



ITU / BDT Regional Seminar Fixed Mobile Convergence and Guidelines on the smooth transition of existing mobile networks to IMT-2000

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Convergence Strategy for Universal Operators and role of Business Planning

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Convergence Strategy and Business Planning Content

- **Key factors in Evolution**
 - Cost structure and savings
 - 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 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%**

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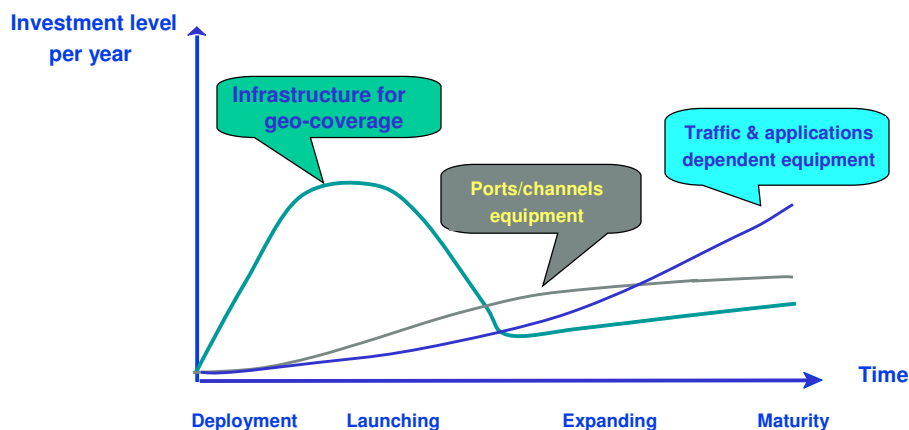
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Convergence Strategy and Business Planning Key Factors: Cost structure and savings

Dimensioning and investment trough time per domain



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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 ratio
- By **Volume** of purchasing → Discount per volume in log scale

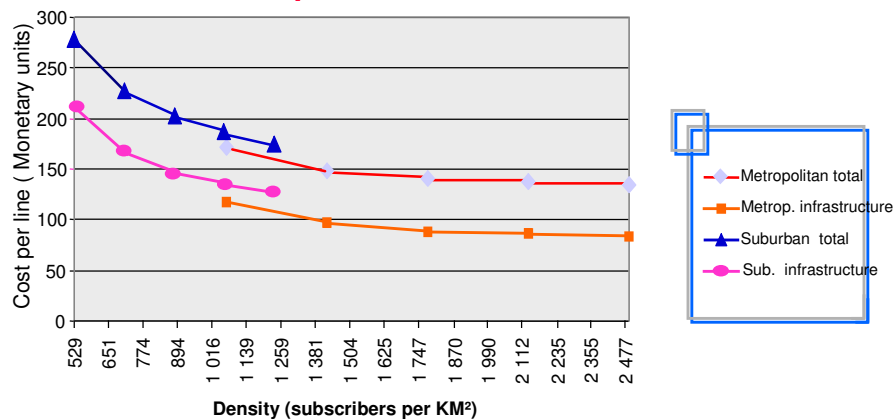
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Convergence Strategy and Business Planning Key Factors: Economies of scale by density Metropolitan and suburban scenarios



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

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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

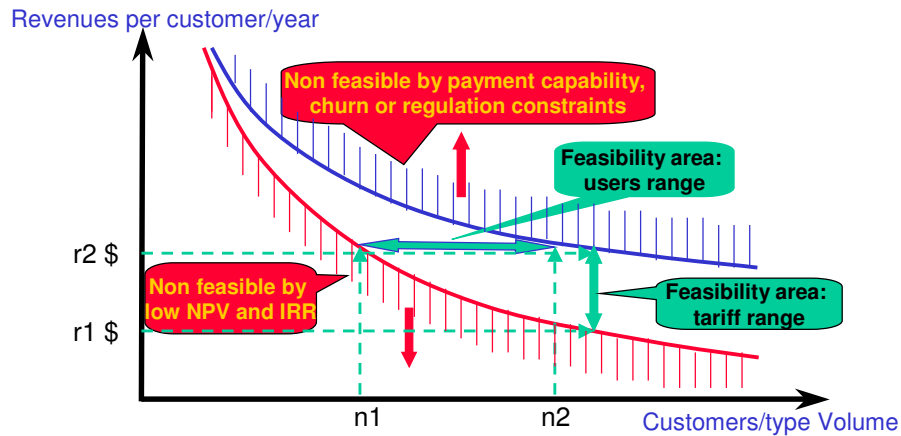
Key factors for survivability in competition

- 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 in competition as a function of volume



Feasibility space highly dependent on country size and economical level

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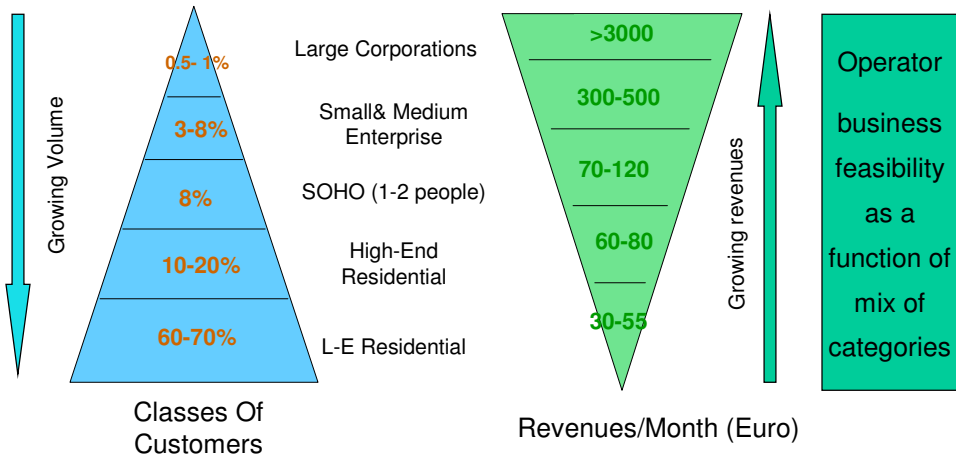
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Convergence Strategy and Business Planning Business domains and trends

Illustration case for customer categories and revenues



“Customer stratification should be analyzed per country”

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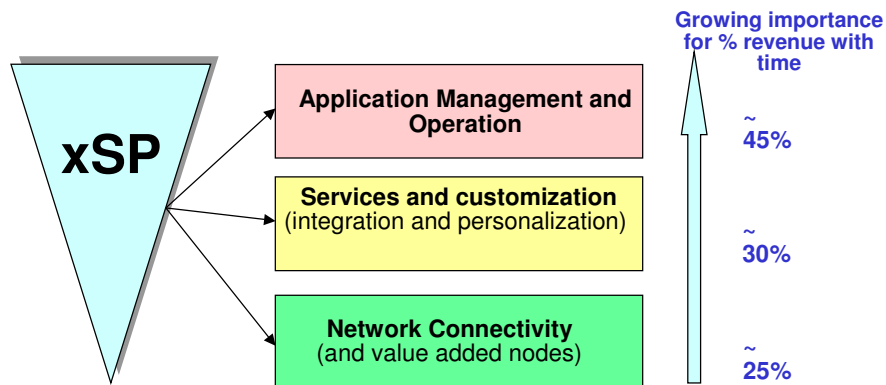
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Convergence Strategy and Business Planning Business domains and trends

Trends for new application revenues in the future



Source Ovum, IDC

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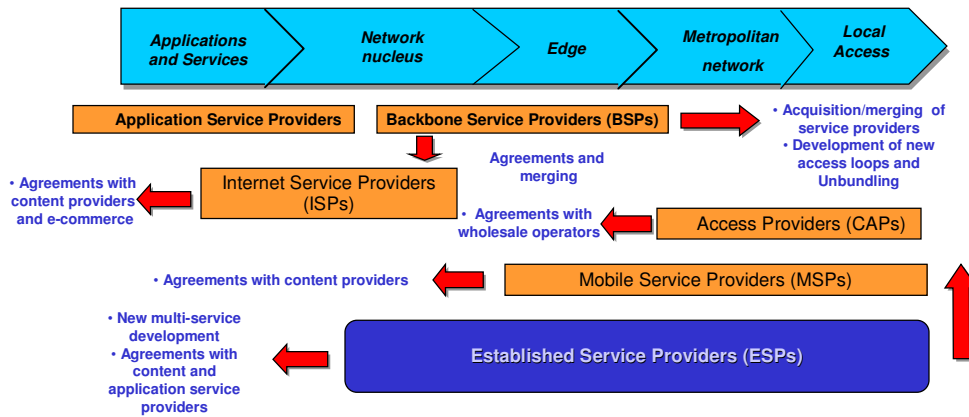
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Convergence Strategy and Business Planning Business domains and trends

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



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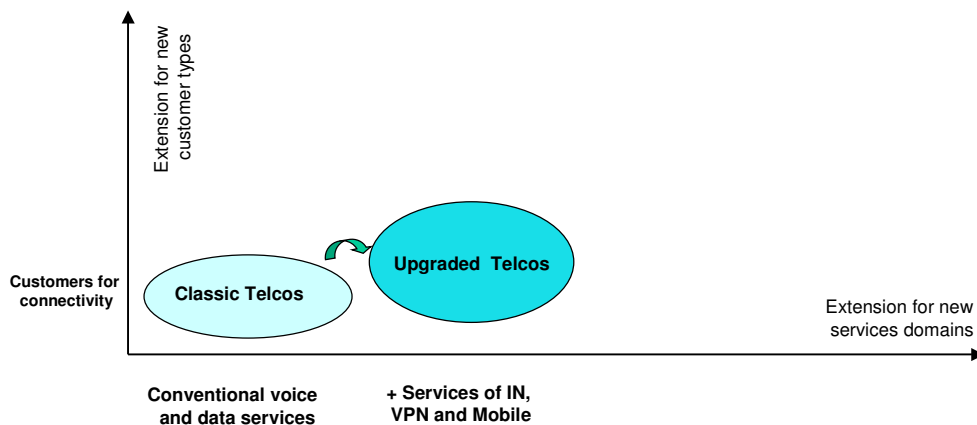
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Convergence Strategy and Business Planning Migration steps

“staircase” for leading growing alternatives



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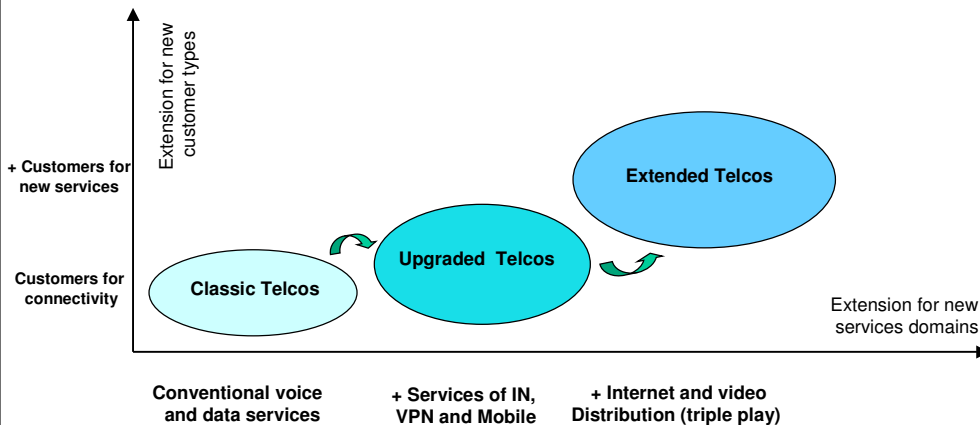
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Convergence Strategy and Business Planning Migration steps

“staircase” for leading growing alternatives



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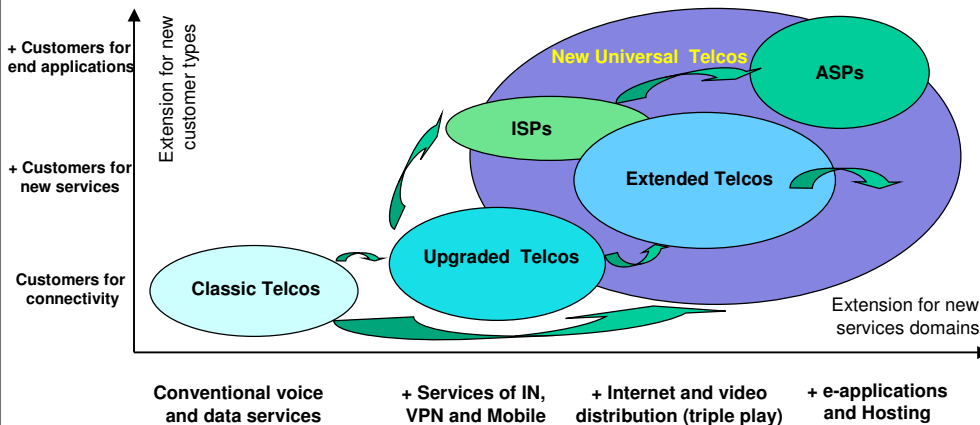
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Convergence Strategy and Business Planning Migration steps

“staircase” for New Universal Telcos



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

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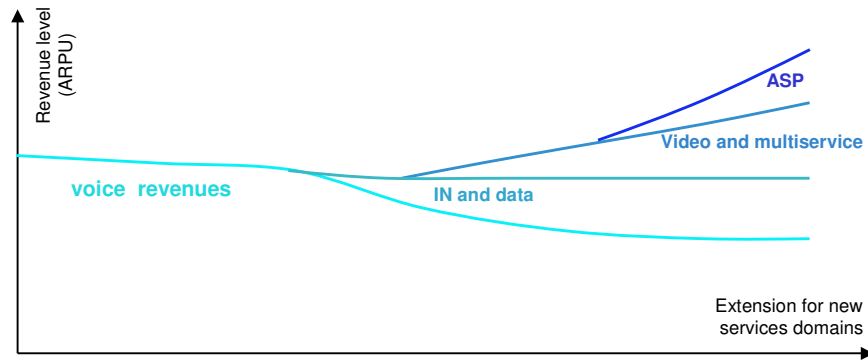
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Convergence Strategy and Business Planning Migration steps

Evolution of revenues with service domains



Conventional voice
and data services

+ Services of IN,
VPN and Mobile

+ Internet and video
distribution (triple play)

+ e-applications
and Hosting

Convergence strategy is fundamental to be competitive and to grow

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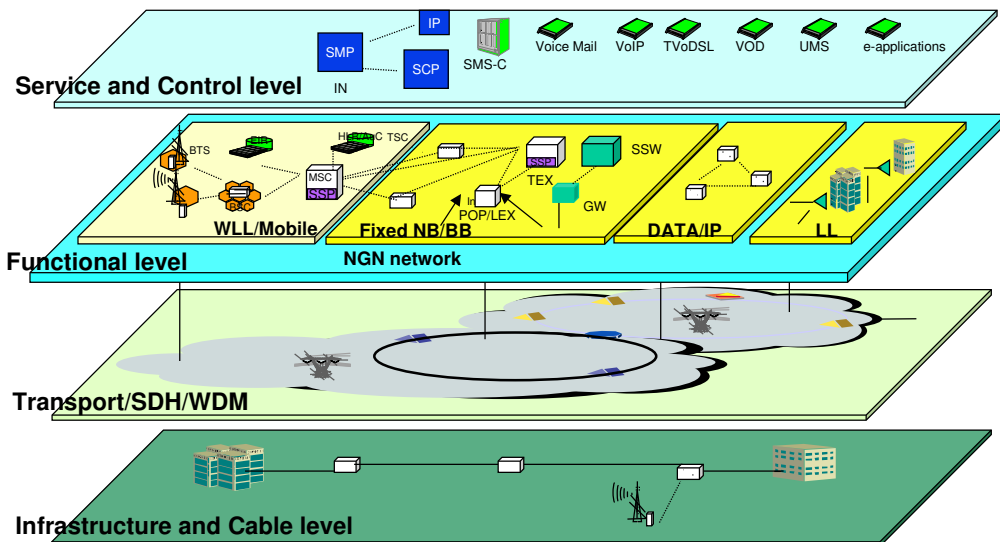
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Convergence Strategy and Business Planning Network Layer Modeling



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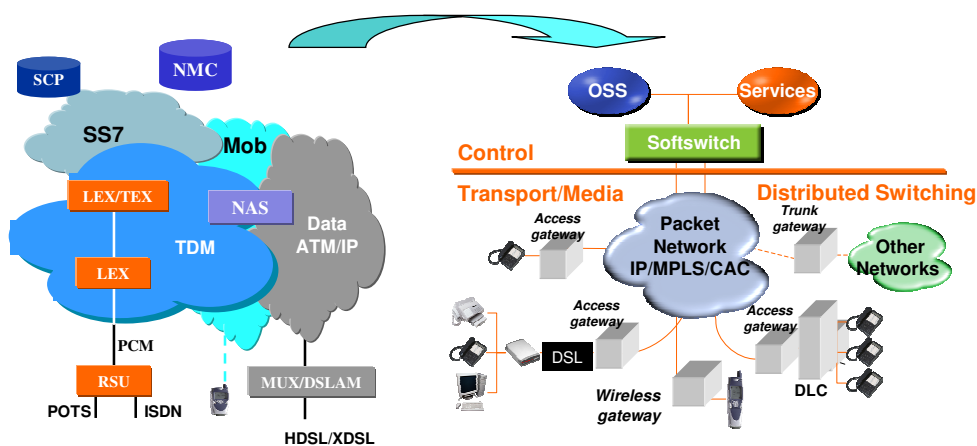
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Convergence Strategy and Business Planning Evolution towards NGN

From initial networks towards target network



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

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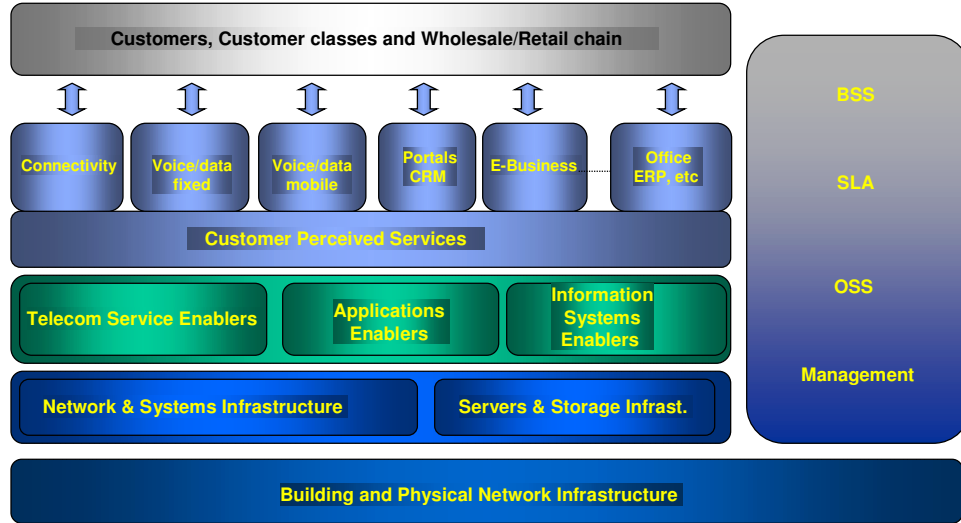
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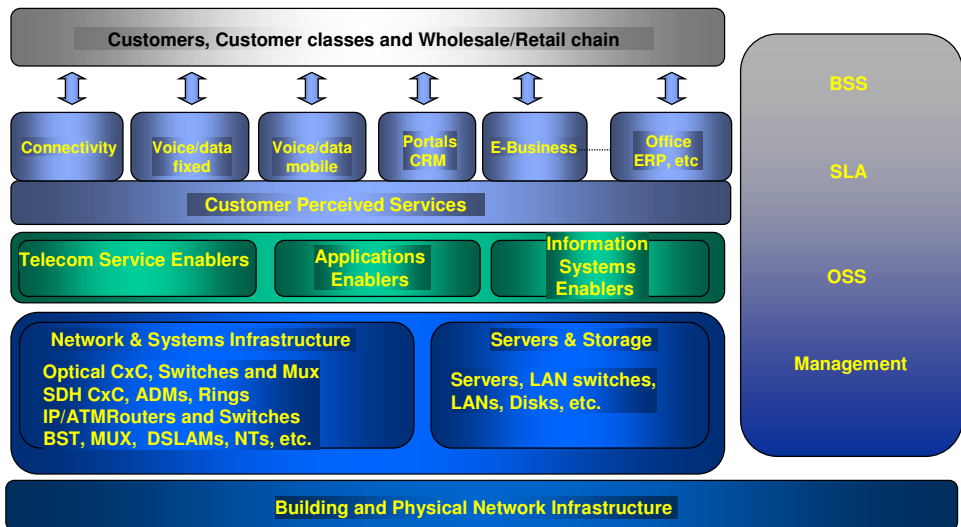
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Towards Converged Platforms and Services



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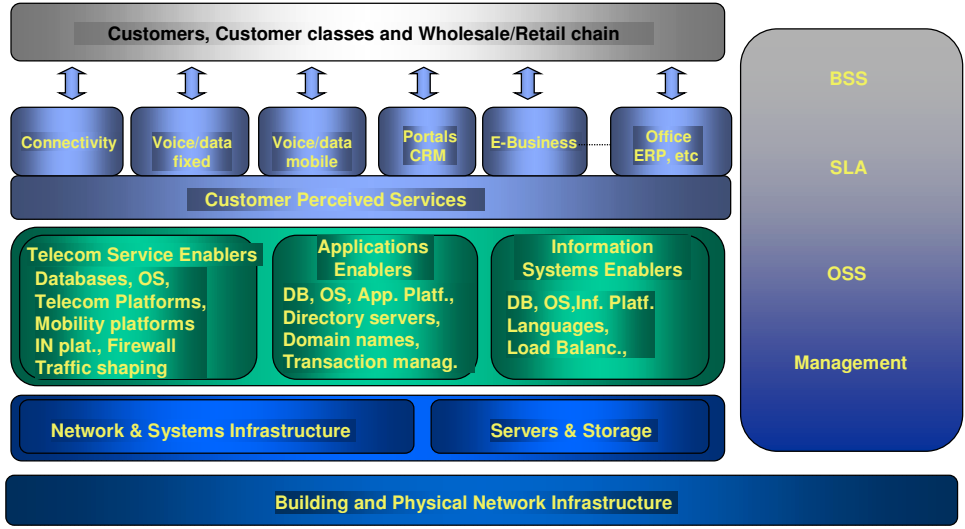
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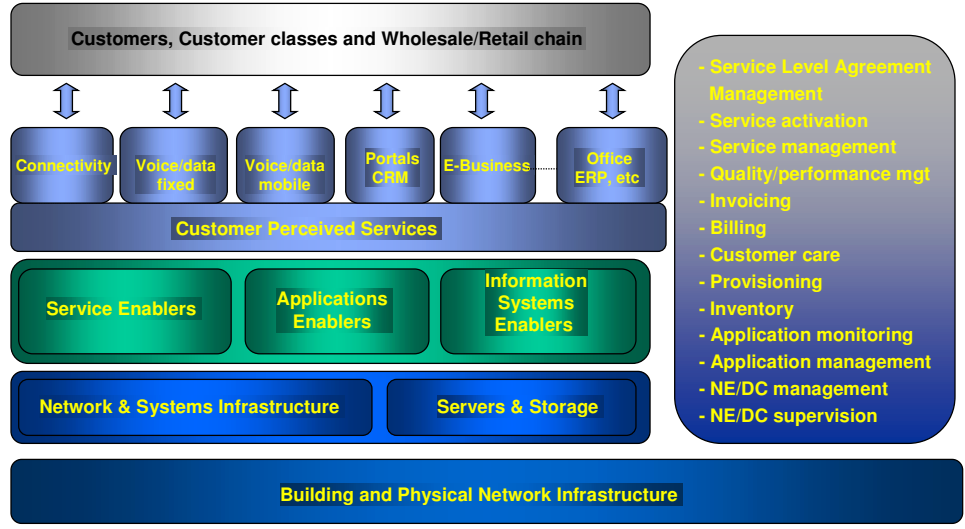
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Convergence Strategy and Business Planning Role of Business Planning

- 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 robust 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

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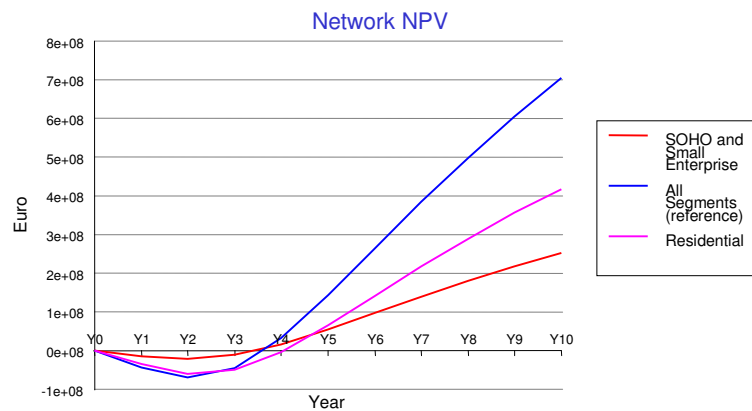
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Convergence Strategy and Business Planning Role of Business Planning

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



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

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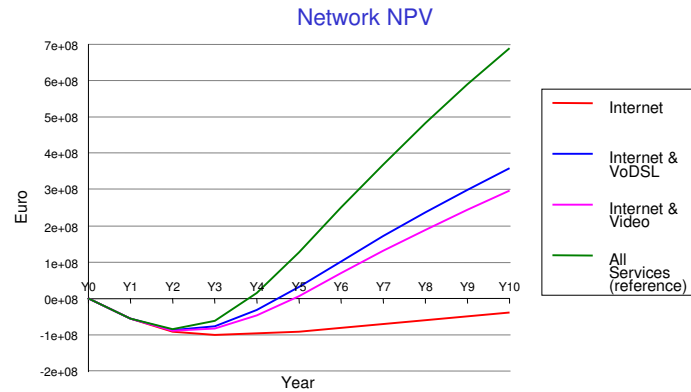
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Convergence Strategy and Business Planning Role of Business Planning

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



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

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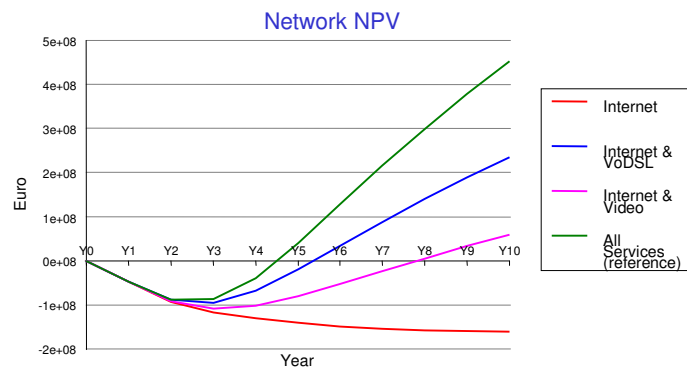
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Convergence Strategy and Business Planning Role of Business Planning

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



- 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

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Convergence Strategy and Business Planning Recommendations

- **Ensure proper modeling of key factors and professional tools**
- **Focus on multiple customers, multiple services domains**
- **Take benefit of all economies of scale**
- **Maintain business indicators within benchmark margins in competition**

and

**!! Base decisions on joint Technical and Economical evaluation
at all phases !!**