

International Mobile Telecommunications (IMT) Cellular and Mobile Broadband Access for the 21st Century



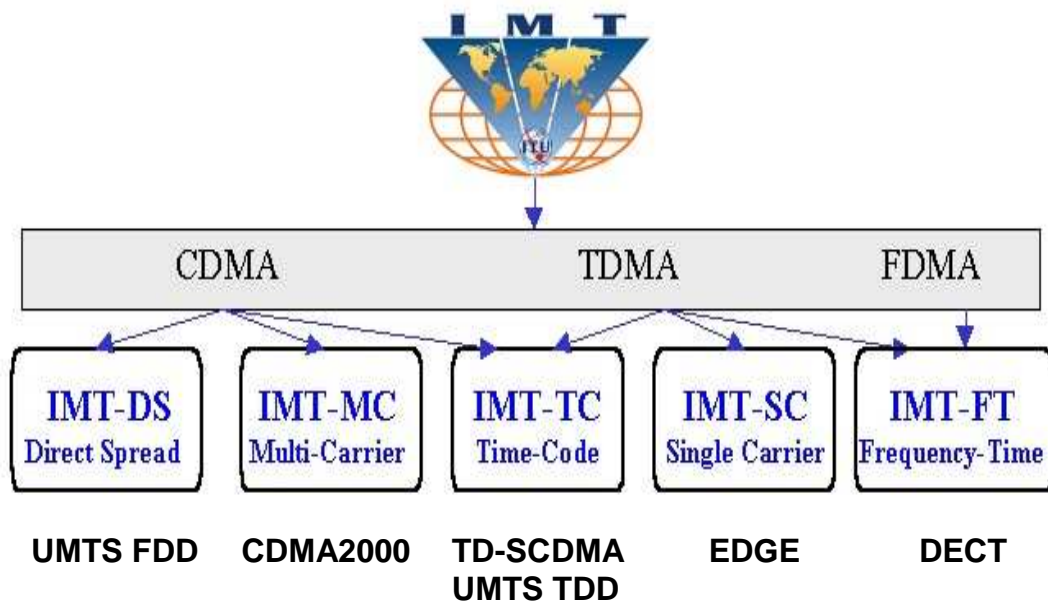
IMT-2000:

(The ITU definition of 3G Mobile)

- **IMT-DS** (W-CDMA-FDD)
- **IMT-MC** (cdma2000)
- **IMT-SC** (EDGE)
- **IMT-TC** (TD-SCDMA)
(W-CDMA-TDD)
- **IMT-FT** (DECT)

IMT-2000 offers a family of radio interfaces for third generation mobile services which provide smooth evolution paths to 3G from the various widely deployed existing 2G mobile networks. IMT-Advanced is currently under study to define the fourth generation (4G) of mobile communications.

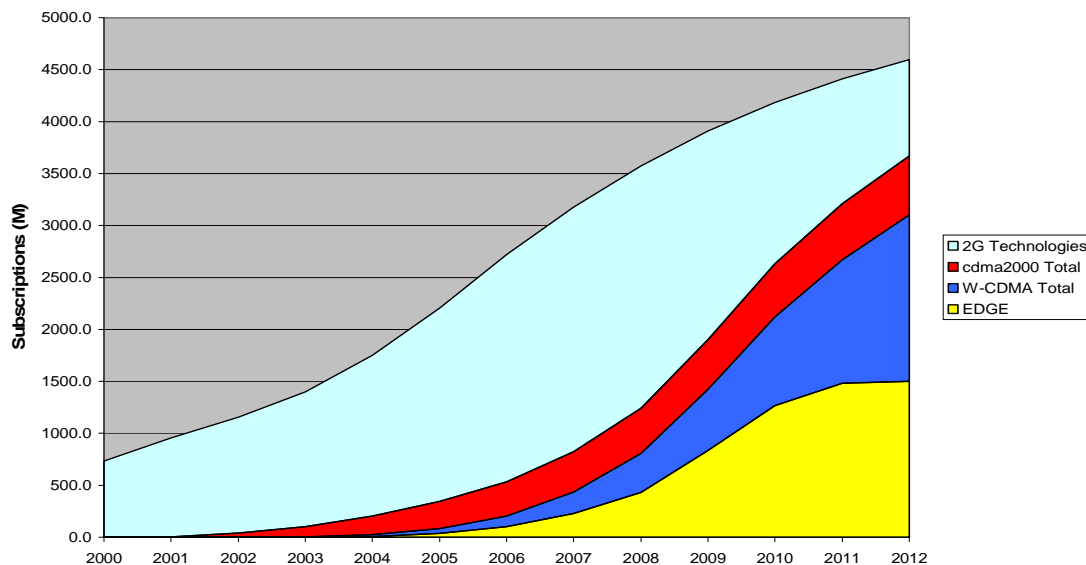
IMT-2000 Radio Options



At the 2007 Radiocommunications Assembly a sixth radio interface, OFDMA TDD WMAN, a derivative of IEEE 802.16e (Mobile WiMax), was added to the IMT-2000 radio options.

In November 2007 the total number of mobile subscriptions was equivalent to half the world's population. IMT-DS, IMT-MC and IMT-SC are being extensively deployed throughout the world, with **over 800 million IMT subscriptions** at the end of 2007, served by almost 700 networks in over 100 countries. It is estimated that by 2010 the majority of global mobiles will incorporate one of these ITU standardized IMT radio technologies.

Evolution to IMT-2000



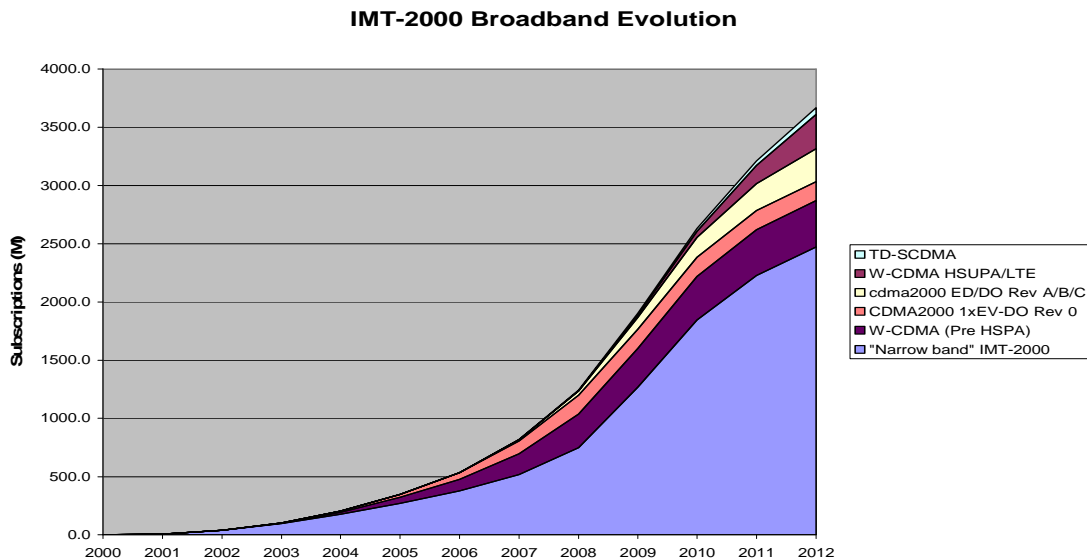
Data Source: Strategy Analytics

IMT standards have been continuously developing since their commercial launch in 2000 offering increased spectrum efficiencies lower latencies and higher peak data rates to meet the ever growing demands of multi-media mobile telecommunications.

IMT-MC (cdma2000 1XRTT) and IMT-SC (EDGE) can be considered the **'narrowband'** IMT options, since they offer backwards compatibility to their related 2G technologies and allow evolution to 3G within an operator's existing 2G spectrum allocation.

IMT-MC (cdma2000 EV/DO), IMT-DS/TC (W-CDMA) and the new OFDMA TDD WMAN radio interface, which all offer megabit rates, can be considered the **'broadband'** IMT options.

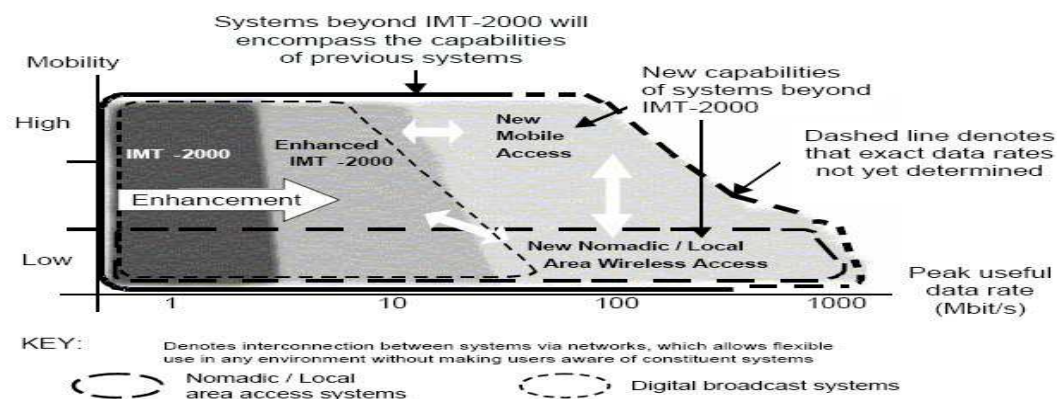
The chart below shows the evolution to IMT 'broadband' technologies. Note that cdma2000 EV/DO Rev.0 and W-CDMA pre HSPA, i.e. with only HSDPA, only offer megabit rates in the downlink, whereas cdma2000 EV/DO Rev A/B/C and W-CDMA with HSUPA, as well as HSPA+ and LTE, offer megabit rates in both up and down links.



Data Source: Strategy Analytics

The requirements for further advances in the performance offered by the IMT family of mobile standards have been defined under the title IMT-Advanced (4G), and work is well under way in the ITU and the various associated recognized standards bodies.

Framework for Development of IMT-2000 and systems beyond (IMT-Advanced)



Source: Recommendation ITU-R M.1645