Lucent Technologies

Lehman Brothers Global Wireless Conference

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Bell Labs Innovations



Mobility Market

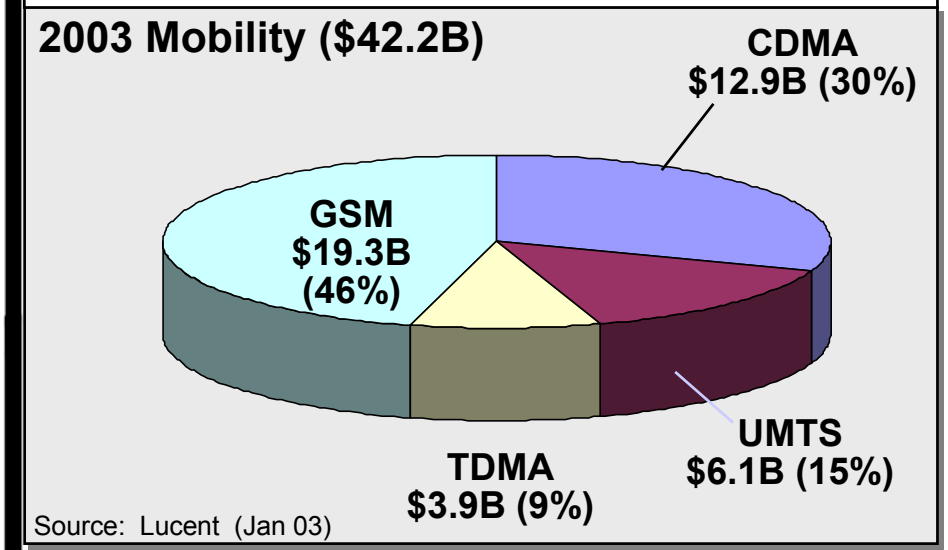
- Market disruption – 3rd generation (3G)
  - Convergence of telecom and computing
- 3G is spread-spectrum
  - High-speed data
  - Low-cost voice
- Spread-spectrum
  - CDMA2000
  - UMTS
- End-to-end system solution
- Lucent Mobility: industry leader in spread-spectrum
  - Reliability, system integration, most advanced technical capabilities



Mobility Total Addressable Market

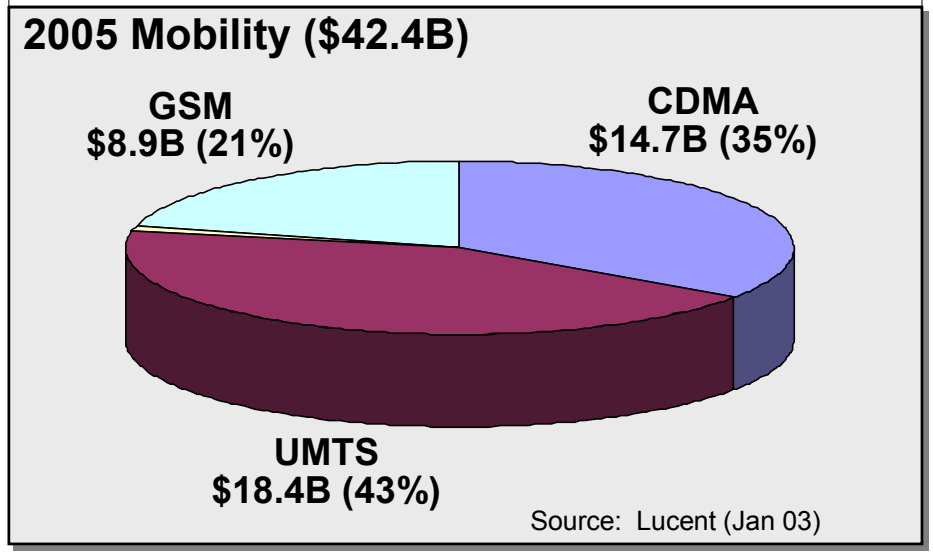
- 3G spread-spectrum continued growth worldwide
- Decline in GSM, delays in UMTS, "Re-Bid" UMTS awards adversely impact GSM-centric vendors
- **Lucent's advantage**: Intense focus on 3G spread-spectrum
  - CDMA2000 and UMTS

Spread-spectrum technology makes up 44% of TAM in 2003…



Source: Lucent (Jan 03)

…and grows to 78% of the mobility spend by 2005



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Mobility Market Environment

- **Industry heads toward 60% to 80% voice penetration**
  - Europe at saturation, U.S. to hit 60% in 2004
  - Operators manage churn, not growth
  - Heavy competition drives down ARPU
  - Minutes of Use (MoU) growth slowing
- **Mobile operators need new, profitable growth segments**
  - 3G HSD – untapped growth segments, “new subscribers”
  - Low-cost voice – “better margins”
  - In-building coverage – “more minutes, more “MBytes data”



Lucent's Mobility Strategy

- **Build a world-class, cost-effective 3G platform**
  - Spread-spectrum focus: CDMA2000, UMTS
  - Common platform
  - Packet core
- **Provide a total, integrated solution**
  - High-reliability, high-quality network
  - Applications to devices
  - Industry-leading services and support
- **Make the market for high-speed data**
  - Enterprise business customer: on the move (portable) and in the building
  - Consumer mass market: utility-based services and applications
- **Leverage spread-spectrum expertise**
  - Systems integration and reliability assets
  - Grow global footprint (India, China)



Mobility Product Strategy

- **Total cost-effective, integrated system**
  - **Common platform**
    - Air interface
    - Packet core
- **Partnering for end-to-end applications**
  - **Bringing customers the most competitive solutions available**
  - **Integrators, devices**
  - **Cisco partnership**
- **Surrounded by world-class support**
  - **Best-in-class network design, optimization services**
  - **Bell Labs expert software tools**
  - **Quality, reliability**



Lucent's Mobility Portfolio

- **Flexent™ OneBTS™ Modcell 4.0** new platform-based family of base station products supporting cdmaOne, CDMA2000 and UMTS
  - Supports integrated intelligent antennas for superior capacity growth
- **Radio Network Controller** provides high-performance radio access control function for UMTS and CDMA2000
  - Solution for call handling, mobility management, and control of multiple base stations
- **Softswitch-based 3G Mobile Switching Center** enables integrated voice/data services
  - Control point for next-generation networks
  - Leverages open APIs for creating new innovative services for the Mobile Internet



OneBTS
One-of-a-kind digital platform for 3G spread-spectrum technologies



Softswitch MSC
Enables innovative new services for the mobile Internet and Voice-over-Packet

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Lucent's Mobility Portfolio

- **Super Distributed HLR** authenticates, manages profiles and Internet addresses for mobile users
  - Utilizes breakthrough software from Bell Labs to enable global roaming in future
- **MiLife™ Portfolio** of platforms and applications
  - Easy introduction of personalized, revenue-generating mobile services
  - Flexible platforms for rapid delivery of enhanced services
- **Data Networking Portfolio** for wireless backhaul
  - Minimize data transport leasing costs
  - Simplify/consolidate network operations, more cost-effective way to move large volumes of voice and data traffic
- **Mobile Devices** supplier agreements
  - Interoperability program with third parties
  - Timely and ample supply of mobile phones, PC modem cards and other 3G devices



In-Building/Premises Services & Coverage

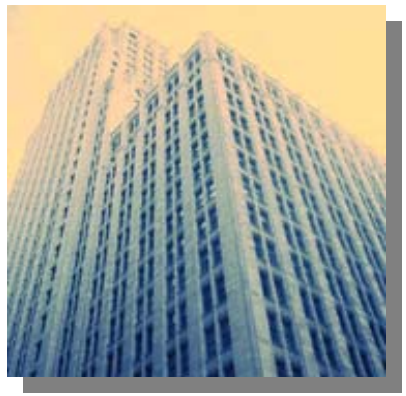
- **In-Building users need both 3G and WiFi Coverage**
  - **"OneBTS in every building"**
  - **3G/WiFi interoperability**
  - **Cabling, installation and maintenance**
  - **Ethernet re-use voice and HSD**
  - **Distributed antenna systems**
  - **Small, high-capacity base stations**
- **Enterprise users use PBX/ Centrex Features**
  - **Lucent Softswitch**
  - **Rapid service creation**
- **Large percentage of in-building calls originate and terminate in the same building**
  - **Cisco media gateway – IP solution**
  - **Local media gateway or backhaul to central MSC**







OneBTS



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Lucent's 3G Momentum

- **Recent 3G contracts, network launches, trials demonstrate momentum in key growth markets**
  - **Commercial CDMA2000 1xEV-DO network for Verizon Wireless in the Washington D.C. area**
  - **UMTS pilot network for T-Mobile to deliver secure, mobile high-speed data services to businesses in Nuremberg**
  - **Cingular Wireless selected the PacketStar® (PSAX) to increase capacity and reduce operating expenses on its nationwide mobile network**
  - **Vodafone Telecel Portugal for MiLife™ SurePay® suite of pre-paid services to accommodate growing traffic from new data services**
  - **Iusacell Mexico and Verizon Wireless Puerto Rico launch commercial CDMA2000 1x voice and high-speed data networks**
  - **New Flexent® CDMA2000 High Density 4.0 base station designed to help Lucent mobile customers increase capacity and extend life of previous generation wireless infrastructure**



Lucent Mobility: How We Win!

- Intense focus – 3G spread-spectrum, end-to-end solution
- Demonstrated differentiation
  - Network reliability, quality and performance
  - Leadership in 3G spread-spectrum
  - Services: network design, optimization and tools
  - Innovation: network evolution/migration and Intellectual Property
  - Customer's customer – end-user experience
- Best-in-class CDMA2000 & UMTS OneBTS platform
  - Leading the competition
- Leverage CDMA2000 worldwide footprint
- Driving financial results

