

Tuesday, December 20, 2022



YRP R&D Promotion Committee
NTT DOCOMO, INC.
KDDI CORPORATION
SoftBank Corp.
Rakuten Mobile, Inc.

**Japan OTIC opens in Yokosuka City as a testing and certification center
for O-RAN solutions**

**- The world's first center jointly hosted by multiple mobile network operators -
NTT DOCOMO, KDDI, SoftBank and Rakuten Mobile -**

On December 20, 2022 (Tuesday), YRP R&D Promotion Committee, NTT DOCOMO, INC., KDDI CORPORATION, SoftBank Corp. and Rakuten Mobile, Inc. established Japan OTIC at Yokosuka Research Park (Yokosuka City, Kanagawa Prefecture) for testing and certification based on the international standards ensuring interoperability of O-RAN solutions stipulated by the O-RAN ALLIANCE. OTICs were established in Europe, North America and Asia by a single host. Japan OTIC is the world's first OTIC jointly established and operated by multiple mobile network operators.

*Research by the YRP R&D Promotion Committee. (As of December 20, 2022)

Outline of Japan OTIC

As global mobile communications enter the 5G era, there is a demand for more open, more reliable, and safer network infrastructure (Note 1).

An international organization established in 2018 by NTT DOCOMO and other mobile network operators around the world with the aim of enhancing the functionality of base stations by flexibly combining equipment from multiple manufacturers, the O-RAN ALLIANCE is conducting activities such as establishing specifications for interoperable interfaces for radio access networks (Note 2).

OTIC (Open Testing & Integration Centres) is an organization that tests and certifies various equipment based on the specifications published by the O-RAN ALLIANCE (O-RAN specifications). Japan OTIC was established in Japan, following on from establishment of OTICs in Europe, North America and Asia (Note 3).

Japan OTIC is established and operated jointly by the YRP R&D Promotion Committee as the main representative and the four mobile network operators. This is the world's first OTIC jointly established and operated by multiple mobile network operators in a single country, and the domestic operators are committed to working together to promote openness in testing and verification (Note 4 and Note 5).

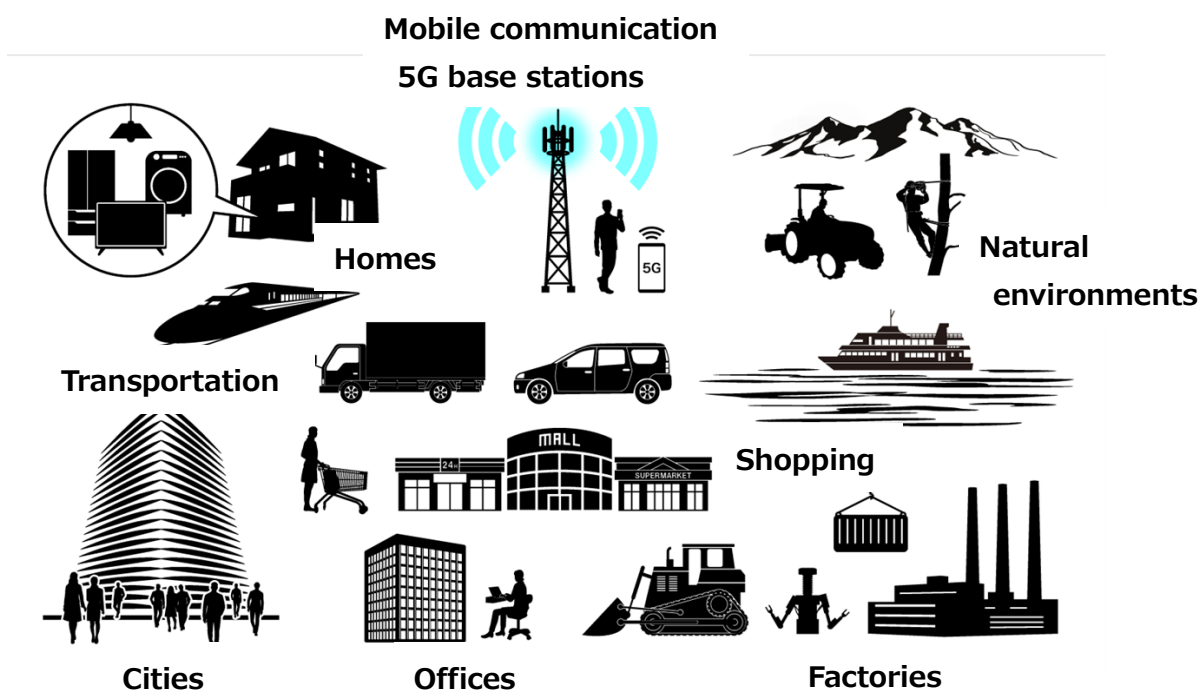
Utilizing the experience of the mobile network operators, Japan OTIC provides an

independent environment based on O-RAN requirements to test and certify base station equipment (Note 6 and Note 7).

Japan OTIC's activities will advance the open, revitalized and diversified supply chain of Japan's information and telecommunications industry and its overseas deployment, thereby contributing to the realization of a more open, more reliable, and more secure 5G mobile communication society in Japan and globally (Note 8).

Note 1 Dissemination of 5G mobile communication

The use of 5G mobile communications is expected to expand from person-to-person communication across borders to transportation, homes, shopping, offices and factories, as well as natural environments and cities. For this reason, there is a need for more open and more reliable networks and the infrastructure that support them, including more base stations.



Note 2 O-RAN ALLIANCE

The O-RAN ALLIANCE was established in 2018 in Bonn, Germany, with the aim of building next-generation open and advanced wireless access networks including 5G. AT&T, China Mobile, Deutsche Telekom, NTT DOCOMO and Orange are the five founding members of the O-RAN ALLIANCE. At present, 32* mobile network operators and 304* vendors and others around the world participate and contribute to develop interoperable specifications for the open, virtualized, and intelligent radio access networks.

*Published on the O-RAN ALLIANCE website (as of December 20, 2022)



WEB site

<https://www.o-ran.org>

Note 3 OTIC (Open Testing & Integration Centres) in the world

OTIC in the world

Europe

- European OTIC in Berlin (Deutsche Telekom AG)
- European OTIC in Torino (Telecom Italia S.p.A.)
- European OTIC in Madrid (Telefonica S.A.)
- European OTIC in Paris (Orange SA)

North America

- Kyrio O-RAN Test and Integration Lab (Cable Labs)

Asia

- Auray OTIC and Security Lab (Auray Technology Corp.)
- Asia & Pacific OTIC in PRC (ZhongGuanCun Academy of Mobile Communication Innovation)

Note 4 Yokosuka Research Park (YRP) and YRP R&D Promotion Committee

Japan OTIC in Japan was established at Yokosuka Research Park (YRP) with the YRP R&D Promotion Committee as its representative director.

Yokosuka Research Park (YRP) is a research and development area in the field of communications that was established in October 1997 in Yokosuka City, Kanagawa Prefecture, with a total area of approximately 58.8 hectares. The area is home to many leading research institutes in the field of information and communications in Japan and overseas, including Nippon Telegraph and Telephone Corporation, NTT DOCOMO, the National Institute of Information and Communications Technology, as a place for demonstration experiments of next-generation communication technologies that use radio waves, taking advantage of the topography, which minimizes the risk of experimental radio waves leaking out of the area.



The YRP R&D Promotion Committee, which became a general incorporated association in December 2020, promotes cooperation and joint research among information and communications-related companies and research institutes concentrated in the

Yokosuka Research Park (YRP), and it is responsible for forming a base for research and development, leading comprehensive policies, and developing infrastructure in the field of information and communications.

Note 5 Establishment and management organization of Japan OTIC

Japan OTIC is jointly established and operated by the YRP R&D Promotion Committee as the main representative of the following four mobile network operators.

Representative Member: YRP R&D Promotion Committee

Members: NTT DOCOMO, INC.

KDDI CORPORATION

SoftBank Corp.

Rakuten Mobile, Inc.

Note 6 Activities of Japan OTIC

Japan OTIC provides an independent and open interconnectivity verification environment to test and certify hardware including base station equipment based on the O-RAN specifications. This will contribute to the dissemination of O-RAN specifications and the promotion of openness in testing and verification.

Activities of Japan OTIC

- Independent and open position
- Provision of an interconnectivity verification environment based on O-RAN specifications
- Testing hardware equipment such as base stations
 - Conformance test
 - Interoperability test
 - End-to-End test
- Certification of compliance with O-RAN specifications
- Support for testing and certification
- Dissemination of O-RAN specifications and promotion of openness

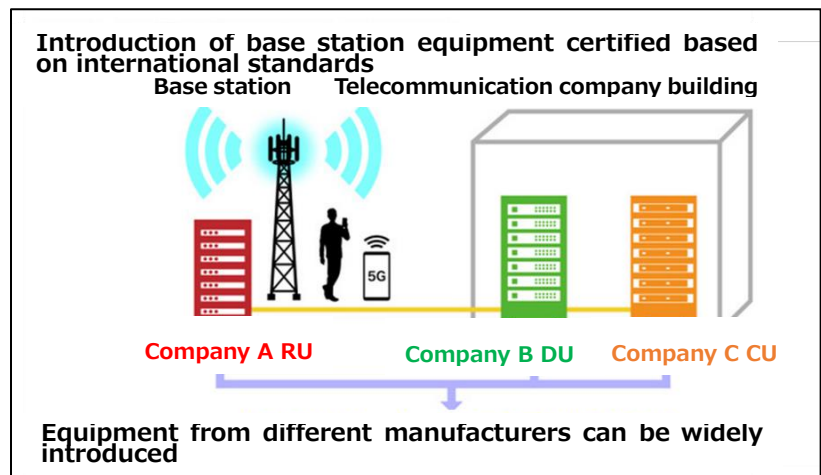
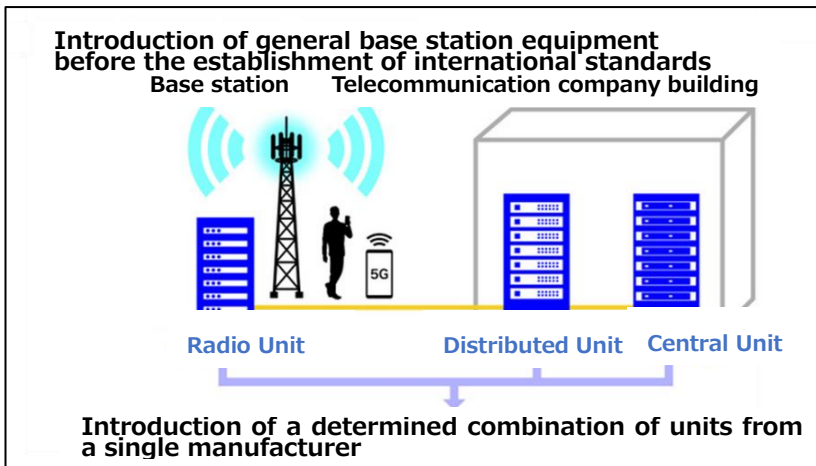
Laboratories and Equipment



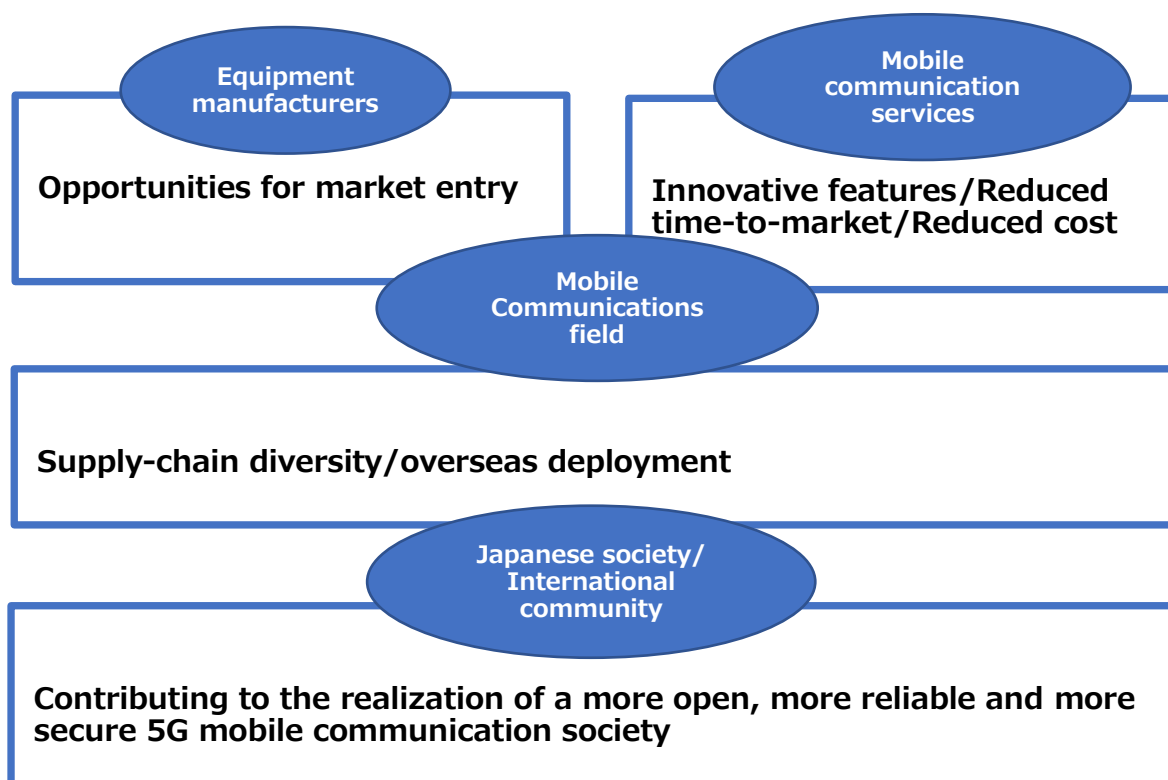
Note 7 Effects of certification based on international standards

Before the establishment of international interoperable standards, base station equipment typically had a manufacturer-specific internal structure, and it was common to introduce a combination of equipment determined by a single manufacturer.

Through interoperable interface specifications and certification to connect equipment from different manufacturers, it has become possible to widely introduce equipment from multiple manufacturers into base stations.



Note 8 Expectation of Japan OTIC



(Notes)

- *The name of Japan OTIC and its logo are trademarks or registered trademarks.
- *The names of O-RAN ALLIANCE, O-RAN and their logo are trademarks or registered trademarks of O-RAN ALLIANCE e.V.
- *The name of YRP R&D Promotion Committee and its logo are trademarks or registered trademarks.
- *Other product names and service names in this press release are generally trademarks or registered trademarks of their respective companies.
- * In this press release, trademark indications such as TM and ® may be omitted in the description of the trademarks of each company.