

Noto Peninsula Earthquake 2024 and Emergency Responses utilizing Digital Solutions

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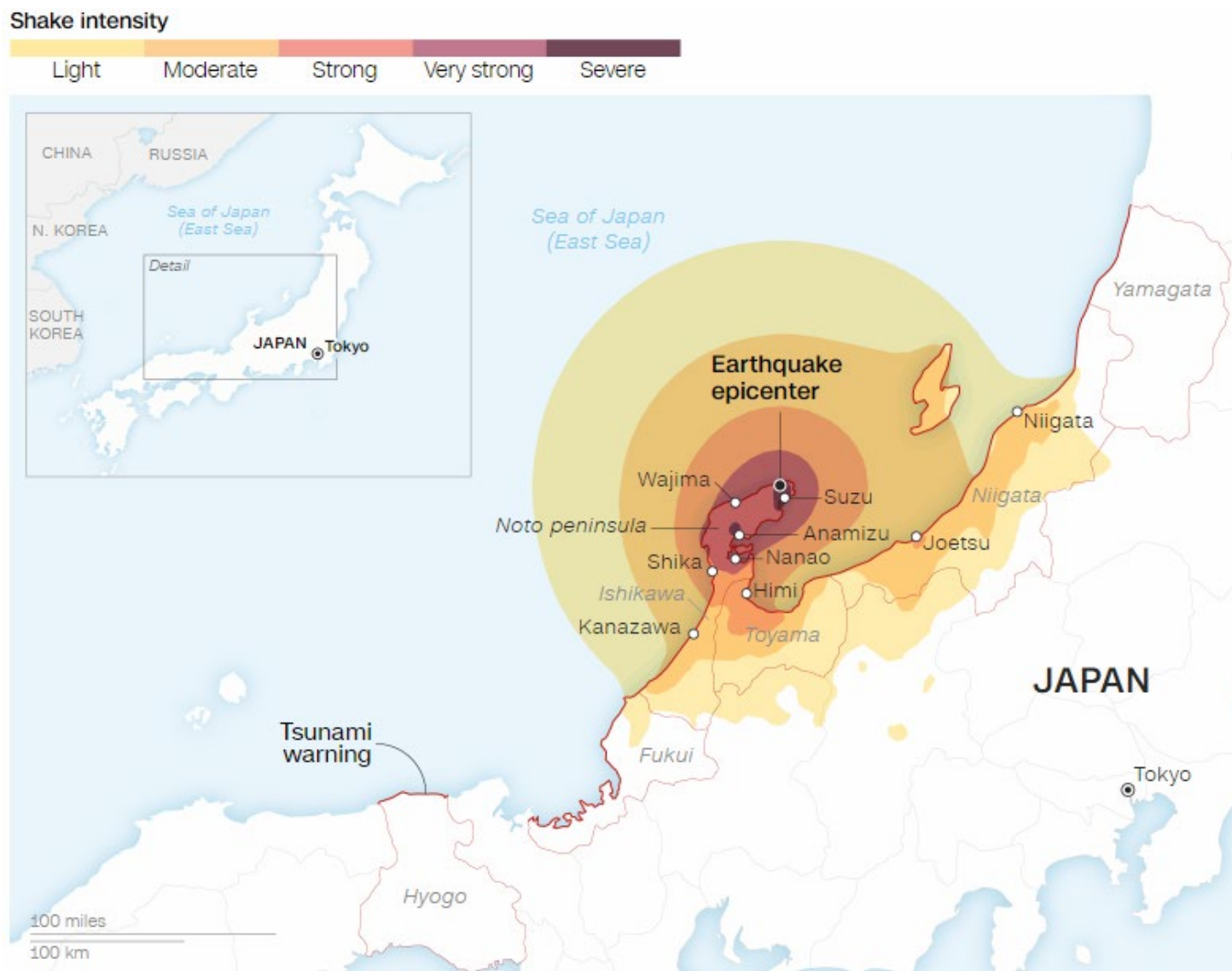
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March 1st , 2024

1. Noto Peninsula Earthquake occurred on January 1st ,
2024
2. Transdisciplinary Approach: Emergency Responses
utilizing Digital Solutions

Noto Peninsula Earthquake occurred on January 1st , 2024

The quake shook the Noto Peninsula in Ishikawa Prefecture on January 1st, 2024



An earthquake measuring a 7.6 shook the Noto Peninsula, Ishikawa prefecture on January 1st, 2024, at 4:10 p.m., collapsing buildings, sparking fires and triggering tsunami alerts.

In Ishikawa prefecture,

- Approximately 48,000 houses collapsed.
- Approximately 40,000 houses lost power when quake occurs.
- Death toll rises 241
- 41% of victims' deaths were due to collapsed houses, 22% from suffocation or respiratory failure, 14% from hypothermia or freezing to death. 3 peoples died from fire.

Sources:

- [The Japan Times](#) - [CNN](#) - [NHK](#)
- [NHK 令和6年能登半島地震](#) - [Cabinet Office, as of February 13 \(bousai.go.jp\)](#) - [NHK | 令和6年能登半島地震](#)
- [The Japan News \(yomiuri.co.jp\)](#) - [NHK | 令和6年能登半島地震](#)

Damaged buildings and lifeline



Fallen utility poles and rubbles piled up in central Wajima city on the afternoon of January 3rd, 2024.

[TOKYO Newspaper Web \(tokyo-np.co.jp\)](https://tokyo-np.co.jp/)

Collapsed buildings in Wajima City



A seven-story building in Wajima that toppled sideways in the quake, crushing a house next door.

[IN PHOTOS: Japan's quake-hit Ishikawa, one month on \(kyodonews.net\)](#)



Cars are stranded in the cracks as the road has been damaged by multiple strong earthquakes.

[Japan earthquake: 'Battle against time' to find survivors as tsunami warnings lifted, death toll rises | CNN](#)

A buckled road caused by the Jan. 1 earthquake in Noto, Ishikawa Prefecture

Wajima City damaged by Fire



The Asaichi Street fire destroyed more than 200 homes and shops, and approximately 50,000 square meters. The gutted Wajima Asaichi, a morning marketplace that was a famous tourist spot in Wajima.

[IN PHOTOS: Japan's quake-hit Ishikawa, one month on \(kyodonews.net\)](https://www.kyodonews.net)

Elevated Fishing Port Area



June 2017



Jan. 29, 2024

The Kuroshima fishing port in Wajima, where the seabed is exposed after being elevated by the quake. (Left: Photo courtesy of the 9th Regional Coast Guard Headquarters / Right: Photo taken from a Kyodo News helicopter)

[IN PHOTOS: Japan's quake-hit Ishikawa, one month on \(kyodonews.net\)](#)

IN PHOTOS: Japan's quake-hit Ishikawa, one month on (kyodonews.net)

Ground uplifts along the coastline



In Wajima City, an expert survey revealed that the sea embankment and rock reefs along the coast have been raised by approximately 4 meters. Experts say uplifts of 4 meters are rare and are a once-in-a-several-thousand-year phenomenon.

[NHK NEWS WEB](https://www.nhknewsweb.jp)

Ground uplifts along the coastline



A maximum of about 4 meters of ground uplift was observed in Wajima City. It has also been pointed out that the uplift of the ground over a large area of the northern coast of the peninsula may have softened the momentum of the tsunami.

[Infoseek news](#)



The coastline has been dried since the earthquake. Rocks covered with black algae were exposed.

[Asahi Shinbun Digital \(asahi.com\)](https://www.asahi.com)

Landslide in Wajima City



In the Machino district, which is reported to be isolated, a prefectural road was blocked by a landslide on January 5, 2024, Wajima City, Ishikawa Prefecture.

[Asahi Shinbun Digital \(asahi.com\)](https://asahi.com)

Tsunami caused damage in Suzu City



Coastal areas affected by the tsunami in Suzu City, Ishikawa Prefecture.

Liquefaction damage in Ishikawa, Niigata and Toyama Prefecture



The Earthquake caused widespread liquefaction. Recovery measures are urgently needed not only in Ishikawa Prefecture, which is closest to the quake's epicenter, but also in Niigata, Toyama and Fukui prefectures.

[-Liquefaction triggered by Noto Peninsula Earthquake causes extensive damage | NHK WORLD-JAPAN News](#)

[- NHK](#)

Transdisciplinary Approach: Emergency Responses utilizing Digital Solutions

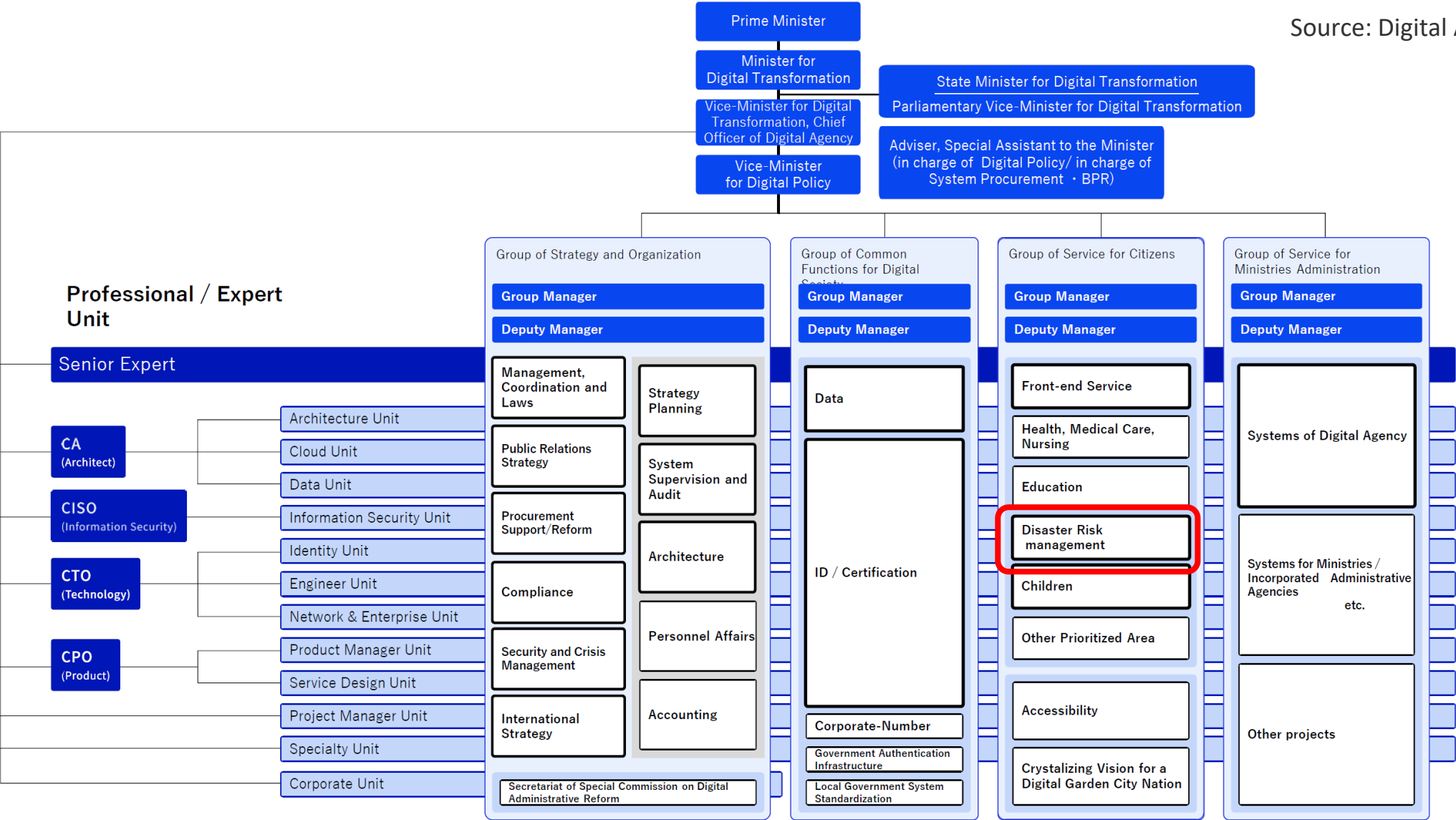
- Established in September 2021
- One-third of officials are from private sector
- Aiming at digitalization, not only digitization



Homepage of Digital Agency Website

Organization of Digital Agency as of November 2022

Source: Digital Agency Website



Public-Private Digital Transformation Committee on DRR (BDX)

<https://ppp-bosai-dx.jp/>

防災DX官民共創協議会

お知らせ 活動目的 ミッション 活動内容 組織体制 協議会活動の基本方針 検討部会の活動方針 活動実績 資料公開 会員リスト 入会案内 会則

防災DXサービスマップ

**防災DX
官民共創協議会**

防災分野におけるデータ連携等の推進を通じた住民の利便性の向上を目指し、
防災分野のデータアーキテクチャの設計やデータ連携基盤の構築等の検討を行う協議会

令和6年能登半島地震により被災された方々に心よりお見舞い申し上げます。

令和6年能登半島地震への対応

Purpose:

To realize DRR both in usual and emergency situation by public-private collaboration

Members:

420 entities as of February 16, 2024 consisting of 95 local public entities (prefecture government, municipalities, public organizations) and 325 private entities (data providers, consultants, transportation, startups, Siers, insurance, finance, media, medical, NPOs, etc.)

1. **Clarification of issues**; To clarify issues relevant to DRR to decide direction of public-private collaboration
2. **Platform Development**; To propose ideal data linkage platform especially from the view point of platform users, such as citizens and municipalities
3. **Market Development**; To create new business opportunities to realize digital transformation of DRR by public-private collaboration

1. Interview and questionnaire surveys to entities relevant to DRR to identify issues
2. Identification of technological trend to determine areas of emphasis and accelerate dissemination of DRR solutions
3. Design of data architecture and data linkage platform
4. Design of data items for DRR applications
5. Design of procurement criteria for applications and systems
6. Design of usage of my number (ID) card for DRR
7. Other subjects to accelerate digital transformation on DRR

January 1, 2024:

Started collecting information and supporting activities by BDX members

January 3, 2024:

Started the recruitment of organizations and companies officially to support emergency responses

January 8, 2024 :

Established a BDX center in Ishikawa Prefectural Office to grasp the tasks and needs of disaster-stricken area

KDDI and Starlink Japan cooperate to provide satellite broadband and necessary power for free.

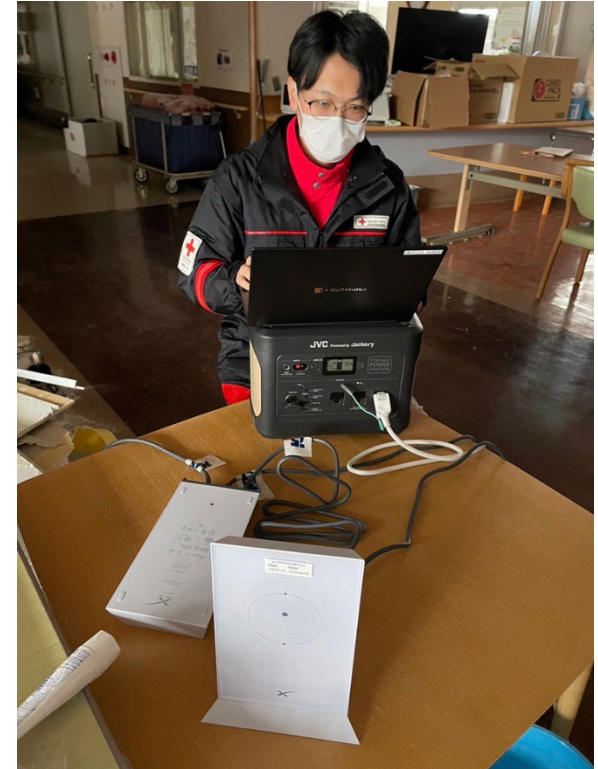


[News KDDI](#)

[Watch \(impress.co.jp\)](#)

Support Disaster Medical scene by Satellite broadband

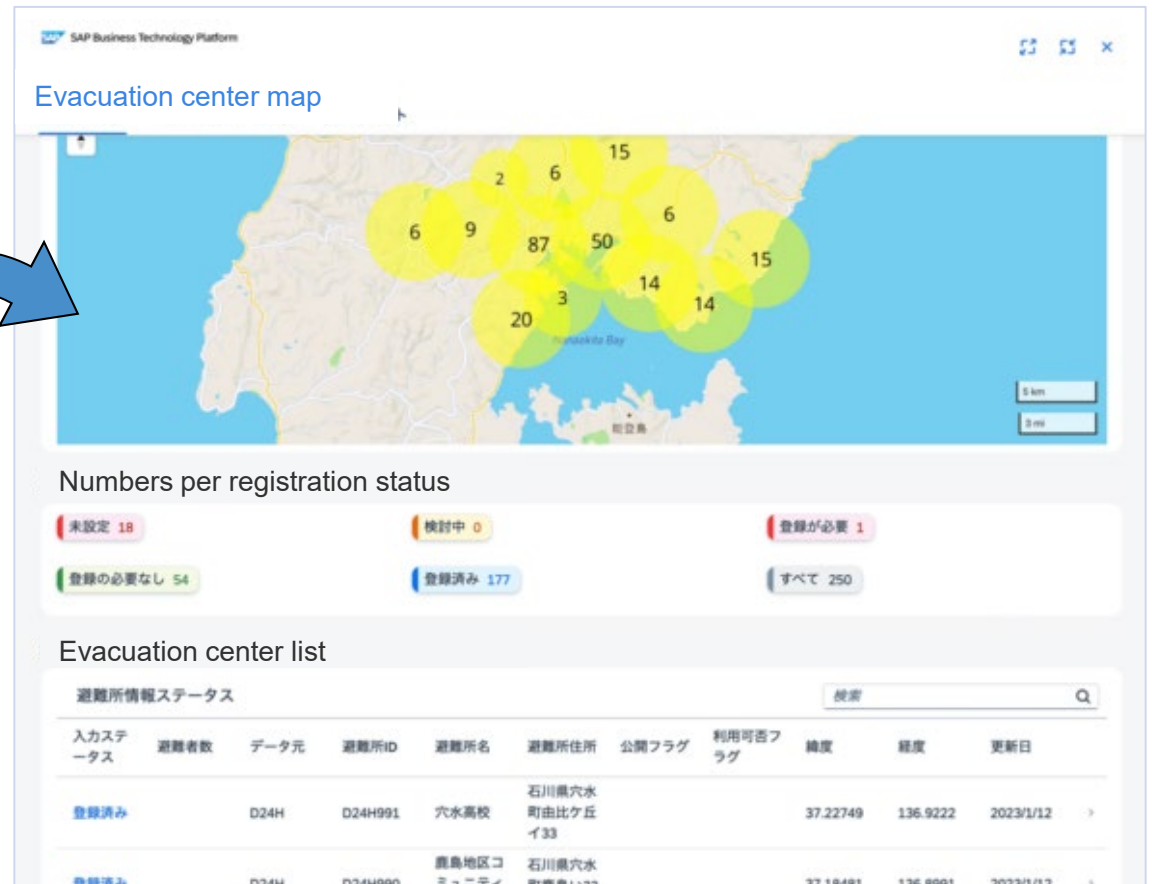
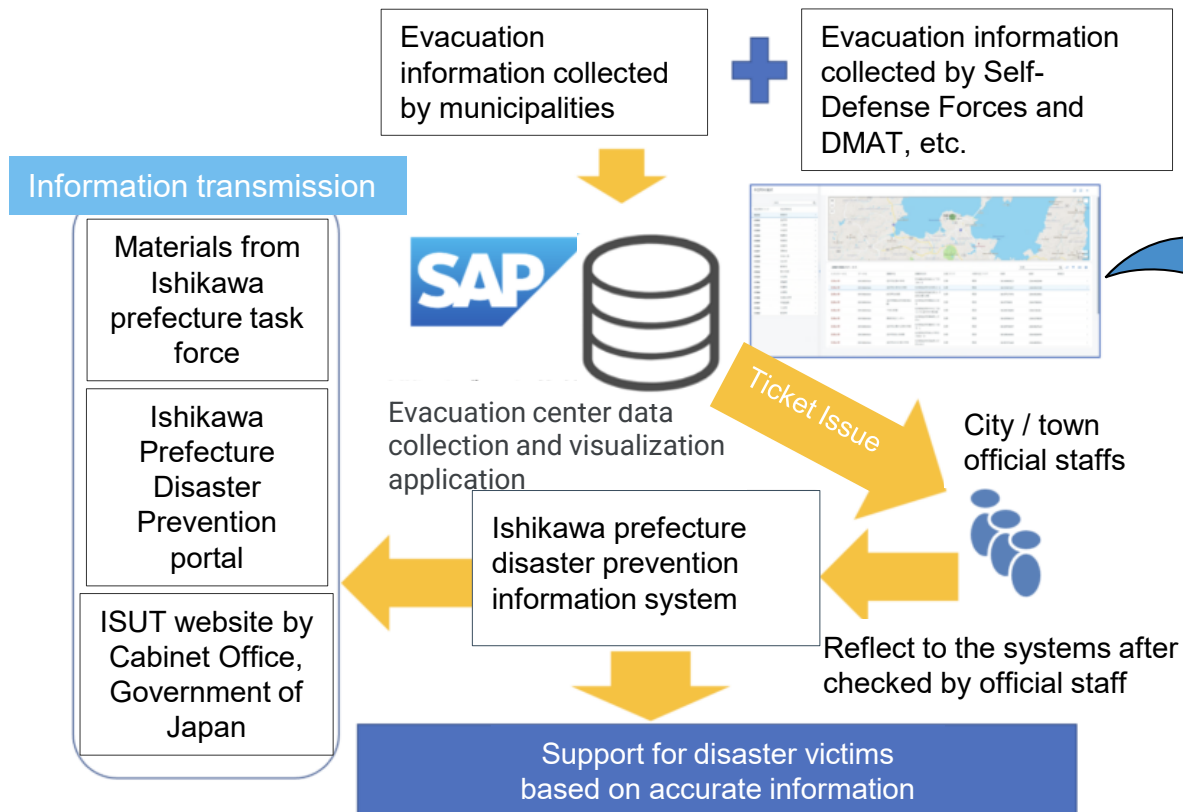
KDDI, DMAT(Disaster Medical Assistance Team) started supporting medical activities in the disaster-stricken areas using satellite broadband Starlink.



[News KDDI 2024](#)

Application Development Visualizing Evacuation Information

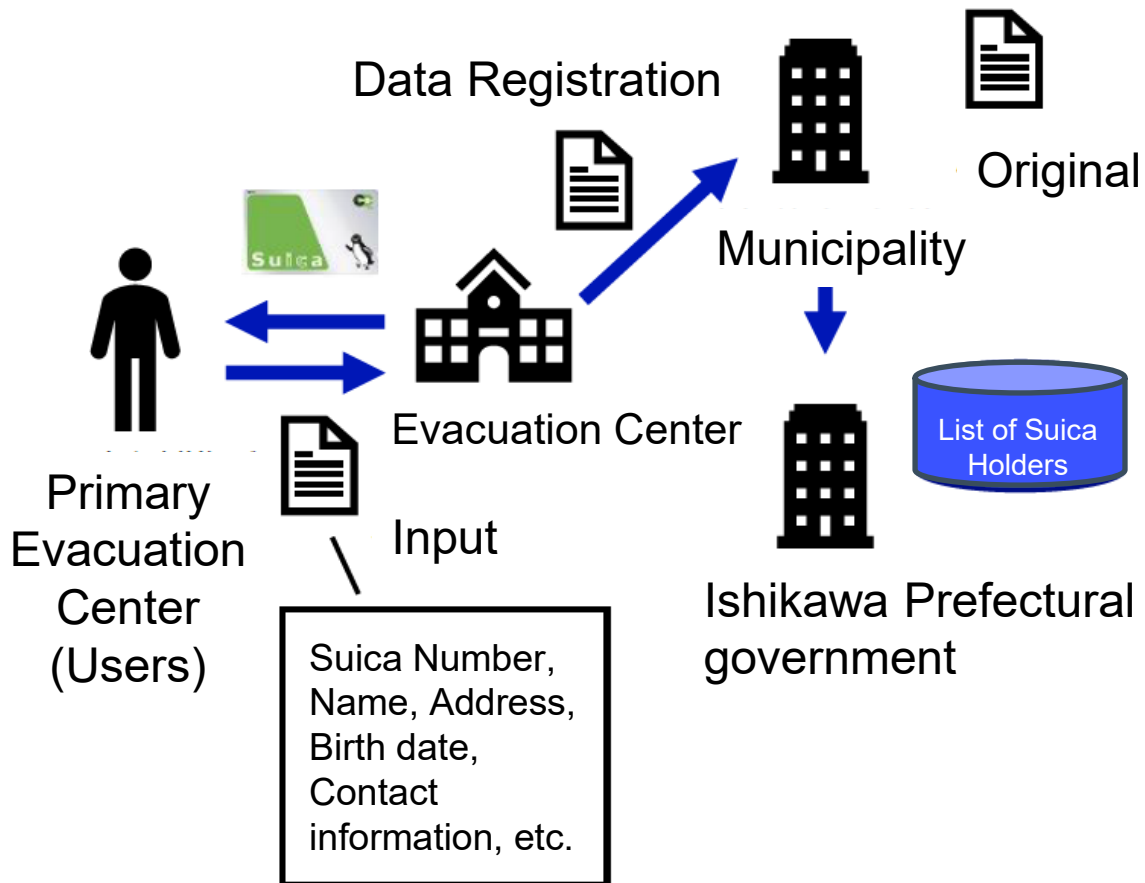
By collecting and integrating evacuation information to the prefecture's disaster prevention system, the application enables to manage accurate information.



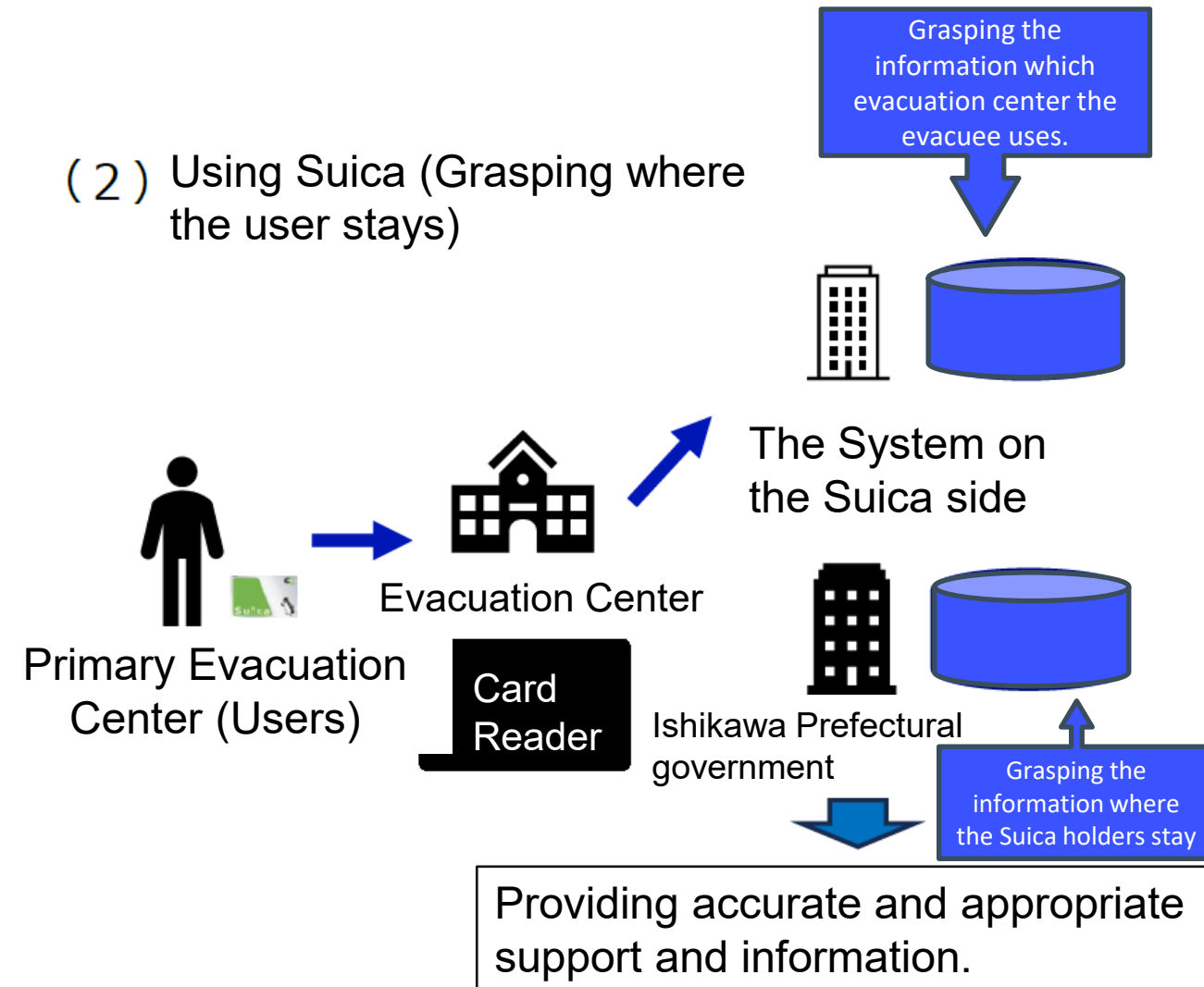
Digital Solution using Transportation IC Card

【 Outline (Image) 】

(1) Distribution of Suica and Registration



(2) Using Suica (Grasping where the user stays)





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