Departmental Overview

The mission of the Department of Information Technology is to develop information infrastructure and provide information services for the smooth operation of research and related activities at RERF. Specifically, the department is responsible for the maintenance of RERF's in-house network infrastructure, the development of databases and related applications, and the operation and maintenance of various hardware equipment for the operation of application layer services. For example, RERF has a huge amount of data obtained from many epidemiological studies, including data from the F1 study cohort. We have contributed to the improvement of the reliability and availability of the data by developing applications applied for creating databases for these large-scale data and utilization of these data. Furthermore, ensuring the security of these data not only contributes to the efficiency of research, but also greatly contributes to the protection of sensitive survivor information from external threats.

Two new employees were hired in April 2020, and Dr. Ono assumed the position of department chief in June of the same year. The former department chief's specific area of expertise was medical sciences, but the new department chief was an expert in the field of informatics, so further informatization is expected. With these new appointments, ITD is now made up of 16 members and consists of two sections: Systems Technology Section and Library and Archives Section. The Systems Technology Section is responsible for the above-mentioned information system-related tasks. The Library and Archives Section manages RERF's collection of books, published papers, and historical materials, and has also started a project for archiving these assets permanently.

FY2020 Departmental Achievements

1) Replacement of the core switch

   The core switch, which plays a central role in the Foundation's network, was replaced due to its aging. A smaller and more energy-efficient device with the same performance as that of the previous model was selected.

2) Upgrading Microsoft Office suite

   With the end of support for MS Office 2010, we upgraded the current version to Microsoft 365 for all staff at RERF. Since the new version was made available through subscription contract, the latest functions of the Office suite can be provided at all times. At the same time, 1 TB of public cloud storage was made available for each research scientist.

3) Replacement of the current security firewall appliance

   With the end of support for the old model, we have updated the firewall appliance. In the past, multiple devices were used to protect each layer of the network, but this update allows to protect all layers of the network with one unit.

4) Replacing edge switches (Hiroshima Laboratory)

   With the aging of edge switches installed at each building of the Hiroshima Laboratory, these switches were replaced with new ones.

5) Replacing VPN router

Replacement of VPN router that allows safe access from outside for operation and maintenance (including emergency response) was conducted.

6) Periodic replacement of the current power distribution units for server rack

The aging power distribution unit (PDU) for server rack was replaced.

7) Replacing entry/exit management system server

The old model of server for the entry/exit management system was replaced with new one. It is planned to consolidate the in-house physical authentication infrastructure by establishing a linkage with the IC card to be used in the attendance management system that is being separately procured.

8) Replacing PCs for staff (45 units)

We made a lump-sum purchase of workplace PCs for staff for periodic replacement. A space-saving model with SSD internal storage was selected to improve work efficiency and maintainability of the equipment.

9) Replacement of the liquid monitor for employees (15 units)

We made a lump-sum purchase of liquid monitors to be used by staff members at RERF for periodic replacement. Work efficiency was improved by adopting monitors with a wider angle than the old ones.

10) Replacement of laptop PCs for lending (5 units)

For periodic replacement, we made a lump-sum purchase of laptop PCs for lending to various departments/sections.

11) Replacement of the access router between Hiroshima and Nagasaki

With the aging of the existing router connecting the Hiroshima Laboratory and the Nagasaki Laboratory, it was replaced with new one.

12) Replacing virtual servers and storages

We replaced outdated physical servers and storage units for the virtual server platform.

13) Constructing a remote connection environment from outside

For control of coronavirus infections, an environment was established to allow telecommuting staff to remotely access workplace PCs from outside.

14) Replacing the UPS (Uninterruptible Power Supply) battery

The Uninterruptible Power Supply (UPS) battery in the server room of the Hiroshima Laboratory was replaced as a precautionary measure due to age-related deterioration of the battery.