

Industrial ICT Solutions Company Business Strategy

Hironobu Nishikori

Company President and CEO
Industrial ICT Solutions Company
Representative Executive Officer
Corporate Senior Vice President
Toshiba Corporation

July 6, 2016

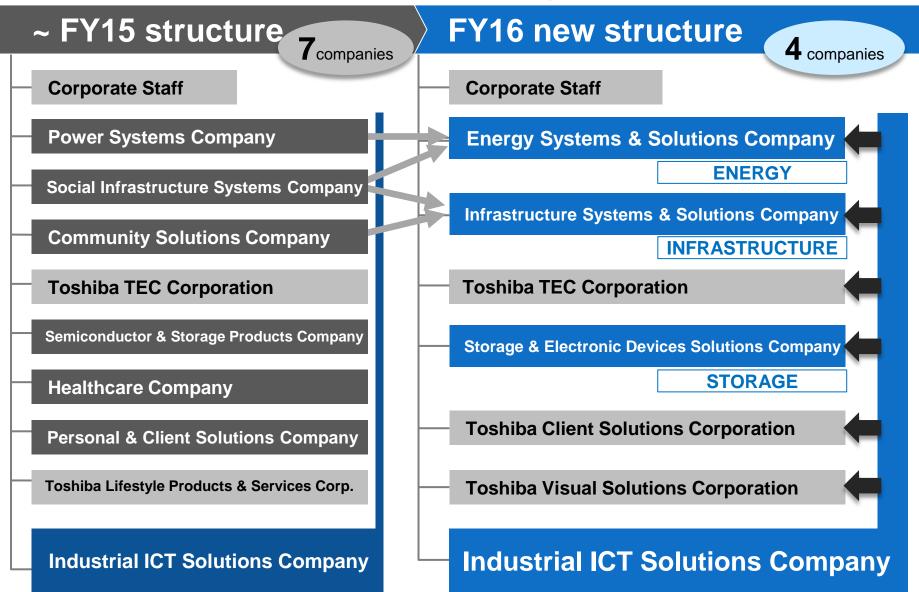
> I. Company Overview

II. Our Advantages and Strategy in IoT Business (ONE TOSHIBA, Chip to Cloud, RECAIUS)

TOSHIBA's Endeavors toward a Connected Society

TOSHIBA Group Restructuring

as of 30 June, 2016



Mission and Position in TOSHIBA Group

Lead Toshiba Group to Shift into IoT Service Business and Drive Sustainable Growth



Customers



Industrial ICT Solutions Business

Industrial ICT Solutions Company

Employees 13,000 Global 11.500 Japan **Overseas** 1,500

Energy Business Domain

Energy Systems & Solutions Company

Infrastructure **Business** Domain

Infrastructure Systems & Solutions Company

Group Companies

-Toshiba Elevator and Building Systems -Toshiba Lighting &

Technology. Toshiba Čarrier

Storage Business **Domain**

Storage & Electronic **Devices Solutions** Company

as of 30 June. 2016

Group Companies

- -Toshiba TEC -Toshiba Client Solutions
- -Toshiba Visual Solutions

Toshiba Solutions

System Integration Service

Information Systems Division

Information System Service Provider for Toshiba Group

IoT Technology Laboratory

Advanced IoT Research and Development

Consolidation of Toshiba Group ICT Resources

Business Domain

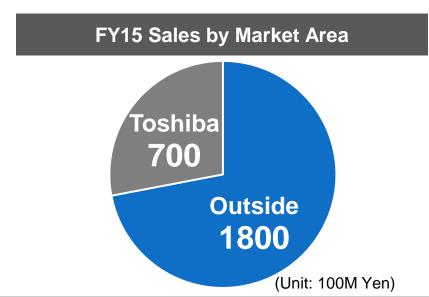
Shift from Traditional System Integration Business into Service Business by Co-Creating New Models with Customers

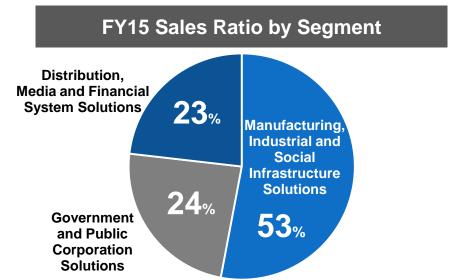
System Integration

ICT Services and Solutions

ICT Services for TOSHIBA Group

Shift to Lifecycle Management Model Build Service Biz Model with Toshiba Group Synergy to Serve Outside Customers





Sales and Profits Plan

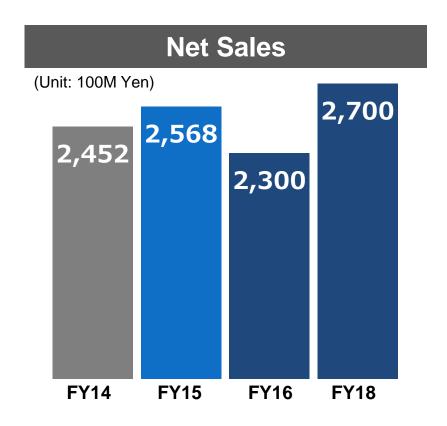
FY16: Net sales decrease due to lower internal business

reflecting the impact of TOSHIBA's restructuring

FY18: Service business growth leveraging Toshiba's

ICT strength and customer relations

	FY15 Actuals	FY16 Forecast	FY18 Plan
Net Sales	2,568	2,300	2,700
Operating Income (Loss)	87	170	120
ROS	3.4%	7.3%	4.4%
Free Cash Flow	120	170	70



100M Yen



I. Company Overview

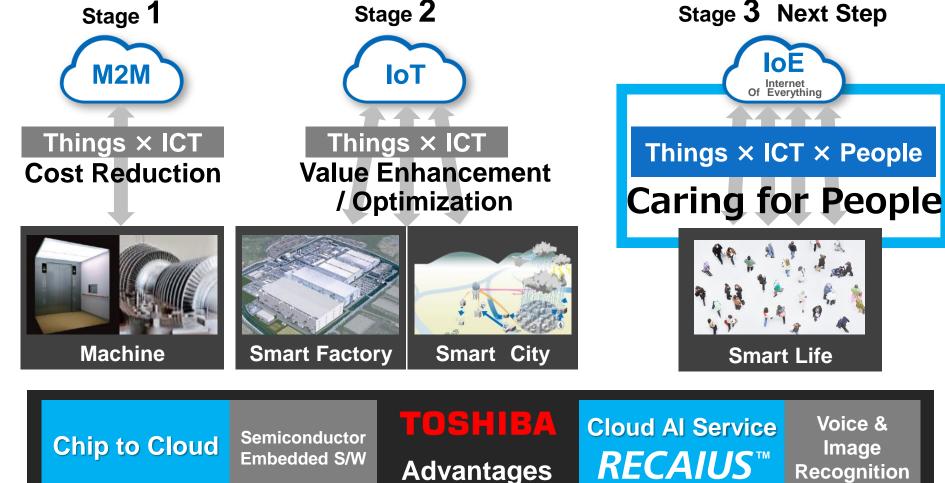
I.Our Advantages and Strategy in IoT Business (ONE TOSHIBA, Chip to Cloud, RECAIUS)

III. TOSHIBA's Endeavorstoward a Connected Society



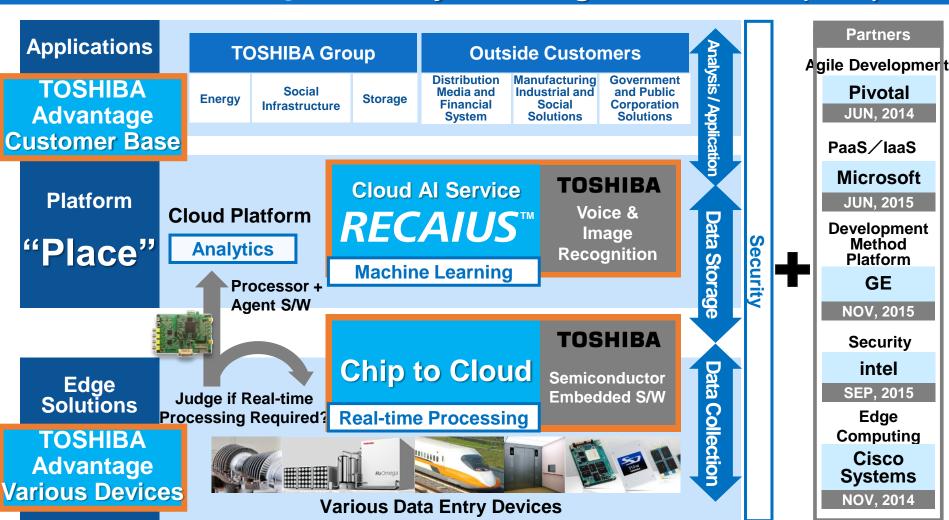
IoT Stages & TOSHIBA's Goal

M2M/IoT/IoE and moving forward



TOSHIBA's IoT Architecture

TOSHIBA IoT Platform is up and running. "Hardware Selling" ⇒ Life Cycle Management Service (LCM)



RECAIUS: Voice / Image Recognition Service via Cloud

Core Competence Supported by Proven Technologies and Achievement

 $1960 \sim$

1990~

2000~

2015~

Further Expansion

Integrated **Cloud AI Service**

Voice + Image + Al



Under Business Negotiations with 150+ Customers

Example Scenarios

Translation Service at Business Conference



Auto Answering System (Service) for Call Center



Interpretation Service for **Non Japanese Tourists**



Memo Taking Service & Realtime Support for Maintenance Staff



Communication **Robot**



Multi-lingual Signage & **User Engagement** Measurement



TV Program Search by **Voice**





Walking posture





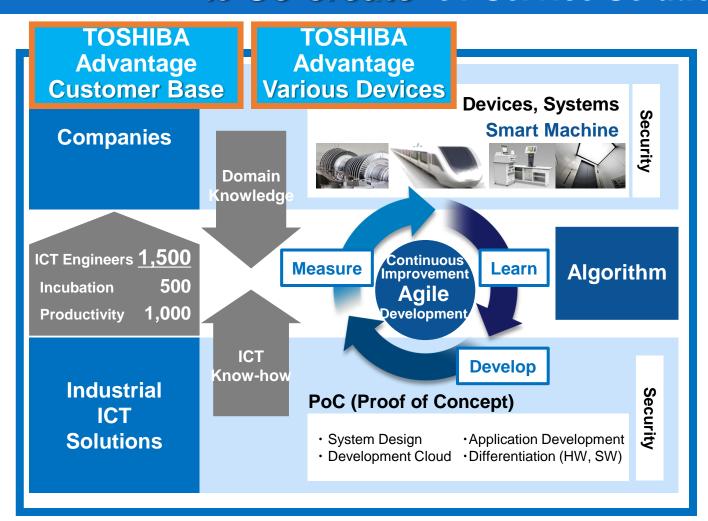
Home IoT analysis

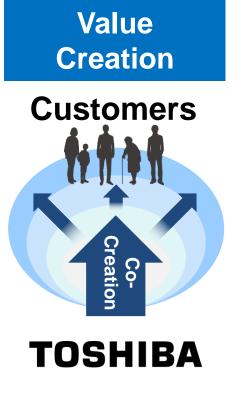
Multi-language video conferencina



One TOSHIBA

Industrial ICT Solutions Company and other Companies to Co-create IoT Service Solutions





I. Company Overview

- II. Our Advantages and Strategy in IoT Business (ONE TOSHIBA, Chip to Cloud, RECAIUS)
- **▶ II. TOSHIBA's Endeavors** toward a Connected Society



TOSHIBA IoT: Achievements and Example Scenarios

Energy



- Wheeling Calculation of Consumption and Charge
- Remote Monitoring of Solar Power Generation

Manufacturing



- Monitoring Industrial Equipment
- Improvement of Yield Rate and Productivity of Factory

Traffic



- Transportation Program of Railway
- Remote Monitoring of Train Operation

Logistics



 Monitoring and Analysis of Distribution Truckloads

Communities



 Integrated Management of Houses, Buildings and Factory Facilities in a community

Buildings



- Preventive Maintenance of Elevators
- Energy Saving of Air Conditioning and Lighting
- Control of Power Demand

Health



- Controlling the Amount of Activity
- Positive Healthcare

Home

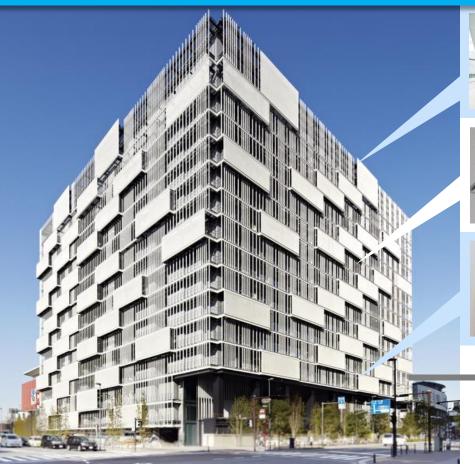


 Measuring Usage of Power, Water and Gas

TOSHIBA Smart Community Center in Kawasaki

Realizing Energy Saving and Comfortable Office Environment Reduce CO2 Emission by 54%

Accumulating Data via 35,000 Sensors since Nov., 2013









Lighting Control by Image Composition Sensors

Energy-Saving Ratio

13%



Control Elevator to Prioritize Crowded Floor by Image Sensor

Shortened Waiting Time 20%



Community EMS

Visualize Energy Use at Communities Visualize Energy at Buildings, **Energy Services**

Smart Factory [Connected Factory]

Big Data Analysis at TOSHIBA Semiconductor Factory **Best Operation Selected from Trillions of Options**

Best Combination of Manufacturing Equipment

> **Improve Equipment Availability**

Quality Improvement

Control Center

Eliminate "Congestion" of Production Line

Increase Conveyance Efficiency

1.6Billion/Day **Daily Data Collection**

Data Utilization

Data Utilization

Real-Time Data Analysis

Semiconductor Manufacturing Equipment

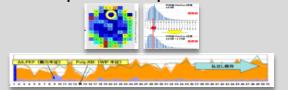
50kinds/20Kprocesses

Various Products/All of Processes

200kinds/4Kequipment Controlled Manufacturing Equipment Big Data

Analytics Al · Deep Learning

Improve Yield Rate Maximize Production Efficiency **Optimize Operation**



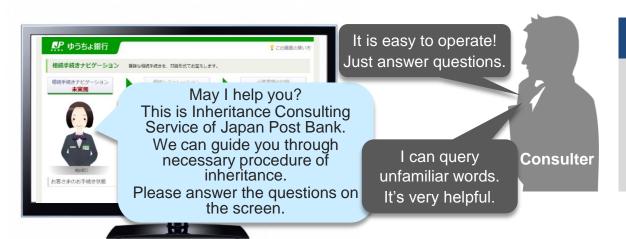
Automatic Conveyance System



0 Employee **Carrying Wafers**

Online Inheritance Consulting Service

Understanding "5W1H" with Accumulated Know-how Automatic Conversation System



Japan Post Bank

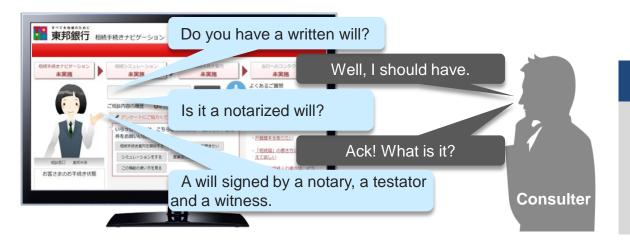
- Easy-to-follow Navigation (Q&A) Based on Know-how on Inheritance Consulting
- Courteous Responses to Questions by Voice Synthesis

Cloud Al Service RECAIUS ™

Toho Bank

Intelligent Conversation System

A Computer Becomes a
Consultant with Bank's Know
-how on Inheritance Consulting
and the Technology of Voice
Recognition and Synthesis





Ultrafast Matching Technology on Big Data

50 times faster than before by Ultrafast Data Processing Locating a specific person from 10M facial image data in 8.31 mil sec

- TOSHIBA Original Comparison -

Toshiba's Unique Ultrafast Vector Matching Technology* to Realize High-Speed Matching Process **Patent-Pending**

Example

- Search for a Specific Person with Surveillance Image
- Detect Failure/Trouble Patterns and Predict errors
- Besides Image Match, Voice Match and Text Data Match Are Possible

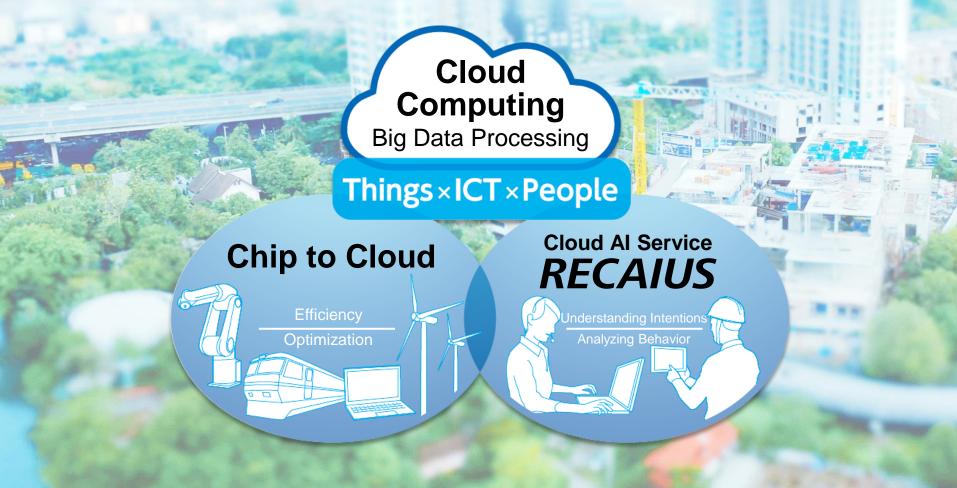


Applicable in various areas, including "Big Data Analytics" and "Al Accuracy Improvement" through deep learning

Connecting Things and People TOSHIBA "Caring for People, IoT"



Connecting Things and People TOSHIBA "Caring for People, IoT"



Forward-looking Statements

- This presentation contains forward-looking statements concerning future plans, strategies and performance of Toshiba Group.
- These forward-looking statements are not historical facts, rather they are based on management's assumptions and beliefs in light of the economic, financial and other data currently available.
- Since Toshiba Group promotes business in various market environments in many countries and regions, its activities are subject to a number of risks and uncertainties that, without limitation, relate to economic conditions, worldwide mega-competition in the electronics business, customer demand, foreign currency exchange rates, tax rules, regulations and other factors. Toshiba therefore wishes to caution readers that actual results might differ materially from our expectations.
- Toshiba's fiscal year (FY) runs from April 1 to March 31. All figures are consolidated totals for the 12 months, unless otherwise indicated.



TOSHIBA

Leading Innovation >>>>