



## **Preface**

# **Special Issue on Smart Cities and Energy Management**

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On a global level, humanity faces a variety of problems due to the increasing world population, including food, water, and energy shortages, crowded cities, environmental destruction, and global warming. Many developed countries, however, also face other problems due to falling birth rates and an aging population. Japan in particular also faces the problem of providing a stable supply of energy due to the aftereffects of the Great East Japan Earthquake in March 2011. The efforts it has made in meeting these challenging problems has made Japan a “country at the frontier of emerging social problems.” Indeed, Japan is becoming an “advanced problem-solving nation” that can lead the world in creating a new society. It is Fujitsu’s desire to help Japan succeed in this role through the power of information and communications technology (ICT).

The Smart City envisioned by Fujitsu has a smart social infrastructure based on ICT for meeting energy and other needs, for solving local problems, for promoting local revitalization through community-based discussions, for creating a sustainable cycle of asset growth, and for improving the quality of life for the community’s residents.

Fujitsu is presently participating in the planning and building of Smart Cities in various regions of Japan such as the Aizuwakamatsu Area Smart Community Promotion Project in Fukushima prefecture. At the center of such initiatives is business productivity consultation activities based on Fujitsu’s original field innovation techniques. Moreover, Fujitsu is attempting to make good use of local renewable energy sources. Fujitsu supports the creation of new cities that can achieve a balance between environmental considerations and ease of living by building energy control centers and introducing energy management system (EMS) solutions to make local energy management a reality.

In the field of energy, companies and homes have traditionally depended on a stable power supply provided by power companies, but in recent years, systems for visualizing power usage and controlling consumption such as the building energy management system (BEMS) and home energy management system (HEMS) have begun to be introduced as consumers take it upon themselves to save energy. Consumers are also expressing the need for a

demand-response capability that will enable them to control energy usage in accordance with the available power supply and for a function that will enable them to produce and consume renewable energy. In addition, ICT systems will undergo major changes as institutional reforms progress, including the liberalization of the electricity market and legal separation (unbundling) of the power-generation and transmission-and-distribution departments in power companies. Fujitsu will continue to develop and provide energy solutions in conjunction with these landmark reforms.

This special issue introduces Fujitsu's approach to Smart Cities in Japan and the sustainable energy solutions offered by Fujitsu.

Fujitsu aims to achieve a Human-Centric Intelligent Society by contributing to the solution of social problems through the power of ICT and by promoting the creation of new values in local communities.