About OREX®

OREX is an Open RAN service brand launched by DOCOMO and its global partners, to provide customized and comprehensive Open RAN solutions for customers with system integration, vRAN, and software automation.

Role of New Joint Venture

OREX PARTNERS

- OREX RAN
- OREX SMO
- OREX Services

Procurement

OREX SAI

Verifications & Integration

Optimization & Prepackage

OREX Packages

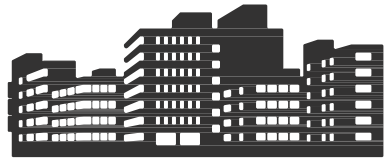
OREX Packages

Sales & Construction

Customers
(Global Telecom Operators)

Cost-effective mobile network

Collaborations with OREX PARTNERS



Clients
(Global Telecom Operators)

OREX SAI

OREX PARTNERS

DENGYO
DKK Co., Ltd.
FUJITSU
HFR, Inc. for Mobile Internet
MAVENIR
NEC \Orchestrating a brighter world
SOLID SOLiD

aws
AMD
arm
DELL Technologies
FUJITSU
Hewlett Packard Enterprise
intel
MARVELL
MAVENIR
NEC \Orchestrating a brighter world
NTT DATA Trusted Global Innovator
NVIDIA
Qualcomm
Red Hat
vmware by Broadcom
WNDRVR

EXEO Group, Inc.
INCOBECH Telecomunicaciones
KCCTech Innovative Solutions
MIRAIT ONE
COMSYS
SOON POH

The world through 5G mobile networks

We contribute to the governments, businesses/industries, and the citizens by creating a 5G world.

Governments

- Accelerating innovation will **improve economic growth and national strength**
- Rapid response to diverse needs through efficient **human resource development**
- **Job creation**

Businesses/Industries

- **Improves quality** due to lower entering barriers for new vendors
- Cost reduction enables efficient operation

Citizens

- **Creating jobs** and sustainable growth industries
- Eliminate disparities in education and medical care to create a safe society

OREX test environment

OREX Lab Yokohama

OREX “Exclusive” Lab

In order to prepare for the diverse combination of devices in Open-RAN and expand our ability to conduct in-house testing, we established our own new lab in Yokohama last year.

Development & Verification

IoT

Pre-Validation

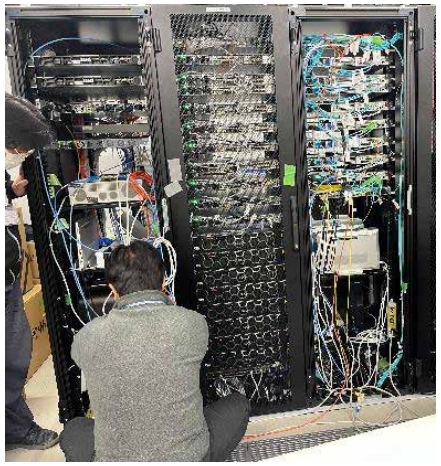
Knowledge & Technical Transfer

DOCOMO R&D center in Japan

Provision of a speedy verification environment
Can start vRAN verification without preparing location, equipment, or personnel.
Prepare measurement devices (ex: load testing device) for verification, aimed at commercial use.

Verification with product configuration tailored to the requests of Global telecom operators.
Can freely combine a wide variety of OREX products to form a verification configuration.
Can perform vRAN verification, connecting CN/RU operated by global telecom operators as testbeds.

Supports high-quality, commercial-grade verification
Based on many years of operational experience, DOCOMO provides unique verification design, verification items, and analysis skills.
Ensures end-to-end verification in an environment that includes everything from UE to CN.



OREX Packages

OREX RAN

Virtualized radio base stations & wireless equipment

RU

vRAN
(CU/DU)

- Base Station software
- Virtualization platform
- Hardware accelerator
- COTS server

vDU vCU

OREX SMO

Software enabling autonomous equipment operation

RIC

Energy saving

Auto Configuration

Optimization

OSS

MANO

OREX Services

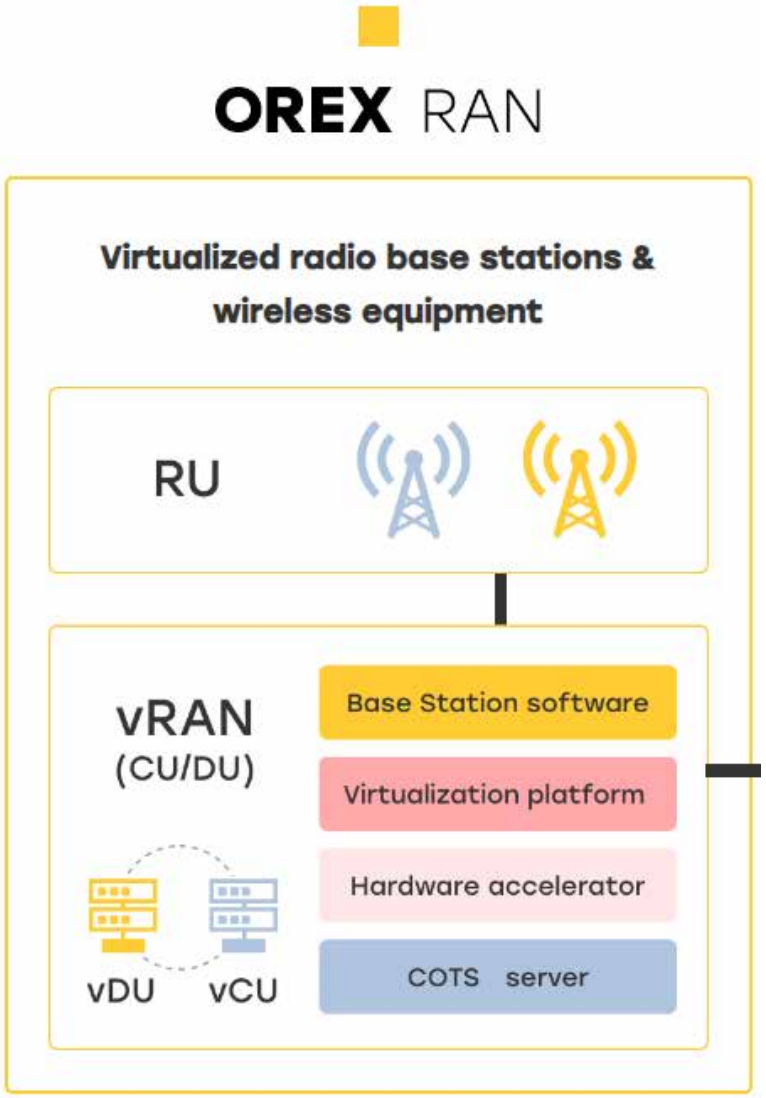
Service suite required for Open RAN adoption

System Integration

Operations support

Maintenance service

OREX RAN

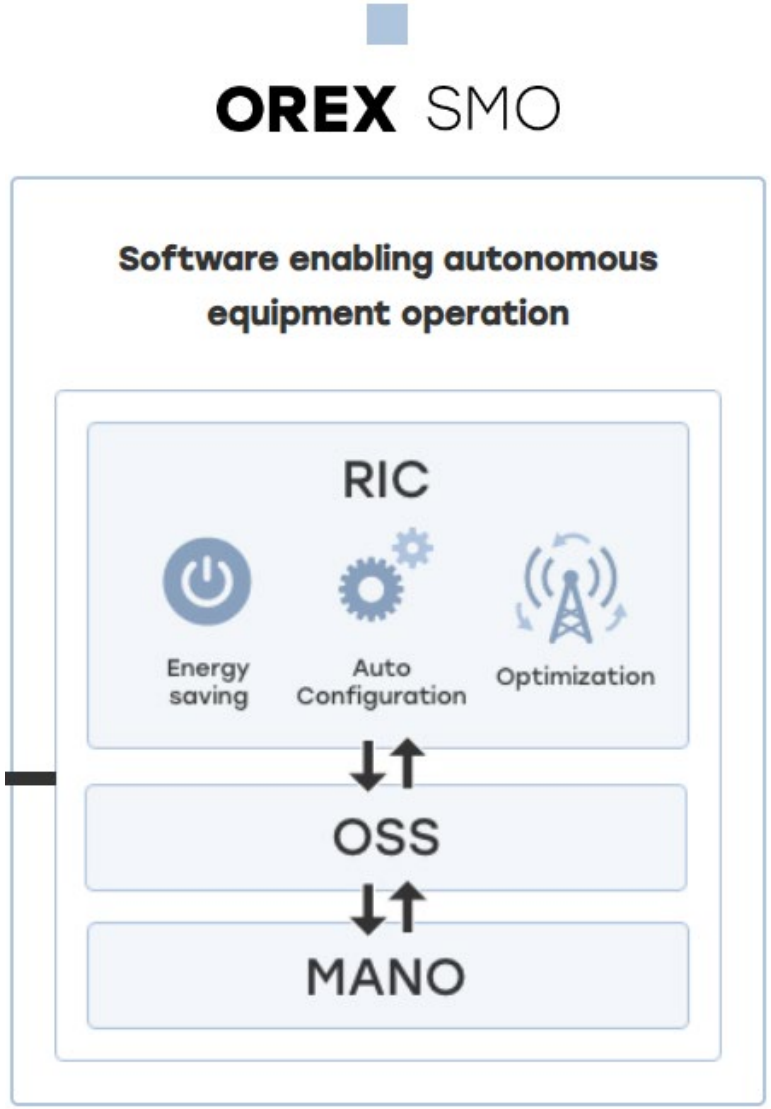


Key values

■ **Cost-effective**

base station achieved by the combination of multiple vendors

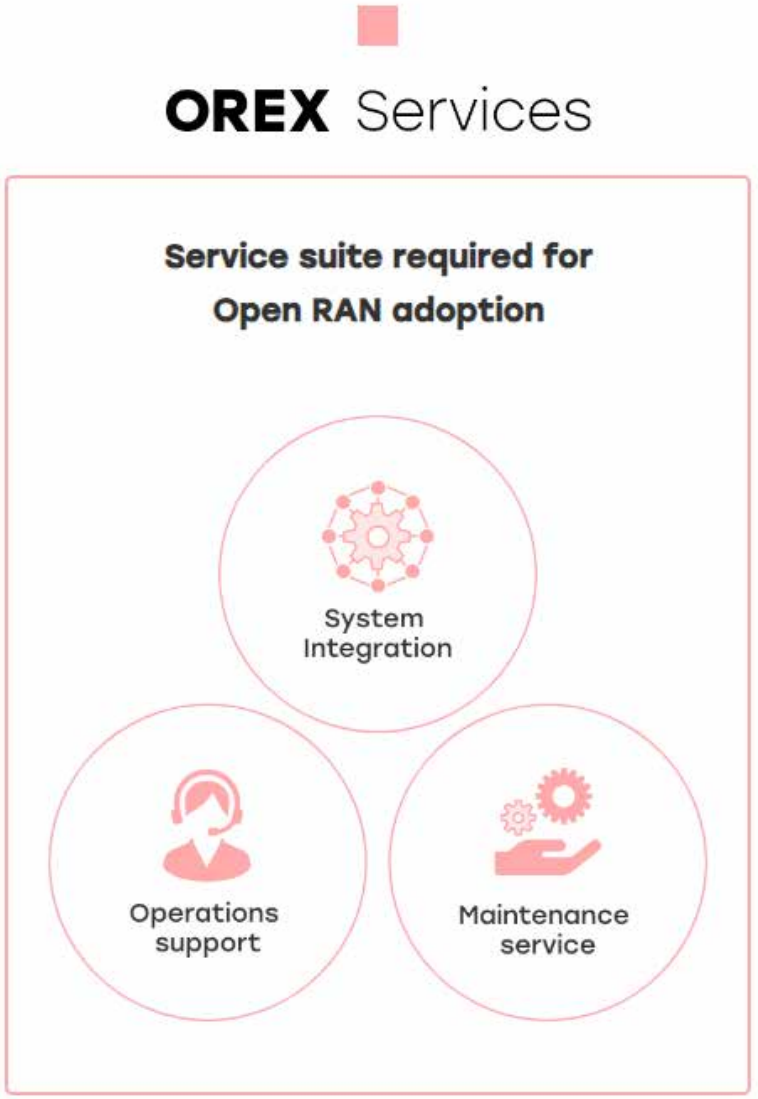
OREX SMO



Key values

- **Automated device operation** enabled by software developed by NTT Corp; facilitate efficient design and smooth wireless access networks configuration and monitoring.
- Compliant with O-RAN ALLIANCE standard specifications.

OREX Services



Key values

- Provide procurement and system integration for the adoption of OREX RAN, OREX SMO, and post-implementation operational support and maintenance.

OREX's Benefits

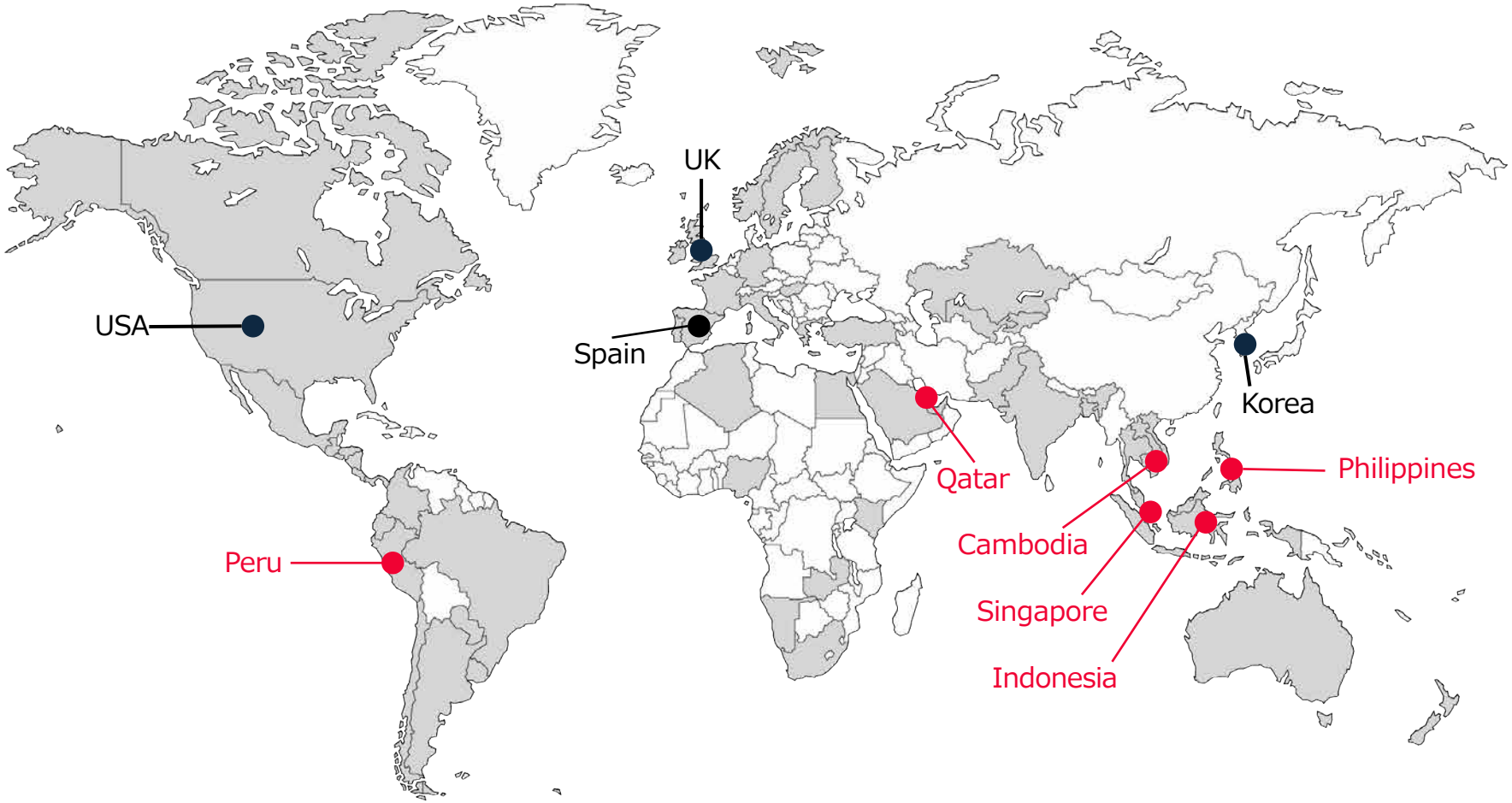
TCO
(Total cost of ownership)

Power consumption

Network design operation

Business Progress of 2024

OREX leverages NEC's global footprints to build a strong cooperation system with our local partners. This enables us to flexibly and swiftly respond to each region.



Open RAN trial in Peru (May 2024)

First outdoor, first cross vender field trial was successfully conducted with ENTEL by government support (Japan's Ministry of Internal Affairs and Communications, Peruvian government)

Worked with local partners to procure construction materials and build 5G networks

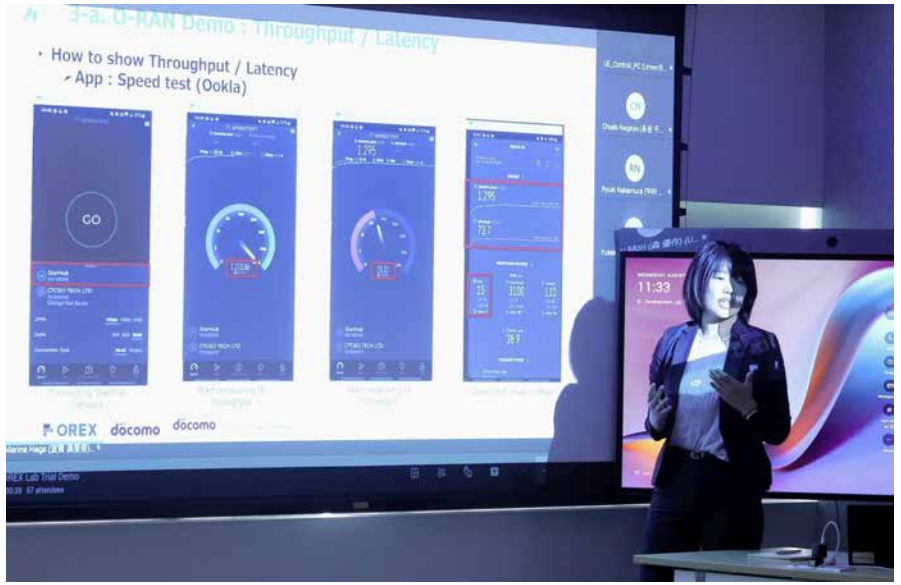
Multi-angle view (total 4) in the stadium via Open RAN NW

During the trial conducted by ENTEL, download speeds of 790 Mbps were achieved, far exceeding the speeds offered by current 4G networks.

Open RAN trial in Singapore (August 2024)

Successfully completed its OREX brand 5G Open RAN Lab Trial with StarHub Limited (StarHub), demonstrating its commercial readiness.

Moving forward, OREX SAI, the face of DOCOMO's Open RAN business, hopes to **enhance the momentum in the collaboration efforts with StarHub towards commercial deployment** and continue pushing the envelope while making Open RAN history.



The results were remarkable, with impressive **throughput, low latency, and successful verification of voice and SMS services,** all demonstrating the power and potential of Open RAN technology.

Open RAN trial in Indonesia (August 2024)

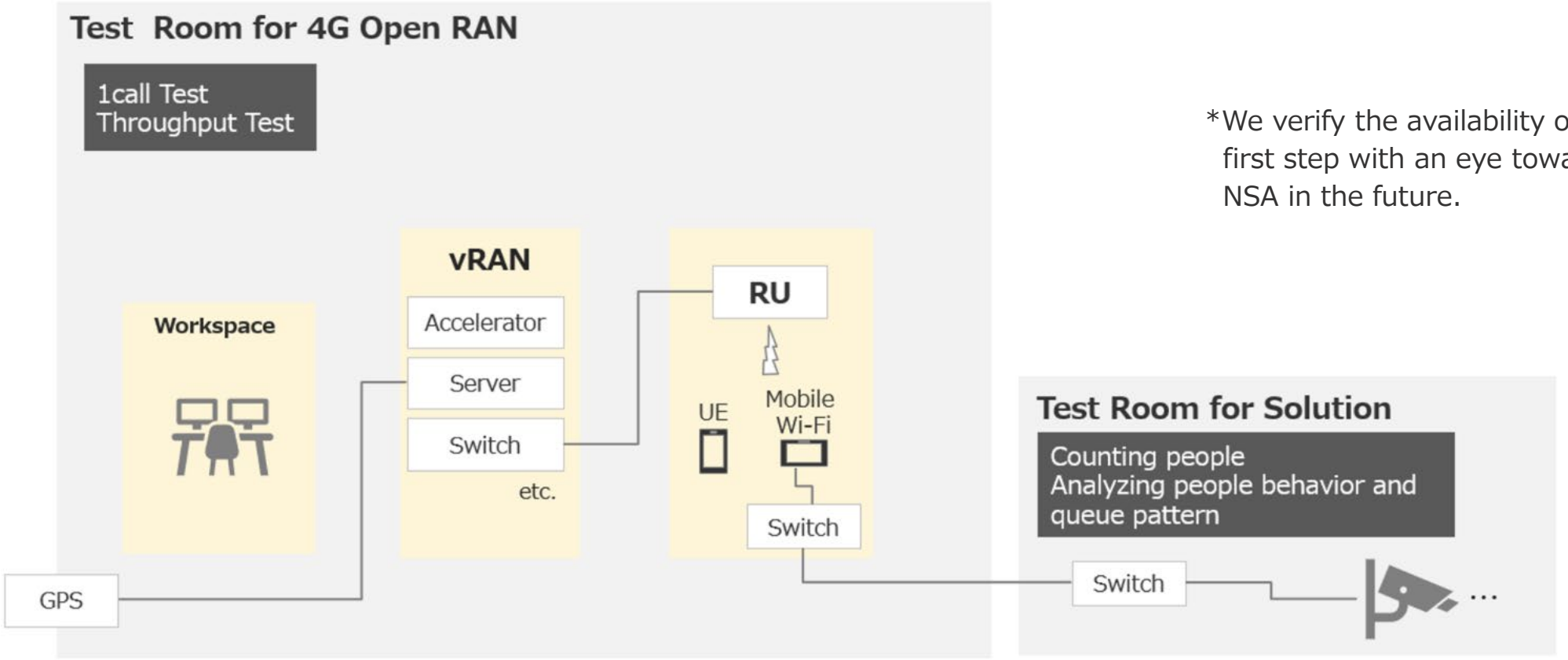
Open Ecosystem Technology Showcase in Indonesia's New Capital City, Nusantara. NTT DOCOMO/OREX SAI's contribution to successfully conduct 5G Open RAN trial.

A collaborative and intensive effort with Telkomsel, including multiple RU in different location to obtain indoor 5G coverage, enabled a reliable connectivity and stability in performance, to celebrate Indonesia's 79th Independence Day.

"Remote Work Support“ was demonstrated which allows experts to support juniors to execute sophisticated work from remote location by using smart glass. This can not only mitigate shortage of workforce but also accelerate technical transfer, ensure safety and increase productivity.

Open RAN trial in Cambodia (March 2025, on-going.)

- OREX SAI, INC. will demonstrate 4G Open RAN* at a large commercial facility in the Kingdom of Cambodia.
- 4G Open RAN will be built to verify the availability of voice and data communications. In addition, camera solutions for commercial facilities provided by NTT DATA Malaysia Sdn. Bhd., will be tested to verify the use cases that can be realized by stable mobile networks.



*We verify the availability of 4G as a. first step with an eye toward verifying NSA in the future.

Ref: Workshop in Cambodia (28 Oct 2024)

- The workshop on Open RAN and other topics will be held at the Cambodia Academy of Digital Technology (CADT) on October 28, 2024 (local time) with the aim of fostering local human resources.
- OREX SAI gave a lecture to local government officials, universities and telecom operators on the advantages of Open RAN technology.
- The event was well attended with about 200 participants and a large part of the venue was full. Many articles were published in Nikkei and local media.

Emerging Digital Technology powered by JAPAN -Current State of Open RAN and Cybersecurity

Open RAN trial in Indonesia (August 2024)

PT Solusi Sinergi Digital, Tbk (“SURGE”), a leading Indonesian digital infrastructure company, OREX SAI and NEC signed a MOU to aim to bring transformative 5G Fixed Wireless Access solutions powered by Open RAN technology

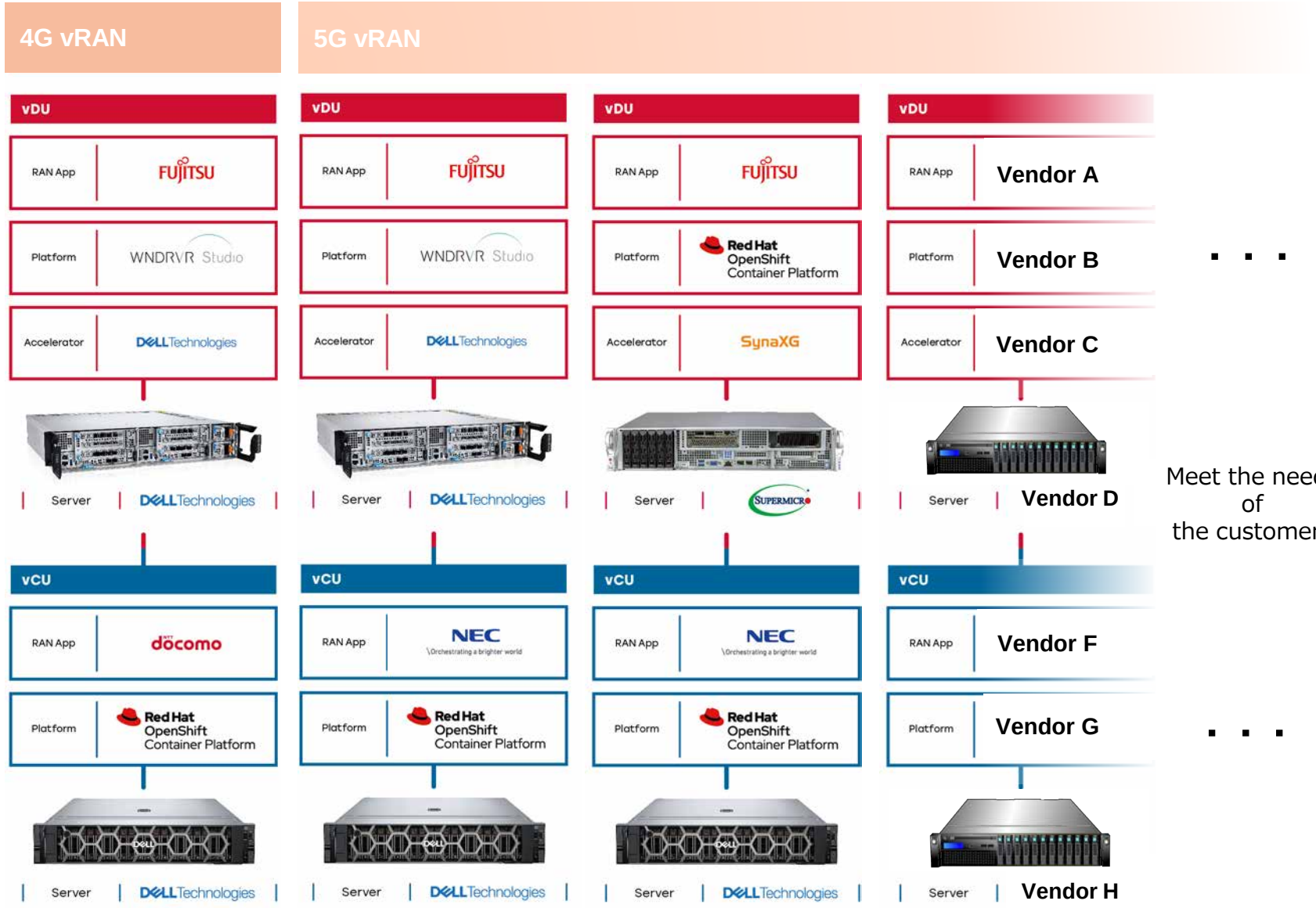
The MOU highlights a shared interest in fostering digital equity in Indonesia. With the ASEAN region’s lowest fixed broadband penetration rate, Indonesia’s 93 million households face significant challenges in accessing affordable and reliable internet. Through this collaboration, SURGE and OREX SAI aim to expand connectivity to underserved communities, providing high-speed internet access for up to 40 million households.

Providing high-quality and flexible networks.

OREX SAI can bring both SA and NSA vRAN network which includes NTT DOCOMO design philosophy.

Fujitsu and NEC are the 5G DU/CU component vendors which have deployment for long period in Japan DOCOMO network which is one of the most reliable systems in the world.

For 4G we will bring product developed by NTT DOCOMO.



We will strongly support the construction of Open RAN in countries around the world to realize a world without communication disparities.

OREX

Explore and experience

Presentations

Day1

15:00-15:30
Converge ! Network Digest (Hall 4 Stand 4E50)

Day2

10 : 00 – 10 : 45
O-RAN ALLIANCE SUMMIT Session 3
Towards Open RAN Deployments at Scale: Applying Operational Experience
(Hall8 Theatre 6)

16:15 – 16:45
The Evolution of Operator-Driven Networks: Unlocking New Opportunities with AI Open RAN (MWC Broadcast Stage)

MWC 2025 Booth Information

docomo

Welcome to OREX

MWC 2025
Booth Information

Open RAN Ecosystem Experience

Web Site

OREX DOCOMO

OREX Explore and experience

https://ssw.web.docomo.ne.jp/orex/en/

NTT
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