

# The Japanese Market and KDDI

## Characteristics of the Japanese Market

### Mobile

As of March 31, 2017, cumulative mobile communications subscriptions in Japan totaled 162.73 million\*<sup>1</sup>, up 4.0% year on year.

The mobile market continues to grow, driven by the spread of smartphones and further advances in the trend of single users owning multiple devices.

In addition, there has been significant growth in the number of service contracts for MVNOs\*<sup>2</sup>, who procure networks from MNOs\*<sup>3</sup> to provide mobile services, up 6.8% from a year earlier to 15.86 million\*<sup>1</sup>. MVNO's share of the mobile telecommunications market has grown to 9.4% (5.9% if limited to SIM card contracts)\*<sup>1</sup>, \*<sup>4</sup>, and is expected to expand further going forward.

Further, in the IoT field for connecting a wide variety of things with the Internet, low power wide area (LPWA) specifications have been established to enable wide-area

communications with low power consumption, and the telecommunications environment required for the age of IoT is gradually being established. Examples of the use of IoT by enterprises and local governments are increasing, and the mobile market is expected to expand further.

Note that the scale of the overall market created by the advance of IoT is predicted to expand from ¥520 billion in 2015 to ¥3.2 trillion in 2022\*<sup>5</sup>, and will likely take the lead in mobile market expansion going forward.

\*<sup>1</sup> Source: Official Announcement of Quarterly Data on the Number of Telecommunications Service Subscriptions and Market Shares (FY2016 Q4 (End of March 2017)), Ministry of Internal Affairs and Communications

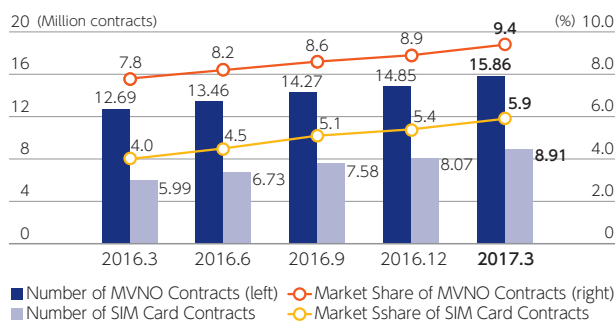
\*<sup>2</sup> MVNO: Mobile Virtual Network Operator

\*<sup>3</sup> MNO: Mobile Network Operator

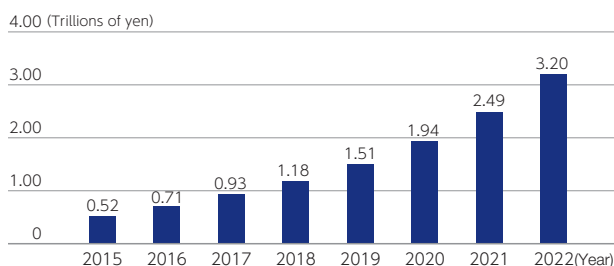
\*<sup>4</sup> Share of MVNO service contracts = Number of MVNO service contracts / number of mobile telecommunications contracts

Share of SIM card contracts = Number of SIM card contracts / (number of mobile telecommunications contracts – number of contracts for telecommunications modules provided by MNOs (16.59 million contracts))

#### ● Number of MVNO Contracts and Market Share\*<sup>1</sup>, \*<sup>4</sup>



#### ● Scale of the IoT Market\*<sup>5</sup>



\*<sup>5</sup> Source: Prepared by KDDI based on *Outlook for ICT and Media Market Scale and Trends through 2022* from Nomura Research Institute, Ltd. Market scale includes energy, security, automotive, logistics, health-care and other sectors.

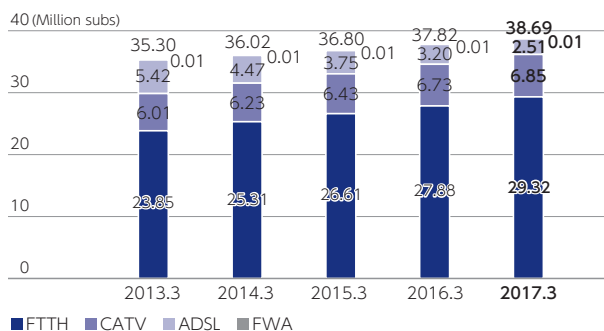
### Fixed-Line Broadband

The nationwide FTTH household coverage ratio is more than 90%\*<sup>6</sup> and “homes passed\*<sup>7</sup>” is more than 70%\*<sup>8</sup>, indicating that high-speed broadband environments are essentially in place nationwide.

As of March 31, 2017, fixed-line broadband service subscriptions numbered 38.69 million\*<sup>1</sup>, up 2.3% from the previous fiscal year-end.

Although fixed-line broadband service penetration has reached around 70%, the market continues to expand gradually, driven by sales of discount bundled mobile and fixed-line services and the opening of new markets by new operators using the wholesaling fiber access service of NTT East and NTT West.

#### ● Number of Fixed-Line Broadband Subscriptions\*<sup>1</sup>



\*<sup>6</sup> Source: *Information NTT East Japan: Overall Management (2016)*: Telecommunications Facilities: Access Going Optical. As of March 31, 2017, Nippon Telegraph and Telephone East Corporation (NTT East)'s FTTH household coverage ratio was 95% and Nippon Telegraph and Telephone West Corporation (NTT West)'s was 93% (estimated).

\*<sup>7</sup> In regions where the installation of CATV facilities is permitted, households in areas where installation of transit routes is complete

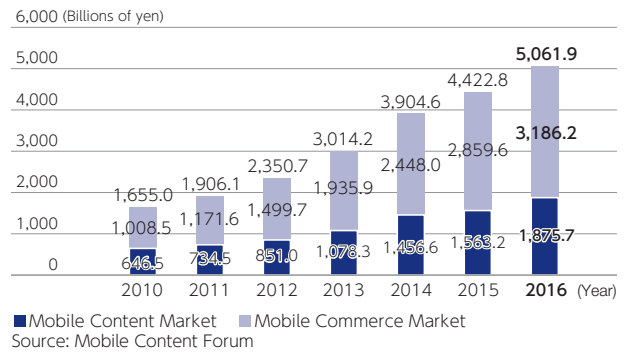
\*<sup>8</sup> *Hoso Journal*, July 2017 edition (as of March 31, 2017); Ministry of Internal Affairs and Communications, Population, Population Trends, and Number of Households based on Residents Register (as of January 1, 2016)

## Non-Telecommunications Fields

As the domestic telecommunications business begins to shift toward a stage of stable growth, mobile telecommunications companies are working to secure new sources of revenue, utilizing their domestic telecommunications customer bases to more actively engage in a variety of initiatives aimed at generating revenue in non-telecommunications fields.

Also, carrier billing is a common means of paying for online mobile content services, and telecommunications companies are offering their own credit cards as a method of paying for offline services, creating a system for capturing both online and offline revenue.

### ● Scale of the Mobile Content and Mobile Commerce Markets

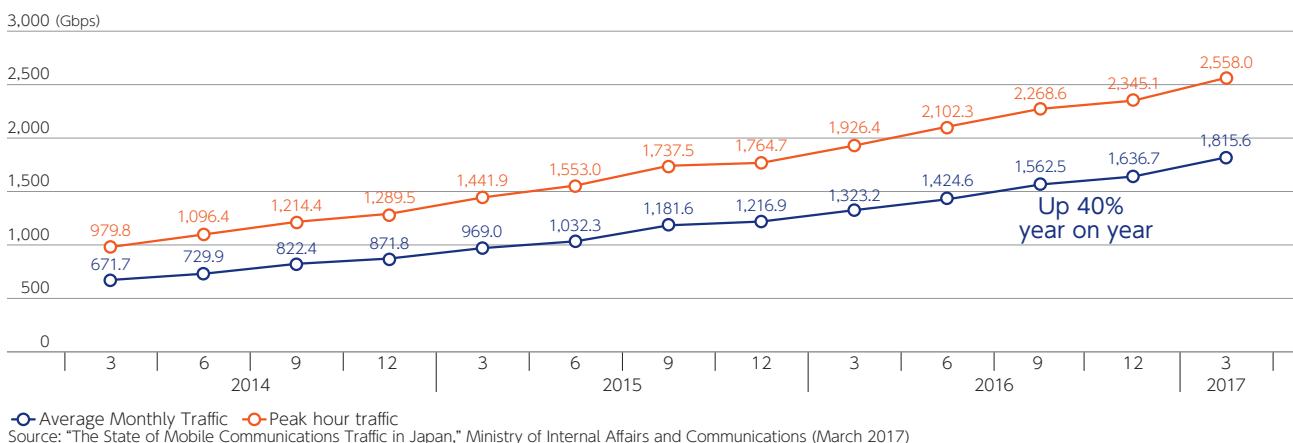


## Growth in Mobile Traffic

Due to the proliferation of smartphones and tablets, along with the increased performance of devices and advances in telecommunications technology, mobile traffic in Japan continues to grow, with average monthly traffic recently rising at about 40% year on year.

In particular, average traffic during the peak hours for mobile customers is up by around 40% per year. This situation poses a dilemma for mobile telecommunications companies, which are working to efficiently absorb this increase in mobile traffic and maintain stable network operations.

### ● Total Mobile Traffic in Japan (Monthly)



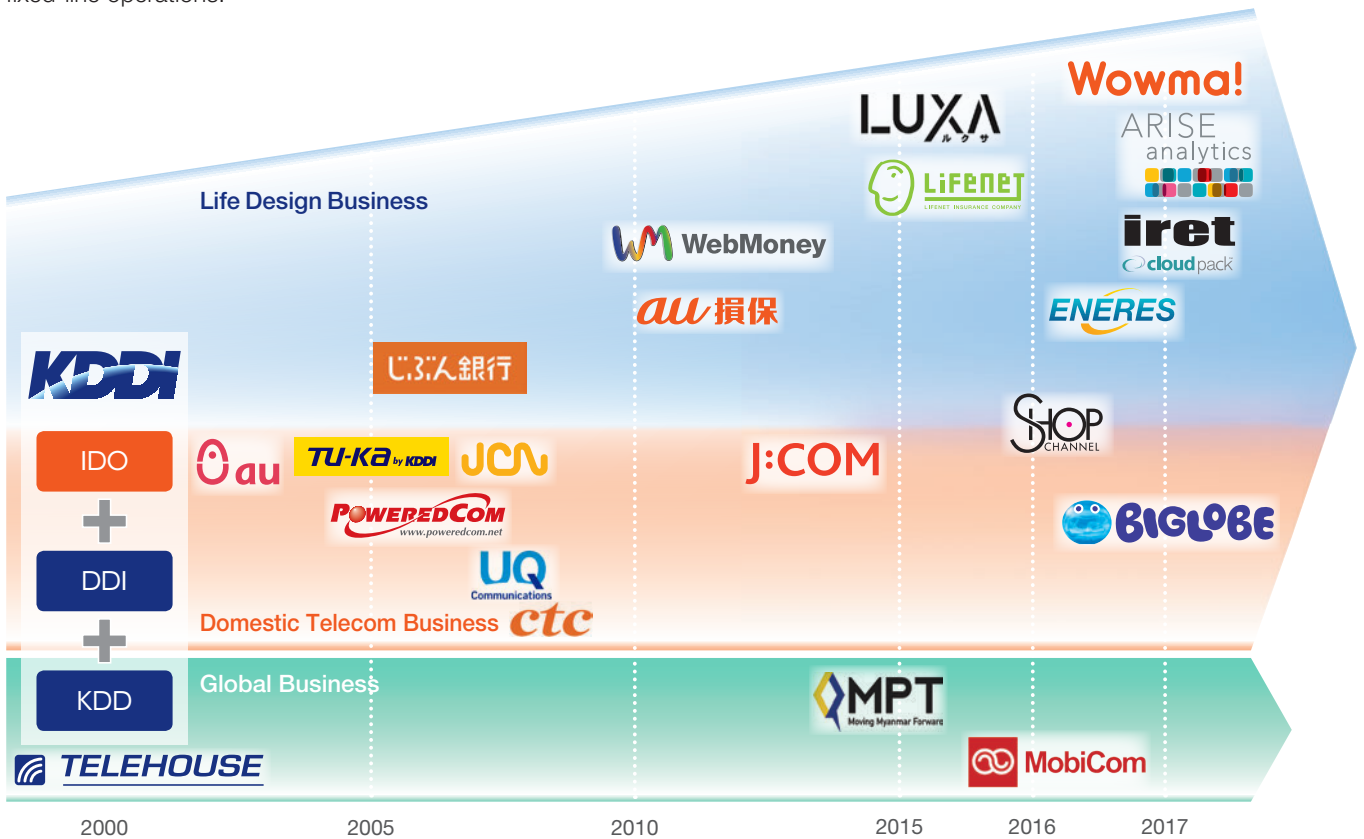
KDDI's Domestic Status

Shifting from a Telecommunications Company to a "Life Design Company"

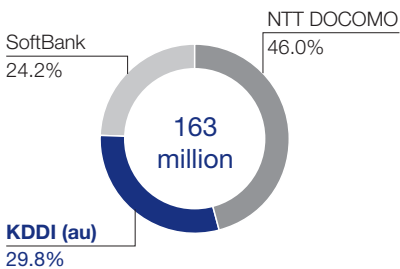
The KDDI CORPORATION was established in October 2000 through the merger of DDI CORPORATION, a long-distance communications company; KDD Corporation, an international communications company; and IDO CORPORATION, which provided mobile communications. Thereafter, we have expanded our base through mergers, and continued to grow as a comprehensive telecommunications company with both mobile and fixed-line operations.

Today in Japan, KDDI is working to secure new revenue streams, utilizing our domestic telecommunications customer base to more actively engage in a variety of initiatives aimed at generating revenue in non-telecommunications fields.

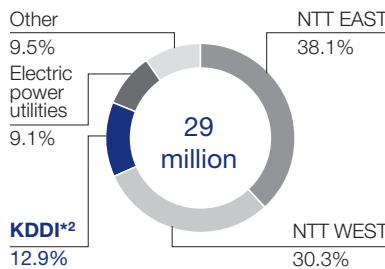
In our global business, we are moving forward with efforts to establish sustainable growth, such as entering the mobile telecommunications markets in Myanmar and Mongolia.



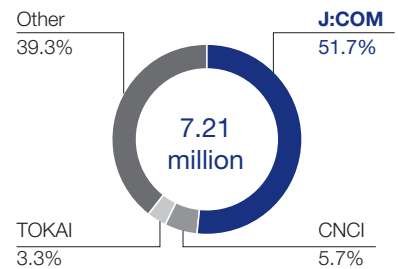
● Share of Mobile Communications Subscriptions\*1 (As of March 31, 2017)



● Share of FTTH Subscriptions (As of March 31, 2017)



● Share of Pay Multi-Channel CATV Subscriptions (As of March 31, 2017)



Source: Prepared by KDDI based on Telecommunications Carriers Association's data  
 \*1 Share among NTT DOCOMO, INC. (NTT DOCOMO), SoftBank Corp. (SoftBank), and KDDI (au)

Source: Prepared by KDDI based on Ministry of Internal Affairs and Communication's data  
 \*2 KDDI + ctc + Okinawa Cellular Telephone Company + BIGLOBE Inc.

Source: Prepared by KDDI based on *Hoso Journal* (July 2017 issue)

## Principal Businesses of the KDDI Group

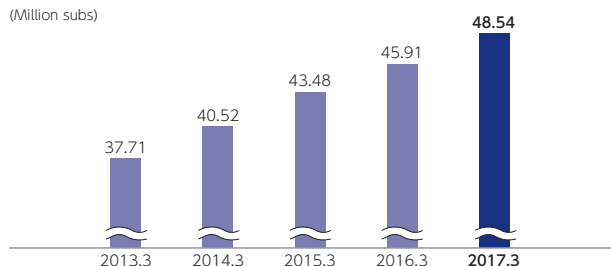
### ● Mobile

As of March 31, 2017, au mobile subscriptions numbered 48.54 million, up 5.7% year on year and accounting for a 29.8% (+0.5 percent point) share of the mobile market coverage by Japan's three major carriers.

Of this figure, in the Personal Services segment, which provides services for individual customers, au smartphone

#### ● Cumulative au Subscriptions\*<sup>3</sup> (Consolidated)

(Million subs)



\*<sup>3</sup> KDDI + Okinawa Cellular Telephone Company

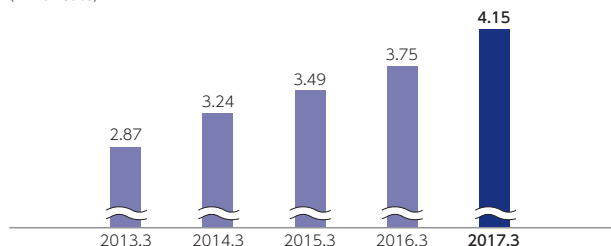
### ● Fixed-Line Broadband

As of March 31, 2017, the cumulative number of FTTH subscriptions stood at 4.15 million, up 10.5% year on year, in part due to the consolidation of BIGLOBE Inc., and accounting for a market share of 12.9%.

In CATV services, the number of RGU households as of March 31, 2017 stood at 5.29 million, up 4.6% year on year.

#### ● Cumulative FTTH Subscriptions (Consolidated)

(Million subs)



\*<sup>5</sup> JCN only for the fiscal year ended March 31, 2013. J:COM + JCN for the fiscal year ended March 31, 2014. In line with the inclusion of JCN into the scope of J:COM's consolidation in December 2013, the method of calculating the total number of subscribing households has been unified to J:COM's standard. From

### ● Non-Telecommunications Field

KDDI is increasing its efforts to establish a new source of growth by maximizing the "au Economic Zone."

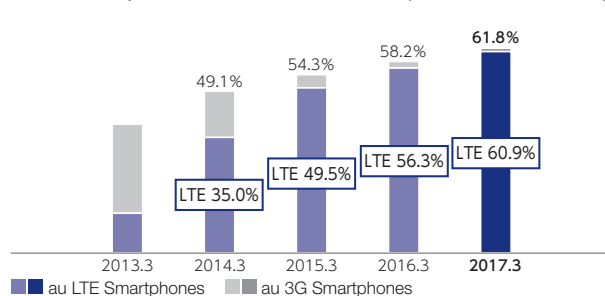
In the online domain, the "au Economic Zone" consists primarily of "au Smart Pass" and other digital content, while offline, it comprises product sales, electric power, finance and other life design services. The amount of these services used, along with the total of payments made through means provided by KDDI ("au Simple Payment" and "au WALLET") together amount to total transaction volumes in the "au Economic Zone."

In the fiscal year ended March 31, 2017, the gross mer-

chandise value of the "au Economic Zone" rose by 75.3% year on year to ¥1.28 trillion.

penetration has risen to 61.8% (60.9% if limited to LTE). The number of subscribers to the MVNO provided by a consolidated subsidiary has also increased by 770,000 over the previous year to 870,000 subscriptions. Going forward, we will work to expand the number of mobile IDs based on au + MVNO.

#### ● au Smartphone Penetration Rate\*<sup>4</sup> (Personal Services)



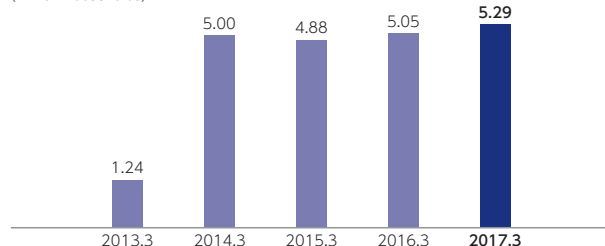
\*<sup>4</sup> au smartphones/general handsets (smartphones and feature phones (including prepaid))

Note that KDDI's share of J:COM multi-channel pay CATV subscriptions as of March 31, 2017 stood at around 50%.

By cross-selling FTTH and CATV services to the au customer base, we expect the KDDI Group customer base to continue growing stronger and expanding.

#### ● Number of RGU Households\*<sup>5</sup>

(Million households)



the fiscal year ended March 31, 2015 onward, the definition was changed from "Number of Subscribing Households" to "Number of RGU Households." Households on the number of subscribing households basis in the fiscal year ended March 31, 2015 was 5.05 million.

chandise value of the "au Economic Zone" rose by 75.3% year on year to ¥1.28 trillion.

#### ● Gross Merchandise Value of the "au Economic Zone"

(Billions of yen)

