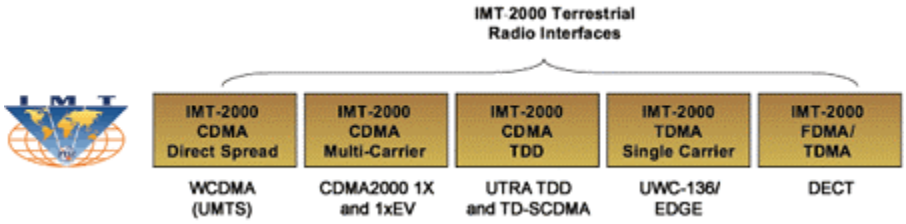
CDMA2000 is 3G

3G is the term used to describe next generation mobile services which provide better quality voice and high-speed Internet and multimedia services. While there are many interpretations of what 3G represents, the only definition accepted universally is the one published by the International Telecommunication Union (ITU). ITU, working with industry bodies from around the world, defines and approves technical requirements and standards as well as the use of spectrum for 3G systems under the IMT-2000 (International Telecommunication Union-2000) program.

The ITU requires that IMT-2000 (3G) networks, among other capabilities, deliver improved system capacity and spectrum efficiency over the 2G systems and support data services at minimum transmission rates of 144 kbps in mobile (outdoor) and 2 Mbps in fixed (indoor) environments.

Based on these requirements, in 1999 ITU approved five radio interfaces for IMT-2000 standards as a part of the ITU-R M.1457 Recommendation. CDMA2000 is one of the five standards. It is also known by its ITU name IMT-CDMA Multi Carrier.



Learn more about the ITU and IMT-2000.

CDMA2000: Delivering on 3G

CDMA2000 represents a family of technologies that includes CDMA2000 1X and CDMA2000 1xEV.

- CDMA2000 1X can double the voice capacity of cdmaOne networks and delivers peak packet data speeds of 307 kbps in mobile environments.
- CDMA2000 1xEV includes:
    - CDMA2000 1xEV-DO
        - CDMA2000 1xEV-DO delivers peak data speeds of 2.4Mbps and supports applications such as MP3 transfers and video conferencing.
    - CDMA2000 1xEV-DV
        - CDMA2000 1xEV-DV provides integrated voice and simultaneous high-speed packet data multimedia services at speeds of up to 3.09 Mbps.
    - 1xEV-DO and 1xEV-DV are both backward compatible with CDMA2000 1X and cdmaOne.

The world's first 3G (CDMA2000 1X) commercial system was launched by SK Telecom (Korea) in October 2000. Since then, CDMA2000 1X has been deployed in Asia, North and South America and Europe, and the subscriber base is growing at 700,000 subscribers per day. CDMA2000 1xEV-DO was launched in 2002 by SK Telecom and KT Freetel. The commercial success of CDMA2000 has made the IMT-2000 vision a reality.

Advantages of CDMA2000

CDMA2000 benefited from the extensive experience acquired through several years of operation of cdmaOne systems. As a result, CDMA2000 is a very efficient and robust technology. Supporting both voice and data, the standard was devised and tested in various spectrum bands, including the new IMT-2000 allocations.

1. Increased Voice Capacity
2. Higher Data Throughput
3. Frequency Band Flexibility
4. Increased Battery Life
5. Synchronization
6. Power Control
7. Soft Hand-off
8. Transmit Diversity

9. Voice and Data Channels
10. Traffic Channel
11. Supplemental Channels
12. Turbo Coding
13. Connectivity to ANSI-41, GSM-MAP, and IP networks
14. Full backward compatibility
15. Improved service multiplexing and QoS management
16. Flexible channel structure in support of multiple services with various QoS and variable transmission rates

CDMA2000 Deployments

The first 3G networks to be commercially deployed were launched in Korea in October 2000 using CDMA2000 technology. CDMA2000 dominates the 3G market today and analysts forecast that it will continue to lead in the future.