

Impact of Internet and OTT on Voice and new 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

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- **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

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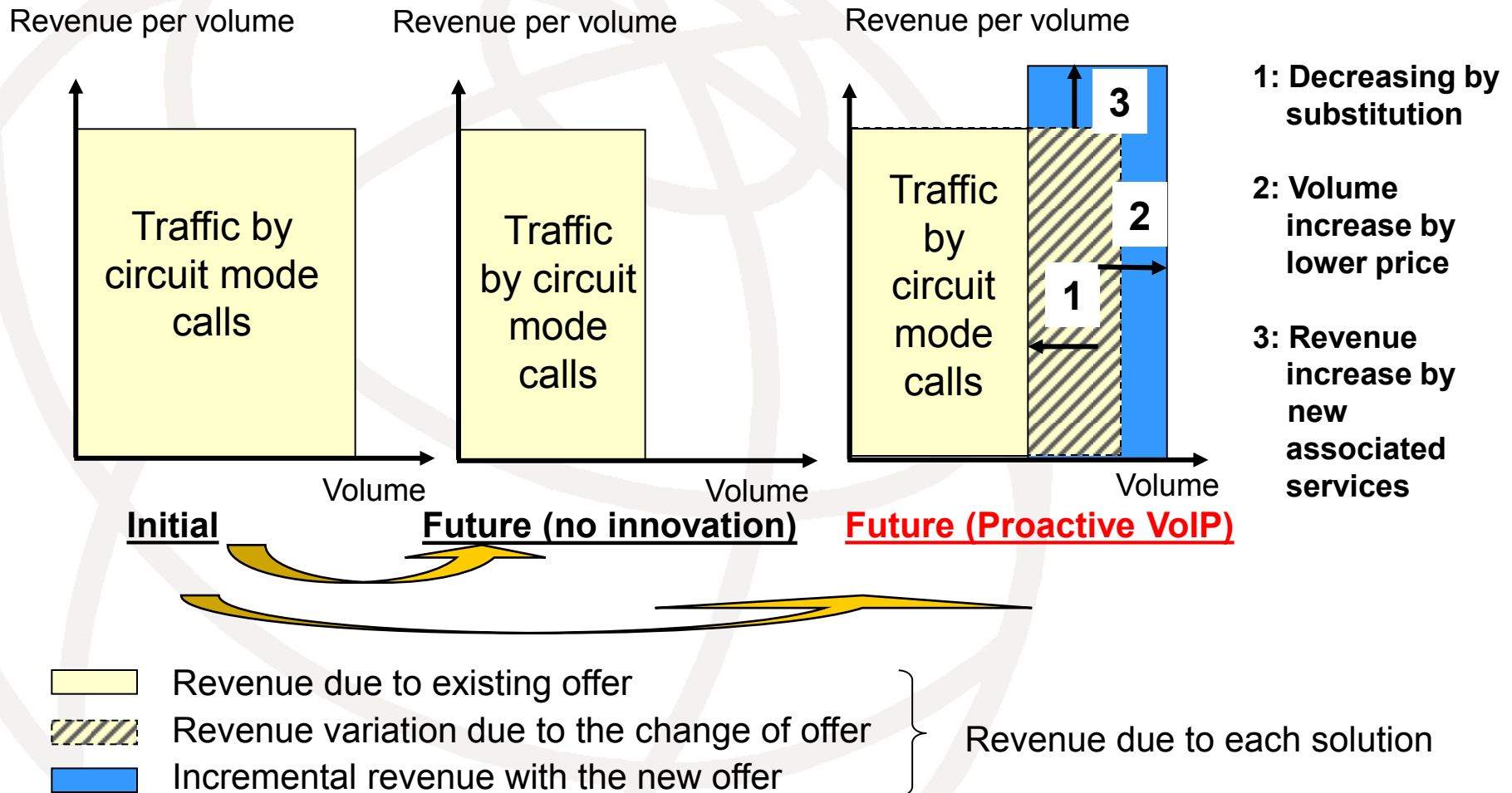
NGN driving services

- **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

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NGN driving services

VoIP positioning for a service provider



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Typical Skype prices from smart terminals to fixed telephone

- **From Spain to:**

- France, Germany, USA, Australia, India, etc: 2,2 cents/min
- Brazil: 2,6 cents/min
- Thailand: 6 cents/min
- South Africa: 6,7 cents/min
- Nigeria: 11,5 cents/min
- Argelia 16 cents/min
- Kenia 21,7 cents/min
- Tanzania: 24,7 cents/min
- RD Congo: 32,8 cents/min
- Etiopia: 34,5 cents/min
- Senegal: 35,9 cents/min

- ***Ratios up to 15:1. 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

■ ASP Context

- ASPs provide a contractual service offering to deploy, host, and manage access to an application residing in a facility other than the customer's site.

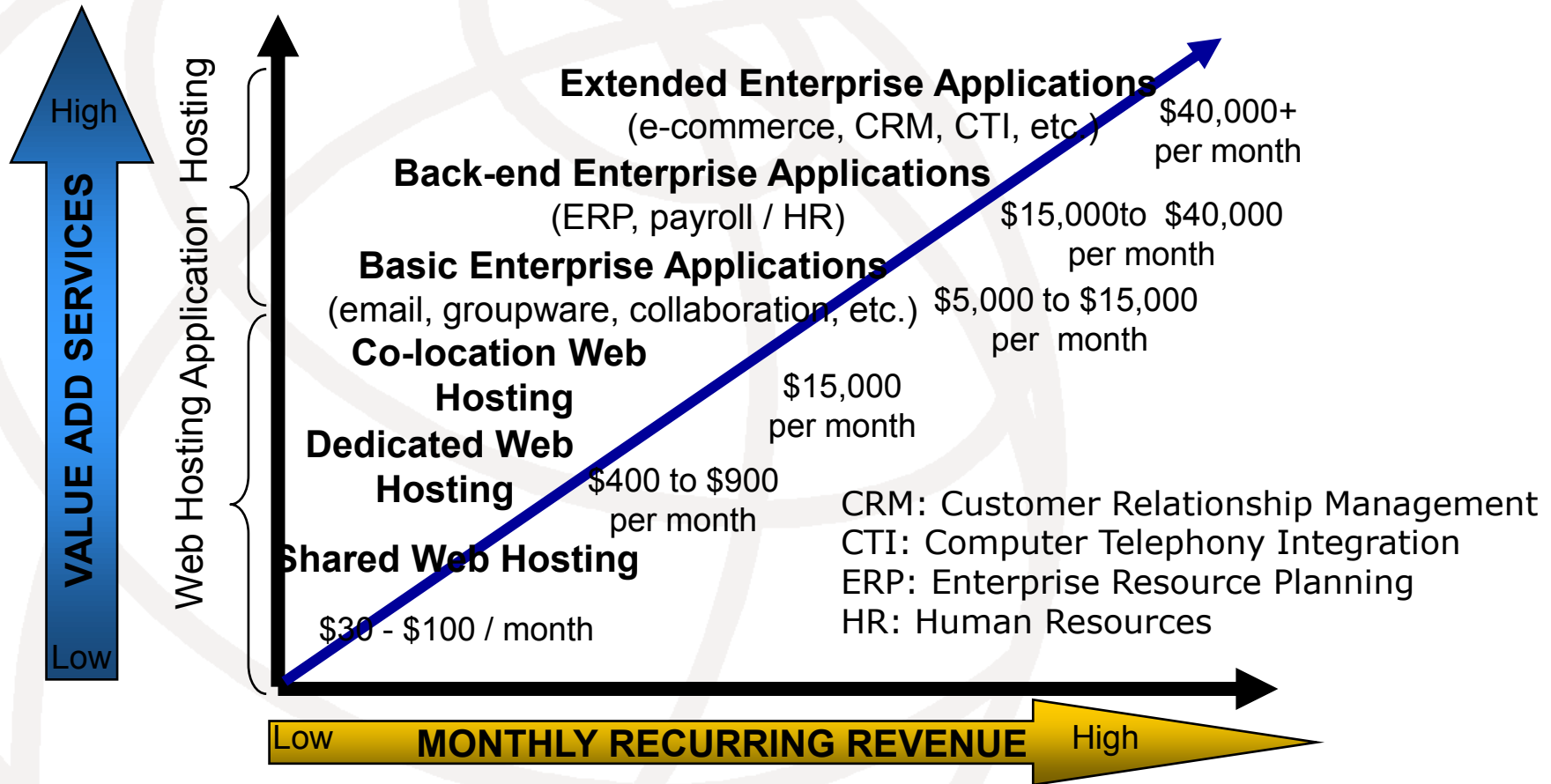
■ Motivation

- ➔ To en user
 - Solution to lack of internal Information Technologies (IT) resources
 - Potential cost savings and better cost control
 - Easier and faster software implementation
 - Gives access to otherwise unaffordable applications for Small and Medium Enterprises (SMEs)
 - Access to latest technology and superior connectivity
- ➔ To operator
 - Enlarge value chain business to the applications and
 - Empower attractive bundling for business customers
 - Increases participation in e-business

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NGN Driving Services for Business

Main ASP applications and projected value/revenue added



Source: Cherry Tree & Co

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Importance of service mix on business

- Due to the cost and revenue drivers for different services , the mix of services on an NGN has a fundamental influence on the project profitability.
- Costs are distributed and assigned among services as follows:
 - Common cost to all network
 - Common costs to the Broadband and multiservice platforms
 - Specific costs for each service introduction and operation
- Higher number of NGN services (and not only VoIP) will increase overall profitability and each service profitability by the common cost sharing among them.

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NGN driving applications as indicated at UIT-D Q.20

E-Government

- Increasing importance of efficient exchange of best practices through electronic means to connect citizens to the e-government have a major impact on the overall country efficiency and competitiveness.

E-business

- The fastest growing ICT landscape notably with international broadband connectivity that influence the creation of local content and the ability of developing countries to market their ICT products.

E-science

- More affordable and accessible content of scientific findings that promote collaboration and e-publishing with different pricing options and open access.

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NGN driving applications as indicated at UIT-D Q.20

E-learning and Mobile Learning

- Major facility for professional development to teachers on using mobile technologies to support use technologies for education, teaching and learning.

E-health

- Major current development of national e-Health solutions integrating ICTs to support the priorities of the health sector;
- Affordable and reliable solutions applications to health centers and institutions including connectivity to remote areas. E-health appliances and wearable devices as a major topic in the latest CES (Consumer Electronic Show) at Las Vegas in January 2014

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

E-environment

- Wide impact of ICT on solutions for the main challenges related with key environmental issues, such as climate change, energy consumption, electronic waste management and disaster risk reduction to ensure sustainable development.

E-agriculture

- A growing body of experience shows clear benefits of ICT in facilitating information flows and social networks, and the positive impact ICT can have on the livelihoods of people in rural agricultural communities.
- Mobile technology is the dominant tool in agricultural information services, and is expected to remain so.

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

Telecom Support to public security, catastrophe prevention and emergency aid

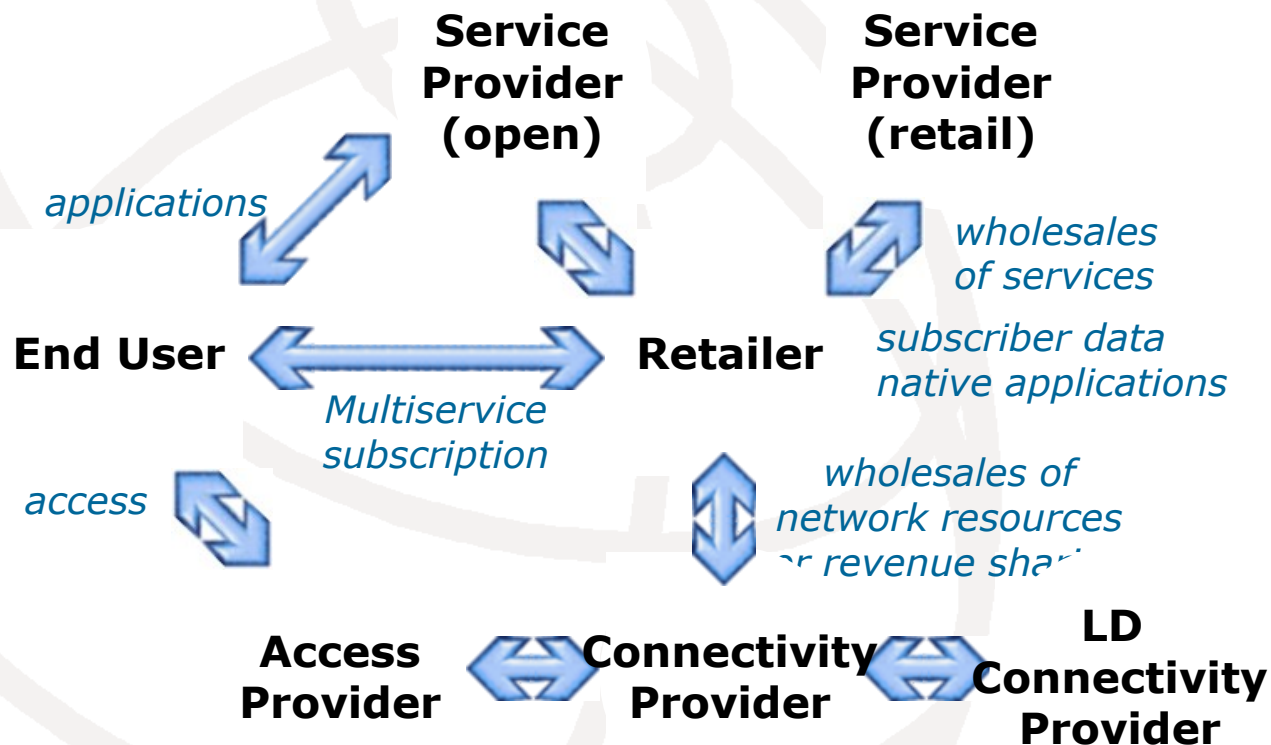
- Priority associated to support to remote vigilance at neuralgic installations, airports, railway stations, and other public singular sites.
- Quick reaction in the support to public services reestablishment in case of damage, medical support, food distribution, assistance to service substitution and tele-working, etc.

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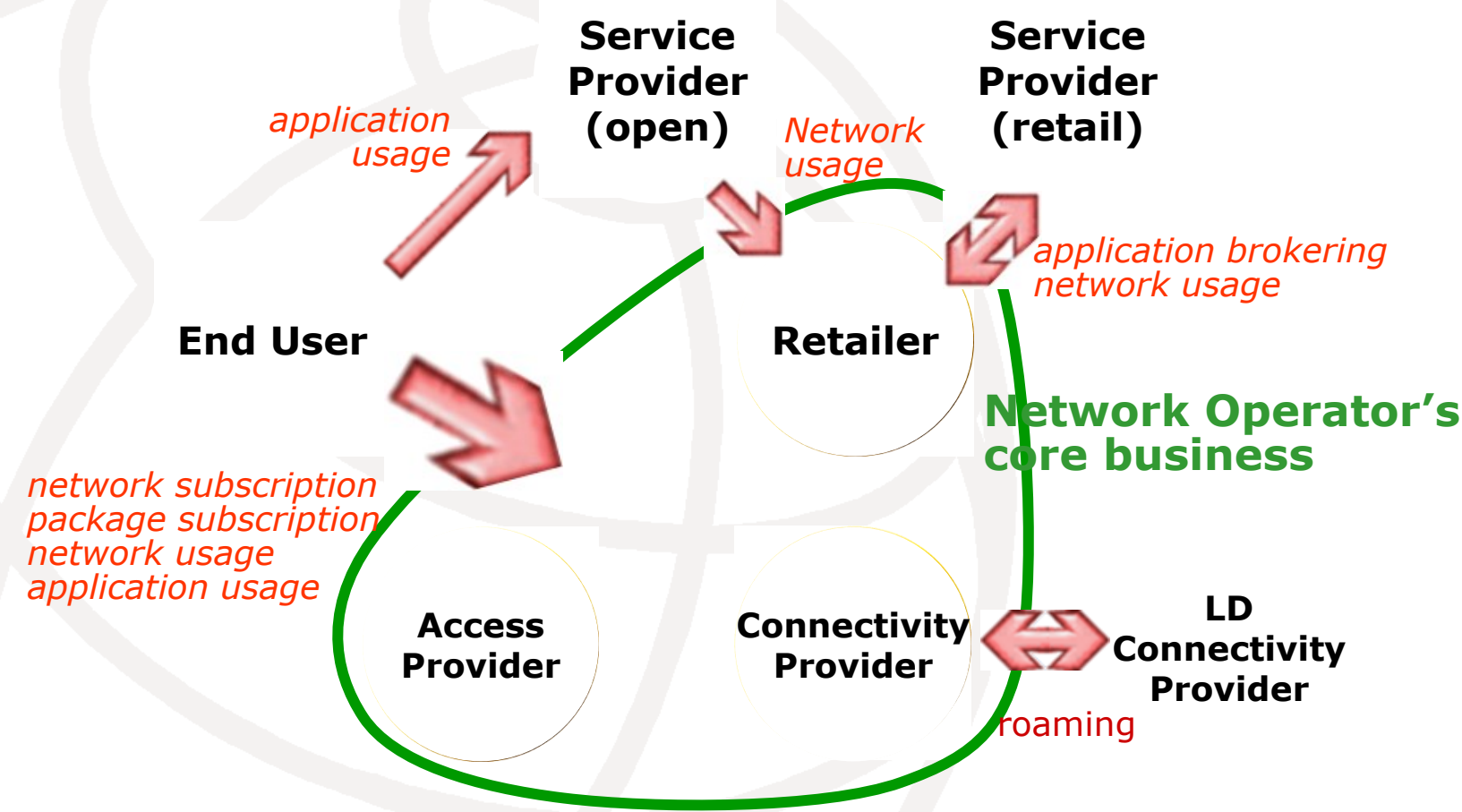
New players in service provisioning and interrelations



LD: Long Distance

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New players in service provisioning and interrelations

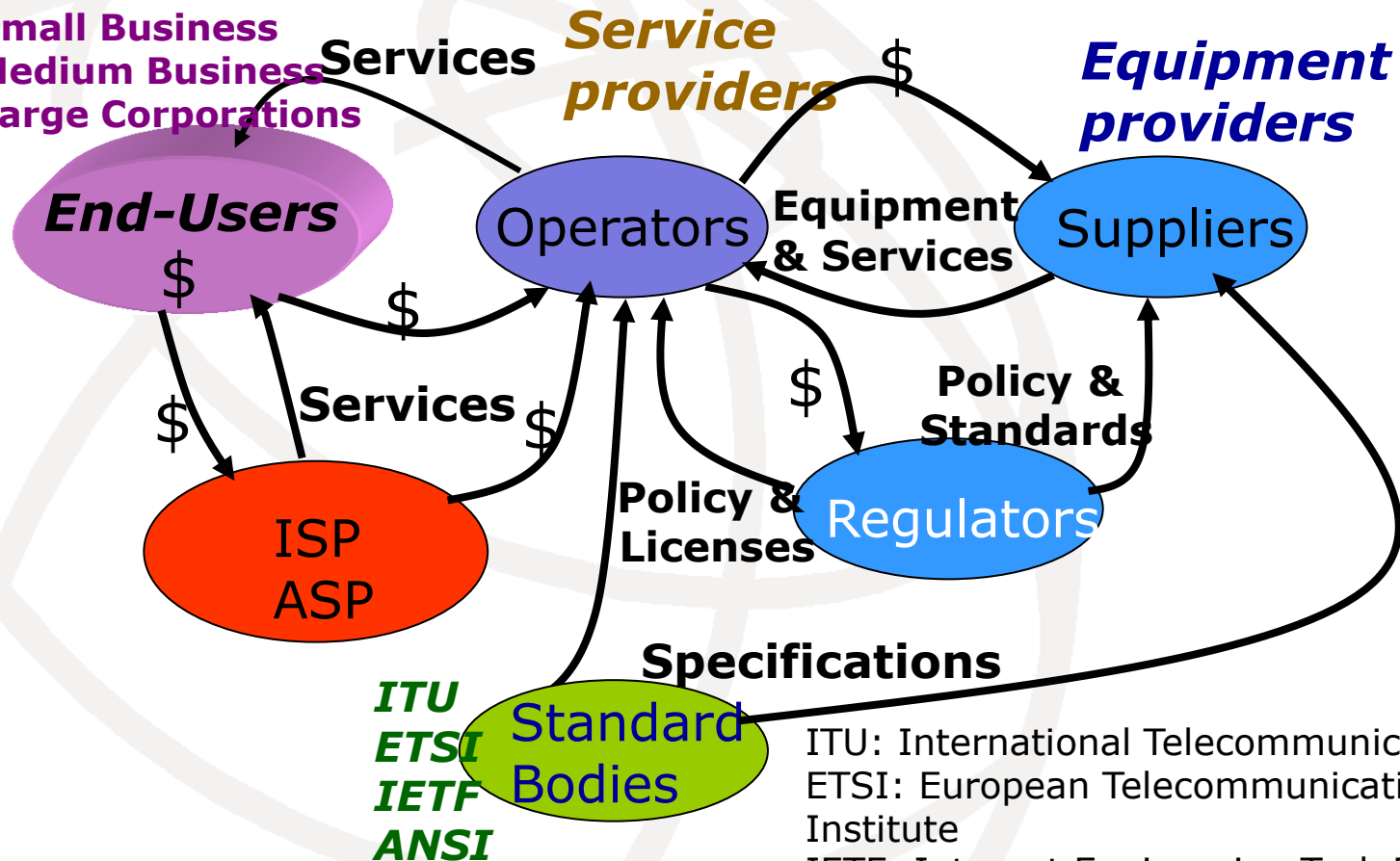


LD: Long Distance

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Players in new service definition and interrelations

Residential
Small Business
Medium Business
Large Corporations



ITU
ETSI
IETF
ANSI

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
- And many others

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OTT main services

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

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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 3Q 2013 **350** million active users with **11** billion messages send, **20** billion received and **325** million photos per day
- **Facebook**: at 2Q 2013 **1110** million users (**680** million on mobile), **700** billion minutes and average duration of **20** minutes

*Ref: <http://www.statisticbrain.com/> and others

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OTT positioning

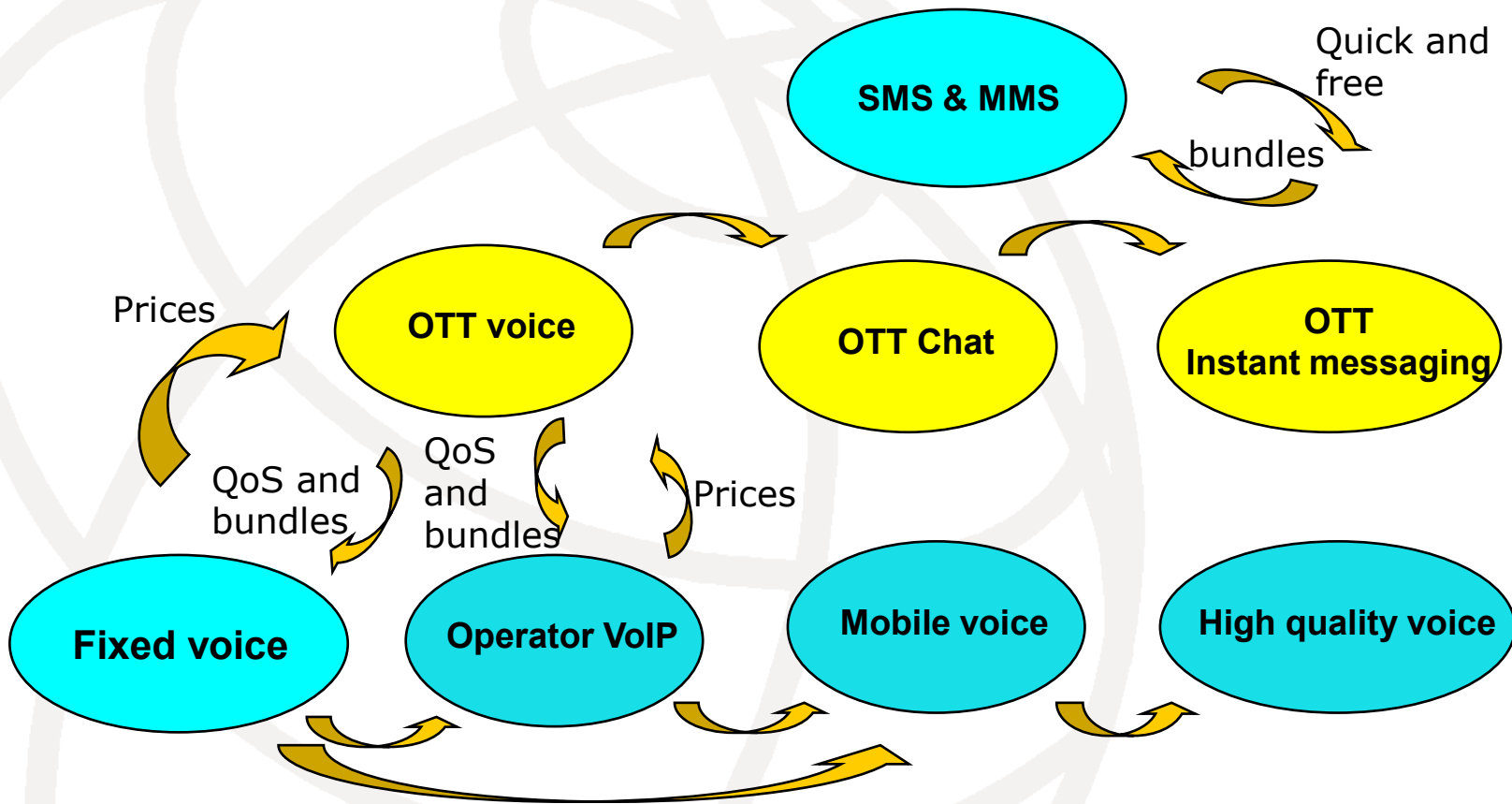
OTT services volume ...

- **Twitter**: at 2Q 2013 **555** million users and **58** million tweets per day
- **LINE**: at 4Q 2013 **300** million users with highest number in Japan
- **Linkedin**: at 3Q 2013 **260** million users, **2,1** million groups and **200** conversations per minute.
- **Paypal**: at 2Q 2013 **132** million active accounts with **14** billion dollars at 2012 for annual mobile payment

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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

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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

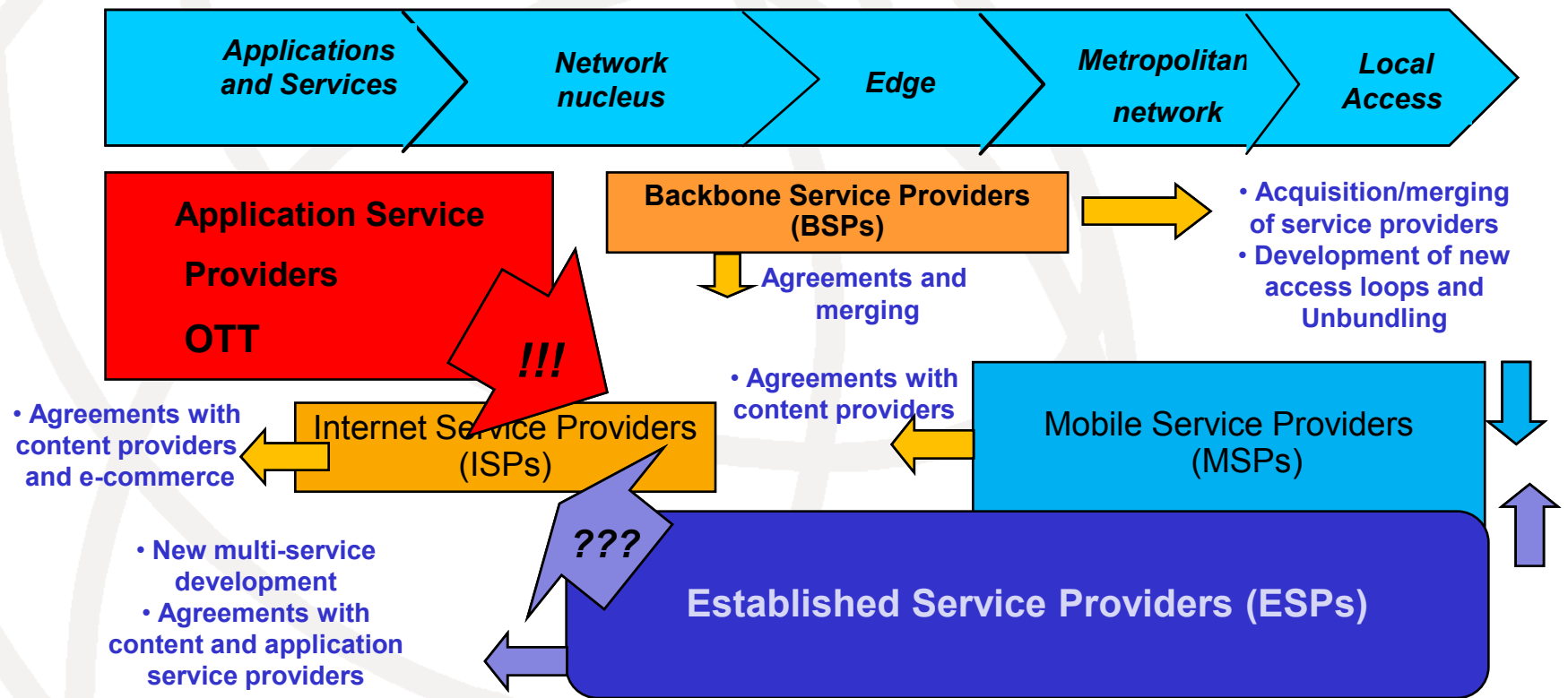
- Difficulties to assure **end to end quality control**
- Less advantage for **proximity** and **consumer experience** related requirements
- Lower capability for country national and **local dependent services**
- **Lack of contribution to the Universal Services Fund and very limited contribution to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

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Impact of Internet on Services 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



Rich Communication Suite Initiative

- orange

Telefonica

TELECOM

TIM

TeliaSonera

at&t

NTT DoCoMo

telenor

celstra

tmn

SFR

SK telecom

Nokia Siemens Networks

ERICSSON

TAKING YOU FORWARD
- NEC

LG

MOTOROLA

Alcatel-Lucent

Sony Ericsson

SAMSUNG

NOKIA

Connecting People

■ The RCS Initiative is the joint effort of leading industry players to speed up and facilitate the adoption of applications and services that provide an interoperable, convergent, rich communication experience based on IMS.

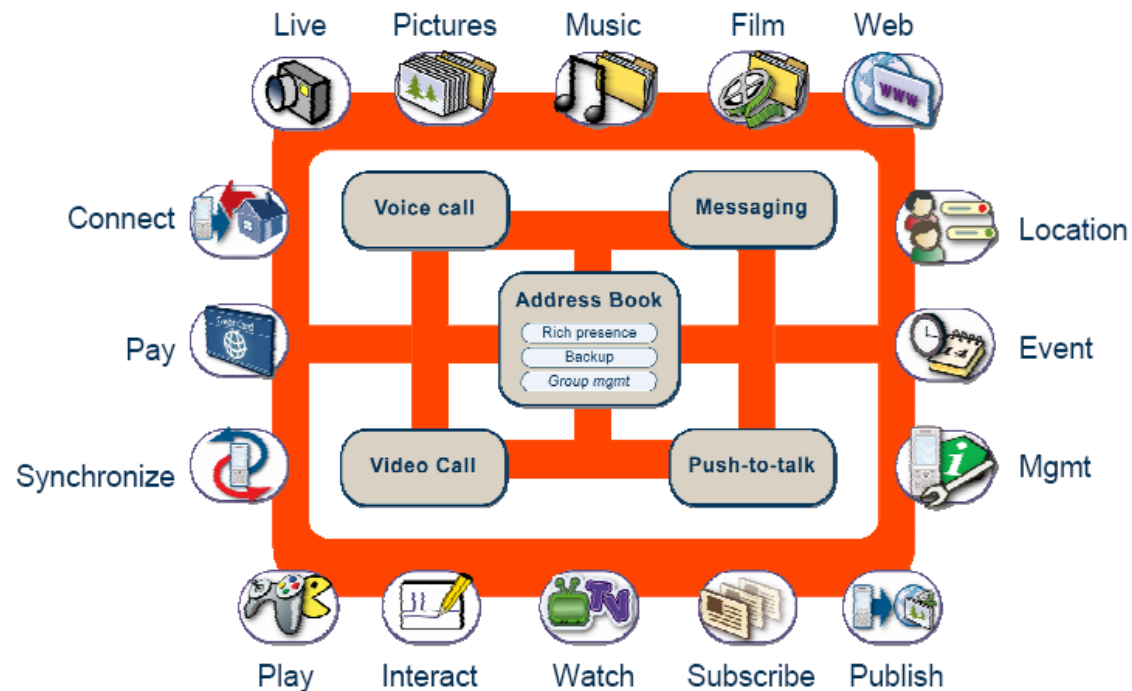
Forum multioperator and multisupplier to reinforce new IMS (Internet Protocol Multimedia Subsystem) based services compatibility and interoperability from the operator side

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Industry Initiative for multiservice compatibility

RCS Vision - A richer experience

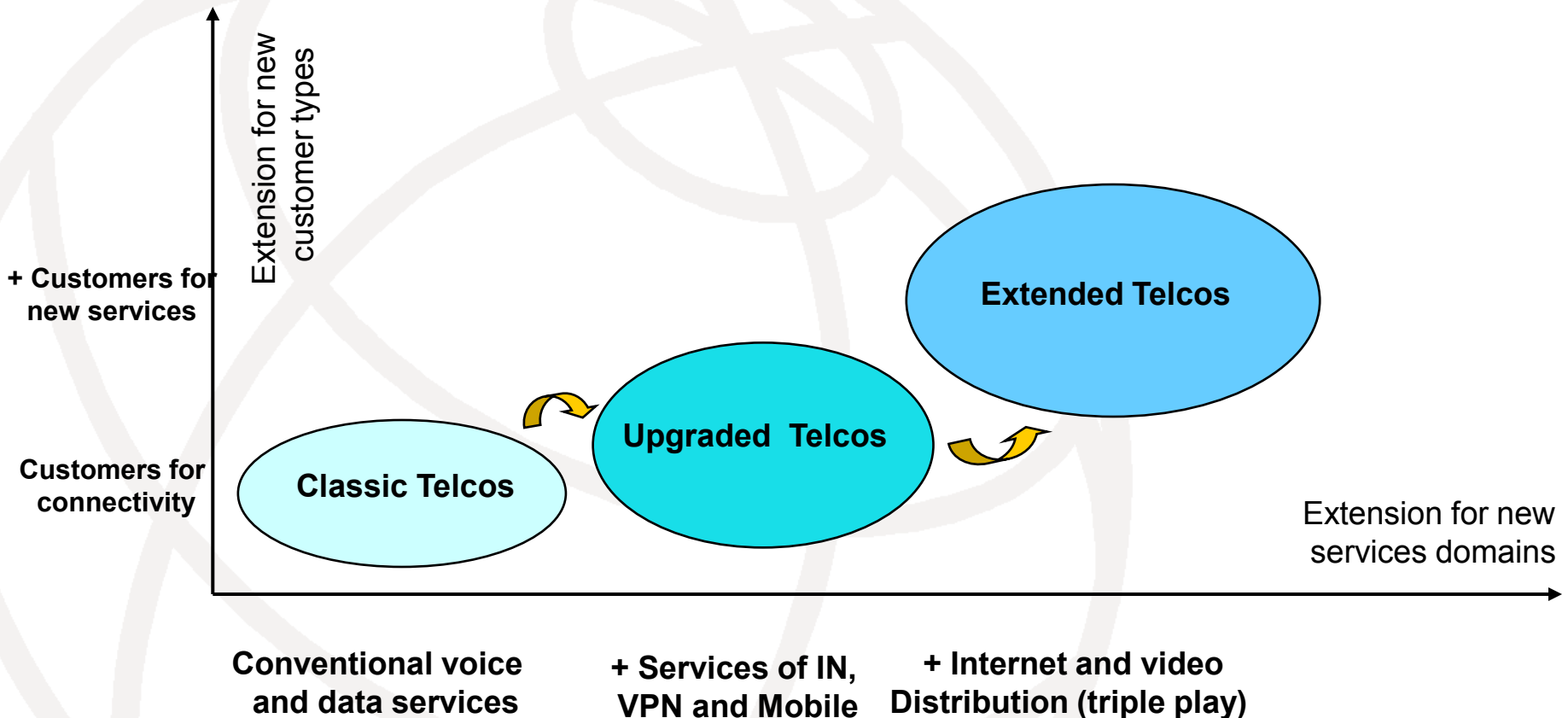
Freedom, control and belonging



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

Impact of Internet on Services Strategy on Business Migration Leaps

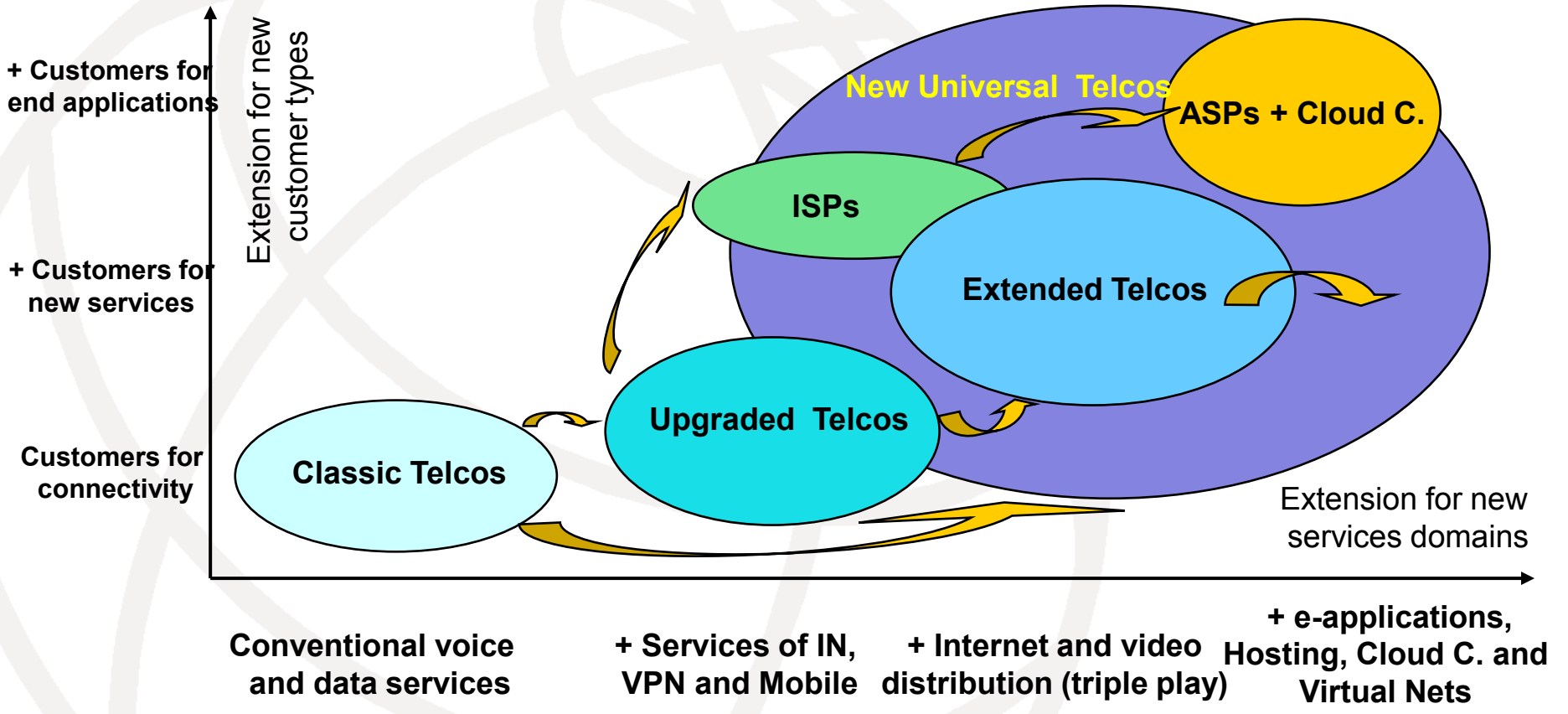
“staircase” for leading growing alternatives



IN: Intelligent Network

Impact of Internet on Services Strategy on Business Migration Leaps

“staircase” for New Universal Telcos from operator and web sides

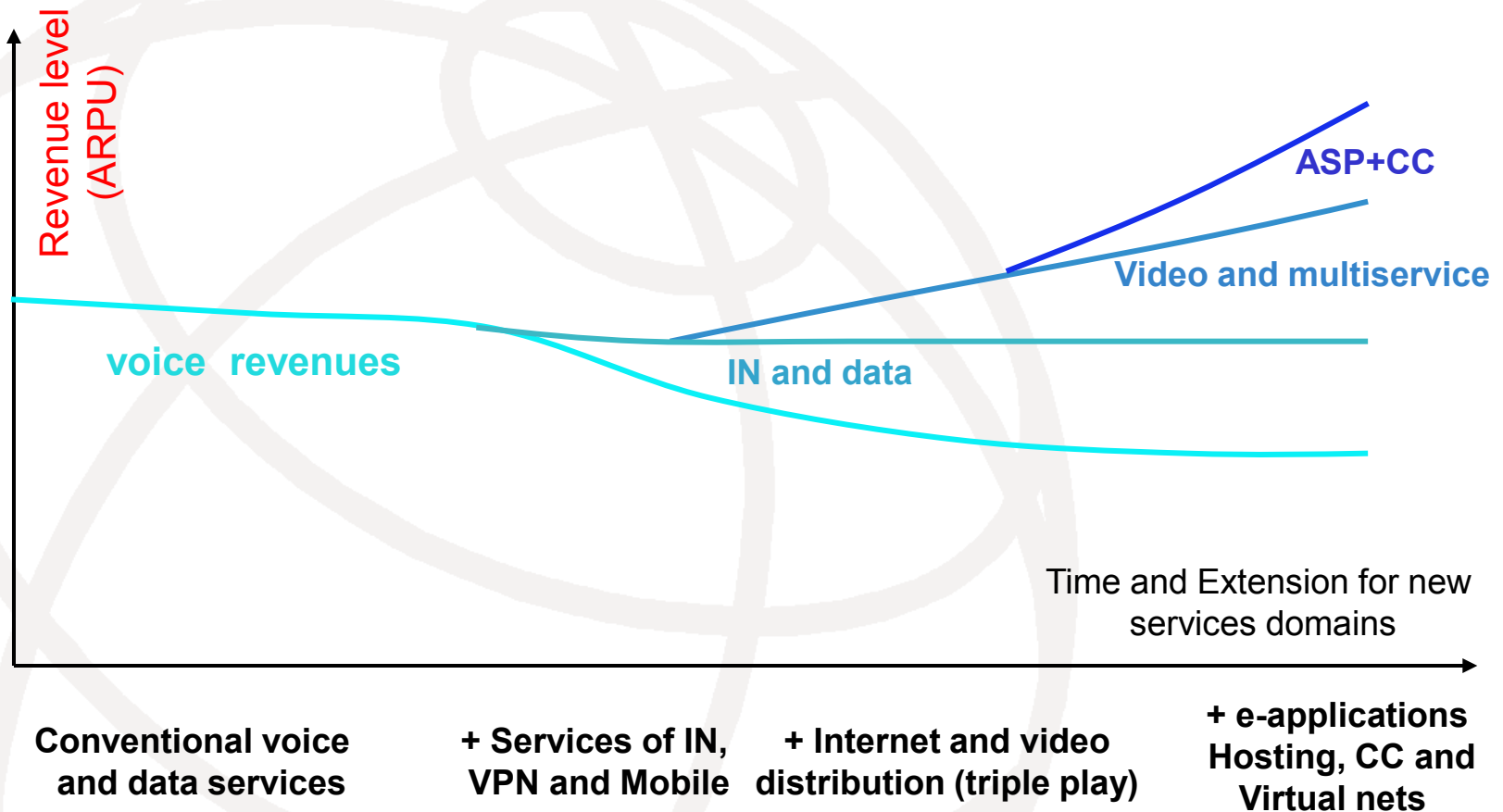


Specific migration and timeframe to be optimized for the country context and regulatory conditions

CC or Cloud C.: Cloud Computing

Impact of Internet on Services Trends on Convergence

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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Recommendations for operators actions

Actions for topics to analyze:

- 1- Specific **demand of new services and consumer experience** per country
- 2- **Market power** and competition level for players per country
- 3- Flexible tariffs and **bundle offers**
- 4- NGN **deployment stage** at the country
- 5- Positioning of service providers for **higher value added** in the services chain
- 6- Analysis of **competition versus win-win cooperation - partnership with OTT's**

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Summary of Key Factors

- **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
- Provide attention to **Quality of Service on VoIP** and **Consumer experience**
- Design financial performance with best business practices and **services bundles**.

International Telecommunication Union

Committed to connecting the world