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NGN Migration Strategies & Scenarios

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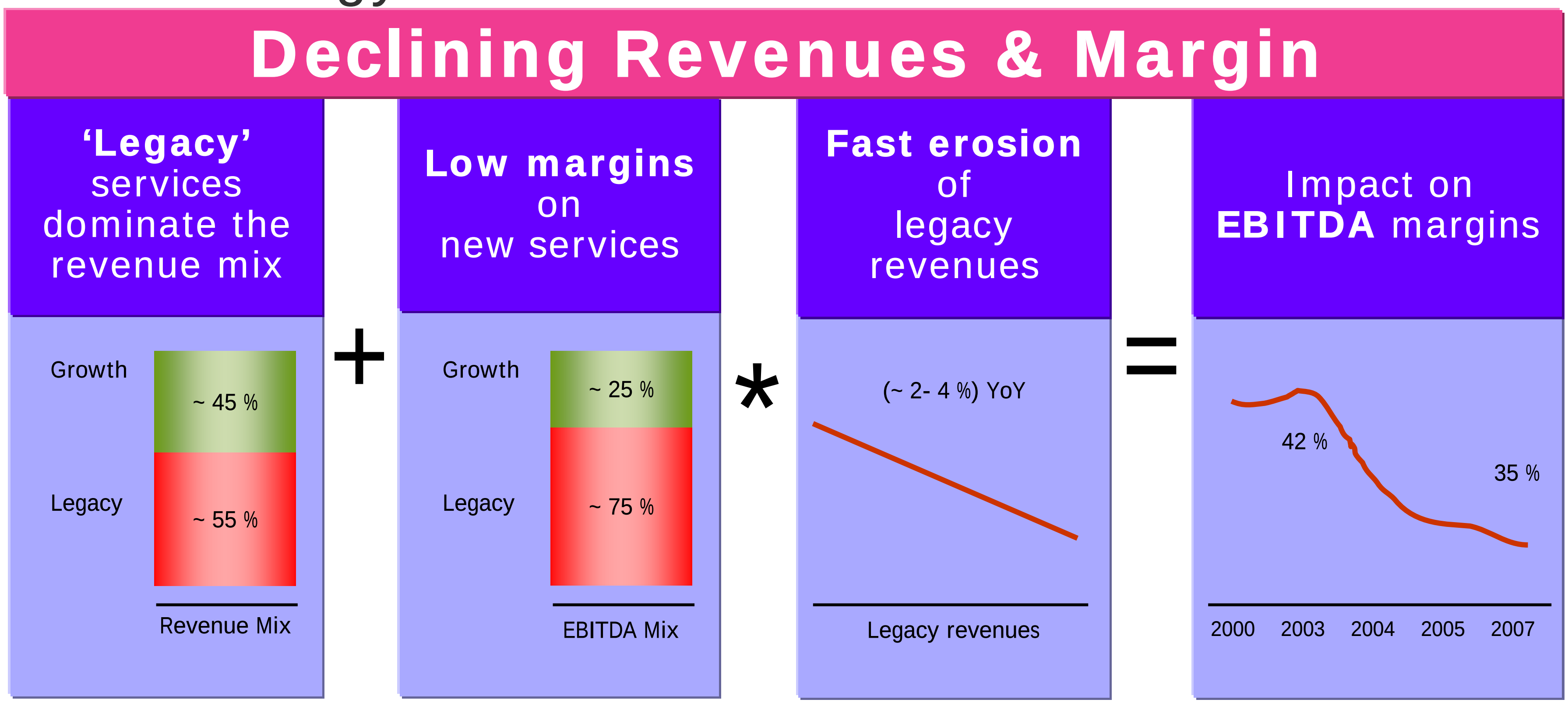
Agenda

- Drivers for NGN migration
- What needs to be migrated
- Migration Approaches & Perspectives
- Migration Strategies
- Summary

What is the Need to Migrate (1)?

Current Service Provider's Environment:

- Declining revenues from legacy services
- High operational expenses
- Technology Silo's



Source: service provider reports, Morgan Stanley

What is the Need to Migrate (2)?

Comparison of Service Providers with New Entrants

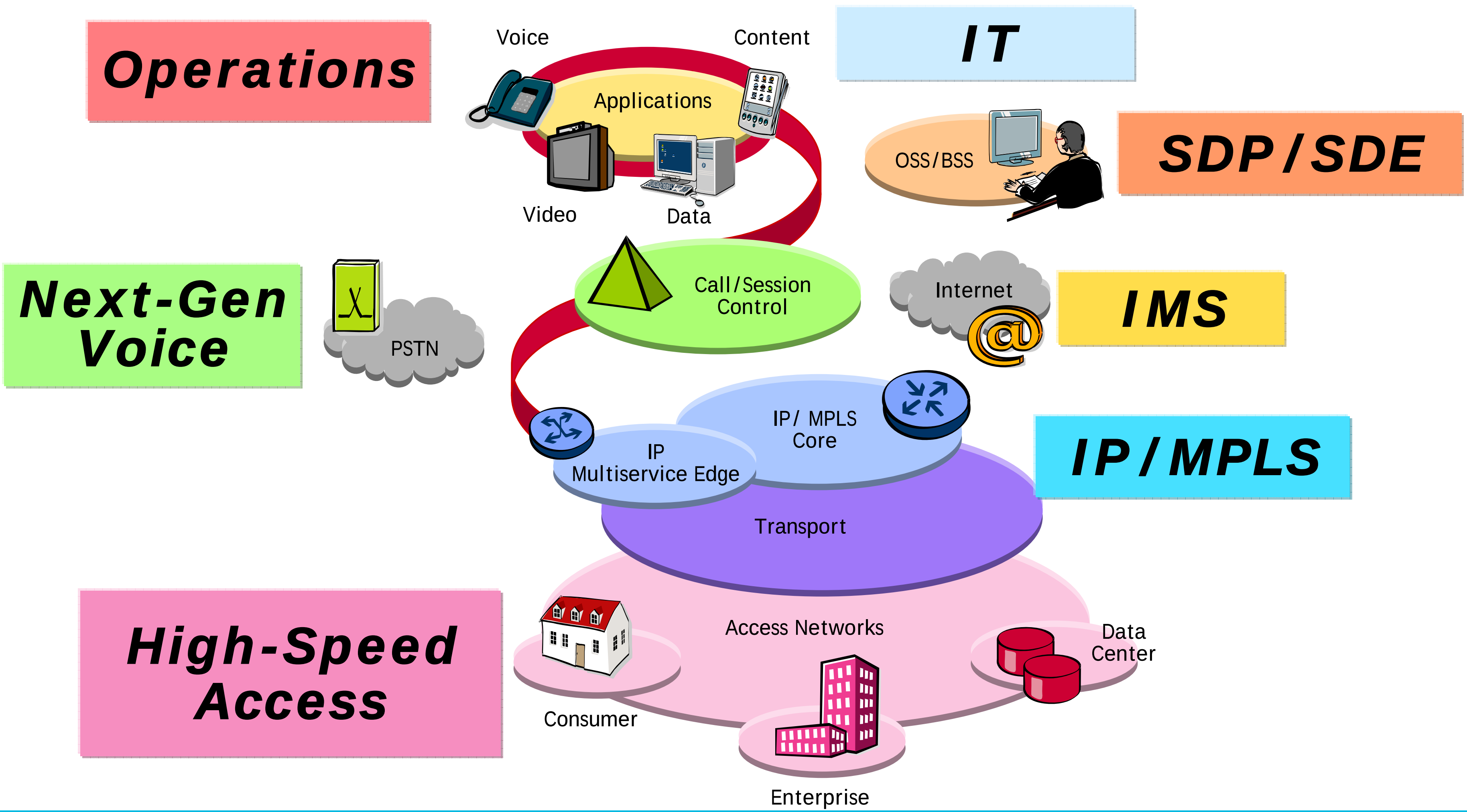
Low return of investment & limited innovation

	Market Cap /Revenue	EV/PPE	OPEX /Revenue	CAPEX /Revenue
Traditional service Providers	**< 3**	**< 5**	**> 62%**	**> 18%**
New market players (Google, Yahoo, eBay, ...)	**> 8**	**> 53**	**< 47%**	**< 10%**

EV = Enterprise Value; PPE = Property, Plant, Equipment

Source: the Yankee Group, Alcatel-Lucent

NGN Migration: What Needs to be Migrated?



Migration is needed at all layers of the infrastructure

NGN Migration: No One Common Approach

- Mobile NGN to greatly reduce the cost of wireless core network

"… positioned to quickly provide our customers with new innovative services, while optimizing our switching costs."
Cole Brodman, Senior VP & Chief Development officer for T-Mobile USA

- Fixed NGN for fixed voice evolution and IMS MM over broadband

"Enterprise FMC is a perfect demonstration of BT's strategy that customers should be perfectly connected anywhere, regardless of networks and handsets"

Steve Andrews MD Strategy, Convergence and Products, BT

- SDF & IMS for launching new services across fixed/mobile networks

"To give the customer a powerful, seamless user experience across all devices and all platforms in a 1 Click, 1 Touch, 1 Button, 1 Screen way – whether that customer is an individual, small business, large business or governmental agency"

Sol Trujillo, CEO

Migration- Different Perspectives

Service Provider's perspective | **End-User's perspective**

Migration Strategies

Subscriber-driven

end-users opt for IP-based service

Benefits:

- Lower initial CapEx due to staged deployment
- Minimal feature transparency or lower costs for transition
- Greater customer tolerance for transition issues

Trade-offs:

- Higher costs due to multiple touches in access network
- Longer term overlay network leading to higher costs
- Extreme workload on provisioning systems

Carrier-driven

Operators based schedule

Benefits:

- Lower transition costs due to better control of customer transitions
- Lower OpEx due to rapid legacy decommissioning
- Avoids creation of additional technology silos

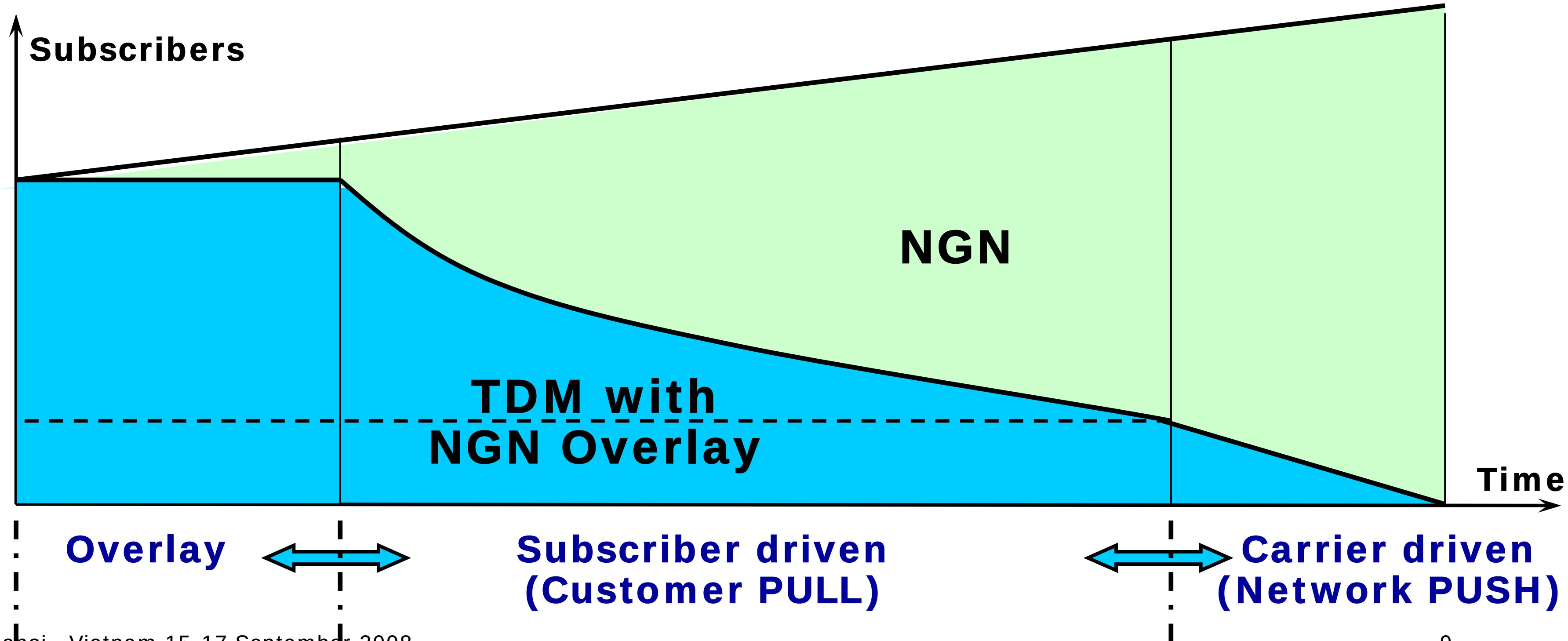
Trade-offs:

- Higher costs due to stringent feature transparency
- Higher initial CapEx without much revenue from new services
- More sensitive to End-User impact

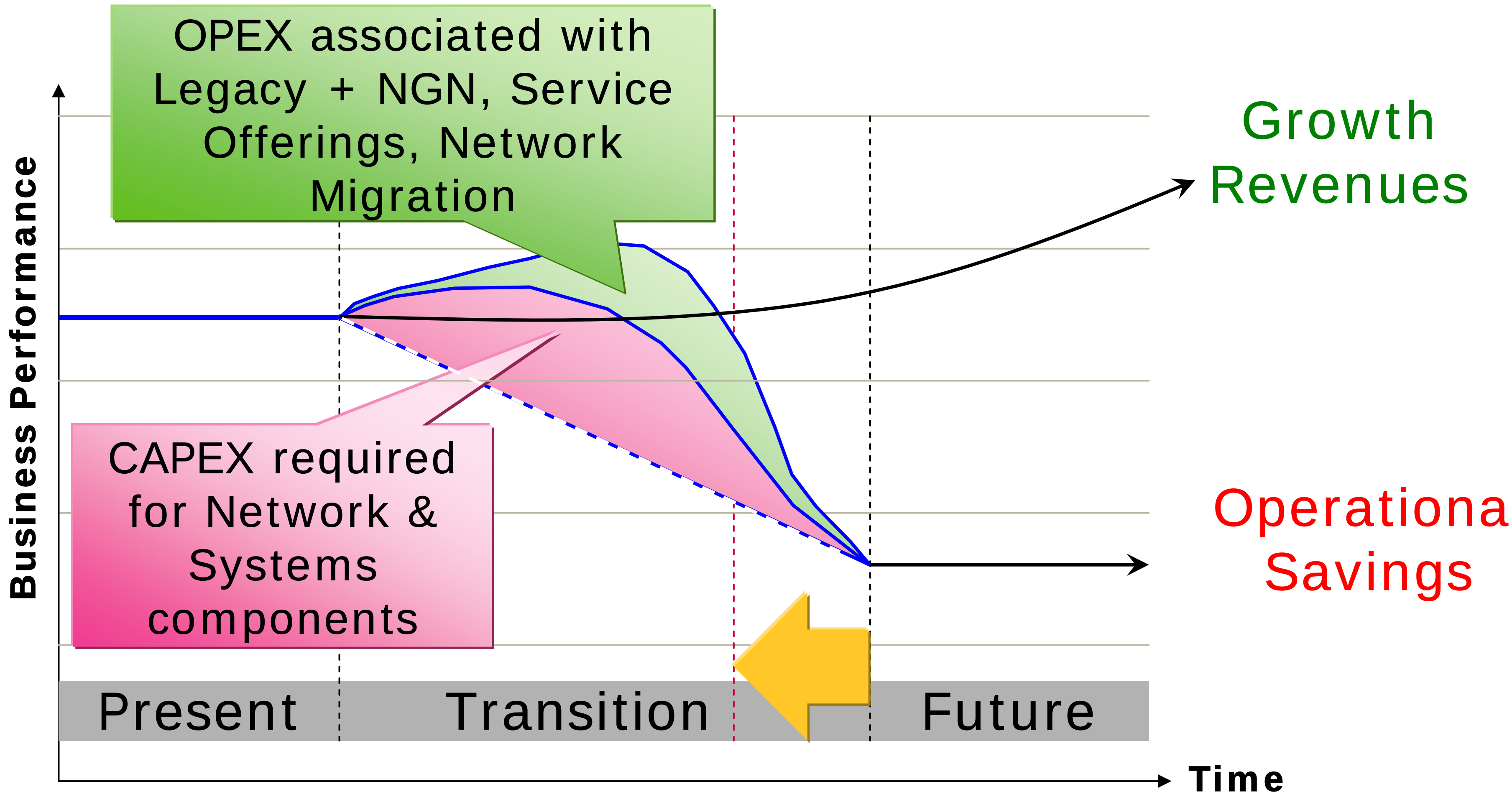
Most IP migration programs have evolved to blend both

Combined Migration Strategy

1. Overlay capability is first established and used to serve growth
2. New additions to legacy network discontinued at appropriate time
3. Carrier driven migration used to complete migration when legacy networks reaches a critical threshold

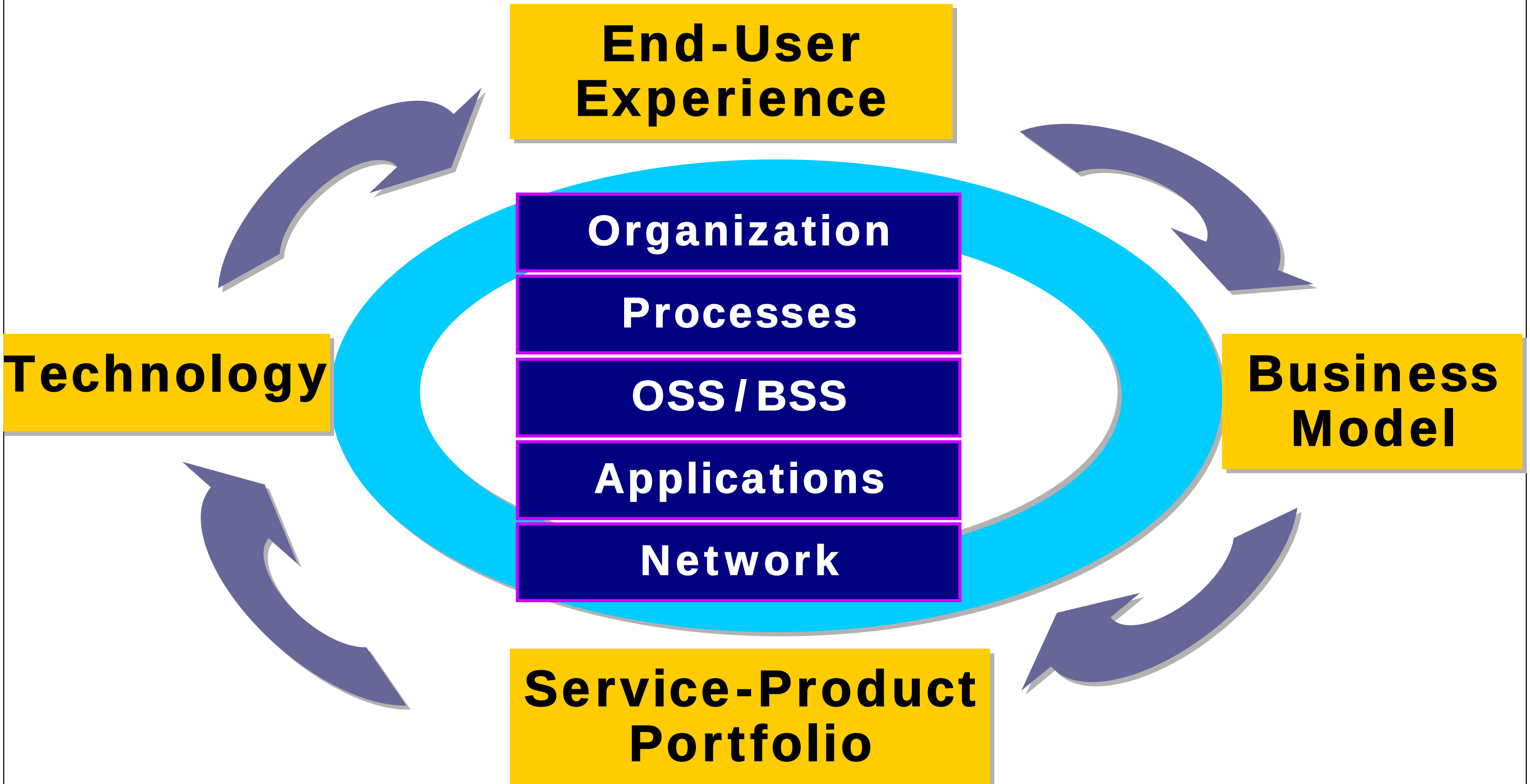


Migration Approaches & Transition Costs



Time is critical: flatten the curve + shorten the time to maximize savings

NGN Migration Needs a Holistic Approach



Migration is not only about technology, successful migration needs sound business decisions

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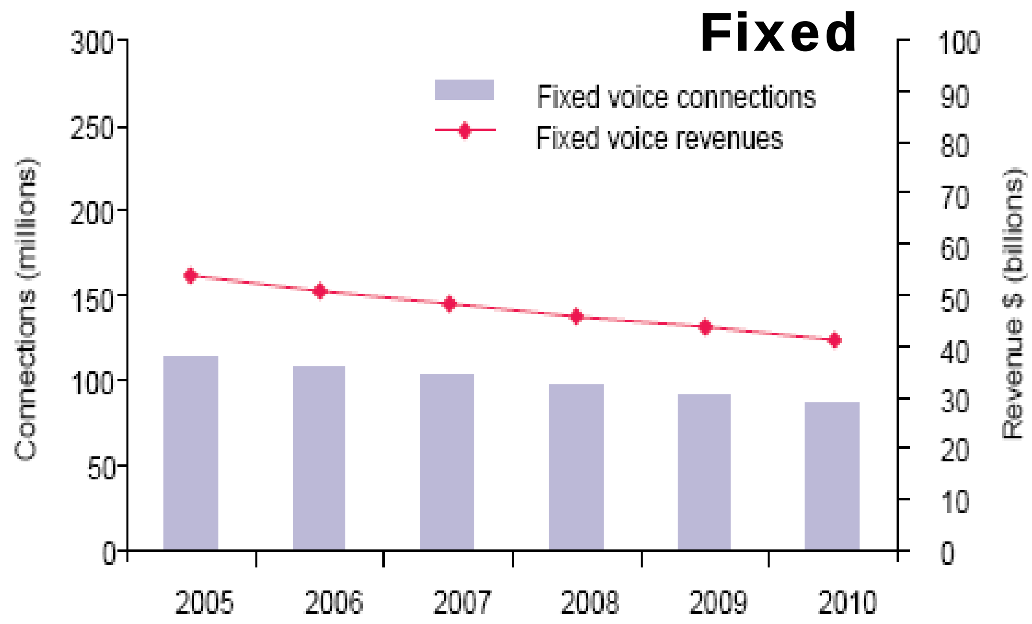
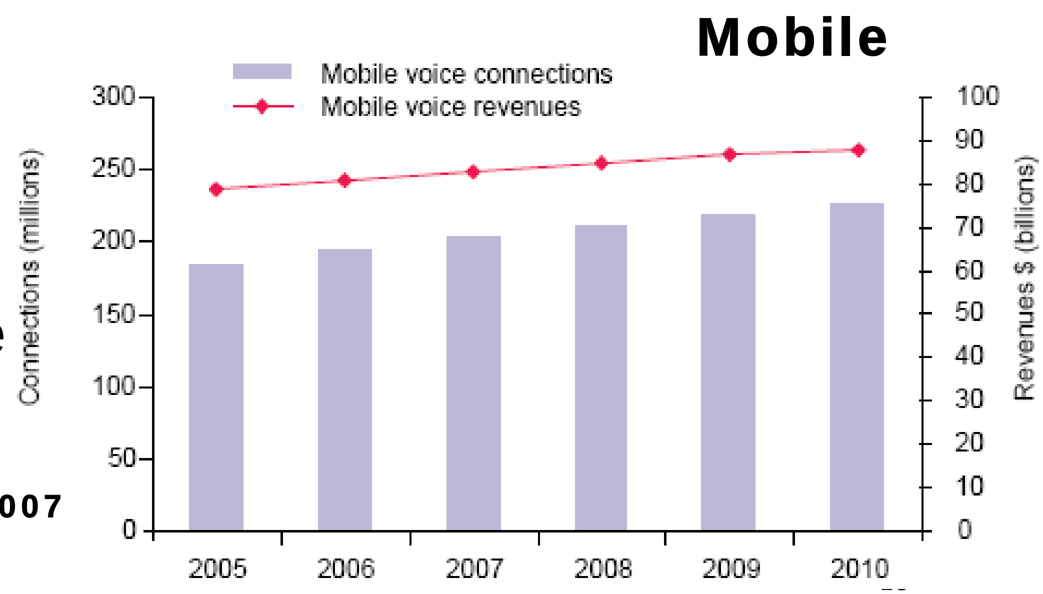
Future of Voice in Asia-Pacific

Developed Markets:
(2005-2010)

- Fixed voice connections to decline by about 20% and revenues to decline by about 30%
- Mobile voice connections to increase by about 22% and revenues to increase by about 13%
- VoIP revenue to increase from 4% to 13%





Source: Ovum 2007

Future of Voice in Asia-Pacific

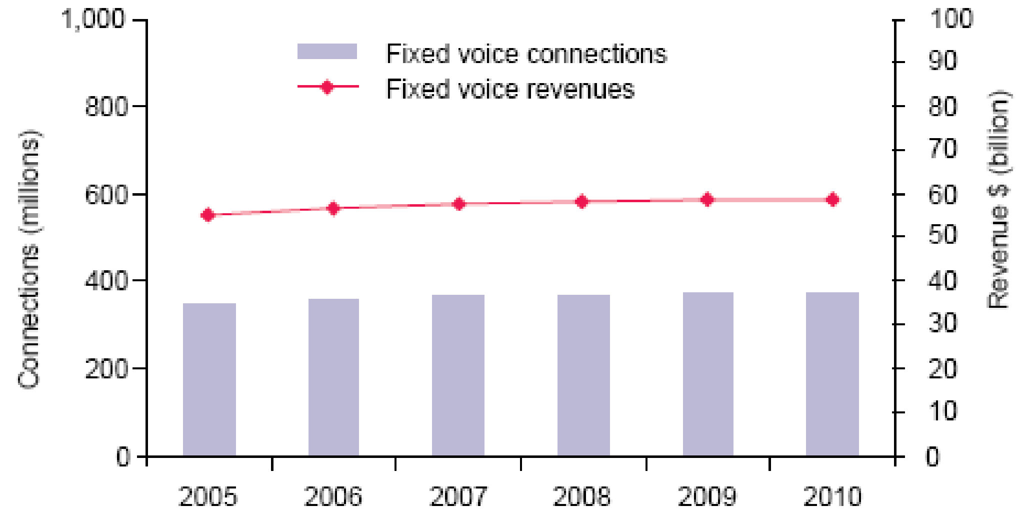
Emerging Markets:
(2005-2010)

- Fixed voice connections and revenues will marginally improve

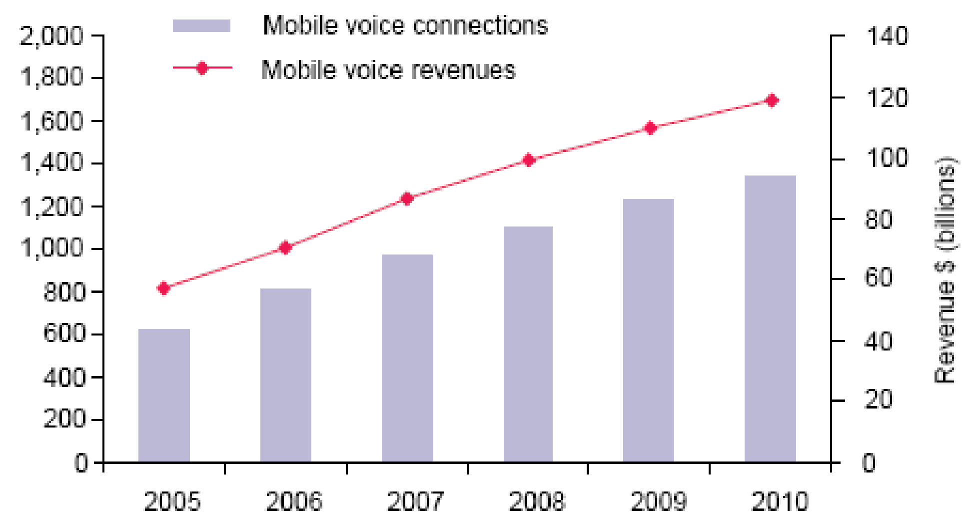
- Mobile voice connections and revenues will almost double

- VoIP revenue to increase from 4% to 13%

Fixed



Mobile



Source: Ovum 2007