ITU / BDT Regional Seminar
Guidelines on the smooth transition of existing mobile networks to IMT-2000 – ARB Region

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Convergence Strategy for Universal Operators and role of Business Planning

Oscar González Soto
ITU Consultant Expert
Strategic Planning and Assessment

Convergence Strategy and Business Planning Content

- Key factors in Evolution
  - Convergence domains
  - Cost structure and Economies of scale
  - Competition Level
- A stair case strategy for a universal operator
  - Business trends per category
  - Migration steps towards universal operation
- Convergence at Network, Services and IT platforms
  - Architectures for convergence per domain
- Business planning and impacts of competition level

Convergence Strategy and Business Planning
Convergence domains

Convergence may follow many directions

- At Service level (Fixed and Mobile, Interactive and Broadcasting, etc.)
- At Network level (One network for all service types: NGN)
- At radio Access level (DECT, WiMax, 3G, etc.)
- At Operational level (OSS, Billing, etc, for all customer classes)
- At Terminals level (2G, 3G, PDA, etc.)

Which one will happen ? → Driven by Market, Economy of scale and competition

Convergence Strategy and Business Planning
Key Factors: Cost structure and savings

– High cost impact of network infrastructure layer: > 60% in Greenfield areas of which > 70% in access segment.

– Dimensioning and cost evolving in 3 phases through time:

  – A) Accessibility due to Geo coverage either physical or radio

  – B) Equipment in Ports/users as customers grow

  – C) Capacity in Traffic due to increase of multiservice applications

– Significant savings by resources and equipment sharing within an operator due to convergence at network layers : i.e.: 30%

– Additional savings inter-operators due to cost sharing of non-core equipment (buildings, towers, etc.) > 20%

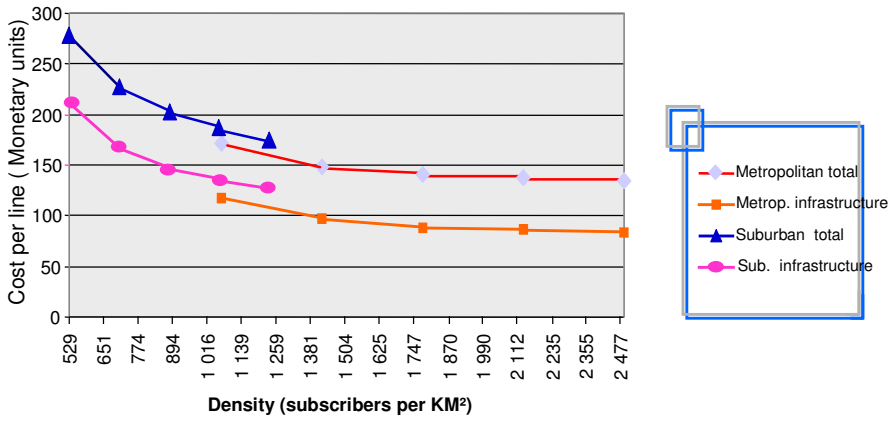
Convergence Strategy and Business Planning
Key Factors: Economies of scale

Economies of scale are an inherent characteristic to the telecom technologies that impacts on solutions, evolution and also now survivability in competition

– **The five dimensions of the economy of scale:**

- **By Size of the systems → Larger systems cheaper per unit**
- **By Technology capabilities → New technologies with higher capacity**
- **By Traffic efficiency with the occupancy → Higher utilization for a given GoS when more servers**
- **By customers Density → Quadratic increase with coverage radio**
- **By Volume of purchasing → Discount per volume in log scale**

Convergence Strategy and Business Planning
Key Factors: Economies of scale by density
Metropolitan and suburban scenarios



High impact of customer density in cost per line and higher impact on Rural (up to 20 to 1)

Convergence Strategy and Business Planning
Key Factors: Competition level

Different Levels of Competition

- L1) Monopoly for all geographical areas, customer classes and service types
- L2) Limited monopoly per area and/or service types while free operation for niche operators
- L3) Moderate competition for all network segments and services
- L4) High competition for high revenue customers and services
- L5) Aggressive competition for all areas, customers and services

"Efficient telecom implies different competition levels as a function of country size and development status"

Convergence Strategy and Business Planning
Key Factors: Competition level

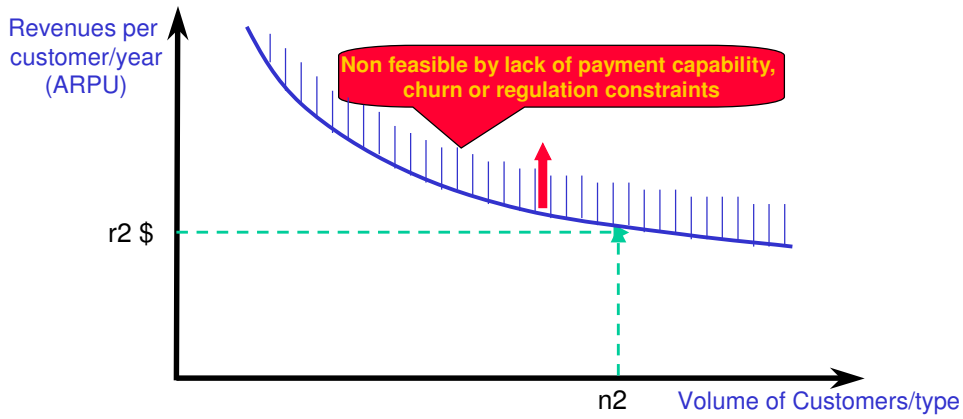
Key factors for survivability in competition

- Push for new services
- Imaginative pricing strategies and bundles
- Actions for market share capture and better take-up rate
- Actions do minimize churn
- Actions to decrease Cost of Ownership and share common resources
- Business profitability positive and within or better than indicators benchmark

Convergence Strategy and Business Planning

Key Factors: Competition

Business feasibility space as a function of volume and ARPU

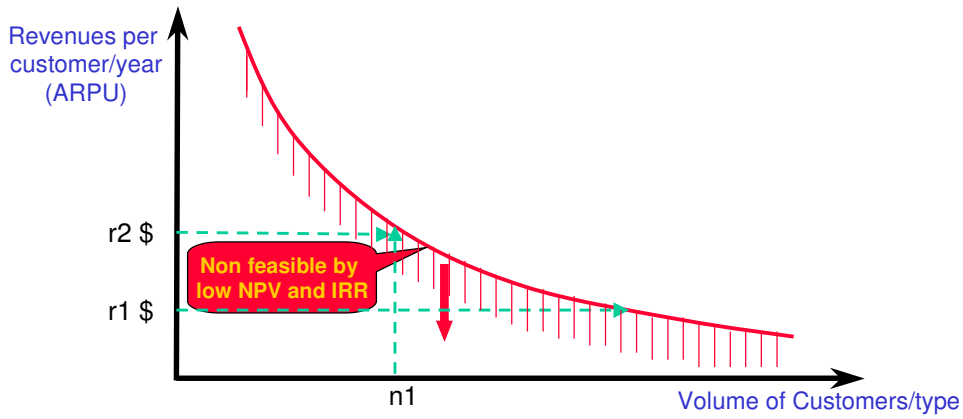


ARPU is limited by the economical development level and fixed costs

Convergence Strategy and Business Planning

Key Factors: Competition

Business feasibility space as a function of volume and ARPU

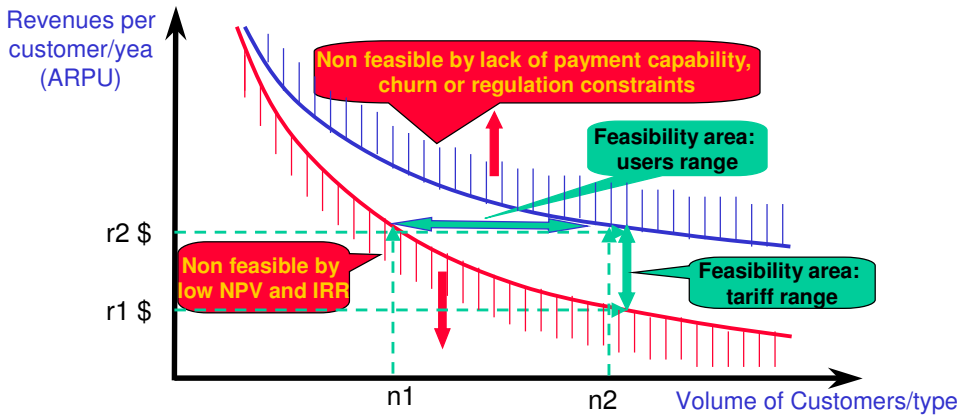


Business feasibility limitted by positive NPV

Convergence Strategy and Business Planning

Key Factors: Competition

Business feasibility space as a function of volume and ARPU



Feasibility space highly dependent on country size and economical level

Convergence Strategy and Business Planning Content

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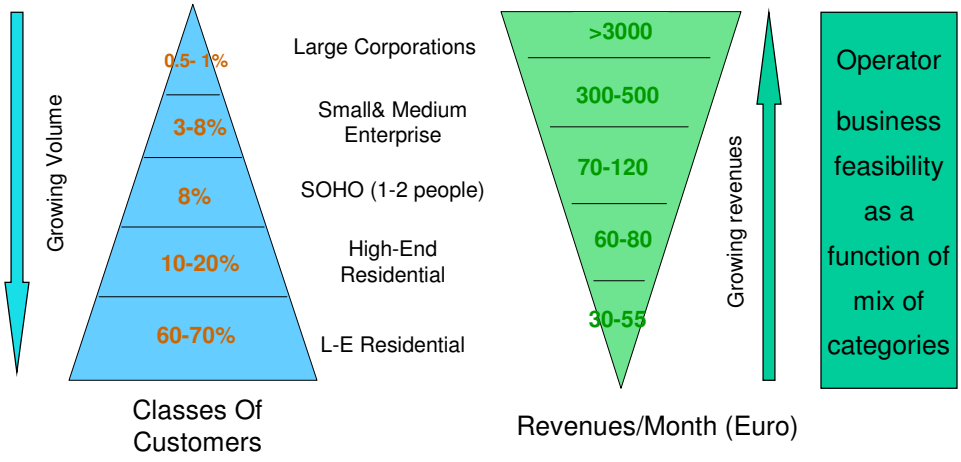
Convergence Strategy and Business Planning

Business domains and trends

Illustration case for customer categories and revenues

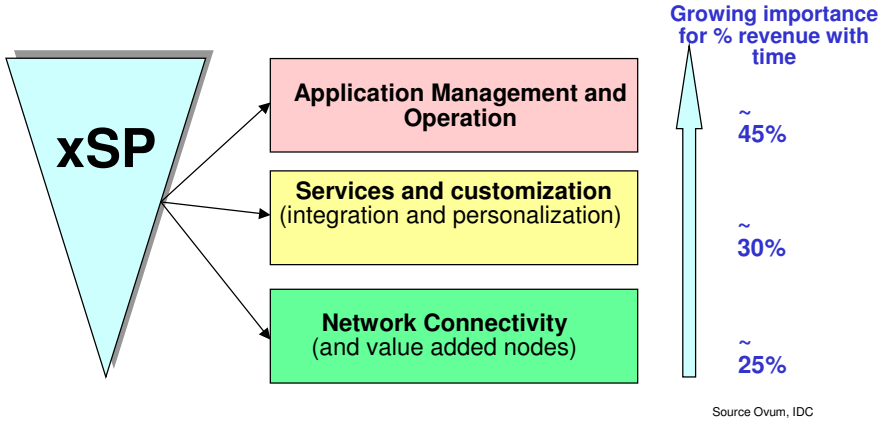


"Customer stratification should be analyzed per country"

Convergence Strategy and Business Planning

Business domains and trends

Trends for new application revenues in the future

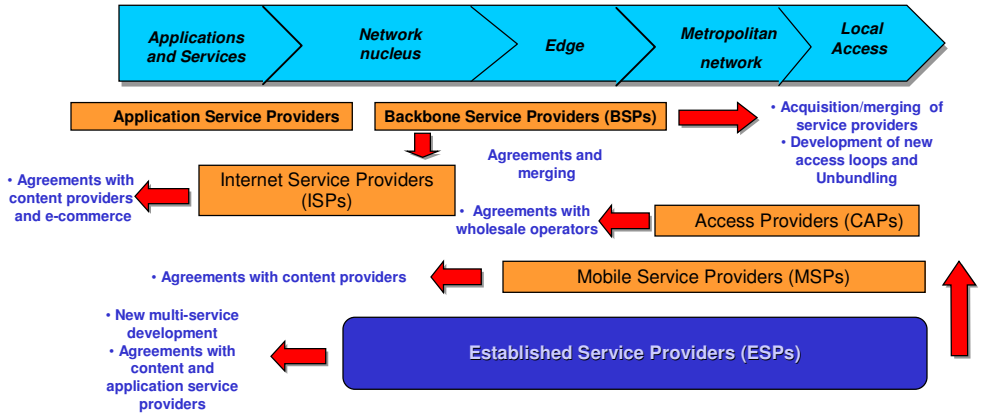


Source Ovum, IDC

Convergence Strategy and Business Planning

Business domains and trends

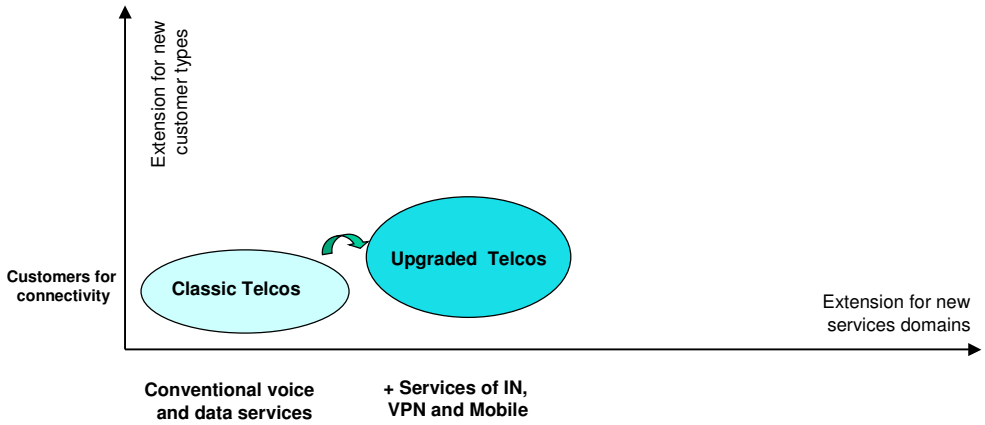
Example of Value Added chain and operators movements to gain economy of scale and market



Convergence Strategy and Business Planning

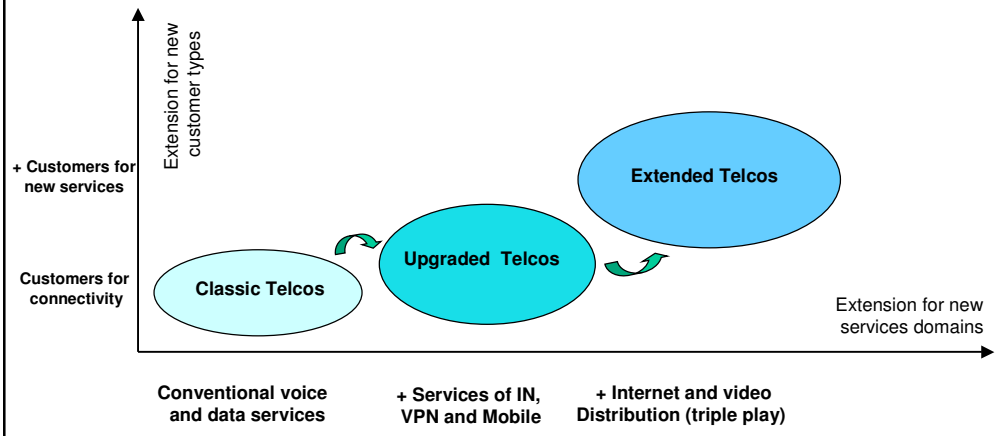
Migration steps

"staircase" for leading growing alternatives



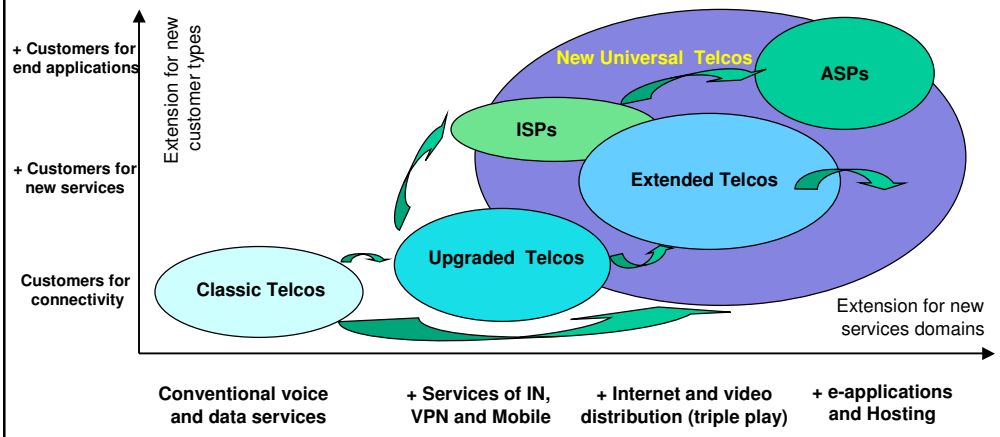
Convergence Strategy and Business Planning
Migration steps

"staircase" for leading growing alternatives



Convergence Strategy and Business Planning
Migration steps

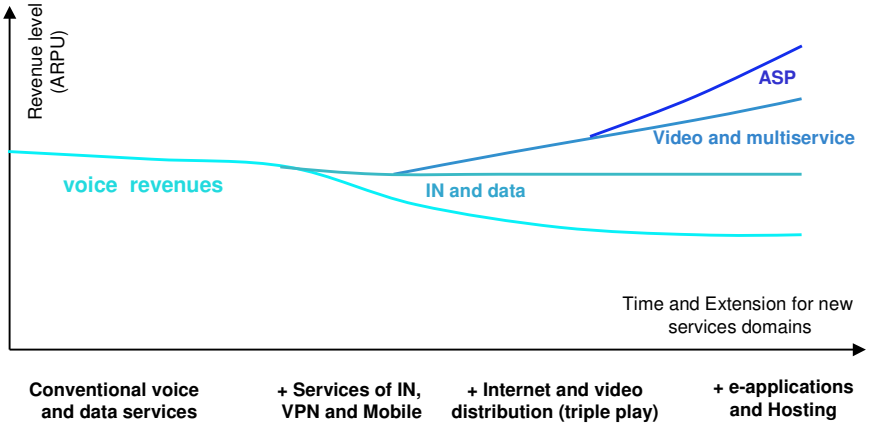
"staircase" for New Universal Telcos



Specific migration and timeframe to be optimized for the country context and regulatory conditions

Convergence Strategy and Business Planning
Migration steps

Evolution of revenues with service domains



Convergence strategy is fundamental to be competitive and to grow

Convergence Strategy and Business Planning
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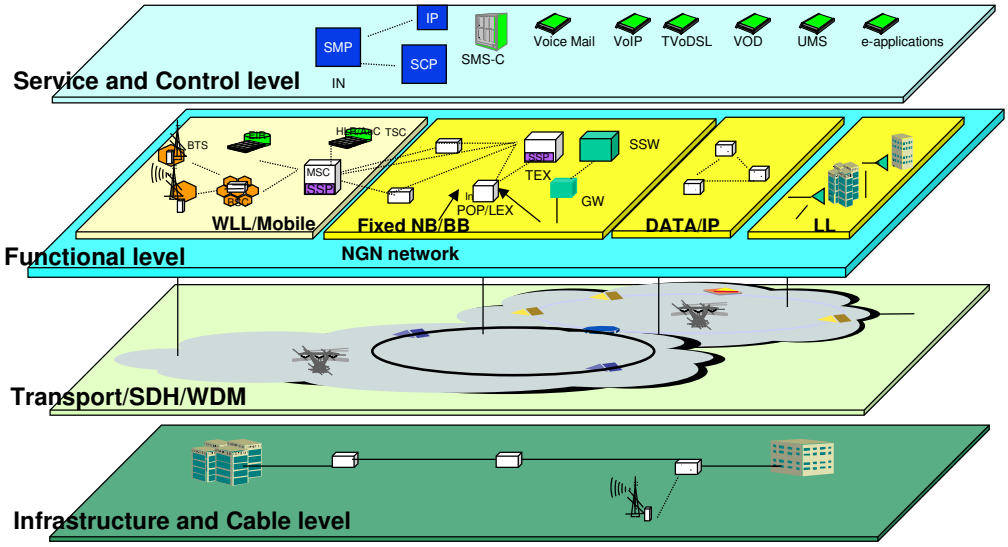
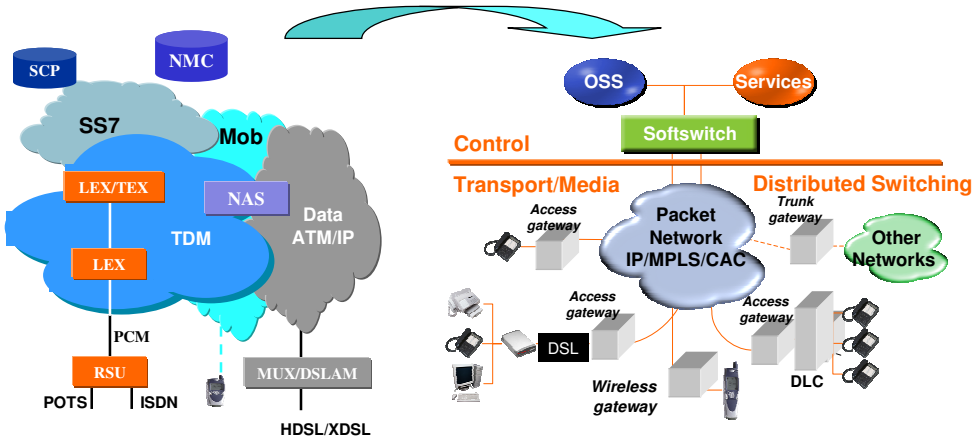
Convergence Strategy and Business Planning
Network Layer Modeling



Convergence Strategy and Business Planning
Evolution towards NGN

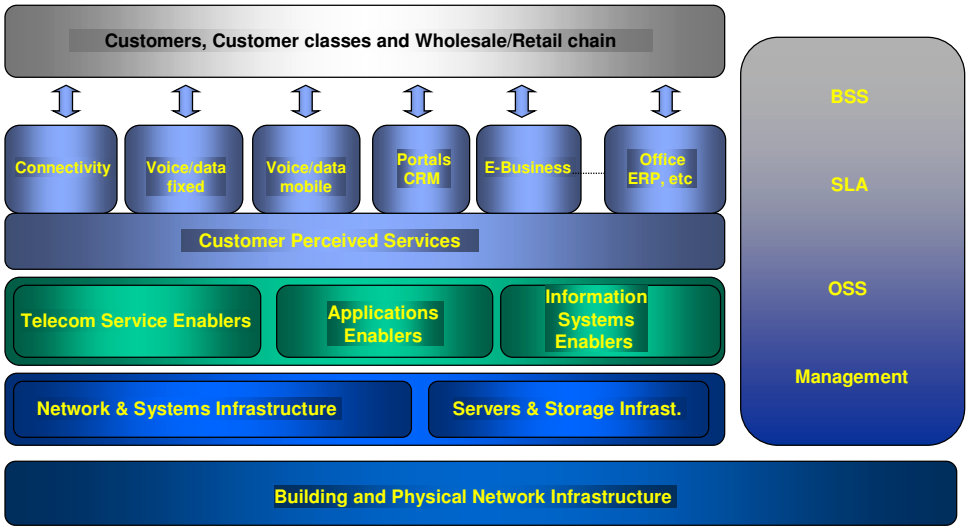
From initial networks towards target network



Migration steps and timeframe to be studied/optimized for each country context

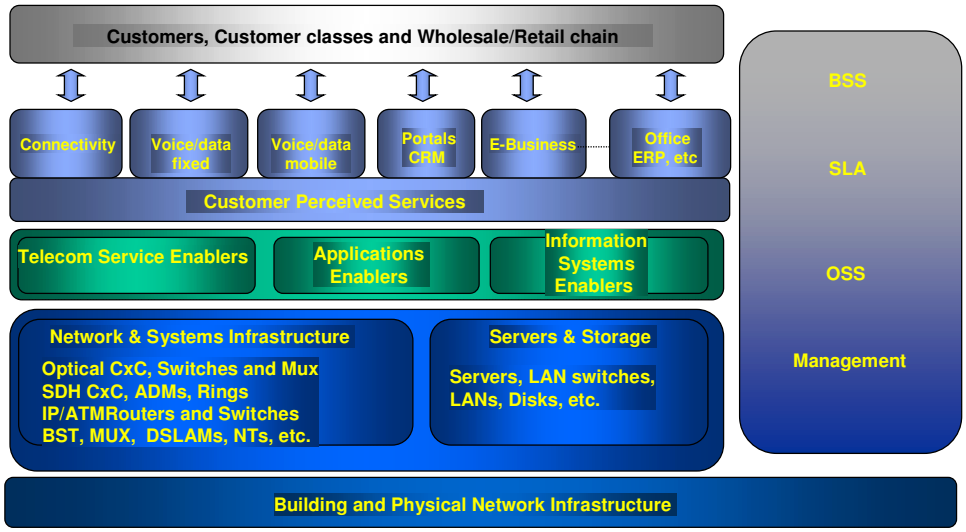
Convergence Strategy and Business Planning

Towards Converged Platforms and Services



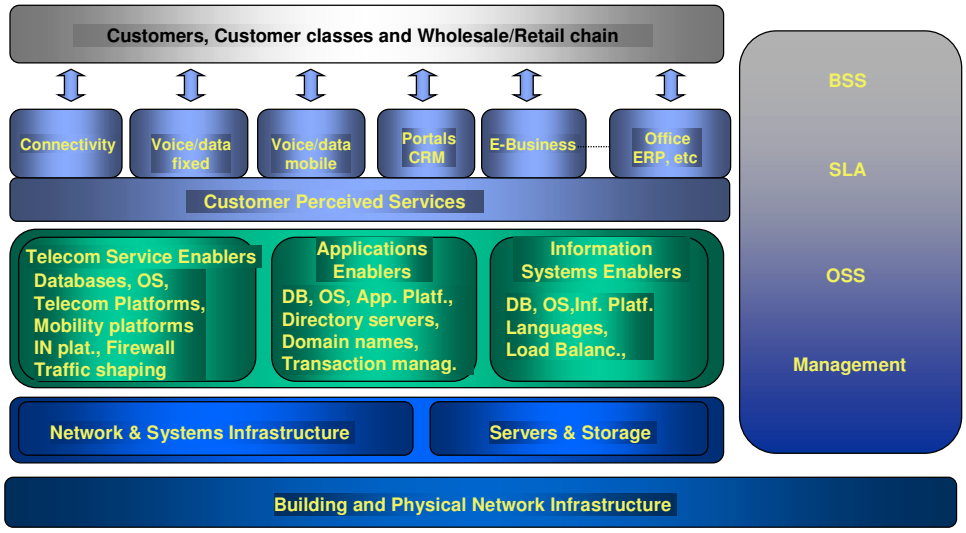
Convergence Strategy and Business Planning

Towards Converged Platforms and Services



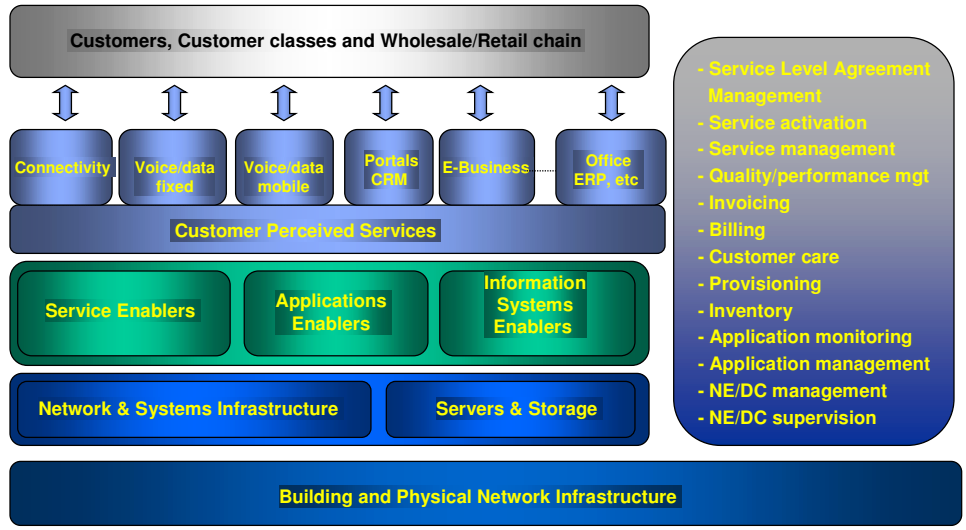
Convergence Strategy and Business Planning

Towards Converged Platforms and Services



Convergence Strategy and Business Planning

Towards Converged Platforms and Services



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Convergence Strategy and Business Planning
Role of Business Planning

- Forecast solutions, costs and revenues
- Evaluate future Cashflows, NPV, IRR, ROI, etc.
- Perform "What-if" analysis for optional alternatives on Volume of customers, customer mixes and services domains
- Perform benchmarking with "best in class" operators
- Decision making on strategy and actions in competition based on quantified evaluations
- Recommend alternatives and actions to ensure success

Convergence Strategy and Business Planning
Role of Business Planning

Evaluations to be based on robusts techno-economical tools due to high number of alternatives and complexity

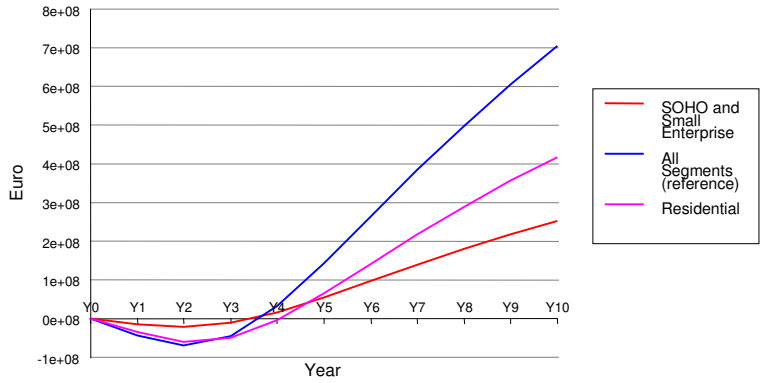
Case study for medium size country with mixes of customer classes and services domains:

- Multiservice IP Network with integrated operation
- Three service categories: Voice, Data/Internet, Video distribution
- Modeling demands, multiservice traffic flows, dimensioning, network resources, CAPEX, OPEX and financial results for different levels of competition
- Evaluate future Cash-flows, NPV, IRR, etc. for a 10 years period

Convergence Strategy and Business Planning
Role of Business Planning

Effects of the mix of customers on Reference Scenario: Low competition level

Network NPV

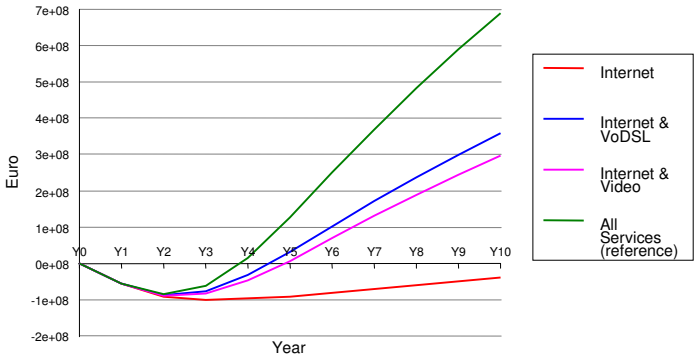


- SME and SOHO with quicker recovery but less NPV and company value at medium term
- "All customer segments" case with much better behavior

Convergence Strategy and Business Planning
Role of Business Planning

Effects of the mix of services on Reference Scenario: Low competition level

Network NPV

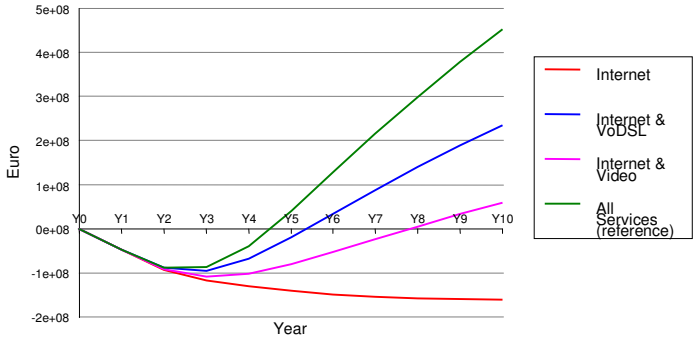


- Major impact of service classes on NPV and company survivability
- Single service classes without future
- High benefit of "all services" case

Convergence Strategy and Business Planning
Role of Business Planning

Effects of the mix of services on typical scenario: Medium competition level

Network NPV



- Increase of competition level amplifies the previous effects on feasibility: big differences between service mixes
- Data only or single service classes without feasibility at medium term
- Very robust behavior for the "all services" case

Convergence Strategy and Business Planning

Conclusions

- Ensure proper modeling of key factors and professional tools
- Focus on multiple customers, multiple services domains
- Take benefit of all economies of scale
- Which convergence will happen ? → Combination

Driven by Market, Economy of scale and competition