ITU Arab Regional Workshop on Mobile Roaming: National & International Practices

27 to 29 of Oct, 2015 Sudan - Khartoum

Presentation Name:

THE FUTURE TRENDS OF ROAMING

ROLE & IMPACT OF OTT

ITU Expert

Introduction

- Difficulties in obtaining a postpaid line
  1. You must be a national or sponsored client
  2. Evidence of ability to pay
  3. Bank guarantee
  4. High monthly fee
  5. Huge deposits
  6. Irrevocable or high cost contract

DIFFICULTIES OF MENTAINING POSTPAID SUBSCRIPTION

1. POOR customer experience
2. Bill shock

DIFFICULTIES IN OBTAINING ROAMING SUBSCRIPTION

1. HIGH deposits
2. Unclear retail pricing
3. Inaccessible call centers
4. Prolonged network coverage outages
5. Poor customer experience
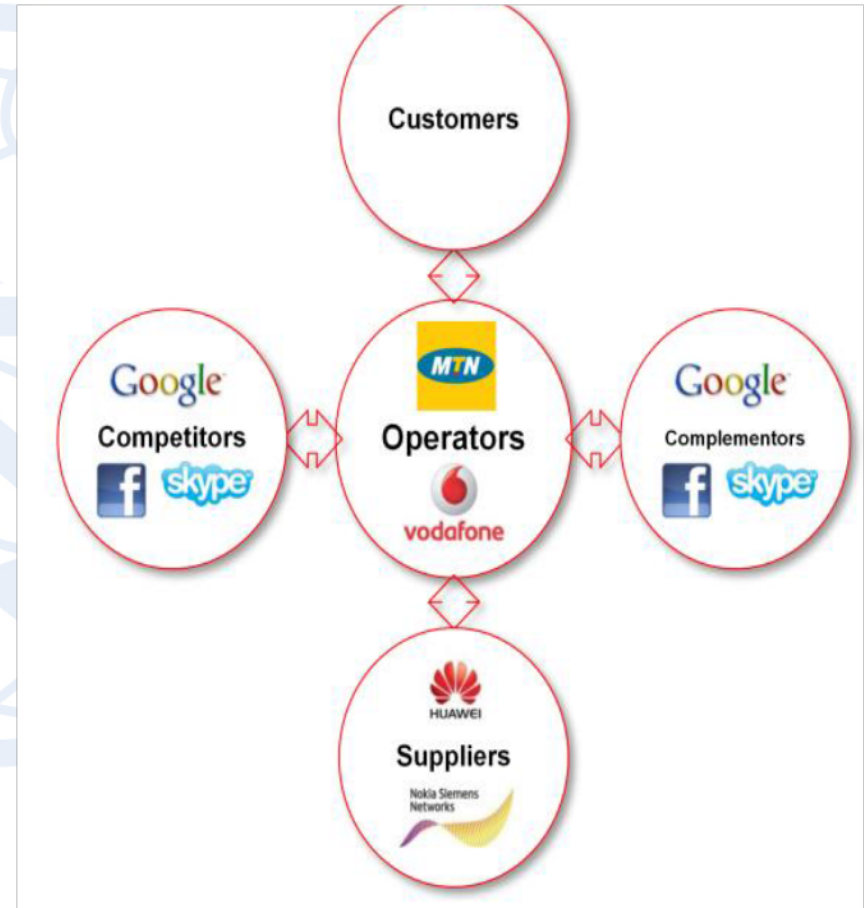
THE FUTURE TRENDS OF ROAMING

1. ROLE AND IMPACT OF OVER THE TOP SERVICES
2. IMPACT OF MVNO AND MNP
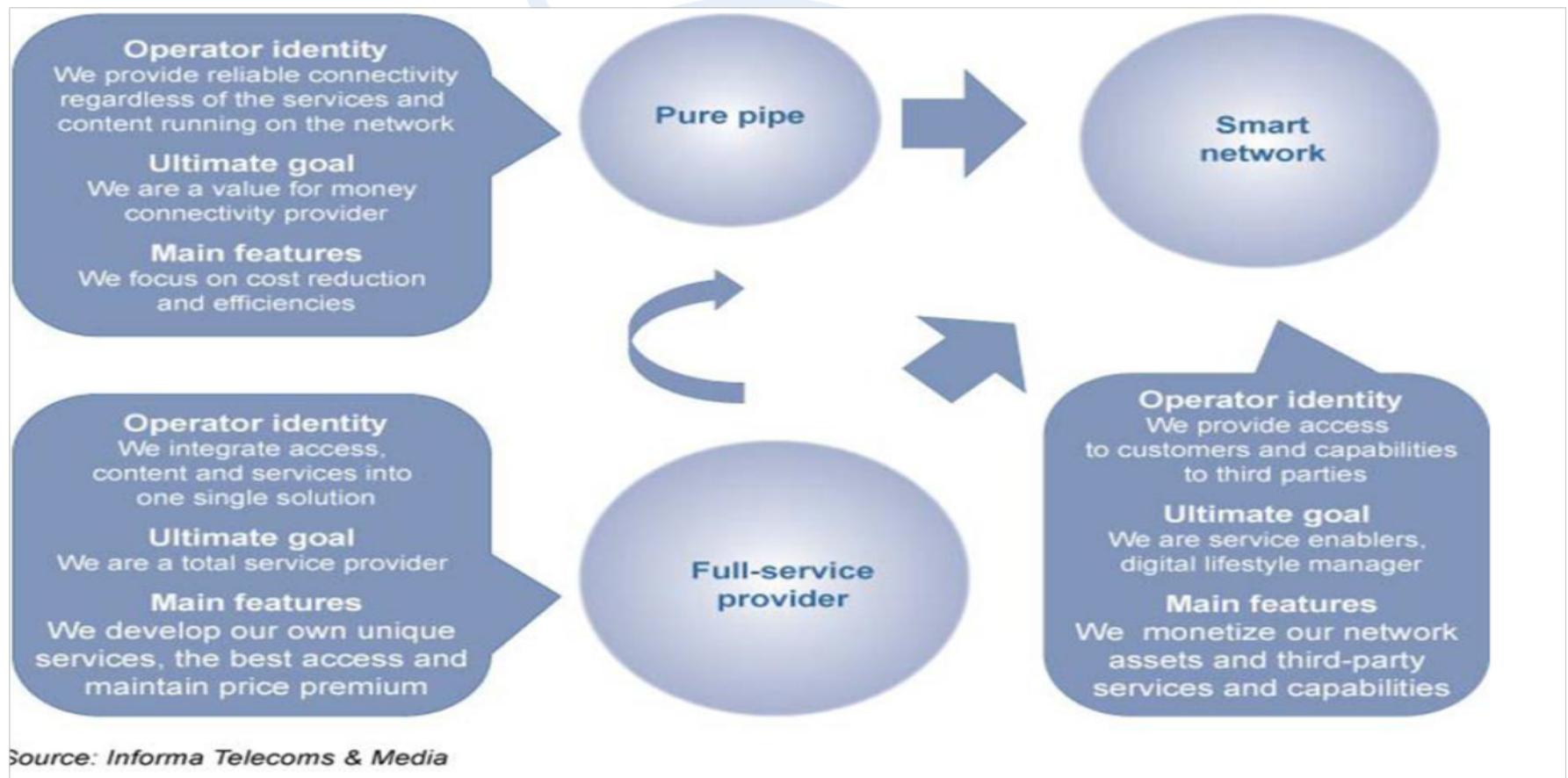## 3. THE INTERNATIONAL MARKET AND CONSUMER TRENDS

OTT

- Over the Top players – Threat or opportunity?
  - Content providers are streaming content direct to consumers
  - Google, facebook, Apple, Skype,etc have a positive impact on mobile data sales but increases mobile data carriage costs and reduces Telcos's value and messaging revenues
  - This is a key driver for new business models

OTT : From Value Chain to Ecosystems

– Previous Threats evolving into Opportunities for partnership.

– Traditional buyer –seller Value chain is increasingly obsolete

– Requires a mindset shift for

Traditional Telcos

– Need to bring complimentary assets together to make the most of mutual interest and opportunities

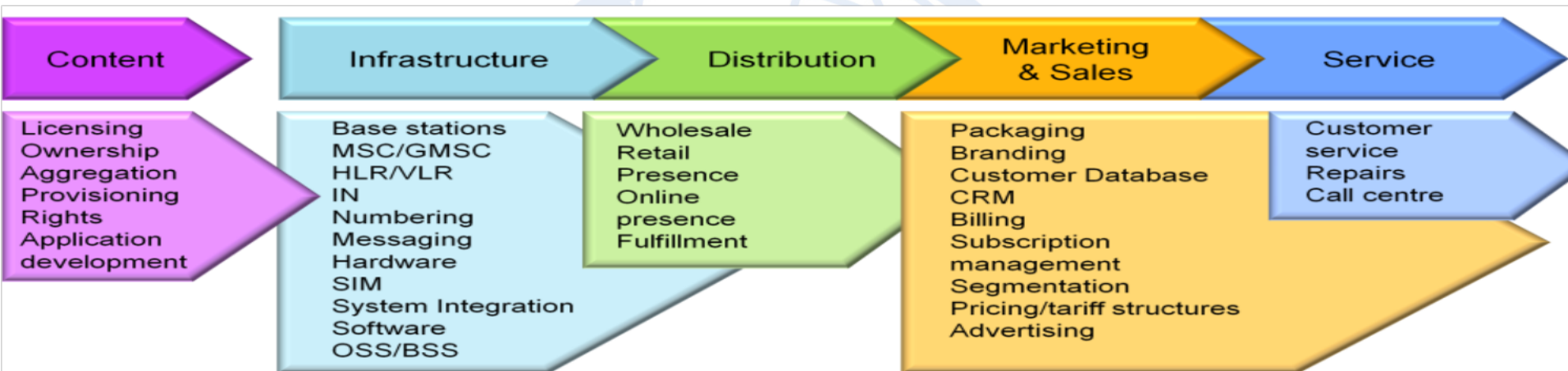– **The operator will not always be at the center.**

Business model Options for Operators

Operator identity
We provide reliable connectivity regardless of the services and content running on the network

Ultimate goal
We are a value for money connectivity provider

Main features
We focus on cost reduction and efficiencies

Pure pipe

Smart network

Operator identity
We integrate access, content and services into one single solution

Ultimate goal
We are a total service provider

Main features
We develop our own unique services, the best access and maintain price premium

Full-service provider

Operator identity
We provide access to customers and capabilities to third parties

Ultimate goal
We are service enablers, digital lifestyle manager

Main features
We monetize our network assets and third-party services and capabilities

Source: Informa Telecoms & Media

Business model choices beyond traditional price-based approach

- How can telcos add value and increase customers' willingness to pay for their products?

- How does a different definition of "customer" change operator's pricing approach?

  – The future evolution of mobile data pricing will be the single most important factor to determine the development of a sustainable and profitable business model for operators.

Wholesale business model

Content	Infrastructure	Distribution	Marketing & Sales	Service
Licensing Ownership Aggregation Provisioning Rights Application development	Base stations MSC/GMSC HLR/VLR IN Numbering Messaging Hardware SIM System Integration Software OSS/BSS	Wholesale Retail Presence Online presence Fulfillment	Packaging Branding Customer Database CRM Billing Subscription management Segmentation Pricing/tariff structures Advertising	Customer service Repairs Call centre

- Differentiation reduces the risk of becoming a 'dumb pipe' commodity
- Differentiating features:
  - Coverage and QoS
  - Availability of high data speeds
  - Advanced (wholesale) billing capabilities
  - In-house and third-party distribution

- **Finding a means to charge partners for services makes wholesale as attractive as retail**
- Advent of all-IP offers new opportunities
- Operators need to find a niche in the value chain and maximise presence

Telecoms Business Environment

- The Telcos must not loose sight of their core business. 51% of service revenues globally will still come from voice in 2017 (Informa Telecoms and Media)

- However, analysis of customers behavior indicate a fragmentation of communication behavior away from voice

- Cross platform application like whatsapp, Microsoft/Skype &Viber are focusing on integrating different forms of communication across multiple devices

- Operator response options:
  - Partnership with OTT providers e.g., Whatsapp
  - If you cant beat them, joyn them – e.g., Telefornica and DT
  - Own brand RCSe services like KT, Telstra

Can RCSe Add Value?

- Remote Communication Suite – enhanced (RCSe) is a way for operators to emulate OTT services. If operators want RCSe to be successful, the need to offer the OTT players a compelling user experience with a "wow" factor is a must, but zero price is also important.

- Cannibalization of existing revenue is both painful and necessary for CSPs who want to keep the relationship with their customers in this internet era

Impact of MVNO and MNP. MVNO

- Market Segmentation is the process of dividing a market into groups also known as segments and is used in all industries.

- Mobile Virtual network operators are generally characterized by strategies that target particular segments, rather than the entirety of the markets in which they operate.

- The MVNO core business activity is focused on the process of developing, marketing, and selling services

Impact of MVNO and MNP. MVNO

- Partnering with an MVNO provides a way to ensure that "difficult" segments will still generate traffic which accounts for wholesale revenue on the operator network, even if the customer can be said to be owned by the "virtual operator". *It is better to have a smaller share of something than the whole of nothing.*

- These partnerships are a way to implement a wider marketing mix, addressing specific, targeted segments onto the network but without the sales, billing, marketing and customer service overheads that would be required to reach these segments

Impact of MVNO
From a Roaming perspective

Yes

- They will create competition, therefore pull subscribers to their virtual network with competitive offers offering the roaming solutions of the host in addition

No

- They usually have a higher cost base because they are paying a host Operator to reuse their Roaming agreements… the Host Operator will charge for that

- They cannot receive Inbound Roamers because they don't have their own network…which is a high revenue earner for most Operators

Impact of MVNO and MNP. MNP

- The overall aims of Telcos are to
  - Attract new customers and keep existing ones
  - Provide a portfolio of services that customers want at a price that is
    - Right for the business and
    - Right for the customer
  - Minimize costs
  - Maximize ARPU
  - Plan ahead effectively.

Impact of MNP
From a roaming perspective

Yes

- If an alternative Operator has a better footprint, i.e. more Roaming Partners

- If an alternative Operator has better Roaming Retail Packages for Roaming

No

- Unless a subscriber was a high roamer (frequent traveller) they would not find a great difference in Roaming Retail Packages which would compel them to migrate

- Most Operators have similar roaming coverage

The international roaming market and consumer trends

- What do our customers wish we had that we don't have? How can we improve that?

- What differentiates our service and product offering from our competition?

- What motivates our subscribers to use our network and spend more on our services and products?

Introduction: The success of Wi-Fi

- Operators did once actively lobby handset makers against integrating Wi-Fi capability.
- **It was the launch of the Wi-Fi-enabled iPhone in 2007 that signaled that the game had changed**, and confirmed that local-area wireless technology had made an incredible mark on the cellular industry.
- Consider, for example how advanced high-end smartphone use cases (and by extension, subscriber value) have shifted to Wi-Fi.

The success of Wi-Fi (2)

- With rich-media applications such as Skype, Facetime, Whatsapp Calling and others being designed to run over Wi-Fi rather than 3G...

- ... and in some cases restricted to Wi-Fi because cellular is too congested or expensive – it is clear that users derive value in this form of connectivity that is addictive to the 3G wide-area experience.

- Reclaiming some of that usage and influence is strategically important for operators and is underpinning a renewed push to integrate Wi-Fi more effectively into their subscriber offers.

WHAT IS PASSPOINT?

- Wi-Fi® CERTIFIED Passpoint was launched in 2012 and is an industry-wide solution to;

- streamline network access in hotspots and

- eliminate the need for users to find and authenticate a network each time they connect.

- Passpoint automates that entire process, enabling a seamless connection between hotspot networks and mobile devices, all while delivering the highest WPA2™ security.

- Passpoint is enabling a more cellular-like experience when connecting to Wi-Fi networks.

WBA: The Next Generation hotspot program

- In 2012, World Broadband Alliance (WBA) launched the Next Generation Hotspot NGH Trial Phase 2 project and Interoperability Compliancy Program while continuing the momentum from the GSMA – WBA Joint Taskforce from 2011

- The aim of the WBAs Next Generation Hotspot (NGH) program is to deliver a public Wi-Fi experience that is as easy and secure as that experienced on cellular networks.

WBA: Next Generation Hotspot Program (2)

- Through the NGH Program, WBA are designing and specifying **hotspots that are easier for users to find and access: devices will connect securely and automatically with no need to manually enter user names or passwords.**

- But they're also designing and specifying these hotspots to be much, much more secure. The new hotspots feature **similar levels of security to the cellular network including end-to-end radio link encryption and SIM authentication**.

Wi-Fi Roaming

- WiFi Roaming is the capability to maintain connectivity when roaming between WiFi networks and cellular networks

- Extension of GSM/GPRS/UMTS voice, SMS, and data services to the subscriber over WiFi access networks

- Requires dual mode devices (WiFi + GSM/GPRS/UMTS)

- Intended to coexist and interconnect with existing GSM/GPRS/UMTS mobile and core networks

- Designed for transparency to the user and the existing MNO's core infrastructure

- Enables SIM based authentication to the WiFi HotSpot

Why Wi-Fi Roaming?

- Extends and improves network coverage
- Reduces customer churn due to poor coverage
- Increases customer mobile utilization
- Alleviates congestion in the licensed network
- Reduces capital requirements for network build out

Benefits of Wi-Fi Roaming

With Global Wi-Fi Roaming you can gain access to:

- A global Wi-Fi footprint of more than 1 million hotspots
- More than a billion subscribers worldwide
- Experts in roaming, offload and interworking
- Operator standards, guidelines, best practices and templates
- A global ecosystem of major operators and vendors
- A global forum and partnership opportunity
- A role in technical developments that will influence the direction of wireless.

LTE & LTE ADVANCED

LTE

- The evolution of LTE is a crucial step to ensure a high-quality wireless network for the future.

- The world is changing, we are now entering into a new society, where everything that gains from being connected will be connected and will entail new requirements on connectivity.

- While making this new world happen at the same time Operators have to become leaner focusing on energy efficiency.

- It is also crucial to improve capacity and user quality by making further enhancements to LTE, as well as creating better possibilities for the close integration of LTE and Wi-Fi deployments.

HOW Does LTE change the game for operators

2010	2015	What 4g brings
Wi-Fi increasingly preferred over 3G	LTE Competes WiFi	4G will provide responsiveness on poor with household WiFi
Patchy Indoors 3G coverage	LTE competes WiFi Ubiquitous data coverage indoor and outdoors	800MHz 4G will provide excellent characteristics for indoor coverage
Cloudy apps only in the home or office	Universal cloud access, high performance	Coverage plus performance of 4G work above 2015's cloud apps
Tablets sold with 3G module but rarely activated	Majority of 4G tablets are LTE activated	Wifi less convenient and too insecure for consumer and enterprises, 4G addresses mobility trends

Global Status: Progress in LTE Rollout Globally

- LTE-Advanced is a further extension of bandwidth through use of additional radio technologies
  - Multi-bearer bonding – ability to combine bandwidth from more than one spectrum band.
  - 'Multi-input multi-output' (MIMO) – multiple antenna in devices to increase bandwidth
  - Maximum downlink - >1Gbps, Maximum uplink - >300Mbps
  - True 4G (not just marketing badge)

Why Internet of Things

- New Revenue Streams
- Potential differentiation of service levels perhaps introducing new levels of quality and service in the Roaming scenario
- Permanent Roaming Scenarios
- Long term contracts with clients (up to potentially 15-20 years of service)
- More M2M Sims globally than Sims allocated to real subscribers
- Some many new applications of Sim Cards

5G

- A new mobile generation has appeared approximately every 10th year since the first 1G system, Nordic Mobile Telephone, was introduced in 1982.

- The first 2G system started to roll out in 1991, the first HSDPA system first appeared in 2001 and LTE systems fully compliant with IMT Advanced were standardized in 2012.

- The development of the 2G (GSM) and 3G (IMT-2000 and UMTS) standards took about 10 years from the official start of the R&D projects, and development of 4G systems started in 2001 or 2002.

- Predecessor technologies have occurred on the market a few years before the new mobile generation, for example the pre-3G system CdmaOne/IS95 in the US in 1995, and the pre-4G systems Mobile WiMAX in South-Korea 2006, and first release-LTE in Scandinavia 2009.

- In April 2008, NASA partnered with Geoff Brown and Machine-to-Machine Intelligence (M2Mi) Corp to develop 5G communications technology.

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Expert name: Ruth N MUnge

THANK YOU

Open Discussion

ITU/BDT Arab Regional Workshop on Mobile Roaming: National & International Practices
Khartoum-Sudan, 27-29 October 2015

DAY 1

National and International Roaming: Opportunities and Challenges

National Roaming : Opportunities and Challenges

1865
2015

National Roaming

Opportunities

- Allows subscribers from other networks to use the host network coverage
- Increases usage while subscriber is out of their destined network coverage
- Gives opportunity to the hosted network to avail services without infrastructure
- Business opportunity - Increases revenue to both networks
- Least cost model for /Cheaper to roll out for new comers in mature markets

Challenges

- Acts as a constraint for the host network planned resources
- Lack of Regulatory clarity and involvement in Billing and QoS
- Poor Qos for SMS, Voice and DATA services
- Very poor allocation of 3G coverage where signed
- Billing assurance for national roaming events (the VPLMN must be care with the billing reconciliation)
- Interrupts planned growth for the host network

International Roaming

Opportunities

- Business opportunity for roaming partners

- Increased coverage for roaming subscribers

- Increased international footprint for mobile service providers

- Increased revenues from international business

Challenges

- Local offering in the VPLMN
- High roaming tariff
- Silent roamers
- Delayed response incase of outage or roaming anomaly
- Poor customer experience
- Complex roaming billing
- Poor SLAs
- Lack of 3G coverage outside the capitals
- Unsatisfied customers

New Business Model for Roaming Business Simulation approach

Understanding the macro-environment
Where we are today
How the environment will impact your future choices

Identifying trends and opportunities
The competition: today & future
Key telecoms trends and opportunities
Key market trends and opportunities
Sustainable competitive and market differentiators

Developing the Strategy
Business models
The financials
Potential risks
Implementation, KPIs and change management

New Business Model for Roaming

- Analysis: GAP Vs TOWS
- Strategic Appraisal – PESTEL Analysis (external Forces)
- International Roadmap (5yr plan)
- Revenue projection based on Subscribers and roaming revenue
- Planned activities (short plan 2 years ahead)

New business models of Roaming
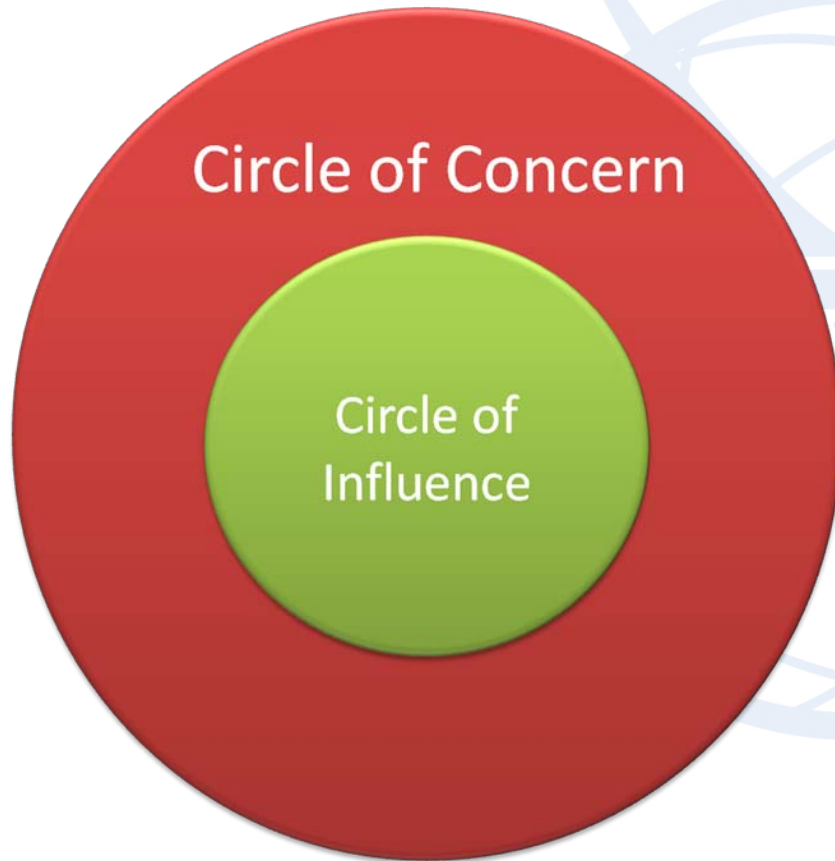
- Circle of Concern
  - Everything you want to be involved with but you cant influence→ no power!
  - Circle of Influence
    - Everything you can control

    - **Focus on the circle of Influence!**

Circle of Concern

Circle of Influence

Best Practices
Achieve more with less - The 80/20 Principle

- Work on your KPIs.

- What doesn't get measured doesn't get managed – Peter Druker

- Avail the network to all roaming partners per roaming agreements and standards

- Focus on the 20% roaming partners that bring in 80% revenue – assigned resources.

Expert name: Ruth Munge

THANK YOU

Open Discussion