

Customer Solution Profiles

The following profiles offer a glimpse at how some of our IT systems and solutions are benefiting businesses, institutions and people in their everyday lives.

Riken

Japan's Highest Performance Linux Cluster System Powers Biotech Research

Along with the diffusion and increasing performance of Linux servers in recent years, Linux cluster systems – multiple Linux servers linked in a single high-speed network – have been adopted by universities and research institutions throughout Japan and abroad for use as supercomputers.

Since March of 2004, Japan's Institute of Physical and Chemical Research, known as Riken, has begun operating a supercomputer system that uses as its core a Linux cluster system built by Fujitsu. This is the highest performance Linux cluster system in Japan and represents the first adoption by a large-scale Japanese computing center of a Linux cluster core for its main system. It is considered a model case and has received considerable attention both in Japan and abroad.

Slated for use in the analysis of the structures and

functions of genes and proteins in biotechnology, the system is expected to make major contributions to advanced research and development and support Japan's position as leading innovator in science and technology.

Tokai University School of Medicine

World's Fastest Quantum Chemical Computational Techniques and Software Speed Drug Development

Genomic drug design can be described as the process of discovering target molecules – and therefore new drug candidates – that control the abnormal behavior of proteins related to diseases. Traditionally, this process of discovery involved an enormous amount of time and sacrifice, requiring the use of actual tissues and cells, or numerous test animals.

Seeking to help new drug developers overcome these hurdles, we developed new techniques and software enabling the world's fastest quantum chemical computations based on the molecular orbital method. Working together with Tokai University's



Japan's highest performance Linux cluster system is powering biotech research.



School of Medicine, we succeeded in proving the validity of our efficient computer-based calculation of the mechanisms for specific AIDS drug treatments and their associated proteins currently being used in clinical practice. Instead of employing animal experiments and other traditional methods, the experiment was carried out with just one PC, successfully performing a simulation analysis in an effective time of about 3 hours and 40 minutes.

In addition to reducing the time and expense required for drug development, it is expected that this technology will be used as a preventative tool for predicting issues such as potential adverse side effects, and will help open the way toward exciting new possibilities in genomic drug design.

Tokyo Mitsubishi Bank and Suruga Bank First Deployments of Palm Vein Pattern Authentication Technology for Secure Banking

Responding to growing needs for identity verification

in business and other settings, we developed the world's first contactless palm vein pattern biometric authentication technology. This technology is able to verify a person's identity by reading – without physical contact – the pattern of blood veins in the individual's palm and comparing it to a pre-registered pattern. Since there is no contact with sensor equipment, this method is advantageous in terms of public hygiene, and because it is based on internal biometric information, it offers superior protection against identity theft.

In the world's first deployments of this technology, Suruga Bank will use it at its teller windows, and Tokyo Mitsubishi Bank will use it at its teller windows as well as in its ATMs. Tokyo Mitsubishi Bank is also planning to utilize the biometric technology together with its multi-function IC cards starting this fall.

We aim to deploy the technology in a broad range of applications, particularly in public places where concerns for hygiene are particularly important.



World's fastest quantum chemical computational techniques and software are helping to speed drug development.



New ATMs incorporate pioneering palm vein pattern authentication technology.

Shizuoka Cancer Center
Electronic Medical Record System
Enhances Patient Care and Efficiency

At Shizuoka Cancer Center, medical and nursing staff are using Fujitsu's Electronic Medical Record solution in concert with advanced medical equipment and facilities to provide superlative patient care. The solution enables doctors, nurses and other caregivers to instantaneously access all relevant medical information on a patient, including diagnostic imagery. Not only has this improved the business efficiency of information exchange within the Center, but it has facilitated higher quality care by enabling medical staff to establish closer connections with their patients.

In addition, because the system can extend to include regional medical institutions or family doctors in other areas via Internet connection, the Center can offer patients greater peace of mind knowing that they have access to a comprehensive healthcare environment.

Visiting Nurse Service of New York
Bringing the Caring Home – with Tablet PCs

“We Bring the Caring Home.” That’s the motto of the Visiting Nurse Service of New York, a non-profit organization that provides home healthcare services to over 24,000 patients a day. By equipping its visiting nurses and field clinicians with Fujitsu's Tablet PCs, the organization has enabled them to spend more time providing care in patients' homes and less time filling out paperwork.

Now, as the nurses make their daily rounds to patients' homes, they have all the information they need right at their fingertips. Patient records, including medical and care history, medications, and insurance information, are just a few clicks away. Nurses can go online for information on drug efficacy and side effects, enabling them to give clear explanations to their patients. And they can input detailed descriptions of changes in a patient's symptoms to



Our Electronic Medical Record solution is helping to enhance patient care and efficiency.

send to doctors.

“Our people want to spend as much time as possible with their patients,” says Carol Raphael, the organization’s president and CEO. “Fujitsu’s Tablet PCs make it easy for them to update patient records, and having access to better patient information helps us to deliver better treatment.” Lightweight and wireless, but tough enough for the streets of New York, Fujitsu’s Tablet PCs have provided the right prescription for bringing home better care.

HM Customs and Excise
Secure and Reliable IT Infrastructure
Supports Vital Government Services

HM Customs and Excise (HMCE) is responsible for collecting over 40% of UK Central Government tax revenue, enforcing the UK’s import and export restrictions and capturing UK trade statistics.

Over 22,000 HMCE staff depend on Fujitsu to provide

a secure and reliable IT infrastructure. HMCE has over 200 offices in the UK and the ability to share and exploit information effectively is clearly of critical importance. Apart from delivering a first-class infrastructure service, Fujitsu is also working with HMCE to implement innovative e-business solutions to transform key business processes for the future.

With Fujitsu's help, HMCE has recently established a national contact center for its staff, replacing 15 regional centers that ran on different databases, some with ageing technology and paper-based information systems. The national co-ordination center now provides a 24/7 service, assisting HMCE staff by phone, radio, email, fax and post and improving efficiency by providing a one-stop streamlined service.

Fujitsu’s 10-year PFI contract with HMCE, signed in 1999, reflects the style of working between the two organizations, a style based on an understanding of mutual business objectives and a long-term commitment to partnership.



Our tablet PCs are helping visiting nurses in New York “bring the caring home.”



We’re providing secure and reliable IT infrastructure to support vital government services.