

# Motorola 3G Overview

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*intelligence everywhere™*

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A number of forward-looking statements will be made during this presentation, both in the prepared remarks and in the answers to questions. Forward-looking statements are any statements that are not historical facts. These forward-looking statements are based on the current expectations of Motorola and there can be no assurance that such expectations will prove to be correct. Because forward-looking statements involve risks and uncertainties, Motorola's actual results could differ materially from these statements. Information about factors that could cause, and in some cases have caused, such differences can be found on pages F-33 through F-40 of Motorola's Proxy Statement for the 2003 annual meeting of stockholders and in Motorola's other SEC filings.

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## Computer

- internet access
- electronic mail
- real time images
- multimedia
- mobile computing



## Media

- video on demand
- interactive video services
- TV/Radio/Data contribution & distribution



## Telecommunication

- ISDN services
- video telephony
- wideband data services



***Convergence to IP***

**3G technology brings a more natural and richer means of communications far beyond telephony - it touches every perspective of life, and offers users a completely new experience**

**– Communication gets real**

- Video telephone makes information real and natural
- Mobile life gets more personal
- Colorful life in your palm

**– Extreme entertainment**

- Experience becomes richer during your breaks
- Spend your leisure time in a way you never could before

**– Ultimate companion**

- Have it, enjoy it
- Any time, any where
- More entertainment and increased productivity



**Browse**



**Stream**



**Download and Play**



**Talk and See**

# 3G In China: A Complicated Picture



- State's politic benefits:

- balance of relationship between U.S. and Europe
- balance of foreign trade
- stable employment of operators
- 3G IPR

- State's financial benefits:

- protect all operators' interests
- ensure local vendors' 3G profits & market share
- Under valued local currency pressure

- China Mobile and China Unicom:

- invested billions of \$ on GSM/GPRS, CDMA 1X
- the later, the better

- China Telecom & China Netcom:

- no wireless networks yet, flat revenue growth from fixed line services
- The sooner, the better

- Datang:

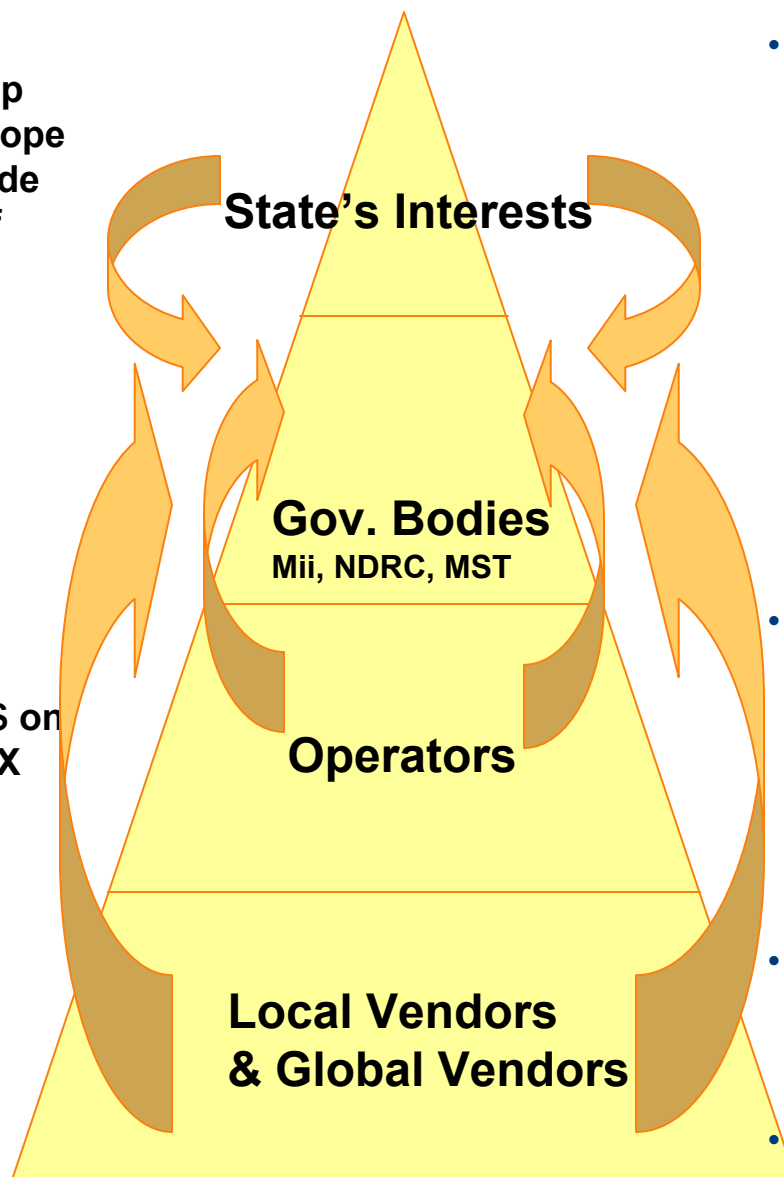
- major local player in TD-SCDMA
- the later, the better

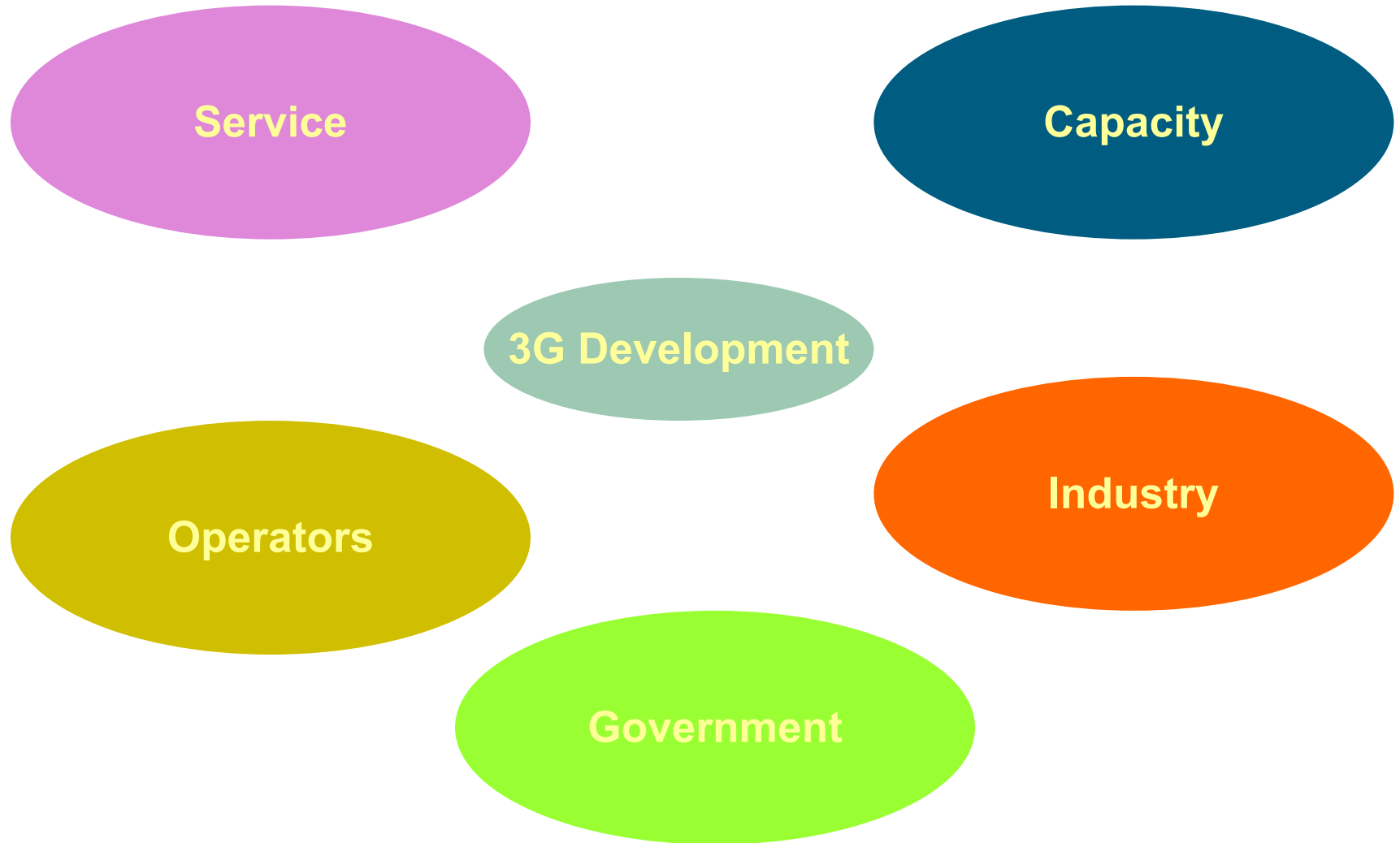
- HuaWei, ZhongXin:

- have invested hundreds of millions of \$ in WCDMA, CDMA2000

- Global vendors

- the sooner, the better

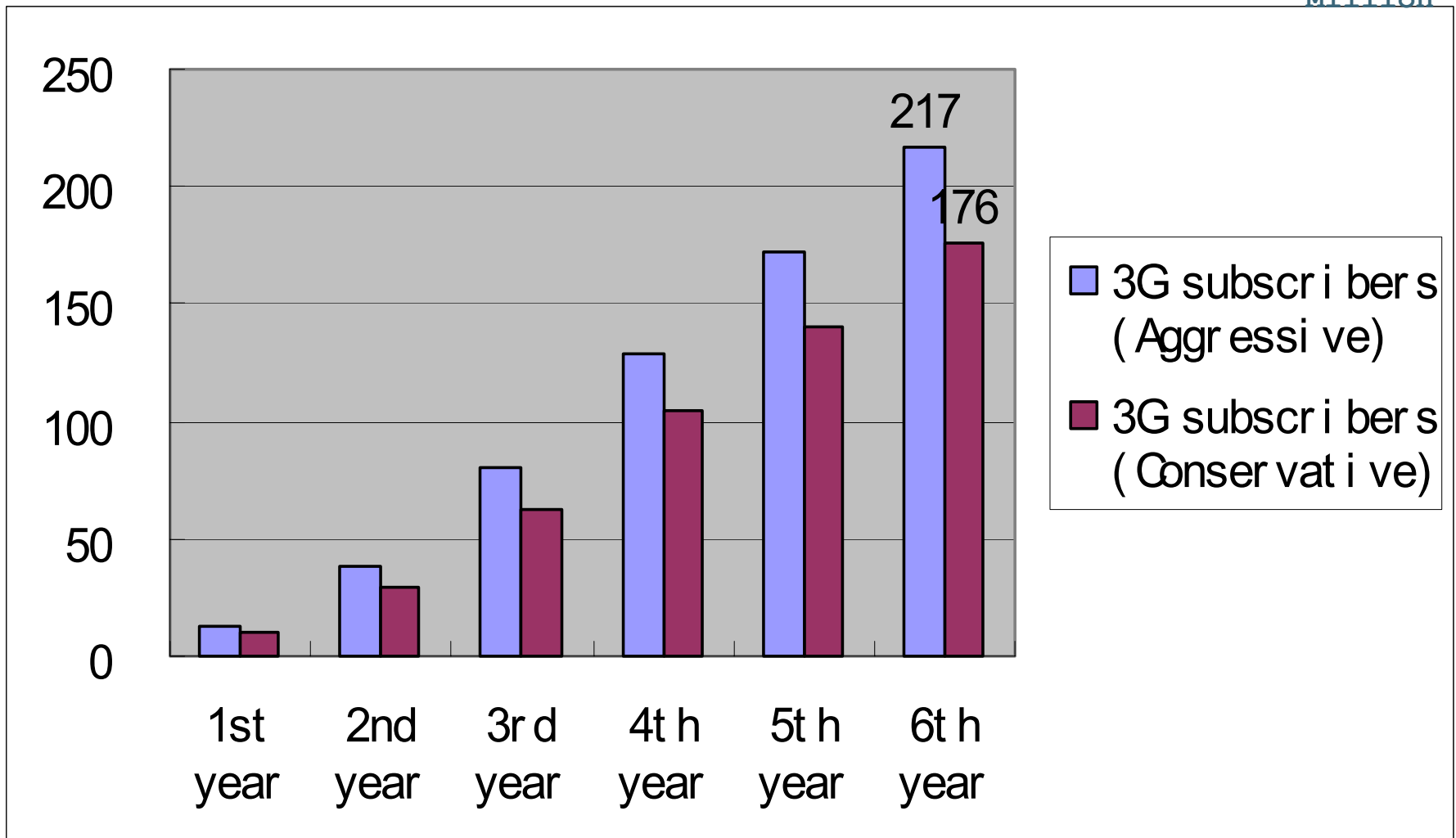




# China 3G Subscriber Forecast

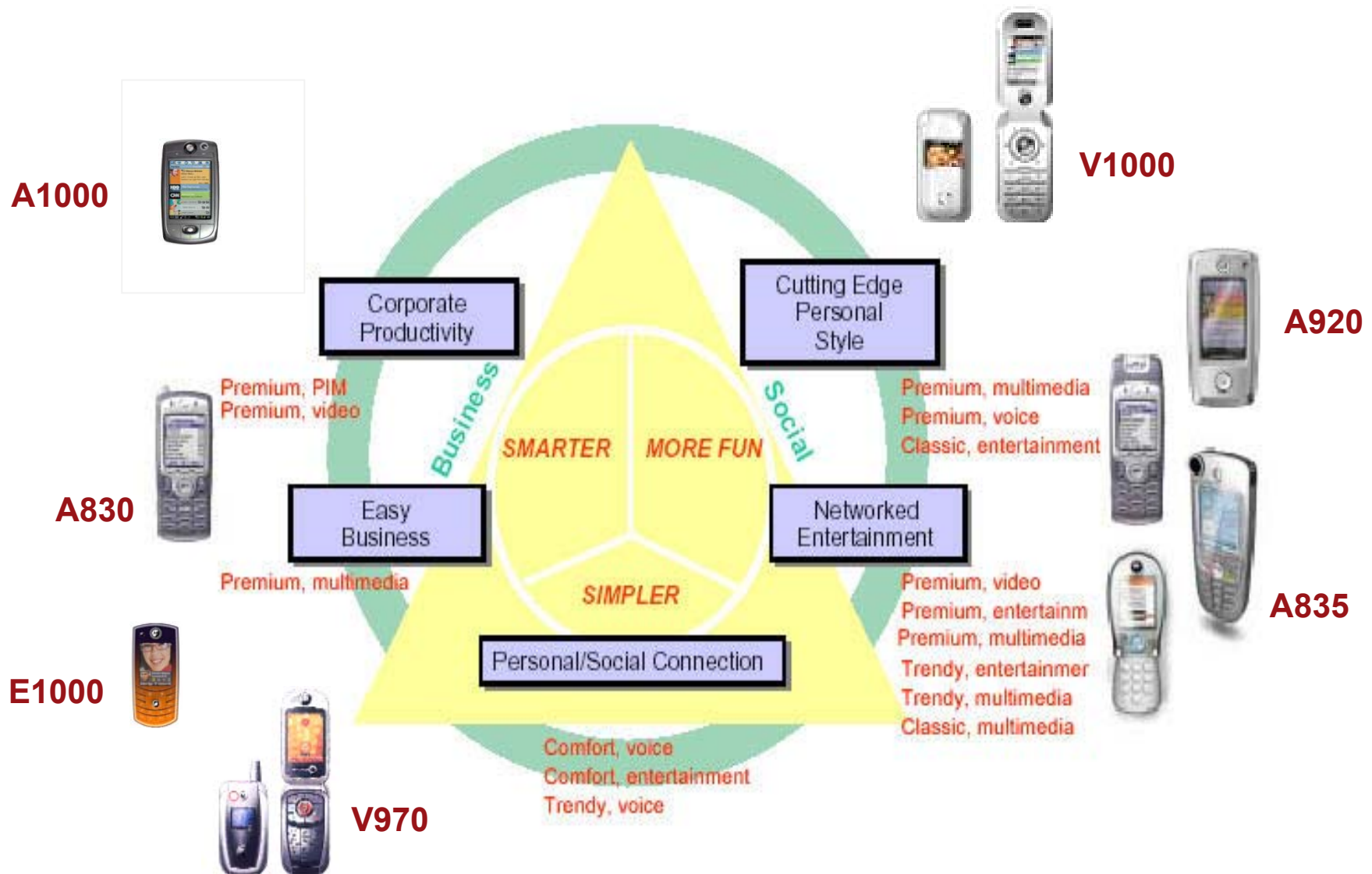


Unit:  
Million



**Source: MII report**

# China 3G is Coming Closer and Motorola is Ready







- **Have shipped series of commercial, true tri-mode, 4-band devices**
  - A830 : Industrial standard driving IOT testing globally
  - A835 : A truly state of art, feature rich, Dual Mode, 3G Device
  - A920 : A PDA device with a large display for an exclusive customer
- **Recognized with commercial contracts throughout the world**
  - Resold by Siemens as the U10, U15
  - Supplied to 3 (Hutchison), Vodafone via collaboration agreement
  - other contracts
- **Addressing important handset requirements**
  - size, weight, cost, appearance, and battery life

# Motorola Firsts in 3G Handsets



- The world's **first** 3G commercial mobile
- The world's **first** mobile with 384kbps downlink
- The world's **first** mobile with successful 2G-3G handover
- The world's **first** dual-mode, quad-band mobile
- Best battery life, download browser speeds and video refresh rates of any dual mode phone as benchmarked against competition
- Most comprehensive feature set, most compliant with 3GPP standard



A830

Ship: Q4 2002



A920/A925

Ship: Q3 2003



A835

Ship: Q3 2003



E1000



V970

Current 2004 product plan



A1000



V1000



- **Motorola has significant experience in the market**
  - Motorola commercially launched 4 3G products in 2003
  - Most competitors have yet to launch their first phone
- **Motorola is building on market proven platforms**
  - 2004 products will be on third generation silicon
  - 2004 products evolve existing software platforms
  - 2004 products will have improved manufacturability
- **Motorola will have a compelling 2004 portfolio**
  - UMTS portfolio will have high, mid, and low tier offerings
  - Products will be “within 10%” of similar GSM phones – size, weight, battery life



## Top Choice in Support of Global Infrastructure Vendors IOT (interoperability tests) and Development Efforts

- A830 drives IOT with eight infrastructure vendors worldwide
- Handset capability is ahead of infrastructure capability – especially in area of intersystem operation
- In MII-organized testing, completed IOT with 12 infrastructure vendors, including Chinese vendors Huawei, Zhongxin, UTStarCom
- Among 5 handset vendors tested, Motorola scored highest pass rates

**NOKIA**  
CONNECTING PEOPLE

**NEC**

**SIEMENS**

**ERICSSON**

**NORTEL**  
NETWORKS

  
HUAWEI TECHNOLOGIES

**Lucent Technologies**  
Bell Labs Innovations



  
**MOTOROLA**  
intelligence everywhere

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# Motorola Leads in 3G Enabling Technologies



## 3G Services

### Enterprise

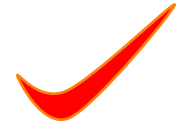
Accessing Email □□EMAIL,  
Corporate Databases □□□□□,  
Customized Corporate Apps □□□□□□



## 3G Enabling Technologies

Blue Tooth □□  
Security □□/Encryption □□  
Voice Recognition □□□□

## Motorola Advantages



### Infotainment/ Entertainment

Music□□, Games□□, Video□□, Points of Interest,  
Ring Tones □□□□, Push Advertising □□□□



Multimedia □□□ Browsers □□□  
K-javaDisplays □□ A-GPS/Other □□  
Audio/Video Codec □□/□□□□□



### Messaging

Picture/Video Messaging □□/□□□□ ,  
Audio/Video Messaging□□/□□, Chat□□,



Displays □□□□  
Multimedia □□□□□  
Audio/Video Codec □□/□□□□□



### M-Commerce

Financial Services □□□□, Stock Trades □□□□,  
Mobile Retail □□□□. E-wallet □□□□



Browsers □□□  
Smart Card □□□  
Internet Access □□□□□



### PIM

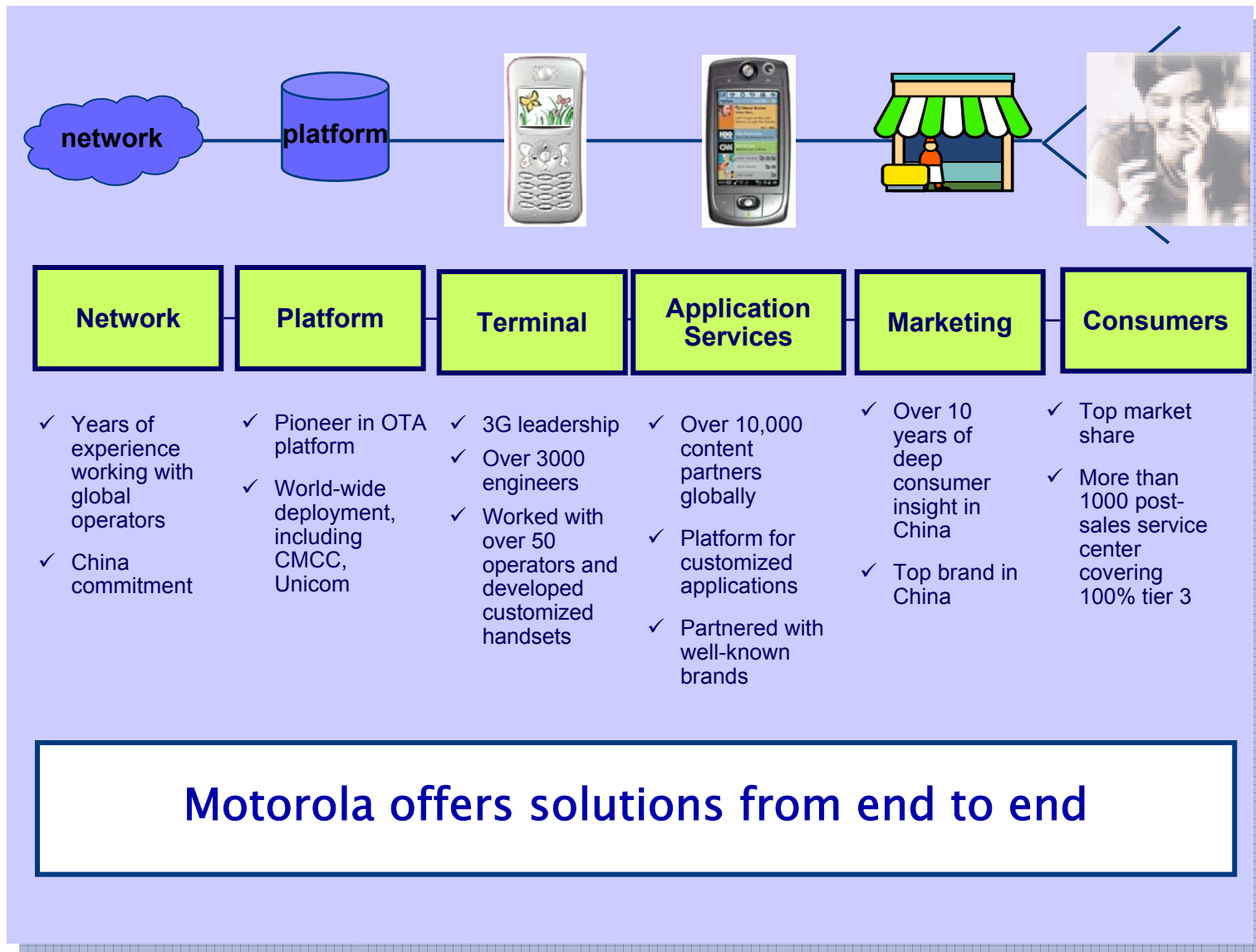
Calendars □□,  
Unified Messaging □□□□, sync □□



Security/Encryption □□/□□  
Intranet Access □□□□□



# Motorola's Leadership in the service Value Chain





- **Existing UMTS networks will provide excellent consumer experience**
  - 384 kbps data access enables streaming, fast internet access
  - Operators will benefit from increased voice capacity of UMTS
- **High Speed Downlink Packet Access (HSDPA) will raise the bar further**
  - Data speeds of up to 3.6 Mbps possible
  - Continued blurring of lines between wireless and broadcast
  - Multichannel, high resolution solutions for both business and consumer user
- **Motorola is already engaged in HSDPA handset development**
  - Expect to see first rollouts in 2005 in Japan, additional rollouts in 2006

*DoCoMo has pledged US\$344 million over 2 years (to end 2005) to Fujitsu, Mitsubishi Electric, Motorola Japan, NEC, Panasonic Mobile Communications and Sharp to support development of HSDPA*

*Adapted from Cellular News Website: <http://www.cellular-news.com/story/10349.shtml>*

- 3G is real today in many markets and will be in China
- Brings revolutionary changes to mobile life via new and innovative voice, multi-media and data services



**Motorola is ready**  
**With proven leadership in 3G terminals**

**WCDMA**



**CDMA2000**



**TDS-CDMA**

