LG’s View on Future Mobile Communications

23 February 2005
Mobile Communications Company
LG Electronics Inc.
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LG CDMA Mobiles in India

Jan. 2002: DM150
- First CDMA by LG

Apr. 2002:
- RD2030
- First devoted Model for Indian Market by LG

Nov. 2002:
- RD7130
- First CDMA Color Phone in India

Jan. 2003:
- RD7230
- First CDMA Camera Phone in India

Sep. 2003:
- RD6000
- First CDMA Native MMS Phone in India
Mobile Sales in India

Through aggressive investment for Indian CDMA market, LG has accomplished CDMA market share No.1.

2003:
- LG: 55.0%
- Total: 3,738K units

2004:
- LG: 41.5%
- Total: 5,400K units
New Paradigm of Communication

Cross Industry
- Mobile Office
- Sales Force Automation
- Field Force Automation
- WLAN

Healthcare
- Physicians proactive management
- Mobile pharmaceutical sales forces

Distribution
- Shopping on the go
- Field force automation
- Supply chain
- Mobile guest Check-in
- Intelligent vending
- WLAN for retailers

Utilities
- Schematics from the telephone pole
- Schedules updates in the truck
- Remote asset Monitoring

Banking
- Banking from the train
- Trading stocks on the beach
- Secure payments
- WLAN trading floors

Travel & Transportation
- Line busting
- Internet on the airplane
- Wireless ticketing
Next Generation Issues:

- **Direction of Convergence**
  - Partial Convergence: DiCa/DiCam Phone, DMB Phone
  - All-in-One: PnP Module Integrated Handset
  - Divergence: Well-being Phone

- **Technology Trend**
  - DMB
  - DVB-H
  - VolP
  - 3D Game
  - Media Player
  - Network Convergence: [PAN, Wired] & Wireless
  - Portable Internet (WiBro)
  - Wide Spread of Telematics & LBS
  - 4G / SDR
  - Sensor Network
  - Hetero-Network Seamless Roaming
  - Natural Language Processing
  - Wearable

- **Convergence Considerations**
  - Increasing Importance of H/W, Core Components
  - Limitation of Size, Performance, and Price
  - Popularization of Open OS

- **Important Technologies**
  - VolP: Voice over Internet Protocol
  - DVB-H: Digital Video Broadcasting Handheld
  - WiBro: Wireless Broadband Internet
  - SDR: Software Defined Radio
Network Evolution

GSM Network
- GSM: Global System for Mobile communication
- GPRS: General Packet Radio Service
- EDGE: Enhanced Data-rate for GSM Evolution
- TDMA: Time Division Multiple Access

CDMA Network
- IS-95A
- IS-95B
- 1xRTT
- 1xEV-DV
- 1xEV-DO

CDMA Network
- IS-95A
- IS-95B
- 1xRTT
- 1xEV-DV
- 1xEV-DO

All-IP
- WiFi
- HSDPA
- WCDMA
- 1xRTT
- 1xEV-DV
- 1xEV-DO

Data Rate
- 2G: 9.6K ~ 14.4K
- 2.5G: 64K
- 3G: 144K
- 4G: 384K ~ 10M

Key
- WCDMA: Wideband Code Division Multiple Access
- 1x RTT: 1x Radio Transmission Technology
- 1X EV-DO (EV-DV): 1x Evolution Data Only (Data and Voice)
Device Evolution

Voice Centric
- Plain phone
  - B/W Screen
  - Mono Tone

Messaging
- Camera phone
  - STN/TFT Color
  - 120x160, 1.8"
  - 100K pixels CMOS
  - 16 Polyphonic
- MMS phone
  - TFT Color
  - QCIF, 2~2.2"
  - 100K~300K pixels
  - 40~64 Poly, AAC/MP3
  - 3D Graphic Engine

Interactive Multimedia
- Camcorder phone
- VOD/MOD phone
- MP3 phone
- Game phone

Digital Convergence
- Digital TV phone
- PMP (Portable Media Player)
- WiFi phone
- Smart phone
- TFT/OLED Color
- QVGA, VGA
- 300K~ pixels CCD
- 128 Polyphonic 3D sound
- External Memory
- TV Tuner
- WiFi/Bluetooth
- Finger print recognition

• Voice Centric
• Interactive Multimedia
• Digital Convergence
Service Evolution

Network and device convergences creates a new era of mobile services

All-IP based Multimedia Hetero-Network

Service Evolution

Mobile Broadcasting

Internet

Telematics

Life Style

Entertainment

- ITS: Intelligent Transport Systems
- PSTN: Public Switched Telephone Network
- DMB: Digital Multimedia Broadcasting
Anytime, Anywhere, You can get the information and high-quality audio/video services you want.

Mega Trends

Mobile Broadcasting

- Multimedia Broadcasting Multicasting Service
- Broadcasting Multicasting Service
- T-DMB: Terrestrial Digital Multimedia Broadcasting
- S-DMB: Satellite Digital Multimedia Broadcasting

Fixed Format
Limited Information
One-site
One-time

Variable Format
Whatever
Wherever
Whenever

VOD

MBMS*

BCMCS**

Interactive

DMB / DVB-H

Digital TV

Analog TV

Technology
You can always access the Internet via converged networks

Mega Trends

Intranet

Mobile network

Internet

USN*

Broadband

2G

3G

PAN

4G

Satellite

* Ubiquitous Sensor Network
Mega Trends

Evolution of Wireless Data Service
You will experience a more intelligent working and living environment through the convergence of fixed and mobile space.
You will experience real amusement in multi-functional multimedia service environment.
Service-specific handsets will emerge to enable people to enjoy their mobile life style.
Thank You !