
INDUSTRIAL TRAINING

TECH MAHINDRA LIMITED



Tech Mahindra



- ❖ * Formerly known as Mahindra British Telecom (MBT). Formed in 1986
- ❖ * Joint venture between Mahindra & Mahindra Limited (M&M) and British Telecommunications (BT), UK
- ❖ * Headquarters at Pune, India
- ❖ * ISO 9001:2000 certified and is also assessed at SEI-CMMi Level 5 and SEI-PCMMi Level 5.
- ❖ * Anand G. Mahindra, Chairman and Vineet Nayyar, Vice Chairman, Managing Director & CEO

Tech Mahindra



- * 2nd largest Telecom Software Provider in India (Voice & Data 2007)
- * 6th largest software services company in India (NASSCOM 2007) and 3rd largest BSS Systems Integrator.
- * The Tech Mahindra Foundation - addresses the educational needs of the underprivileged, especially children, as well as espouse the cause of women's empowerment in education.

Projects Overview

- * Research on Fixed Mobile Convergence (FMC) and its trend in Telecom Industry.
- * “Basic Understanding of OSS and its transformation”.

GENERATIONS OF CELLULAR NETWORK



* 0G

- * Push To Talk (PTT)
- * Mobile Telephone System (MTS)
- * The Improved Mobile Telephone Service (IMTS)

GENERATIONS OF CELLULAR NETWORK



* 1G



- * Analog Radio Signals
- * Voice call is only modulated.
- * Digital Signals between towers

GENERATIONS OF CELLULAR NETWORK



* 2G

* GSM

* CDMA

* CSD

GENERATIONS OF CELLULAR NETWORK



* 2.5G

* GPRS

* EDGE

* CDMA2000

* HSCSD

GENERATIONS OF CELLULAR NETWORK



* 3G

* EVDO

* UMTS (W-CDMA)

* UMTS (HSDPA, HSUPA, HSPA+)

GENERATIONS OF CELLULAR NETWORK

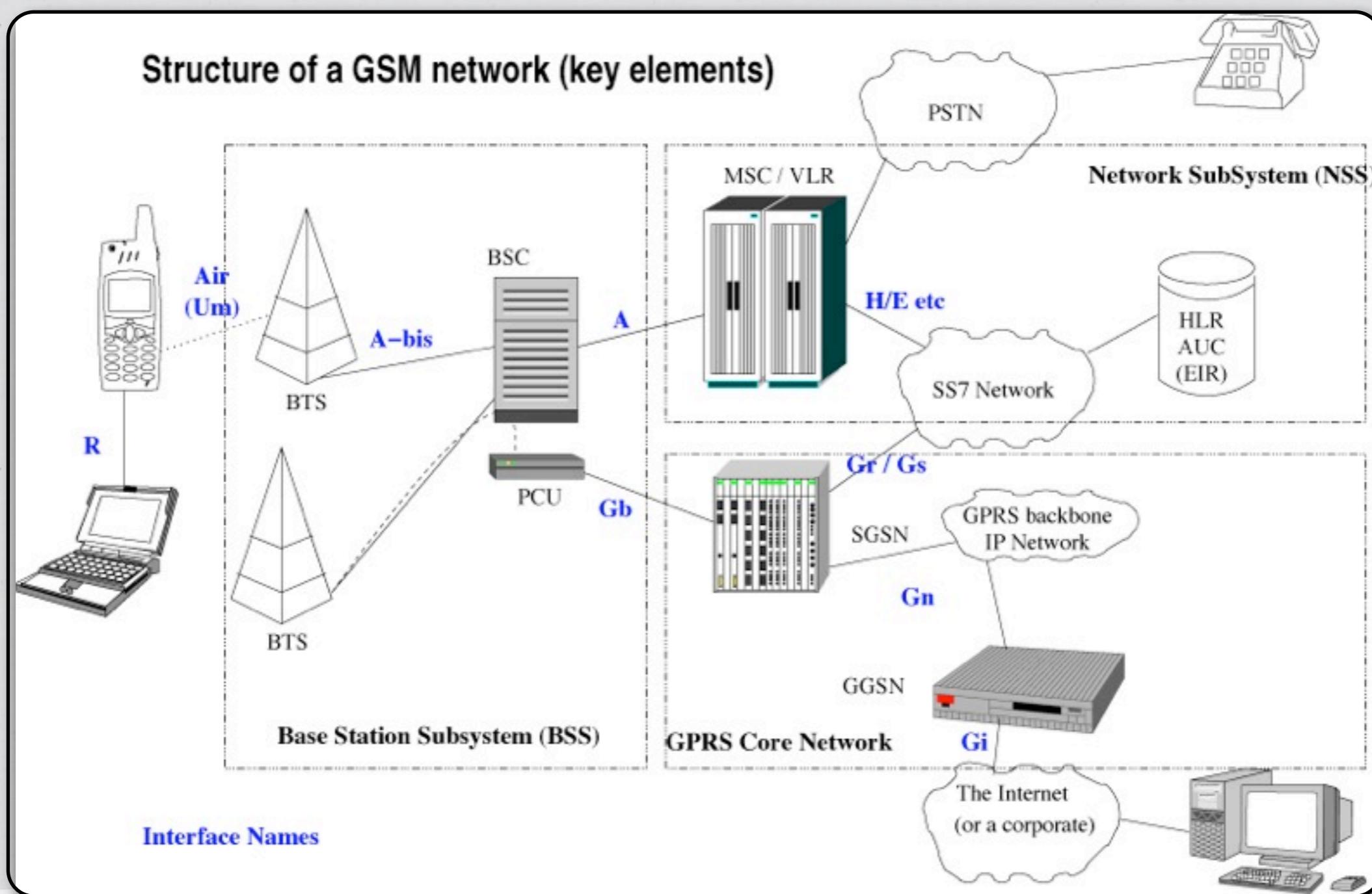


* 4G

* 3GPP LTE

* FLASH-OFDM

STRUCTURE OF GSM NETWORK



TECHNOLOGICAL CONVERGENCE



- * Media Convergence
- * Messaging Convergence
- * Multi Play
- * Fixed Mobile Convergence

FIXED MOBILE CONVERGENCE (FMC)



- * Dual Mode Handsets - WWAN + WLAN
- * FMC Alliance: BT, NTT, Rogers Wireless, Brasil Telecom, Korea Telecom and Swisscom.
- * 3GPP
- * Voice Call Continuity (Specification)
- * Generic Access Network (Implementation)
- * Competing Technologies - Femtocells

MobileVoIP

* Extension of mobility to a VoIP Voice over IP network.

* Technologies :-

* UMA

* SIP

Operation Support System (OSS)



* Business Support System (BSS)

* Development of OSS

* OSS Architecture

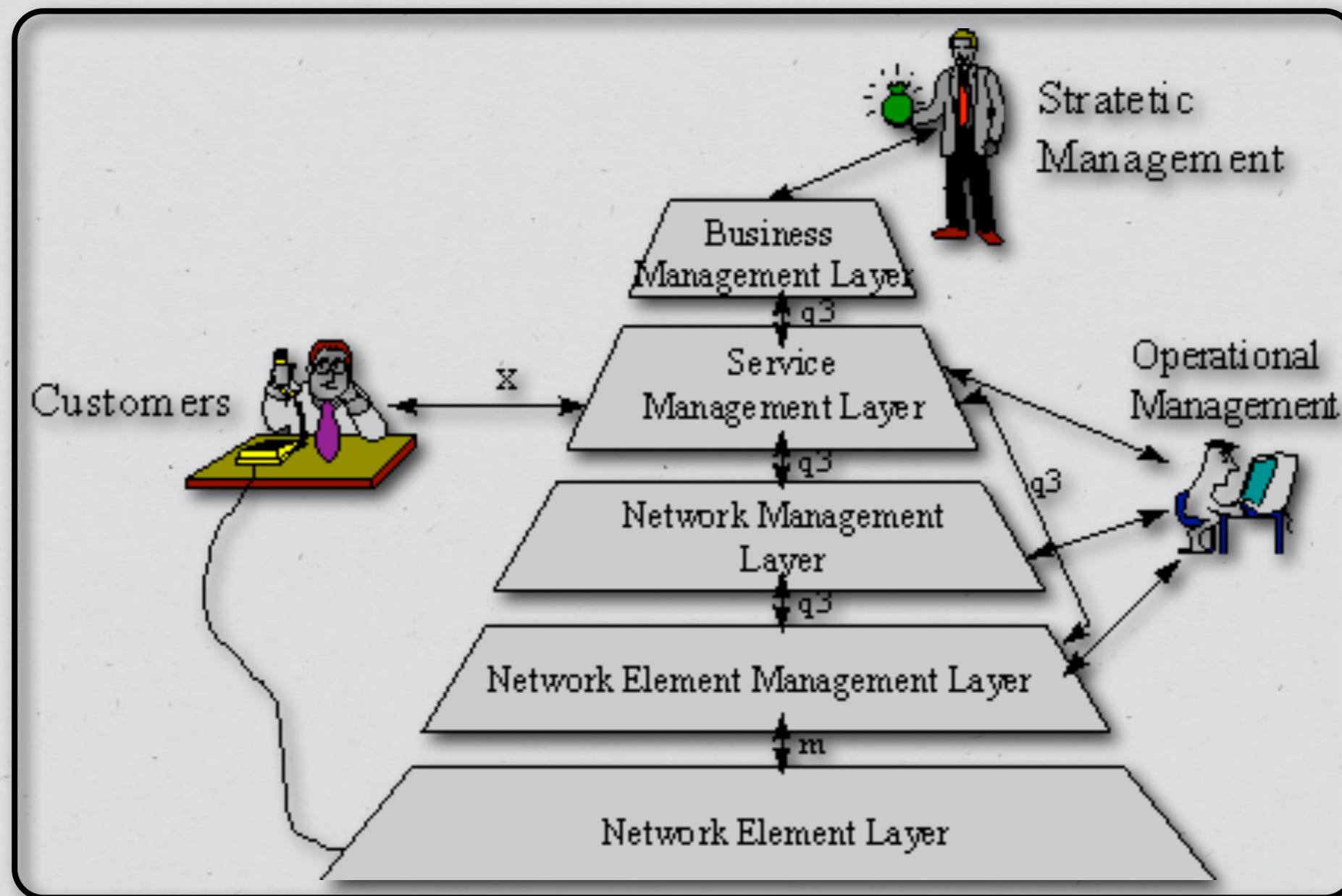
* Process

* Data

* Application

* Technology

Telecommunication Management Network(TMN) Model



New Generation OSS (NGOSS)



* Principles

- * Separation of Business Process from Component Implementation
- * Loosely Coupled Distributed System
- * Shared Information Model
- * Common Communications Infrastructure
- * Contract defined interfaces

OSS Through Java (OSS/J)

- * Aim - Develop APIs to integrate BSS and OSS
- * include Java, XML, and Web Services integration profiles.

THANK YOU!

VAIBHAV BAJPAI

