ITU/BDT Regional Economic and Financial Forum of Telecommunications/ICTs for Asia and Pacific

Impact of Internet and OTT on Services

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Impact of Internet on services

- Questions on evolution for voice and new services
- NGN driving services and ICT e-services
- New players and OTT services
- Strategies for evolution

Impact of Internet on services

- **Issues for voice and new services**
  - **Voice service increase versus decrease or migration?**
  - **Voice revenues evolution?**
  - **New services substituting classical voice?**
  - **What impact of new services on traffic and revenues?**
  - **From country monopoly to … multiple country providers versus… worldwide oligopoly?**
  - **… and many more**

Impact of Internet on services

- Topics to analyze
  - Main driving services for NGN (Next Generation Networks)
  - New capabilities of NGN and web based services
  - Main e-services at national level
  - OTT (Over the Top) positioning for web based services
  - Service provider positioning on the new market
  - Economies of scale versus market fragmentation
  - Strategies recommended for the service providers

Impact of Internet on services

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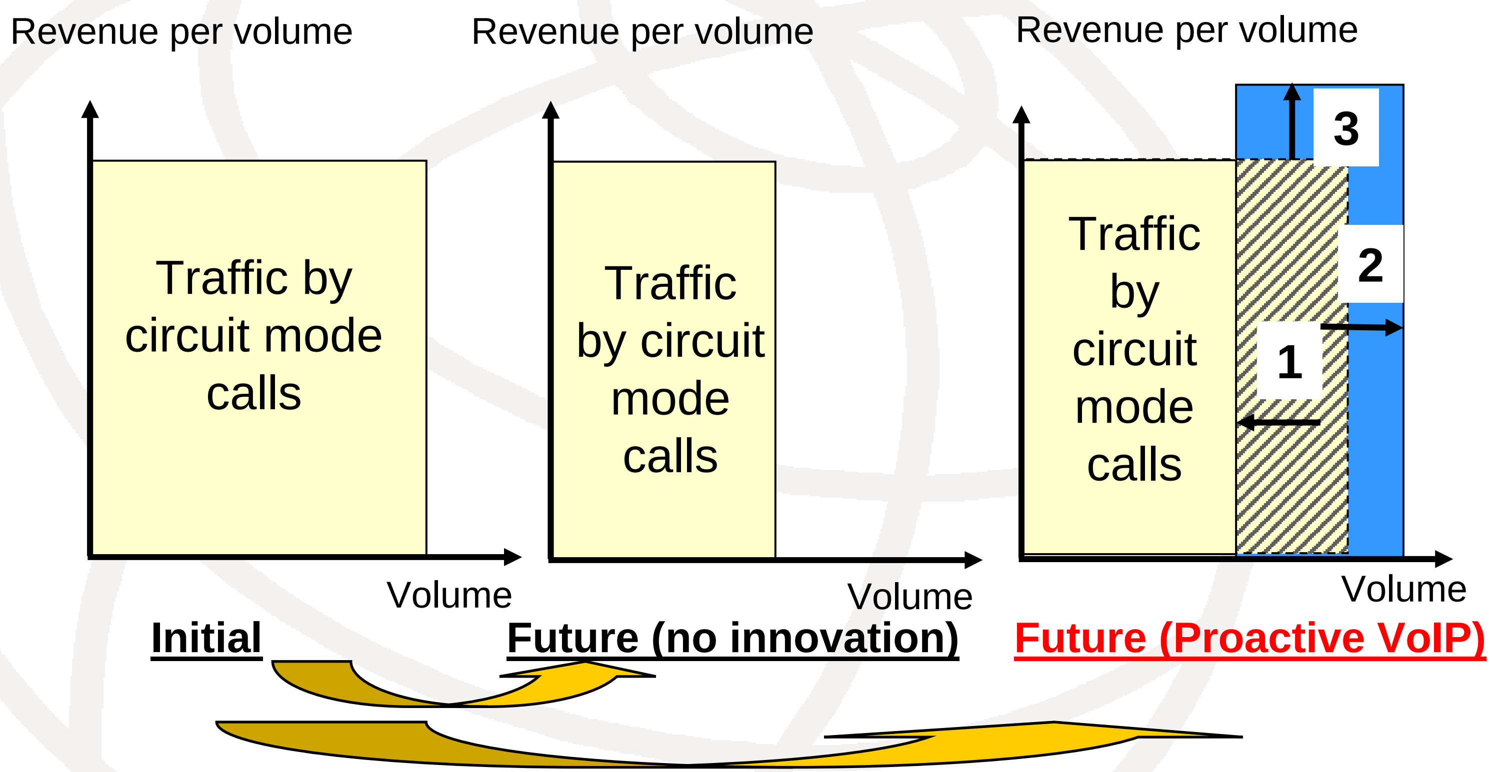
Impact of Internet on services
NGN driving services

- Residential type
  - VoIP (Voice over Internet Protocol):
    - Motivation: Cost saving, integration with chat and video
    - Concerns: Cannibalization, Interconnection and QoS
  - IPTV (Internet Protocol Television): Wide selection, video on demand and special events
  - Content delivery:
    - Music, games, gambling

Impact of Internet on services
NGN driving services

VoIP positioning for a service provider



1: Decreasing by substitution

2: Volume increase by lower price

3: Revenue increase by new associated services

Revenue due to existing offer
Revenue variation due to the change of offer
Incremental revenue with the new offer

Revenue due to each solution

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Typical Skype prices from smart terminals to fixed telephone

- From Spain to:
  - EU, Korea, Malaysia, Australia, Singapore, Thailand, etc: 2 cents/min
  - India: 1,3 cents/min
  - Kiribati: 1,44 cents/min
  - Bangladesh: 3 cents/min
  - Indonesia: 3,8 cents/min
  - Pakistan: 7,7 cents/min
  - Philippines: 10,3 cents/min
  - Sri Lanka: 12,9 cents/min
  - Nepal: 17,7 cents/min
  - Vietnam: 15,4 cents/min
  - Cambodia: 25,6 cents/min
  - Myanmar: 35,1 cents/min
  - Papúa New Guinea: 70 cents/min

- *Ratios up to 50:1. Special discounts also apply per volume and flat tariffs per month*

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NGN Driving Services for Business

- **Virtual Private Network (VPN): Customized operation**
- **Multimedia Conferencing: Quality increase for multiparty**
- **Unified messaging: Better productivity and efficiency**
- **ASP (Application Services Provider): Wide availability and adaptation of IT services**

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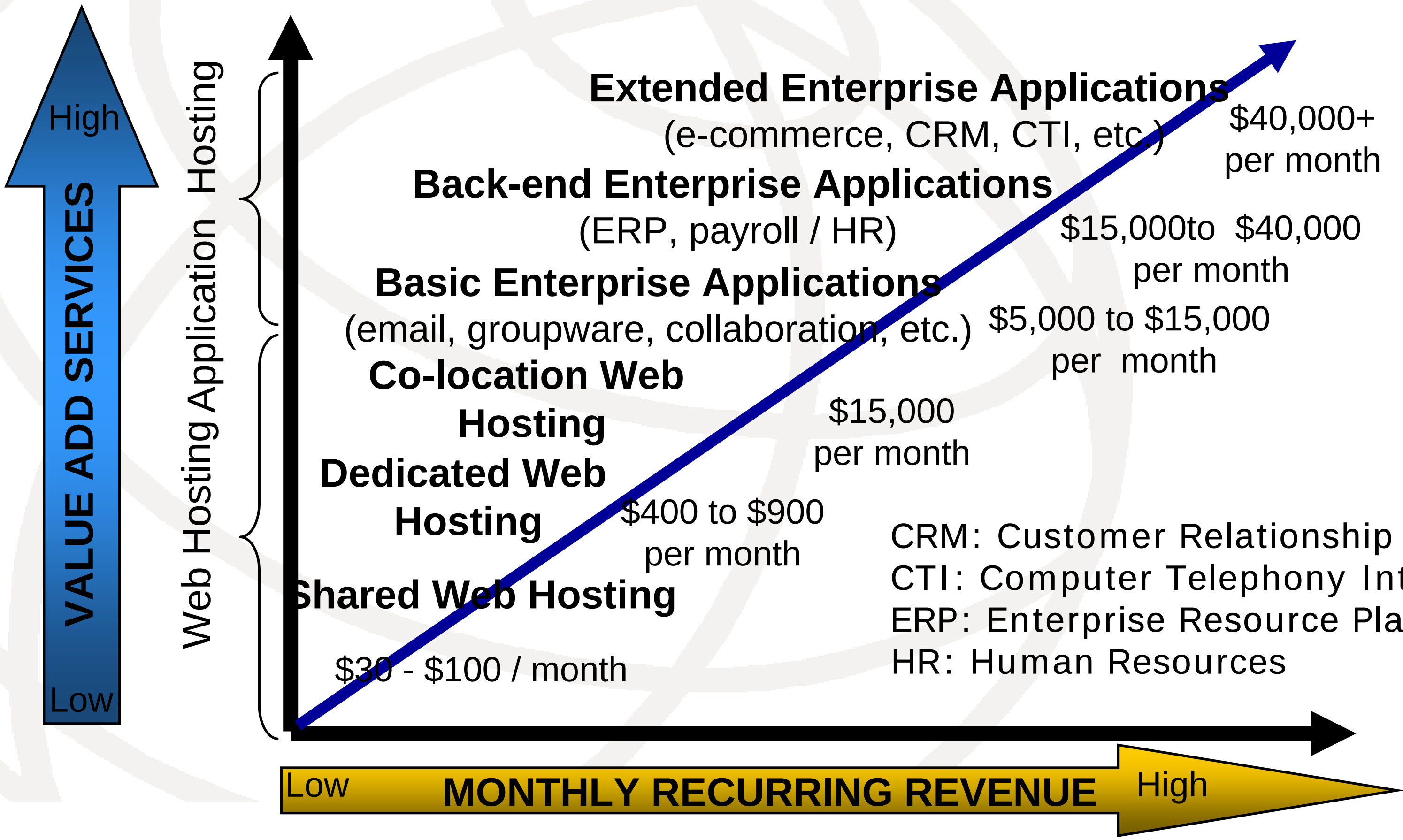
NGN Driving Services for Business

Main ASP applications and projected value/revenue added



CRM: Customer Relationship Management
CTI: Computer Telephony Integration
ERP: Enterprise Resource Planning
HR: Human Resources

Source: Cherry Tree & Co

Impact of Internet on Services
NGN driving applications as indicated at UIT-D Q.20

- E-Government
- E-business
- E-science
- E-learning and Mobile Learning
- E-health
- E-agriculture
- E-environment
- Telecom Support to public security, catastrophe prevention and emergency aid

ICT: Information and Communication Technologies

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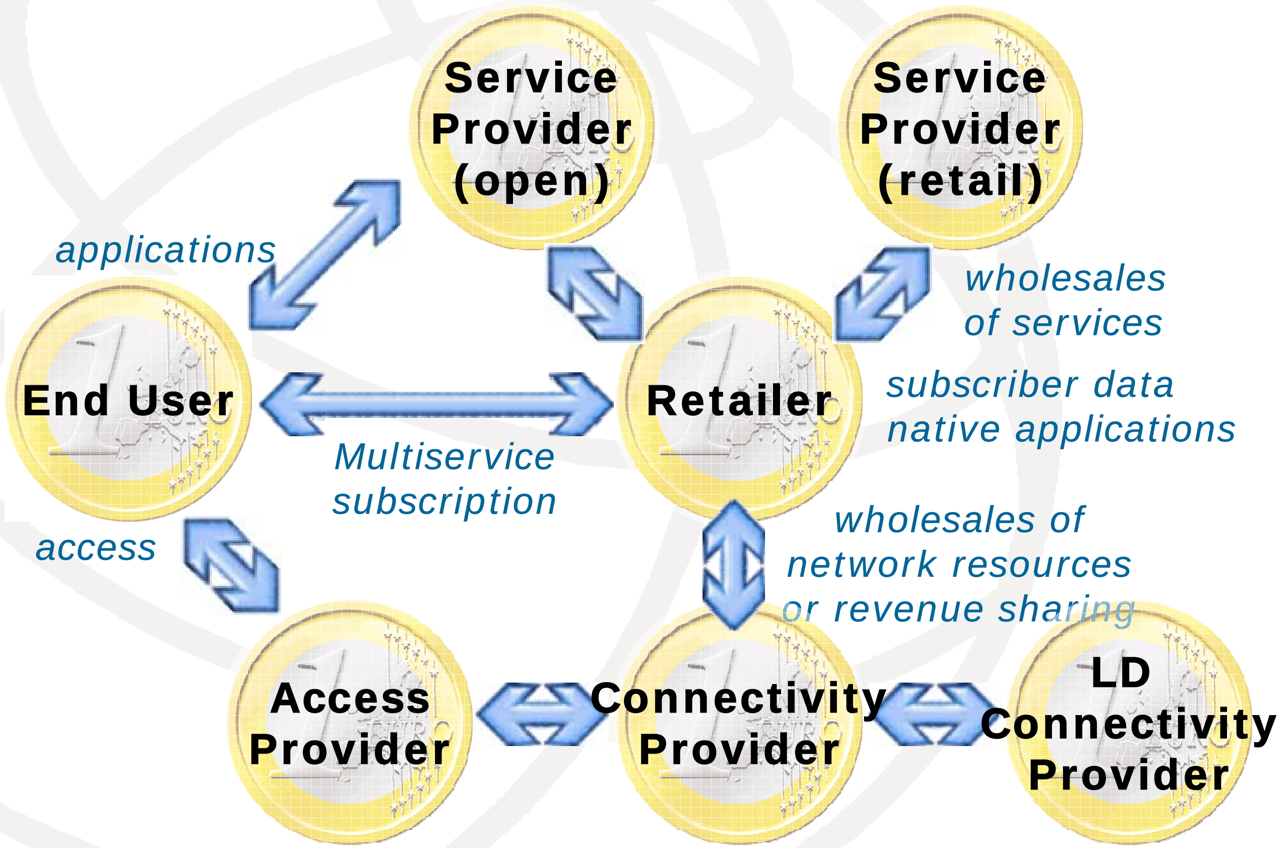
New players in service provisioning and interrelations



LD: Long Distance

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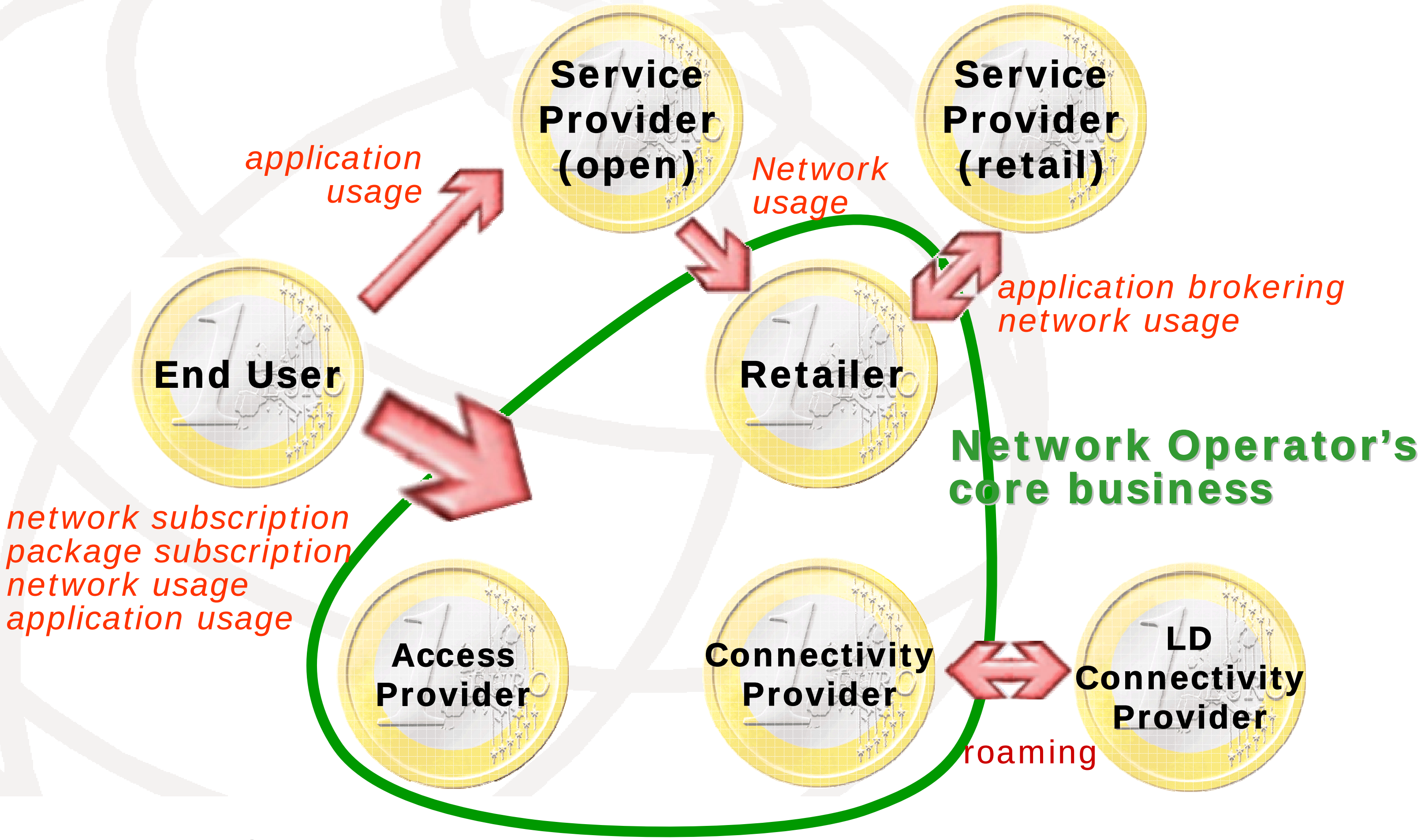
New players in service provisioning and interrelations



LD: Long Distance

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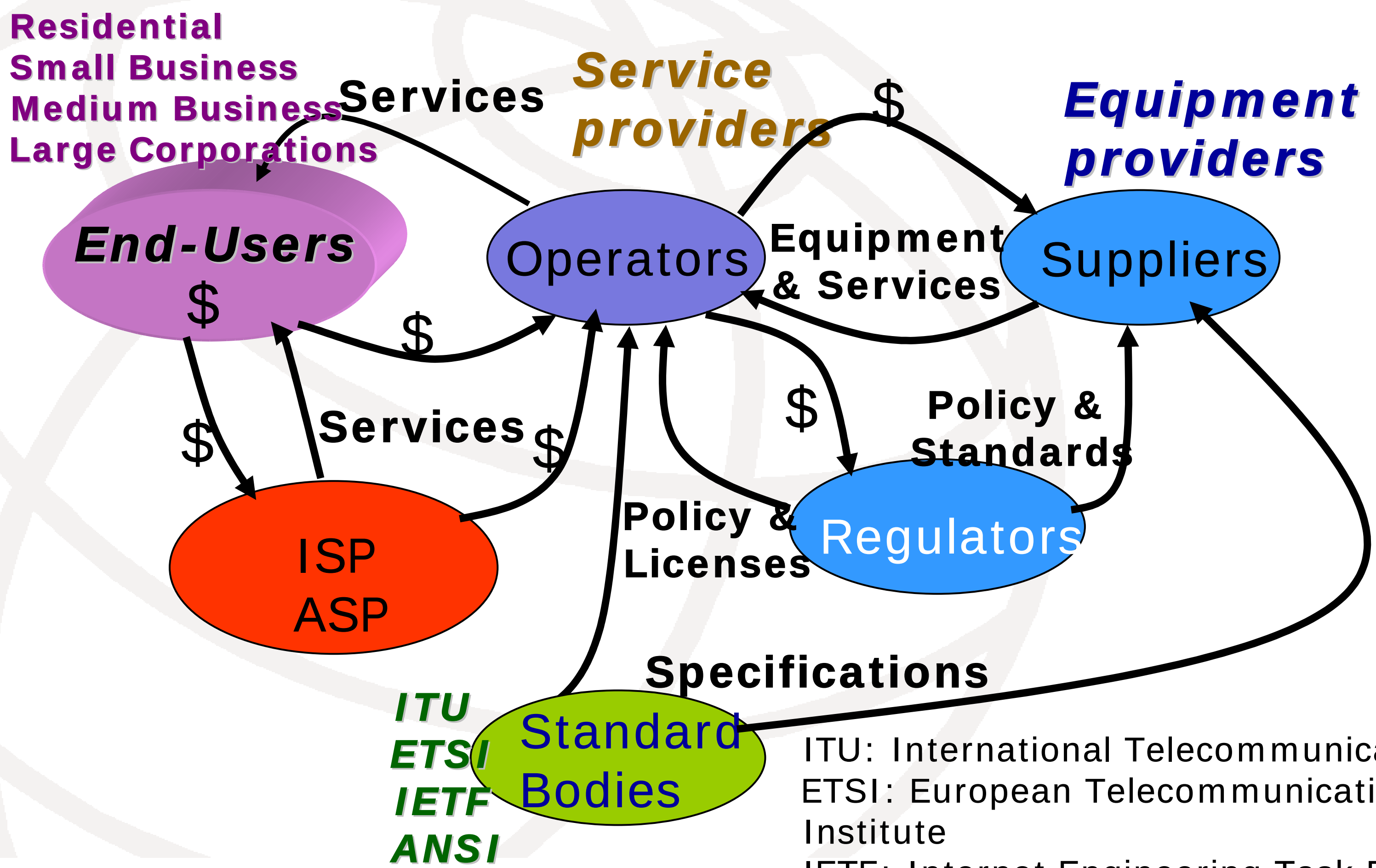
Players in new service definition and interrelations



ITU: International Telecommunication Union
ETSI: European Telecommunication Standards Institute
IETF: Internet Engineering Task Force
ANSI: American National Standards Institute
ISP: Internet Service Provider

Impact of Internet on Services
OTT players (web based)

- Skype
- Google voice
- WhatsApp*
- LINE
- Twitter
- Facebook
- Linkedin
- Paypal
- Tencent QQ
- …. And many others

* WhasApp recently acquired by Facebook but maintaining original objectives

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OTT main services

- VoIP + videoconference
- Content delivery
- Messaging
- Chat
- Social networking
- Instagram
- Wallet
- … and many other innovations

Impact of Internet on Services
OTT positioning

OTT services volume*

- **Skype: at 2013 300 million users with around 70 million connected simultaneously and with an average call holding time of 7 minutes. Around 2 billion minutes per day**

- **WhatsApp: at 1Q 2014 500 million active users with 11 billion messages send, 20 billion received and 325 million photos per day**

- **Facebook: at 1Q 2014 1200 million users (680 million on mobile), 700 billion minutes and average duration of 20 minutes**

*Ref: http://www.statisticbrain.com/, Telegeography and others

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OTT positioning

OTT services volume …

- **Twitter: at 2Q 2013 555 million users and 58 million tweets per day**
- **LINE: at 1Q 2014 400 million users with highest number in Japan**
- **Linkedin: at 4Q 2013 300 million users, 2,1 million groups and 200 conversations per minute.**
- **Paypal: at 1Q 2014 150 million active accounts with 2,8 billion payments at 2013**

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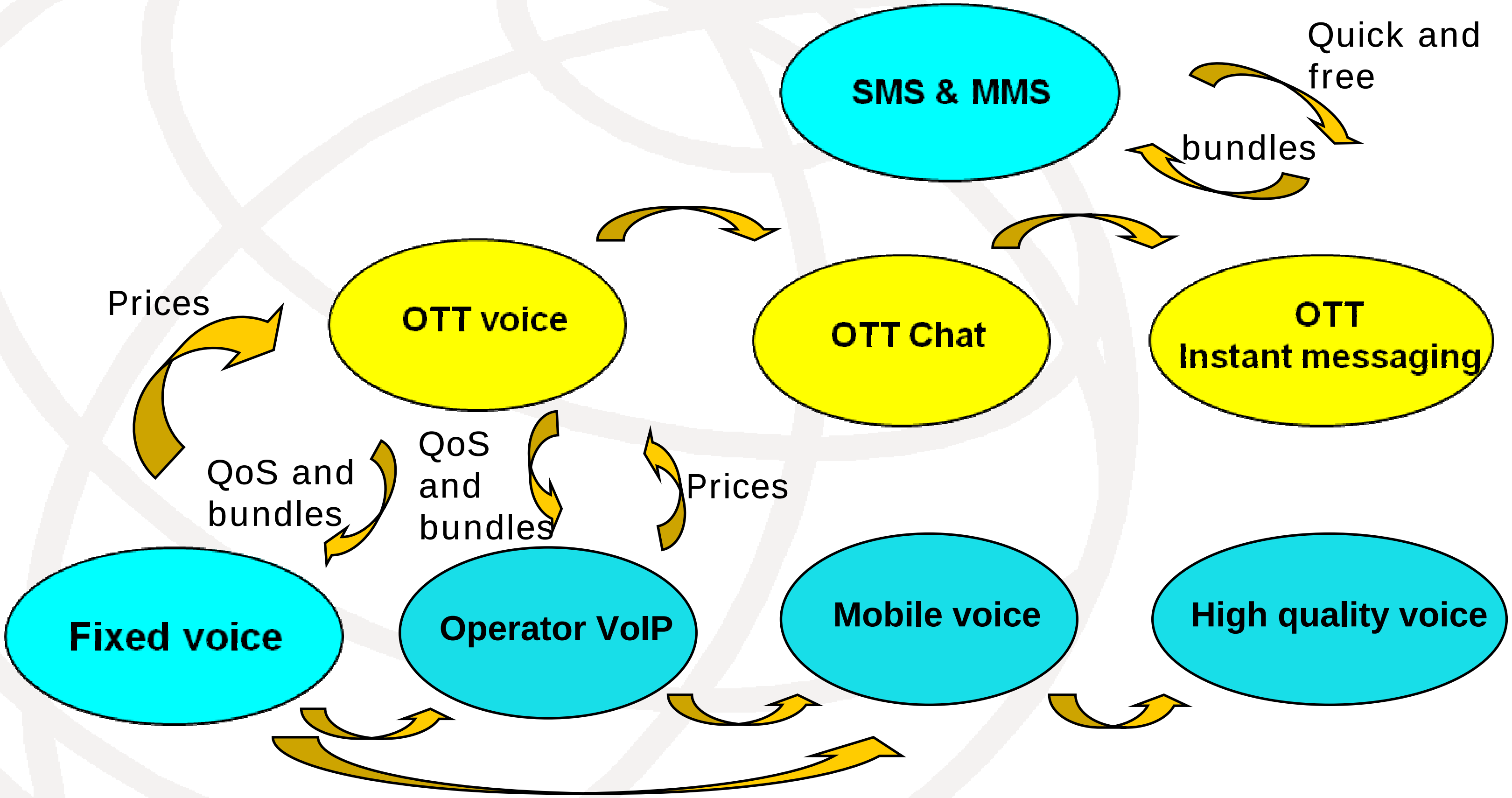
Services migration flows

Highlight of voice and services migration towards other solutions, related drivers and reverse flow drivers



Overall voice traffic increases but is shared among all existing solutions

SMS: Short Message Service
MMS: Multimedia Message Service
QoS: Quality of Service

Impact of Internet on Services
OTT positioning

Strengths

- Benefit from worldwide coverage by internet and quick deployment
- Exploit economies of scale
- Exploit broadband data capacities
- Benefit from publicity revenues
- High negotiation power towards suppliers

Weakness

- Difficulties to assure end to end quality control
- Less advantage for proximity and consumer experience related requirements
- Lower capability for country national and local dependent services
- Lack of contribution to the Universal Services Fund and very limited contribution to national Taxes

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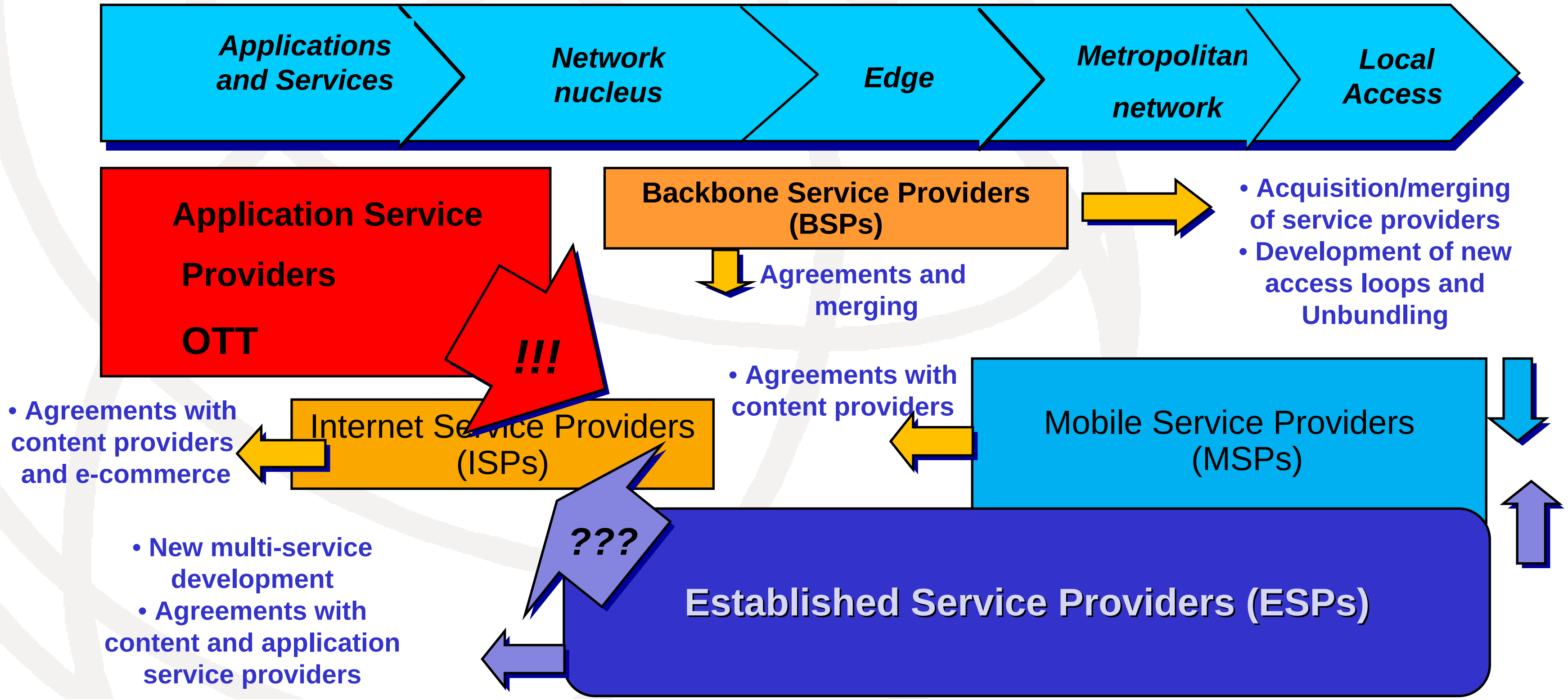
Business domains and trends

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



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Industry Initiative for multiservice compatibility

Forum multioperator and multisupplier to reinforce new IMS (Internet Protocol Multimedia Subsystem) based services compatibility and interoperability from the operator side

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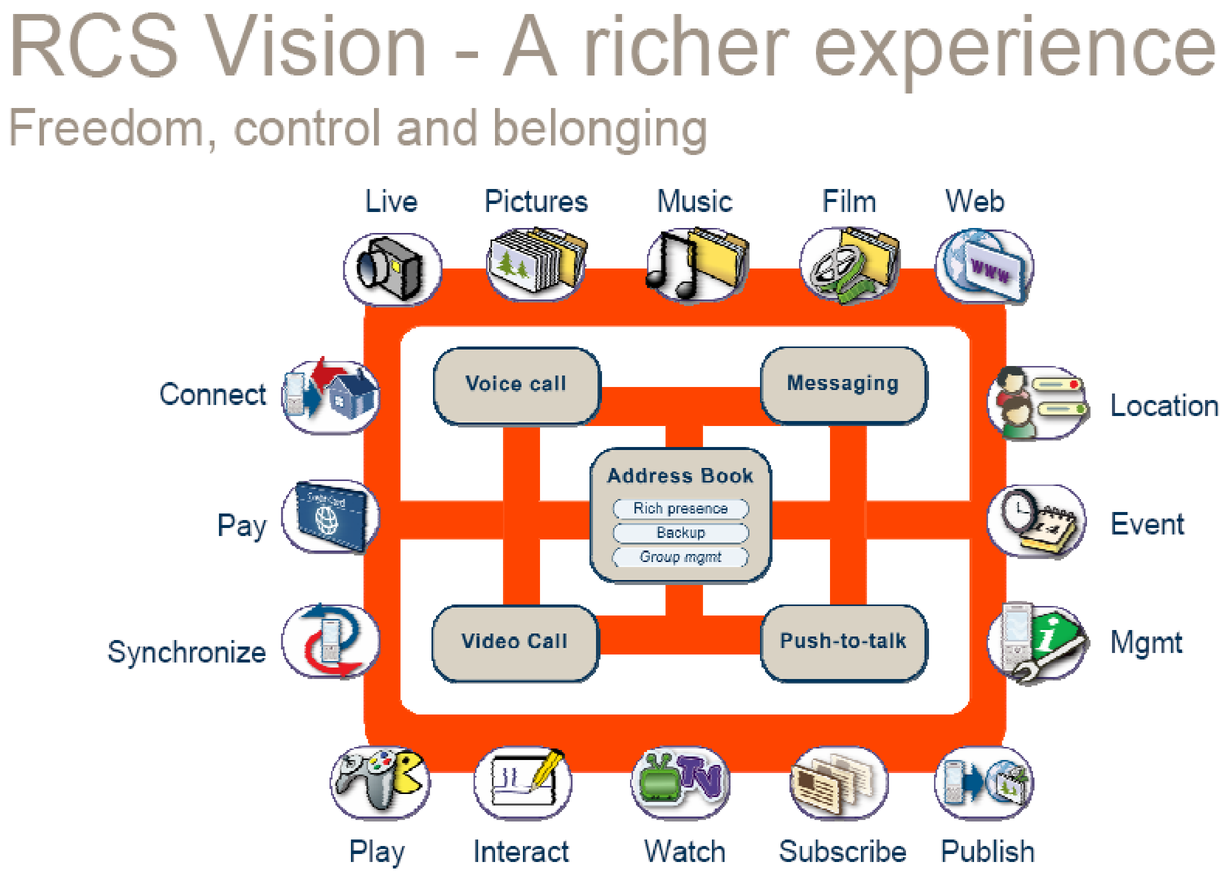
Industry Initiative for multiservice compatibility



Vision by the RCS forum for personalized services and social networks based on generic functions and affinity grouping

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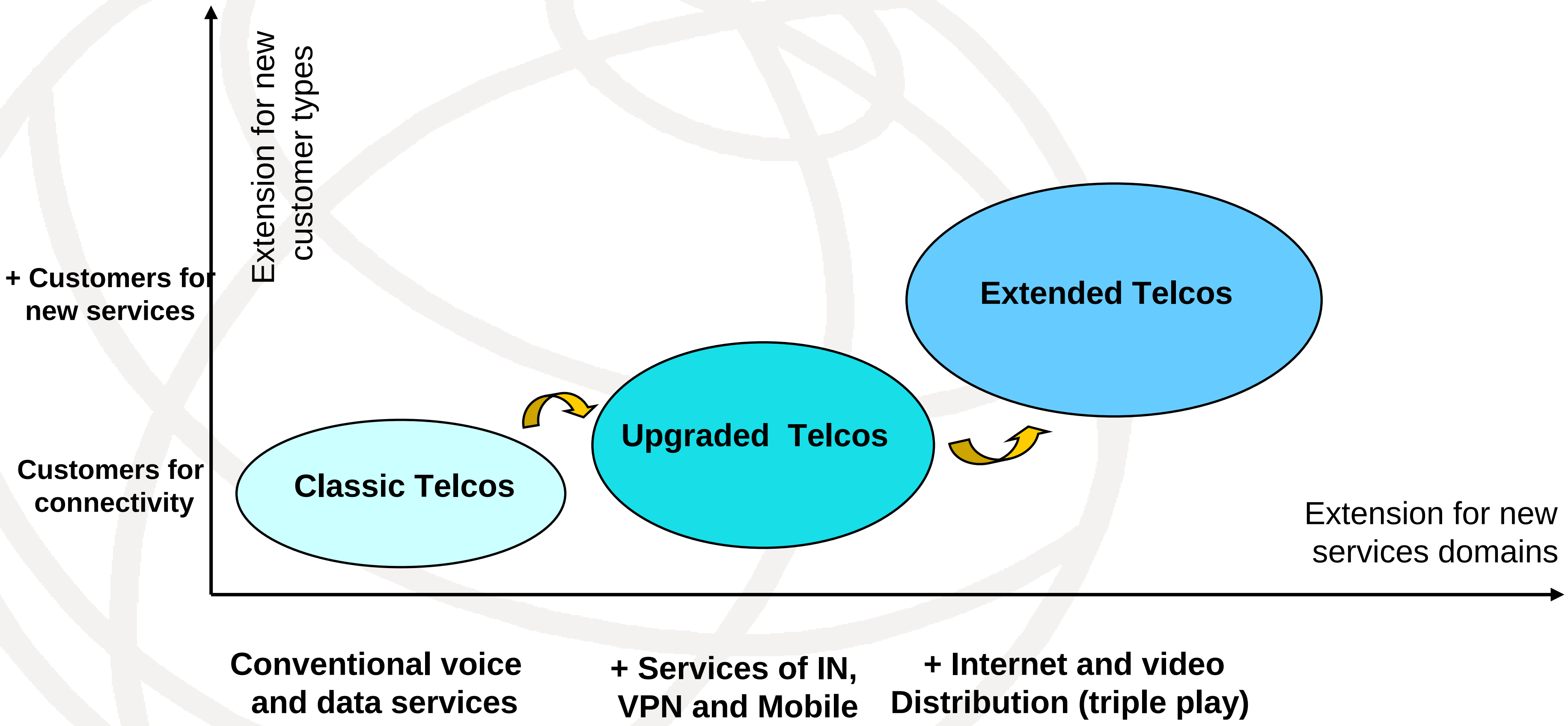
Strategy on Business Migration Leaps

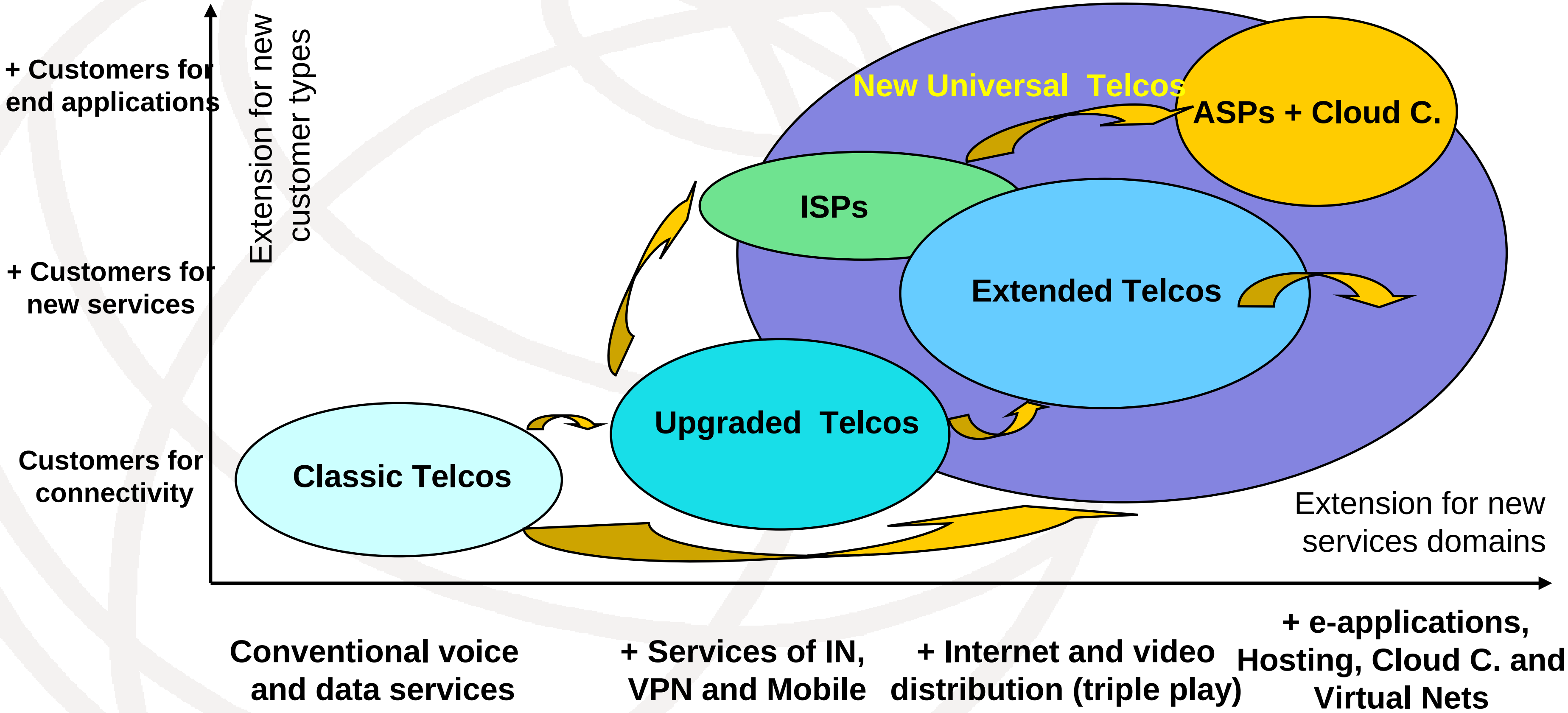
“staircase” for leading growing alternatives



IN: Intelligent Network

Impact of Internet on Services
Strategy on Business Migration Leaps

"staircase" for New Universal Telcos from operator and web sides



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

CC or Cloud C.: Cloud Computing

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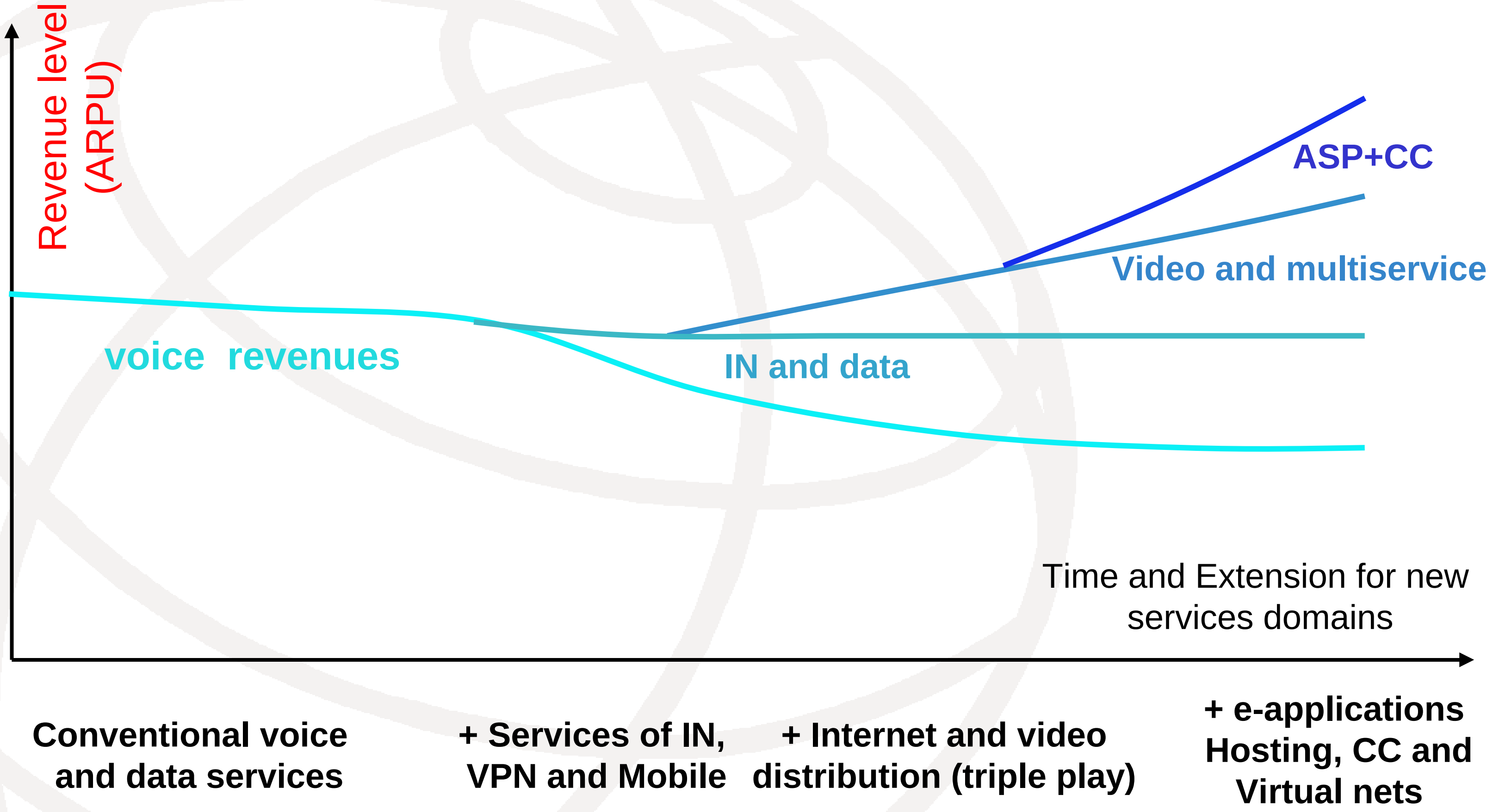
Trends on Convergence

International Telecommunication Union
Committed to connecting the world

Projected evolution of revenues with service domains



Convergence strategy is fundamental to grow in a competitive environment and compensate from voice revenue decrease (typical 7% per year)

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Current attitudes by service providers

- 1- Ignore or obstruct OTTs capabilities and offers
- 2- Replicate OTTs offers within the in-house potential service provisioning
- 3- Provide services to OTTs under demand
- 4- Create subsidiary OTT companies to compete directly with existing OTTs
- 5- Joint development of applications with carrier grade quality with selected OTTs

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Recommendations for operators actions

- 1- Analyze specific demand of new services and consumer experience per country
- 2- Develop flexible tariffs and bundle offers
- 3- Accelerate NGN multiservice deployment
- 4- Positioning of service providers for higher value added in the services chain
- 5- Define best strategy for competition versus win-win cooperation or partnership with OTT's

Impact of Internet on Services
Summary of Key Factors

- Exploit **high potential** for new NGN services drives the interest in the network modernization and capture of **new revenues**

- Analyze **new business chain** from content to delivery and **watch** OTT services capabilities

- Provide attention to **Quality of Service on VoIP** and **Consumer experience**

- Define a **Specific Strategy** for new services and bundles considering consumer behavior and positioning versus OTTs

International Telecommunication Union

Committed to connecting the world