

# Trends and Hot Topics in Network Management

Salah Aidarous, Ph.D.
Director - Product Planning
NEC America, Inc.
Irving, Texas 75038, USA
Tel +1 972 751 7250
Fax +1 972 751 7254
Email salah@rss.dl.nec.com

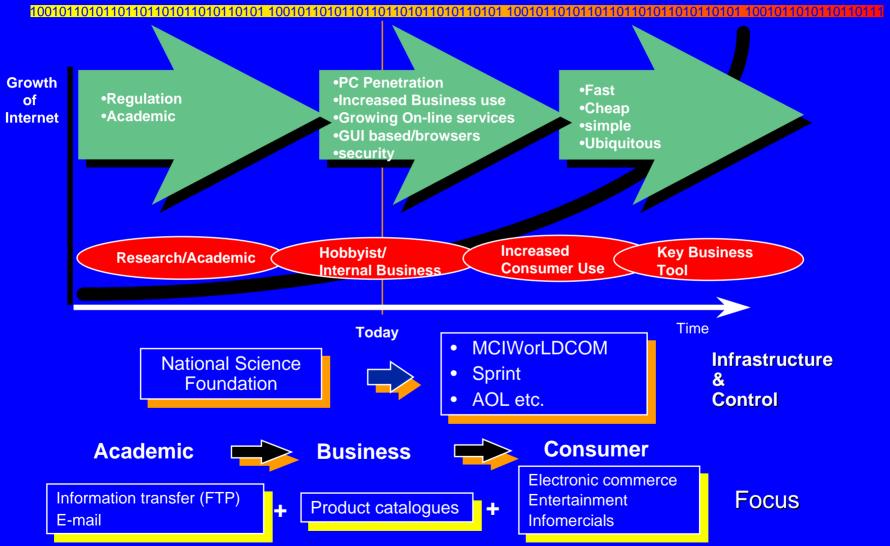
# **Enterprise Management**



- IT Management (1 staff member for300-1000)
  - **Proprietary**
  - Secure
  - Reliable
  - **Controlled Cost**
- DC Management (1 staff member for 30-300 users)
  - **Protocol Oriented**
  - **Unreliable**
  - **SNMP Oriented**
  - **Hidden Cost**
- Telco (Voice) Management (1 staff member for 500-1000 users)
  - Reliable
  - **Proprietary**
  - Free (Carrier's Mercy)

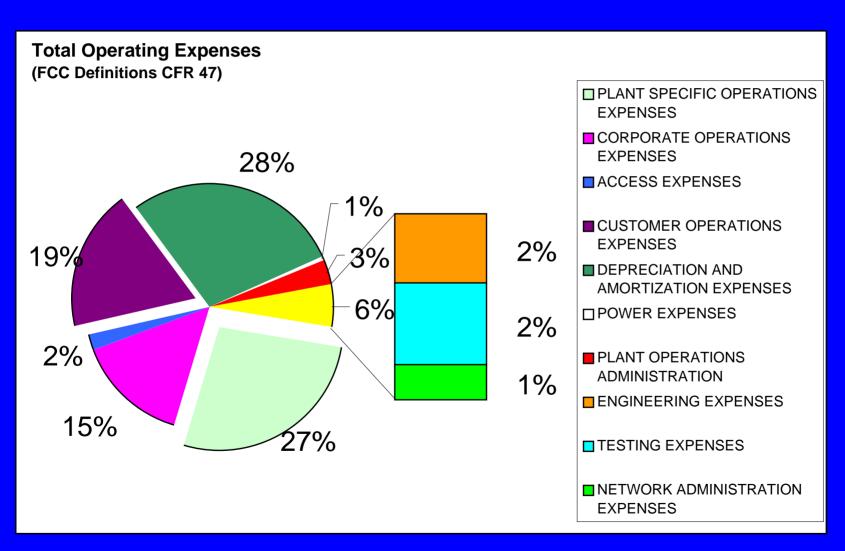
## **Evolution of IP Value**





## Telco Management





# IP Service Provider Cost Breakdown





Source: Adapted from Paul Stapleton, ISP\$ Market Report, Boardwatch Magazine

# Wholesale pricing: what's the difference?



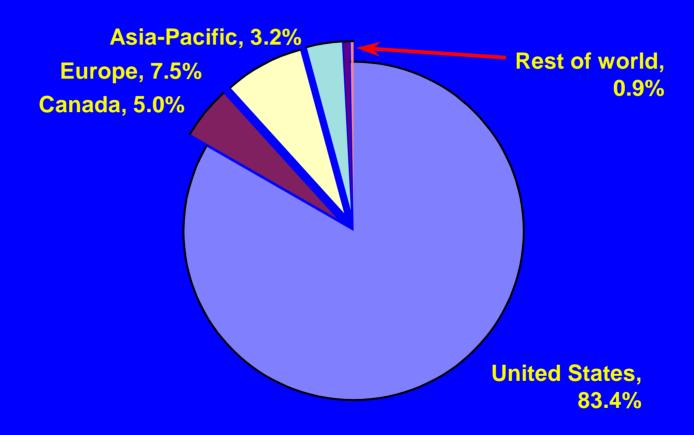
#### Settlement-payment traffic





### **Balance of Internet traffic**

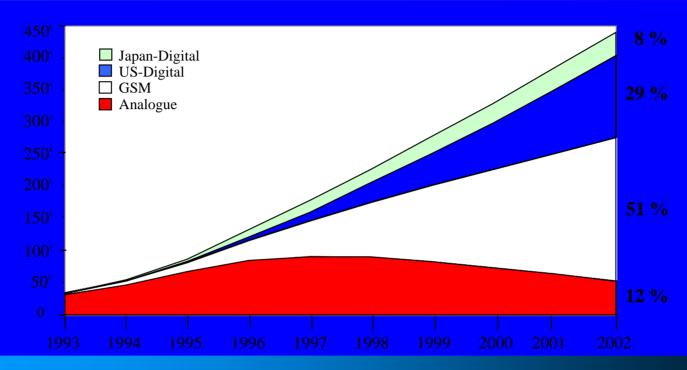




Note: Based on traffic monitored on NSFNet, Source: ITU/TeleGeography "Direction of Traffic"

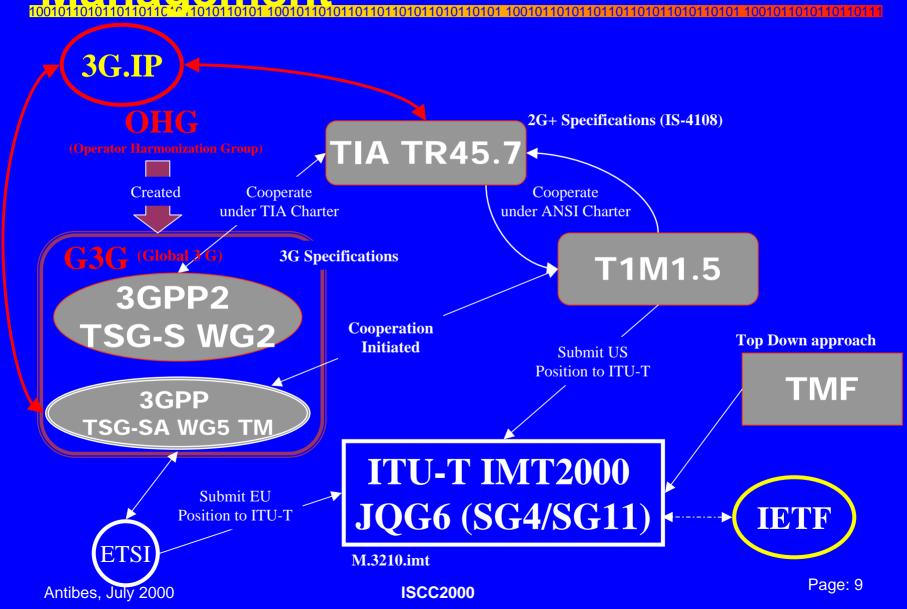
## **Wireless Evolution**





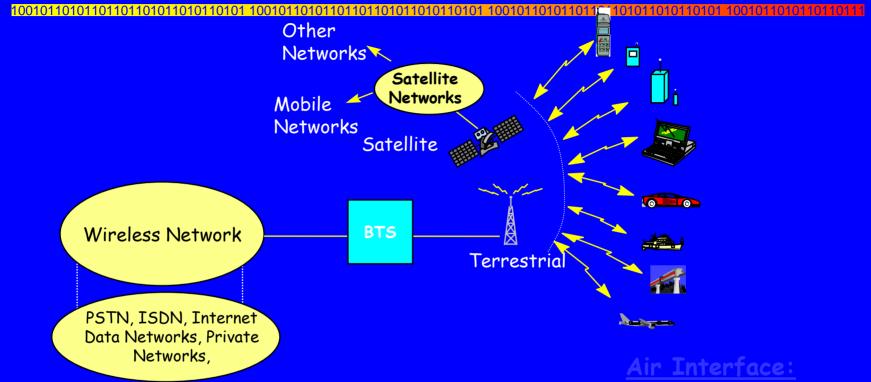
# Global 3G Wireless Network Management





# **3G Wireless Challenges**





- ·Varying degrees of mobility
- ·Significant data rates
- ·Many interfaces

- ·In-building 2 Mb/s
- Neighborhood
  - -Mobile 384 kbps
  - -Fixed 2 Mb/s
- · Wide-area 144 Kb/s

# **Thank You**



