## **NTT DOCOMO**

# Technical Journal

**Vol.16** 

Jan.2015 No.3

## **DOCOMO Today**

Innovation and Silicon Valley

## Technology Reports

- Automatic Measurement System for Smartphone Power Consumption in Mobile Environments
  - Improving the Battery Life Measurement Environment for Smartphones -
- Smartphone App Traffic Evaluation System
  - Toward Smartphone Power Saving and Network Load Reduction -
- Implementing LTE International Data Roaming-out
- Evaluating RF Field Intensity in Mobile Base Station Environments
- Low-cost Media Processing Node Upgrade with Minimal Impact on User Services





# **Contents**

## **DOCOMO Today**



Innovation and Silicon Valley ...... 1

Takayuki Inagawa

## **Technology Reports**



(P.10)

**Automatic Measurement System for Smartphone Power Consumption in Mobile Environments** 

—Improving the Battery Life Measurement Environment for Smartphones——— 4

Battery Life Automatic Measurement System Base Station Simulator

**Smartphone App Traffic Evaluation System** 

—Toward Smartphone Power Saving and Network Load Reduction—… 10

Base Station Simulator Signaling Smartphone Power Saving

Implementing LTE International Data Roaming-out ----- 16

LTE Data Roaming-out Standardization

(P.27)

Evaluating RF Field Intensity in Mobile Base Station Environments ---- 27

Radio frequency safety Mobile base station Antenna

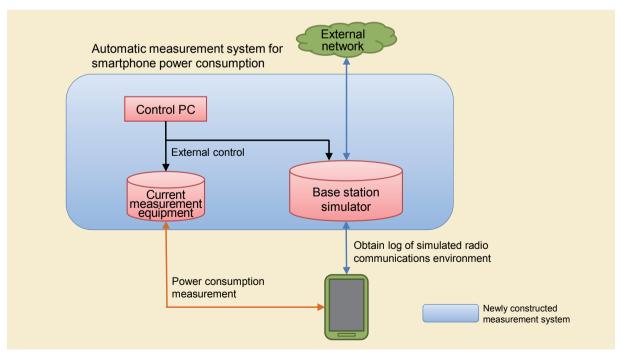
Low-cost Media Processing Node Upgrade with Minimal Impact on User Services 35

Audio-based Network Services | Media Processing | Device Upgrade



## **Activities**





Technology Reports Automatic Measurement System for Smartphone Power Consumption in Mobile Environments
—Improving the Battery Life Measurement Environment for Smartphones— (P.4)

Configuration of automatic measurement system for smartphone power consumption

# NTT DOCOMO Technical Journal Vol.16 No.3

## **Editorship and Publication**

NTT DOCOMO Technical Journal is a quarterly journal edited by NTT DOCOMO, INC. and published by The Telecommunications Association.

Editorial Correspondence
NTT DOCOMO Technical Journal Editorial Office
R&D Strategy Department
NTT DOCOMO, INC.
Sanno Park Tower
2-11-1, Nagata-cho, Chiyoda-ku, Tokyo 100-6150, Japan
e-mail: dtj@nttdocomo.com

### Copyright

©2015 NTT DOCOMO, INC.

Copies of articles may be reproduced only for personal, noncommercial use, provided that the name NTT DOCOMO Technical Journal, the name(s) of the author(s), the title and date of the article appear in the copies.