

NGN IMPLEMENTATION TTCL EXPERIENCE

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1. INTRODUCTION

- Background
- Drivers for Network Transformation
- Objectives of Network Transformation

2. NETWORK TRANSFORMATION TO NGN

- Planning Considerations
- Approach
- Envisaged Benefits & Services
- Implementation Status
- Challenges

INTRODUCTION (1)- Background

Current Industry Scenario....

- ✓ Liberalized & highly competitive environment
- ✓ enriched technological innovations
 - ◇ Emergence of new technologies - convergence: network, services, fixed/mobile
 - ◇ sophistications in network control & management and service provision
 - ◇ new technologies that optimizes OPEX & CAPEX
 - ◇ Clear vision & roadmap to future networks
- ✓ Converged licensing framework
- ✓ Etc, etc, etc.....

INTRODUCTION (2)– Background

Legacy Network Characteristics.....

- ✓ Lacks potentiality to incorporate current technological innovations
- ✓ Limited service support:- traditional voice & data services
- ✓ Parallel networks:- switched voice (TDM) & p2p narrowband data network (IP over TDM)
- ✓ Multi-vendors proprietary systems:- difficult system integration, Inefficient management systems
- ✓ Many obsolete systems (Switching, tx):- High Opex (ed) , deteriorated service quality, lack of spares, poor support from vendors due to ceased manufacturing

INTRODUCTION (3)

Drivers for network transformation

✓ Industry Forces:

- ◇ Obsolescence of legacy technology
- ◇ Technology shift: circuit-to-packet (IP) based platform
- ◇ Convergence (buzzword): Network, Service, fixed/mobile)

▶ Market Forces:

- ◇ Meet Consumer new expectations:- new VAS, convergence, packaging, convenience (portability & flexibility)
- ◇ Competition:- gain an edge,

▶ Regulatory Forces:

- ◇ New framework encourages shift to new technology
- ◇ Mandatory license obligations i.e phasing out of Manual exchanges, rural coverage, USA etc

INTRODUCTION (4)

Objectives of Network Transformation

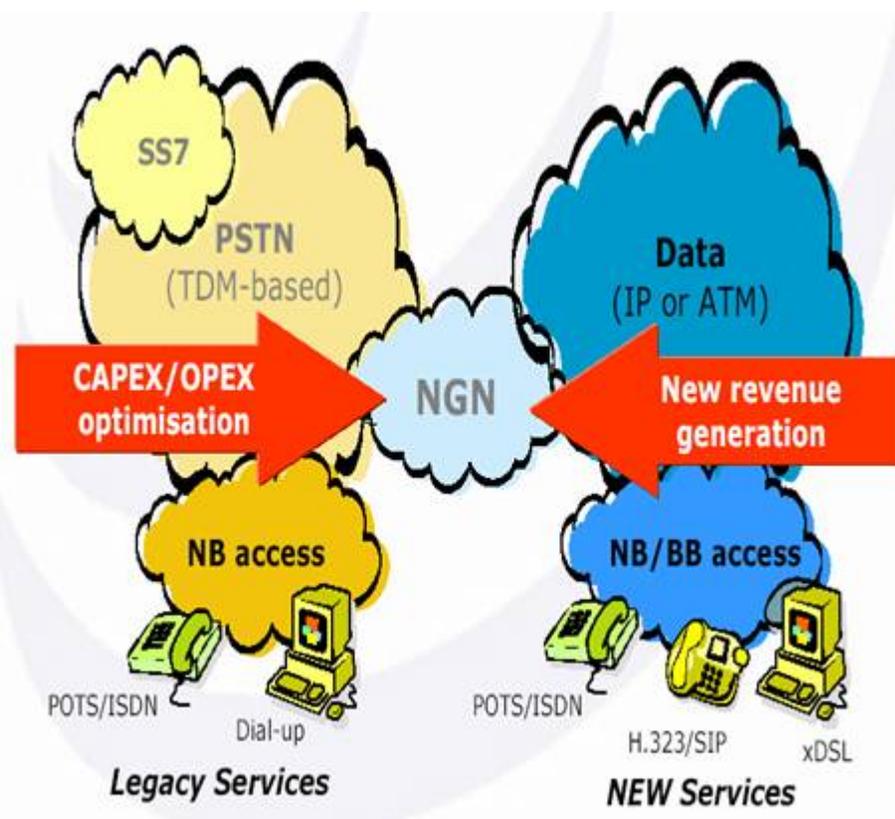
Profitability

✓ Cost to serve:- CAPEX and Opex

- ◇ Cost optimization by migrating network from PSTN to NGN
- ◇ Optimized performance: Control, management & service provision

✓ Business growth - more revenue

- ◇ New revenue streams from value added services on NGN network



NETWORK TRANSFORMATION TO NGN (1)

Planning Considerations

- ✓ Protect revenues derived from PSTN
- ✓ Review the Strategic Business Plan (SBP)
- ✓ Highlight the services to be offered/ introduced through various licences with long term perspectives
- ✓ Analyse the existing network (strength & limitation)
- ✓ Prepare plan, resources and process for the network transformation to NGN
- ✓ Identify suppliers with sensible roadmap toward NGN
- ✓ Implement

NETWORK TRANSFORMATION TO NGN (2)

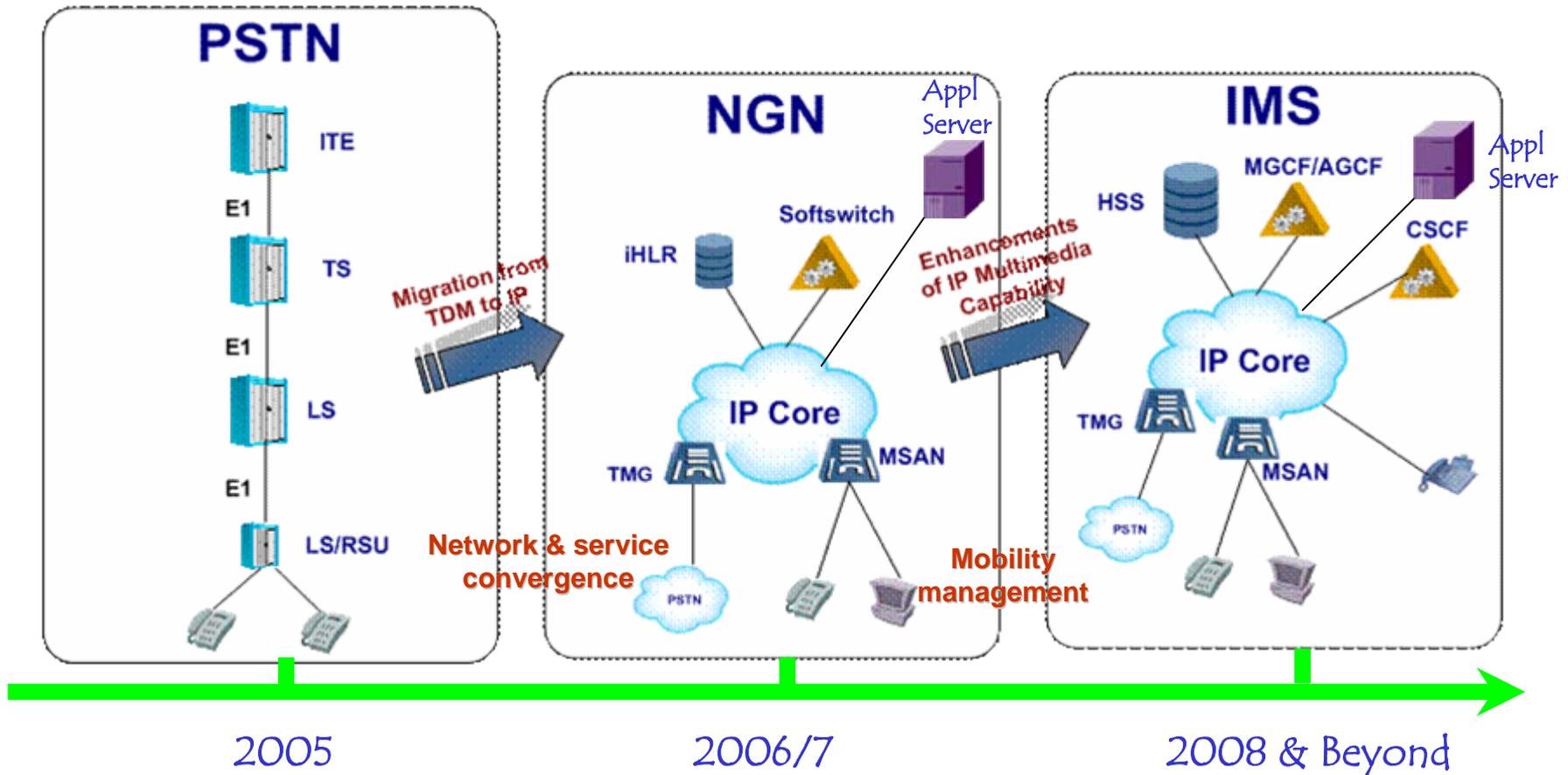
Approach.....

Gradual transformation (Keep & Grow):

- ✓ Implementing gradual and scaled process by reasonably integrating new platform while keeping the legacy network components (i.e exchanges) to their useful lifetime.
- ✓ To enable new network to co-exist with the legacy PSTN for a reasonable time period before fully migration to NGN.
- ✓ Cost effective approach: leaves PSTN components to be removed gradually by replacing with the NGN/IMS compliant nodes on basis of their obsolescence.

NETWORK TRANSFORMATION TO NGN (3)

Phased approach - Major Stages



NETWORK TRANSFORMATION TO NGN (4)

Envisaged Benefits

- ✓ Protect revenues derived from PSTN
- ✓ Generate new revenue from NGN
- ✓ Optimize costs (CAPEX/OPEX) on network & service provision expenditures
- ✓ Satisfy consumer demands in the dynamic market
- ✓ Accelerate time-to-market and profitability with value-added, differentiated solutions designed to improve the overall customer experience.
- ✓ Gain a new competitive edge
- ✓ Implement and manage modern & future proof network
- ✓ Efficiently monitor and manage the introduction of new and innovative services to fuel ongoing revenue growth.

NETWORK TRANSFORMATION TO NGN (5)

Target Services.....

Application services

- ✓ E-mail
- ✓ Managed MPLS VPN
- ✓ Web-based self-care
- ✓ Bandwidth on Demand
- ✓ IP Centrex services
- ✓ Video-Phone
- ✓ Video conferencing
- ✓ VoIP
- ✓ Easy Networking (Simple VPLS services)
- ✓ Web-hosting and blogging

NETWORK TRANSFORMATION TO NGN (6)

Target Services.....

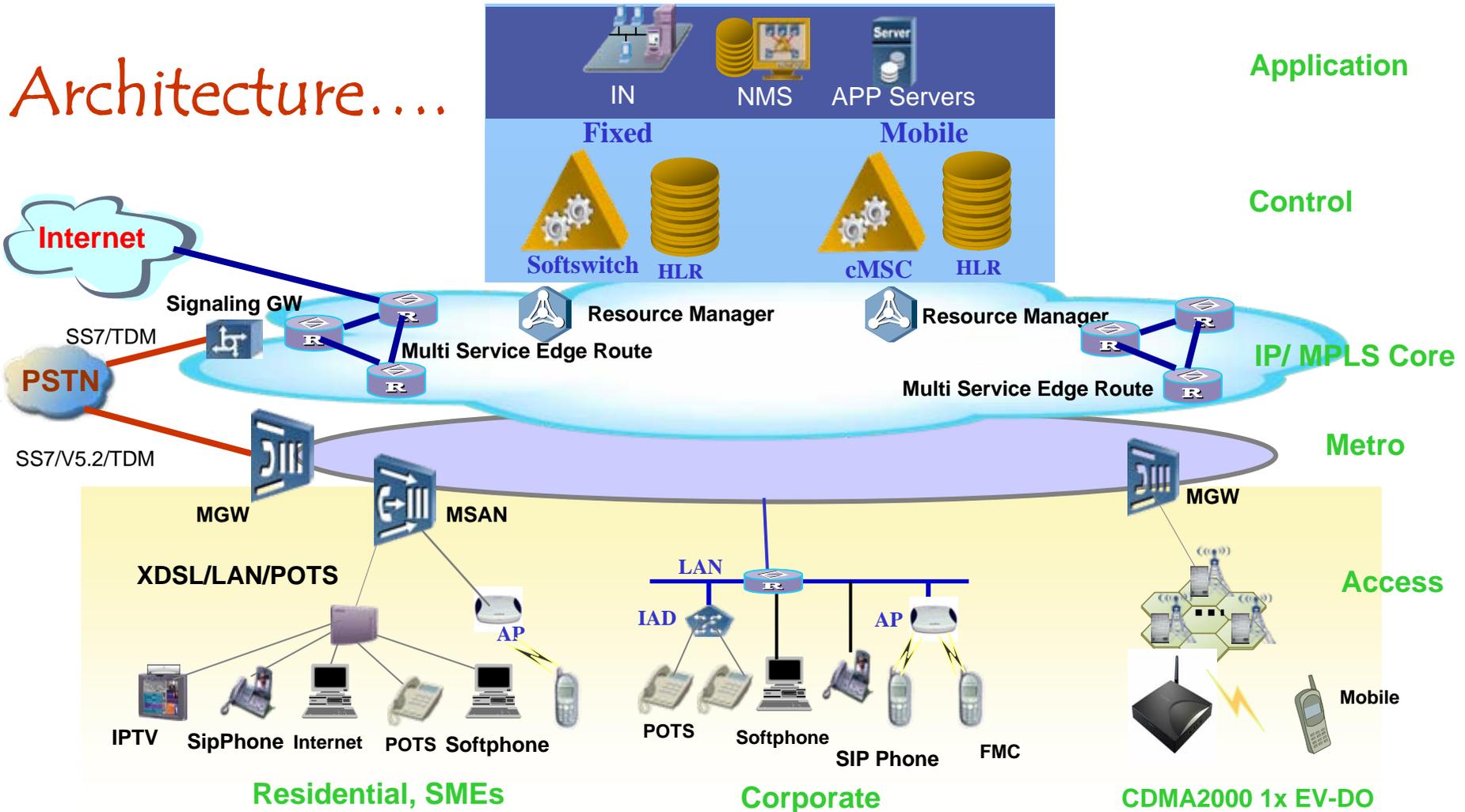
Content Services

(Work with 3rd Parties–Revenue sharing basis)

- ✓ Video on Demand
- ✓ Music on Demand (e.g. Bongo Flava, Mipasho, etc ..)
- ✓ IP Broadcasting (TV & Radio)

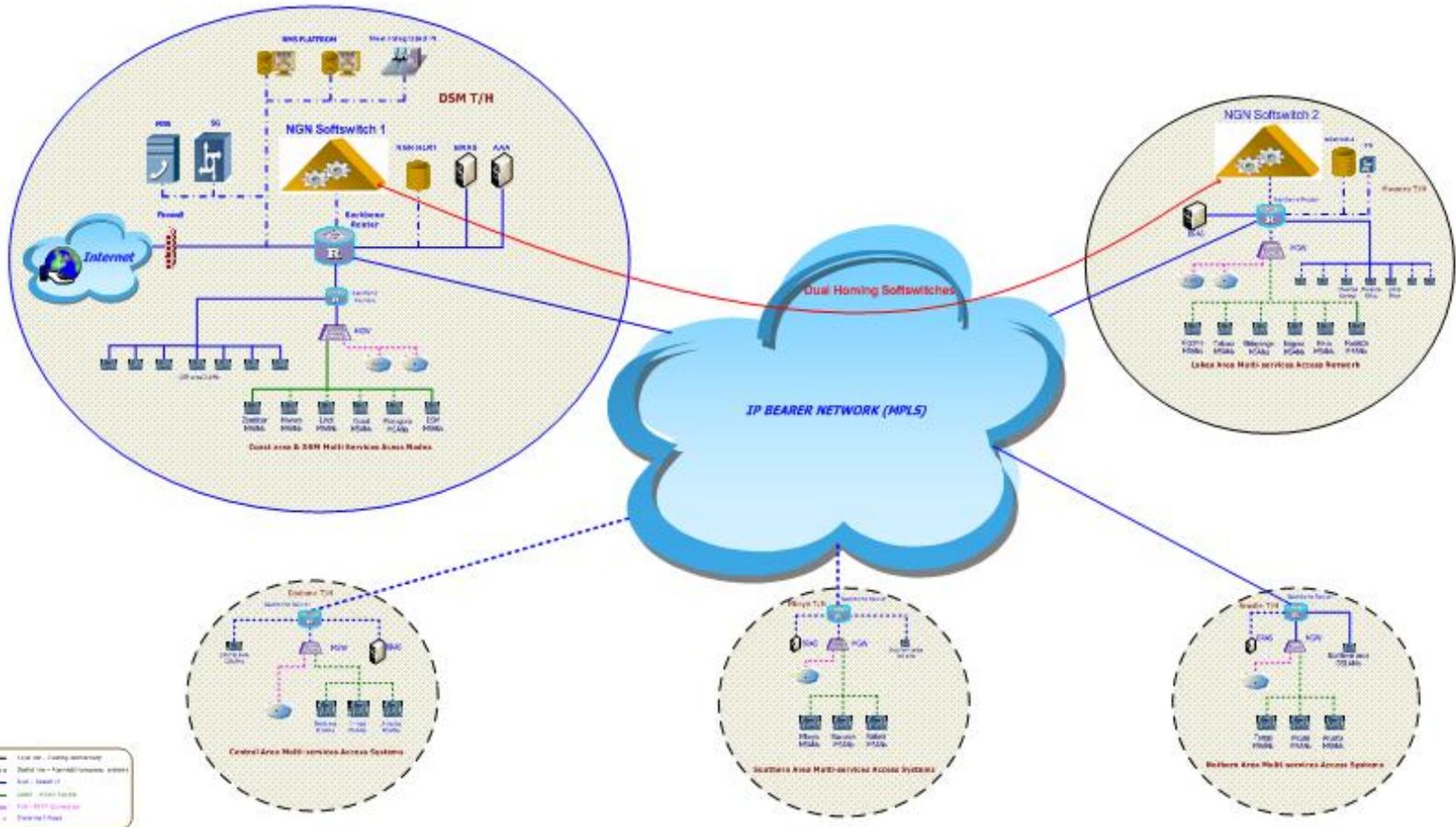
NGN IMPLEMENTATION STATUS

Architecture....



IMPLEMENTATION STATUS 2006-2007

TTCL NGN NETWORK DEPLOYMENT PLAN



CHALLENGES.....

- ✓ Competing
- ✓ In house skills-Technical, Marketing, Sales
- ✓ Resources – inadequacy
- ✓ Network integration challenges
- ✓ Consumer awareness of new product & services

Thank you!