

THE TECHNOLOGY,
MEDIA AND
TELECOMMUNICATIONS
REVIEW

THIRTEENTH EDITION

Editor
Matthew T Murchison

THE LAWREVIEWS

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MEDIA AND
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PREFACE

This 13th edition of *The Technology, Media and Telecommunications Review* provides updated overviews of legal and policy constructs and developments in the TMT arena across 18 jurisdictions around the world. As in years past, our goal with this publication is to provide a practical, business-focused survey of these issues, along with insights into how regulatory activity in this arena continues to evolve.

Policymakers in 2022 have continued to grapple with the impact of the covid-19 pandemic, which has focussed greater attention on the need for ubiquitous broadband internet connectivity and has hastened efforts to make broadband services more widely available. The height of the pandemic saw a significant rise in remote working, distance learning, tele-health visits, and similar broadband-enabled activities. And while more businesses and schools are now returning to an in-person environment, it remains the case that work, education, and other aspects of our daily lives are more reliant on broadband connectivity today than before the pandemic.

These developments have spurred numerous initiatives around the world to improve and expand broadband connectivity for consumers going forward. Governments in various jurisdictions are in the midst of implementing subsidy programmes and other efforts to speed the deployment of advanced networks in unserved and underserved areas. Regulators have also taken steps to preserve internet access where it already exists, including by exploring mandates requiring certain rates for low-income consumers. Such initiatives have sparked notable legal challenges and policy debates over whether government intervention, market-based solutions, or some combination of the two can be most effective at ensuring widespread broadband availability.

Regulators also are wrestling with how best to fund these ever-growing programmes to promote broadband deployment and availability. Recent years have seen the use of various paradigms, including direct appropriations from the government and funds fed by mandatory contributions from telecommunications service providers and their customers. At the same time, some jurisdictions are looking to other funding mechanisms, such as potentially requiring large online platform providers and streaming video services, whose content makes up a significant portion of internet traffic, to bear some responsibility for contributing to the deployment of networks that carry that traffic.

The relationship between these online content providers and the broadband providers delivering their content also remains the subject of wider policy debates. There continue to be long-simmering questions about ‘net neutrality,’ including whether ‘zero-rating’ and other kinds of network management practices by broadband providers benefit or harm consumers and online content providers, and whether efforts to promote a healthy internet ecosystem are best served by light-touch, market-based regimes or by more intrusive government regulations.

In the past year, Europe has been at the forefront of developments on these issues, while policymakers in the United States have faced obstacles to their anticipated re-evaluation of the light-touch approach reinstated in 2018. Debates about ‘neutrality’ have also carried over to the content side, where social media companies are facing ongoing scrutiny over claims of discriminatory practices in moderating third-party content on their platforms. Indeed, some jurisdictions are considering measures that not only would rescind immunities these platforms have traditionally enjoyed for their content moderation practices, but also would require increased transparency and potentially even impose anti-discrimination mandates or other consumer protections.

In addition, governments around the world continue to take steps to harness new communications technologies. The era of 5G wireless services is now in full swing, and regulators are exploring ways to facilitate further deployment of these services. These efforts include actions to free up more radiofrequency spectrum for these services, by reallocating spectrum from one use to another, auctioning off wireless licences in bands newly designated for 5G, and adopting new spectrum sharing rules. Deployments of new satellite broadband systems, including large systems in low Earth orbit, also are underway, raising fresh questions about how best to ensure space safety and mitigate new sources of radiofrequency interference.

This edition’s chapters for each country describe these and other developments, including updates on media ownership, privacy and data security, and efforts to combat fraudulent robocalling and the ‘spoofing’ of caller identification information. Our contributing authors have done tremendous work in preparing these updated overviews of TMT issues in their respective jurisdictions, and I hope this latest edition of *The Technology, Media and Telecommunications Review* will be a helpful resource to readers interested in the legal and policy developments in this sector.

Matthew T Murchison
Latham & Watkins LLP
Washington, DC
November 2022

JAPAN

*Stuart Beraha, Hiroki Kobayashi, Benjamin Han, Takatomo Terasaki
and Marina Yamashita¹*

I OVERVIEW

The media and telecommunications environment in Japan has continued to develop rapidly throughout 2021 and 2022. The government is growing increasingly eager to invest in digitisation and measures to improve telecommunications network infrastructure, such as broadening 5G coverage and realising a ‘digital society’. In addition, enhancing security with respect to sensitive technologies and cybersecurity has become a key area of focus for the government.

i Digital society

Basic Act on the Formation of a Digital Society

The government is expected to continue pursuing data and digitisation initiatives. In furtherance of this goal, the Japanese Diet passed the Basic Act on the Formation of a Digital Society, which came into full force and effect on 1 September 2021. The Basic Act on the Formation of a Digital Society defines ‘digitised society’ as:

a society in which creative and vigorous development is enabled in all fields by obtaining, sharing or transmitting a wide variety of information or knowledge globally in a free and safe manner via the internet and other advanced information and telecommunications networks, and by using information and telecommunications technologies and other advanced technologies to appropriately and effectively utilise the wide variety and large amount of information recorded as an electronic or magnetic record.²

The Basic Act on the Formation of a Digital Society also provides that the government must, in the development of strategies to form a digital society, take measures necessary to:

- a* ensure the smooth circulation of information by a diversity of actors (e.g., by standardising data);
- b* ensure opportunities for the use of advanced information and telecommunications networks and of information derived from information and telecommunications technologies;
- c* develop human resources;
- d* improve the productivity and convenience of everyday life;

1 Stuart Beraha and Hiroki Kobayashi are partners and Benjamin Han, Takatomo Terasaki and Marina Yamashita are associates at Latham & Watkins Gaikokuho Joint Enterprise.

2 Basic Act on the Formation of a Digital Society (Act No. 35 of 2021) Article 2.

- e* ensure the utilisation by citizens of information held by the government and local public entities;
- f* develop a public basic information database;
- g* secure cybersecurity; and
- h* protect personal information.

These measures are expected to be implemented by a newly established governmental agency known as the Digital Agency. The bill establishing the Digital Agency was enacted in May 2021 and came into full force and effect on 1 September 2021.

The initiatives that the Digital Agency is authorised to pursue include:

- a* the establishment and promotion of priority plans for the formation of a digital society;
- b* comprehensive and basic policy planning, etc., regarding numbers that identify individuals;
- c* usage of My Number, My Number cards and corporate identification numbers as well as the installation and management of network systems for the provision of information;
- d* planning of comprehensive and basic policies on verifying identities using information and communication technology, and the like;
- e* electronic certification of commercial registration (through verifying identities using information and communication technology), electronic signatures, public personal authentication (related to verifiers) and affairs regarding electronic powers of attorney;
- f* comprehensive and basic policy planning for data standardisation and a database of basic public information (basic registry), and the like;
- g* creation and promotion of basic policies for establishing and managing information systems of national and local public organisations, and quasi-public sector private businesses;
- h* supervising the government's establishment and management of information systems and associated budgets; and
- i* executing all or part of the foregoing initiatives independently.

Some specific initiatives that are currently being pursued are discussed below.

New Form of Capitalism

Facing complex difficulties, such as the continuing covid-19 pandemic and the global turbulence created by the war in Ukraine, the government is advocating a new policy called the 'New Form of Capitalism', introduced in October 2021. The policy's core concepts are a virtuous cycle of growth and distribution, and the development of a new post-covid-19 society. Investment in digital transformation (DX) is one of the main pillars of the policy.

One key initiative in the 'New Form of Capitalism' policy is the 'Digital Garden City' initiative, which has been allocated a ¥5.7 trillion budget. The initiative aims to tackle Japan's expanding regional disparities by revitalising depopulated rural regions using digital technologies to transform them into highly digitalised cities with advanced technological services. The initiative is expected to create new jobs in, and enable work to be remotely conducted from, rural regions of Japan, and to attract new residents to these regions.

The first step in the initiative is to substantially build out digital infrastructure across Japan to make it possible to provide digital services requiring high-speed and high-capacity internet nationwide. The government has set several targets in this regard:

Estimated time frame	Milestone
2023	<ul style="list-style-type: none"> 5G coverage to over 95% of the Japanese population.
2025	<ul style="list-style-type: none"> 5G coverage to over 97% of the Japanese population. Completion of a 'digital superhighway' using submarine cables surrounding the islands of Japan.
2027	<ul style="list-style-type: none"> Completion of a dozen Japanese regional data centres. Optical fibre access to 99.9% of households in Japan.
2030	<ul style="list-style-type: none"> 5G coverage to over 99% of the Japanese population. Making optical fibre a universal service.

The initiative also encompasses accelerating research, development and implementation of Beyond 5G technologies (e.g., 6G), including applicable international standardisation.

Furthermore, a substantial amount of data will be shared among national and local governments, public entities and private companies via a data collaboration platform in connection with providing various new digital services under the 'Digital Garden City' initiative. These services include, among other things, 'smart agriculture' using artificial intelligence, robots, and internet of things (IoT), new mobility services such as mobile clinics and logistics services using drones and automated delivery robots. The initiative also aims to encourage enhancement of the educational information and communication technology (ICT) environment and remote work, and utilisation of digital tools to connect local small- and medium-sized enterprises with overseas businesses. The government has provided several templates for digital cities, including 'super cities' (which are intended to be the most 'fully fledged' digital cities). In connection with establishing digitised cities, the Japanese government plans to set up national strategic special zones.³

In addition to the above measures, the realisation of a 'decentralised' digital society is also becoming a focus point. The government is promoting the development of a 'trusted web' – an initiative to build a trustworthy internet – by, among other things, reinforcing data control by data subjects and companies, and providing greater transparency regarding the identity of data providers and recipients. The government is also participating in international initiatives for rulemaking in the field of the Data Free Flow with Trust (DFFT), which aims to facilitate cross-border data distributions without compromising privacy, data security or IP protection. Implementation of Web 3.0, which METI defines as 'a trend toward using tokens such as crypto-assets and non-fungible tokens (NFTs) as the basis for creating new value and using blockchains to manage and use data', will also be considered by the end of fiscal year 2022.

Digitising government services

The government is also pursuing a number of efforts aimed at digitising government services and making them more easily accessible to residents. For example, the Ministry of Internal Affairs and Communication (MIC) has pursued 'open data' initiatives with respect to governmental data, encouraging all governmental agencies to allow citizens to digitally access

3 For instance, in the 'super city' special zones, multiple cutting-edge services would be provided using a data linkage platform (provided through public-private partnerships) and supported by bold regulatory reforms in multiple fields.

and use governmental data for free. According to statistics announced by the Digital Agency, approximately 71% of local governments have implemented open data initiatives as of the end of June 2022.

Additionally, to allow Japanese residents to access more government services online and more conveniently, the government has rolled out personal identification cards known as ‘My Number’ cards, which include the personal identification number of the holder and embed electronic certificates of the identity of the holder. Among other services, My Number card holders are able to make certain tax filings online (electronically authenticated with My Number card data) and receive family, tax, residency and other records at convenience stores (which are ubiquitous in most Japanese cities) rather than at the local city hall or ward office. My Number cards can also be used as health insurance cards at hospitals and drug stores and in October 2022, the Japanese government announced that it intends to abolish physical health insurance cards by the autumn of 2024, requiring all patients to replace physical health insurance cards with My Number cards. The government also intends to make My Number cards usable as drivers’ licence cards.

That said, despite being introduced in 2015, the adoption of My Number cards has been sluggish – reportedly only 36 per cent of Japanese residents had My Number cards as of 1 August 2021. To encourage more widespread adoption, in September 2020, the government started a campaign to pay up to a ¥5,000 subsidy in electronic money to holders of My Number cards, and from June 2022, the government is offering each holder an additional ¥7,500 subsidy for signing up to use the holder’s My Number card as a health insurance card and an additional ¥7,500 subsidy for linking the holder’s My Number card to the holder’s bank accounts. Perhaps as a result of these campaigns, the percentage of Japanese residents with My Number cards has increased to 47.4 per cent as of the end of August 2022.

ii Enhancing national security protection

Because protecting national security has become an increasingly important issue, multiple new laws and amendments were recently enacted.

Under Japanese export control law, transfers to foreign residents or foreign companies of technologies that can be used to manufacture weapons require licences from the government. For this purpose, a foreign individual is not categorised as a foreign resident if they are working in Japan or has stayed in Japan for six months or longer. Critics have argued that Japanese or foreign individuals who reside in Japan, but receive substantial economic benefit from foreign governments or foreign entities, create a loophole in Japan’s technology transfer restrictions. In response, effective from May 2022, the relevant regulations were amended to generally require licences for any transfer of such sensitive technology to a Japanese resident who (1) is employed or otherwise retained by a foreign government or foreign entity; (2) receives a material amount of money or other interest from a foreign government; or (3) acts under requests from, or instructions by, a foreign government.

The government also implemented new regimes to bolster national security by protecting strategic economic resources, such as sensitive technologies and key supply chains. The ‘Act on Promotion of Economic Security by Integrated Implementation of Economic Measures’ was enacted in May 2022. The Act implements a regime to support supply chains for strategic resources, such as pharmaceutical products and semiconductors, and the development of advanced technologies, such as technologies related to space development, quantum computing and artificial intelligence. The Act also implements a patent non-disclosure system, under which the government may block disclosure of technologies

described in patent applications if the disclosure would be expected to have negative effects on national security and safety. Moreover, the Act authorises the government to (1) designate major operators of essential infrastructure, including broadcasting and telecommunications companies and providers of utilities, transportation, financial services and postal services; (2) require such designated operators to pre-file any plan to install equipment essential to such infrastructure or to outsource maintenance or operation of such equipment; and (3) block this installation or outsourcing if the installation or outsourcing is vulnerable to attacks against infrastructure from outside Japan. The government will issue master guidelines as to how the regime will operate by May 2023 and designate the major operators of essential infrastructures regulated under the regime by November 2023. The prior filing requirements will take effect by February 2024.

II REGULATION

i Main sources of law

The MIC has broad authority to regulate the telecommunications and broadcasting spaces, derived from a series of statutes which are the ultimate source of law in these sectors in Japan. The core statutes conferring this authority include:

- a* the Wire Telecommunications Act, which governs facilities for wired signal transmission such as wired telephony, wired broadband networks and cable television;
- b* the Radio Act, which governs facilities for wireless signal transmission such as mobile phones, terrestrial and satellite television broadcast infrastructures and high-powered WiFi networks;
- c* the Telecommunications Business Act, which regulates telecommunications and media businesses; and
- d* the Broadcast Act, which regulates the content that telecommunications and media businesses carry or provide.

The Broadcast Act and the Radio Act were amended in November 2010 to provide a more streamlined regime for the review and granting of broadcast licences, which included the separation of broadcasting licences from transmission licences, previously a single licence, to make the process for receiving a licence easier for applicants.

Prior to the amendment, general broadcasting licences, cable radio broadcasting licences, cable TV (CATV) broadcasting licences and licences to broadcast content through third-party facilities were granted by the MIC under different statutes using different procedures that had developed over time as the underlying technologies were developed and implemented. The amendment consolidated the statutory licensing provisions for these activities into the amended versions of the Broadcast Act and Radio Act, under which broadcasting activities have been divided into two major licensing categories: main broadcasting, consisting of both terrestrial broadcasting and broadcasting via satellites located over 110 east longitude; and regular broadcasting, consisting of broadcasting via all other satellites, CATV and internet protocol TV (IPTV).

Prior to the amendment, terrestrial broadcasting licences were granted only to broadcasters that both provided their own broadcast content and operated the wireless transmission facilities used for its distribution. Under the amended Broadcast Act and Radio

Act, broadcasters are able to distribute their programming through third-party terrestrial wireless transmission facilities, just as they already were permitted to distribute their programming through third-party satellites and third-party cable television providers.

These reforms have lessened the regulatory burdens on telecommunications and broadcasting companies to provide flexibility as to the management of those companies and to open up competition by decoupling the ownership of broadcasting facilities from the production of broadcasting content.

ii Regulated activities

The MIC exercises its statutorily conferred regulatory power in numerous ways. For one, it has the authority to grant broadcasting licences (for facilities such as television and radio stations that produce or broadcast media content), wireless transmission licences (for mobile phones and facilities such as mobile phone base stations and satellites) and telecommunication business licences (for traditional wired communications as well as mobile phone providers and internet service providers (ISPs)), and to monitor the businesses conducted with such licences.

The MIC is also charged with allocating radio spectrum to licence holders, and has adopted detailed regulations to monitor and establish technical standards applicable to spectrum users and their licensed facilities and businesses. The process through which the MIC exercises this decision-making authority is often criticised as opaque and arbitrary. For example, the allocation of radio spectrum frequencies to private sector service providers is based on the general judgement of the MIC, and not on any clear set of factors, leaving applicants unsure as to what elements are being considered and opening the MIC to accusations of favouritism or political manipulation. Spectrum policy in Japan is further discussed in Section IV.

The Broadcasting Act requires licensed broadcasters to remain politically neutral and report the ‘truth’. In February 2016, the Minister of the MIC stated during a legislative session that a broadcaster would violate the Broadcasting Act if it repeatedly broadcast lengthy content supporting a particular political view without reporting on other political views. The Minister further indicated that, in the event of such a violation, the MIC could issue an order to suspend such broadcaster’s business. This statement was criticised for potential chilling effects on freedom of speech.

iii Ownership and market access restrictions

Restrictions on foreign investment

Inbound direct investments in Japan are regulated by the Foreign Exchange and Foreign Trade Act (Law No. 228 of 1949, as amended) and related regulations (collectively, FEFTA), which are administered by the Ministry of Finance (MOF) and the Bank of Japan (BOJ). FEFTA has been substantially amended in the past few years, making its framework much more complicated. At a very high level, if a transaction will result in a foreign investor holding 1 per cent or more of the shares or voting rights in a publicly listed Japanese company, or any shares at all of a non-listed (private) Japanese company, FEFTA may require a pre-closing filing and clearance process involving the MOF, the BOJ and other industry-specific regulators, or a post-closing report. Specific clearance requirements will vary based on, among many other factors, whether the industries and activities of the Japanese company falls within certain specified categories of regulated industries (i.e., designated sectors). Certain categories of

broadcasting, telecommunication and radio businesses fall within such designated sectors and, accordingly, an acquisition of shares of a Japanese company engaged in such businesses may trigger the FEFTA clearance requirement.

Additionally, foreign ownership and management of broadcasting licence holders, wireless transmission licence holders and Nippon Telegraph and Telephone Corporation (NTT), a semi-privatised national telecommunications service provider, is restricted by industry-specific statutes, as summarised in the table below:

Business	Category	Maximum permitted foreign ownership		Directors' and officers' positions that may not be filled by a foreigner
		Direct	Indirect	
Land broadcasting	Approved basic broadcaster	20%	20%	Any specified officer*
	Supplier for basic broadcasting stations	20%	20%	Any specified officer
	Specified terrestrial basic broadcaster	20%	20%	Any specified officer
Satellite broadcasting	Approved basic broadcaster	20%	N/A	Any specified officer
	Supplier for basic broadcasting stations	One-third	N/A	Any representative† Foreigners must occupy fewer than one-third of all officer positions
Certified broadcasting holding company		20%	20%	Any specified officer
Radio	Radio station	One-third	N/A	Any representative Foreigners must occupy fewer than one-third of all officer positions
NTT		One-third	One-third	Any officer

* Specified officer means an officer of a corporation or organisation having considerable influence over the execution of the business of the corporation or organisation, as specified under Order of the Ministry of Internal Affairs and Communications (e.g., executive directors).
† Representative means a person who has authority to represent (i.e., act on behalf of) a company.

In 2021, two violations of foreign investment restrictions were revealed. In March 2021, Tohoku Shinsha notified the MIC that 20 per cent or more of its shares were held by foreigners at the time the MIC granted Tohoku Shinsha a licence to operate a satellite basic broadcaster business. As a penalty for such violation, the MIC cancelled Tohoku Shinsha's licence. Shortly thereafter, in April 2021, Fuji Media Holdings publicly announced that its foreign investor ownership had exceeded the 20 per cent threshold in March 2014. Fuji Media Holdings reported the incident to the MIC in 2014, but did not issue a public announcement until April 2021. Fuji Media Holdings' foreign investor ownership fell below the 20 per cent threshold by December 2014. At that time, the MIC only verbally warned Fuji Media Holdings and did not impose any other penalties. As the magnitude of the penalties significantly differed between these two incidents that, on their face, appear to be very similar, the MIC had to explain why the penalties were equitable. The reason offered by the MIC was that Tohoku Shinsha violated the restrictions at the time it was granted a licence, whereas this was not the case for Fuji Media Holdings.

These incidents drew the MIC's attention to the status of compliance with the foreign ownership regulations, and in April 2021, the MIC requested that all certified broadcasting holding companies and basic broadcasters answer inquiries on their respective compliance with the foreign ownership regulations. Additionally, the MIC established a working group comprised of experts to review the Japanese framework of the FDI regulations governing the telecommunication industry. The working group has considered what general framework is

appropriate, taking into consideration the current situation where two regulatory regimes – the general FEFTA and industry-specific regulations – apply in parallel. As a result of the discussion, the Diet passed an amendment to the Radio Act and Broadcast Act in June 2022, which will come into force within one year. Although the amendment reinforced the foreign ownership disclosure requirements and introduced a process whereby the MIC could require a violating company to remedy a violation of the foreign ownership percentage limitations (rather than cancel the company's licence outright), the foreign ownership percentage limitations remained the same.

Restrictions on cross-ownership

Ownership of multiple broadcast outlets is restricted by the Broadcast Act and related regulations. This restriction on the concentration of ownership is intended to support press freedom and the diversity of speech in broadcasting. The restriction includes limits on the simultaneous ownership of shares in, and control over board seats of, multiple main broadcasting licence holders (e.g., a single entity may not own or control terrestrial broadcasting licence holders covering more than 12 of Japan's 47 prefectures), as well as aggregate upper limits on the use of satellite transponder capacity for owners of multiple main broadcasting licence holders. However, in response to worsening business conditions for radio broadcasters, the MIC amended its regulations in 2011 to relax restrictions on the cross-ownership of radio broadcasting licence holders, now allowing simultaneous control of up to four licences. Moreover, given the penetration of broadband network and the expansion of services to distribute video content, in August 2022, an MIC study group proposed to further relax the restrictions on cross-ownership, including lifting the 12-prefecture limit for terrestrial broadcasting licence holders owned or controlled by the same company.

iv Transfers of control and assignments

In addition to foreign ownership and management, and cross-ownership limits, MIC approval is required for mergers and acquisitions that result in a new entity's holding a main broadcasting or wireless transmission licence. Therefore, a statutory merger pursuant to which a licence holder will not be the surviving company, or the divestiture of a business conducted under such licence, each generally require MIC approval. The MIC's review process focuses on the proposed transferee rather than the transferred broadcasting or wireless business, and primarily involves a determination as to whether that transferee would have been eligible to independently qualify as a new licensee if it had submitted a full application. According to the MIC, it generally endeavours to finish the licence transfer review process within one month, which is a significantly shorter time frame than in the case of licence renewals or new applications.

The Telecommunications Business Act was amended in May 2015 to require the major telecommunications companies⁴ to renew their respective telecommunications business registrations when they engage in mergers or share acquisitions. This amendment, which came into effect in 2016, allows the MIC to review the potential anticompetitive effects of any proposed merger or share acquisition on business operations and fair trade. Anticompetitive

⁴ These renewal requirements apply to any fixed line provider with greater than 50 per cent market share and any mobile provider with greater than 10 per cent market share.

concerns are particularly important in the Japanese telecommunications industry, which was monopolised by three major private telecommunication companies – NTT DOCOMO,⁵ KDDI and SoftBank – until Rakuten Mobile entered the market in October 2019.

In addition, as noted above, pursuant to FEFTA, certain acquisitions of shares in broadcasting licence, wireless transmission licence and telecommunication business licence holders by non-Japanese parties are subject to prior filing and waiting periods.

III TELECOMMUNICATIONS AND INTERNET ACCESS

i Internet and internet protocol regulation

The MIC regulates internet and IP-based services (such as high-speed internet and voice over internet protocol services), along with wired telephony and mobile phones, under the Telecommunications Business Act. The Act and the regulations thereunder emphasise protection of the secrecy of communications and the reliable and non-discriminatory provision of telecommunications services.

The Act regulates not only service providers that operate their own network facilities, but also service providers that facilitate telecommunications between users but do not operate their own network facilities (such as dedicated hosting services on which clients can operate an email server). Internet-based services that are not designed to facilitate telecommunication, such as internet banking and internet-based newsletter and media subscriptions, are not deemed to be telecommunications services which would require a filing with the MIC.

In June 2022, the Diet passed an amendment to the Telecommunications Business Act that will come into force within a year. The amendment newly designated business operators of search engines and social network service (SNS) providers as telecommunications services providers who will be regulated under the Telecommunications Business Act.

ii Universal service

Under the Telecommunications Business Act and the NTT Act, the NTT group is required to provide wired telephony services (analogue or IP over optical fibre), pay phone services and emergency call services to all areas of Japan. NTT East and NTT West⁶ provide services to depopulated areas, and a telecommunications trade association comprising all of the major telecommunications companies in Japan then reimburses NTT East and NTT West for any cost deficits incurred by an NTT group's provision of the service. National law requires each telecommunication service provider connecting its network with that of NTT East or NTT West to pay a small fee (approximately ¥2 to ¥8, varying from year to year) per landline and mobile phone number (customer), which costs are typically passed along to individual users in connection with their monthly telephone service bills. Notwithstanding such funding assistance, NTT East and NTT West have operated at a deficit in their landline businesses as a result of the burden of owning and maintaining all of the facilities necessary to provide services to the entirety of Japan, including rapidly depopulating areas. To reduce this burden,

5 NTT Corporation is 35.59 per cent owned by the Ministry of Finance as of 30 June 2022. NTT DOCOMO was a publicly traded subsidiary of NTT Corporation, but on 29 December 2020 became a wholly-owned subsidiary of NTT Corporation.

6 NTT East and NTT West are subsidiaries of NTT Corporation. NTT was initially a single consolidated conglomerate that conducted all of the activities now conducted by the individual NTT group companies. In 1999, the NTT conglomerate was forced to split into multiple smaller companies for antitrust purposes.

the NTT Act was amended in May 2020 to permit NTT East and NTT West to use wireless telecommunication facilities owned by other telecommunications companies to fulfil their duties of providing universal service.

Historically, there was no similar law requiring universal broadband service, but in June 2022, the Diet passed an amendment to the Telecommunications Business Act to require universal access to certain broadband services. As a result, operators of these broadband services will be obligated to, among other things, expand their services in certain areas, and prepare and make available the terms and conditions for such services. It is expected that such broadband services will include optical fibre/fibre to the home (FTTH) and CATV transmitted via a hybrid fibre coaxial method. Subsidies will also be introduced to expedite the stable provision of services in unprofitable areas.

Notwithstanding the lack of a formal requirement for universal coverage before the 2022 amendment, as of 2015, the broadband infrastructure (3.5G, satellite internet, 3.9G, digital subscriber line (DSL), optical fibre/FTTH, etc.) penetration rate in Japan had already reached 100 per cent, and super-broadband infrastructure (optical fibre/FTTH, 3.9G and other infrastructure with a data transmission speed over 30Mb per second, including DSL, fixed wireless access, satellite, and broadband wireless access) penetration rate had similarly reached 99.98 per cent. That said, continuing to roll out optical fibre will be especially important to enable the proliferation of 5G. Optical fibre's nationwide penetration rate was 99.3 per cent as of March 2021, but it is still below 95 per cent in a few prefectures that have isolated islands or mountainous areas. The MIC is planning to increase the penetration rate to 99.85 per cent by the end of fiscal year 2024, and to 99.90 per cent by the end of fiscal year 2027. The MIC is also seeking to bring optical fibre or, at minimum, mobile phone access, to all areas by the end of fiscal year 2022.

Rakuten Mobile: a new mobile network operator service provider

Rakuten KK, a major e-commerce platform, has long had the largest market share of all mobile virtual network operators (MVNOs) in Japan. Its recently established subsidiary, Rakuten Mobile, was approved to become Japan's fourth mobile network operator (MNO) in April 2018. Rakuten Mobile was allocated 1.7GHz 40MHz bandwidth in April 2019, and shortly thereafter announced the launch of its MNO services.⁷ To consolidate its service offerings, Rakuten KK also assigned its MVNO business to Rakuten Mobile in April 2019. Rakuten Mobile launched MNO services in April 2020.

Public WiFi access

According to a 2020 survey of foreign visitors conducted by the Japan Tourism Agency, the lack of free public WiFi in Japan was ranked as one of the most inconvenient aspects of their visit to Japan (11.0 per cent of the respondent answered negatively), though the ratio had significantly decreased compared to the survey in 2017 (21.2 per cent).

7 An MNO is a wireless communications service provider that provides wireless service through its own infrastructure. An MVNO, on the other hand, is a wireless communications service provider that does not own the wireless network infrastructure over which it provides wireless services, but rather procures access to such infrastructure from a third party.

The MIC has been implementing improvements to public WiFi services in an effort to increase the number of foreign visitors to Japan. In particular, the MIC has been managing the implementation of the SAQ2⁸ JAPAN Project since June 2014. The goals of the SAQ2 JAPAN Project include:

- a* increasing the number of free WiFi hotspots and improving the accessibility of these hotspots to the public;
- b* facilitating the availability and installation of Japanese SIM cards for foreign mobile phone users in Japan;
- c* reducing international roaming fees applicable to foreign mobile phone users in Japan; and
- d* implementing multi-language interpretation systems (i.e., translation applications).

In November 2013, an NTT group affiliate began providing a smartphone application called Japan Connected-free WiFi,⁹ which allows users to connect to public WiFi access points across Japan, including at airports, train stations, convenience stores and tourist spots, with a one-time new user registration. The smartphone application is available in 16 languages, including English, French, German, Spanish, Italian, Chinese, Korean, Thai and Bahasa Indonesia. This NTT group affiliate is also continuing to install additional WiFi access points.

In preparation for hosting the 2020 Olympic Games in Tokyo (which ultimately were moved to 2021 as a result of the covid-19 pandemic), in February 2016 the MIC issued a policy statement encouraging the adoption of a simplified and unified authentication protocol with the goal of increasing foreign visitors' access to free public WiFi services. On behalf of the MIC, Gateway App Japan, a non-profit organisation, publishes a smartphone application, called the Omotenashi app,¹⁰ with the cooperation of KDDI and SoftBank. KDDI and SoftBank are major competitors of the NTT group, which, as noted above, provides the Japan Connected-free WiFi app. These two smartphone applications (Japan Connected-free WiFi and the Omotenashi app) are compatible (i.e., foreign visitors will be able to access the WiFi access points all over Japan using either of these applications). Recently, a handful of private companies, such as Accenture and SoftBank, have launched first-party applications enabling foreign visitors to access thousands of WiFi access points across Japan. With users' consent, some of these private companies gather anonymised data from the use of their applications, including data user attributes and location history, which they then analyse and sell to third parties as reports.

Tokyo Metro, a railway company that is owned by the Japanese national and local Tokyo governments and operates many of the subway lines in Tokyo, provides public WiFi access points in nearly all of its stations. In addition, in preparation for the Tokyo Olympic Games, Tokyo Metro equipped all of the subway trains it operates with WiFi prior to 2020, but as of June 2022 has terminated public WiFi service on its trains. Travel Japan WiFi (another competitor to Omotenashi and Japan Connected-free WiFi) remains available on these trains.

8 SAQ is an acronym for selectable, accessible and quality.

9 This application was prepared primarily for foreign visitors' use, but Japanese residents are also able to use the application.

10 'Omotenashi' means hospitality.

In January 2019, the government began imposing a ¥1,000 departure tax, informally known as the international tourist tax, on all foreign visitors to improve Japan's tourism infrastructure, including to fund the proliferation and enhancement of public WiFi.

Separate from the above improvements to free WiFi services, major Japanese mobile phone service providers have established an emergency disaster service set identifier (SSID): 00000JAPAN. During natural disasters, this SSID enables each user to use the WiFi networks of any Japanese mobile service provider even if the user does not have a subscription for, and accordingly would not normally have access to, that network. This SSID was made available for the first time during a two-week period following an earthquake in the Kumamoto area in April 2016. More recently, this SSID was activated following flood disasters in the Hiroshima and Osaka areas in July 2018 and September 2018, respectively, as well as following a large earthquake in Hokkaido in September 2018, and severe typhoons during the autumn of 2019. During the 2018 Hokkaido earthquake, however, the WiFi access points were rendered unusable as a result of widespread electrical outages. In light of growing security and privacy concerns, the MIC recently warned that communications sent through this SSID are intentionally unencrypted to prioritise accessibility, and therefore subject to interception by third parties.

Because of the completion of the Olympic Games and the decrease in inbound tourists (due to the covid-19 pandemic and other factors), several free WiFi services have been wound down. As a result, the number of WiFi access points in Japan has decreased from 198,000 in 2019 to 157,000 in 2021.

Use of foreign mobile devices

As a general rule, under the Radio Act, it is prohibited to use mobile devices in Japan that do not meet Japanese radio frequency (RF) emission standards, and with respect to which the manufacturer has not obtained authentication from the government. Until relatively recently, many foreign visitors were therefore technically violating the Radio Act by using their personal mobile devices in Japan (since the devices sold overseas typically have not been authenticated by the Japanese government), but there are no known cases of any foreign visitor's actually being charged with Radio Act violations for personal mobile device use. In August 2016, an amendment to the Radio Act took effect, permitting foreign visitors to Japan to use their personal mobile devices (even if not authenticated in Japan) for up to 90 days, so long as the devices have either been certified by the Federal Communications Commission in the United States or received CE certification in the European Economic Area using standards equivalent to those imposed on Japanese mobile devices. This Radio Act amendment was implemented to encourage foreign tourists to visit Japan in anticipation of the 2020 Olympic Games. While there had previously been concerns that devices not authenticated in Japan could adversely affect the radio use environment, the MIC concluded that the likelihood of an adverse effect was minimal. The MIC had earlier loosened the Radio Act's restrictions to allow Japanese residents to use foreign mobile phones for R&D purposes via an amendment to the Radio Act that came into force in November 2019. Under the amended Radio Act, Japanese residents are permitted to use foreign mobile phones for R&D purposes for up to 180 days, but the user is required to file prior notification with the MIC (which can be done online) and this exception only allows users to connect devices that have received foreign certifications using standards that are equivalent to those imposed on Japanese mobile devices under the Radio Act.

In addition to government-imposed restrictions, private companies in Japan have in certain cases voluntarily adopted policies prohibiting the sale of certain foreign mobile devices. In May 2019, for example, NTT DOCOMO, KDDI and Softbank voluntarily ceased distribution of mobile devices manufactured by Huawei after the United States imposed sanctions on Huawei. These carriers eventually resumed sales of Huawei devices after the US government announced it was extending the pre-‘ban’ grace period.

Proliferation of the internet of things

To address the rapid increase in the number of internet of things (IoT) devices, which could exhaust the number of available mobile phone numbers, in January 2017, the MIC amended its regulations on the assignment of phone numbers to assign the designation ‘020’ to machine-to-machine (M2M) data connection devices, segregating numbers for M2M services from standard mobile numbers designated with ‘090’, ‘080’ and ‘070’. Although these ‘020’ numbers were originally 11 digits long (the same as mobile phone numbers), to expand capacity to meet increasing demand, the MIC amended the relevant regulations in 2019 to assign 14-digit ‘020’ numbers. This change made an additional 10 billion numbers available for M2M data connection devices. It is expected that M2M data connections conducted through mobile networks will initially be used primarily for telemetry (e.g., remote management of water and gas meters, vending machines and elevators) and telematics (e.g., GPS and other information services equipped in vehicles), and will eventually cover connected cars and other IoT devices. NTT DOCOMO, KDDI and several MVNOs commercially launched M2M data connection services in October 2017.

New regulations have recently been adopted to address IoT devices’ vulnerability to cybercrime (see the ‘Cybercrime’ section below).

IP telephony

In November 2015, NTT announced a plan to switch from the use of fixed-line public switched telephone network (PSTN) to IP telephony. According to NTT’s updated implementation plan, NTT will commence work on the switch to IP telephony in January 2024 with completion planned for January 2025. As the existing PSTN is a fundamental element of Japan’s telecommunications infrastructure, the MIC is paying close attention to emerging IP telephony services and the process through which NTT will transition away from PSTN. In light of the importance of PSTN to the existing infrastructure, in February 2016, the MIC asked the Telecommunication Council to identify potential issues that could arise from the switch to IP telephony. To mitigate certain concerns identified by the Council (such as consumers’ ability to retain existing telephone numbers), the MIC presented a proposed amendment to the Telecommunications Business Act to the Diet in March 2018, which was subsequently enacted in May 2018. Under the amendment, each telecommunication company must obtain the MIC’s approval of its plans regarding the use of telephone numbers, and must thereafter comply with the approved plans. Additionally, when telecommunication companies cease to provide services during the shift to IP telephony, those companies must file notice of such cessation with the MIC so that the MIC may make a public announcement of the terminating services to customers.

iii Restrictions on anticompetitive practices

The telecommunications industry in Japan has traditionally been dominated by NTT East and NTT West and by three major private telecommunication companies: NTT DOCOMO, KDDI and SoftBank. A fourth major service provider, Rakuten Mobile, was granted an MNO business licence in April 2018 and launched commercial MNO services in April 2020. Because existing providers can become dominant (to the exclusion of new entrants) once their network or technology standard has been adopted by a critical mass of users, the MIC and the Japan Fair Trade Commission (JFTC) have jointly adopted guidelines to regulate anticompetitive practices by service providers with high market shares.

End user pricing restrictions

Under the Telecommunications Business Act, prices charged to end-users by NTT East and NTT West for wired telephony and payphone services are subject to caps determined by the MIC. These caps are intended to prevent these companies from abusing their near-monopoly over these fundamental services and to encourage them to improve efficiency. In addition, prices to be charged by NTT East and NTT West for optical data services, and prices to be charged by KDDI, NTT DOCOMO and SoftBank for mobile services, must all be submitted to the MIC for review before implementation. If the MIC finds a pricing scheme inappropriate, either because it is anticompetitive or otherwise significantly unreasonable, the MIC may require the carrier to change its pricing scheme. Otherwise, prices charged to end-users and the other terms of service are not regulated. This may change, however, as the government has recently started applying pressure on the major telecommunications companies to reduce prices for mobile phone services. The MIC amended the Telecommunication Business Act in December 2021 to obligate KDDI, NTT DOCOMO, SoftBank, Wireless City Planning (WCP) and UQ Communications to report to the MIC details regarding the calculation method and underlying data used to determine mobile connection pricing and other terms and conditions.

Access to NTT East and NTT West optical fibre networks

As a general rule, each telecommunication business licence holder must allow any other carrier to interconnect with its network. However, the prices charged for, and the method of, interconnection raise controversial issues and have been increasingly subject to regulatory scrutiny.

Telecommunications companies have pressed for greater access to NTT's infrastructure, including its optical fibre network. Previously, NTT East and NTT West only provided access to its fibre optic network on a bulk basis. However, following 1 February 2015, NTT East and NTT West began to offer single-line fibre optic access through a fibre optic wholesale programme to other carriers and to companies that are not traditional telecommunication providers, such as Sohgo Security Services (ALSOK) and Tsutaya, a rental video company. These fibre optic wholesale programmes aim to increase fibre optic use by, among other measures, encouraging reduction in fees charged at the end-user level. As of March 2022, approximately 819 operators had commenced use of these wholesale fibre optic services.

In addition, competition-related concerns have arisen from the confidential nature of NTT East's and NTT West's contracts with the secondary retailers to whom they provided fibre optic wholesale services. For example, KDDI and SoftBank expressed concerns that

NTT East and NTT West were providing their fibre optic wholesale services to NTT group companies at lower prices than to unaffiliated companies, which in turn enabled NTT group companies to provide fibre optic services to end-users at lower prices.

In response to these concerns, the MIC issued guidelines relating to the provision of fibre optic wholesale services that prohibit the disparate treatment among service providers and also provide the MIC with potential enforcement mechanisms. A survey conducted by the MIC showed that NTT DOCOMO and NTT Communications (a data communication company within the NTT group) had obtained a fibre optic wholesale service market share of approximately 60 per cent by offering end users large discounts on their respective mobile service fees. Given the prominence of this market share, and as a result of their relationship to NTT East and NTT West, other fibre optic service providers have argued that the discounted fees charged by NTT DOCOMO and NTT Communications are anticompetitive in nature. To address these concerns, in May 2016 the MIC launched investigations into NTT DOCOMO's business practices. In its investigation report, which was issued in August 2018, the MIC concluded that the discounted fees charged by NTT DOCOMO and NTT Communications did not constitute anticompetitive practices. However, the MIC did determine during its investigation that NTT DOCOMO's online description of the terms and conditions applicable to its pricing discount was misleading to customers. NTT DOCOMO voluntarily modified this description, but in June 2018 the MIC nonetheless issued an administrative direction to NTT DOCOMO to prevent future occurrences of misleading marketing.

MNO pricing for services to MVNOs

Along with the introduction of fibre optic wholesale services, the availability of MVNO service in Japan is also expanding. While MVNOs have existed in Japan since 2001, there have been few providers and subscribers until recently.

In 2007, the MIC's guidelines regarding MVNOs were amended to clarify the relative rights and obligations between MVNOs and MNOs, and to establish a formalised dispute settlement procedure. After this amendment, the number of MVNO service providers using MNOs' mobile lines or WiMax (worldwide interoperability for microwave access) lines significantly increased. In 2014, related guidelines were amended, including a change in the calculation of mobile line wholesale pricing. These calculation changes have reduced mobile line wholesale prices to the benefit of MVNOs, but pricing remains a major topic between MNOs and MVNOs. More recently, in 2017 the guidelines regarding MVNOs were amended twice to, among other things, clarify that the MIC is authorised to issue business improvement orders to any MNO that discriminates against MVNOs with respect to providing access to its network.¹¹

The aforementioned guidelines and amendments to the Telecommunications Business Act discussed below appear to have increased MVNO activity. In FY2013, only 22 MVNOs provided data communication services or voice communication services in Japan. However, as of March 2022, the number of active MVNOs has increased to 1,648. Correspondingly, there

11 The MIC, as part of its regulatory enforcement powers, has the authority to issue business improvement orders to telecommunications companies to the extent it deems their activities to significantly disrupt the sound development of telecommunications services.

were 24.81 million MVNO subscribers in March 2022, up from 7.17 million in December 2013. However, despite this recent increase in MVNO activity, MVNO service subscribers still only constituted 13.0 per cent of all mobile service subscribers as of March 2022.

Wholesale service pricing

The MIC established a new guideline regarding the verification of wholesale prices in September 2020, and published the result of a self-verification conducted by NTT East and NTT West pursuant to the guideline in 2021. The MIC concluded that market pressure did not provide an adequate check on wholesale service pricing with respect to access to NTT East and NTT West optical fibre services and mobile line resellers. Accordingly, the Telecommunications Business Act was amended in June 2022 to encourage more price-competitive negotiation. Under the amended act, the wholesale service provider may not refuse to provide services if the applicable customer accepts the provider's standard terms and conditions and is obliged to disclose its price calculation methodology, among other information.

For the first time in 10 years, NTT DOCOMO, KDDI and SoftBank expressed their intent to discount mobile line wholesale services in 2021. The MIC is also considering the establishment of standard pricing for mobile wholesale services.

Measures to address anticompetitive effects of device bundling and discount programmes, SIM-locking and auto-renewing contracts

One reason MVNO penetration remains low is that MNOs commonly permit subscribers to purchase new mobile devices on monthly instalment plans – often simultaneously offering discounts on monthly subscription fees equal to or greater than the amount of the monthly instalment payments for the device. MNOs advertise that this instalment and discount programme renders subscribers' new devices 'effectively free'. In contrast, the vast majority of MVNOs do not have the financial resources to permit subscribers to pay for new mobile devices in instalments. Instead, MVNO subscribers seeking a new mobile device must often pay its entire purchase price upfront. This resource disparity has made it more difficult for MVNOs to compete with MNOs for new subscribers.

Recognising the high barriers to entry created by these effectively 'free' mobile device programmes, in March 2016 the MIC issued guidelines compelling MNOs to decrease the size of their mobile device discounts so that subscribers are required to make reasonable payments toward their new devices. The intended result of these guidelines is to bolster competition and, eventually, reduce mobile service subscription fees. In October 2016, the MIC issued official warnings to NTT DOCOMO, KDDI and SoftBank for attempting to subvert the March 2016 amended guidelines by distributing coupons to subscribers and potential subscribers in lieu of discounts. The Telecommunication Business Act was amended in this regard in May 2019 to state that combined sale of mobile devices and mobile service contracts is prohibited, and discounts linked to the mobile service contract should be limited up to ¥20,000. Even after the amendment, however, similar discounts still exist in practice, ostensibly under the rationale that the discount is not linked to the mobile service contract.

The MIC has also made efforts to address the issues of SIM locking and mandatory two-year service contracts with automatic contract renewal, in each case to facilitate competition between MNOs and MVNOs and reduce consumers' mobile expenses.

Since the MIC's initial adoption of guidelines in 2010, it has encouraged mobile service providers to provide SIM unlock options for customers' mobile devices, as it believes that the practice of SIM locking prevents consumers from freely choosing mobile service carriers and

causes competition stagnation. Most recently, in August 2021, the MIC drastically revised its guidelines such that, as a general rule, SIM locking is prohibited. SIM locking is now only permitted with the MIC's prior approval.

In the past, progress toward the abolishment of automatically renewing two-year service contracts was slow. For years MNOs frequently required customers under 'free' mobile device programmes to enter into two-year contracts under which customers were required to pay approximately ¥10,000 for early termination, plus an accelerated payment of the purchase price of a smartphone that would otherwise be paid by instalments during the two-year term. The two-year contract system, in conjunction with the 'free' mobile device programmes, has long been identified as reducing customers' freedom of choice in mobile service carriers and viewed by the MIC as raising anticompetitive concerns. Although the MIC issued guidelines on numerous occasions over the years to address these contracting practices, its guidelines were largely ineffective in addressing the fundamental issue of automatically renewing two-year contracts.

However, the government finally took steps to address this issue in May 2019 by amending the Telecommunication Business Act to impose restrictions on the use of automatically renewing two-year contracts – a significantly more affirmative step than its prior non-binding guidelines. As a general principle, the newly amended Telecommunication Business Act prohibits the use of any contract provisions that would restrict consumers' ability to terminate their mobile service contracts, if the restrictions rise to a level that would be deemed to have anticompetitive effects. Given its generality, the MIC has been delegated the task of adopting specific regulations to carry out this mandate. The MIC's regulations clarify the types of anticompetitive behaviour that are prohibited under the amended Telecommunication Business Act. The MIC's regulations list, among others, the following as examples of prohibited provisions in consumers' mobile service contracts:

- a* any termination penalty (regardless of amount) in conjunction with a contract term longer than two years;
- b* regardless of contract length, any early termination penalty in excess of ¥1,000; and
- c* automatic renewal clauses coupled with an early termination fee, regardless of the initial contract term, unless the following conditions are met:
 - the contract must be terminable without a fee during a minimum three-month window extending from one month prior to expiry of the original contract term through the first two months of the renewal period;
 - consumers must be given the choice, upon execution of the original contract, not to have any termination penalty apply to renewal periods;
 - consumers must be given the choice, at the time of automatic renewal, not to have any termination penalty apply to that renewal period; and
 - the service provider cannot change pricing or terms to incentivise customers to consent to a longer termination penalty period.

In addition, in June 2022, the JFTC and the MIC amended their joint guidelines regarding the promotion of competition in the telecommunication business to clarify that certain MNO practices – such as significant discounts on mobile devices tied to service plans, encouraging manufacturers to limit distribution of SIM-unlocked devices to competitors and requiring device distributors to sell devices at the price designated by the MNO – could constitute violations of anti-competition laws.

In an earlier effort at reigning in anticompetitive practices, amended regulations implementing the Telecommunication Business Act that took effect in October 2018 added MVNO voice communication services to the list of services for which customers have an eight-day cooling-off period after signing a new service contract, during which period the agreement can be terminated without penalty.

MVNOs that are affiliated with MNOs

The MIC has recently begun analysing the state of competition between MVNOs. In particular, the MIC has expressed concerns that MNOs might favour affiliated MVNOs and, in turn, discriminate against unaffiliated MVNOs by providing them slower data traffic speeds. The MIC did not mention any MNOs by name, but many commentators believe that the MIC was referring specifically to KDDI (which owns 32 per cent of UQ Communications) and SoftBank (which is affiliated with Y!Mobile). In October 2018, the MIC established new regulations prohibiting MNOs from discriminating between MVNOs with respect to data traffic speeds. In connection with the foregoing, in May 2020, the MIC revised the MVNO guidelines to, among other things, clarify that an MNO is permitted to operate an MVNO business by relying on a network provided by a third-party MNO (in addition to relying on the MNO's own network), but if such operation of the MVNO business substantially harms competition or the provider ceases development of its MNO network in favour of focusing on its MVNO business that takes advantage of the MNO networks of other providers, the MIC may restrict the MVNO business through an administrative order.

Foreign enterprises

The MIC also seeks to address the issue that the cost to comply with the Telecommunication Business Act may differ between Japanese and foreign enterprises. The cost difference is primarily because of the difficulty of extraterritorial enforcement of the Act, resulting in uneven enforcement between domestic and foreign enterprises. Before the Telecommunication Business Act was amended, a foreign company was not subject to extraterritorial enforcement unless the company had an establishment or a facility in Japan, even if it provided services to Japanese consumers. To address this gap, the MIC amended the Telecommunication Business Act in May 2020 to extend its extraterritorial enforcement to foreign enterprises that provide to Japanese customers services equivalent to those of the domestic enterprises that are regulated by the Telecommunications Business Act. These amendments came into full force and effect in April 2021. The amended Telecommunication Business Act requires such foreign telecommunication companies to register with the MIC and to designate a local representative in Japan to ensure that the MIC can realistically enforce sanctions. This amendment also aims to enhance the protection of Japanese consumers' privacy rights.

As a consequence of extraterritorial application, even foreign telecommunication companies must comply with the obligation to protect consumers' right to secrecy of communication, which is protected even more stringently than personal data under Privacy Act (e.g., even the collection of secret communication requires the consent of data subjects). However, foreign telecommunication companies may face difficulty in complying with these secrecy of communication requirements. The first difficulty is to correctly delineate what categories of data fall within those requirements in the context of digital communication (which may include header data, IP addresses, location data, etc.). The MIC has provided guidance that any component of communication (such as date, place, identification code, frequency of communication) is deemed to constitute a secret communication. However,

such a broad definition may still be difficult to apply in practice in the course of business. Foreign telecommunication companies should monitor the development of discussions with respect to understanding these requirements.

iv Unsolicited communications

Unsolicited texts and emails, on one hand, and unsolicited phone calls, on the other hand, are regulated under separate regulatory regimes. With respect to unsolicited texts and emails, the Act on Regulation of Transmission of Specified Electronic Mail prohibits:

- a* the transmission of emails using false sender information as a means of advertisement for the sender's own or another person's sales activities;
- b* the transmission of emails to persons who have not opted in to receive such specified emails; and
- c* even where the recipient has opted in to receive emails from the sender, the transmission of an unreasonably large number of emails for the purpose of corroborating or promoting the sender's own or another person's sales activities.

Violators of these prohibitions on unsolicited texts and emails may face penalties of up to one year's imprisonment or a fine of up to ¥1 million.

In contrast, regulations pertaining to unsolicited phone calls are handled at the local prefectural level. Accordingly, each local prefectural government has established a local ordinance prohibiting the making of unsolicited phone calls. For example, in July 2018 the metropolitan government of Tokyo increased penalties under an anti-nuisance ordinance prohibiting continued unsolicited phone calls, facsimiles, emails and SNS messages, with offenders now being penalised with up to one year's imprisonment or a fine of up to ¥1 million.

As a result of a study conducted by the Working Group on Consumer Protection Rules based on the MIC's collection and analysis of consumers' complaints trends, the MIC has recognised that there are widespread consumer complaints about solicitations made by telecommunication business providers that intentionally mislead consumers as to the identity of that provider or omit the purpose of communication (e.g., to solicit customers to enter into subscription contracts they may not desire). Some consumers were induced to enter into agreements with small-sized enterprises that misleadingly portrayed themselves as larger, more well-known enterprises, while others switched service providers under the mistaken belief that they were just switching to a different subscription plan provided by their existing service provider. To address these issues, the MIC amended the Telecommunication Act to require telecommunication service providers and distributors to clearly state their identity and the purpose of a communication prior to each communication for solicitation. The amendment came into full force and effect in October 2019. These consumer protection rules were reinforced by another amendment of the relevant regulations of the Telecommunication Business Act that came into full force and effect in July 2022 and requires telecommunication service providers to provide written terms and conditions to consumers before they enter into agreements solicited by phone calls and means to allow consumers to terminate the service contracts more easily, and limits the size of early withdrawal penalties, among other things.

v **Privacy and data security**

Protection of personal information

In keeping with Japan's constitutional protection of freedom of speech and secrecy of communication, the Telecommunications Business Act prohibits ISPs from censoring or infringing on the privacy of communications passing through their networks.

As a general matter, the Law Concerning the Protection of Personal Information (Privacy Act) protects personal information or data that can be used to identify specific living persons. Under the Privacy Act, the entities handling such information are required to publish a 'purpose of utilisation' regarding its use. Personal information incorporated into a database must be kept accurately, and necessary and proper measures to maintain its security must be maintained. Any person whose personal data is kept in a database has a right to request access to the data, and add to, modify or delete it. In August 2015, the Privacy Act was amended to strengthen the protection of personal information, including through expanded protection of sensitive personal information, restrictions on the transfer of personal information outside Japan and the establishment of protocols for the use of anonymised data to facilitate big data analysis. In June 2020, the Act was amended to introduce the concept of 'pseudonymised data', which is data that is not completely anonymised, but does not identify individuals by itself. This concept was introduced to facilitate big data analysis because completely anonymising data is often impractical.

Further, the MIC and the Personal Information Protection Committee (PPC) have jointly issued Privacy Act guidelines that are specific to telecommunications businesses. As these guidelines are structured to reflect the requirements of both the Privacy Act, which generally applies to all businesses handling personal information, and the Telecommunications Business Act, which provides protections relating to the secrecy of communication (a constitutional right), they are considered even more stringent and robust than the general guidelines issued by the PPC, which solely reflect Privacy Act regulations. Such additional restrictions require, among other things, telecommunications business operators to:

- a* publish privacy policies regarding their collection and use of private information and, in particular, the collection of information through smartphone applications, on a reasonable effort basis;
- b* establish internal regulations regarding the length of time they may retain communication log records; and
- c* delete this information after the expiry of this period.

The guidelines were amended in March 2022 to further reinforce the rules thereunder. For example, the amendment states that where personal information is collected for 'profiling' purposes (i.e., use of personal information to analyse activities, preferences and other attributes of the data subject), telecommunications business operators must specify the 'purpose of utilisation' so that the data subject can reasonably understand how the information will be used. The amendment also clarifies, among other things, that as a general rule any information protected by secrecy of communication cannot be used for 'big data' analysis, such as machine learning or data mining, even if it is pseudonymised.¹² In addition, the

12 It is possible to use such information for 'big data' analysis if it is completely anonymised, but completely anonymising data can be highly technical and costly, and accordingly is often not practical, particularly when the analysis is for internal use.

amendment clarifies that user identifiers, terminal identifiers, application use history, cookies and location information are personal information and the provision thereof to a third party is subject to restrictions under the Privacy Act.

Telecommunications business operators are particularly likely to transfer personal data across borders. Cross-border transfers of Japanese personal data are subject to certain restrictions under the Privacy Act. Even foreign businesses that are not directly processing personal data in Japan should pay attention to the extraterritoriality of Japan's data privacy rules, which is triggered by a foreign business' collection of personal data from a data subject located in Japan when supplying goods or rendering services to the data subject. In an effort to facilitate the international exchange of information, in July 2018 the PPC and the Commissioner for Justice, Consumers and Gender Equality of the European Commission mutually recognised each other's personal data protection regimes as equivalent. Beginning in January 2019, the restrictions on the cross-border transfer of personal data between Japan and the EU have been exempted. Following Brexit, such mutual recognition was extended to the United Kingdom.

Further amendments to the Privacy Act were passed in June 2020, which came into full force and effect in April 2022. The amendments pertain to various matters, including the enhancement of data subject rights, narrowing the scope of permissible opt-out transfer of personal data, creating a new category of pseudonymised data with, among other things, less cumbersome requirements and heightened filing duties upon a data breach. Particularly, foreign companies should take note that extraterritorial enforcement will be strengthened. Under the amended Privacy Act, the PPC will have the authority to directly issue compulsory orders to foreign companies and impose criminal penalties for failure to comply with such orders. Having said that, there are substantial limits on the government's ability to enforce such regulations outside Japan. To address this issue, the PPC is permitted to collaborate with regulators in foreign countries for the purpose of enforcing Privacy Act regulations. Foreign companies should be on the lookout for how the practice will develop with respect to extraterritorial enforcement. Additionally, in October 2021, the PPC promulgated regulations implementing the new amendments, which came into full force and effect in April 2022, and issued guidelines to clarify how to manage day-to-day data operations in compliance with the amendments. They include various new rules, including, among other things, more stringent transparency requirements in the case of cross-border transfers of personal data; under such requirements, if a data controller provides personal data to a recipient outside Japan, the data controller will be required to explain the data privacy framework of the country in which such recipient is located and the data security measures that the data recipient will maintain.

The JFTC has also approached personal data protection from the perspective of competition law. In December 2019, the JFTC issued guidelines on abuse of market dominance in the context of digital platforms collecting personal data from platform users. This suggests that in the JFTC's view, abuse of market dominance could occur in the business-to-consumer context, rather than solely in the business-to-business context. Whether a digital platform provider has market dominance is a fact-intensive inquiry. The JFTC guidelines list types of behaviour constituting abuse, which mainly consist of violations of the Privacy Act. However, the guidelines are non-exhaustive; other behaviour may constitute abuse even if it does not violate the Privacy Act. For example, the JFTC takes a broader view as to what user information should be protected; certain restrictions on abusive behaviour cover collection

of information that is related to a person, but does not identify the person specifically. Such unidentifiable information is not protected by the Privacy Act, but the JFTC may still seek to protect it.

The government has also sought to establish systems by which data subjects can provide personal data in exchange for services, while being protected against the illegitimate use of such data. As a result, the personal information bank (PIB) regime has been adopted. Under this regime, a PIB enters into a contract with a data subject under which the PIB is authorised to manage the data subject's personal data and, when necessary, to collect personal data that the data subject already provides to other companies (e-commerce platform, SNS, etc.). When a company desires to use personal data managed by a PIB, the PIB is authorised to determine whether to give the consent to such usage on behalf of the data subject following the general policy specified by the data subject. The data subject also has the right to opt out of usage. There are no constraints on the kinds of benefits that may be offered to data subjects in exchange for access to their personal data. Accordingly, the PIB may offer benefits to incentivise the data subjects to participate in its service.

A PIB is not legally required to obtain any governmental licence to operate its data business, but a PIB may voluntarily obtain certification from the Information Technology Federation of Japan (ITFJ), primarily to demonstrate reputability of the PIB. The MIC and the Ministry of Economy, Trade and Industry (METI) issued the latest guidelines setting forth the criteria that an applicant must satisfy to obtain such certification in October 2019. As of June 2022, seven PIBs have obtained ITFJ certification, and two PIBs have launched data services.

Protection of digital platform users

As illustrated by the JFTC's approach to digital platform operators' collection and processing of personal data, Japanese regulators have taken a great interest in protecting users (both marketplace participants and customers). For this purpose, the METI, JFTC and MIC advocated for the Act for Transparency of Digital Platformer Transaction (Platformer Act). The Platformer Act was enacted in June 2020, and came into effect in February 2021.

METI has specified the following companies constitute 'specified platformers' for purposes of the Platformer Act: Amazon Japan GK, Rakuten Group, Inc., Yahoo Japan Corporation, Apple Inc, iTunes Kabushiki Kaisha, and Google LLC. Specified platformers are subject to three types of obligations:

- a* disclosure requirements;
- b* requirements to establish procedures and structures to effectively communicate with marketplace participants and to handle inquiries and complaints from marketplace participants; and
- c* requirements to submit annual reports to METI on the compliance status and self-assessment thereof with respect to compliance with the requirements of (a) and (b).

The Platformer Act regulations were amended to expand the range of specified platformers to cover digital advertising platformers. Such amendments came into force in August 2022 and additional platformers will be specified by METI in the autumn of 2022.

To comply with the disclosure requirements, a specified platformer may need to disclose items that are not included in typical terms of use, including the criteria used to determine the ranking of products, and the criteria for banning participation in a marketplace.

The Diet also passed the Act for the Protection of Consumers who use Digital Platforms (APCDP) on 28 April 2021. The APCDP came into full force and effect in May 2022. Online mall businesses and internet auction businesses are subject to the APCDP, so a greater number of companies are subject to the APCDP as compared to the Platformer Act. Under the APCDP, among other things, the Prime Minister is authorised to request digital platform providers to remove unsafe products that are offered in the online market by a seller that cannot be identified. Additionally, consumers will have the right to compel digital platform providers to disclose the information of sellers that is necessary to file a court case to make a claim for damages. To the extent that digital platform providers remove such products or disclose the applicable seller's information in accordance with a request, the digital platform providers will not be liable for any damage incurred by the seller as a result of such removal or disclosure.

Regulations on cookie use

In June 2022, the Telecommunication Business Act was amended to include cookie-related regulations for the first time in Japan. Under the amendment, providers of online services using third-party cookies or equivalent technology will be required to take one of the following measures: (1) notify users what types of information will be submitted; (2) obtain prior consents from users; or (3) provide users with an opt-out option. A wide range of 'online services' will be subject to this new regulation, including fixed or mobile phone services, internet-access services, e-commerce services, SNSs, search engines, news websites and so on.

Treatment of infringing content

ISPs are not currently required to proactively delete content that infringes upon the intellectual property rights or privacy rights of others. However, the Internet Provider Liability Limitation Act enacted in 2001 provides a safe harbour for ISPs that delete such content. Under this safe harbour, no ISP may be held liable for the deletion of content on its network if the ISP reasonably believes that the content infringes the intellectual property rights or privacy rights of others, or if a third party alleges infringement and the content sender does not respond to the ISP's inquiry within seven days. The Internet Provider Liability Limitation Act further shields ISPs from tortious liability for failing to delete infringing content. In reliance on this statutory defence to liability, ISPs generally do not take steps to monitor the content passing through their networks. The Act does, however, authorise persons whose rights are infringed by content delivered over the internet to demand that the ISPs provide information regarding the distributor of the content so that legal action may be taken against the distributor. However, as a practical matter, it is often not possible to identify the original distributor of such infringing content where content passes through multiple networks. In recent years, the government has paid close attention to piracy issues affecting Japanese businesses, particularly piracy activities that target the types of media relevant to its 'Cool Japan' policy (e.g., manga and animation).

In April 2018, the Intellectual Property Strategy Headquarters of the Cabinet Office (IPSHQ) took what many viewed to be an aggressive step by issuing a policy called 'Urgent Countermeasures Against Piracy Sites', which is directed at addressing piracy issues. Under this policy, the IPSHQ declared that it is appropriate for private ISPs to voluntarily block access to three major piracy websites: Manga-mura, Anitube and Miomio. The policy does not legally oblige ISPs to block access to these sites, but the IPSHQ nonetheless expects ISPs to voluntarily comply. Notably, there has been a strong backlash against the policy from

the Japan Internet Providers Association, which has argued that blocking access to these sites violates laws protecting the secrecy of communications. According to the IPSHQ, the policy is simply a temporary measure intended to bridge the gap until the government passes more permanent legislation concerning piracy websites. The IPSHQ established a council of experts for the purpose of drafting such legislation, and initially targeted the issuance of an interim report in September 2018. However, there was strong disagreement among the council's members concerning the legitimacy of blocking access to online content, which led to a failure to meet the intended report timing. The final meeting of the council in October 2018 ended without a subsequent meeting being scheduled. According to reports, the council may have discontinued further discussions and there have been no substantive discussions since 2018. In October 2019, the IPSHQ published a report to summarise discussions regarding countermeasures against piracy sites and its working schedule with respect thereto, and amended that report in April 2021, but legislation as to blocking piracy websites is still only under consideration.

Although the IPSHQ did not reach a consensus, the Agency for Cultural Affairs (ACA) approached this issue from the perspective of the Copyright Act and successfully pushed for an amendment thereto. Under the amendment, an operator of any piracy site is subject to a criminal penalty of imprisonment of up to five years or fines of up to ¥5 million, or both; and a person posting a hyperlink to infringing content on a piracy site is subject to imprisonment of up to three years or fines of up to ¥3 million, or both. In addition to the ban on piracy sites, the ACA addressed illegal downloads of infringing content. Before the amendment, the statutory ban on illegal downloads pertained only to limited categories of infringing content: specifically, music and films. The amended Copyright Act bans downloads of all categories of infringing content, including books, theses and computer programs. The ban on piracy sites came into full force and effect on 1 October 2020. The extension of infringing content categories came into full force and effect on 1 January 2021.

Protection of minors

A statute for the protection of minors from harmful internet content, known as the Youth Internet Environment Act, came into effect in April 2009. The statute directs government bodies to improve internet safety for juveniles (under the age of 18) by encouraging ISPs to use technologies that limit juvenile access to harmful content. The statute targets content glorifying crime or suicide, obscene sexual content, and other depictions of extreme violence or cruelty. The statute further exhorts parents to monitor their children's internet use, and to limit access to inappropriate content by using filtering software and other measures.

The statute requires mobile network service providers to filter internet content for customers that are juveniles, except where a parent has expressly requested that filtering not be used. Under the Act, commencing in April 2010, manufacturers of devices with internet connectivity (other than mobile phones) are required to pre-install filtering software or otherwise facilitate the use of third-party filtering software or services. Initially, the Act did not impose any filtering-related requirement on mobile phone use outside the mobile network (e.g., on WiFi), partly because only 1.5 per cent of juveniles owned smartphones in 2010. However, as of 2017, 63.2 per cent of juveniles owned smartphones, and only 44 per cent of those juvenile smartphone users utilised filtering software. This means that a large population of juveniles could have been exposed, or at least had access, to inappropriate content in an unfiltered manner. In June 2017, the Act was amended to include smartphones within the scope of mobile network service providers' obligations to filter internet content

and manufacturers' obligations to pre-install filtering software. The amended Act also requires mobile network service providers (i.e., MNOs and MVNOs) to confirm whether each new subscriber is a juvenile and, if so, to explain filtering to such juvenile and activate filtering. The amended Act became effective in February 2018.

Cybercrime

In Japan, cybercrime has long been an area of public concern. In recent years, law enforcement has focused its efforts on combating cybercrime related to computer hacking through the unauthorised use of IDs and passwords, and other attacks on security holes; the distribution of computer viruses, and the input of data and unauthorised commands that can cause damage to computers and data; and other types of crimes facilitated through the internet, such as drug trafficking, prostitution, fraudulent internet auctions and child pornography.

Combating the distribution of child pornography has been an area of particular scrutiny and public interest. The Act on Punishment of Activities Relating to Child Prostitution and Child Pornography and the Protection of Children, originally passed in 1999, prohibits the distribution of child pornography. This Act was amended in 2004 to outlaw the uploading and distribution of child pornography over the internet, and was further amended in 2014 to criminalise the simple possession of pornographic images featuring minors and to require ISPs to block such pornographic material.

To combat increasing cybersecurity threats, the Basic Act on Cybersecurity was enacted in November 2014. The Act prescribes the concept of cybersecurity and defines the roles and responsibilities of the government. In January 2015, the Cybersecurity Strategic Headquarters (Headquarters) and National Center of Incident Readiness and Strategy for Cybersecurity were established to facilitate programme planning, policy formulation and overall coordination for cross-cutting cybersecurity measures. Further, in April 2022, under the amended Police Act, the National Police Agency formed the Cyber Police Bureau and the Special Cybercrime Investigation Team, which investigates cybersecurity-related crimes in a centralised manner.

With respect to government authorities' ability to monitor content distributed over telecommunication channels, law enforcement authorities were previously only permitted to utilise wiretapping during criminal investigations of organised crime for murder, drug-related crimes, arms possession or stowaway smuggling by obtaining a wiretap warrant pursuant to the Act for Wiretapping for Criminal Investigation (Wiretapping Law). However, in April 2016, the Wiretapping Law was amended to permit wiretapping to be used in criminal investigations into a broader scope of organised crimes, including those involving the use of explosive materials, kidnapping, fraud, theft and child pornography.

The MIC has expressed particular concerns that IoT devices are vulnerable to malware that could render them 'zombies' subject to manipulation by a cyber-attacker. The MIC has stressed that, to implement countermeasures against cyberattacks, it is essential to have specific information relating to the servers used for cyberattacks and infected networks. However, it was difficult for telecommunications business operators to share such information with one another in light of legal obligations to protect the secrecy of communications under the Telecommunications Business Act. In May 2018, the Telecommunications Business Act was amended with the goal of establishing a legal framework to permit the sharing of information among telecommunications business operators for cybersecurity purposes. Under the amended Telecommunications Business Act, a third-party organisation designated by the MIC will act as a hub through which the relevant information will be shared among

telecommunications business operators without violating the requirements for secrecy of communications. In January 2019, the MIC designated ICT-ISAC Japan, a cybersecurity research organisation, to act as the third-party for these purposes.

In addition, the Act on National Institute of Information and Communications Technology has been amended to authorise the National Institute of Information and Communications Technology to assess networks and identify those lacking appropriate password configurations. The National Institute of Information and Communications Technology will identify specific networks and convey particular network-specific information to telecommunications business operators via a designated third-party organisation to warn network owners of any password configuration deficiencies. The National Institute of Information and Communications Technology began operating in February 2019 under the project name 'NOTICE' (i.e., the National Operation Towards IoT Clean Environment). Following these cybersecurity developments, the Telecommunication Business Act was correspondingly amended in April 2019 to add new data security requirements to the technological specification requirement for IoT terminal equipment.

IV SPECTRUM POLICY

i Development

The need for access to the radio spectrum has steadily increased with the proliferation of new technologies utilising wireless data transmission. The number of licensed wireless stations and devices increased from 3.8 million in 1985 (a majority of which were attributable to amateur radio stations and handheld two-way radios) to 292 million as of March 2022 (99 per cent of which were attributable to mobile devices).

The MIC has broad discretion to determine how radio spectrum is allocated in Japan and describes its decision-making process as open and collaborative – including consultations with the public, scholars and industry experts. However, the MIC's decision-making has been criticised by some as arbitrary and opaque. This has led to some calls for the implementation of spectrum auctions as a fairer method of allocation. Despite such criticism, the MIC has yet to establish a system that provides transparency regarding spectrum policy and spectrum allocation decisions. While there was some movement toward implementing a spectrum auction system, and a bill that would have implemented such system was submitted to the legislature in March 2012, the bill lost momentum following a December 2012 change in the controlling political party in Japan, and the bill has since been rejected.

Many critics point to the MIC's issuance, in December 2014, of 3.5GHz 120MHz bandwidth spectrum licences to each of NTT DOCOMO, KDDI and SoftBank as prime examples of its discretionary authority when allocating spectrum. This was the first spectrum allocation since the MIC amended its policy to restrict submissions of multiple licence applications from companies that operate their spectrum as a group. Prior to the amendment, companies that held more than one-third of the voting rights of another company were restricted from submitting licence applications together with such affiliate companies. However, to reduce multiple applications by de facto group companies and facilitate greater entry into the spectrum market, the MIC expanded this restriction to take into consideration additional factors in determining what companies constitute a group, including their non-voting capital structures and decision-making authority, and the business relationships between companies. As a result of this amended restriction, YMobile, a company in which SoftBank held an ownership stake but that had not previously been considered a SoftBank

group company, was now considered a member of SoftBank's group and unable to submit a spectrum allocation application, which resulted in applications being accepted only from NTT DOCOMO, KDDI and SoftBank.

As the MIC planned to allocate 40MHz of the 120MHz available to each of the three applicants, it was always clear that each would receive an equal allocation. However, there was some competition in the individual allocations across the available 120MHz in which the MIC exercised discretion. The 120MHz bank is divided into high, medium and low components. While NTT DOCOMO's first choice was the low component, both KDDI and SoftBank preferred the high component. The MIC determined that it would grant SoftBank the high component because KDDI failed to specify in its application when it would be able to start operation of speeds of more than 1Gbit/per second.

In November 2017, the MIC announced the allocation of 1.7GHz 80MHz bandwidth and 3.4GHz 80MHz bandwidth. NTT DOCOMO, KDDI and SoftBank all applied for allocation of 60–120MHz bandwidth. In addition, as discussed in more detail above, Rakuten Mobile applied to become the fourth MNO. Pursuant to the MIC's policy in favour of new entrants, Rakuten Mobile obtained 1.7GHz 40MHz bandwidth and announced the launch of its MNO services. NTT DOCOMO, KDDI and SoftBank also each obtained 40MHz bandwidth.

In May 2019, the Radio Act was amended to expedite the implementation of 5G services. In 2019, the MIC completed the first round of 5G spectrum allocation, which was awarded to NTT DOCOMO, KDDI, Softbank and Rakuten Mobile on the condition that 5G services shall be rolled out on a nationwide basis within two years. For the purpose of expediting 5G rollout, the MIC also started granting subsidies to corporations for the installation of optical fibre. These four major providers launched 5G telecommunication services in 2020. By the end of 2020, 5G services were rolled out in all prefectures of Japan, but the scope of coverage within each prefecture varies. The coverage of 5G services will be gradually expanded to uncovered areas. The MIC announced in March 2022 a goal of increasing the coverage of 5G networks to 95 per cent of the population by the end of fiscal year 2023, 97 per cent by the end of fiscal year 2025 and 99 per cent by the end of fiscal year 2030.

In addition, and separate from its goal of nationwide 5G coverage, the MIC has started to grant 'local 5G' spectrum authorisations. The first round of local 5G authorisations was granted to 13 organisations (including Fujitsu and Tokyo University). The number of licensees of local 5G had increased to 106 by the end of March 2022. Local 5G is intended to only be used within a narrow and limited area, such as the grantee's specific building or land.

ii Flexible spectrum use

Originally, the Radio Act required the MIC to grant bandwidth licences that specified the specific purpose for which the bandwidth could be used. This inflexibility was criticised as an obstacle to the efficient use of bandwidth. The Radio Act was amended in 2010 to facilitate the flexible use of spectrum and allowed the MIC to grant licences covering multiple uses. For example, a terminal on a train can now be licensed for transmission of data for operation of the train (use for operation of public services) and voice data over a pay phone equipped in the train (use for telecommunication).

iii Broadband and next-generation mobile spectrum use

The MIC annually reviews spectrum usage and revises its spectrum allocation plan to reflect spectrum needs for new technologies and services.

By 2015, LTE networks operated by NTT DOCOMO, KDDI and SoftBank achieved 99 per cent coverage of the national population. LTE is technically categorised as 3.9G, even though the International Telecommunication Union permitted it to be commercially referred to as 4G. In March 2015, NTT DOCOMO was the first among the major Japanese mobile service providers to launch its LTE-advanced next-generation mobile communication service, called PREMIUM 4G, which uses carrier aggregation technology and is technically categorised as 4G. PREMIUM 4G's maximum transmission speed reached 788Mb per second in limited areas. KDDI (au) and Softbank, the other major mobile phone companies in Japan, have also begun implementing the same service.

The government is now focusing on 5G, which will enable data transmission speeds of up to 10Gb per second. As described above, 5G spectrum was allocated to NTT DOCOMO, KDDI, Softbank and Rakuten Mobile in 2019. These four providers launched 5G telecommunication services in 2020.

The MIC monitors the development of new technologies and their need for spectrum. For example, the MIC has facilitated the development of intelligent transport systems through its spectrum policy by allocating appropriate bandwidth among the following: vehicle information and communication systems, electronic toll collection systems and car-mounted radars. In July 2020, the MIC issued the intelligent transport systems roadmap, which includes a plan to begin use of automatic driving systems on highways and within certain geographic areas (such as areas suffering from depopulation) in 2020, and a plan to install automatic driving systems in the field of logistics businesses by 2025.

iv Spectrum auctions and fees

The MIC imposes spectrum usage fees on broadcasters, mobile phone carriers and other businesses that use radio spectrum, as provided under the Radio Act. The formulae used to establish the usage fees have been criticised as unfairly favouring broadcasters at the expense of mobile service providers. Until 2005, fees were determined, in the case of broadcasters, on a per-broadcaster basis, and in the case of mobile phone carriers, by the number of base stations and mobile devices connected to the respective network. Notwithstanding a series of changes in 2005, 2011 and 2014, the formulae continue to favour broadcasters, satellite operators and other vested rights holders. No changes have been made to the usage fee formulae even after the 2017 formation of the Council of Spectrum Policy 2020, which discussed potential changes to the usage fee formulae but eventually concluded that no change should be made. The total amount of spectrum fees the MIC imposed for the fiscal year ending March 2015 was approximately ¥74.7 billion (up from ¥68 billion in 2010), 74 per cent of which was paid by mobile phone carriers and only 8.9 per cent of which was paid by broadcasters, which has raised concerns as the bandwidth of spectrum occupied by mobile phone carriers is actually narrower than that occupied by broadcasters. Broadcasters historically received greater usage fee discounts than mobile phone carriers, on the grounds that broadcasting is of a public nature. In light of the 99.9 per cent mobile phone penetration rate, the Telecommunications Business Act was amended and came into force in October 2019 to discount usage fees imposed on mobile phone carriers to match those imposed on broadcasters. The amendment to the Radio Act resulted in an increase in spectrum fees for 5G services and IoT, which applies to both mobile phone carriers and broadcasters.

While spectrum fees are purportedly charged to cover spectrum administration costs, such as monitoring illegal spectrum use, the MIC has been criticised for using the fees to pay for miscellaneous expenses that appear to have little connection to spectrum administration. In August 2010, an MIC committee charged with exploring spectrum usage fee reform announced a policy to strengthen the link between the amount of spectrum usage fees charged to licence holders and the bandwidth of spectrum they occupy, and to more efficiently use the spectrum usage fees collected. In May 2011, a bill to amend the Radio Act to implement the revised spectrum usage fee scheme was passed.

Despite efforts to introduce spectrum auctions beginning in 2010, little progress was made until May 2019, when an amendment to the Radio Act adopted what some commentators refer to as a ‘partial auction’ system. Under this system, the MIC will consider the amount of special fees offered by the applicant based on its own valuation of the spectrum. The applicant’s offer alone is not a decisive element, but it does serve as an element in the MIC’s consideration. In October 2021, the MIC organised another study group to discuss the method of allocation of the new radio spectrum for mobile phones considering increasing needs derived from introduction of 5G and other technological innovations. The MIC announced an interim summary of discussions in March 2022, which suggests the possibility of introduction of a spectrum auction system in the future.

V MEDIA

i Restrictions on the provision of service

While freedom of broadcasting is an underlying premise of the Broadcast Act, the Act includes certain content requirements, including:

- a* an obligation to be politically impartial;
- b* a prohibition on reporting ‘manipulated facts’;
- c* an obligation to present diverse opinions on controversial issues; and
- d* an obligation to provide closed captioning, audio commentary or other forms of aid for the hearing impaired and visually impaired where possible.

Main broadcasting licence holders are also required to provide a balance of entertainment, news and educational programming.

ii Internet-delivered video content

Internet and dedicated networks are widely used to deliver video content. Internet television services available in Japan vary widely, from simultaneous transmission of terrestrial and satellite television broadcasts, to exclusive IPTV channels with programming provided by domestic and foreign third-party programme providers, to video on demand (VOD) services. The methods of video delivery vary from free video-sharing sites (such as YouTube), to membership-based video-sharing sites (such as Nikoniko Douga), to partially fee-based video delivery sites (such as Gya!) and to full fee-based video delivery sites (such as Hulu and Netflix). Many traditional television stations (i.e., Nippon Hoso Kyokai (NHK), a public broadcaster formed under the Broadcasting Act, and commercial television broadcasters) also offer VOD services, and stream broadcast programmes through personal computers and smartphones. A survey published on 21 August 2021 indicates that there are 31.6 million fee-based video delivery service users to date in 2021, and that number was expected to increase to 39.7 million by 2023.

The Supreme Court has ruled that services that record and forward Japanese television programmes and those that provide real-time streaming of Japanese TV programmes via the internet infringe the originating television station's copyrights. Therefore, third-party recording or streaming of Japanese television programmes without a licence constitutes a violation of Japanese copyright law.

For regulatory purposes, the MIC has taken the view that video delivery over the internet is not broadcasting under the Broadcast Act and, consequently, the content restrictions under the Act discussed in Section V.i do not apply. While the term broadcast is defined in the Broadcast Act as the 'transmission of telecommunication for the purpose of being directly received by the public', the MIC's position is that video delivery over the internet does not fall within this definition because content is not transmitted until a specific user makes a corresponding request, such that the broadcast is not being made to the public. This interpretation allows internet content providers to distribute multimedia offerings without being regulated as traditional broadcasters. However, the MIC's technical distinction has been criticised as resting on shaky ground, and calls have been made for clearer legislation clarifying that content restrictions will not apply to internet broadcasts.

VI THE YEAR IN REVIEW

In pursuit of its efforts to digitise government services, throughout 2020 and 2021 the government passed legislation such as the Basic Act on the Formation of a Digital Society and the Act to establish the Digital Agency. Throughout 2021 and 2022, the government has continued its digitisation efforts by pursuing its policy of 'New Form of Capitalism', including initiatives to further roll out high-speed and high-capacity internet, transform rural areas into more modern 'digitised' cities and digitise government services.

In addition, national security and protection of sensitive technologies have become areas of focus for the government. As a result, the government has amended legislation to strengthen restrictions on transfers to foreign residents or companies of technologies that can be used to manufacture weapons, introduce a non-disclosure system to protect the secrecy of patents that cover sensitive inventions and implement further controls with regard to essential infrastructure.

Furthermore, data-related laws in Japan (i.e., the Telecommunication Business Act and the Privacy Act) have also been amended to expand their extraterritorial effect. While it is not clear at this stage how aggressively the Japanese regulators will enforce such laws extraterritorially, foreign companies should continue to monitor developments in the extraterritorial application of these laws.

The government has also taken steps to expand market access and competition in the Japanese telecommunications industry by making it easier to enforce regulations equally against Japanese service providers and non-Japanese service providers, and adding regulations to eliminate or regulate anticompetitive business practices like SIM card locking.

Additionally, the government is seeking to increase consumer protection with respect to purchases made on online markets, and has adopted new platform-specific consumer protection regulations.

VII CONCLUSIONS AND OUTLOOK

In sum, the development of media and telecommunications policies and technology in Japan has seen a resurgence over the past few years, and further significant progress is likely in the near future.

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