

Section 3 Radio policy trends

1. Summary

(1) Initiatives so far

Radio waves are a finite and scarce resource widely used to provide services essential to the lives of citizens, such as mobile phones and police and fire services. For this reason, it is necessary to ensure fair and efficient use of radio waves. Specifically, because use of the same frequency in the same area causes interference, radio waves should not be used randomly and require a system to ensure proper use. In addition, because how radio waves propagate and the transmittable quantity of information vary depending on the spectrum, it is necessary to use them for the purposes appropriate for each spectrum. Furthermore, due to their nature to propagate across borders, use of radio waves requires international rules and coordination including treaties. The old Radiotelegraphy Act that stated “radiotelegraphy and

wireless telephones shall be administered by the Government” was replaced by the Radio Act, the purpose of which is “to promote the public welfare by ensuring the fair and efficient utilization of radio waves”

(Article 1) in 1950. Since its enactment, Japan has promoted the private sector use of radio waves that are common property of the public. Today, radio waves have become indispensable for people’s daily lives. MIC has allocated frequencies under international cooperation and licensed radio stations, and has been making efforts that include: radio wave supervision for good radio use in an environment that is free of interference/jamming; R&D to expand radio resources; and technical examination work for effective radio use.

(2) Future challenges and directions

Radio waves are an essential infrastructure in the era of digital transformation, in which Japan aims to solve issues and enjoy further economic growth by incorporating advanced technologies (such as IoT, big data, AI, and digital technologies necessary for a “new normal”) into all industries and sectors of life.

Industries that use radio waves are expected to continue to develop in this era of digital transformation, and demand for radio use will expand exponentially. However, because radio waves are scarce resources shared by all, it is necessary to promote more equitable and efficient use of radio waves in the future.

In addition, the traffic of land mobile stations such as mobile phones continues to increase. In order to com-

fortably maintain the radio wave usage environment for mobile phones and the like, in addition to the more effective use of the frequency currently used, securing the circumferential wave number such as the sharing of the frequency used for other applications and the development of unused frequencies such as terahertz waves has become a major issue. It is also important to maintain a favorable radio wave usage environment while responding to changes in the circumstances surrounding radio wave usage. Therefore, it is necessary to promote radio surveillance and radio equipment purchase tests in response to new radio wave usage and changes in the distribution of radio equipment.

2. Promotion of effective use of radio waves in the era of digital transformation

(1) Investigation into promoting the effective use of radio waves in the era of digital transformation

Since November 2020, the Ministry of Internal Affairs and Communications has been holding meetings of the “Radio Policy Roundtable in the Age of Digital Transformation: (“roundtable” in this Section)” to discuss the future of radio wave use, issues related to radio wave policy in the era of digital transformation, new target setting for effective radio wave use, and measures to realize them. A report was then prepared in August 2021. The report sets bandwidth targets for four radio systems that will require more bandwidth in the future (mobile phone network systems such as 5G and Beyond 5G, satellite communications and HAPS systems, IoT and wireless LAN systems, and next-generation mobility systems), beginning at the end of fiscal 2020. The goal is to add

approximately 16 GHz by the end of fiscal 2025 and then approximately another 102 GHz by the 2030s. The report also recommends several policies for making effective use of radio waves in the era of digital transformation: (1) introduce and popularize wireless systems required for the era of digital transformation, (2) verify and allocate the effective use of frequencies, (3) make effective use of public frequencies, (4) monitor and supervise radio waves in the era of digital transformation, and (5) review the radio wave usage fee system. In 2022, two follow-up roundtable were held to report on the progress of each initiative based on the recommendations made in the report.

(2) Measures to promote the effective use of radio waves

a Partial revision of the Radio Act

Based on the recommendations in the report released by the roundtable, the Act to Partially Amend

the Radio Act and the Broadcasting Act was passed in June 2022 in order to promote the fair and efficient

use of radio waves. The act includes strengthening the functions of the Radio Regulatory Council, establishing a system to reallocate frequencies for mobile phones and other devices, and reviewing the radio wave usage fee system, and was enacted in October of the same year (with some provisions excluded). The major amendments to the Radio Act are as follows.

- Strengthening the functions of the Radio Regulatory Council

Until now, the Minister for Internal Affairs and Communications has evaluated the effective use of radio waves (“effective use evaluations”) based on the results of the radio wave usage surveys. Now, the Radio Regulatory Council, which consists of members with extensive experience and knowledge, will conduct these evaluations in order to ensure that evaluations are conducted more appropriately in response to advanced technology.

- Establishing a system to reallocate frequencies for mobile phones and other devices

Frequencies used by base stations for telecommu-

b Investigation into method for transitioning smoothly for reallocation

Based on the recommendations in the report released by the roundtable, the “Task Force on Smooth Transitioning of Mobile Phone Frequencies for Reallocation” began meeting in February 2022 with the aim of further examining issues involved in reallocating frequencies, and prepared a report in December of the same year. There have already been reallocation requests for the so-called platinum band, and the report takes this into consideration in proposing a concept for the transition period as well as how much the transition should cost

c Initiatives to make effective use of public frequencies

Considering the fact that the recommendations of the report released by the roundtable confirmed the direction of efforts to take toward making effective use of frequencies (either to discard, transition, share frequencies, or using digital technologies) with regard to radio stations used for the public good and operated by the state (relevant ministries and agencies) and that progress would need to be monitoring on a yearly basis, the Public Frequencies Working Group followed up with

(3) Investigation into 5G business design and new allocation methods

In order to investigate Japan's new allocation method for mobile phone frequencies, the “Review Committee for New Mobile Phone Frequency Allocation Method” began meeting in October 2021, and released the “Summary of the Review Committee for New Mobile Phone Frequency Allocation Method” in November 2022. In this summary, it was deemed appropriate to continue to consider allowing “conditional auctions” for high-frequency bands such as millimeter wave, in order to lead to innovation and the creation of new services.

Based on this summary, the “5G Business Design Working Group” working under the roundtable has been meeting since January 2023 to investigate measures to expand 5G business utilizing high-frequency

communications business (for devices such as mobile phones) can now be reallocated when the results of an effective use evaluation conducted by the Radio Regulatory Council do not meet certain criteria, or when the Minister for Internal Affairs and Communications deems it necessary to conduct a reallocation examination based on a request for competition. A decision was also made to assign responsibility to authorized developers when installing special base stations in locations other than locations noted in authorized plans, and for information related to ensuring the fair use of radio waves to be added to development guidelines.

- Reviewing the radio wave usage fee system

Radio wave usage fees will be revised for the next three years (fiscal 2022 to fiscal 2024) by taking into account the total cost of radio wave work benefiting the public good along with the expected state of radio stations. It will also be possible to provide subsidies for research and development leading up to implementing Beyond 5G with regard to how radio wave usage fees are utilized.

and who should pay for it, in the event that a competitive application is filed and development guidelines are determined. In order to improve systems related to matters indicated in this report, the Ordinance for Enforcement of the Radio Act was partially revised in March 2023 with regard to matters to be taken into consideration in determining whether guidelines must be established and measures to be taken when the standard transition period is exceeded.

relevant ministries and agencies (including conducting interviews) from March to June 2022 and confirmed that efforts by relevant ministries and agencies had overall made appropriate progress.

Following the revision of the Radio Act in June of the same year, the Radio Regulatory Council reached a decision to continue to conduct surveys to confirm the progress of systems of relevant ministries and agencies, and to conduct effective use evaluations.

bands such as millimeter wave (which will play a central role in future allocation to 5G), as well as the design of a “conditional auction” system as a new allocation method contributing to this goal. In February of the same year, the working group organized its “Allocation Method Investigation Task Force” with the aim of investigating selection conditions (comprehensive evaluation method and conditional auctions) for the 5G frequency allocation method as well as specific system design for conditional auctions. It is now engaged in discussions to release a summary in the summer of the same year.

3. Spread and development of 5G and B5G

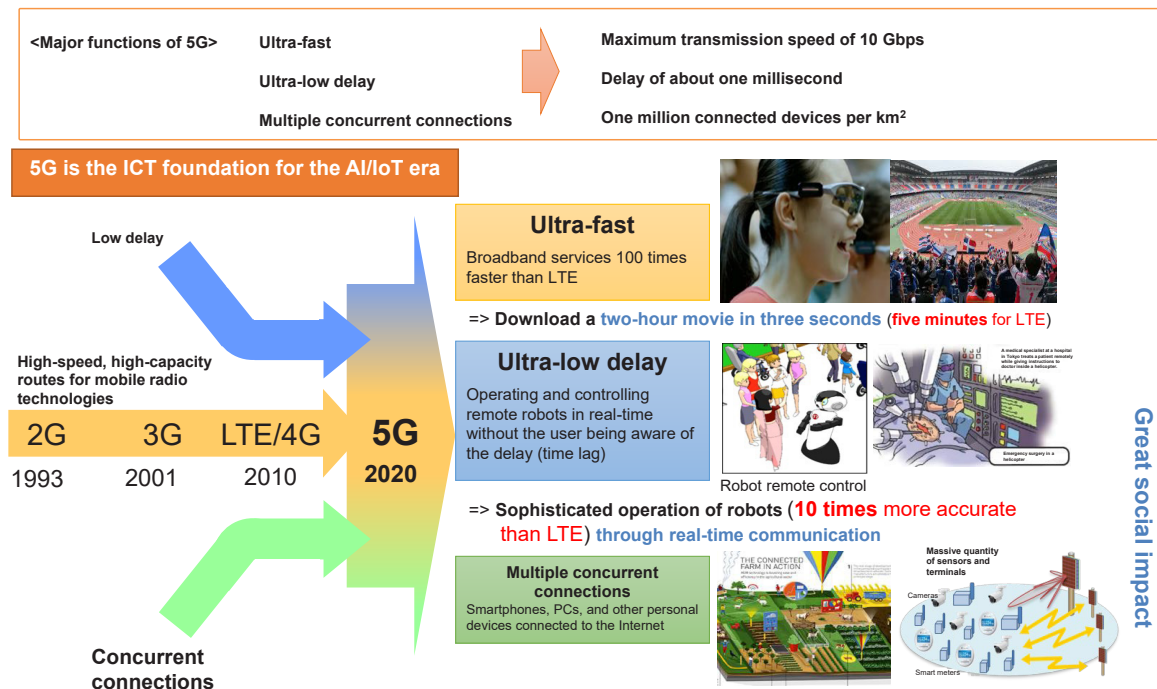
(1) Spread and development of 5G based on the Digital Garden City Nation Infrastructure Development Plan

a Formulation of the “Master Plan for Regional Development of ICT Infrastructures”

In addition to even higher speeds than 4G, 5G offers a range of features including ultra-low latency to allow robots to operate smoothly even in remote areas, and multiple simultaneous connections to connect multiple devices to a network simultaneously (Figure 5-3-3-1). For this reason, 5G holds great promise as an essential infra-

structure for realizing an IoT society in which all things are connected to the Internet. In fact, specific initiatives utilizing 5G are already being promoted in various regions and fields, such as autonomous driving of tractors, inspecting products using AI-based image analysis, and controlling construction machinery remotely.

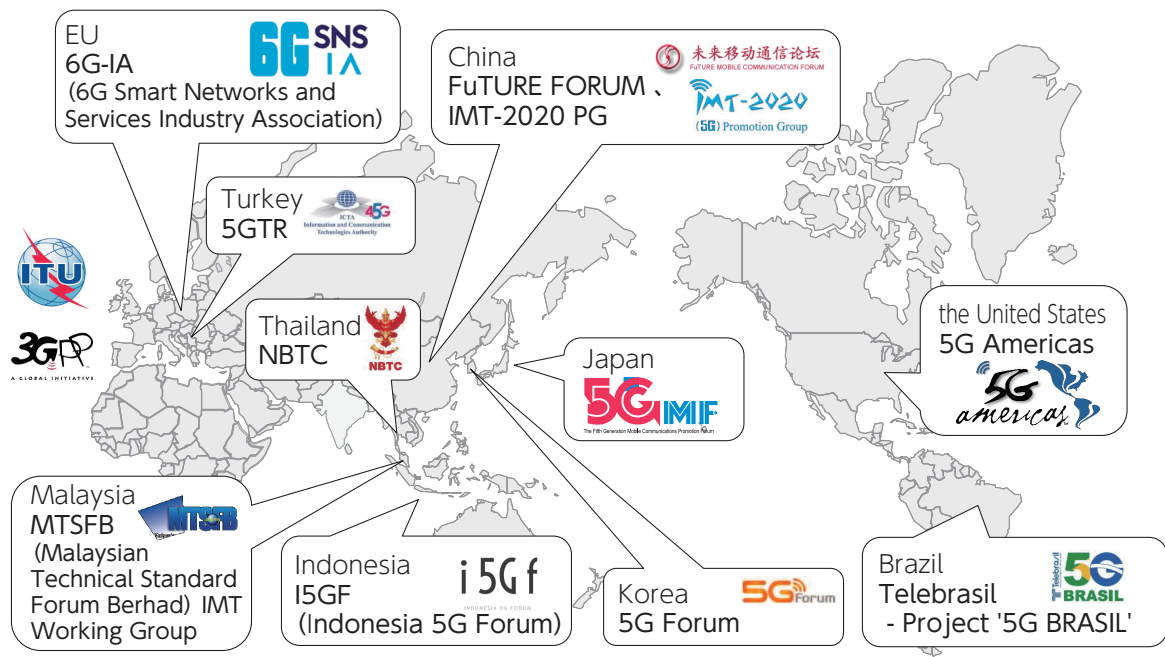
Figure 5-3-3-1 5G features



Recognizing that 5G will serve as a global infrastructure for economy and society, the Ministry of Internal Affairs and Communications is actively contributing to the efforts of the International Telecommunication Union (ITU) to standardize 5G, and is striving to strengthen international cooperation with Western and Asian countries (Figure 5-3-3-2). In order to make integrated and effective use of measures to support the de-

velopment of ICT infrastructures (including 5G) and measures to promote the use of 5G, and to deploy other ICT infrastructures throughout Japan as soon as possible, in June 2019 MIC formulated a master plan for regional development of ICT infrastructures leading up to fiscal 2023, then revised it in July and then again in December 2020.

Figure 5-3-3-2 Organizations promoting 5G in each country/region



b Formulation of “Digital Garden City Nation Infrastructure Development Plan”

In light of Prime Minister Kishida's announcement in December 2021 that 5G coverage would be increased to 90% by fiscal 2023 in order to realize the Digital Garden City Nation Concept, the Ministry of Internal Affairs and Communications requested mobile carriers at the end of the same month to continue to develop 5G base stations and to prepare and submit plans on the number of 5G base stations and 5G coverage by fiscal 2025. Based on these plans, MIC formulated and announced the “Digital Garden City Nation Infrastructure Development Plan” on March 29, 2022, as a follow-up to the “Master Plan for Regional Development of ICT Infrastructures” (the development plan was revised on April 25, 2023 in consideration of changes in the social situation since then).

Serving as a policy for the development of 5G, this infrastructure development plan describes a two-phase strategy aimed at achieving the world's most advanced 5G environment. The first phase calls for the nationwide development of 5G infrastructures (4G and 5G master stations), while the second phase calls for the regional development of slave stations and the expansion of area coverage nationwide (Figure 5-3-3-3). During the first phase, the aim is to bring 4G to all residential areas and deploy master stations nationwide to serve as the basis for deploying 5G in nearly all areas of demand. During the second phase, the aim is to have 95% of the population covered by 5G nationwide by the end of fiscal 2023 (up from 30% as of the end of fiscal 2020), and 5G base

stations in all municipalities. By the end of fiscal 2025, the aim is to have 97% of the population covered nationwide and 90% or more in each prefecture. The aim is to reach 4G and 5G road (highways and national roads) coverage of 99% (100% for highways) by the end of fiscal 2030, in order to improve non-residential areas. Some concrete measures to achieve this goal include allocating new frequencies for 5G such as the 2.3 GHz band, revising the Radio Act to establish responsibility for installing base stations, supporting the installation of 5G base stations in disadvantaged areas through subsidies under the “Mobile Phone Area Development Project,” providing support through tax measures, and promoting infrastructure sharing (Figure 5-3-3-4).

In order to allow wireless and IoT solutions that meet local needs to be implemented throughout society in a manner that brings residents convenience, MIC is promoting the development of regional digital infrastructures that flexibly combine various wireless systems including local 5G, and the practical application of advanced solutions that utilize these digital infrastructures. For example, MIC will promote the development of digital infrastructures in cooperation with relevant ministries, agencies, and local governments, in conjunction with projects involving autonomous driving and drones that are soon expected to be implemented throughout society.

Figure 5-3-3-3 5G development

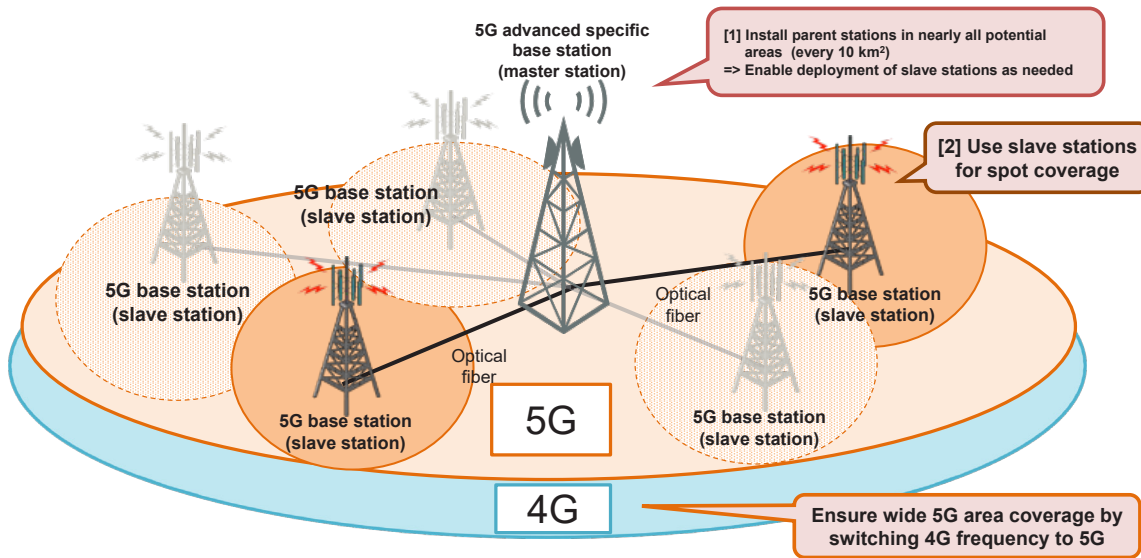


Figure 5-3-3-4 Development of Digital Garden City Nation infrastructure (roadmap)

	FY2023	FY2024	FY2025	FY2026	FY2027	Fiscal 2030
Comprehensive initiatives	Regional Council consisting of carriers, local governments, people involved in social implementation and other players is held to promote optical fiber/base station development based on the local needs.					
(1) Fixed broadband (optical Fiber, etc.)	(99.72% at the end of FY2021) Household coverage: 99.85%	99.90%*				Maintain optical fiber network
	Support maintenance through subsidies, use subsidy system to support maintenance and management expenses	Aim to further improve communication environment in accordance with communications conditions				
	Develop communications environment for "GIGA School Program"					
	Promote transition of equipment from public to private	*Aim also to develop all necessary regions				
(2) Wireless IoT infrastructure (5G, etc.)	Make 4G available in all residential areas	Maintain 5G infrastructure				
	Complete development of 5G master stations in all areas with needs (infrastructure deployment rate: 98%)	Nationwide/individual prefectures: 99%*				
	Population coverage: 95% nationwide. Development of 5G base stations in all municipalities	97% nationwide	Over around 90% in each prefecture			
	Number of base stations: 280,000	300,000	600,000*			
	Road coverage (highways and national roads): 99%*, 100% for highways	Develop a regional digital infrastructure that flexibly combines various wireless systems including local 5G, and promote the practical application of advanced solutions that utilize this infrastructure				
	+6 GHz (3 GHz => 9 GHz width) for mobile phone frequencies compared to fiscal 2021	Necessary measures based on results of review				
	Review development of system for 5G relay base stations, etc.	Necessary measures based on results of review				
	Support development through subsidies (promote infrastructure sharing) and tax systems	Necessary measures based on results of review				
	Review system policy based on results of local 5G development demonstration	Study on maritime usage				
	Necessary measures for local 5G flexibility	Use subsidies to promote development of areas in non-residential areas and measures to block radio waves in railway and road tunnels				
(3) Data centers, undersea cables, etc.	Promote decentralization of data centers (MIC, METI)	Start operation				
	Develop third and fourth core sites to complement Tokyo and Osaka and provide alternates (MIC, METI)	*Support maintenance through subsidies				
	Review support required for further decentralization and site development, while focusing on greening and cooperation with MEC (MIC, METI)	Start operation (fiscal 2026)				
	Install cables in Sea of Japan	*Support maintenance through subsidies				
	Promote installation of undersea cables to strengthen Japan's role as a hub for international data distribution, promote multi-routing of international undersea cables to strengthen safety measures, protect international undersea cables and landing stations, and promote efforts to strengthen international undersea cable installation and maintenance systems	Promote social implementation of Level 4 autonomous driving in limited areas				
(4) Non-terrestrial networks (NTN)	Prepare to verify and demonstrate HAPS at Expo 2025 held in Osaka	Continue to deploy and enhance HAPS throughout country				
	Review securing satellite communications frequencies, developing systems, and building Japan's own satellite communications constellation	Complete sequential processes toward				
		Necessary measures based on results of review				
(5) Beyond 5G (6G)	Use Beyond 5G R&D Promotion Project to support and establish related technologies for R&D for social implementation and overseas implementation, focusing on priority technology areas	Start B5G operation				
	Promote international standardization and development of an environment for international consensus and rulemaking	Disseminate results of Expo 2025 held in Osaka, and implement in networks				

(2) Beyond 5G

The next generation 5G information and communications infrastructure, "Beyond 5G (6G)," is expected to serve as the foundation for all industrial and social activities in the 2030s. In June 2020, the Ministry of Inter-

nal Affairs and Communications compiled the "Beyond 5G Promotion Strategy - Roadmap to 6G" report, and is currently promoting this strategy in cooperation with relevant ministries and agencies.¹

¹ Refer to Chapter 5, Section 7, "ICT Technology Policy Trends" for more information on efforts related to Beyond 5G.

4. Promotion of advanced radio use systems

(1) Intelligent transportation systems

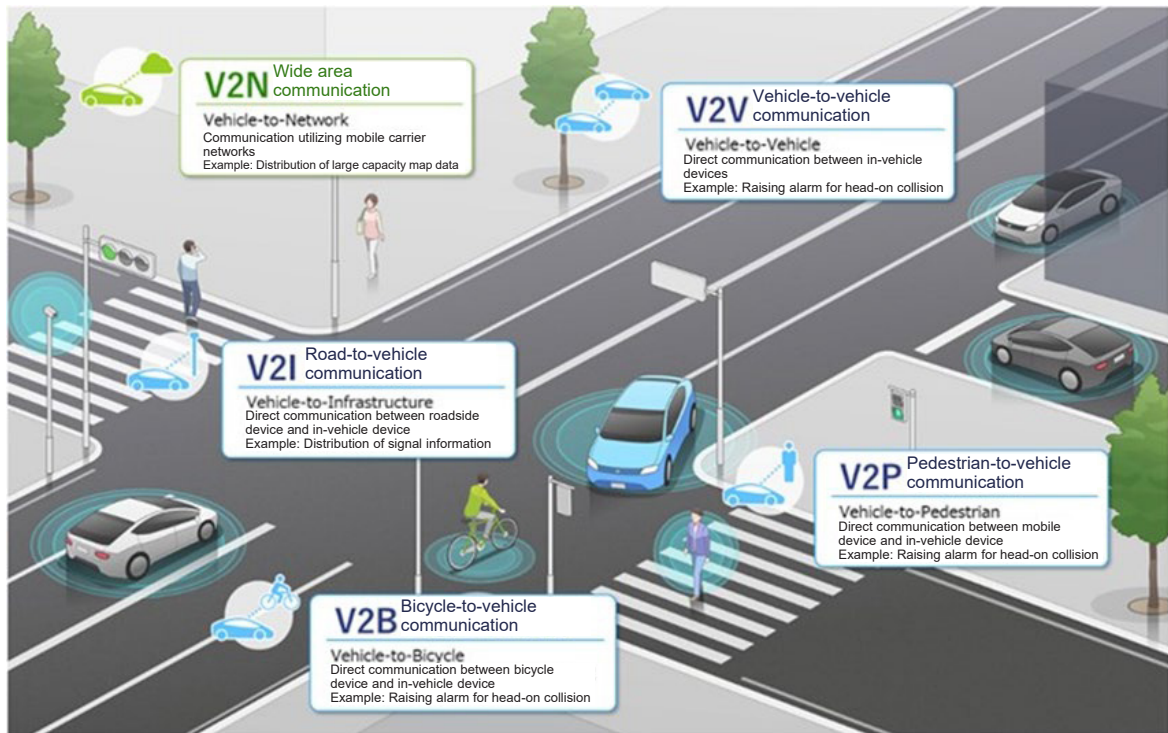
Intelligent transport systems (ITS) use information and communications technologies to connect people, roads, and cars, and contribute to the safe and comfortable transportation of people and goods by reducing traffic accidents and congestion.

The Ministry of Internal Affairs and Communications is currently allocating frequencies and establishing technical standards for use in vehicle information and communications systems (VICS), electronic toll collection systems (ETC), in-vehicle radar systems, and 700 MHz intelligent transportation systems, and is also promoting

the use of these systems.

Verification and implementation of autonomous driving is currently underway worldwide, though mainly in Europe and the U.S. In addition to in-vehicle sensors such as cameras and radar, vehicle to everything (V2X) communication (which exchanges information with surrounding vehicles and roadside infrastructures), is expected to play an important role in achieving advanced autonomous driving, such as merging/diverging support (Figure 5-3-4-1).

Figure 5-3-4-1 V2X communication



Although Japan was the first in the world to develop a practical 700 MHz intelligent transportation system in the form of a V2X communication system in 2015, efforts to verify and implement a V2X communication system utilizing the 5.9 GHz band are now being promoted worldwide. In response, the “Frequency Restructuring Action Plan” (released in November 2022) called for efforts to proceed with investigating the allocation of an additional 5.9 GHz band.

In light of these developments, the Ministry of Internal Affairs and Communications began holding meetings of the “Study Group on Next-Generation ITS Communications for Autonomous Driving” in February 2023, and has been working with relevant ministries and agencies, business operators, and academic experts to inves-

tigate how next-generation ITS communications must work for autonomous driving, as well as the types of communications needed to support it. The study group is now preparing to release an interim summary in the summer of 2023.

In order to contribute to the international standardization and overseas development of Japanese ITS technology, MIC is working to submit contributions to the draft reports and recommendations of the ITU Radiocommunication Sector (ITU-R), disseminate information at international conferences such as the ITS World Congress, and spread the development of Japanese technology throughout Asia and the Middle East, with a particular focus on India.

(2) Public Safety LTE

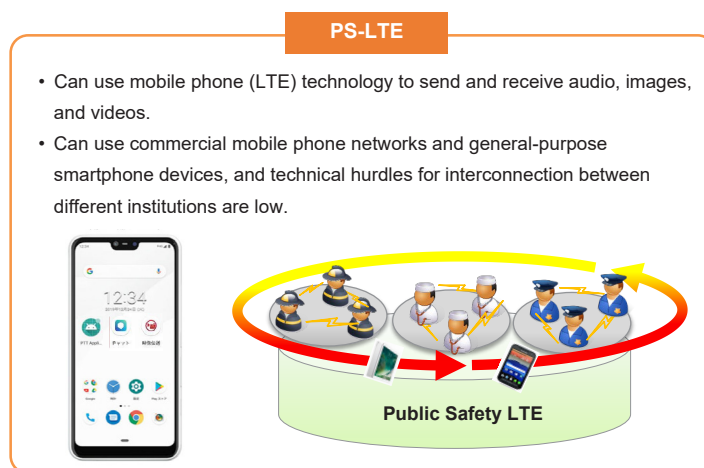
Major public agencies in Japan have individually developed and operated wireless systems specific to their respective operations, so it is not easy for these systems to communicate with each other beyond the framework of the individual agency. These systems are also mainly based on voice due to restrictions on the frequencies that can be allocated and the maintenance costs.

In countries such as the U.S. and the United Kingdom, public safety organizations such as fire and police departments are now utilizing a communications technology used for mobile phones called Long Term Evolution (LTE) to introduce jointly-used mobile communications networks that enable high-speed data communications for applications such as audio and image transmission. “Public Safety LTE (PS-LTE)” is a type

of public safety network that utilizes LTE. These networks are expected to contribute to smoother rescue operations by ensuring communication between public safety organizations in the event of a terrorist attack or major disaster. The technology is also said to reduce device costs due to using globally standardized technology.

For this reason, the Ministry of Internal Affairs and Communications has been working toward implementing PS-LTE in Japan (Figure 5-3-4-2) since fiscal 2019. In cooperation with relevant organizations, MIC will continue to examine the functions required for implementing PS-LTE in Japan and consider how to implement the technology in society, in order to implement PS-LTE as soon as possible.

Figure 5-3-4-2 Implementation of Public Safety LTE



(3) Non-terrestrial networks

Non-terrestrial networks (NTN) such as HAPS and satellite communications are mobile communications networks that are not limited to the earth, but connect everything from sea, air, and space in multiple layers. They are useful for ensuring efficient coverage over remote islands, seas, and mountainous areas, and for building redundancy into terrestrial networks including submarine cables to prepare for emergencies such as natural disasters. The Ministry of Internal Affairs and Communications is currently engaged in efforts to promote the introduction of services in Japan beginning in fiscal 2025, based on the “Digital Garden City Nation

Infrastructure Development Plan” (which was formulated in March 2022 and then revised in April 2023).

For HAPS, MIC will promote the formulation of international rules (such as expanding the number of available frequencies) and develop domestic systems, and also plan to expand overseas operations through verification and demonstration efforts at Expo 2025 held in Osaka. As for satellite communications, systems required to install Ku-band non-geostationary satellite communications systems have already been developed, MIC will continue to ensure sufficient frequencies and promote the installation of required systems.

(4) Spatial transmission wireless power transmission systems

Spatial transmission wireless power transmission systems transmit power over a distance of several meters by transmitting and receiving radio waves, without any wires required. They are expected to be used to power supply to sensor devices in factories. These systems supply low power without any need to connect charging cables or replace batteries. In addition to being more convenient, this brings more flexibility when installing sensor devices, and is expected to help realize Society 5.0 through the use of IoT.

The Ministry of Internal Affairs and Communications has been conducting studies on the sharing of frequencies with other wireless systems, radio wave safety, technical conditions, and the establishment of systems to make operation and coordination easier, with the goal of bringing these systems into practical use. Based on these studies, a system was developed in May 2022 for indoor use as an on-premises radio station using three frequency bands (920 MHz, 2.4 GHz, and 5.7 GHz), that meets certain requirements.

5. Promotion of overseas development of radio systems

Technologies and systems such as radio wave monitoring systems are playing an increasingly important role in ensuring the safe and secure use of radio waves. The importance of these technologies and systems is now recognized in Southeast Asia and other regions where the use of radio waves is rapidly expanding. Japan will need to contribute to the international community by developing radio systems with superior technology for use overseas, and will need to develop Japanese wireless infrastructures and services into a promising business that is competitive globally, leading to further growth of the domestic economy.

With this in mind, MIC is promoting strategic efforts in cooperation with the public and private sectors in order to expand the use of advanced Japanese radio systems globally and particularly throughout Asia. More specifically, in order to ensure that technologies with high-frequency utilization efficiency that match frequencies used in Japan are established as international standards due to their international superiority, MIC has implemented the "International Coordinated Use of Frequencies Promotion Project" to promote the international use of such technologies. MIC is also conducting surveys on technology trends in Japan and overseas, conducting verification experiments overseas, dispatch-

ing public-private missions, and making use of personnel exchanges at the technology user level. In light of the growing global demand for safe, secure, and reliable ICT infrastructures, the Ministry of Internal Affairs and Communications plans to intensively expand Japanese 5G network solutions overseas through Open RAN and vRAN over the next three years. MIC continues to promote open 5G standards through such means as proposing 5G models that take actual needs into consideration, based on the results of using 5G domestically (including local 5G).

In order to promote open base station specifications through Open RAN in Japan and overseas, the Ministry of Internal Affairs and Communications continued to conduct technology tests until fiscal 2022 to investigate interconnectivity and technical standards of base stations composed of base station equipment (RU, DU, and CU) from different vendors. Finally, "Japan OTIC," a base for testing and certification in accordance with O-RAN Alliance standards, was established at Yokosuka Telecom Research Park in December 2022 by several domestic telecom operators, in order to promote the Open RAN ecosystem in Japan with a view to overseas deployment.

6. Development of radio wave usage environments

(1) Promotion of bioelectromagnetic environment measures

The Ministry of Internal Affairs and Communications is promoting the development of environments in which radio waves can be used safely and securely.

In order to prevent radio waves from causing undesirable effects on the human body, the "Radio Protection Guidelines"² was established. Part of these have been established as safety standards concerning the strength of radio waves under the Radio Act. These are guaranteed to be equivalent to international guidelines, and reflect the results of long-standing investigations³ into radio safety. Previous studies have not confirmed the causal relationship between radio waves at levels below these safety standards and their effects on health. The Ministry of Internal Affairs and Communications continues to educate the public about the safety of radio waves through phone inquiries, information sessions, and leaflets.⁴

In order to prevent radio waves emitted from devices from affecting medical devices, MIC conducted a research study on the effects of radio waves on medical

devices⁵ each year. In fiscal 2022, MIC measured the effect of radio waves (3.7 GHz, 4.5 GHz, and 28 GHz) from 5G mobile phone devices on medical devices used in the home environment, nursing homes, and medical institutions. The results of the study so far have been published as "Guidelines for Preventing Radio Waves from Affecting Implantable Medical Devices"⁶. The use of radio waves in medical institutions continues to expand, so MIC also hold information sessions on precautions for various technologies (including medical telemeters, mobile phones, and wireless LANs), and on how to deal with radio waves. These are distributed on demand to inform medical workers and others about the safe and secure use of radio waves. As a related initiative, MIC began implementing a project to block radio waves in medical facilities in fiscal 2017 through the "Subsidy for Wireless System Usage and Support Project," and have been developing environments where mobile phones can be used safely and securely in medical facilities (**Figure 5-3-6-1**).

² Radio wave protection guidelines: <https://www.tele.soumu.go.jp/j/sys/ele/medical/protect/>

³ Radio wave safety research at the Ministry of Internal Affairs and Communications: <https://www.tele.soumu.go.jp/j/sys/ele/seitai/index.htm>

⁴ Radio wave safety efforts: <https://www.tele.soumu.go.jp/j/sys/ele/index.htm>

⁵ Research study on the effects of radio waves on medical devices: <https://www.tele.soumu.go.jp/j/sys/ele/seitai/chis/index.htm>

⁶ Guidelines for preventing radio waves from devices from affecting implantable medical devices, etc.: <https://www.tele.soumu.go.jp/resource/j/ele/medical/guide.pdf>

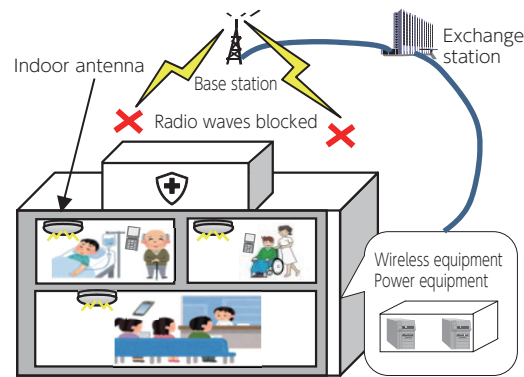
Figure 5-3-6-1 Project to block radio waves in medical facilities

[Burden breakdown]

Government 1/3	Medical institution 1/6	General incorporated association, etc. 1/2
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*Does not apply to the portion of the burden other than that of the government, depending on the management status of the medical institution or organization.

Example (medical facility)



(2) Promotion of measures against electromagnetic interference

With the spread of various electrical and electronic devices, it is necessary to take measures to protect wireless usage from unwanted radio waves emitted from various devices and facilities. For this reason, the “Radio Use Environment Committee”⁷ established by the Information and Communications Technology Subcommittee of the Information and Communications Council investigates and reviews measures against electromagnetic interference, and contributes to deliberations on international standards by the Comité International Spécial des Perturbations Radioélectriques (CISPR). In response to a report by the Information and Communications Council, the Ministry of Internal Affairs and Communications has been working to eliminate wireless equipment interference caused by unnecessary radio waves and to prevent interference with electrical and electronic devices, by promoting standardization in Japan.

As an example of an international activity related to CISPR, Japan is now actively investigating technologies to prevent radio waves leaking from wireless power

transmission systems for electric vehicles from jamming existing radio stations, as investigations into international standards for wireless power transmission systems used in electric vehicles (EVs), multimedia devices, and home appliances are now in full swing.

As an example of a domestic activity related to CISPR, MIC is investigating national standardization with regard to revising various CISPR standards, and have received several partial reports from the Information and Communications Council in February 2022 (“Wireless Frequency Interference Wave and Immunity Measurement System Technical Conditions: Auxiliary Equipment - Conducted Emission Measurement,” “Wireless Frequency Interference Wave and Immunity Measurement System Technical Conditions: Conducted Emission Measurement,” and “Wireless Frequency Interference Wave and Immunity Measurement System Technical Conditions: Radiated Emission Measurement”).

(3) Prevention of radio jamming and interruption

In order to eliminate jamming and interference and maintain a favorable radio wave usage environment as new radio wave usage including fifth generation mobile phones (5G) expands, the Ministry of Internal Affairs and Communications continues to monitor radio waves to eliminate jamming and interference, and is strengthening measures against the distribution of wireless and equipment that could cause these issues.⁸

More specifically, public awareness-raising activities are being conducted to prevent general consumers from violating the Radio Act by purchasing or using wireless equipment that is not compliant with technical standards (in other words, establishing an illegal radio station), and

to prevent jamming and interference of other radio stations. Since fiscal 2013, MIC has been purchasing wireless equipment that is widely available on the market (such as through the Internet), measuring the strength of their radio waves to determine whether they conform to the standards set forth in the Radio Act, conducting annual “wireless equipment purchase tests,” and publicizing the results⁹ for the benefit of general consumers.

Manufacturers, distributors, or importers of wireless equipment determined to be noncompliant as a result of testing are required to ensure that they deal only with wireless equipment that complies with technical standards and to refrain from selling noncompliant equip-

⁷ Radio Use Environment Committee: https://www.soumu.go.jp/main_sosiki/joho_tsusin/policyreports/joho_tsusin/denpa_kankyou/index.html

⁸ Overview of MIC The Radio Use Web Site: <https://www.tele.soumu.go.jp/j/adm/monitoring/index.htm>

⁹ Results of wireless equipment purchase tests: <https://www.tele.soumu.go.jp/j/adm/monitoring/illegal/result/>

ment. In fiscal 2020, MIC formulated the “Guidelines to Prevent the Distribution of Wireless Devices Noncompliant with Technical Standards,” and are now promoting efforts to prevent the distribution of noncompliant

equipment by clarifying efforts required of wireless equipment manufacturers and other companies, as well as voluntary efforts made by e-commerce companies.