CDMA2000 Case Studies
From Around the Globe
Russia: Sky Link
Leading 3G operator in Russia

• Operates the largest wireless broadband network in Russia
  – Generating 80 percent of total 3G traffic in Russia
• Delivering a robust portfolio of 3G services to more than 5,000 cities and towns
  – Mobile TV, mobile advertising, mobile banking, social networking, video surveillance, video communications, unlimited Internet access, unlimited weekend tariffs, etc.
  – Data traffic levels have increased by a factor of eight since the launch of EV-DO (170 TBs/month)
• Surpassed 1 million subscribers in March, 2009, representing a healthy 60 percent CAGR
  – Enjoys the highest ARPU in the country – US$36.84
• Increased its share in the total market for mobile Internet access (including all access technologies) to 12.5 percent in 2008
• Increased its the share of mobile data revenue to 50 percent of total revenue
• Revenues grew by 30 percent in 2008 to US$350 million
• Goal is to double their profits in 2009

Network: CDMA450 1X/EV-DO Rev. A
Subscribers: 1 million (Mar. 2009)
ARPU: US$37
Yemen Mobile

A leading champion for CDMA in the Middle East

• The largest and fastest growing operator in the country
• Serving more than two million subscribers and a market share of 32 percent
• First operator in Yemen to cover most of the country—about 70 percent of which serves heavily populated areas
• Started out as a CDMA2000 1X WLL operator, evolved into a mobile operator and just launched EV-DO Rev. A mobile broadband services
• There is a strong demand for high-speed data services in Yemen, particularly from VIP customers such as oil companies and banks
• 30 percent of its customer base is in rural markets
• Installing 60 new base stations this year to enhance voice and broadband data services

Network: CDMA2000 1X/EV-DO (800 MHz)
Subscribers: 2 million (Mar. 2009)
ARPU: US$19
Mexico: IUSACELL
First 3G mobile broadband service provider in Mexico

- One of the **largest** 3G wireless operators in Latin America
  - Operating in **2,673 cities** and municipalities nationwide
- Providing mobile broadband services to more than **1.1 million** EV-DO subscribers
- Market leader in terms of network capacity, post-paid subscribers and ARPU
  - Highest ARPU among the nation’s three leading wireless service providers – **US$19**
  - Post-paid subscribers account for **21 percent** of their total subscriber base
  - Data traffic increased by a factor of eight in the past 3 years
  - Data services now account for **23 percent** of total traffic (>230 TBs per month)
- Offers the largest selection of **mobile data** services such as:
  - Mobile broadband Internet access, email, MMS, music downloads, mobile TV, real-time soccer game video highlights, mobile banking, video monitoring, location-based services, traffic Web cams, social networking, and tools such as translations, dictionaries and directory assistance services
- Up to **43 percent** of devices introduced in 2009 will be EV-DO Rev. A capable

**Network:** CDMA2000 1X/EV-DO (800 MHz)
**Subscribers:** 3.5 million (Mar. 2009)
**ARPU:** US$19
Indonesia: Bakrie Telecom

Awarded “Most promising service provider” in Indonesia

- Among the **fastest growing** CDMA2000 operators in the world
- Strong brand recognition – **most recommended** brand among friends and family
  - Consumers perceive Esia tariffs as being most **affordable** with Esia brand
  - Positioned itself as the operator of choice for **value-conscious** consumers
- Operating in **79 cities** nationwide, up from 27 cities in 2007 (3,036 BTS’s)
- Reached **8 million** subscribers in 2008, representing a growth of **79 percent** CAGR
  - Garnered **5 percent** market share
  - Revenue market share increased from 1% to 3% in three years
- Plans to grow its subscriber base to over **10.5 million** in 2009, a **44 percent** increase over 2008, and then **14 million** in 2010
  - Indonesia’s teledensity is less than 50 percent
- Plans to introduce EV-DO services in the near future
- **US$600 million** is the CAPEX between 2008-2010 (including US$150 million vendor financing)

Network: **CDMA2000 1X** (800 MHz)
Subscribers: **8 million** (Mar. 2009)
Bakrie Telecom: Affordable Handsets

With Huawei, Bakrie launched several affordable devices with unique themes.
Bakrie Telecom: Affordable Service Offerings

An innovative service provider

Flat Rate SMS
RP1 (US$0.0001) per character

A user-friendly “100 rupiah (US$0.01) per minute” data pricing plan is driving more Internet usage
Nigeria: Starcomms
A leader in Nigeria’s highly competitive marketplace

- First operator in Africa to introduce EV-DO Rev. A advanced mobile broadband services
- EV-DO Rev. A is generating ARPUs in excess of US$80
- Blended (1X and EV-DO Rev. A) ARPU is US$47
- Operating in 23 key cities and 65 towns nationwide
- Providing mobile broadband services to nearly 400,000 EV-DO subscribers
- First operator in Africa to introduce R-UIM phones
- Doubled its subscriber base to 2.4 million in the past 12 months

Network: CDMA2000 1X/EV-DO (1900 MHz)
Subscribers: 2.4 million (Jan. 2009)
ARPU: US$47
Taiwan: Asia Pacific Telecom

A turn-around success story in a highly competitive market

• Launched CDMA2000 1X in 2003

• Expects to make a profit this year after revamping its executive suite and expanding its customer base beyond **2 million** subscribers in May 2009

• **Fourth** largest wireless operator in Taiwan (11.6 million subs in Taiwan)

• ARPU is between **US$18-$19**

• Plans to procure **700,000 handsets** worth US$77 million in 2009, including smartphones

• Intends to reach **2.3 million** by the end of 2009

• Plans to upgrade its network to **EV-DO Rev. A** technology in 2010

• Recently procured equipment worth **US$18.5 million** from Nortel and Huawei

• Plans to boost capital spending this year to **US$46 million**

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**Network:** CDMA2000 1X (800 MHz)

**Subscribers:** 2 million (May 2009)

**ARPU:** US$18-19
China: China Telecom

One of the fastest growing operators in the world

- Added **6.8 million** subscribers in the first four months of 2009
  - Surpassed China Unicom’s GSM subscriber growth
  - Maintained ARPU at **63.60 yuan (US$9.31)** per month for first five months of 2009
- Delivering EV-DO Rev. A advanced mobile broadband services in over **120 cities**
  - Expanding the service to **324 cities** by the end of July 2009
  - Aims to add **8 million** broadband subscribers in 2009
- Up to **50** EV-DO handset models from **15** vendors are available at retail
  - Intends to purchase **55 million** CDMA2000 devices in 2009
    - **20 million** will be EV-DO enabled devices
  - Intends to introduce up to **200** new handset models each year
- Investing **US$11.7 billion** over next 3 years to expand and optimize its CDMA2000 network
- Goal is to increase CDMA2000 subscriber base by **30 million** new users in 2009 and to **100 million** (**15 percent** market share) in next 3 years
  - Up to **70%** of existing PHS users will migrate to CDMA

Network: CDMA2000 1X/EV-DO (800 MHz)
Subscribers: **34.7 million** (Mar. 2009)
ARPU: **US$8.78**