conducted a two-for-one stock split of common shares on April 1, 2018. Based on the new number of shares outstanding, we plan to pay a dividend of ¥48 per share in fiscal 2018, which equates to a consolidated dividend payout ratio of 46.2%. Excluding the impact of the stock split, the dividend is ¥96 per share, an increase in real terms of ¥6 year on year.

Going forward, we will continue to employ a capital policy focused on capital efficiency, while also taking into account funds needed to invest in growth and the level of internal reserves.



CTC conducted two-for-one stock splits of common shares on April 1, 2015 and April 1, 2018. Amounts for fiscal 2014 to fiscal 2017 in the above table have been retroactively adjusted to reflect the stock splits.

# Communicating with shareholders and other investors

We actively communicate with shareholders and investors to support continued growth in CTC's corporate value. In fiscal 2017, we held 16 briefings for individual investors and routinely responded to requests for meetings from domestic institutional investors. We also held technology seminars to give stakeholders a deeper insight into our business. We regularly communicate with overseas institutional investors through overseas IR events and investor conferences in Japan.

Through these activities, we receive feedback and opinions from shareholders and other investors, which we use to improve the way we do business and increase CTC's corporate value.

▶ For more details, see Dialogue with Shareholders and Investors on page 70.



■ Back row, from left to right

# Tadayoshi Yamaguchi

Director

# Kiyoshi Imagawa

Director

# Front row, from left to right

# Masaaki Matsuzawa

Director & Executive Vice President In charge of Distribution & Enterprise Group / Telecommunication Group / Regional & Social Infrastructure Group / Finance Group COO, Distribution & Enterprise Group

# Toru Matsushima

Director & Executive Vice President Assistant to the President & CAO In charge of Corporate Administration Group / Global Business Development CFO & CCO

# Takahiro Susaki

Director & Managing Executive Officer Assistant to the President (Special appointment to strengthen the Maintenance Business) President & CEO of CTC TECHNOLOGY Corporation

# Tadataka Okubo

Director & Senior Managing Executive Officer In charge of Advanced IT Strategy Group / IT Services Group COO, Advanced IT Strategy Group CTO & CIO

# Satoshi Kikuchi

President & CEO



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Shintaro	Ichimarii
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Auditor\*2

# Hiroshi Takada

Corporate Auditor

# Toshiaki Tada

Auditor\*2

Makiko Nakamori

Toshio Obi

Director\*1

Director\*1

<sup>\*1</sup> Outside director as defined in Article 2, Item 15 of the Companies Act 
\*2 Outside auditor as defined in Article 2, Item 16 of the Companies Act

Outside directors Makiko Nakamori and Toshio Obi, and outside auditor Toshiaki Tada are independent from CTC, our parent company and major suppliers. As independent officers, they have no inherent conflicts of interest with regular shareholders.



# Chapter 3 | CTC's Business Strategy

# **Connect to New Value**



To satisfy the needs of a wide range of clients, CTC has set up separate business groups to serve each industry and a companywide support organization covering common areas such as technology and services. All parts of the CTC Group work closely together to provide services that support every stage of the IT lifecycle and to share advanced operational know-how.

The IT Services Group is a companywide organization that supports the other business groups by drawing on all the CTC Group's resources to plan, develop and promote integrated services. The Advanced IT Strategy Group works to discover and develop cutting-edge technologies and use existing technologies in new ways to create innovative business models and real-world services through dialogue with clients. CTC is also leveraging its know-how from Japan to advance new businesses in overseas markets.









# Distribution & **Enterprise Group**







Director & Executive Vice President In charge of Distribution & Enterprise Group / Telecommunication Group / Regional & Social Infrastructure Group / Finance Group COO, Distribution & Enterprise Group

#### (Business Climate)

- Recovery in IT investment, centered on the manufacturing sector
- Growth in omnichannel retailing, which combines distribution and IT
- Companies stepping up initiatives in IoT\* and big data\*
   (Shifting from defensive IT investment to proactive IT investment)

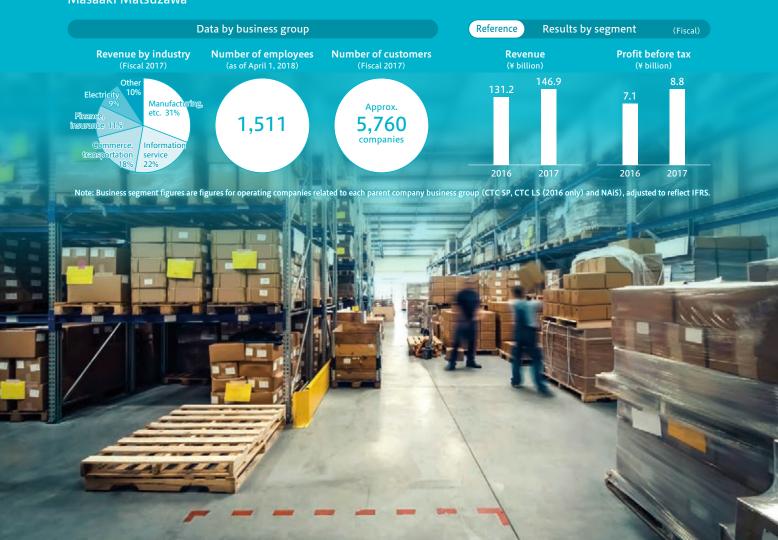
#### Strengths Provision of integrated support and services

- Application development for small-scale data systems through to backbone systems
- Network and server infrastructure construction
- Comprehensive operation of those systems

#### Growth themes

- Respond to developments in cutting-edge technologies ahead of competitors
- Develop solutions using our industry expertise

#### Masaaki Matsuzawa



#### **Our Vision**

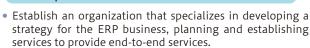
## Strengthen our efforts in development technologies and new solutions to help clients capture new earnings opportunities

#### Fiscal 2017 Results

- Identified customers that create a stable earnings base
- Sales increased due to initiatives to gain new trade areas and expand the base cargo.
- Utilized advantages of our integrated business structure in the life sciences sector
- Increased cross-selling of products due to the integration resulting in an expansion of our business fields.
- Aggressively developed core products and services of the business
- Promoted the fostering of engineers and won projects by utilizing new technologies of low-code\* products and CASB products against shadow IT within the CTC Group.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

## Further expand the backbone system development business



### Aggressively develop products and services within the Group



 Focus on security and cloud integration projects as well as improve our services by strengthening relationships with vendors.

## Strengthen efforts in new development methods and technologies



 Train engineers who can respond to new development methods such as agile and low-code as well as to new technologies such as AI, IoT, and RPA with an eye toward the medium term.

## Carry out training measures linked with stock-taking of skills



 For sales personnel, facilitate understanding of the latest technologies as well as thoroughly transfer proposal knowhow across the organization. For engineers, train personnel who possess multiple technologies such as in development and network construction.

### 3. Medium-term Outlook

- ▶ Become a cloud integrator that represents the enterprise sector
- Take on new challenges for existing clients using new cloud technologies and move into promising industries by leveraging our operational know-how.
- Become a core IT company that generates synergies and strengthens the governance of the ITOCHU Group
- Contribute to strengthening the governance of ITOCHU Corporation and to developing compatible/common systems between ITOCHU Group companies.

\*See P80 for more explanation

#### **Initiatives**

## Focus on advanced development methods and strengthening application development abilities

As a space for practicing new development methods, we opened agile offices in Tokyo and Nagoya. From here we will connect with clients and cooperating partners via a video conference system, chat/screen-sharing, or public cloud to promote development projects flexibly and speedily. We will also continue to train and strengthen scrum master and architects.

Furthermore, to enhance the development business, we will increase the number of solution engineers for ERP such as SAP. In the SAP business, we will offer support so that clients

can take full advantage of ERP in their business, based on our knowledge gained from cases of S/4HAHA migration and new introduction cases at CTC.

We will also continue to make efforts in new areas such as AI, IoT, and RPA to propose the optimal solution for clients' issues from multiple aspects.

# Telecommunication **Group**





Managing Executive Officer COO, Telecommunication Group

Yasuhiko Terada



#### (Business Climate)

- Dramatic growth in data traffic on mobile communication networks
- Accelerating efforts to roll out 5G mobile communication systems by 2020
- Expansion phase of 5G-related markets mainly for the automobile industry and the consumer domain. Full-scale cooperation between carriers and companies beyond industry borders expected in the future.

#### ( Strengths )

- Specialist builder of large-scale infrastructure to support communication networks
- Skilled in developing high-value-added services that utilize the latest technologies
- Expertise in operation of mission critical systems

#### Growth themes

- Develop new core businesses
- Rapidly respond to technological innovation
- Attract and train high-value-added human resources



#### **Our Vision**

## Leverage Groupwide strengths to become a business partner that connects carriers and industries while supporting the facilities of carriers, the enablers of the 5G era.

#### 1. Fiscal 2017 Results

#### Expanded business areas for telecom carriers

 Network enhancements and projects that leverage next-generation network technologies have increased on the back of diversification of network use. Furthermore, our business expanded by taking on challenges in new service infrastructure.

#### Acquired new accounts and created/developed new businesses

 Business in the service provider, media, and MVNO fields were robust. We also carried out business in advanced technology sectors such as AI and IoT\*, in view of cooperation with other industries.

#### Aggressively promoted workstyle reforms

 Employee satisfaction in the business group improved and office-related costs were reduced by utilizing mobile offices, telework, and other measures.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

#### Further expand business for carriers



- Expand growth by promoting next-generation network technologies (network virtualization, automation, etc.).
- Venture into untapped areas by consolidating know-how.

#### Carry out business in sectors where growth is expected



Expand growth by carrying out business for service providers and media on the back of the spread of contents and services for consumers and by capturing MVNO demand.

## Work on establishing new business models using the comprehensive strength of CTC



 To create new business models, strengthen collaboration across boundaries of business groups and encourage cooperation between telecom carriers and industries.

#### Carry out business in advanced technology sectors such as AI, IoT, and big data.\*

## Strengthen the management base that supports growth areas



- Strengthen personnel development and organizational strength according to the growth strategy.
- Improve quality and earning power by introducing methods such as automation and agile development.\*

### 3. Medium-term Outlook

#### Improve the value of CTC in businesses for carriers in preparation for 5G

- Actively address the demand for infrastructure capital expenditure in order to take the initiative in changing the business environment centered around 5G ahead of 2020.
- ► Venture into new areas by keeping pace with the shift in clients' business models
- The differentiation elements of carriers are shifting from telecommunications to services for clients. In the new ecosystem of the 5G era, together we will create a new business model that connects industries and telecom carriers and expands the business of clients.

\*See P80 for more explanation

#### Initiatives

## Training next-generation network engineers toward the realization of 5G

As a next-generation mobile communications system that accommodates a wide variety of data, 5G is expected to be used in all kinds of industries, from self-driving to remote medicine, IoT, and robot control. Considering this development as an opportunity, the Telecommunication Group focuses on training engineers so that it can respond to new needs in the 5G era.

5G requires full-stack engineers with a wide range of skills in servers, applications, and architecture, in addition to conventional network technologies. While these skills are usually ac-

quired individually, the Telecommunication Group is making efforts to enable the skills to be acquired in an integrated fashion. As a result of such engineer training efforts, we were able to carry out multiple network virtualization projects in fiscal 2017. We will continue to leverage our know-how and technological capabilities to realize flexible and reliable networks that can handle complex and diverse traffic as well as support Japan's communications infrastructure as the business partner of our clients.

# Regional & Social Infrastructure Group





Managing Executive Officer COO, Regional & Social Infrastructure Group

Hisashi Eda

## Revenue by business group (Fiscal 2017) Growth in IT inv.

- Growth in IT investment spurred by deregulation of electric power market
- Expansion of hybrid cloud demand from private companies and regional banks
- Expansion of the utilization of public and private data through the promotion of Society 5.0

#### Strengths

- Business know-how accumulated through work with local governments, regional banks, power companies and other clients
- Large-scale SI know-how acquired in the utilities sector
- Network of partner companies covering all regions

#### **Growth themes**

- Strengthening business in priority areas (electric power, local government, regional banks)
- Achievement of growth by creating new business



#### **Our Vision**

## Helping to revitalize regional economies by combining IT with business ideas to tackle local issues

#### 1. Fiscal 2017 Results

- Stepped up efforts to develop relationships with key existing clients in the utilities (electric power, etc.), public, regional bank, and manufacturing sectors
- Large infrastructure construction and system operation projects were robust in the utilities sector.
- Hybrid cloud introduction and operation support projects for key clients increased.
- Consulting business for government agencies increased.
- Strengthened services that form the core of new businesses and of partnerships between industry and academia
- Commenced service for building an ID management platform system using social media accounts.
- Entered into an agreement with Shiga University for personnel development and partnerships between industry and academia in the data science sector.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

Strengthen business in priority areas (electric power, local government, regional banks)



- Integrate the know-how of each sector through the reorganization of the utilities sector in April 2018 and rotations across regions in order to expand our business areas.
- Add depth to business through creative work that links power companies, local governments, and regional banks with other industries.

#### Operational reforms, automation, AI services



- Add depth to operation domains of key clients with the development of RPA\* as a stepping stone.
- Promote and strengthen data analysis in the data science sector and partnerships between industry and academia.

## Strengthen branch strategy, promote regional innovation



- Strengthen cooperation with regional key partners.
- Support start-up companies, invest in local venture firms.

### Spread large-scale SI know-how acquired in the utilities sector



 Contribute to clients' business by improving efficiency and quality in large-scale system construction.

#### 3. Medium-term Outlook

- Respond to growth in IT investment spurred by deregulation of electric power market and 5G
- Ahead of 2020, power companies plan to reorganize their IT infrastructures to respond to the separation of power generation and transmission functions while subsidiaries of power companies intend to update their networks to accommodate 5G. The Regional & Social Infrastructure Group will respond by leveraging its know-how in largescale infrastructure construction and system operation.
- Support workstyle reforms to improve labor productivity
- In order to address the urgent social issue of population decline, we will offer services for routine work at regional banks and local governments such as AI and RPA, which contribute to the improvement of labor productivity.
- Utilize IT tools such as in IoT\* and big data\* as the key to regional innovation
- Assist in new digital businesses such as customer support services that utilize power usage data on the back of electricity market deregulation and advances in smart grid\* technologies.
- At the same time, respond to the need for greater IT system robustness to counter the increase in malicious cyberattacks aimed at such systems that support society.

\*See P80 for more explanation

#### Initiatives

## Commenced service for building an ID management platform system using social media accounts

We started a service to build ID management platforms for the web services of universities, local governments, and companies, which allow users to register as members or log in using their social network accounts such as Facebook, Twitter, and LINE. This service enables a safe and convenient member registration process by using the functions of Microsoft's Azure Active Directory B2C, a cloud ID management solution.

#### Characteristics of the service

- An easy member registration process preventing users from abandoning the process, leading to an increase in the number of members.
- Greater login convenience achieved by users linking their own social network account to the account managed by the organization.
- Notifications according to the social network environment, which
  prevent messages from remaining unread and enable appropriate
  recommendations based on social network information.

## **Finance**

## Group



Managing Executive Officer COO, Finance Group

Eiji Haraguchi

## Revenue by business group (Fiscal 2017) • Financia accelerat of the diverse of diverse of diverse of diverse of the diverse o



#### **Business Climate**

 Financial institutions are adopting new international regulations and accelerating global expansion

- Increased investment in financial services as they become more diverse due to FinTech\*
- Digitalization trend for improved efficiency and sophistication of work

#### Strengths

- Capacity to build infrastructure and ability to develop business applications for the financial sector
- Knowledge in the risk management sector where CTC has substantial track record
- Operational strength that can handle large-scale outsourcing
- Ability to create varied services for LOB

#### Growth themes

- Support business reforms through RegTech\* and FinTech with IT
- Create new services using BA\*, AI, OCR (optical character recognition)\*, and RPA\*
- Further improve development efficiency and system operation quality



**Our Vision** 

## Provide safe and high-quality IT technologies on a continuous basis to support critical social infrastructure business that clients need to protect

#### 1. Fiscal 2017 Results

#### Finance

- Results were robust due to a risk management project for a major bank to address international regulations and a successful bid for a large platform project for a government financial institution.
- Global projects increased, especially information platform projects for Asia.
- The securities sector was driven by a next-generation largescale contact center project.

#### Credit card companies

 Opened up channels for receiving orders for large-scale system operation and new settlement service projects by participating in infrastructure construction projects such as for backbone system upgrades.

#### Service Business

 Introduction of BA and RPA were active. We achieved global top license sales of SAS products due to the introduction or BA/RPA at major financial institutions. Inquiries for work efficiency solutions also increased.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

#### RegTech/FinTech



- Step up efforts in the RegTech sector business such as addressing international regulations by drawing on our experience in risk management (e.g., ALM/AML), which is one of our key strengths.
- Build a settlement platform that incorporates blockchain\* technology and QR code/mobile settlement functions with the aim of supporting virtual currency transactions.

#### Business analytics (BA)



- Offer big data analysis and risk management solutions on SAS platforms for banks and credit card companies.
- Support clients' marketing with BA's advanced analysis technology.

#### High-productivity service/BPO\*



 Offer high-productivity solutions that combine AI, OCR, and RPA that achieves high precision through deep learning and promote BPO services.

## Advance development, strengthen the ability to handle large-scale system operation projects



 Utilize RAD (Rapid Application Development: Pega, OutSystems) and virtualization technologies\* to improve internal productivity and quality in the proposal, development, and operation processes, and enhance the ability to handle large-scale projects.

#### 3. Medium-term Outlook

#### ▶ RegTech

 In view of the finalization of Basel III (2022 and onward), broaden our knowledge accumulated in response to international regulations and grow the sector on a continuous basis.

#### ▶ FinTech

- Enhance settlement platforms and the functions of C-ARCS (a credit card backbone system developed by CTC), in view of acceleration of cash-less transactions ahead of the 2020 Olympics and the expansion of the virtual currency market.
- Aggressively invest in start-up FinTech companies and integrate them with CTC's services to provide a high-quality and secure IT environment.

#### ► Service business sector

 Invest in Active SONAR Inc., which handles RECLO, Japan's largest high-brand reselling platform. Using RECLO as the base, contribute to the establishment of a recycling society and the achievement of SDGs by creating a payment business that supports the sharing economy sector.

\*See P80 for more explanation

#### **Initiatives**

#### Investments for contributing to clients and society

## Supporting safety and security in virtual currency transactions

We invested in DeCurret Inc., which plans to launch virtual currency transaction and settlement services. We will pursue synergetic effects including functional support of CTC's settlement platform services as well as support for safety and security through human exchange and technological assistance. We will expand our business in the virtual currency market that is set to see substantial growth.

## Supporting workstyle reforms with high-productivity BPO

We invested in Cinnamon, Inc., which provides AI and OCR that saw exponential improvement in its recognition accuracy of handwriting and various other text through AI using deep learning. We will promote the development of high-productivity solutions through utilization of RPA. Furthermore, we will advance the BPO business through cooperation with BELLSYS-TEM24 Holdings, Inc., among others.

# IT Services **Group**





Managing Executive Officer COO, IT Services Group

Toshiyuki Awai

Number of employees (as of April 1, 2018)

412

Mission

The IT Services Group create, provide, and operate new services in the following areas, incorporating advanced IT technologies from the United States and other countries.

Cloud Security

ΑI

Data center

**Product Maintenance** 

■ The roles of the IT Services Group in the technology lifecycle

	Early days	Evolution phase	Revenue expansion phase	Stable phase
Market trend	Emergence of latest technology	Increase in advanced cases	Use in business becomes common	Small market growth
Customer	Information gathering	Advanced companies start to take initiatives	Many customers invest	Becomes sensitive to cost
Activities	Hypothesis, verification	Establish a winning model	Functional selection of business	
Priority area	AI, IoT, hybrid integration	AWS, Azure, hybrid security	Private cloud	Virtualization



#### **Our Vision**

## Contribute to business expansion of clients by utilizing cutting-edge IT technologies and providing competitive services ahead of competitors

#### Fiscal 2017 Results

#### Strengthened cooperation with SAP partners

 CUVICmc2, a backbone system cloud service, established a position as the optimal IT platform for SAP/ERP\*.

#### Strengthened partnerships

 CTC was certified as an AWS premier consulting partner, the highest rank in the partner program of Amazon Web Services, for our introduction of the service and initiatives to ensure safe use.

#### Established AI business

 We developed CTC Integrated AI Platform Stack (CINAPS), a hybrid cloud environment for AI utilization. To support companies' use of AI, we systemized the AI development process and technologies and started providing them as a solution.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

#### Create and provide new services



- Provide hybrid integration services that support the transition of clients' systems from on-premise to cloud and the construction of a hybrid IT infrastructure environment that covers both on-premise and cloud.
- Provide a hybrid managed service that monitors, manages, and operates the IT infrastructure environment that covers on-premise and major vendor cloud environments such as AWS, Azure, and Oracle.
- Develop a cloud-type security service.
- Implement the incubation of new AI-related products to provide new service products.

#### Promote the training of personnel



 Provide programs to train AI personnel, who are expected to be in ever more demand in the future.

#### Improve service quality



 Improve the quality of cloud and security services provided to clients.

#### 3. Medium-term Outlook

#### ► Strengthen hybrid integration services

- Establish an infrastructure optimization method in a hybrid environment where clients' systems exist both on-premise and on the cloud, as well as provide hybrid managed services.
- Provide a one-stop service for hybrid environments that monitors and responds based on security diagnosis of clients' systems.

#### Focus on the application development business in a cloud environment

 Following the transition of IT infrastructure environment to cloud, enhance application development abilities using native cloud\* middleware in a cloud environment, and plan and promote new business development.

#### Expand businesses that use AI technologies

- Enhance IT platform-related services for the AI sector, in which demand is expected to grow.
- Move into the development business with AI and data analysis as the core.

\*See P80 for more explanation

**Initiatives** Strong relationship with multi-vendors and cloud vendors Hybrid integration service Expand the Strength 1 CTC cloud strength of On-premise Al platform (CTC Integrated Al Platform Stack) customer base multi-vendors Client's own CUVIC Techno **AWS** Azure Oracle Nationwide infrastructure mc2 CUVIC CUVIC maintenance network to a hybrid Hybrid managed service (monitor, manage, operate) environment Proprietary cloud operation track record Strong relationship with multi-vendors and cloud vendors

Take advantage of the on-premise customer base and construction/maintenance abilities to provide a hybrid cloud integration & managed service.

# Advanced IT Strategy Group





Number of employees (as of April 1, 2018)

325

Mission

Discover and develop cutting-edge technologies and work with clients to use them to create new business models

Combine science technologies and IT to help solve various social issues

Use advanced IT to lead innovation in work models and propose new workstyles

Director & Senior Managing Executive Officer In charge of Advanced IT Strategy Group / IT Services Group COO, Advanced IT Strategy Group CTO & CIO

Tadataka Okubo

Information system revolution

Business model reform

Collective Creativity Framework

Develop a mechanism that contributes to the expansion of recurring-type business

Work model reform

Utilize advanced IT technologies and achieve workstyles that take diversity into consideration

Science & Engineering System Division

Theme

System and roles

Deep science technology

Collective creativity Institute of Open Innovation Research "MIRAI"

Innovation base

Collective Corporate IT System Division

Cutting-edge IT

23:35:60

Promotion

Internal innovation

Customer

Service sale

Within CTC Group

Workstyle reforms

#### **Our Vision**

## For the establishment of a prosperous and safe future society, combine science and advanced IT to contribute to solving social issues and to the creation of innovative businesses

#### 1. Fiscal 2017 Results

- Solved social issues by combining science technologies and IT
- Helped solve social issues through the power generation forecasting based on weather data analysis, aseismic/ ground analysis, earthquake/tsunami simulations, ultrasonic simulations, and nanoscale analysis.
- Identified and developed advanced technologies, created new business model
- Systemized mechanisms that support the creation of an innovative business model. Completed the MIRAI Platform, a new business model creation platform, which is based on CTC Future Factory that includes DEJIMA, a workspace for innovators, and adds a lean startup mechanism and venture capital investment functions.
  - ▶See Institute of Open Innovation Research "MIRAI" on P17-18

#### ► Work model reforms using advanced technologies

 Operated a new backbone system that implements SAP HANA in a proprietary cloud environment. Also created a grand design for next-generation internal IT systems that accommodate employees' diverse workstyles.

#### 2. Initiatives in Fiscal 2018 (Priority measures)

## Scientific technologies innovations that lead to social contribution



- Construct IoT systems for each industry by combining advanced IT and operational technology (OT\*) based on analysis.
- Provide new added value by utilizing science technologies to solve social issues such as disaster prevention, renewable energy, and nuclear power generation (reactor decommissioning, decommissioning operations).

#### Develop new businesses



 Utilize MIRAI Platform, the new business model creation platform, to create specific new businesses together with clients.  Accelerate innovations by applying business ideas to startup firms through lean startup.

## Carry out information system revolution using advanced technologies



- Continue to promote work model reforms that combine improvements in employee engagement and in work efficiency.
- Contribute to the creation of new services by taking the initiative to introduce/utilize advanced IT and act as a model of safe use.

#### 3. Medium-term Outlook

#### ► Accelerate evolution of IT

The following trends accelerated further:

- Cloud becoming the standard
- Major players of the IT industry being replaced, bringing chaos to the industry.
- The combination of IT and OT advancing, creating new businesses.

#### Address IT industry reforms and create new businesses

- Identify, create, and establish usages of future technologies that bring about changes to industrial structures and make life richer.
- Combine science technologies and IT, which are CTC's strengths, and create businesses that offer new added value to customers in an effort to lead the market.

#### Construct an internal information system that places an emphasis on diversity

 Construct a next-generation internal information system that accommodates the continuously changing work environment such as in workstyles, workplaces and work time, and utilize it in making proposals to clients.

\*See P80 for more explanation

#### **Initiatives**

#### Business model reforms X Work model reforms

The Science & Engineering System Division has included in its product lineup science cloud, a high-value-added service that utilizes analysis and simulation technologies, in addition to conventional contracted business. The Division will work on expanding service businesses mainly in the electric power, construction, and manufacturing sectors and strive to achieve further business growth.

The Institute of Open Innovation Research "MIRAI" will accelerate the creation of new business models together with

clients by utilizing an open innovation\* platform and practicing lean startup and lean engineering.

In tandem with such business activities, the Corporate IT System Division will apply a work flow in view of future business model changes such as through the expansion of recurring-type businesses and enhance its system functions that support the expansion of business, as well as provide an environment where employees can work creatively such as by introducing a chat work environment.

# Global Business





Managing Executive Officer COO, Global Business Development & General Manager, Global Business Division employees (as of April 1, 2018)

Number of

Malaysia
CTC Global Sdn. Bhd.

Thailand
CTC Global (Thailand) Ltd.

Singapore
CTC Global Pte. Ltd.

ITOCHU Techno-Solutions
CTC Global Pte. Ltd.

ITOCHU Techno-Solutions
Corporation Singapore Branch

Tomohito Arai

#### **Our Vision**

## Leveraging our track record to accelerate growth overseas, focusing on North America and ASEAN region

#### Major initiatives for future global expansion

Strengthen earning abilities of existing overseas operating companies



- Reinforce the service business such as software development, cloud, security, and system operation service.
- Strengthen collaboration between sales and technology across countries at overseas bases in the ASEAN region and North America.

## Promote partnerships and M&A to achieve further growth

- Promote strategic partnerships and M&A in the ASEAN region, North America, and Europe, to achieve further expansion of the global business.
- ASEAN : Promote strategic partnerships with local Indonesian and Malaysian companies as well as M&A.
- North : Entered into a capital alliance with SYSCOM America (USA) INC. (United States, SI company).

(USA) INC. (United States, SI company), which is an existing partner, in August 2018 to strengthen the SI structure. We will continue to promote strategic partnerships with local North

American companies and M&A.

Europe : Entered into a business alliance with Newton Information Technology Ltd. (United Kingdom,

SI company) in April 2018.

#### **Enhance R&D functions**



- Establish bases for R&D and business innovation in Europe (London) and China (Shenzhen) where innovation efforts have been active in the IoT and communications sectors in recent years. Strengthen new business and solution development functions by a three-base structure, together with the base in the United States (Silicon Valley).
- Enhance the new cultivation system of the U.S. R&D base. Opened the Open Innovation Lab, which aims to create new business models with key clients within the U.S. R&D base, in November 2017.

## Cost optimization, improved work efficiency of overseas operating companies



- Improve the efficiency of group management by integrating the know-how of subsidiaries in ASEAN such as by consolidating the resources for business management, business development, and project management.
- ▶ R&D: Trend survey of the advanced technology and IT markets, new product cultivation, etc.

## CTC Group Uses Comprehensive Group Capabilities to Provide Total Support for Clients' IT Lifecycles

#### **Maintenance & Operations Services**

Maintenance & Operations Services provide a variety of necessary technological capabilities, from product maintenance to the management of infrastructure and operation of backbone system application and the ongoing management of data centers. Each operational specialization of CTC Group companies supports clients' IT lifecycles.

System Maintenance and Support Business

#### CTC TECHNOLOGY Corporation

Established: Apr 6, 1990

Leveraging the experience and expertise gained from operating a nationwide support system 24/7 all year round and proprietary services harnessing the latest IT, we aim to make an even greater contribution to client business continuity by offering solutions for IT system issues, in addition to resolving technical problems with standalone products.

System Operations and Support Business

#### CTC System Management Corporation

Established: Jul 1, 2008

Provides specialized operations services, such as satellite communications controls and the operation management of IT infrastructure, backbone systems and data centers for clients in the financial, distribution, telecommunications and manufacturing industries. Also carries out IT infrastructure construction, develops ERP-related software and provides maintenance Data Center Facility Management Business

#### CTC FACILITIES **CORPORATION**

Established: Jul 7, 2000

Provides a wide variety of data center-related services, from data center facility operations management and construction consulting to IT service operations, with five CTC Group data center locations across Japan.

Contact Center and Helpdesk Services Business

## First Contact Corporation\*

Established: Apr 1, 2000

Provides outsourcing services for helpdesk and contact center operations, education and training, manual development, and back-office services such as contracted business administration work, as well as total solutions combining these and other related services. The company is also aiming to expand its business further by working with CTC Group sales teams and enhancing service quality by securing the support center international certification program from the Helpdesk Institute.

\* CTC First Contact Corporation became a joint company between CTC and BELLSYSTEM24 Holdings, Inc. on July 3, 2017. **Business** Strategies Maintenance Planning and Operation Data Center and Design **IT Lifecycle CTC** provides Introduction Procurement Transition Development Construction

#### **Developing Businesses** Specialized for Client

**Companies and Industries** 

Develops business specialized for client companies and industries, providing systems developed for clients' unique operating processes and industry-specific solutions.

#### Asahi Business Solutions Corp.

Established: Jan 5, 1989

Since being established as an information systems subsidiary for Asahi Breweries, provides total solutions to the Asahi Group, from IT solutions planning, proposal and development, to maintenance and operations.

#### **Solutions business using distinct products**

Laying out the framework to offer a variety of IT-related products and top global vendors to provide the best solutions to client needs.

#### CTCSP CORPORATION

Established: Apr 1, 1990

We offer the best IT services that meet the needs of clients by adding "proposal capability" value to cutting-edge and unique solutions from Japan and abroad.

## Chapter 4 | Initiatives to Support Value Creation

## Connect to an Affluent, Sustainable Society

The United Nations has adopted a set of Sustainable Development Goals (SDGs) and Japan's Cabinet Office is promoting a vision for the super-smart society called Society 5.0, which is spurring wider use of IoT and AI. Increasingly, IT is seen as a vital tool for solving issues faced by society, optimizing society in general and improving the competitiveness of companies. In addition to using the latest IT to tackle business challenges faced by clients, the CTC Group has also been harnessing IT to help solve environmental and social issues. Going forward, we will strive to fulfill our corporate social responsibility and operate our business in harmony with regional communities and other stakeholders to create an affluent, sustainable society.





# What role should the CTC Group play in creating a sustainable society?











Director & Senior Managing Executive Officer In charge of Advanced IT Strategy Group / IT Services Group COO, Advanced IT Strategy Group CTO & CIO

Tadataka Okubo

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. Chief Environmental & Social Strategist Environmental Strategy Advisory Division

Mari Yoshitaka

Japan Science and Technology Agency President

Michinari Hamaguchi

World Wide Fund for Nature Japan Deputy Director, Conservation Climate & Energy Project Leader

Masako Konishi

Director & Executive Vice President
Assistant to the President & CAO
In charge of Corporate
Administration Group /
Global Business Development
CFO & CCO

Toru Matsushima

The CTC Group is aiming to help create a sustainable society through its core businesses. Guided by a collection of shared objectives called the Sustainable Development Goals (SDGs), the international community is stepping up efforts in ESG – the environment, society and governance. Given those trends, we need to think how CTC can best meet public expectations. We invited three experts in the environmental, investment and innovation fields to talk about what role the CTC Group should play.

#### How can IT support society in the future?

 $\label{thm:matsushima:thecomposition} \mbox{Matsushima: The CTC Group's philosophy is to "leverage IT's}$ 

potential to change the future for the Global Good." We are implementing CSR activities through our core businesses based on a careful assessment of how our activities impact society. IT now reaches into all areas of our lives, so I believe we have a major role to play.

Okubo:

CTC is involved in a large number of renewable energy businesses, such as wind and solar power projects. E-PLSM, our cloud-based energy optimization service, is one example of how we are supporting wider uptake of renewable energy. We plan to use E-PLSM to drive growth in IoT technologies and renewable energy.

Hamaguchi: Use of renewable energy is growing in Japan,

but meteorological conditions make it difficult to reliably generate electricity from wind and solar sources. Predicting weather and power output is therefore an essential part of ensuring stable electricity supplies from renewable sources. IT and energy are both likely to play vital roles in the future, which puts CTC – with a presence in both fields – in a unique position. CTC has a number of specialist science and

Okubo: CTC has a number of specialist science and technology teams. These teams run businesses that help customers understand and respond to changes in the weather, such as developing supply and demand forecasts for

renewable energy. IT is increasingly being used to harness the combined intellectual resources of people around the world to develop new technologies. Amid that shift to open-source software and development, there is a growing need to combine IT with operational technology (OT), which operates and controls physical systems. In the case of power generation, we have to combine our IT products and systems with OT at power companies to improve generating efficiency, which helps to ensure reliable supplies.

Konishi: In Japan, CTC is one of the leaders in supply and demand forecasting for the renewable energy sector. Japan lags many other major economies in renewable energy. One concern in Japan is that renewable energy will destabilize power generation, resulting in power cuts. However, weather-based output forecasting technology allows us to predict renewable en-



ergy output, which changes renewable energy from an unstable power source to a flexible one. According to energy scenario research conducted by the WWF, Japan can continue to use its existing power grid to supply electricity even if renewable energy grows to account for 50% of total power generation.

▶ For "E-PLSM", see Initiatives in Our Core Business on page 60.

#### How can CTC communicate its hidden value?

Konishi: I think CTC needs to do more to promote its role in areas such as combining IT and OT. CTC's work in that area is directly related to Goal 13 in the SDGs, "Take urgent action to combat climate change." That role should be communicated to the wider public. At the moment, I don't think CTC is doing enough to get the message across. There are many ways CTC can contribute to the SDGs through its IT-focused business activities. With ESG investing gaining momentum, CTC should disclose



more information to stakeholders to improve its standing in the ESG investing community.

Yoshitaka: I agree. CTC needs to think how to disclose its business activities in more effective ways. Amid growing public interest in ESG issues, how companies disclose non-financial information – which is often difficult to express in numerical terms - has a large impact on corporate value, so the information needs to be presented in a manner that is understandable for all stakeholders. In particular, institutional investors, who tend to hold shares over long timeframes, are looking for information about how companies plan to mitigate future risks and take advantage of future business opportunities based on a backcasting approach, rather than information about what's happening in their businesses now. That could present difficulties for Japanese companies, which have typically only disclosed short-term financial information.

Matsushima: We're constantly searching for the best ways to communicate CTC's value through non-financial

#### Stakeholder Dialogue

information, but it is challenging, particularly in the environmental field. As an IT company, we're still trying to figure out which environmental areas to focus on and how to explain our role. For example, data centers use large amounts of energy and the growing popularity of cloud services means they are becoming even more important. That makes it hard to reduce the Group's energy consumption. However, cloud services lower environment impact at users, helping our customers cut electricity use. Setting environmental key performance indicators (KPI) for our business, including supply chains, is a major challenge.

Konishi: I suppose the best way to approach that issue is by highlighting to stakeholders how CTC helps drive positive change in society. For example, since the Paris Agreement, the world



has been working to end its reliance on carbon-based energy. Given that goal, it may be better for CTC to explain its value to society by, for example, showing how its technologies can lift the share of renewable energy to a certain level by 2030.

#### New ideas are also needed in work style reforms

Matsushima: Work style reforms are another area we're focusing on in ESG initiatives. We started rolling out work style reforms from fiscal 2014, achieving some solid results. Average overtime hours have been reduced sharply and employees now have more scope to choose their work hours and work locations.

Yoshitaka: Improving employee satisfaction is important, and it's also something investors look at very closely. Investors are particularly interested in how companies empower women in the workplace, which is one of the key social elements of ESG.



Hamaguchi: I've seen some interesting research about the link between women in the workplace and patents. Data from across all industries shows that patented technology and services that involved the input of female employees result in profit margins that are 20% higher than for other patents. That underscores the economic value of bringing on board women and their different perspectives. In other words, empowering women in the workplace helps companies make money.

Matsushima: CTC is also stepping up efforts to support women's careers. We believe that different perspectives, not just from women, will help drive our business forward.

Hamaguchi: There was a shift in society towards the mass production and supply of goods and services from the early 20th century, resulting in standardization and homogenization in many areas of life. The idea that diversity creates value in the workplace has drawn a line under that trend. I think IT has played a key role in breaking down existing barriers and creating a society where everyone can express their unique potential.

#### Working to change the future for the Global Good

Hamaguchi: AI, IoT and other advances in IT are changing society. They are also likely to transform the way we do business. Japanese companies have typically found it hard to establish platform businesses models because Japan has lacked the necessary social structures to help them build out from their narrow operating base. Even if companies that make a good start with new businesses have not been able to take them to the next level due to lack of business ecosystem. IT is changing all that, allowing companies to break out of their silos and create new business models.

Guided by our corporate philosophy - "lever-Okubo: age IT's potential to change the future for the Global Good" - we want to be a business that creates social infrastructure supported by IT. One way we are doing that is by making a direct contribution with IT solutions. Our goal is to harness IT to build an affluent, sustainable society by providing a range of services and solutions, such as cloud services via proprietary data centers, new businesses that utilize Al and IoT, and systems that support the use of renewable energy. Another way is by creating secure and expandable IT systems for customers to support their business development. Building those systems requires considerable expertise, as they are often vital to the smooth functioning of society. I think CTC can help realize the SDGs through efforts in both those channels.

Hamaguchi: SDGs are opening up business opportunities related to sustainability on an unprecedented global scale. According to some forecasts, achieving the SDGs will create market opportunities worth \$12 trillion by 2030, suggesting major opportunities are there for the taking if companies actively target them.

Yoshitaka: I agree. I hope CTC makes a firm commitment to longer-term goals and uses the SDGs to communicate its value as a company.

Konishi: Taking a long-term view is particularly important. Earlier, Mr. Matsushima mentioned



the challenges in setting environmental KPIs. But setting long-term environmental targets is increasingly important to ensure companies are fairly valued by investors. I hope CTC will consider creating and communicating a bold vision for its strategic direction in ESG.

Yoshitaka: I think the SDGs are effective common goals for investors and society, but also for companies. I recommend using them as communication tools both inside and outside the company. The 17 SDGs cover 169 separate targets, giving employees visible goals to aim for in their own ESG activities, helping to increase motivation. Based on that approach, I think CTC can make progress towards its goal of changing the future for the Global Good by harnessing the potential of IT to make life better for people everywhere.

Matsushima: In the future, I'd like to see a change in thinking by all our executives and employees.

Instead of implementing measures to achieve the SDGs out of a sense of obligation, I want them to work towards the SDGs simply as a natural, embedded part of their jobs.

Thank you all for taking part in the discussion today.

#### **Environmental Initiatives**

The CTC Group is doing its part to pass on a sustainable global environment to future generations. We are cutting energy consumption, using resources effectively and taking other steps to prevent global warming. Also, recognizing the importance of maintaining biodiversity, we are working to improve the natural environment.

#### Environmental Activities Policy

The CTC Group aims to keep its businesses in harmony with the global environment, addresses issues including climate change, the effective use of resources and the preservation of biodiversity, and strives to improve environmental management systems in a sustained manner.

1 Solution of Environmental Issues Faced by Customers

The CTC Group seeks to offer value such as environmental load reduction and eco-efficiency improvement with the application of IT by solving the environmental issues faced by customers.

2 Reduction of Environmental Footprint in Business Processes

The CTC Group proactively promotes initiatives including those for saving energy, saving resources, reducing waste and greening procurement, and works to reduce its environmental footprint and prevent pollution in business processes.

3 Compliance with Relevant Laws, Regulations, etc.

The CTC Group observes laws and regulations associated with environmental preservation and other items to which it agrees.

4 Enhancement of Environmental Awareness

The CTC Group makes its environmental policy known to all its directors and employees. At the same time, the CTC Group works to raise environmental awareness through education and informative activities.

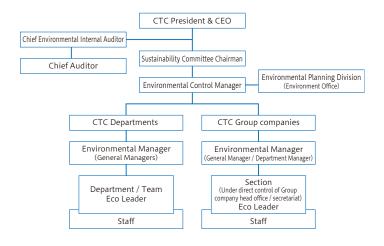
See the CTC's website for detailed CSR information.

http://www.ctc-g.co.jp/en/corporate/csr/environment/index.html

#### **Environmental Management Structure**

The CTC Group has established an Environmental Activities Policy based on its corporate philosophy, and has established an environmental management structure.

We engage in group-wide environmental improvement activities under the management of the CSR and Compliance Committee chairman and Environmental Control Manager; with our Environmental Managers and Eco Leaders and Deputy Eco Leaders (who are responsible for driving environmental activities) in their particular departments, including at group companies, taking a central role in these activities. We have attained ISO14001 certification at a total of 22 business locations (19 offices and 3 data center locations).



#### **Environmental education**

The CTC Group provides environmental education through e-learning for all employees once a year. Environmental managers and eco-leaders are also offered training to provide them with the skills to promote their activities.

#### **Environmental improvement activities**

Based on Groupwide environmental goals, the Group is making efforts to improve the efficiency of client systems as well as energy efficiency using virtualization and cloud technology to contribute to the reduction of environmental impact. At CTC's data center, we have realized efficient energy use by collecting energy in thermal storage by making ice during night time and discharging such energy during the day time for power usage (peak cut). CTC's Yokohama Computer Center received the 2018 Yokohama Global Warming Countermeasures Award for its various initiatives.



#### Reduce Environmental Impact

#### Support for integrated energy management

Japan's energy-related industries are currently going through drastic changes such as power system reforms and the expansion of the ratio of renewable energy introduction. Regarding the latter, a goal has been set to expand the ratio from the current 15% to around 24% by the end of fiscal 2030. Furthermore, using dispersed power generation facilities as a virtual power plant that functions as if it were one power plant is being anticipated, in addition to conventional large-scale power plants. As an operator with a forecasting service license, CTC has not only offered its own weather forecasts but has also contributed to the expansion of the use



The "E" in E-PLSM stands for Energy, Economy, Environment and Ecology, while "PLSM" stands for Platform for Simulation and Management



Dashboard that allows users to monitor output and weather conditions (in this case wind volume) at renewable energy power plants

of renewable energy and promoted the spread of the solar power and wind power generation businesses by offering original analysis and forecasts based on vast amounts of weather data.

One of the first companies in the industry to introduce IoT and AI technologies, CTC has offered cloud service E-PLSM since 2011, which collects and analyzes information on power generation, demand forecasts, equipment, and other data to support the efficient use of energy including power generation prediction and failure prediction for devices. E-PLSM is used in energy management systems of power producers and general companies.

E-PLSM has strengths not only in the energy field but also in the operational technology (OT) field, collecting data from various control systems and providing analysis by combining the use of time-series database, which can be stored efficiently, and weather data.



#### Implementing Work Style Reforms and Creating a Diverse Workforce

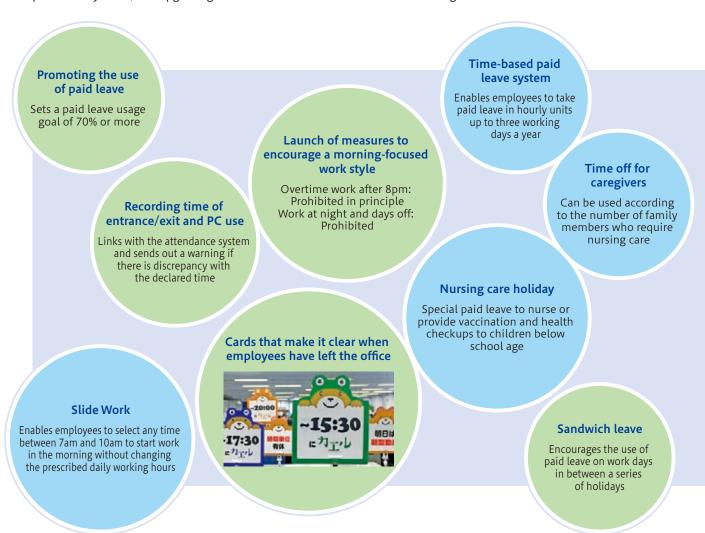
#### The Aim of CTC's Work Style Reforms

CTC has implemented a range of initiatives with the aim of becoming a company that offers a healthy environment and work satisfaction for employees in order to enrich employees' lives, based not on the idea of "work life balance," which strives to balance work and life, but on the idea of "work in life," which positions work within life.



#### **Examples of initiatives**

Starting with the full-scale launch of measures to encourage morning-focused work in July 2014, we have been implementing various measures toward changing the awareness of each individual, in addition to building frameworks including personnel systems, and upgrading the environment such as information-sharing tools and infrastructure.



#### ■ Goals and performance

(July 24, 2017 performance) CTC non-consolidated



\* Those who carried out a flexible working style are employees who used either Slide Work, time-based paid leave, or morning-focused working style, or conducted telework on Telework Day on July 24, 2017.

#### Health management column

#### Efforts in early detection of cancer

As a partner company of the Cancer Control Promoting Companies Action, CTC is making efforts to create an environment where employees can work with peace of mind by developing a system that prevents cancer and facilitates early detection and treatment. In February 2018, CTC received the FY2017 Award of Excellence in the Tokyo Metropolitan Government Award Commending Companies that Implement Excellent Initiatives to Help Cancer Patients Balance Cancer Treatment and Work. In April 2018, CTC also introduced health check services and a subsidy for examination costs as new initiatives.

WORK CIRCLE Project

**TOKYO** 

## Mobile work using PC and phone



#### Cloud video conference

Easy access wherever there is an Internet connection

Working from home is allowed up to three days a week, mainly for employees who are pregnant or engaged in childcare or nursing care

Working from home

## Implementing telework

Participated in Telework Day on July 24, 2017

#### Multi-Path Personnel Management System

(Fiscal 2017 performance) CTC non-consolidated

Provides two career paths
—one for managers and
another for specialists—
to improve job satisfaction
and motivation

#### Promoting Premium Friday

Chat
Several types of chat tools
are available according
to the situation

Combines Slide Work and time-based paid leave systems to encourage employees to leave the office by 3pm

## Pre-/post-childbirth leave, childcare leave

Enhancing systems for men participating in housework and childcare, and providing seminars for employees and their managers after the employee has returned from childcare leave

#### Volunteer leave

Up to three days leave each fiscal year when participating in a social contribution activity permitted by the company

## Touch-down offices

About 30 facilities are available in the Tokyo metropolitan area

#### Implementing Work Style Reforms and Creating a Diverse Workforce

#### **Promoting Diversity**

#### Empowering women in the workplace

#### Organization, system:

The organization in the personnel division promoting empowerment and each business group are implementing the measures in cooperation. Initiatives for diversity including the empowerment of women are reported and discussed at Board of Directors' meetings on a regular basis and their results are reflected in the measures.

#### Initiatives:

CTC introduced a mentor system in fiscal 2007 with the aim of creating an opportunity for communication among female employees and supporting young female employees' own efforts to advance their careers. For mid-career employees, we provide career design training as well as a website introducing actions for diversity to share the details of activities of the training and to raise awareness.

For managers, we provide trainings on communication with and evaluation of various employees, with the evaluation standards including the promotion of work style reforms and respect for diversity.

#### **Employment for the elderly**

CTC rehires all willing seniors after their statutory retirement

In April 2018, the Group changed its grade system and compensation system to foster an environment that enables willing and experienced employees to further exercise their motivation and potential. The introduction of a reduced working hours system has also enabled employees to select a flexible work style that suits the individual.

#### **Human Resources Development**

#### Developing global human resources

CTC aims to cultivate personnel who can flourish in the global marketplace, as core personnel who can work together with people from all over the world with different backgrounds.

CTC carries out a human resources development program to nurture overseas business management capabilities and enhance practical communication skills targeting select employees from different departments.

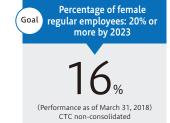
#### Supporting career development

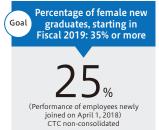
Under the policy of encouraging employees to develop their career voluntarily, CTC provides training to learn skills and knowledge common to all job types as well as various learning opportunities in accordance with the hierarchy and job type such as new employee, young/mid-career employee, and manager.

#### Goals and Results









#### **Employment for the disabled**

CTC established HINARI Corporation in April 2010 as a special subsidiary to promote employment of people with disabilities. In addition to providing massage and office cleaning services for CTC Group companies, HINARI runs businesses such as agriculture-related contract work to create employment opportunities for the disabled. This is part of our efforts to create a workplace where a diverse workforce can maximize their potential and to generate work satisfaction.

#### **Recognition from External Parties**

CTC selected as a member of the 2018 White 500



Certified in the large enterprise category, recognizing CTC's efforts in health management by managing the health of employees from a business standpoint.

"Eruboshi," a symbol of certification based on the Act of Promotion of Women's Participation and Advancement in the Workplace (third stage)



CTC received the highest rank, being highly rated in all of the five criteria (hiring, continuous employment, work styles such as working hours, percentage of managers, various career courses) provided by the Ministry of Health, Labour and Welfare

Sports Yell Company



Recognizing CTC's efforts to encourage the use of holiday leave and funding for participation in sports events that support disaster-affected areas, and its support for company sports clubs.

"Kurumin" certification for nurturing future generations



CTC has received certification under the Law for Measures to Support the Development of the Next Generation, which was enacted in April 2005. The certification recognizes our efforts and track record in nurturing future generations through our action plans (general business owner action plans).

### **Contributing to Society**

As a member of local communities, the CTC Group aims to create an affluent society by using its personnel, information technology and other resources to conduct proactive social contribution activities and provide support across a wide range of fields, including the environment, welfare, nurturing the next generation of young people, supporting the international community, and contributing to local communities and cultural activities. CTC is also actively involved in activities to help communities recover from natural disasters. On this page, we look at some of CTC's activities.

Please refer to the "Relationship with Local Communities and Society" page of CTC's website for details.

http://www.ctc-q.co.jp/en/corporate/csr/social/community.html

#### Local Community and Society Initiatives

#### Social contribution activities by employees

Happiness Recovery support tours to the region affected by the Great East Japan Earthquake

The CTC Group has organized trips for its employees to the Tohoku region with the aim of aiding in a faster recovery for the disaster-affected areas since fiscal 2014. In fiscal 2017, we organized three trips to help the recovery effort, with a total of 117 employees taking part. We will continue to hold the trips.



#### "Walk, Run, and Support Project"

Using CTC's health management solution, the Group conducted an internal project between March 1 and March 11 to support disaster-affected areas. The project aggregated the distance employees walked or ran, with a goal of donating 1 million yen for achieving the circumference of the earth (approx. 40,000 kilometers). 640 employees participated in the project and achieved the target. 1 million yen was donated to the Millennium Hope Hills project in Iwanuma City, Miyagi.

#### Support for fostering the next generation of young people

Children's Technology Challenge IT workshop class, a workshop for nurturing children's creativity, self-expression and programming (theoretical) thinking

Since 2015, CTC has held Children's Technology Challenge IT workshop classes, a place where children who will lead the future can encounter IT. In fiscal 2017 we held eight workshops to create "stories for playing," using tablet devices. 171 children participated in the workshops. We also developed "Minna de Challenge! (Everyone Take on the Challenge!) IT Engineer," a new visiting lecture program in preparation for the start of compulsory programming education at elementary schools in 2020. The new contents are aimed at teaching programming thinking



by having children act as IT engineers and develop hypotheses and make verifications to derive the optimal delivery route. Using CTC's solutions, we developed a lecture program that does not rely on the school's ICT environment, and is created from the teachers' perspective. We will continue to contribute to the development of next-generation IT personnel through the Children's Technology Challenge IT workshop classes.

#### Improving employees' awareness

"Universal Manners Third-Grade Certification Seminar"



We held Universal Manners Third-Grade Certification Seminars, which teach how to face or address the elderly and people with disabilities, in Tokyo and Osaka, in which approximately 600 directors and employees attended.

#### "SDGs" training



CTC held training sessions using card games with the aim of spreading SDGs within the company. All directors and employees in management divisions participated in the training.

#### Address Issues related to an Aging Society

#### Improvement of quality and productivity with RPA

Amid an expected decline in the workforce due to an aging society, attention is focused on RPA, which automates simple routine tasks such as data entry in PCs and data aggregation/processing. CTC introduced RPA tools that improve the efficiency of preparing lending track records and various materials as well as developing systems for Oita Bank Co., Ltd., which seeks to enhance customer service.

CTC System Management Corporation, a CTC Group company that provides system operation and other IT services, also provides stable system operation by using its own RPA as well as a software robot solution, which produces the maximum effect in automating customers' operations by combining multiple software including RPA tools.



A poster character for RPA by CTC System Management Corporation

#### Automatically generate construction work models using IoT

In 2016, the Ministry of Land, Infrastructure, Transport and Tourism formulated i-Construction, a policy to improve productivity at construction sites. In addition to the introduction of unmanned aerial vehicles and the automation of heavy machinery, the policy promotes CIM (Construction Information Modeling/Management), a construction method that utilizes 3D models across the entire construction production process.

CTC is making efforts to solve social issues through the use of IT and has provided 3D soil and geological condition modeling software and services to share 3D models and construction information on the cloud, with the aim of promoting CIM. Based



Screenshot of the 3D model generated by the C-Shield component of the C-series package, allowing users to check progress in shield tunneling construction work

on the information obtained in various construction processes through measurement sensors and heavy machinery, we have developed the C-series, a series of four pieces of software that automatically generate 3D models used in construction work.

#### Contribute to Regional Economies

## Promote the nurturing of data scientists and industry-academia partnership

With the aim of developing human resources in the data science field, CTC and Shiga University have entered into an agreement to promote the sharing of knowledge on corporate data analysis, the fostering of personnel who will carry out R&D of practical education methods, and a partnership between industry and academia. We will provide an analysis system environment protected by robust security to Shiga University as well as coordinating partnerships between customer companies with issues in data analysis and Shiga University.



Shiga University and CTC signed an agreement to cooperate in the data science field

CTC will aim to promote data analysis and AI development at companies by cooperating with Shiga University to foster data scientists.

#### Corporate Governance

#### Corporate governance structure

#### Basic stance on corporate governance

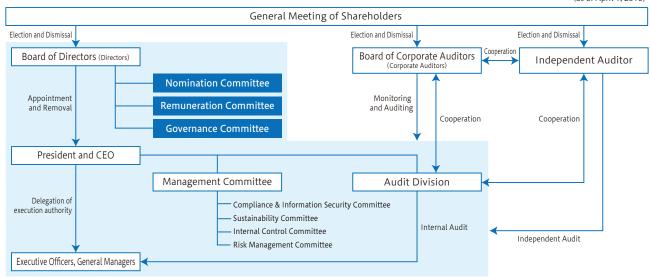
Guided by the slogan "Challenging Tomorrow's Changes" and the CTC Group Philosophy, which sets out our mission of leveraging IT's potential to change the future for the Global Good, we are working to reinforce corporate governance in order to enhance management transparency and fairness as part of our efforts to maximize the Group's corporate value.

#### Overview of the Corporate Governance System

Organization type	Company with corporate auditors (Board of Corporate Auditors)		
Chairman of the Board of Directors	President & CEO		
Number of directors (of which outside directors)	9 (2)		
Number of corporate auditors (of which outside auditors)	3 (2)		
Executive officer system	Adopted		
Existence of discretionary advisory bodies to the Board of Directors	Yes (Nomination Committee, Remuneration Committee, Governance Committee)		

#### Corporate governance system

(as of April 1, 2018)



#### ■ Number of meetings held in Fiscal 2017

Nomination Committee	2times (Attendance 100%)	Deliberation on election/dismissal agenda of candidates for executive officers, directors and auditors
Remuneration Committee	2times (Attendance 100%)	Deliberation on agenda for establishment of remuneration system for executive officers and directors (individual remuneration amount is entrusted to the president)
Governance Committee	3 times (Attendance 100%)	Deliberation on governance-related agenda below:  1. Stance on composition of the Board of Directors 2. Evaluation of the Board of Directors

#### Number of meetings of major organizational bodies held and attendance of outside directors and auditors

Number of Board of Directors meetings held	17
Number of Board of Corporate Auditors meetings held	15
Attendance of outside directors at Board of Directors meetings	97%
Attendance of outside auditors at Board of Directors meetings	100%
Attendance of outside auditors at Board of Corporate Auditors meetings	100%

#### Corporate Governance

#### Analysis and evaluation of the effectiveness of the Board of Directors

Since fiscal 2015, CTC has been conducting a survey of directors and corporate auditors to analyze and evaluate the effectiveness of the Board of Directors.

In order to elicit candid opinions, the survey is conducted in the format of anonymous self-assessments by all

respondents and the results of the assessments are submitted to the Governance Committee for deliberation.

Based on such analysis and evaluation, we intend to use this process to encourage the board to take a longer-term and more strategic perspective in discussions.

#### Main survey items in the evaluation of the Board of Directors

- Participation in management strategy decisions
- Monitoring of management strategy
- Appropriateness of the contents of the distributed materials and the number of proposals
- Matters concerning the operation of the Board of Directors such as the deliberation of proposals
- The number of directors, diversity and matters concerning the constitution of the Board of Directors based on consistency with the business strategy
- Monitoring of execution of duties by directors
- Status of deliberation at discretionary committees and matters concerning the constitution of each committee

#### Main opinions in the evaluation of the Board of Directors

- The operation of the Board of Directors and discussions thereby are appropriate in general
- The balance of outside and internal directors is appropriate in carrying out effective discussions
- It is recommended to deepen discussions on matters such as the formulation of management strategies from a medium- to long-term perspective
- Discretionary committees have established an environment where outside directors and auditors can express their opinions
- Matters discussed at the committees are appropriately reflected in the deliberation of proposals at the Board of Directors

Main comments by outside directors at the Board of Directors meetings

- Proposal of stock split
  - I want to confirm the impact of stock splits on shareholders and the expected reactions.
- Proposal of organization decisions for fiscal 2018
   I want to confirm how much productivity will be enhanced, regarding the proposal of transferring the supervisory departments of products that were controlled by the IT Service Group until fiscal 2017 to different business groups.
- Proposal on the execution of a capital increase at subsidiary ITOCHU Techno-Solutions America, Inc. by third-party allotment to ITOCHU Corporation
  - Regarding the sale of 30% of the subsidiary's shares to ITOCHU Corporation, I want to confirm the meaning of ITOCHU Corporation directly holding 30% of the subsidiary's shares, when it holds approximately 58% of the voting rights of the company.

#### Outside director and auditor nominations

Outside directors are nominated for their objectivity and specialized perspective on corporate management in an attempt to create the Board of Directors with the appropriate decision-making and management supervisory functions from a variety of perspectives. Outside auditors are nominated based on their wealth of knowledge and experience in their area of

specialization and ability to conduct audits with an objective perspective to ensure management health and transparency.

Of the four outside directors and auditors, three are independent and not affiliated with CTC, our parent company or any of our major suppliers, and have no inherent conflicts of interest with regular shareholders.

#### Follow-up system for outside directors

In order to ensure that directors and corporate auditors can fully perform their management supervision and auditing functions, CTC has set up an information sharing meeting for non-executive directors and a liaison meeting between corporate auditors and non-executive directors.

By sharing information in advance and exchanging opinions, we aim to enhance the discussions at the Board of Directors meetings while ensuring collaboration between corporate auditors and non-executive directors.

Furthermore, to facilitate outside directors in fulfilling their functions sufficiently, CTC has continuously provided opportunities suitable for outside directors since their appointment so that they can acquire the necessary knowledge of the CTC Group's business, finance and organization.

#### CTC's new initiatives related to governance (Fiscal 2015 – Fiscal 2018)

- 1 Establishment of Nomination Committee, Remuneration Committee and Governance Committee as advisory committees for the Board of Directors
- 2 Assessment of the Board of Directors
- 3 Establishment of liaison meeting between corporate auditors and non-executive directors
- 4 Establishment of information sharing meeting for nonexecutive directors
- Provision of opportunities for outside directors to take part in training (external seminars)
- 6 Introduction of performance-linked stock-based remuneration plan
- 7 Establishment of a study session for directors and auditors by outside lecturers (e.g., ESG, SDGs)

#### Director remuneration and calculation method

Directors' remuneration is paid according to the Director Remuneration System, which was established in consideration of the opinions from the Remuneration Committee mainly comprising of outside auditors and directors.

CTC decides monetary remuneration for directors of no more than 640 million yen per annum, monetary remuneration for corporate auditors of no more than 100 million yen per annum and stock-based remuneration for directors of no more than 180 million yen for the three subject fiscal years.

Remuneration comprises standard remuneration, which is fixed payments, bonuses, which are performance-linked

cash compensation, and performance-linked stock-based remuneration\* (paid upon retirement).

The amount of auditor remuneration is determined for each auditor based on a discussion among auditors.

Auditors and part-time directors, including outside directors are not paid performance-based bonuses.

Performance-linked stock-based remuneration plan: CTC introduced the plan for its directors and executive officers (excluding part-time directors, outside directors and domestic non-residents) in June 2017. The plan replaces part of the amount calculated by the formula of the previous "performance-linked bonus" with stock, and is aimed at raising awareness of contributing to the improvement of medium-to long-term operating results and corporate value by further clarifying the link between directors' remuneration and CTC's operating results and equity value, as well as by directors sharing not only the advantages of rises in the share price with shareholders but also the risk of drops in the share price.

#### Calculation method of performance-linked stock-based remuneration and performance-linked cash remuneration (bonus)

The total fund amount of performance-linked remuneration is calculated by multiplying the net profit attributable to CTC's shareholders of the published management plan by the predetermined ratio of the total fund amount of performance-linked remuneration, the target achievement rate for the relevant fiscal year and the year-on-year growth rate. The total amount of performance-linked bonuses and performance-linked stock-based remuneration of each director is calculated according to the individual performance evaluation based on the director evaluation system from the total fund amount of performance-linked evaluation. The performance-linked bonuses and performance-linked stock-based remuneration amounts are determined by multiplying the above by the proportional division ratio.

Performance-linked
Stock-based
remuneration

Performance-linked
Cash remuneration
(bonus)

Standard
remuneration
(Fixed payments)

Calculation method of standard remuneration (fixed payments)

Determined by using the predetermined standard remuneration table based on consideration of full and part-time work, responsibilities and individual evaluation

#### ■ Total remuneration, etc., of each director or auditor segment (Fiscal 2017)

Directors: 8 people (excluding outside directors)

Basic remuneration: 215 million yen Bonus: 123 million yen Auditors: 1 person (excluding outside auditors)

Basic remuneration: 25 million yen

Outside Directors and Auditors: 4 people

Basic remuneration: 54 million yen

#### Other special circumstances that may have a material impact on corporate governance

Parent company ITOCHU Corporation holds 58.26% of CTC's voting rights. With the aim of sharing management information and know-how, employees of the parent company (2 employees) serve as directors of CTC. However, their inde-

pendence has been retained by aiming to expand operating results while maintaining and enhancing independence and autonomy in business operation.

#### Internal control system

CTC has created an internal control system, comprising systems to ensure directors perform their duties in accordance with legal requirements and the Articles of Incorporation and systems to ensure business activities are conducted in an appropriate manner across the Group. The internal control system is continually improved through an ongoing review process designed to create a more adequate and efficient system.

#### Systems to Ensure Appropriate Financial Reporting

CTC is stepping up efforts to ensure appropriate financial reporting in accordance with the Group's accounting regulations, sales administration regulations, procurement administration regulations and other internal company rules. CTC also has a chief financial officer who is tasked with ensuring financial reporting complies with accounting standards and other relevant laws and regulations. In addition, the Internal Control Committee is responsible for establishing, regularly evaluating and improving internal systems to ensure appropriate financial reporting.

**P71-72** for details of CTC's risk management activities

#### Risk management

Recognizing risk management as an important management issue, the CTC Group manages risks in an integrated manner using a unified risk management system implemented by the Risk Management Committee.

CTC establishes various internal committees and supervisory departments, including the Risk Management Committee, to mitigate a wide range of risks pertaining to CSR and compliance, information security, disasters, foreign

currency and other markets, credit, investments and technologies. The CTC Group also manages risks through the establishment of the necessary risk management systems and methods, including various management regulations, business continuity planning, investment criteria, the establishment of credit limits and reporting and monitoring systems while conducting regular reviews with regard to the effectiveness of these management systems.

#### Ensure rigorous information security

For the CTC Group, appropriate handling and safe management of information are important social responsibilities.

The CTC Group developed "an information security & personal information protection management system" integrating information security management and personal information protection systems in compliance with ISO27001 (JIS Q 27001) and PrivacyMark (JIS Q 15001), which is responsible for:

- · Creating various regulations, standards and procedures
- Conducting education and awareness activities related to information security and personal information protection
- Acquiring a written oath from all directors and employees each year
- Conducting internal audits
- Conducting annual surveys of outsourcing contractors

At CTC we handle all the information entrusted to us by our clients as confidential information; carrying out handover checks and exercising strict access management.

Moving forward, we will continue to implement further security measures against new threats, with the safe and secure handling of information entrusted to us by our clients as our highest priority.

#### **Information Security Basic Policy**

By establishing the Information Security Basic Policy, the CTC Group has taken measures to handle information and practice security management properly.

All CTC officers and employees comply with this policy to ensure the appropriate handling, management, protection and maintenance of information.

- 1. Management and protection of information assets
- 2. Cyber security measures
- 3.Information Security and Personal Information Protection Management System
- 4. Information security training
- 5. Preventing and acting upon incidents impacting information security
- 6. Observation of laws and regulations

Obtained accreditation under Information Security Management System (ISMS) assessment scheme



#### Compliance

The CTC Group regards compliance as one of its most important management issues. The CTC Group requires all its employees to observe all applicable laws, regulations and internal rules related to its corporate activities and to conduct themselves with high ethical standards and a sense of responsibility. In this way, we aim to increase corporate value throughout the entire Group as a sound company to ensure we are trusted and held in high esteem by society.

To realize these objectives, we have formulated a code of conduct and various regulations that stipulate items related to compliance such as the Group's compliance structure. The regulations require the appointment of a Chief Compliance Officer, the establishment of a Compliance &

Information Security Committee, and the appointment of compliance general managers for each business group and subsidiary, and compliance managers for each department and team. We also conduct compliance training and provide an internal helpline for whistleblowers. In addition, we improve awareness about compliance among our employees by providing a booklet containing legal guidelines and examples of appropriate behavior.

The CTC Group conducts regular monitoring and reviews of these activities, enabling us to make continuous improvements. We also conduct Compliance Awareness Surveys of all our employees to identify and resolve any Issues.

#### (Dialogue with Shareholders and Investors)

#### Institutional investors and analysts

In addition to IR presentations for institutional investors and analysts held at the time of announcement of our operating results, we hold small meetings and individual meetings to provide opportunities for constructive dialogue with our top management. In fiscal 2017, we also held technical study sessions in the information technology field.

Number of meetings with institutional investors and analysts	201	
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(Number of top management meetings 47)

#### Major events

Number of IR presentations	4
Number of small meetings	2
Number of IR Days for domestic institutional investors IRDay	1
Technical study sessions	2
Number of overseas IR events	4
Number of conferences held by securities firms	2



Small meetings

#### **Individual investors**

CTC has been conducting IR activities targeting individual investors since fiscal 2015. In fiscal 2017, approximately 3,000 individual investors, roughly the same as in fiscal 2016, participated in our IR activities. We will continue to make efforts to communicate CTC's appeal.

Number of presentations for individual investors and participants

Fiscal 2016	•	Fiscal 2017
21 /approx. 3,000		16 / approx. 3,000



Presentations for individual investors

#### Major indices for which CTC has been included in the portfolio



#### **General Meeting of Shareholders**

Date of the General Meeting of Shareholders	Wednesday, June 20, 2018			
Number of shareholders attended	419 (Ratio of voting rights exercised: 89.2%)			

See the CTC's website for detailed IR information.

http://ctcir.ctc-g.co.jp/rose/en/index.htm

#### Risk Management

#### The objectives of Groupwide risk management

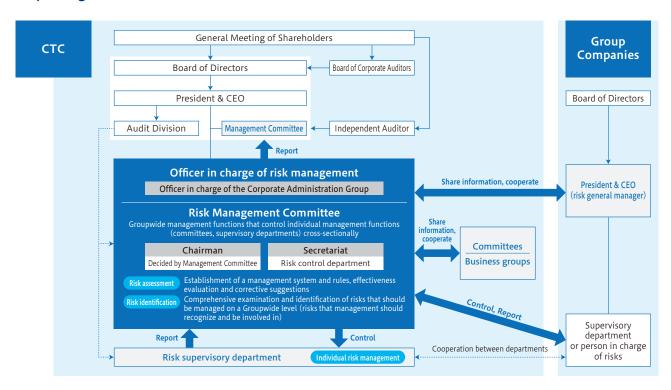
We will promote Groupwide risk management based on the following objectives to maximize corporate value.

- Establishment of a system to grasp and proactively manage Groupwide material risks
- Fulfillment of accountability on Groupwide material risks to securities markets and other stakeholders in a timely and appropriate manner
- Establishment of common recognition toward Groupwide material risks within the Group and conducting timely and appropriate response to risks which have materialized
- Timely and appropriate handling of crisis management

#### Basic policy on Groupwide risk management

- Manage Groupwide material risks in an integrated manner using a unified risk management system (risk identification, analysis and assessment, and formulation of mitigation measures) of the CTC Group
- Carry out activities to minimize and recover from damage caused by material events that significantly undermine corporate value as well as prior efforts assuming such events have occurred as crisis management activities
- Assess the effectiveness of the risk management system related to the above as well as the efficiency of the risk management
  activities on a timely basis and take appropriate corrective measures as needed

#### Corporate governance structure





#### Risks and Risk mitigation measures

	Risk	Summary of risk that could negatively impact earnings	•	Risk mitigation measures
	Risks Concerning Changes in the Business Environ- ment	<ul> <li>Risk of fluctuation in operating results due to changes in the business environment such as domestic and overseas economic conditions, information system investment trends among clients, and changes in various laws and regulations, tax systems and accounting standards</li> <li>Risk of intensification of price competition due to new entrants and competition with other companies</li> </ul>	•	<ul> <li>Search for advanced products and services; optimize organizational structure in order to provide high- value-added solutions</li> </ul>
	Information Security Risk	<ul> <li>Risk of leak, alteration or loss of information caused by a computer virus, unauthorized access or human error, leading to claims for damage or loss of confidence</li> </ul>	•	<ul> <li>Give highest priority to information management; established a specialized organization within the company to obtain various certifications, provide information security training and carry out security measures in our business infrastructure in an effort to reinforce information management systems</li> </ul>
	Compliance Risk	<ul> <li>Risk of a decline in the Group's social credibility or deterioration of the Group's earnings due to a serious breach of compliance or a violation of laws or regulations in conducting business</li> </ul>	<b>&gt;</b>	<ul> <li>Established a Group Code of Conduct and compliance programs; provide training and awareness-raising programs for executives and employees</li> </ul>
	Human Resourc- es Risk	<ul> <li>Risk of personnel departures or a decline in productivity due to failure to secure personnel with high technical skills and expertise as planned or a deterioration of the labor environment, affecting the Group's earnings and business continuity</li> </ul>	•	<ul> <li>Hire and develop high-quality personnel by respecting individuality and diversity and by fostering a liberal corporate culture where employees can exercise their creativity</li> <li>Focus on supporting work-life balance and developing an appropriate working environment by introducing various systems for work style reforms, such as a morning-focused working system and a work-at-home system, and promoting use of paid leave</li> </ul>
	Project Manage- ment Risk	<ul> <li>Risk of additional costs that exceed plans being required due to failure to secure the intended quality or to complete the project within the development time frame amid heightened complexity and sophistication as well as quicker delivery of development projects</li> </ul>	•	<ul> <li>The Project Management Division and the project management organization of each business work in collaboration to examine projects prior to starting and monitor the progress and profitability of the projects</li> </ul>
	System Failure Risk	<ul> <li>Risk of a serious system failure in the operation service business caused by disasters or operational errors, leading to a drop in confidence or payment of claims for damages from clients</li> </ul>	<b>&gt;</b>	Reinforce control activities in the provision of system operation services and monitor systems on a continuous basis
2	Investment Risk	<ul> <li>Risk of a drop in recoverability due to failure to achieve the expected results of investments such as in new business start-ups, investments in or acquisitions of companies in Japan and elsewhere, and data centers and cloud services, caused by changes in the market environment and deterioration of revenues</li> </ul>	•	<ul> <li>Fully examine the investment effects and risks beforehand as well as carry out management based on the investment criteria,</li> </ul>
	Exchange Rate Risk	<ul> <li>Risk of a drop in profitability due to failure to adjust prices of products and services procured from overseas markets when sudden fluctuations in exchange rates or a medium-term depreciation of the yen occurs</li> </ul>	<b>&gt;</b>	<ul> <li>Carry out transactions related to procurement using forward exchange contracts at the time of order or denominated in Japanese yen</li> </ul>
	Risk of Large- scale Disasters	<ul> <li>Risk of severe damage to facilities and infrastructure or injuries due to large-scale natural disasters such as earthquakes, terrorist attacks and infectious diseases such as the H1N1 influenza</li> </ul>	<b>&gt;</b>	<ul> <li>Reinforce systems for business continuity by developing business continuity plans, establishing safety confirmation systems and developing backup functions</li> </ul>

## Financial Highlights

\*CTC adopted international financial reporting standards (IFRS) from the first quarter of fiscal 2014. Figures for fiscal 2013 have been reclassified to reflect the new standards.

			JGAAP		
 Item	'08	'09	'10	'11	'12
Operating Results					
Net Sales	307.2	290.3	283.0	297.7	322.4
Cost of Sales	226.9	213.5	208.1	218.1	239.1
Gross Profit	80.2	76.8	74.8	79.6	83.2
(Gross Profit Margin)	26.1%	26.5%	26.5%	26.7%	25.8%
SG&A Expenses	58.5	55.2	53.5	54.8	56.0
Operating Income	21.6	21.5	21.3	24.7	27.1
(Operating Income Margin)	7.1%	7.4%	7.5%	8.3%	8.4%
EBITDA*1	26.2	27.5	28.0	32.3	33.2
Net Income	12.9	12.4	11.4	13.3	16.0
Orders Received	316.7	285.1	285.2	302.4	372.0
Backlog	134.9	129.6	131.8	136.6	186.2
(Backlog Turnover Ratio)*2	69.5%	69.1%	68.2%	68.5%	63.4%
Financial Position at End of Fiscal Year					
Total Assets	227.4	233.2	238.1	252.7	270.0
Total Equity	147.2	154.6	155.4	158.3	164.6
Cash Flows					
Cash Flows from Operating Activities	11.2	25.2	14.9	21.2	9.6
Cash Flows from Investing Activities	(13.8)	(1.3)	(6.9)	(2.7)	(10.3)
Cash Flows from Financing Activities	(11.1)	(7.2)	(13.4)	(8.9)	(11.1)
Cash and Cash Equivalents at End of Period	57.2	73.8	68.3	77.8	66.1
Capital Investment	21.4	4.5	8.8	6.2	10.0
Depreciation and Amortization	4.5	5.9	6.7	7.5	6.0
Financial Index/Indicator(%)					
ROE*3	8.8	8.3	7.4	8.5	9.9
ROA*4	5.8	5.4	4.9	5.4	6.1
Equity Ratio	64.7	66.3	65.3	62.7	61.0
Dividend Payout Ratio	40.2	43.7	49.9	43.8	39.1
Per Share Data(yen)*5					
Net Income	49	48	45	54	67
Net Assets	574	603	623	651	691
Dividend	20.00	21.25	22.50	23.75	26.25
Per Capita Data(¥ million) *6					
Net Sales	45	41	40	41	42
Operating Income	3.2	3.1	3.0	3.5	3.5

<sup>\*1</sup> EBITDA = Operating Income + Depreciation and Amortization

<sup>\*2</sup> Backlog Turnover Ratio = Net Sales / (Backlog of the previous fiscal year + Orders received of this fiscal year) x 100
\*3 ROE = Net Income / Average Total Shareholders' Equity

<sup>\*4</sup> ROA = Net Income / Average Total Assets x 100

<sup>\*5</sup> CTC conducted 2-for-1 stock splits as of April 1, 2015, 2018. For the past data, retroactive revisions were made accordingly.

<sup>\*6</sup> Figures are calculated on March 31.

(¥ billion)

_					(¥ billion
			IFRS		
Item	'13	'14	'15	'16	'17
Operating Results					
Revenue	350.5	381.9	391.6	407.8	429.6
Cost of Sales	(266.8)	(290.6)	(300.0)	(311.1)	(328.0)
Gross Profit	83.7	91.2	91.5	96.7	101.6
(Gross Profit Margin)	23.9%	23.9%	23.4%	23.7%	23.6%
Other Income and Expenses	(59.8)	(61.9)	(63.5)	(65.5)	(68.9)
Operating Income	23.8	29.3	27.9	31.1	32.6
(Operating Income Margin)	6.8%	7.7%	7.1%	7.6%	7.6%
EBITDA	31.3	37.5	36.3	39.5	41.4
Net Profit Attributable to CTC's Shareholders	14.2	17.4	18.0	21.8	23.5
Orders Received	369.1	388.0	398.3	437.5	435.2
Backlog	195.4	201.6	208.3	238.0	243.6
(Backlog Turnover Ratio)	63.1%	65.4%	65.3%	63.1%	63.8%
Financial Position at End of Fiscal Year					
Total Assets	282.6	302.7	307.9	333.1	353.8
Total Shareholders' Equity	162.9	168.8	179.2	192.1	206.5
Cash Flows					
Cash Flows from Operating Activities	6.4	25.8	21.8	25.2	11.0
Cash Flows from Investing Activities	(8.0)	(17.3)	(18.1)	(14.1)	(2.3)
Cash Flows from Financing Activities	(9.5)	(13.5)	(8.4)	(7.8)	(5.9)
Cash and Cash Equivalents at End of Period	55.0	50.1	44.8	48.2	51.0
Capital Investment	6.9	7.9	11.0	10.7	5.2
Depreciation and Amortization	7.5	8.2	8.4	8.4	8.8
Financial Index/Indicator(%)					
ROE* <sup>7</sup>	8.9	10.5	10.4	11.8	11.8
ROA*8	5.1	5.9	5.9	6.8	6.9
Ratio of Shareholders' Equity to Total Assets	57.7	55.8	58.2	57.7	58.4
Dividend Payout Ratio	45.8	40.3	45.0	42.3	44.1
Per Share Data(yen)					
Net Profit Attributable to CTC's Shareholders	60	74	77	94	102
Shareholders' Equity	692	730	775	831	894
Dividend	27.50	30.00	35.00	40.00	45.00
Per Capita Data(¥ million)			·		
Revenue	45	48	48	50	52
Operating Income	3.1	3.7	3.5	3.8	4.0

<sup>\*7</sup> ROE = Net Profit Attributable to CTC's Shareholders / Average total shareholders' equity (which is based on total shareholders' equity at the beginning and end of the year) x 100

<sup>\*8</sup> ROA = Net Profit Attributable to CTC's Shareholders / Average total assets (which is based on total assets at the beginning and end of the year) x 100

## Financial Analysis

### **Summary of Fiscal 2017 Results**

Revenue, all profit items and orders received were at the highest levels since the merger in 2006. Net profit attributable to CTC's shareholders was at a record high for the fourth consecutive year.

- Revenue increased in Products and Services in the distribution, telecommunication, financial and public sectors.
- Gross profit increased due to growth in revenue.
- In other income and expenses, there was an increase in SG&A expenses due to higher personnel costs, subcontracting fees and depreciation.

#### Revenue

### Revenue by business model

- Services saw increases in revenue for the installation/establishment of devices for distributors, maintenance for telecommunication companies, and system operation for public utilities.
- SI Development saw increases in revenue from system development for distributors and telecommunication companies and from infrastructure construction for public utilities and financial institutions.
- Products saw higher revenue from retail store equipment for distributors and from networks for public utilities.

#### Revenue by business group

- The Distribution & Enterprise business saw increases in revenue from products and system development for distributors.
- The Telecommunication business saw increases in revenue from system development and operation for telecommunication companies, as well as from infrastructure construction for Internet service providers.
- The Public & Regional business saw an increase in revenue from networks for public utilities.
- The Finance & Social Infrastructure business saw an increase in revenue from infrastructure construction for public utilities and financial institutions and from system operation for public utilities.

#### Highlights of Fiscal 2017 Consolidated Earnings

Highlights of Fiscal 2017 Consolidated Earnings					
'16	'17	YoY Change	Change		
407.8	429.6	+21.7	+5.3%		
96.7	101.6	+4.8	+5.1%		
23.7%	23.6%	(0.1p)	_		
(65.5)	(68.9)	(3.3)	+5.2%		
31.1	32.6	+1.4	+4.8%		
7.6%	7.6%	+0.0p	_		
21.8	23.5	+1.7	+7.9%		
437.5	435.2	(2.3)	(0.5%)		
238.0	243.6	+5.6	+2.4%		
	'16 407.8 96.7 23.7% (65.5) 31.1 7.6% 21.8	'16 '17  407.8 429.6  96.7 101.6  23.7% 23.6%  (65.5) (68.9)  31.1 32.6  7.6% 7.6%  21.8 23.5  437.5 435.2	'16 '17		

#### Revenue by Business Model

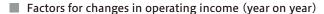
Revenue by busines	(¥ billion)		
Item	'16	'17	YoY Change
Services	164.9 (40.4%)	170.9 (39.8%)	+5.9
SI Development	87.1 (21.4%)	91.5 (21.3%)	+4.4
Products	155.7 (38.2%)	167.1 (38.9%)	+11.3
Consolidated	407.8	429.6	+21.7

Revenue by Busine	(¥ billion)		
Item	'16	'17	YoY Change
Distribution & Enterprise	112.5	130.6	+18.0
Telecommunication	147.8	149.8	+2.0
Public & Regional	38.0	39.4	+1.4
Finance & Social Infrastructure	50.5	55.1	+4.6
Other	58.9	54.5	(4.4)
Consolidated	407.8	429.6	+21.7

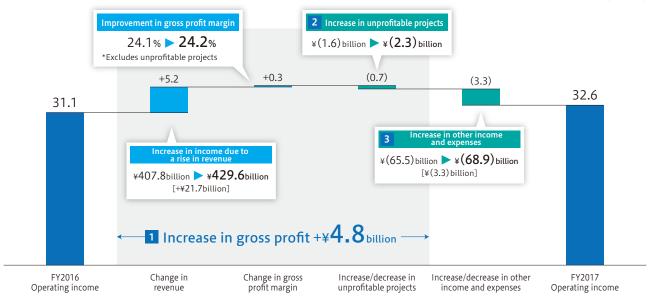
<sup>\*</sup>Figures in brackets represent revenue mix percentage.

### **Operating Income**

Operating income increased year on year, with the rise in gross profit due to higher revenue and improvement in the gross profit margin (excluding unprofitable projects) exceeding the increase in unprofitable projects and other income and expenses.







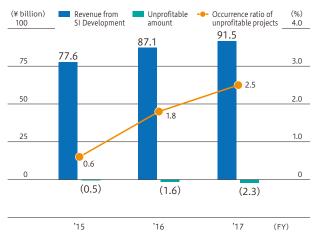
### 1 Gross profit

Growth in revenue lifted gross profit 5.2 billion yen year on year, while an improvement in the gross profit margin boosted gross profit by 0.3 billion yen. Excluding unprofitable projects, the gross profit margin was 24.2%, a 0.1 percentage point improvement year on year.

### 2 Unprofitable projects

Losses from unprofitable projects totaled 2.3 billion yen (a deterioration of 0.7 billion yen year on year). However, the percentage of losses from unprofitable projects to revenue in SI Development remained below the 2.5% target.

#### Revenue from SI Development and unprofitable amount



### 3 Other income and expenses

Personnel costs rose due to an increase in employee compensation amid growth in the number of employees and promotions, as well as an increase in performance-linked bonuses. In other expenses, subcontracting fees increased, mainly reflecting work on upgrading inhouse backbone systems.

#### Other income and expenses

	(¥ billion)		
Item	'16	'17	YoY Change
Personnel Costs	(37.8)	(39.7)	(1.8)
Contract Employee Acceptance Fees	(5.6)	(6.2)	(0.5)
Depreciation	(2.5)	(3.0)	(0.5)
Others	(19.4)	(20.0)	(0.5)
Total SG&A Expenses	(65.5)	(69.1)	(3.6)
Other Income	0.3	0.3	+0.0
Other Expenses	(0.4)	(0.1)	+0.2
Other Income and Expenses	(65.5)	(68.9)	(3.3)

## Financial Analysis

#### **Orders Received**

### Orders received by business model

- Services saw an increase in orders for system maintenance and operation from public utilities and financial institutions.
- SI Development saw a decline in system development orders from distributors.
- Products saw a drop in orders for retail store-related equipment from distributors and for networks from telecommunications.

### Orders received by business group

- In the Distribution & Enterprise business, orders for products and system development declined from distributors.
- In the Telecommunications business, infrastructure orders increased from telecommunication companies and Internet providers, but there was a drop in orders for networks from telecommunication companies.
- In the Public & Regional business, orders for networks declined from public utilities.
- In the Finance & Social Infrastructure business, there was an increase in orders for infrastructure construction from financial institutions.

#### ■ Orders Received by Business Model

(¥	bi	lli	10

Item	'16	'17	YoY Change
Services	176.4 (40.3%)	186.5 (42.9%)	+10.1
SI Development	93.3 (21.3%)	89.7 (20.6%)	(3.5)
Products	167.8 (38.4%)	158.9 (36.5%)	(8.8)
Consolidated	437.5	435.2	(2.3)

#### ■ Orders Received by Business Group

#### (¥ billion)

Item	'16	'17	YoY Change
Distribution & Enterprise	124.3	120.5	(3.8)
Telecommunication	158.5	156.7	(1.7)
Public & Regional	38.8	37.5	(1.3)
Finance & Social Infrastructure	51.7	60.6	+8.9
Other	64.0	59.7	(4.2)
Consolidated	437.5	435.2	(2.3)

#### Fiscal 2018 Plans

In the IT industry, the company assumes that robust IT investment in the distribution, manufacturing and telecommunications fields will continue. The company expects revenue to increase, supported by business expansion in those fields. In addition to a boost from higher revenue, we aim to increase profits by improving the gross profit margin through the implementation of measures to improve profitability.

As a result, for fiscal 2018 we forecast revenue of 450.0 billion yen, operating income of 35.0 billion yen and net profit attributable to CTC's shareholders of 24.0 billion yen.

#### Fiscal 2018 Consolidated Plans

(¥ billion)

'17 (Results)	'18 (Forecast)	YoY Change	Change
429.6	450.0	+20.3	+4.7%
101.6	108.0	+6.4	+6.3%
23.6%	24.0%	+0.4p	_
(68.9)	(73.0)	(4.0)	+5.8%
32.6	35.0	+2.3	+7.3%
7.6%	7.8%	+0.2p	_
23.5	24.0	+0.4	+1.8%
	(Results) 429.6 101.6 23.6% (68.9) 32.6 7.6%	(Results)     (Forecast)       429.6     450.0       101.6     108.0       23.6%     24.0%       (68.9)     (73.0)       32.6     35.0       7.6%     7.8%	(Results)         (Forecast)         Change           429.6         450.0         +20.3           101.6         108.0         +6.4           23.6%         24.0%         +0.4p           (68.9)         (73.0)         (4.0)           32.6         35.0         +2.3           7.6%         7.8%         +0.2p

<sup>\*</sup>Figures in brackets represent revenue mix percentage.

(¥ billion)

(2.3)

#### Statement of Consolidated Financial Position

Assets increased 20.7 billion yen compared with the previous year-end, mainly due to increases in cash and cash equivalents and trade and other receivables.

Liabilities rose 5.6 billion yen compared with the previous year-end, mainly due to increases in unearned revenue.

Equity increased 15.1 billion yen compared with the previous year-end due to an increase in net profit, despite a drop from dividend of surplus.

### ■ Statement of Consolidated Financial Position (¥ billion)

Item	March 2017	March 2018	YoY Change
Current Assets	250.1	272.7	+22.5
Non-Current Assets	82.9	81.0	(1.8)
Total Assets	333.1	353.8	+20.7
Current Liabilities	121.6	125.9	+4.3
Non-Current Liabilities	15.7	17.1	+1.3
Total Liabilities	137.4	143.0	+5.6
Total Equity	195.7	210.8	+15.1
Liabilities and Total Shareholders' Equity	333.1	353.8	+20.7

### **Consolidated Statement of Cash Flows**

Net cash provided by operating activities for FY2017 was 11.0 billion yen (a decrease of 14.1 billion yen year on year) after adjusting profit before tax for depreciation and amortization expenses, inventories and income taxes paid.

Net cash used in investing activities totaled 2.3 billion yen (a decrease of 11.8 billion yen year on year), mainly due to a decrease in cash used for purchases of property, plant and equipment.

Net cash used in financing activities totaled 5.9 billion yen (a decrease of 1.8 billion yen year on year) mainly due to payment of dividends.

As a result, cash and cash equivalents at the end of the fiscal year totaled 51.0 billion yen, an increase of 2.7 billion yen year on year.

### **Summary of Capital Expenditures**

Capital expenditures for fiscal 2017 totaled 5.2 billion yen.

Investments were mainly for cloud services, improvements to existing data centers and upgrades to in-house information systems.

### ROE

ROE was 11.8%, unchanged year on year.

### ■ Consolidated Statement of Cash Flows

Item	'16	'17	YoY Change
Cash and Cash Equivalents at Beginning of Period	44.8	48.2	+3.3
Cash Flows from Operating Activities	25.2	11.0	(14.1)
Cash Flows from Investing Activities	(14.1)	(2.3)	+11.8
Cash Flows from Financing Activities	(7.8)	(5.9)	+1.8
Cash and Cash Equivalents at End of Period	48.2	51.0	+2.7

### ■ Capital Expenditures and Depreciation Amount (¥ billion)

11.0

8.7

Item	'15	'16	'17
Capital Expenditures	11.0	10.7	5.2
Depreciation Amount	8.4	8.4	8.8

#### ROE

Free Cash Flows

Item	'15	'16	'17
ROE	10.4%	11.8%	11.8%

# Non-financial Highlights

#### **Human Resources-related Data**

\* Data calculation reference dates: Data calculated on March 31 of each fiscal year. But disabled employee figures calculated on June 1 of each fiscal year.

#### Consolidated

lt	em	Unit	'14	'15	'16	'17
	Men	People	6,687	6,817	6,878	6,916
Employees	Women	People	1,170	1,176	1,222	1,255
	Total	People	7,857	7,993	8,100	8,171
■ Non-consolidated	i					
II	rem	Unit	'14	'15	'16	'17
	Men	People	3,307	3,326	3,345	3,478
Employees	Women	People	588	592	613	639
	Total	People	3,895	3,918	3,958	4,117
Average vears worked		Year	12.2	12.7	13.2	13.5
Average years worked	(Female employees)	Year	12.0	12.7	13.0	12.8
Turnover*1		People	97	108	115	123
rumover	(Female employees)	People	19	20	18	20
Female managers*2	Number	People	45	48	49	48
remate managers -	Percentage	%	4.0	4.4	4.5	4.2
Percentage of disable	ed employees	%	2.20	2.15	2.23	2.20
Annual average num	ber of holidays taken	Day	12.3	13.0	13.5	13.9
Childcare leave system user	5	People	64	67	82	87
(More than 5 days)	(Male employees)	People	4	2	17	21
Rate of return from c	hildcare leave	%	98	100	99	99
Reduced working ho	urs system users	People	73	78	98	97
Nursing care holiday system users		People	109	137	165	202
Nursing care leave system users		People	2	1	2	1
Time off for caregivers system users		People	12	19	34	34
Number of training participants (employees)		People	149,612	111,553	115,451	111,260
Average hours of training per person		Hour	approx. 60	approx. 52	approx. 49	approx. 49

<sup>\*1</sup> Turnover is for employees originally hired by CTC.

### **Environmental Data from CTC Group Offices and Data Centers**

It	em	Unit	'14	'15	'16	'17
Offices	Energy Used	kL	3,567	3,383	3,293	3,701
	Greenhouse gas	t-CO2	7,138	6,706	6,437	7,044
	Specific energy consumption*1		34.66	24.25	23.06	24.92
Data Centers	Energy used	kL	29,362	29,980	29,625	27,921
	Greenhouse gas	t-CO2	61,530	60,880	59,210	54,529
	Specific energy consumption*2		1.803	1.772	1.702	1.695
Major Overseas Offices	Greenhouse gas*3	t-CO2	_	695.4	722.8	397.9

<sup>\*2</sup> Leading position means managers and specialists (certified professionals till FY2014).

<sup>\*3</sup> CO2 emission volume when electricity is used in major overseas offices is calculated based on the 2012 figures on the grid emission factors by country which is officially announced by IGES (Institute of Global Environmental Strategies).

### Glossary

#### Agile development

A rapid, incremental approach to software development based on close onsite collaboration with clients, early development of prototypes and feedback from clients and the market.

#### **Open Innovation**

An innovation methodology for creating innovative products and business models by combining technologies and ideas of not only one company, but also from outside that company

#### Virtualization technology

Technology that integrates or divides resources in servers and other hardware without any physical change in the hardware. The technology can create multiple virtual servers in a single physical server or create a single virtual hard disk from multiple disks.

#### Cloud native

A system or application specifically designed to be used in cloud environments.

#### **Smart grids**

Next-generation power grids that efficiently manage the flow of electricity by controlling both supply and demand.

#### DX (Digital Transformation)

Defined in 2004 by Professor Erik Stolterman of Umeå University in Sweden as "the change associated with the application of digital technology in all aspects of human society." DX describes how companies can harness new digital technologies to develop new business models and create value.

#### Hackathon / Ideathon

The words "hackathon" and "ideathon" are portmanteau of the words "hack" (adapting or improving computer programs), "idea" and "marathon." At hackathons, computer engineers and other participants compete intensively in a fixed timeframe to develop programs or services with new capabilities or outcomes. At ideathons, teams discuss new ideas and collaborate on problem-solving.

#### Big data

A term for vast data sets that are too large to store, manage or analyze using traditional database management systems and processing applications. The ability to analyze big data is expected to yield new business insights and lead to the development of new services.

#### Block chain

A new type of FinTech (see below) used to record transactions in virtual currencies such as Bitcoin. By dispersing data on computers distributed worldwide without centralized control, block chains enable the creation of robust networks that are resilient to tampering and destruction.

### Low-code / no-code development

A type of programming platform that requires minimal or no coding work. Low-code and no-code platforms have the potential to shorten application development times.

#### AI-OCR (AI-Optical Character Recognition)

The use of AI to increase the accuracy of OCR systems, which read handwritten text, forms and documents, by utilizing deep learning to improve recognition of text with different fonts and image quality.

#### BA (Business Analytics)

The use of data mining and other approaches to develop projections based on the analysis of historical business intelligence (BI: aggregation, analysis and processing of large amounts of data from corporate IT systems, which is used to inform business and management decisions).

#### **BPO (Business Process Outsourcing)**

A type of outsourcing where companies contract out business administration, human resources, accounting and other business functions to specialist companies. In contrast to traditional outsourcing, BPO companies typically provide one-stop support covering areas from the redesign of business processes through to operation.

#### CASB (Cloud Access Security Broker)

Proposed by US consulting firm Gartner in 2012, CASBs are cloud-based security points that consolidate multiple types of security policy enforcement for cloud services accessed by companies, such as authentication, single sign-on, access control, data encryption, logging and malware detection/prevention.

#### **DevOps**

A software development process for flexibly and rapidly developing software in line with customer needs. By unifying software development (Dev) and software operation (Ops), the goal is to quickly and reliably deliver value to end-users through frequent, small-scale software releases.

#### **ERP (Enterprise Resource Planning)**

An integrated approach to managing and allocating business resources (personnel, funds, facilities, information, etc.) to improve operational efficiency and optimize management. ERP also refers to integrated software applications that help companies achieve those objectives.

#### FinTech

A portmanteau of the words "finance" and "technology," FinTech refers to new IT tools in the financial sector. Common examples include online settlement technology and cloudbased household budget services. FinTech has attracted growing attention in recent years amid growth in the number of relatively small companies providing new services.

#### IoT (Internet of Things)

The embedding of various physical devices, not just computers, with Internet connectivity, creating networks that enable automated verification, control and remote measurement.

### Managed security service (MSS)

A security service that monitors firewalls and other security systems in real-time 24/7 all year round, gathering data to analyze and defend against threats.

### NFV (Network Functions Virtualization)

Virtualization technology that replicates network functions on standard servers. Currently, network functions are typically integrated with specialized servers, but NFV has the potential to virtualize network functions on standard servers without the need for specialized hardware.

#### **OpenStack**

A software platform for cloud computing. OpenStack is open-source software available to anyone for any purpose.

### **OSS (Open Source Software)**

Software that is available for free and allows anyone to make improvements or add functions and redistribute.

#### OT (Operational Technology)

Technology or know-how to control the monitoring and operation of devices in social infrastructure systems and industrial systems.

#### RegTech

IT that helps companies comply with various regulations enforced by the Bank for International Settlements (BIS), Financial Services Agency and other regulatory bodies in Japan and overseas.

#### **RPA (Robotic Process Automation)**

Initiatives that use cognitive technology including rule engines, AI and machine learning to carry out, on humans' behalf, work that was traditionally done by humans.

### **Directors**

Satoshi Kikuchi	President & CEO
Toru Matsushima	Director & Executive Vice President Assistant to the President & CAO In charge of Corporate Administration Group / Global Business Development CFO & CCO
Masaaki Matsuzawa	Director & Executive Vice President In charge of Distribution & Enterprise Group / Telecommunication Group / Regional & Social Infrastructure Group / Finance Group COO, Distribution & Enterprise Group
Tadataka Okubo	Director & Senior Managing Executive Officer In charge of Advanced IT Strategy Group / IT Services Group COO, Advanced IT Strategy Group CTO & CIO
Takahiro Susaki	Director & Managing Executive Officer Assistant to the President (Special appointment to strengthen the Maintenance Business) President & CEO of CTC TECHNOLOGY Corporation
Makiko Nakamori	Director* <sup>1</sup>
Toshio Obi	Director*1
Kiyoshi Imagawa	Director
Tadayoshi Yamaguchi	Director

### **Auditors**

Shintaro Ishimaru	Auditor* <sup>2</sup>
Hiroshi Takada	Corporate Auditor
Toshiaki Tada	Auditor* <sup>2</sup>

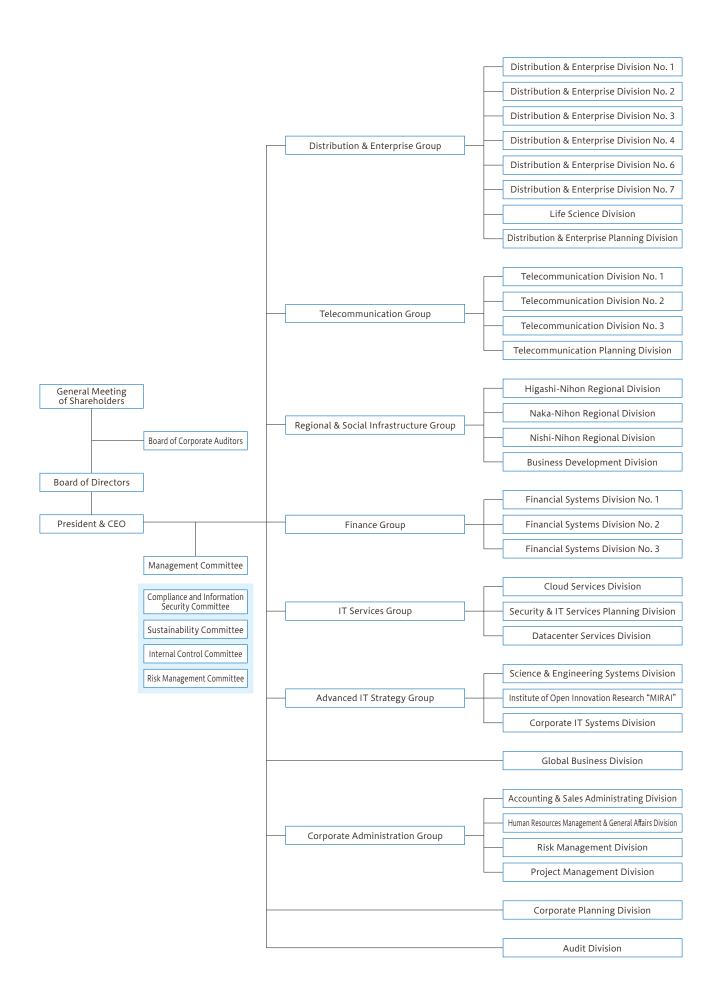
- \*1 Outside director as defined in Article 2, Item 15 of the Companies Act
  \*2 Outside auditor as defined in Article 2, Item 16 of the Companies Act

Outside directors Makiko Nakamori and Toshio Obi, and outside auditor Toshiaki Tada are independent from CTC, our parent company and major suppliers. As independent officers, they have no inherent conflicts of interest with regular shareholders.

CFO (Chief Financial Officer) CCO (Chief Compliance Officer) CTO (Chief Technology Officer) CIO (Chief Information Officer)

### **Executive Officers**

Eiji Haraguchi	Managing Executive Officer COO, Finance Group
Yasuhiko Terada	Managing Executive Officer COO, Telecommunication Group
Hisashi Eda	Managing Executive Officer COO, Regional & Social Infrastructure Group
Toshiyuki Awai	Managing Executive Officer COO, IT Services Group
Takanori Minatohara	Managing Executive Officer Deputy COO, Distribution & Enterprise Group General Manager, Distribution & Enterprise Division No. 2
Noboru Omoto	Managing Executive Officer Deputy COO, Distribution & Enterprise Group General Manager, Distribution & Enterprise Division No. 3
Minoru Nishiyama	Managing Executive Officer Deputy CAO & Deputy CFO General Manager, Accounting & Sales Administrating Division
Tomohito Arai	Managing Executive Officer COO, Global Business Development & General Manager, Global Business Division
Kazunobu Moriyama	Managing Executive Officer General Manager, Chubu Region Deputy COO, Regional & Social Infrastructure Group General Manager, Naka-Nihon Regional Division Assistant to COO, Distribution & Enterprise Group
Yasuhide Masanishi	Executive Officer President & CEO, Asahi Business Solutions Corp. (Assistant to COO, Distribution & Enterprise Group)
Shinichi Nakano	Executive Officer General Manager, Audit Division
Hirohito Ohashi	Executive Officer General Manager, Telecommunication Division No. 2
Yasushi Morimoto	Executive Officer General Manager, Risk Management Division
Nagaki Fujioka	Executive Officer General Manager, Cloud Service Division
Seiji Nagamatsu	Executive Officer General Manager, Corporate IT System Division
Hiroshi Torigoe	Executive Officer General Manager, Nishi-Nihon Region General Manager, Nishi-Nihon Regional Division
Tatsuya Matsumaru	Executive Officer General Manager, Financial Systems Division No. 2
Tadaaki Otsuka	Executive Officer President & CEO, ITOCHU Techno-Solutions America, Inc.
Junji Hirooka	Executive Officer General Manager, Corporate Planning Division Assistant to COO, Advanced IT Strategy Group
Yoshinori Yoshida	Executive Officer General Manager, Financial Systems Division No. 1
Shinichi Hirayama	Executive Officer General Manager, Human Resources Management & General Affairs Division
Hisashi Sawanobori	Executive Officer General Manager, Institute of Open Innovation Research "MIRAI"
Katsuya Kami	Executive Officer General Manager, Telecommunication Division No. 3



Company Name ITOCHU Techno-Solutions Corporation (CTC)

Head Office Kasumigaseki Bldg., 3-2-5, Kasumigaseki,

Chiyoda-ku, Tokyo 100-6080, Japan Phone: + 81-3-6203-5000 URL: http://www.ctc-g.co.jp/en/

Established April 1, 1972

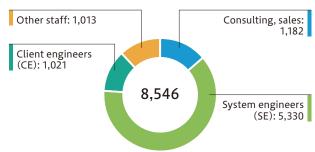
Paid-in Capital ¥21,763 million

Business Lines Sales, maintenance and support of computers and net-

work systems; commissioned software development; information processing services; information services related to science and engineering; support; other.

Employees 8,546 (CTC Group total)

### **Composition of CTC Employees**



### **CTC Group Companies**

Subsidiaries

Company	Paid-in Capital	Main Business Activities
CTC TECHNOLOGY Corporation	¥450 million	System maintenance and support
CTC System Management Corporation	¥300 million	Maintenance and system management services, support services for systems and networks, system construction services, IT-related training
CTCSP Corporation	¥200 million	Sales of network and security-related equipment, storage devices and packaged software, and provision of related services
CTC Facilities Corporation	¥100 million	Building facility operations management activities for computer centers (Yokohama, Kobe, Otemachi, Shibuya, Mejirozaka)
CTC Business Service Corporation	¥100 million	Various business functions (human resources, administration) entrusted by CTC Group companies, as well as planning, producing and maintaining web content, and planning and producing advertising materials
CTC Business Expert Corporation	¥100 million	Various business functions (finance, accounting, sales operation, merchandise management) entrusted by CTC Group companies
Asahi Business Solutions Corp.	¥110 million	Overall system development, maintenance, operation and IT consulting
HINARI Corporation	¥30 million	Massage and cleaning services for Group companies, light agricultural work and contracting
CTC Global (Thailand) Ltd.	THB 165,000,000	Sales of network products and solutions
CTC Global Sdn. Bhd.	RM 62,118,000	Reselling hardware and software products and providing maintenance service
CTC Global Pte. Ltd.	\$\$2,000,000	Reselling hardware and software products and providing maintenance service
ITOCHU Techno-Solutions America, Inc.	\$5,360,000	Maintenance and support of computers and network systems, exporting of IT products, research into state-of-the-art technology and market trends
PT CTC Techno Solutions Indonesia	IDR 10,001,000,000	IT consulting service

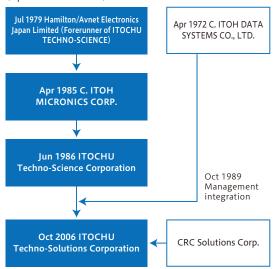
Associated Companies

Company	Paid-in Capital	Main Business Activities
ITOCHU Technology Ventures, Inc.	¥100 million	Operation of investment funds of venture companies
CTC First Contact Corporation	¥50 million	Contact center operations, helpdesk services, IT training, planning and implementation of IT training

Three other companies (one in Japan, two overseas)

### **Company History**

(Apr 1972 - Oct 2006)



Oct 2006 Management integration

#### Company History (Oct 2006 - April 2018)

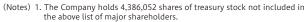
Oct 2006	ITOCHU Techno-Science Corporation and CRC Solutions Corp. merged to form
OCI 2006	ITOCHU Techno-Solutions Corporation.
Jan 2007	• Established the Osaki Development Center in Osaki, Shinagawa-ku, Tokyo
Jul 2008 Oct	<ul> <li>Established CTC System Operations Corporation as a consolidated subsidiary</li> <li>Established the Mejirozaka Data Center in Bunkyo-ku, Tokyo</li> </ul>
Apr 2010	<ul> <li>Established a company for employment promotion of handicapped persons, HINARI Corporation</li> </ul>
Apr 2011	<ul> <li>Changed company names of CRC Systems Corp. and CRC Facilities Corp. to CTC System Service Corporation and CTC Facilities Corporation, respectively</li> <li>Established the Singapore Branch</li> </ul>
Apr 2012	• Established ITOCHU Techno-Solutions America, Inc., first subsidiary in North Americ
Mar 2013	<ul> <li>CSC ESI Sdn. Bhd. in Malaysia and CSC Automated Pte. Ltd. In Singapore converted to subsidiaries through share acquisitions.</li> </ul>
May 2013	<ul> <li>Changed company names of CSC ESI Sdn. Bhd. and CSC Automated Pte. Ltd. to CTC Global Sdn. Bhd. and CTC Global Pte. Ltd., respectively.</li> </ul>
Apr 2014	<ul> <li>The former CTC System Operations Corporation and CTC System Service Corporation were merged and the company name was changed to the CTC System Management Corporation.</li> <li>The company name of CTC Laboratory Systems Corporation was changed to</li> </ul>
	CTC Life Science Corporation.
May 2015	<ul> <li>The company name of First Contact Corporation was changed to CTC First Contact Corporation.</li> </ul>
Feb 2017	<ul> <li>Established CTC Techno Solutions Indonesia as a subsidiary of CTC Global Sdr Bhd. in Indonesia</li> </ul>
Apr	<ul> <li>Conducted an absorption-type merger with CTC Life Science Corporation</li> </ul>
Jul	<ul> <li>CTC First Contact Corporation merged with BELLSYSTEM24 Holdings, Inc.</li> </ul>
Nov	<ul> <li>Established CTC Business Expert Corporation (CTCBE)</li> </ul>
	<ul> <li>All shares in Netband Consulting Co., Ltd. acquired, making it a consolidated subsidiar</li> </ul>

Jan 2018 • Netband Consulting Co., Ltd. company name changed to CTC Global (Thailand) Ltd.

Authorized ·····	246,000,000 shares
Issued ·····	120,000,000 shares
Shareholders	13.413

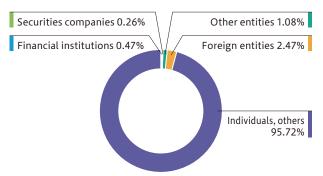
### **Major Shareholders**

	Number of Shares	(%)
ITOCHU Corporation	67,330,800	56.11
Japan Trustee Services Bank, Ltd. (Trust Account)	4,096,900	3.41
The Master Trust Bank of Japan, Ltd. (Trust Account)	2,607,800	2.17
CTC Employee Shareholding Association	2,256,936	1.88
BBH for Matthews Japan Fund	1,742,200	1.45
Government of Norway	1,217,764	1.01
Trust & Custody Services Bank, Ltd. As trustee for Mizuho Bank, Ltd. Retirement Benefit Trust Account re-entrust- ed by Mizuho Trust and Banking Co., Ltd.	885,360	0.74
Japan Trustee Services Bank, Ltd. (Trust Account 5)	854,200	0.71
Deutsche Bank AG London 610	771,778	0.64
Japan Trustee Services Bank, Ltd. (Trust Account 9)	756,600	0.63

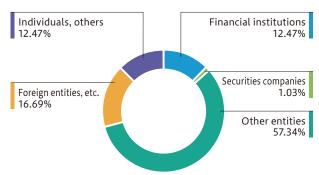


<sup>2.</sup> The Company conducted a 2-for-1 stock split on April 1, 2018. Number of shares shown above is prior to the stock split.

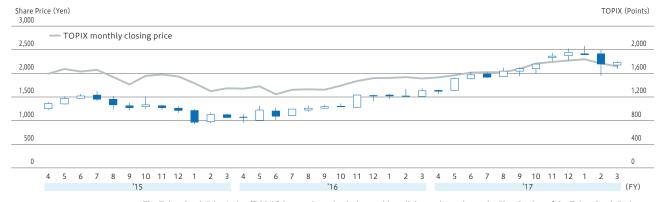
### **Breakdown by Number of Owners**



### **Ownership by Percentage Shareholding**



### **Stock Price Trend**



\*The Tokyo Stock Price Index (TOPIX) is a stock market index tracking all domestic stocks on the First Section of the Tokyo Stock Exchange.
\*CTC implemented 2-for-1 stock splits effective April 1, 2015 and April 2018. For the past data, retroactive revisions were made assuming the mentioned splits were conducted.

### **Trading Volume Trend**

