Fujitsu Technology and Service Vision

Executive Summary

shaping tomorrow with you
Our Values: Working Together

At Fujitsu, we are passionate about delivering technologies crucial to people and society, while harnessing ICT to help create value for our customers.

Fujitsu has always worked to realize big dreams. We are the world’s third largest IT services enterprise with 173,000 employees. As a global company originating in Japan, Fujitsu manages the Group with a respect for the different needs of our regional markets around the world, while valuing our unique Japanese qualities. The Fujitsu Way sets a common direction for the entire Fujitsu Group, by articulating our philosophy, core values, and code of conduct. One of our fundamental strengths is that every employee shares this awareness and determination to succeed.

In 2010, Fujitsu created the new brand promise “shaping tomorrow with you.” This expresses the essence of Fujitsu, and represents the importance we place on working with our customers and other stakeholders to create a more prosperous society. Every member of Fujitsu’s global workforce is committed to “shaping tomorrow with you.”

Fujitsu Technology and Service Vision

In this document, we have outlined our perspective on how ICT will contribute to transforming business and society. It sets out Fujitsu’s vision for the future and our approach to achieving it, along with innovation scenarios and our portfolio of technologies and services. This document will be updated regularly, and we trust it will provide useful insights for your strategic thinking.

The New Role of ICT

Intelligent use of information is the key to transforming people’s lives, business, and our whole society.

The rapid development of ICT is making a huge impact on how people live their lives and run their businesses. Today, the entire world is interconnected through networks, continuously generating massive amounts of data.

These developments have been supported by incredible technological advances in computing power and network speeds. We are now seeing the emergence of a new Internet of Things (IOT), where anything may potentially be connected; home appliances, cars, machines, houses, and even social infrastructure like energy and transportation systems. We are also witnessing unprecedented progress in our capacity to identify meaningful patterns from analyzing ever growing volumes of diverse data. With these technologies continuing to advance, society is facing a major turning point.

Information is the key to bringing about this transformation. We will be able to exploit information as never before, managing a large amount of information in real time through networks. People and businesses will have unique abilities to gather, process and organize all this information at their fingertips in a meaningful form.

Until now, ICT has primarily contributed to enhancing productivity and increasing business process efficiency. Today, Fujitsu is seeing significant interest from leaders in business and government in developing ICT to address a new set of business and social priorities. How can we engage better with customers? How can we increase the value of products? How can we deliver sustainable growth and further benefit society? Fujitsu recognizes a new opportunity to remove the complexity of conventional ICT systems, strengthen platforms, and combine these efforts with use of new intelligence to generate innovation.

Fujitsu’s vision is to achieve a Human Centric Intelligent Society, which is explained in the next section. We believe that rapidly advancing ICT will empower people to transform business and society, and realize sustainable growth for everyone, across the world.
Imagine a world where people are free to achieve their full potential and instinctively feel secure and in control. A world where knowledge is continually harnessed to drive new value and support sustainable growth. This is the world that Fujitsu aims to make a reality. We call it a Human Centric Intelligent Society.

The Internet has given rise to a digital world that exists in the virtual space on computers and networks. The convergence of this digital world with our physical world carries the potential to transform our lives. Ever-growing quantities of information are being gathered through sensors and analyzed in real time, using the digital world’s computing power. The new knowledge born of this process has tremendous value in supporting our decisions and actions.

Getting There: Our Vision in Three Actions

Our vision is not something that can be realized overnight. But this is a journey, and we can reach our destination by making steady progress. To build a Human Centric Intelligent Society, Fujitsu will work with our customers and across society to execute three actions that relate to people, information, and ICT.

1. Create Innovation through People
   - Using the power of ICT that surrounds people unobtrusively, we will harness their creativity at the forefront of business and society.
   - We will converge and harmonize physical experiences with digital capability to create innovative value.

2. Power Business and Society with Information
   - We will support people’s activities with insights and knowledge obtained from analyzing diverse information.
   - We will harness this information to increase the value of products and businesses and to build better social infrastructure.

3. Optimize ICT Systems from End to End
   - We will optimize existing ICT assets of business and society to lay the foundations for innovation.
   - Linking people, enterprises and society, we will build ICT systems that are optimized from end to end, converging computing and networking technologies.

Human-centric ICT

Computing has transitioned from a computer-centric era of mainframes in the early years, to a network-centric era based on systems like the client-server model. Now with instant access to knowledge enabled through smart devices and the cloud, computing is progressing into a new, human-centric era, where technology connects people, rather than the other way around.

The power of computing is embedded in our daily lives, our business activities, and social infrastructure. By being there alongside us, technology will help people to collaborate with others, make better decisions and create value. In the process, it will liberate, and intelligently organize, information that has previously been tied to the silos of individual systems. This will establish an intelligent society where people are able to exploit the benefits of new insights and knowledge.
The Shape of Innovation in Business and Society

We recognize six high impact innovation scenarios. Each focuses on how the intelligent use of information is transforming people’s activities, collectively driving a Human Centric Intelligent Society.

1. The Physical+Digital Business Model

Business models that integrate physical and digital elements are driving innovation and creating new experiences.

- Engage with customers in real-time using smart devices and social networks.
- Provide services by connecting products through Machine to Machine (M2M).
- Build service platforms to connect a wide variety of products, such as home electric appliances and automobiles, forming ecosystems which provide value-added services with these products.

Main areas of application

- Customer relationships
- M2M services
- Service platforms

2. World Connected by Information

Information will connect people across the traditional boundaries of regions, companies and industries, while creating valuable insights and knowledge.

- Optimize overall operations by coherently visualizing global information.
- Provide human-centric services by coordinating information among different organizations and companies.
- Develop a marketplace where people can provide and use a diverse range of information.

Main areas of application

- Global information management
- Regional medical collaboration
- Marketplace for information exchange

3. Exploiting New Computing Power

Radical improvements in computing power have lowered the threshold of science and engineering breakthroughs and are empowering people to make unprecedented gains in business and social fields.

- Experiments and testing that have been too costly or time consuming in the past can be carried out in a simulated environment on a supercomputer.
- Harnessing the power of supercomputers through cloud services will drive the creation of new knowledge and invigorate companies, regional industries, and society.

Main areas of application

- Development and efficacy testing of new drug compounds
- Disaster readiness measures
- Manufacturing innovation

4. Real-time Responses

Until now, we have made decisions by using historical information. However, new technologies will transform the way we make decisions, enabling us to make judgments based on real-time facts.

- In an uncertain world, it is imperative to monitor, analyze, and instantaneously respond to the current situation as it unfolds, while using information to shape the future in the most optimal way.
- Technological advances are enabling computing technology to support human decision-making. These technologies create knowledge in real time by identifying meaningful patterns from the massive and diverse information gathered from the Internet, sensors and other sources.

Main areas of application

- Monitoring and optimizing business conditions
- Weather prediction, trouble forecast
- Preventive medicine

5. Connecting People, Enabling Collaboration

Social networks have expanded into the realms of business, and will create value by fostering collaboration that transcends traditional boundaries.

- Going forward, collaboration will become the predominant work style. Workers will seek to produce results while maintaining a healthy work-life balance.
- The ICT of the future will surround people like an invisible suit, providing personalized support based on awareness of their immediate context (location, time, etc.).

Main areas of application

- Work style innovation
- Collaboration
- Context-aware Services

6. Intelligent Social Infrastructure

To achieve a sustainable society, it is crucial to integrate information managed by individual social infrastructure systems, and provide public services for citizens.

- ICT is a means to this end. It penetrates into the field of social infrastructure, and supports optimal decision-making by providing knowledge derived from an analysis of information gathered from sensors and other sources.
- Powered by ICT, people, governments, and enterprises in any region can collaborate to solve complex issues they are facing together.

Main areas of application

- Energy and smart cities
- Automobiles and transport
- Food and distribution
- Primary industry
- Health, health care and welfare
- Environment
- Education
Fujitsu’s ICT Value

Fujitsu will provide an integrated portfolio of technologies and services in order to execute the three actions and help our customers’ transformations.

To implement the three core actions for achieving our vision, Fujitsu has grouped our technologies and services into eight concepts. By optimally integrating and combining them, we aim to help our customers realize value for their businesses, in line with the innovation scenarios we have set out. Fujitsu is committed to strategically developing and strengthening the technologies and services depicted below across the company.

To this end, Fujitsu will pursue technological expertise, quality, and reliability as a common foundation. In addition, we have positioned initiatives of Low-carbon, Resource Recycling, and Harmony with Nature as environmental priorities for society. By taking the global environment into account in every aspect of our operations, we help make the world a more sustainable, greener place.

1. Create Innovation through People

Create Value through Integration

In line with the brand promise of “shaping tomorrow with you,” Fujitsu works with our customers to create value and strengthen their businesses. We further look ahead to delivering business innovation as well as building a better society. By integrating conventional ICT systems with new technologies and services, we will enhance the value of our customers’ businesses.

- We will create value by optimally integrating technologies and services, and removing the complexity of existing ICT assets, which is a common problem faced by customers. The next step is to improve the competitiveness of our customers, and help build a better society.
- Customers can strengthen their businesses by feeding back knowledge derived from big data analysis into their core business systems.
- In addition to developing and operating ICT systems, we provide total service management encompassing business processes and the people who implement them to enhance the value of our customers’ business.

On-demand Everything

Cloud services enable people to make maximum use of information, and further penetrate into social infrastructure. In keeping with the concept of On-demand Everything, Fujitsu will globally provide agile integration of highly reliable cloud services to flexibly meet our customers’ objectives.

- Fujitsu offers Cloud Service Integration. We provide agile, one-stop integration of optimal cloud systems by combining a wide array of services, along with consistent operation management services. Through this service, customers will have the flexibility to expand their business and optimize their total costs.
- Fujitsu has deployed a highly reliable global-scale cloud service platform in Japan, Australia, Singapore, the U.S., the U.K., and Germany. We have achieved an availability rate of more than 99.9998% (in 2012). With a 24-hour security framework, we can provide superior support for our customers’ global business expansion.
Fujitsu will develop a new business, offering corporate clients in Japan a highly reliable mobile service platform. This new service platform will enable business users to securely access a wide range of applications from a single ID (OneID). Users will be able to flexibly configure back-office business applications and data analytic capabilities using mobile applications in the front line. In this way, we will support activities of mobile business users and professionals in a variety of fields such as marketing, maintenance, and healthcare.

By converging the digital and physical realms, Fujitsu will develop services that support people, in a given place and time, with optimized information delivered through smart devices.

2. Power Business and Society with Information

New Value from Information
Intelligent use of information holds the key to transformation. In order to power businesses and society, Fujitsu is providing both cloud services and on-premise software products to maximize knowledge extracted from big data.

Fujitsu has deployed a cloud service for exploiting big data. This service provides an integrated package of technologies required to analyze and process big data. Fujitsu has also commercialized software products that reflect the technologies and expertise we have gained through our extensive service experience.

ICT will be built into a variety of objects and social infrastructure systems. Fujitsu will help customers to transform their businesses through solutions which comprise cutting-edge sensors and mobility functions.

Fujitsu envisions a DataPlaza as a forum or marketplace for data among a diverse range of companies and organizations.

Security and Governance
Fujitsu comprehensively considers information security, governance and privacy protection, and provides optimal solutions and services to securely support an intelligent society.

In response to the proliferation of smart devices and other mobile products, Fujitsu will enhance the authentication platform with advanced technologies, including biometrics. We will also strengthen integrated management capability, encompassing; device asset management, application and information management, and support services for theft or loss.

Fujitsu will develop and provide security intelligence based on evaluation and prediction to anticipate and minimize impacts from cyber-attacks.

Fujitsu will provide a secure environment for using information by enhancing privacy protection through the development of encryption and anonymization technologies.

Ensuring Total Security and Protecting Privacy

Secure and safe information utilization

* Near Field Communication
ICT system operation and maintenance consumes a significant portion of corporate ICT budgets. It accounted for 65% of corporate ICT expenditures on average globally in 2012. In Japan, the figure was even higher at 78% (Gartner Inc. survey*).

Fujitsu will help customers to reduce their operation and maintenance costs by removing the complexity from their ICT systems. This will be achieved through optimization of three areas: applications, ICT operation, and ICT infrastructure.

Dynamic Integrated Systems provide value to customers by (1) increasing business agility; (2) reducing the overall integration, operation and maintenance costs through immediate deployment and advanced operation; and (3) assuring high performance through the optimal combination of hardware and software. Fujitsu will introduce Dynamic Integrated Systems products tailored for our customers’ purposes, including virtualization, cloud platforms, high-speed databases, and big data analytics.

The core of vertically integrated systems is intelligent software that automatically configures and autonomously scales hardware and software resources. Fujitsu will also strengthen technological research to holistically streamline data centers, including the efficiency of systems and facilities, as well as energy conservation.

The next generation of ICT platforms will evolve into “network-wide distributed computing,” where computing resources are allocated and seamlessly connected over networks.

Fujitsu has formulated Fujitsu Intelligent Networking and Computing Architecture as a new architecture for next-generation ICT infrastructure. This architecture aims to comprehensively optimize computing, wide-area networks, and smart devices employed by end users. It will achieve high reliability on an end-to-end basis, on-demand service delivery, overall cost optimization, and an enhanced Quality of Experience (QoE). We will introduce products that comply with this new architecture.

The ICT systems of tomorrow need to be designed around human activity. All aspects of ICT infrastructure, applications, and their operation and maintenance should be optimized in this way. Fujitsu helps customers to reduce the operation and maintenance costs, and to build platforms enhanced for promoting innovation.

**Modernization to Innovation**

The ICT systems of tomorrow need to be designed around human activity. All aspects of ICT infrastructure, applications, and their operation and maintenance should be optimized in this way. Fujitsu helps customers to reduce the operation and maintenance costs, and to build platforms enhanced for promoting innovation.

**Integrated Computing**

Fujitsu provides computing systems designed to specific business requirements, leveraging our hardware and software technologies and our expertise in systems integration and operation. Fujitsu’s “Dynamic Integrated Systems” converge these technologies and expertise, to strengthen our customers’ competitiveness.

**Network-wide Optimization**

To support the advanced use of information through networks, Fujitsu will provide ICT infrastructure that is optimized on a network-wide basis. This will be achieved by combining our technologies in computing, networks and mobility, based on the concept of Software Defined Networking (SDN).
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This publication contains forward-looking statements in addition to statements of fact regarding the Fujitsu Group's past and current situation. These forward-looking statements are based on information available at the time of publication and thus contain uncertainties. Therefore, the actual results of future business activities and future events could differ from the forward-looking statements shown in this publication. Please be advised that the Fujitsu Group shall bear no responsibility for any of these differences.

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