

New data replication method for disaster-resilient information platforms

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Credit: Tohoku University

Researchers have developed a way to protect data and enable information services to continue working in disaster-affected areas, even when there is a network disruption over a wide area preventing access to remotely located back-ups.

The Research Institute of Electrical Communication at Tohoku University (RIEC), Hitachi, Ltd. (TSE:6501, Hitachi) and Hitachi

Solutions East Japan, Ltd. (Hitachi Solutions East Japan) conducted simulations on a configuration of 24 servers at various municipal locations at both the city and prefectural levels.

When the data was replicated between locations unlikely to be simultaneously affected during a disaster, researchers found that as much as 94% of the data could be protected even when half of the servers were damaged.

By adjusting the number of data replicas according to the risk of data loss, the same amount of data can be protected with half the number of replicas compared to conventional methods. This technology should enable disaster-resilient [information](#) platforms at an affordable cost.

A part of this work was presented at a meeting of the IEICE Technical Committee on Magnetic Recording & Information Storage, on June 9-10 at Tohoku University.

Provided by Tohoku University

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