

Fujitsu develops technology to remotely access home PC files using a smart device

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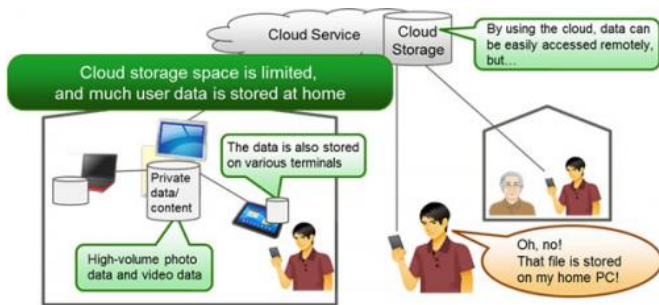


Figure 1: Development Background

Fujitsu Laboratories announced that it has developed technology that enables access to home computer files from anywhere using a smart device.

At present there is a proliferation of ways to use smartphones to access, from anywhere, computer files stored at home, not just those stored in the cloud. Effectively using these methods, however, has been problematic, because there may be files that cannot be viewed or edited on smart devices, or because, even using a remote desktop connection, opening the desired file (launching the application for viewing and/or editing it) can take time and effort. Now Fujitsu has developed technology that, by managing the status of devices and PCs and the types of applications that can be executed on each of them, can determine which terminal is best for executing the chosen file and have it run automatically, enabling it to be viewed and edited.

With this technology, a user making a single tap on a smart device can select a file, start up their home PC from anywhere and easily access the file via optimum means. For example, files created using Microsoft Office that are stored on a home PC can be accessed on the go using a smart device and

easily viewed and edited.

As users increasingly seek to share files among PCs and smart devices, the use of [cloud storage](#) is spreading. This enables the same file to be used from multiple terminals. For example, a file saved on a home PC can be copied in cloud storage for viewing it on the go using a smart device, and family members or friends living apart from each other can all view the same file. Compared to storage space available on home PCs, however, the volume of cloud storage space is limited, and additional space requires further expense. Storing all of one's data in cloud storage is difficult, so there has been a need for a problem-free way of using a smart device to easily access, from anywhere, files that have been saved in storage at home.

One way of remotely accessing files stored at home is to use a smart device to remotely connect to one's home PC through what is known as a remote desktop connection. Getting to the desired file using this method, however, requires considerable time and effort, placing a significant burden on users. For example, remotely connecting to one's PC using a smart device requires the following steps.

- Identify the PC on which the desired file is saved.
- Switch on that PC if it is not already running (if it is in sleep mode).
- Connect to that PC remotely and use the screen on the smart device to find the desired file.

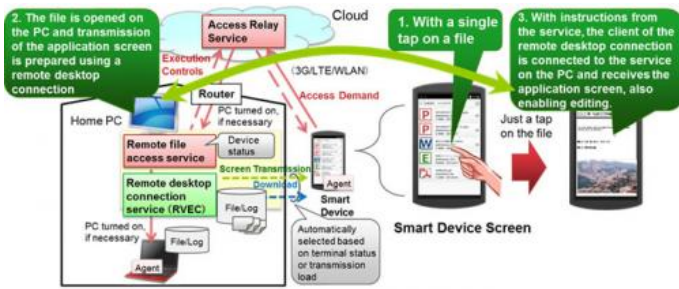


Figure 2: Overview of remote file access technology

Aside from remotely connecting to a PC in this way, another method is to use home-based network attached storage (NAS) connected to a cloud service that can be accessed remotely. With this method, however, only files stored in network attached storage can be accessed. Moreover, these services are often designed for viewing photos or videos or playing music, so files created using applications such as Excel or Word in Microsoft Office can only be downloaded and opened on a smart device with the dedicated applications installed in advance.

Fujitsu has now developed technology that enables files stored at home to be easily accessed from anywhere using a smart device. Just by selecting a file with a single tap on their smart devices, users can start up their home PCs from anywhere and access the file in the best way without difficulty. The newly developed technology has the following features.

1. A remote file access service that has been installed on a home PC manages the on/off status of the terminals (PCs and [smart devices](#)) and the types of applications that can be executed (viewed and edited) on them, then determines which terminal is best for running the desired file and decides the procedures.

- If it can only be executed on the terminal at hand, it will download and execute the file.
- If it can be executed on any terminal at home, it will execute it remotely and provide a remote connection.
- If it can be executed on either end, it will

determine which terminal is best to execute it based on the type of each terminal's Internet connection and the size of the file.

2. After determining the execution procedures, the remote file access service sequentially executes the control commands for the procedures required for each terminal, and the agent application previously installed on each terminal automatically executes the access process. In this way, the desired file can be accessed from a smart device using the optimal execution procedures.

If the required terminal is turned off, it will automatically be turned on. In addition, the remote desktop connection uses RVEC technology developed by Fujitsu Laboratories for high-speed transmission to remote terminals.

By using this technology, files stored at home can be easily accessed on the go using a smart device. For example, private photos or videos that are stored at home can be shown to friends or to family members that live in distant locations, and Excel or Word [files](#) created using Microsoft Office that were edited and saved on a home PC can be accessed on a smart device and edited on the spot. Moreover, it is envisioned that, in the future, a variety of sensor log data, such as security logs from surveillance cameras, even inside the home, will be accumulated in large volumes, and by enabling access to that data from outside the home, this technology could be used for home monitoring services.

Fujitsu aims to commercialize this technology in fiscal 2014 and have it installed in PCs, smartphones, and tablets. Through this technology, Fujitsu seeks to accelerate the realization of its vision of Human Centric Computing, which aims to bring about a world where, by eliminating the barriers between systems and people, convenient services can be accessed without people even being aware of the systems that deliver them.

Provided by Fujitsu

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