Realizing to flexibly use an efficient data processing system using accelerators as a service

N04

IOWN

IOWN ACCELERATION

SuperWhiteBox (SWB) controller

IOWN **Now**

Next-Generation Computing Infrastructure

Background

To build data processing systems requires knowledge in various fields such as data collection and analysis, which is a major introduction barrier. In addition, the use of accelerators is becoming more common and requires knowledge of hardware. Therefore, human resource development is a major issue.

Summary

SWB controller enables users without advanced technical knowledge to easily construct accelerator-based data processing systems. As a concept implementation, we show that the controller can easily provide a secure network service and video processing service as a combined accelerator-based system.

Sustainable Smart City
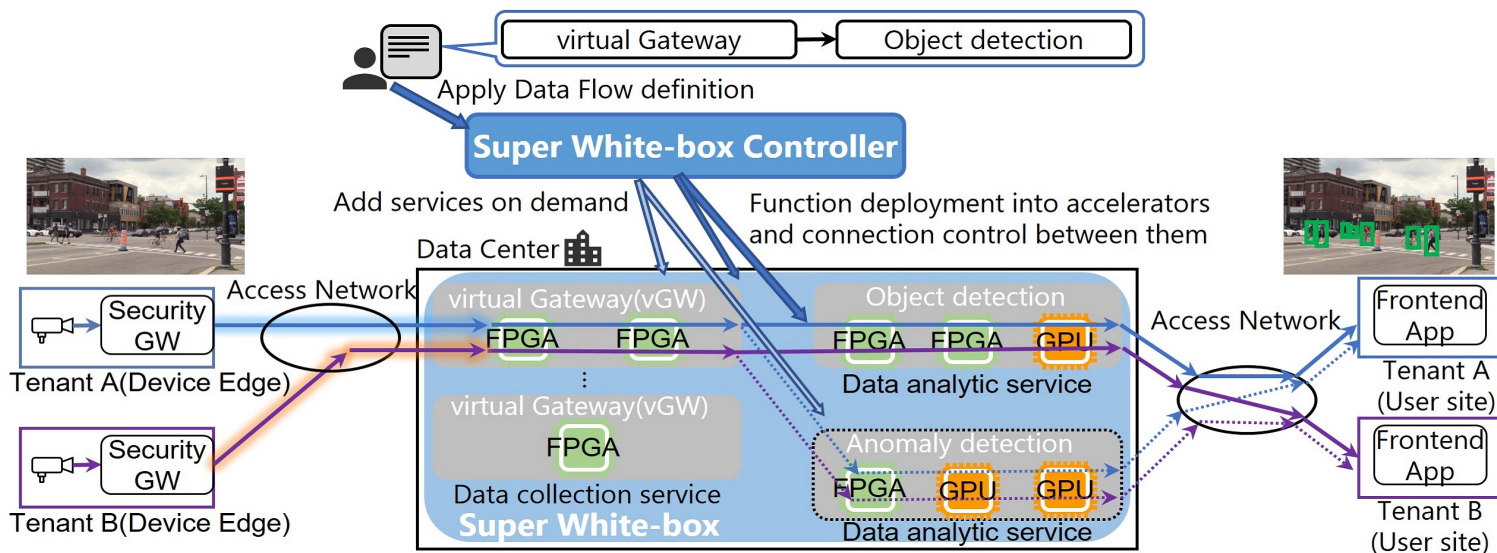
Features

- SWB controller allows users to easily construct combined accelerator-based systems of data collection and analysis systems
- SWB controller deploy hardware accelerator-based network processing functions according to network transfer requirements on-demand
- Efficient data exchange between accelerators without CPU intervention for video AI data analysis processing and network processing

Future_benefits

We will realize a sustainable society by applying SWB as a power-efficient platform to social infrastructure that processes vast amounts of sensor data, such as smart cities.

Collaboration partners

Fujitsu Limited

Exhibiting Company

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Contact

rdforum-exhibition@ml.ntt.com

NTT R&D FORUM 2023