NGN IMPLEMENTATION
TTCL EXPERIENCE
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1. INTRODUCTION
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2. NETWORK TRANSFORMATION TO NGN
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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:
  - Obsoleteness 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
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
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
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 obsoleteness.
Phased approach - Major Stages

- **2005**: PSTN
  - ITE
  - E1
  - TS
  - LS/RSU
  - Migration from TDM to IP
  - Network & service convergence

- **2006/7**: NGN
  - Softswitch
  - iHLR
  - IP Core
  - MSAN
  - PSTN
  - Enhancements of IP Multimedia Capability
  - Mobility management

- **2008 & Beyond**: IMS
  - HSS
  - MGCF/AGCF
  - CSCF
  - IP Core
  - MSAN
  - PSTN
  - Appl Server
  - Appl Server

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.
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
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....
CHALLENGES.....

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