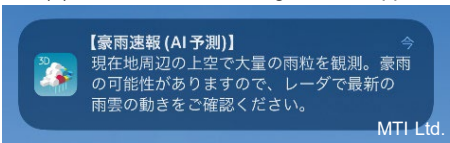


- We will conduct three-dimensional observations of cumulonimbus clouds and other rain clouds in the Osaka area by utilizing the next-generation weather radar, the Multi-Parameter Phased Array Weather Radar (MP-PAWR), and data compression and restoration technology that enables efficient transmission of rain cloud observation data.
- Implementing entities such as NICT will collaborate with industry, government, and academia to provide visitors and the Japan Association for the 2025 World Exposition with highly accurate weather forecast information that has never been available before.

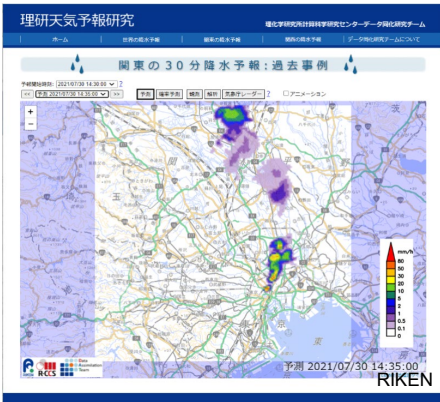
<Provision method and details>

- ① Provides 3D visualization of rain clouds and push notifications of torrential rainfall forecasts through the free smartphone application "3D Amagumo Weather."
- ② Provides information on torrential rainfall forecasts on the Riken website, which is conducted using the supercomputer "Fugaku"

(1) Push notification image on the app

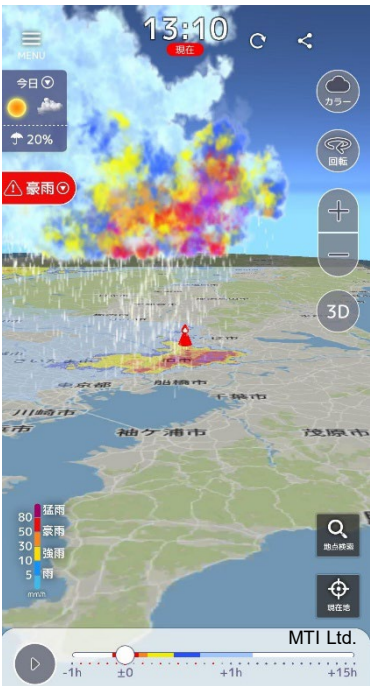


(2) Forecast image on RIKEN website



*Regarding forecasts from "Fugaku," the app provides 3D renderings and push notifications for up to 30 minutes in advance, while the website provides 2D forecasts.

(1) 3D rendering image on the app



<Implementing entities>

- National Institute of Information and Communications Technology (NICT), Institute of Physical and Chemical Research (RIKEN), National Research Institute for Earth Science and Disaster Resilience (NIED), The University of Osaka, Preferred Networks, Inc., MTI Ltd.

<Period>

- Duration of the Expo (April 13 to October 13, 2025)
(Torrential rain forecasts using "Fugaku" will be provided for 27 days from August 5 to August 31)

● MP-PAWR

Next-generation weather radar capable of high-precision 3D observation. Developed by the Ministry of Internal Affairs and Communications, NICT, etc. Enables early detection of rapidly developing cumulonimbus clouds. (Observation time: MP-PAWR 30 seconds, conventional method approx. 5 minutes)

● Location of MP-PAWR and venue

Located at the NICT Advanced ICT Research Institute (Kobe City) and the University of Osaka (Suita City).

