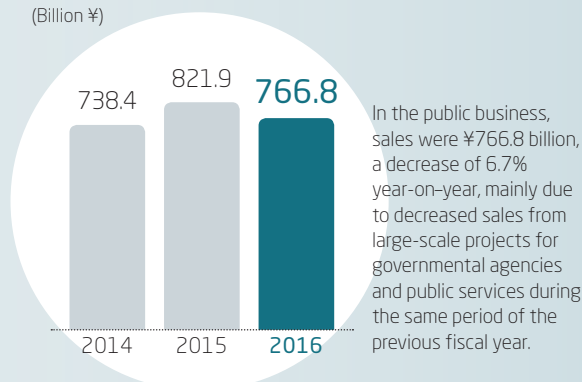# Public Business

In the public business, we provide safe, secure and efficient social solutions for Japanese and foreign governments, governmental agencies, local governments, public institutions, financial institutions and other organizations by combining our distinctive technology assets, including network and sensor technologies and analysis technology, with a broad expertise in systems integration.
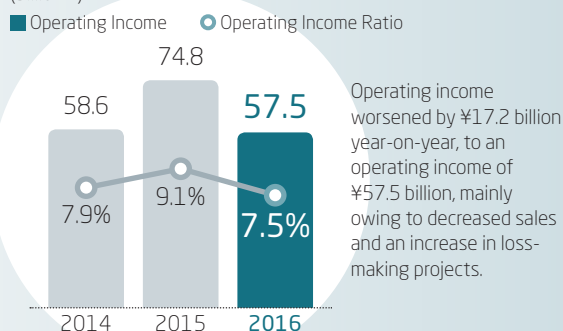
Executive Vice President **Tomonori Nishimura**

Sales
(Billion ¥)

738.4 — 2014
821.9 — 2015
766.8 — 2016

In the public business, sales were ¥766.8 billion, a decrease of 6.7% year-on-year, mainly due to decreased sales from large-scale projects for governmental agencies and public services during the same period of the previous fiscal year.

Operating Income, Operating Income Ratio
(Billion ¥)

■ Operating Income   ○ Operating Income Ratio

58.6 — 7.9% — 2014
74.8 — 9.1% — 2015
57.5 — **7.5%** — 2016

Operating income worsened by ¥17.2 billion year-on-year, to an operating income of ¥57.5 billion, mainly owing to decreased sales and an increase in loss-making projects.

(Fiscal year ended on March 31)

Strengths

● Strong track record in delivering products and systems that support social infrastructure over many years—such as satellites, outdoor communication systems, firefighting emergency radio systems, and broadcasting systems—cultivating high credibility and advanced technologies during this process. Remarkably high market share in Japan.

● System integration capabilities and project management skills developed in the implementation of large-scale, mission-critical IT systems to governmental agencies, public institutions, and financial institutions.

● Unique products and solutions born from our strengths in three technology areas: sensor, network and information technologies. (Notably, world-leading face recognition and fingerprint recognition technologies, Big Data analysis, etc.)

Market Environment (Risks and Opportunities)

Risks

Due to the nature of the Japanese ICT infrastructure business, our performance may be impacted by fluctuations of large-scale public investment. Accordingly, we are reviewing the deployment of personnel and other resources in order to balance the needs between periods of high demand and slow periods.

Opportunities

The infrastructure development process is underway for the expanded usage of the Social Security and Tax Number System ("My Number"), and brisk activity is predicted in the future. In addition to this Public Sector infrastructure development business, we expect to expand into medical care and financial institutions as well as other areas in the private sector. It is also expected that investment will be stimulated for the safe, secure, and efficient operation of international events towards the year 2020.

Fiscal 2016 Main Accomplishments

We focused efforts to support the introduction of the Social Security and Tax Number ("My Number") System, mainly for the national and local governments, and related sales increased greatly from ¥10 billion the previous fiscal year to ¥42 billion.

"My Number" System
Fiscal year ended March 2016
¥42 billion
Fiscal year ended March 2015
¥10 billion

For the My Number System, in addition to completing the implementation of the Intermediate Server Platform that is the foundation of the overall system, we also delivered a face recognition system for counters at local public bodies across the country to be used for confirming the identity of residents when handing over their individual number cards. NEC will conduct business so that we can make contributions at many levels, such as enhanced security for and expanded private-sector usage of the My Number System.

There was a peak of large-scale demand as we approached the May 2016 installation deadline for the digitization of firefighting emergency radio systems. NEC leveraged its No. 1 domestic position in this domain to successfully implement systems at many local governments.

The deployment of new solutions for future growth is proceeding. Surveillance—such as a crowd behavior analysis solution, powered by NEC's image recognition and Big Data analysis technologies—is being progressively introduced to ensure safety around train stations and other places where many people gather. The Cyber Security Factory's security monitoring services and emergency response services upon anomaly detection are already being employed by more than 100 entities.
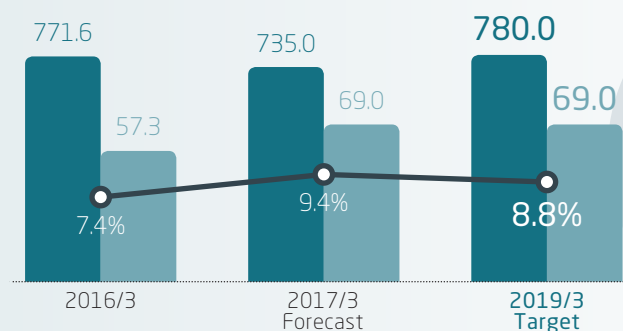
Initiatives in the Medium- to Long-Term

Net Sales, Operating Income, Operating Income Ratio (IFRS)

(Billion ¥)

- ■ Net Sales
- ■ Operating Income
- ○ Operating Income Ratio

* FY2016/3 IFRS figures are currently not audited and subject to change upon audit completion during FY2017/3

	2016/3	2017/3 Forecast	2019/3 Target
Net Sales	771.6	735.0	780.0
Operating Income	57.3	69.0	69.0
Operating Income Ratio	7.4%	9.4%	8.8%

Growth in the focus businesses
- ● Infrastructure preparation towards the year 2020
- ● Cyber security

The sales target for the fiscal year ending March 2019 moderately increased: a 0.4% annual growth rate compared to the fiscal year under review. This is because we anticipate decreased sales of large projects, such as the digital firefighting emergency radio systems, while expecting growth focused on the area of public safety that contributes to a safe and secure society. At present, it is expected there will be infrastructure improvement and safety enhancements for safe and secure urban development towards the year 2020. NEC will contribute to this through offering immigration control systems and new-style security services which leverage its unique crowd behavior analysis technology and the world's leading face recognition technology, and disaster prevention support systems that analyze landslide risk level using sensors.

With the ever increasing threat of cybercrime, we are accelerating our responses to the government's initiative of Local Government Information System Strength Improvement Model through the Cyber Security Factory's security monitoring service, as well as network implementation and information leakage prevention leveraging SDN technology, where NEC has a broad range of experience in Japan.

Moreover, we are also making efforts in advanced fields such as FinTech that fuses finance and ICT and increasingly sophisticated medical care utilizing ICT. In this way, we are striving to create new value.
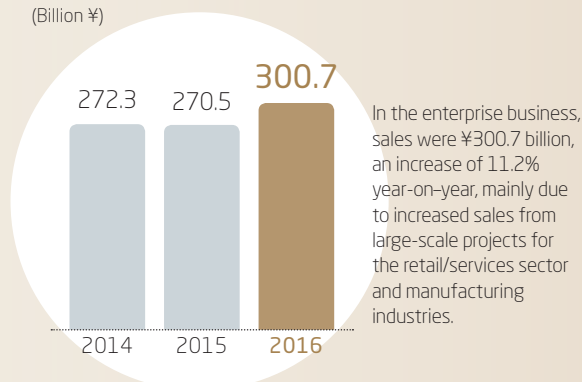
Enterprise Business

NEC provides IT solutions in manufacturing and retail/services in the private sector, launching new services to help create new value for customers. In particular, we are accelerating development in the total supply chain management (SCM) business for manufacturing, logistics, retail and services worldwide as it will be a growth field going forward.
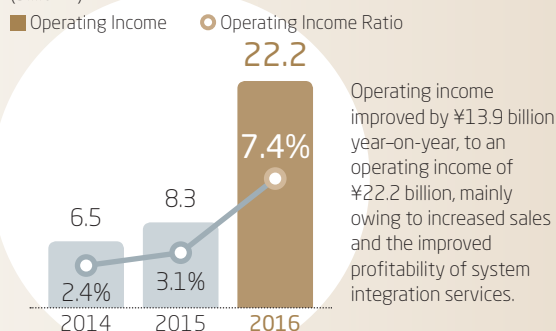
Executive Vice President **Chikara Ishii**

Sales
(Billion ¥)

272.3 270.5 **300.7**

2014 2015 **2016**

In the enterprise business, sales were ¥300.7 billion, an increase of 11.2% year-on-year, mainly due to increased sales from large-scale projects for the retail/services sector and manufacturing industries.

Operating Income, Operating Income Ratio
(Billion ¥)

■ Operating Income ○ Operating Income Ratio

22.2

6.5 8.3 **7.4%**

2.4% 3.1%

2014 2015 **2016**

Operating income improved by ¥13.9 billion year-on-year, to an operating income of ¥22.2 billion, mainly owing to increased sales and the improved profitability of system integration services.

(Fiscal year ended on March 31)

Strengths

● The trust and expertise we have accumulated over 40 years in providing IT services to domestic retail business operators, such as convenience stores, supermarkets, and drug stores.

● The knowledge and expertise we have developed in manufacturing innovation at our own plants as a company in the manufacturing industry, as well as SCM transformation for global corporations.

Market Environment (Risks and Opportunities)

Risks

There is a great deal of competition in the IT market for the domestic private sector. Intense price competition is continuing so ensuring profit in this field is a challenge. Moreover, the adoption of cloud services is being accelerated, such as the expanded usage of Paas and IaaS, so we anticipate a gradual decline for existing solutions.

Opportunities

Urbanization is progressing across the world, and it is expected that Japanese business models can be applied to convenience stores and logistics industries internationally. Markets are also being started using IoT, providing opportunities to establish a new growth foundation.

Fiscal 2016 Main Accomplishments

To improve profitability, we worked to expand business models presupposed on horizontal deployment and enhance upstream processes, including consulting. Profitability has been steadily improving, although partially supported by increased sales of large-scale projects.

The operating income ratio has improved to
7.4%

Manufacturing   NEC implemented a Product Lifecycle Management (PLM) system for OMRON Corporation for the globally integrated management of its product technology information. NEC also started offering NEC Industrial IoT, a solution that leverages the IoT to support next-generation manufacturing, and delivered Head Office/Plant network infrastructure utilizing SDN for construction machinery manufacturer Takeuchi Mfg. Co., Ltd.

Logistics   NEC launched an image and weight inspection solution, the first in the industry that utilizes image recognition technology to conduct automatic inspections of three-dimensional products. NEC also established a joint venture company with Delhi Mumbai Industrial Corridor Development Corporation Limited for providing logistics visualization services in India.

Retail   NEC helped Seven & i Holdings Co., Ltd. improve its customer service by installing chargers for EV and PHV at approximately 40 Ito-Yokado and Ario stores across Japan. In collaboration with SOHGO SECURITY SERVICES CO., LTD., NEC began offering a cloud-based security camera service at Seven-Eleven Japan Co., Ltd. stores.

Quality of Life   NEC assisted Gunze Limited with IoT technology in developing the clothing-type wearable system that measures biological data just by wearing it.. NEC also implemented the "Kumamon no IC CARD" system that can be used at public transportation and commercial facilities in Kumamoto Prefecture.
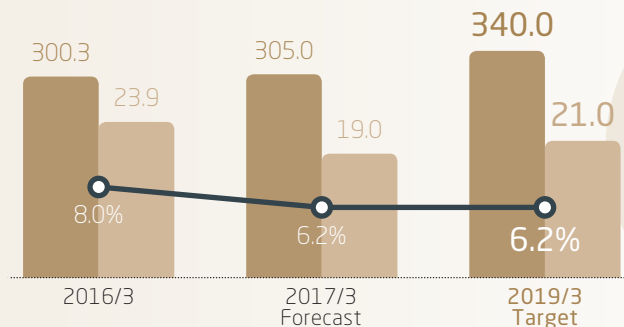
Initiatives in the Medium- to Long-Term

Net Sales, Operating Income, Operating Income Ratio (IFRS)
(Billion ¥)
- ■ Net Sales
- ■ Operating Income
- ○ Operating Income Ratio

* FY2016/3 IFRS figures are currently not audited and subject to change upon audit completion during FY2017/3

	2016/3	2017/3 Forecast	2019/3 Target
Net Sales	300.3	305.0	340.0
Operating Income	23.9	19.0	21.0
Operating Income Ratio	8.0%	6.2%	6.2%

Growth in the focus businesses
- ● IT services business for retail
- ● Manufacturing Co-Creation Program

In the enterprise business, the three years of the Mid-term Management Plan 2018 are positioned as a period to solidify a foundation for future growth. During this period we are building a business foundation for SI model transformation and global deployment, and also creating new value through IoT. As for business domains, we are focusing efforts on NEC's strengths including the IT service business for the retail industry and manufacturing co-creation*, and are working for business expansion primarily in these areas. In the IT service business for the retail industry, we are adding new value to the expertise we have already accumulated through providing IT services to retail business operators in Japan over the past 40 years, striving to accelerate horizontal deployment on the global stage with an eye towards developments in other industries as well. For manufacturing co-creation, we are combining the expertise we developed in our own manufacturing innovation and SCM reforms for global businesses with cutting-edge technologies such as IoT and AI. In this way, we are working to expand the value we offer and move into new business domains.

* Manufacturing co-creation: Collaboration program where NEC offers enhanced solutions based on its own production innovation expertise through facilitating information exchange between customers, executing joint research or conducting Proof of Concept projects, etc.
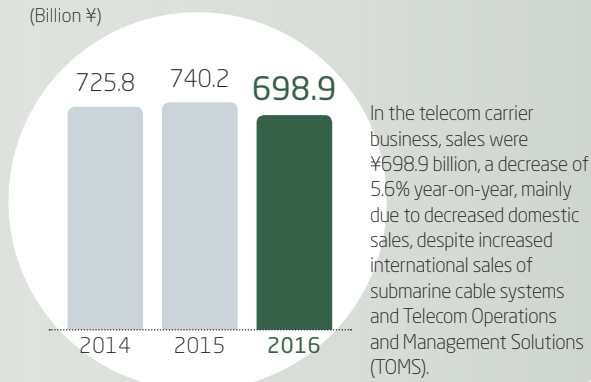
Telecom Carrier Business

We provide telecom carriers with network control platform systems and operating services for operations management, along with equipment for network implementation. NEC's wealth of experience in large-scale network implementation and strong technical capabilities contribute to the development of highly reliable communications networks.
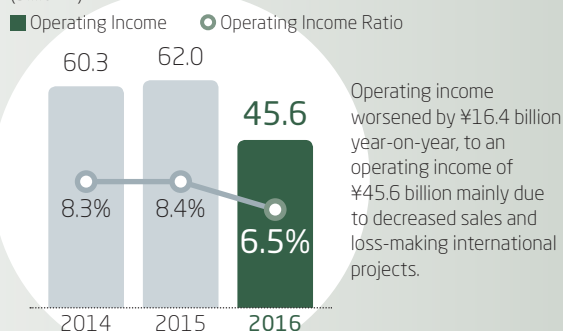
Executive Vice President **Shunichiro Tejima**

Sales
(Billion ¥)

725.8 740.2 **698.9**

2014   2015   **2016**

In the telecom carrier business, sales were ¥698.9 billion, a decrease of 5.6% year-on-year, mainly due to decreased domestic sales, despite increased international sales of submarine cable systems and Telecom Operations and Management Solutions (TOMS).

Operating Income, Operating Income Ratio
(Billion ¥)

■ Operating Income   ○ Operating Income Ratio

60.3   62.0   **45.6**

8.3%   8.4%   **6.5%**

2014   2015   **2016**

Operating income worsened by ¥16.4 billion year-on-year, to an operating income of ¥45.6 billion mainly due to decreased sales and loss-making international projects.

(Fiscal year ended on March 31)

Strengths

- Track records of delivering: fixed and mobile telecom products; IP systems in Japan; and an accumulation of technology know how.

- Successful delivery of management and operations support for more than 200 telecom carriers worldwide in the TOMS area.

- Industry-leading achievements in SDN/NFV, latest network technologies, with technological development and commercial deployment, such as virtualized Evolved Packet Core (vEPC).

Market Environment (Risks and Opportunities)

Risks
There is a risk of telecom carriers curtailing capital investment in the domestic market. In addition, there is a possibility of intensified competition, including from global vendors, as the market becomes more borderless.

Opportunities
The market for SDN/NFV and TOMS is expected to expand even further in the future. These technologies contribute to network transformation through outcomes such as faster delivery of services, optimization of network resources and reduced operating costs for telecom carriers.

We expect more business opportunities with the planned commercial deployment of the 5G next-generation mobile telecommunications standards, starting mainly from the Japanese and Asian markets, towards 2020.

Fiscal 2016 Main Accomplishments

- We increased our results for the introduction of TOMS and SDN/NFV, our major focus business over the medium- to long-term.
- We expanded our global business with large-scale project orders received in existing business fields, etc.

Expanded introduction of TOMS and SDN/NFV Global business expansion

NEC expanded its TOMS business through Netcracker Technology Corporation, a subsidiary of NEC. We received Operation Support System (OSS) orders from América Móvil, S.A.B. de C.V., a Mexican company that is the largest mobile telecom carrier in Latin America, and PT Indosat Tbk a major Indonesian telecom carrier.

Rapid future expansion is expected for SDN/NFV, and NEC was awarded orders including a virtualized mobile core for commercial networks to NTT DOCOMO, INC. Together with Spanish company Telefónica, S.A., we successfully conducted the world's first Proof of Concept project utilizing a commercial network related to virtualized Customer Premises Equipment (vCPE).

In existing business areas, we expanded our global business through orders for large-scale projects such as SACS, the world's first submarine optical cable system for the South Atlantic, as well as increases including mobile backhaul and optical transmission devices.
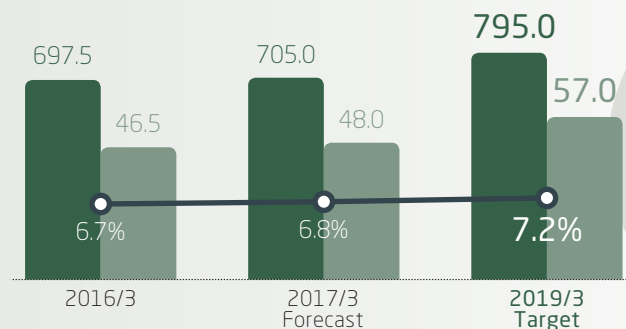
Initiatives in the Medium- to Long-Term

Net Sales, Operating Income, Operating Income Ratio (IFRS)
(Billion ¥)

- ■ Net sales
- ■ Operating income
- ○ Operating Income Ratio

* FY2016/3 IFRS figures are currently not audited and subject to change upon audit completion during FY2017/3

	2016/3	2017/3 Forecast	2019/3 Target
Net sales	697.5	705.0	795.0
Operating income	46.5	48.0	57.0
Operating Income Ratio	6.7%	6.8%	7.2%

Growth in the focus businesses

- Business expansion based on TOMS, SDN/NFV
- Enhancing development to maintain competitiveness for 5G

Business expansion in the global market through offerings with a global competitive edge, such as TOMS and SDN/NFV, is the key for medium- to long-term growth in the telecom carrier business. We have the customer base and ability to provide TOMS solutions, and an established track record in commercialization of SDN/NFV. We will contribute to the swift realization of new services for telecom carriers by continually enhancing IT/network integrated solutions combining TOMS and SDN/NFV.

We are carrying out Proof of Concept projects together with leading telecommunications providers for the next generation mobile telecommunications standard, 5G. We are also engaging in advanced development for 5G to achieve the high speed, high capacity, and low video compression delay times required of networks for new services in the IoT era, including high-definition video delivery (such as 8K and 4K) and autonomous driving.

In this way, by offering high-value-added networks around the world—made more sophisticated with new technologies—that are safe, secure, and efficient, we will help resolve social issues and assist in the development of the NEC Group.
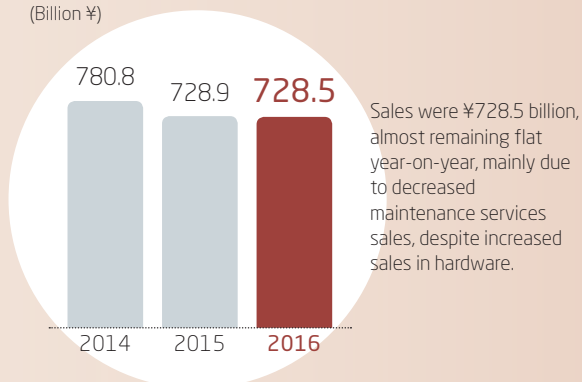
System Platform Business

In the system platform business, we provide products for business, ranging from terminals to network and computer equipment, software products and service platforms, as well as solutions and services based on them. We deliver labor-saving and efficient platforms for customers, while at the same time creating new value based on ICT.
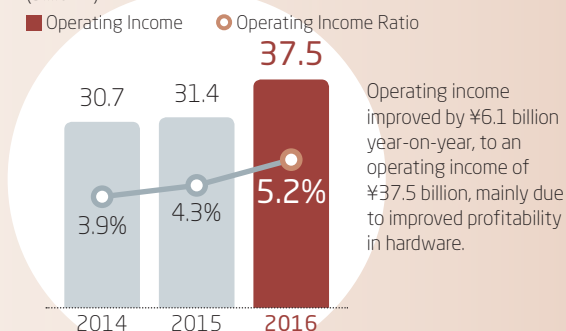
Executive Vice President **Kimihiko Fukuda**

Sales
(Billion ¥)

780.8　728.9　**728.5**

2014　2015　**2016**

Sales were ¥728.5 billion, almost remaining flat year-on-year, mainly due to decreased maintenance services sales, despite increased sales in hardware.

Operating Income, Operating Income Ratio
(Billion ¥)

■ Operating Income　○ Operating Income Ratio

30.7　31.4　**37.5**

3.9%　4.3%　**5.2%**

2014　2015　**2016**

Operating income improved by ¥6.1 billion year-on-year, to an operating income of ¥37.5 billion, mainly due to improved profitability in hardware.

(Fiscal year ended on March 31)

Strengths

- Unique technologies in the fields of SDN, cloud services, Big Data, and security (global best of breed technologies, such as image recognition technology, advanced Big Data analysis technology, vector computing technology, etc.)

- Dependability and quality developed in the fierce competitive environment in Japan.

- Comprehensive strength of having a wide range of assets to build the IoT platform, including cloud services, networks, sensors and other devices.

Market Environment (Risks and Opportunities)

Risks
The hardware market is expected to shrink continuously, and competition is getting tough in the market. For that reason, there is the risk that sales and profit of "products selling," such as general-purpose hardware, will be depressed.

Opportunities
An upward trend for SDN, cloud services, Big Data, and the security market is evident, and the IoT market is expected to develop further. These areas are business opportunities for NEC, but at the same time, many competitors—including those entering the market from other industries—are making increasingly rapid movements to establish positions in the IoT field, so rapid deployment is necessary.

Fiscal 2016 Main Accomplishments

We achieved the No. 1 share for the 20th consecutive year in the domestic PC server market*. As the vendor with the top share, we will strive to further improve customer satisfaction by continuing to provide products while listening sincerely to customer requests.

Achieved the No.1 share for the 20th consecutive year in the Japanese PC server market

In the fiscal year under review, we worked to enhance our products in growth areas such as cloud platforms and SDN. Regarding cloud services, we opened the NEC Kobe Data Center, as our flagship data center in western Japan. Our other initiatives included strengthening the security of the cloud platform service, "NEC Cloud IaaS".

In terms of SDN for enterprises, we have reliably expanded our deliveries, helping customers strengthen their management foundation and enhance their competitiveness.

Furthermore, to create the future IoT platform, we have determined that we will strengthen our development system for enhancing the ICT platform product business that upholds our IoT solutions, and will aim to accelerate development and business expansion from the next fiscal year.

* Source: CY1996-2015 Japan x86 server (shipment, revenue)
  Source: IDC Japan, Japan Quarterly Server Tracker CY16Q1
  Note: IDC declares a statistical tie in the server market when there is less than one percent difference in the revenues or the unit shipment of two or more vendors.
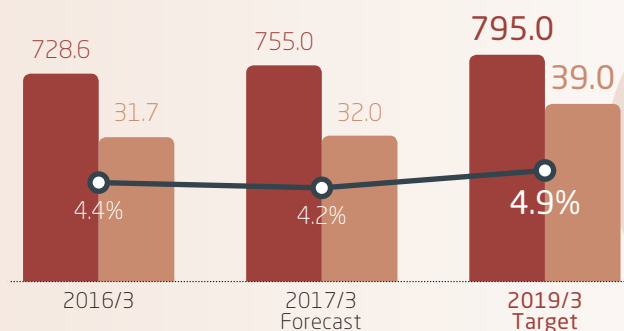
Initiatives in the Medium- to Long-Term

Net Sales, Operating Income, Operating Income Ratio (IFRS)
(Billion ¥)
- Net sales
- Operating income
- Operating Income Ratio

* FY2016/3 IFRS figures are currently not audited and subject to change upon audit completion during FY2017/3

	2016/3	2017/3 Forecast	2019/3 Target
Net sales	728.6	755.0	795.0
Operating income	31.7	32.0	39.0
Operating Income Ratio	4.4%	4.2%	4.9%

Growth in the focus businesses
- Maximizing the profit of existing businesses
- Establishing an IoT platform focused on safety and retail
- Strengthening key business areas

In our Mid-term Management Plan 2018, we are striving to enhance our profitability in the system platform business, first by optimizing existing businesses. Specifically, we are working to maximize profit through comprehensive measures, including optimizing development costs, cutting costs, adding high value to products, and strengthening our sales structure.

In addition, we are making efforts to establish an IoT platform in order to enhance the value provision of the system platform business. To that end, we are aiming to develop unique solutions and services based on the technologies that are our strengths, such as image analysis and security. We are also striving to provide customers with common platforms in a timely manner with such high quality that can only be offered by NEC, including networks. While it is expected that the IoT platform will be deployed horizontally in various industries, first we will devote resources to boost the Safety business and the Retail IT Service business, in line with the Mid-term Management Plan 2018.

Moreover, we will make efforts to clarify the value by defining practical use cases by customer segments—and also maximize value for customers—regarding the growth fields in which we refined our strengths in the Mid-term Management Plan 2015: the cloud services , SDN, Big Data, and security.