

# ■ Remarks for Special Issue on Big Data

On behalf of NEC, I would first like to express our deep gratitude for your continued support and encouragement for our products, solutions and services.

In this special issue of NEC Technical Journal, we would like to introduce our readers to how NEC is approaching the utilization of Big Data.

Recent advances in ICT (Information and Communication Technology) are steadily empowering the business environment with the capability to handle vast amounts of data without stress. Especially the ever-expanding capacity and speed of server, storage and networks, the sophisticated functionality of mobile terminals and advances in sensor technology are enabling the real-time acquisition of diverse information including irregularly structured data such as voice and video in huge volumes.

In addition, breakthroughs in data processing and analysis technologies facilitate high-speed processing of the acquired data and reveal new value in data that has previously never been exploited, enabling the creation of new business value.

Big Data or Information Explosion indicates a new direction for the utilization of these data by business. For example, the results of analyzing business operational data and customer data that have been sitting unused can be reflected in business strategies, or instant analysis of data that constantly flows through the Internet and social networks can lead to innovative services. In these and other ways, the extraction of new value from data is accelerating. According to research conducted by IDC, the global Big Data market is growing at an incredibly high annual rate of 40%, and by 2015, it is predicted to reach US\$16.9 billion in scale.

In order to assist our customers in driving new value from their Big Data, NEC has positioned the Big Data business as one of the key pillars that will support our future business, and while reinforcing technologies that will serve as the platform for this business and expanding our lineup of services and solutions, we are promoting the development of a new generation of Analysis Experts and Domain Experts - highly trained personnel who will support the sophisticated exploitation of data.

There are three essential steps for the effective utilization of Big Data, and NEC possesses the technologies required to support them all: “Collection,” “Management” and “Analysis.” For the unique business environment and issues of each

customer, NEC can provide an optimized solution for each step. From development of systems for NTT DOCOMO's i-mode service to our work for other telecommunications carriers, the financial industry, satellite operations, safety and in other domains, NEC brings decades of achievements in the development of a wide range of ICT-related technology, the processing of huge amounts of data, and the successful provision of products, solutions and services to answer the specific needs of our customers.

In this special issue, we would like to introduce our readers to our information collection platforms, large-volume data processing platforms, analysis technologies, and other Big Data technologies, products and solutions that enhance the business environment of our customers with new value.

It would give us the greatest pleasure if the information in this special issue proves useful in your corporate activities in the future, and we hope that you will continue to provide us with your invaluable support and input in the future.



**HOSAKA Takemi**  
Associate Senior Vice President

# Information about the NEC Technical Journal

Thank you for reading the paper.

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## Link to NEC Technical Journal website

Japanese

English

### Vol.7 No.2 Big Data

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NEC IT Infrastructure Transforms Big Data into New Value

#### ◇ Papers for Special Issue

##### Big data processing platforms

Ultrahigh-Speed Data Analysis Platform "InfoFrame DWH Appliance"

UNIVERGE PF Series: Controlling Communication Flow with SDN Technology

InfoFrame Table Access Method for Real-Time Processing of Big Data

InfoFrame DataBooster for High-speed Processing of Big Data

"InfoFrame Relational Store," A New Scale-Out Database for Big Data

Express5800/Scalable HA Server Achieving High Reliability and Scalability

OSS Hadoop Use in Big Data Processing

##### Big data processing infrastructure

Large-Capacity, High-Reliability Grid Storage: iStorage HS Series (HYDRAstor)

##### Data analysis platforms

"Information Assessment System" Supporting the Organization and Utilization of Data Stored on File Servers

Extremely-Large-Scale Biometric Authentication System - Its Practical Implementation

MasterScope: Features and Experimental Applications of System Invariant Analysis Technology

##### Information collection platforms

M2M and Big Data to Realize the Smart City

Development of Ultrahigh-Sensitivity Vibration Sensor Technology for Minute Vibration Detection, Its Applications

##### Advanced technologies to support big data processing

Key-Value Store "MD-HBase" Enables Multi-Dimensional Range Queries

Example-based Super Resolution to Achieve Fine Magnification of Low-Resolution Images

Text Analysis Technology for Big Data Utilization

The Most Advanced Data Mining of the Big Data Era

Scalable Processing of Geo-tagged Data in the Cloud

Blockmon: Flexible and High-Performance Big Data Stream Analytics Platform and its Use Cases

#### ◇ General Papers

"A Community Development Support System" Using Digital Terrestrial TV

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Vol. 7 No. 2

ISBN 978-4-8844-1202-2

Vol.7 No.2  
September, 2012

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