Special Study Group on "IMT-2000 and Beyond"

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September 6, 2001
Rio de Janeiro, Brazil

SSG - "IMT-2000 and Beyond"

- **Why create this study Group?**
  - growth of wireless access outstripping traditional access
    - soon will be over 50% of all subscribers
    - already the case in multiple markets
  - explosive growth of the Internet
    - strong correlation between wireless access and internet usage
    - leads to "Wireless Internet"
  - multiple forums working on 3G systems
    - need to promote harmonization and convergence
    - rapidly increasing importance of globalization: need for consistent requirements
    - take advantage of work done elsewhere
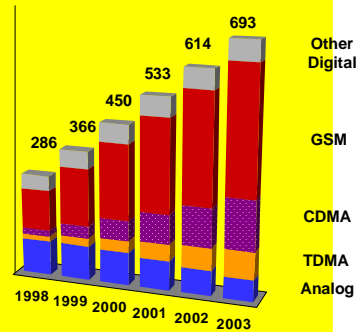
Wireless Internet

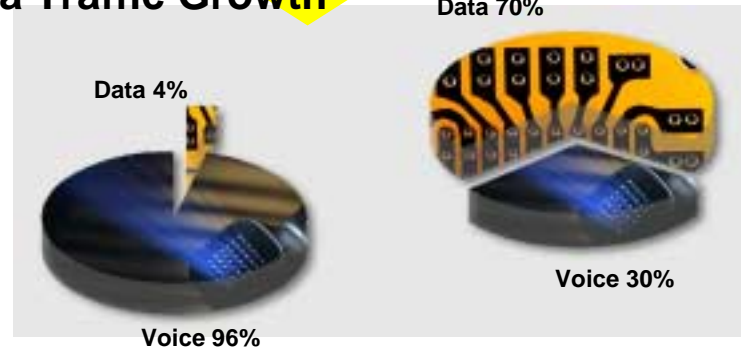**Wireless Applications Growth**

Data Subscriber Growth
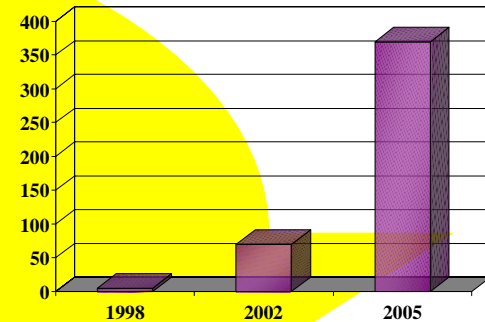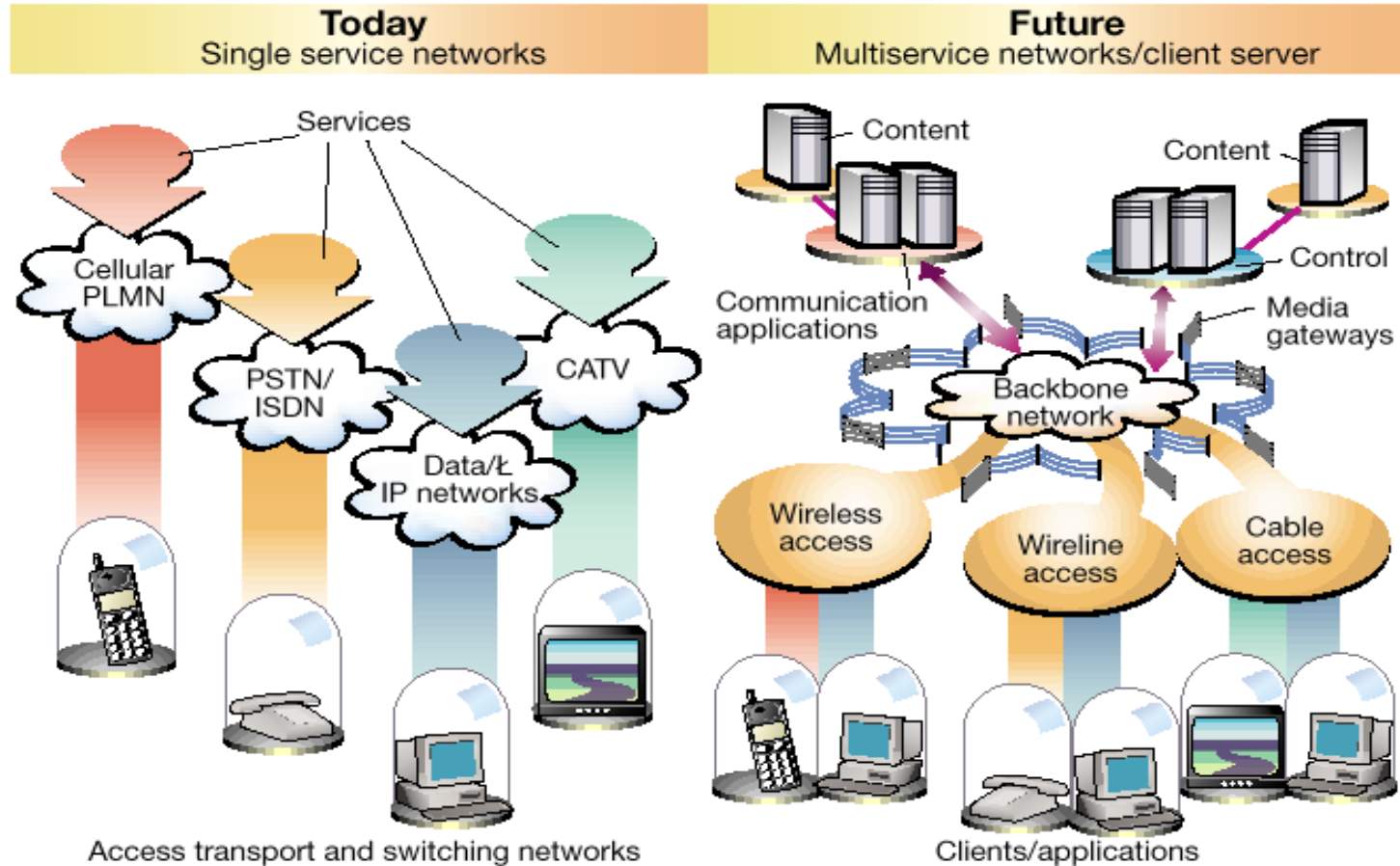

Source: The Yankee Group, Nortel Networks

Subscriber Growth

286 366 450 533 614 693

Other Digital

GSM

CDMA

TDMA
Analog

1998 1999 2000 2001 2002 2003

Source: Strategis Group, World Cellular / PCS Markets, May 1998.
("Other Digital" refers to PDC and PHS.)

Data Traffic Growth

Data 70%

Data 4%

Voice 96%

Voice 30%

# Migration towards an IP-based backbone network is taking place

Why is this SG special?

- **Given significant freedom in conducting its business:**
  - Paperless meetings to maximum extent possible
  - Reduced meeting notice requirements
  - Reduced contribution submission deadline
  - All documents to be available on ITU web site
  - Meeting reports to be made available quickly
  - May use teleconferences, other means to conduct work

- **Plus has the usual powers of a Study Group:**
  - Create and approve Recommendations

- **Must report to TSAG regularly:**
  - Progress made, effectiveness of new procedures and working methods

Why is this SG special?

- **Management Team**
  - Larger than usual
  - Strength in diversity:
    - viewpoints from vendors, operators and regulators
    - viewpoints from developed and developing countries
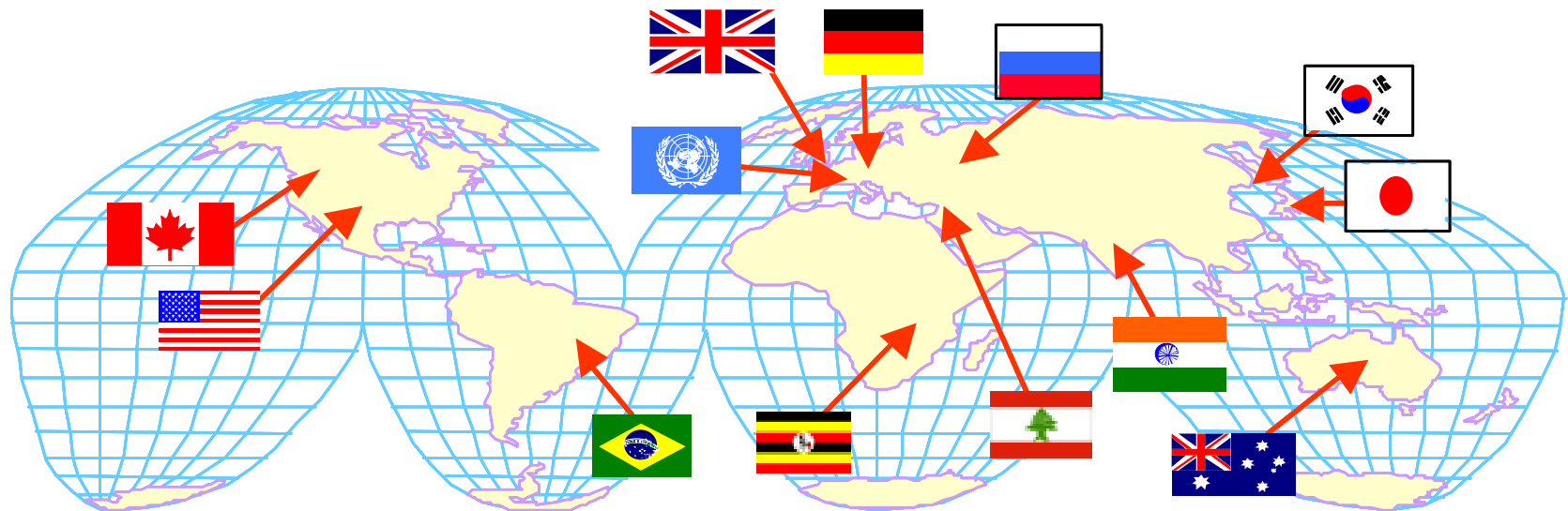
SSG "IMT-2000 and Beyond" Management Team

Director, TSB: Mr. H. Zhao

TSB Engineer: Ms. T. Tchaika

Chairman: Mr. J. Visser (Nortel Networks, Canada)

Vice Chairmen: Mr. M. Briggs (British Telecom, UK)
Mr. M. Ghazal (MPT, Lebanon)
Mr. L. Graf (Ericsson, Australia)
Mr. S. Husain (Motorola, USA)
Mr. Y.K. Kim (Samsung, Korea)
Mr. K. Lathia (Siemens, Germany)
Mr. P.F. Masambu (Comm. Commission, Uganda)
Mr. H. Nakamura (NTT DoCoMo, Japan)
Mr. B. Ramos (ANATEL, Brazil)
Mr. K.K. Sirohi (Ministry of Comms., India)
Mr. Y. Trofimov (NIIR, Russia)

- **Lead SG on IMT-2000 and beyond and for mobility**

- **Primary responsibility within ITU-T for overall network aspects of IMT-2000 and beyond**
  - Work plan
  - Migration path from existing IMT-2000 systems towards systems beyond IMT-2000
    - Long term common IP-based architecture
    - Near term IP-based internetworking
  - Overview road map
  - Interworking functions, if not done elsewhere

*WTSA-2000 Document 175-E: Resolution 2 - Study Group Responsibility and Mandates

Summary of Mandate (2 of 2)

- **In addition, will study:**
  - Harmonization of IMT-2000 Family members as they evolve beyond IMT-2000
  - Evolution of network aspects utilizing IMT-2000 RTTs as FWA
  - Network aspects of convergence of fixed and wireless networks
  - Standardization of IMT-2000 interfaces where needed
- **Work with ITU-D to assist developing countries in applying IMT-2000**
- **Collaborate with ITU-R WP 8F (radio) and WP 8D (satellite)**
- **Strong cooperative relations and complementary programs with SDOs, 3GPPs**
- **May develop and approve Recommendations**
  - may investigate and make proposals to TSAG on alternative types of output and associated approval process, e.g., normative technical specifications or interim Recommendations
- **Make use of provisional working procedures specific to SSG**
  - new Rec. A.9 approved at WTSA-2000

SSG Questions

| WP	Question	Title
1	1/SSG	Service and network capability requirements and network architecture
	2/SSG	NNI mobility management protocol (Stage 3)
2	3/SSG	Identification of existing and evolving IMT-2000 systems
	4/SSG	Interworking functions to be used with existing and evolving IMT-2000 systems
	5/SSG	To participate in the preparation of a Handbook on IMT-2000
3	6/SSG	Harmonisation of evolving IMT-2000 systems
	7/SSG	Convergence of fixed and existing IMT-2000 systems
SSG	8/SSG	Special study group working procedures

Relationships

- **ITU-R**
- **ITU-D**
- **3GPP**
- **3GPP2**
- **IETF**
- **Regional SDOs**
- **Other relevant fora**
  - OHG
  - 3G.IP
  - MWIF
  - etc.
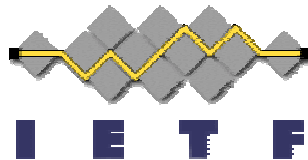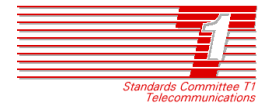
Approach
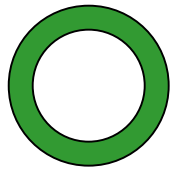
⭕ *EMPHASIS ON:*

- **Collaboration**

- **Cooperation**

- **Partnering**

🚫 *BUT NOT:*

- **Duplication of work**

Revolution from IP infrastructure

IP

Evolution from 2G systems

2G → **3G** *and Beyond*

Revolution from subscriber service expectations

3GPP — A GLOBAL INITIATIVE

3G — 3RD GENERATION PARTNERSHIP PROJECT 2 "3GPP2"
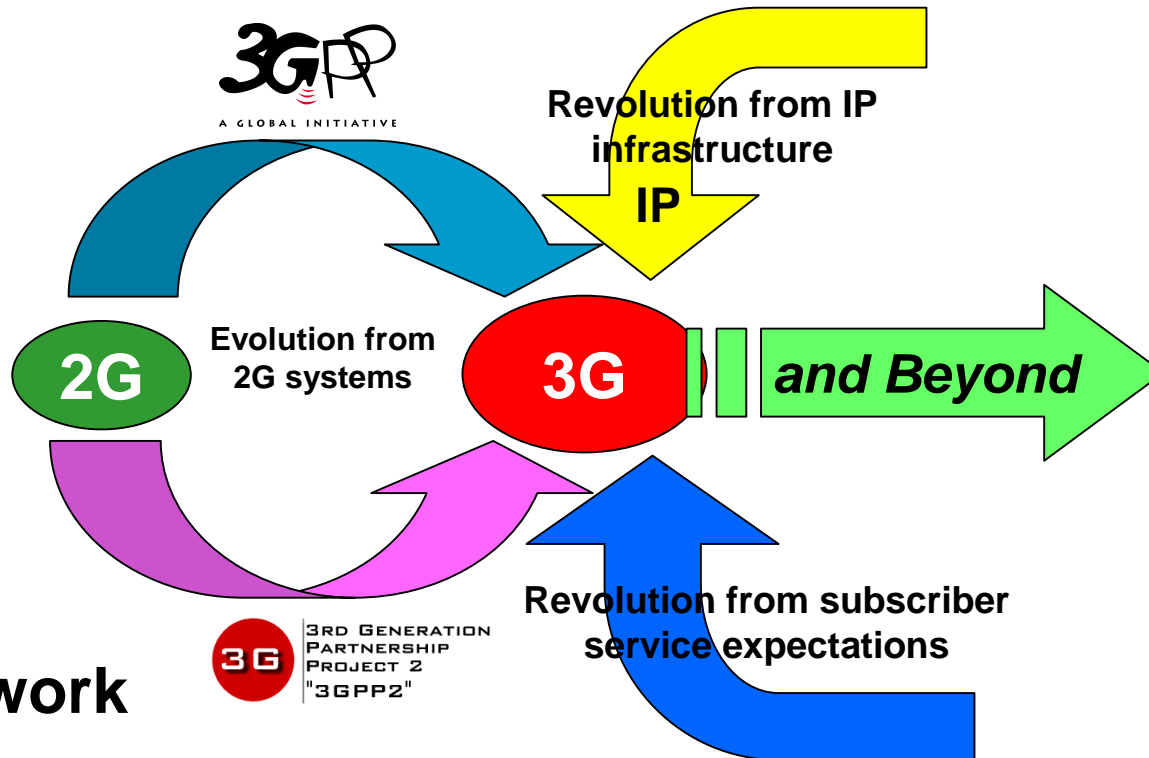
Adding value in global "IMT-2000 and Beyond" standards

- **Leadership through coordination, consensus building, and collaborative working arrangements**
  - with 3GPPs, SDOs, other relevant fora

- **Facilitating adoption of appropriate external specifications as ITU-T Recommendations**
  - act as a single source for IMT-2000 and related standards

- **Development of requirements and architectural framework Recommendations as needed and appropriate**
  - provide context and structure for IMT-2000 related specifications

- **Identifying emerging industry needs for global standards**
  - propose efficient and coordinated work planning and sharing arrangements with external forums to meet needs

- **Facilitating interoperability and interworking between IMT-2000 family members for global roaming, seamless service delivery**
  - provide interworking specifications if not done elsewhere