CDMA2000 Network Evolution

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Huawei’s Commitment to CDMA2000

• Huawei is a leading supplier of CDMA2000 solutions globally
  ▪ Infrastructure – industry leader in 1xEV-DO commercial contracts
  ▪ Devices – key component for E2E solutions

• Huawei is fully committed to the CDMA2000 roadmap
  ▪ 1X voice and EV-DO Rev. A data today
  ▪ 1X Advanced for significant voice capacity increase
  ▪ EV-DO Rev. B and DO Advanced for data capacity increase

• Huawei provides a smooth evolution path for customers to LTE
  ▪ Dual-mode CDMA2000/LTE base stations
  ▪ Software-defined radios for simultaneous support of CDMA2000 and LTE
  ▪ Capability demonstrated since April 2008

Huawei has successfully delivered pre-commercial Rev.B networks in Beijing and Guangzhou for China Telecom
1X Advanced

3-4x increase compared to CDMA2000 1X’s already excellent voice capacity

Achievable Today

1X Today
- EVRC
- Single RX

1.5x Voice users

New handset & channel card

3X Voice users
Without Mobile Rx Diversity

4X Voice users
With Mobile Rx Diversity

Interference Cancellation
- BTS Interference Cancellation
- Advanced Device IC (QLIC)

Radio link Enhancements
- Efficient power control
- Early termination
- Smart blanking

Relative capacity/sector (1.25 MHz)
Up to 400% Increase in Capacity
Or 70% Increase in Coverage

*Capacity and coverage tradeoff*

**1X Today**
- Up to 400% Increase in Capacity
- Or 70% Increase in Coverage

**1X Advanced**
- Up to 4x higher voice capacity with same coverage as 1X today
- Up to 4x higher voice capacity with same coverage as 1X today
- 4x larger coverage area with same capacity as 1X today

**Assumption:**
3GPP2 simulation framework, embedded sector, with all the 1X Advanced features considered including MRD, FL and RL Interference Cancellation, new RC

**Note:** Based on Qualcomm simulations, coverage is defined as the maximum area with less than 1% of the users in outage;
DO Advanced
Smart Phone Demand Won’t Wait for 4G

- **Smart Networks**
  - Increased network capacity and data rates by exploiting uneven network loading
  - (Network Load Balancing, Distributed Network Scheduler, Demand Matched Configuration)

- **Enhanced Connection Management**
  - Increased connection capacity by more efficient use of existing resources
  - (Parameter Optimization, Implementation Enhancements)

- **Advanced Devices**
  - Enhanced Equalizer
    - Improved performance for uneven and bursty traffic
  - Mobile Tx Diversity
    - Higher UL capacity and data rates

Software upgrade that benefits existing and new devices
Valuable Revenue for Operators

Changing Business Model

- Potential for greater subs offsetting lower ARPU - large revenue opportunity
- M2M AMPU (Average Margin Per Unit) is much higher compared to mobile subscribers per bit
- Even higher margins due to lower marketing cost, lower turnover (less churn)
- Operators have created new pricing models for low bandwidth opportunities that are highly profitable

<table>
<thead>
<tr>
<th>Service</th>
<th>Tariff Plan</th>
<th>Monthly fee ($ per month)</th>
<th>Free Package</th>
<th>Price ($/MB)</th>
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<tbody>
<tr>
<td>M2M</td>
<td>Plan S</td>
<td>8.4</td>
<td>100 KB</td>
<td>12.9</td>
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<tr>
<td></td>
<td>Plan M</td>
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<td>1 MB</td>
<td>9.8</td>
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<td>Data service</td>
<td>Basic Plan</td>
<td>17 ~ 67</td>
<td>2.9 ~ 17.4 MB</td>
<td>3.4</td>
</tr>
</tbody>
</table>

- Per bit price of M2M ~ 3 times that of mobile subs. The total fee is unlimited

Ubiquitous coverage & high margin data plans ensure CDMA success in M2M
Thank you

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