Theme: Data Service Platform

- Sub Theme : Blockchain-based Big Data Management Technology

The blockchain technology has been considered as one of the promising authentication and authorization solutions for secure decentralized data management. Due to the secure nature of a distributed contract-based system, which can overcome various kinds of fault tolerance, the blockchain is now extending its technology boundaries to the event recording, identity management, fault provenance, and data tracking, to achieve scalability, privacy, efficiency, flexibility and high dependability.

The goal of this project is to manage huge amount of data based on the blockchain technology, to provide decentralized data authentication and authorization, data immutability, and data integrity. Datasets can reach the Petabytes range, and data platform providers have to make sure that the latest version is synchronized among all of the data centers in real time and that the data is authentic. They also have to monitor malicious actors and prevent them from accessing data centers. Topics of interest include:

- Blockchain-based big data management and protection technologies:

  : Data protection by design and by default

  : Distributed consensus and fault tolerance mechanisms in data processing

  : Data erasure, data access control, and data portability

  : Smart contract-based real-time data authorization/authentication to support real-time analytics services

  : Recording processing activities, and reporting data breaches

※ The topics are not limited to the above examples and the participants are encouraged to propose original idea.

※ Funding : Up to USD $100,000 per year