

# SDR—Is This the Future of Wireless?

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#### The Hardware Issues—What and Where.

- Handsets. Does SDR Really Fit?
  - The "WorldPhone." Will Roaming Pay the Bills?
  - Network Downloads. How about the Security Issues?
- Base Stations. Will SDR Work?
  - Traditionally hardware-centric.
  - Protocol- (Air Link) Specific.
  - SDR could support multiple air links.

## **International Roaming**

- International travel has doubled in less than 15 years.
- Last year there were more than 51M international arrivals (ITA's) in the U.S. with 61M American travelers outbound.
- 50% of the U.S. travelers go to Europe.
- 28% of the international travel is business related.
- 69% of ALL travelers are Professional, Technical, Managerial, or Executives.

#### The Revenue Pay-Back Good News

- If we assume that the "average" business stay is 5 days, with only 10 minutes of international calling per day (@ \$2.25/minute) the total worldwide net revenue in 2000 would have been \$3,528,000,000.
- This totally ignores SMS, which will pass the 200 BILLION mark this year, at a worldwide average revenue of 12¢ per message.

### The Revenue Pay-Back Bad News

- Today, DT's VoiceStream receives the vast majority of all European GSM roaming revenues in the U.S.
  - From Vodafone (UK)
  - From BT Cellnet (UK)
  - From Orange (UK, FR)
  - From Telefonica (ES)
    - Well, you get the message!

## The Subtle Problems

- Today, Voice is King.
- Soon, Data will begin to Dominate.
- New and Updated Standards will continue to be deployed on an ongoing basis.
- Today's base stations and handsets are air link specific.
- SDR "upgrades" pose a Security Threat for the industry that must be resolved.

### The Spectrum Issues

