

thoughts,

reflections and analysis for the telecom, media and utilities industries

The Value of Reach in an IP world

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Executive Summary

Since the mid-1990s and the global expansion of the GSM standard, 'universal instant reach' has been central to the mobile operator value proposition – it is the ability to connect any users regardless of their location, device type, price plan or mobile network provider. Not only does mobile communication “just work”, it does so instantaneously without the need to subscribe to the same walled garden eco-system as your desired contact. The state of Universal Instant Reach means that you can contact anybody via your mobile device, regardless of whether they have subscribed to the same walled garden eco-system that you have.









Universal Instant Reach has become expected by customers and is part of the mobile operators' DNA in offering core communication services, as it has been in the past for fixed line operators and more recently email providers.



As mobile operators evolve their communication services from the current 2G/3G networks into the IP world, Universal Instant Reach needs to be re-built. The development of the Rich Communication Service (RCS) exemplifies this need: for two customers to communicate using RCS the platform has to be made available by both of their operators. Universal Instant Reach in an IP world cannot be achieved until all operators in a given market have deployed the RCS platform and, ideally the IP communications service is available natively on all devices. Deployment is an independent commercial decision for mobile operators, however when setting their future communications strategy they need to consider the value Universal Instant Reach holds in an IP-world, whether it is necessary to achieve it and, if so, what trade-offs are required.

In this paper, Greenwich Consulting assesses:

- The value of Universal Instant Reach to end users, third party service providers and mobile operators
- What is at stake for operator communications services if Universal Instant Reach is not achieved in an IP world
- Required actions for operators to optimize their IP communications services offerings in order to achieve Universal Instant Reach

Exhibit 1: Universal Reach vs. Universal Instant Reach: definition and examples

	Definition	Examples	Complexity	Value for service owner
Universal Reach	<ul style="list-style-type: none"> •The ability to reach any contact outside of the user's social circle, but which could require a preliminary installation of an application •IP-based communication suites are considered as Universal Reach solutions 	  Walled garden Walled garden	 Scalability/ wide penetration required	 Limited differentiation Vs. existing cheap or free services
Universal Instant Reach	<ul style="list-style-type: none"> •The ability to instantaneously reach any contact outside of the user's social circle instantly, without any pre-required action. Solutions which are native to the device •Voice and SMS are considered as Universal Instant Reach solutions (Historical DNA of mobile operators) 	  SMS Voice	 Requires native integration in devices and collaboration within ecosystem	 High differentiation Vs. existing services = Value

 High
 Low

In this paper, we argue that to be successful in IP communications operators' strategies should target Universal Instant Reach at least within domestic markets.

Failure to overcome competitive tendencies and achieve Universal Instant Reach will see operators' competing directly on functionality and universe size with alternative IP communications solutions within a fixed universe of one country/group or subscriber base.

Without achieving Universal Instant Reach, operator communications services are at risk of losing their position as the de-facto means of mobile communications in an IP World. The user experience of over-the-top services is to download

and install an application, identify a subset of your contact base who are contactable and keep the application open to ensure connectivity. If the user experience in a mature IP communications market for operator services is not a differentiator, operator IP communications services will be potentially no more than one more application in an already fragmented market. Whilst the walled-garden scenario must be passed through in the development of operator IP communications services, it should be seen as a transition state on the pathway to reaching Universal Instant Reach. The state of Universal Instant Reach is valued by customers, third party service providers who wish to offer services on the mobile platform, and operators. For customers, Universal

Instant Reach simplifies the customer experience and provides differentiation versus non-operator services. For third party service providers it allows identification of targeted audiences from a universal pool that can be reached instantaneously. For mobile operators, it allows differentiation from non-operator IP communications and preservation of a key element of mobile operator DNA.

Universal Instant Reach will not be achieved over night, however we believe it should be a strategic priority for mobile operators. We propose five considerations for operators as they assess the development of their IP communications solutions:

1. There are a number of potential actions that can speed the development of the market to reach this state; therefore, operators must understand the status quo and the impact of not reaching a state of Universal Instant Reach for their IP communications services
2. Adopt a collaborative approach for the launch of operator IP communications services to accelerate speed to scale and strengthen the consumer and third party service provider value proposition
3. Prioritise reaching a state of Universal Instant Reach on a per market basis as this holds the greatest initial value for customers and third parties

4. Re-think models for collaboration, e.g. hosted solutions for RCS to speed time to market and working with device vendors to ensure RCS is embedded natively in new devices
5. Identify the differential in value proposition to third parties of a Universal Instant Reach IP Communications solution compared to a Universal Reach solution, and the new business models which will be required to drive value

Through the development of GSM, mobile operators have developed the mobile platform to be one of the largest global platforms with over 6 billion connections. Core to this development were the pillars of ubiquity and interoperability which have, over time, become integral to operators' DNA. If operators IP communications services target only universal reach – i.e. parity with non-operator IP communications services such as Skype and WhatsApp – this DNA is at risk of being lost and operators will face the IP world with the need to develop a new position in the eyes of their customers.

In developing this paper, Greenwich Consulting spoke with executives from: Deutsche Telekom, Etisalat, Qtel Group, Viva Bahrain, GSMA, Wunderman, Visa, NewPace, Solaiemes, WIP Connector, and Context Consulting

Context: The changing telecoms landscape

Key highlights:

With the emergence of IP services the current telecom landscape is changing, which threatens legacy telecom operators' voice and messaging business:

OTT players / Internet Giants squeeze mobile operators

- Mobile operators find themselves increasingly squeezed between Over-the-Top (OTT) application providers and international internet platforms
- These players use the network connectivity provided by telecom operators as an enabler for their business putting at risk voice and SMS businesses

Asymmetric relationship between MNOs and OTTs

- Limited adoption of standards puts technology launch and service adoption at risk (lack of scalability, lack of incentive of other players within the value chain)
- Operators have a limited and regulated national approach versus internet giants with an unfettered worldwide approach, leveraging the IP layer: 800 MNOs versus two mobile OS providers

As such, mobile operators must identify areas of differentiation versus their competitors – providing Universal Instant Reach, as has been part of operators core DNA for GSM services can provide this differentiation.

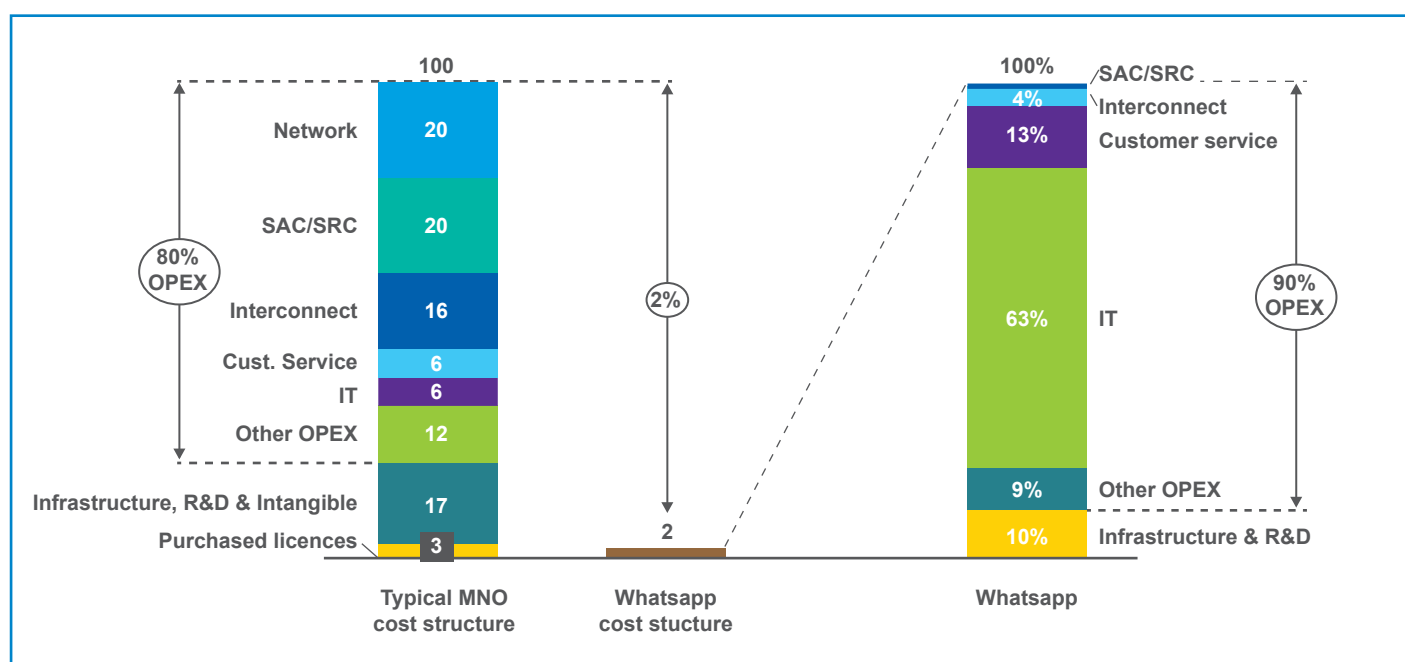
1. The OTT players / Internet Giants squeeze

With the emergence of IP services, mobile operators find themselves increasingly squeezed between Over-the-Top (OTT) application providers, such as WhatsApp and Kakao Talk, and international internet platforms, such as Apple, Facebook or Google, which use the network connectivity provided by telecom operators as an enabler for their businesses. Both voice and messaging revenues are at stake. From both sides mobile operators' competitors have been

able to develop business models in which communications services can be offered for 'free' or for a token amount such as a one-off application download fee.

Positioned on top of existing networks, OTT services providers have a light cost structure, which allows them to adopt aggressive pricing. Furthermore, as they provide their services via the open IP layer there is no need for them to heavily invest in network infrastructure. We estimate that WhatsApp's cost structure is equivalent to ~2% of a typical MNO's cost structure; and is equivalent to the annual licence fees MNOs pay for a single country.

Exhibit 2: Cost structures comparison between a standard MNO and WhatsApp (against 100 index) ¹



With no barriers to entry for OTT service providers, continued investment in spectrum and low latency mobile broadband by mobile operators is the perfect enabler for new OTT, and as a consequence mobile operators catalyse their own commoditization.

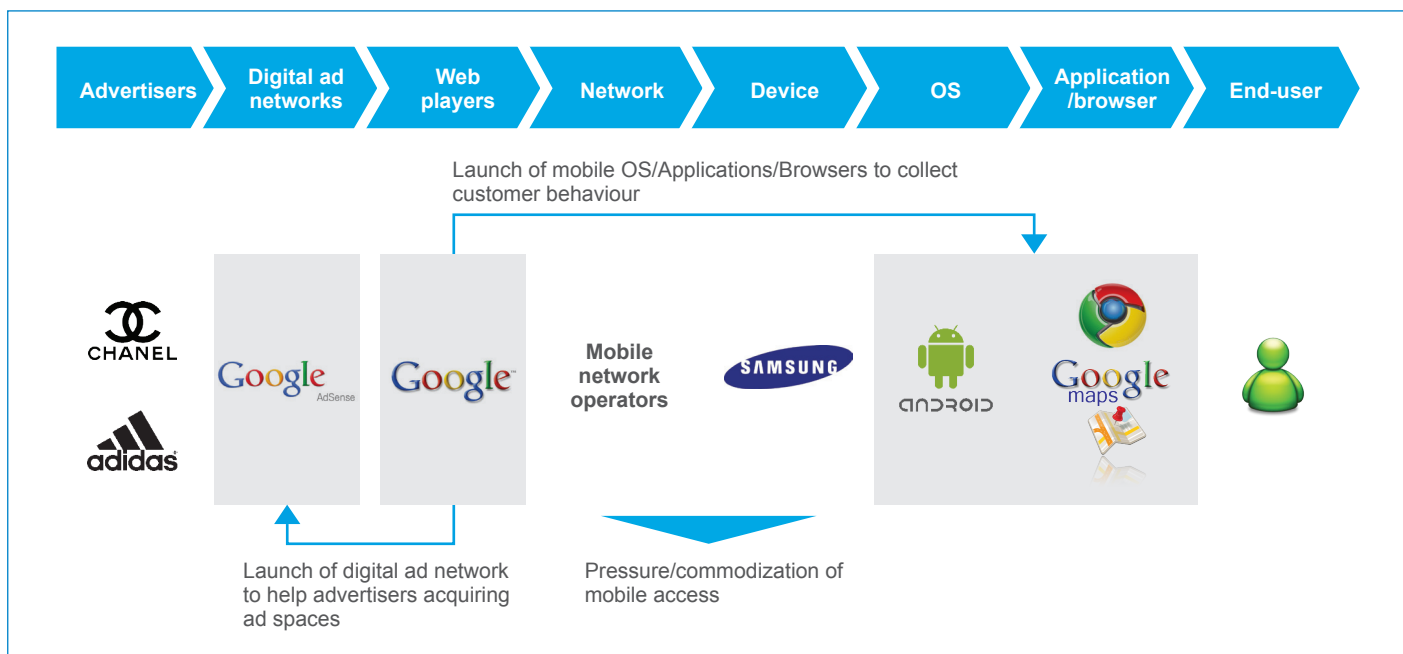
Internet players' business models also have a strong impact on the operator's core services. In order to maximise traffic towards their primary profit centre, they have built end-to-end ecosystems to encourage customer usage across multiple 'open' services and increase customer stickiness. These services, delivered through the operators' networks, have led to the commoditization of the operator's core business.

Google is the best example of this model. First, the internet platform facilitated interactions with advertisers by providing a simple, global, digital ad network: AdSense (these interactions were even facilitated by the development of APIs, such as AdSense API). The objective was to maximise advertising investments on its users. Google then enriched its ecosystem to secure the contact with end-users and collect information on their behaviour: they developed an OS (Android), a browser (Google Chrome), a vast array of services (Google Maps, Google Earth, Gmail, etc.) and encouraged developers to distribute their applications on the Android OS. Finally, Google partnered with device manufacturers to ensure a wide OS take-up, turning Android into the first Smartphone OS by the end of 2012 and a recognized brand for end-users ².

¹ Greenwich Consulting Analysis

² Smartphone shipments market share, Gartner, IDC

Exhibit 3: Google's positioning on the Mobile value chain ³



2. Asymmetric standardization

Since the 1990s, the GSM standards have been deployed in more than 208 countries with over 6 billion connections by the end of 2012. As operator communications move into the IP and LTE world, new standards have been developed to ensure that end-user expectations, "it just works", are replicated.

We believe that there are three main considerations:

- Lack of adoption over standards puts technology launch at risk
- Operators are facing competitors with a global approach, leveraging the IP layer
- Standardization has led to the success of SMS and will lead to the development of one type of IP Communications within a currently disaggregated market





A. Lack of adoption over standards puts technology launch at risk

The lack of collaboration between stakeholders puts the launch of a new technology or service at risk for two primary reasons:

- **Lack of scalability:** In businesses where scalability is a key success factor as it creates a rich ecosystem, mobile operators, limited by their local footprint, do not have the capability to launch global services (Examples: i-mode and Vodafone 360)
- **Lack of incentive for other stakeholders within the value chain:** Driving the entire industry to launch a new technology or standard without offering strong incentives is too complex for isolated players, thus leading to low technology take-up rates (Examples: iDEN and Wireless Village)

³ Google press releases, Greenwich Consulting analysis

Exhibit 4: Examples of unilateral approaches in the telecom industry ⁴

	Description	Results
	Trunked radio service developed by Motorola and launched without collaborative effort	<ul style="list-style-type: none"> – Launched in 13 countries – On main market (U.S.A.) service will be discontinued by Sprint (main operators proposing the service) in 2013
	Successful internet portal services in Japan Rolled-out in 17 other countries mainly through a “one-operator per country” strategy	<ul style="list-style-type: none"> – >90% penetration reached in Japan – 5% penetration reached on average in other countries
	Instant Messaging service launched by several device manufacturers (Ericsson, Nokia, Motorola)	<ul style="list-style-type: none"> – Only 1 operator implementation worldwide (South-Africa : MTN)
	New internet service for the mobile, PC and Mac aggregating music, appstore, social network identity aggregator, cloud-based address book	<ul style="list-style-type: none"> – Service discontinued at end-2011, 2 years after launch

B. Operators are facing competitors with a global approach, leveraging the IP layer

Operators are bound by their geographical network and regulatory constraints unlike internet players and OTT service providers who can take a global approach thanks to the universality and standardization of the IP layer. There are more than 800 mobile network operators worldwide whereas only two players, Apple and Google, account for more than 80% of the global mobile web traffic with their mobile OS:

- **Apple:** iOS phones represented 65% of the global mobile web traffic in 2012 ⁵
- **Google:** Android phones represented 20% of the global mobile web traffic in 2012 ⁶

The fragmentation within the mobile operator segment (> 800 Mobile Operators on the network layer) compared to the concentration within the OS segment (~2 players on the OS layer) justifies the need for technical standardization, and a collaborative approach between mobile operators.

C. Standardization has led to the success of SMS and will lead to the development of one type of IP Communications within a currently disaggregated market

With the launch of new and innovative services, the voice and messaging services market can be segmented into four categories of players, according to customer reach and richness of features:

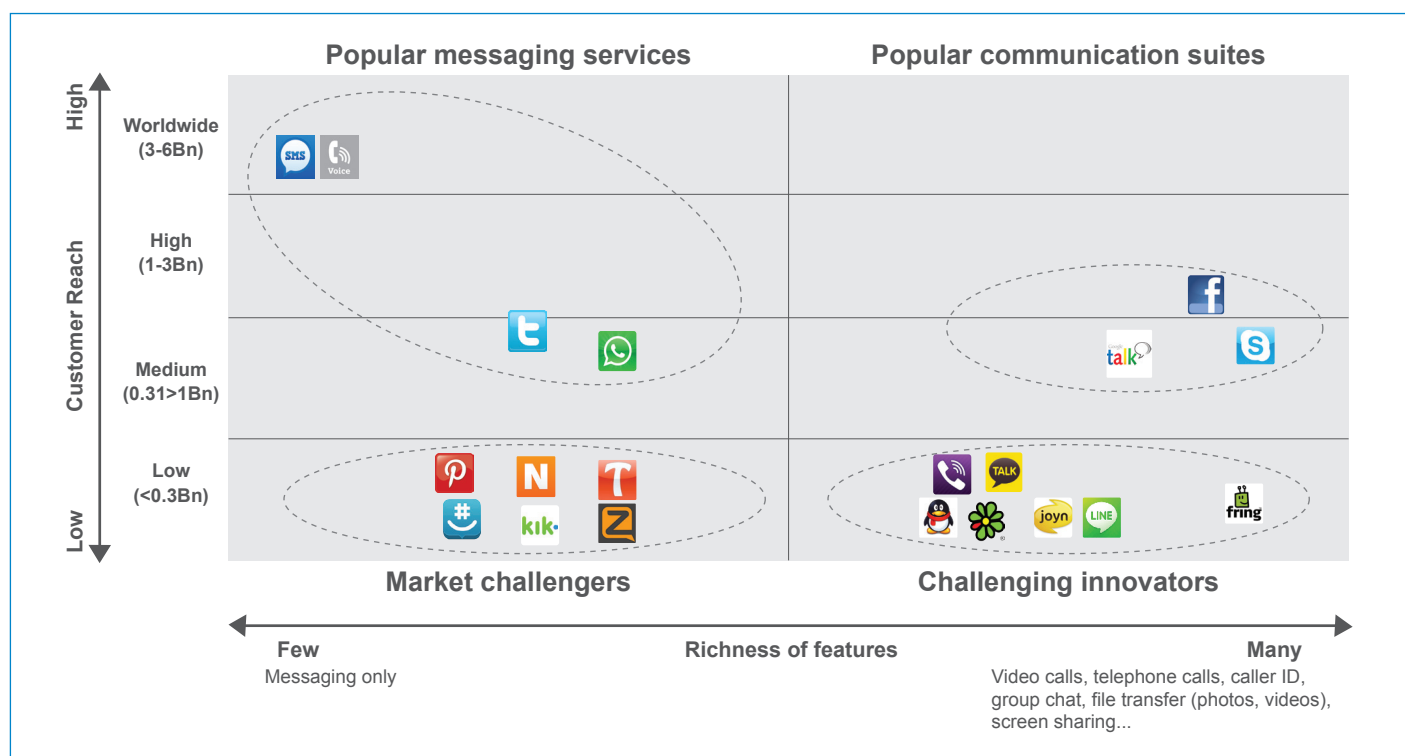
- **Popular messaging services:** Simple and reliable messaging services, which have appealed to the masses around the globe (e.g. SMS)
- **Popular communication suites:** Chat & VoIP provided by online players, which have formed new global communication systems
- **Challenging innovators:** Domestic leaders with strong features, working to extend their international customer base
- **Market challengers:** Numerous innovative challengers, developing their own features or replicating successful services

⁴Greenwich Consulting & GSMA analysis

⁵Netmarketshare.com

⁶Netmarketshare.com

Exhibit 5: Reach vs. richness of features for leading mobile voice & messaging services ⁷



This segmentation highlights one key feature for traditional communication technologies (Voice and SMS): they are universal, as they include connections outside of the user's social circle, and allow them to reach any contact instantly, without any pre-required action. Traditional communications services have Universal Instant Reach.

With IP-based communication suites, which include all the services mentioned on the chart above except for SMS and voice, users need to launch the application on their device and "add" the contact they want to reach before they can communicate. These solutions are not instantaneous or truly ubiquitous and can be considered as having Universal Reach. However, the universality and immediacy of 'popular

communication suites' are increasing as their penetration grows: Skype is installed on more than 25% of computers worldwide⁸ and Google Talk is pre-installed on all Android devices⁹. These numbers show that communication suites could offer universality and immediacy in a near future.

Operator IP communications services will need to pass through a stage of Universal Reach, but this should be done so with a vision to replicating the functionality of GSM services – that of Universal Instant Reach. Whilst internet player services can also target Universal Instant Reach, mobile operators are better positioned due to the size of the mobile platform reaching over six billion connections and 3.2 billion customers.

⁷ Greenwich Consulting & GSMA analysis

⁸ Source: Skype

⁹ Source : Google

The value of Universal Instant Reach

Key highlights:

Universal Instant Reach brings differentiated value versus Universal Reach for customers, third parties and operators

For customers

- Universal Instant Reach brings rich communications universally, instantly
- It enables enriched personal communications and simplifies transactional exchanges

For third parties

- It allows them to segment and reach their opt-in target audiences
- It is a vital enabler from which third parties develop rich real-time services for their target audiences

For operators

- It provides differentiation from OTT service providers and maintenance of a core element of their DNA
- It represents an opportunity to develop a new business model and open a new source of revenues: B2B2C revenues
- If no platform is launched by mobile operators, the B2B2C business will be handled by OTT players, and operators will have to face a decline of their traditional revenue without any alternative source of growth

Universal Instant Reach has a clear value proposition for customers, service providers and operators alike. It is the core DNA of the mobile operators' platform, enabling the existing suite of services. Through the history of GSM, operators focused on voice and messaging; however, as their services enter the IP layer, the service suite can evolve to become significantly richer and include IM, file transfer, rich call or picture sharing, thus driving greater engagement and value from the mobile platform. Universal Instant Reach is the enabler on top of which all rich communications services can be provided.

1. Value for customers

Universal Instant Reach has a significant value for customers, as it brings rich communications universally, instantly. It enriches personal communications and simplifies transactional exchanges¹⁰.

To be successful, the Universal Instant Reach value proposition should comply with customer key expectations:

- Simplicity is fundamental with easy set-up process and user-friendly usages (e.g. easy contact method selection)

- The service should be integrated in the maximum number of networks and platforms, to create scalability: collaboration with manufacturers is key as they could distribute services as native apps in their devices
- Differentiation from existing solutions
- Service reliability: a service with a low quality of service (QoS) will be quickly abandoned by customers for a more reliable alternative

The four key pillars listed above are all supported by the enabler of Universal Instant Reach. It is key to understand that the end-users' definition of Universal Instant Reach will be linked to their individual communication profile and habits. For customers universality depends on who they wish to contact: the analysis of calling behaviour reveals that most communications are made within the user's close social or business circle. Most of their communication time (> 80%) is spent contacting the closest members (< 5 members¹¹) of these circles, friends, family or close colleagues. This type of communication is possible with current OTT solutions such as WhatsApp or Viber.

¹⁰ Greenwich Consulting interviews

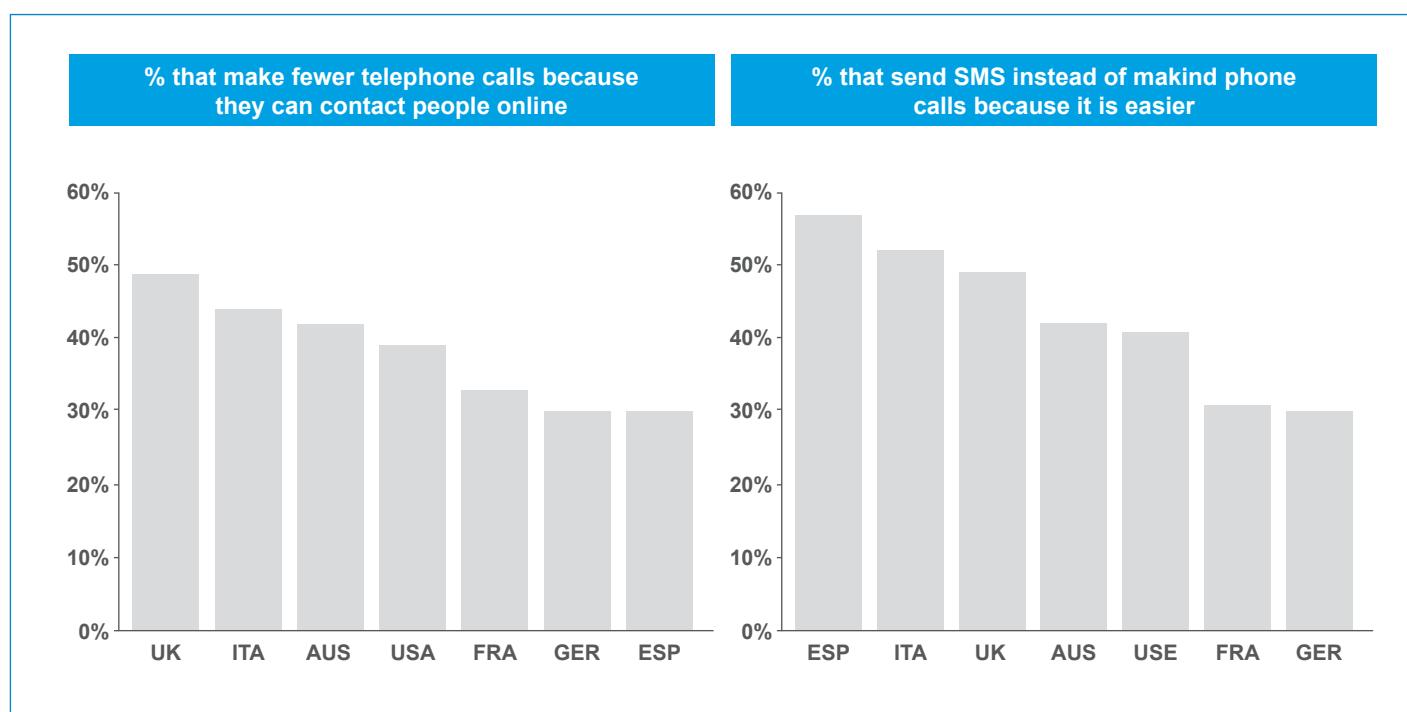
¹¹ Greenwich Estimates on a set of European Operators KPIs

However, the value of a communication channel is not correlated to time spent only. Therefore, Universal Instant Reach arguably remains the most important selection criteria for communication services: the 20% of calls made outside the social circle is the single most important use of the telephony network, as it is still the most reliable method for Universal Instant Reach (and not instant through OTT solutions such as WhatsApp, which require to “add” the user into the app before reaching him). This is indeed the DNA of the operator’s services and requires significant investment to extend and maintain. Whilst initial deployments of operator IP Communications services will require users to “add” contacts,

this must be viewed by operators as a temporary stage of development on the pathway to reaching Universal Instant Reach.

Unfortunately, the value of Universal Instant Reach is rarely reflected in the customer’s perception. Due to the time spent, frequency of calls and emotional attachment to the contacts they call 80% of the time, the users’ perceived criteria for selecting a communication method has shifted to price, convenience and richness of services. Universal Instant Reach is often taken for granted and, gradually, users have downgraded ‘calling on the phone’ to a back-up service, used only when other richer or cheaper options are unavailable.

Exhibit 6: Percentage of users who express a preference for communicating by SMS and online messaging instead of phone calls ¹²



The ‘personal social-groups’ effect explains the success of many non-universal and closed-loop communication systems such as WhatsApp and BBM: Over time, the group collectively selects the preferred communication methods.

Moreover, ‘personal social-groups’ have the ability to influence user choices or overcome technological barriers. When cross-network minutes are highly priced, friends and family converge to the same network. Similarly, early adopters

introduce other members of their circles to new communication services (e.g. Skype) and devices (e.g. tablets) to take advantage of ‘free’ video conferencing systems. Overall, this further reduces the perceived value of the operators’ Universal Instant Reach services: although Universal Instant Reach is expected by everyone, it does not guarantee usage and it cannot be considered as feature.

¹² Ofcom consumer research – September 2012

2. Value for Third Parties

Third parties are stakeholders using the operator IP Communications as an enabler for their businesses, such as Advertising and Marketing agencies.

Total potential reach as an absolute is beneficial to these organisations, but targeted reach is even better. Targeted reach with richer communications services like RCS is even better. Being able to identify the target audience has a real value-added. Operators are uniquely positioned to offer Universal Instant Reach, driving adoption of IP communications ensures better engagement between third parties and their target audience, and being able to pull contextual data drives further value.

Whilst consumers judge Universal Instant Reach through the prism of their social circles, Advertising and Marketing agencies do so through their target audiences. Depending on the vertical they operate in, some parties require reach by country or regions (e.g. Governments or Facebook), whilst others require reach by demography (e.g. for advertising purposes). In both cases, a Universal Instant Reach platform is extremely valuable to third parties for three reasons:

A. It allows an unrestricted ability to segment and reach their target audiences

Governments exemplify this need: any service they provide should reach the entire country, without any geographical discrimination and regardless of device, OS, mobile operator of the end-user. This is the exact value proposition of Universal Instant Reach. Service providers want to be able to reach their entire target audience – Universal Reach on its own does not allow this as it requires a matching of walled garden eco-systems against audience requirements. Universal Instant Reach, however, provides service providers with the full customer eco-system through which they can reach their

target audiences.

B. It is the enabler off which rich real-time services are developed

Historically fragmented operator platforms and handsets were unappealing to developers. Conversely single global platforms such as Android and iOS have received significant developer 'mindshare', enabling constant deployment of new services and thus driving customer growth.

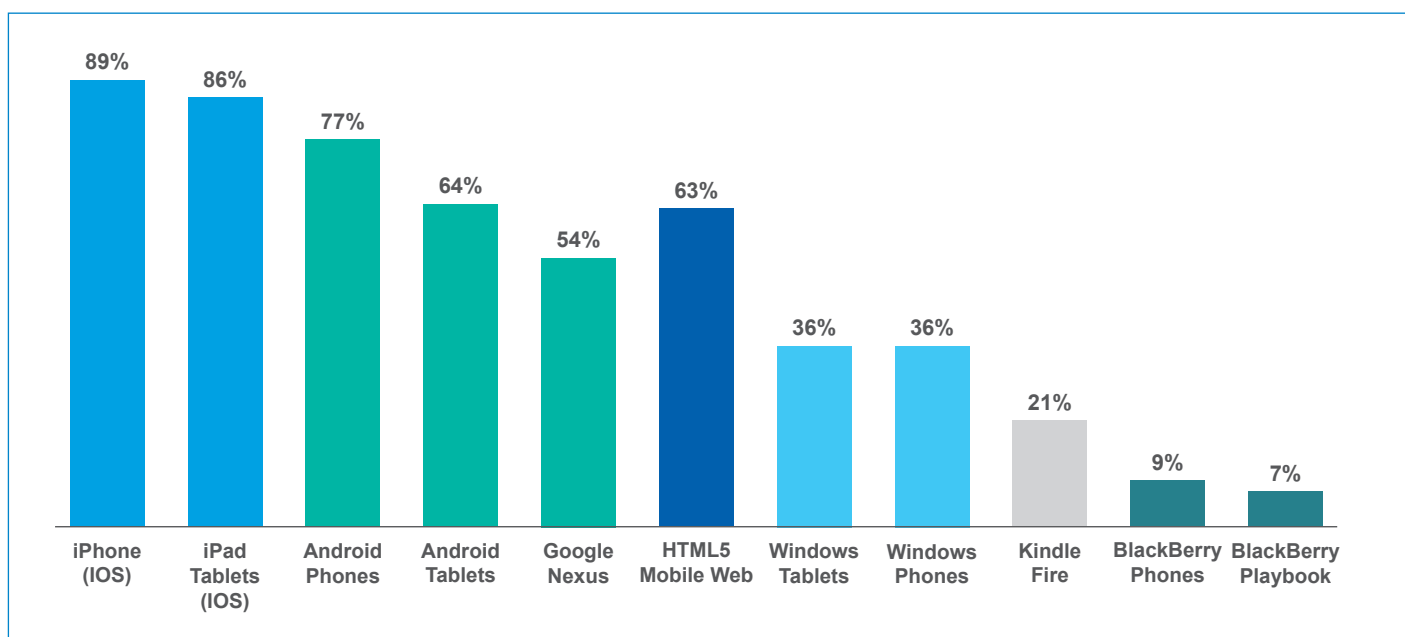
Beyond the scale of Universal Instant Reach, third parties value the potential for instant access – to know that a communication has reached its audience. Third parties, such as advertisers, believe that universal instant reach will allow for real-time communications in a way that reach via walled garden eco-systems would not.

C. Ultimately, targeted and segmented reach is made possible by customer knowledge and represents a high value for advertising and marketing agencies

Reach as an absolute is beneficial to these organisations, but targeted reach is even better. Targeted reach with richer multimedia services like RCS is even better. Being able to identify the target audience has a real value added. Operators are uniquely positioned by offering Universal Reach, driving adoption of RCS ensures better engagement between third parties and target audience, and being able to pull contextual data is an added value

The prevalent place of mobile in emerging markets offers an even a broader opportunity for mobile operators another channels such as social networking and email are not as dominant. Consumers want to stay in touch and mobile is their mechanism in developing countries. As video usages have increased globally, video accentuates the experience. Mobile operators are uniquely positioned to offer Universal Reach in this case.

Exhibit 7: Developer preferences, Q4 2012 – Share of respondents “very interested” in developing for each platform ¹³



Third Parties testimonials:

“we would like to connect to only our customers through their phones when they are on holiday...collectively operators would allow us to do that...(but the information is much less useful when it’s just provided by individual operators)”

“If RCS was ready as a platform now, we would probably use it, but it has to be universal for at least a region or market”

“Mobile lets you know who is on the other end...to build a real-time profile. Unlike SMS, universal RCS will allow the engagement of consumers into more two-way communication like reimbursing of customers or POS-specific QR codes... the trick is to do this across carriers”

“Mobile lets you know who is on the other end. With a phone number comes an identity... you can track what happened with the message – operators are sitting on so much data (phone number is personal information) that is not being used... this data can be extrapolated to build a profile”

“Marketers are not waiting for the operators – if operators offer the best solution then great, if not they will go elsewhere... will use the most effective channels for the marketing brief”

“Operators don’t even think about marketers – you need people to build the connection between brands/companies and operators. It is not in the genes”

¹³ Appcelerator / IDC – Nov 2012

3. Value for mobile operators

With the development of OTT solutions, operators face several changes in the mobile ecosystem, including the evolution of customer behaviour and decreasing willingness to pay for communications services.

There is a common consensus around the value decrease of mobile access in the upcoming years (exhibit 8). As a consequence, operators have to seek new opportunities for growth.

The proactive targeting of a Universal Instant Reach solution should be seen as a way for mobile operators to leverage and strengthen their core assets (secured authentication through the SIM, customer knowledge, billing and charging capabilities, etc.), which are being replicated by OTT players

(e.g. billing capabilities and customer knowledge offered by Apple). Universal Instant Reach serves as an enabler of which additional assets can be leveraged to create differentiation with competitors.

Furthermore, on a base of Universal Instant Reach, the creation of a new, rich, ecosystem managed by mobile operators and appealing to third parties, will allow the development of new business models and open a new source of revenues through B2B2C services.

As it is the case with Application stores, platform owners can charge a fee for every product/service sold. By building the platform that would become the new standard in IP communications, operators can offset the ARPU decrease from end-users. If no platform is launched by mobile operators, the B2B2C business will be handled by OTT players and operators will have to face the expected decline of their traditional revenue without any alternative source of growth.

Mobile operator testimonials

“Universal Instant Reach is necessary, but it cannot be seen as having stand-alone value. Customers expect Universal Instant Reach but they do not buy operator services because of it. You have to look at the assets beyond Universal Instant Reach – which are those that have been replicated by OTTs and which are those that have not...billing and secure authentication will continue to be fundamental as they are harder to replicate”.

“Operators have to have Universal Instant Reach in a domestic market and through key international corridors... one to one interoperability is not fit for purpose...customers look for a user-experience from operators rather than functionalities”

“Universality is very important for the market as a whole – we have a natural advantage that closed internet platforms will not be able to replicate. Without Universal Instant Reach operator IP Comms will only be as good as Skype. Successful launch requires market based UIR”

“Universal Instant Reach is key...but so is price. OTTs have changed customer willingness to pay for communication services. Universal Instant Reach has to be on a by-market basis. The biggest differentiator that we have vs. OTTs is that we know our customer – we can target advertising and utilise operator billing. We have to build on Universal Instant Reach to use the assets that we have and use them better – e.g. customer contact and building stronger ties with our customers. We cannot wait for Universal Instant Reach but it has to happen for operator IP communications to be successful. The tipping point comes when all operators in a market launch”.

“Universality is very important for the market as a whole – it is one of the reasons that telecoms became so successful – you weren't limited by the kind of network you were connected to...having standards is good. You reach a much bigger market much bigger and much quicker. Hopefully this is something that the online players will not pick-up on...”

¹⁴ Apple, Google apply 30% fees on applications sold through their application stores

Potential operator approaches to IP Communications to achieve Universal Instant Reach

Key highlights:

- **The status-quo scenario is risky for mobile operators**, as the Voice and SMS market value decreases – a ‘do nothing’ scenario is not viable
- **Among all the market approaches collaboration offers maximum potential and the minimum risk**
- **Operators need to understand the Universal Instant Reach value proposition, compared to Universal Reach and its relevance per country** and by leveraging reach through the aggregation of cross-MNOs subscribers
- **Operators also need to re-think models for collaboration**, especially by considering a **hosted and shared technical platform**, and by **collaborating with device manufacturers** to maximize service adoption
- Finally, **operators need to identify the differential in value proposition to third parties of a Universal Instant Reach IP Communications solution compared to a Universal Reach solution and open the platform to third parties and ‘share’ the customer** as it will generate a new source of B2B2C revenues

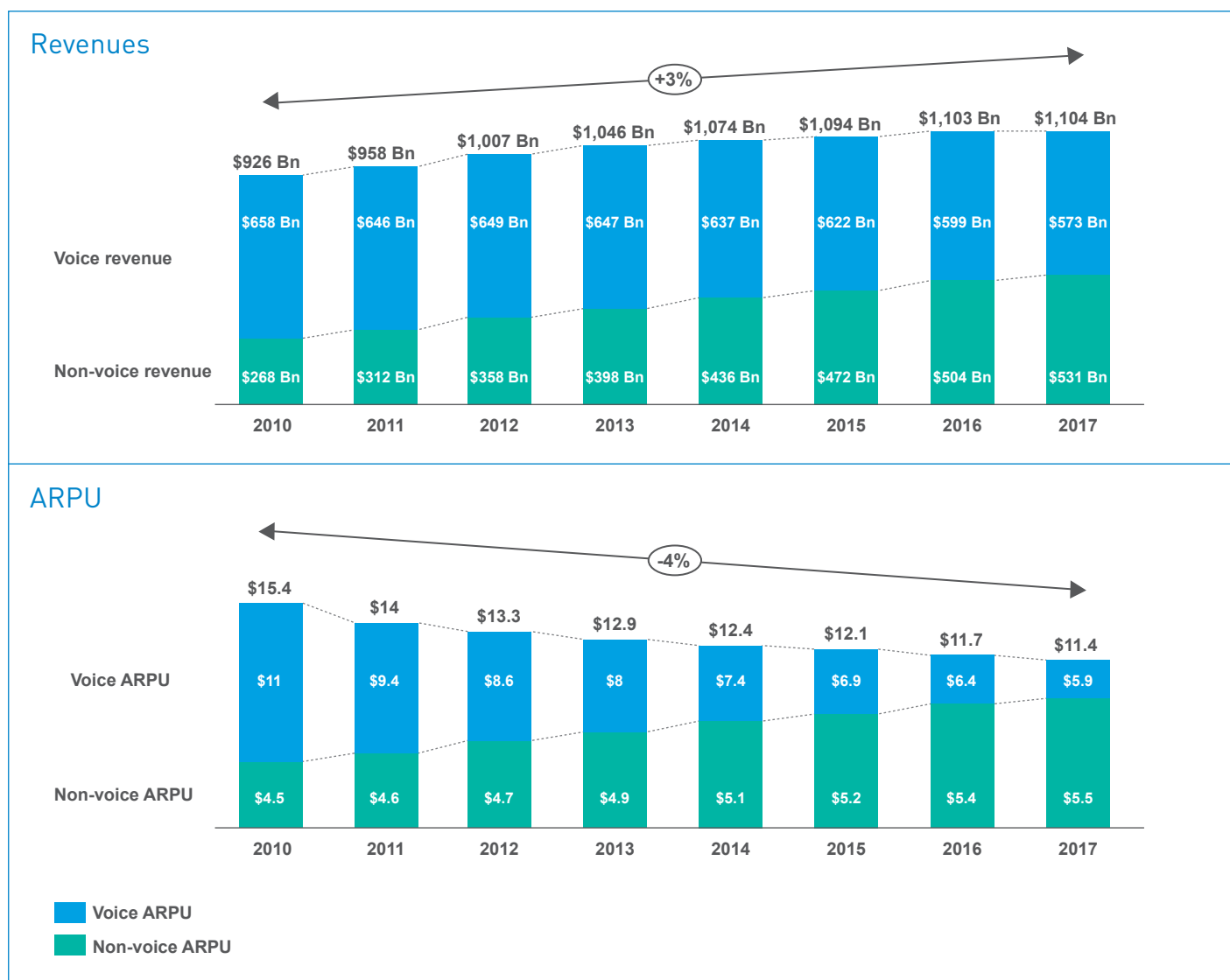
1. Assessing the status quo and the impact of a ‘do nothing’ strategy

As mobile operators develop their IP communication services, they are left with two options: they can either act unilaterally, or look to develop a solution that is based on a common set of standards, thus enabling interoperability across operators.

The third obvious scenario for mobile operators is status quo. This scenario has been analysed multiple times with the same conclusion - the IP communication era is coming and mobile operators will have to face an ARPU decrease in the coming years (-4% / year over the 2010-2016 period), unless they bring new, innovative, services to market that are valued by their customers. Rich communications are such a significant opportunity as RCS-like services will represent 73 Million Subscribers worldwide by 2016, and \$567 million yearly revenues by 2016¹⁵.

¹⁵ Infonetics - 2012

Exhibit 8: Forecast of global Voice & Non-voice revenues and ARPU (2010-2017), across all connections ¹⁶



Universal Instant Reach must be rebuilt for the IP world – by following a ‘do nothing’ strategy, mobile operators will lose part of their core DNA that differentiates them from non-operator service providers. If there is no attempt to rebuild Universal Instant Reach in an IP World, mobile operators will need to identify alternative areas of clear differentiation for customers and third parties. A ‘do nothing’ approach will require competition based on functionality and eco-system size. In the market of IP communications, mobile operators will be the new entrants competing against scale incumbents such as Skype, WhatsApp and Viber.

2. Alternative approaches to IP Communications – the value of a collaborative approach

Mobile operators can approach the development and deployment of IP communications in three ways: unilaterally, collaboratively or via a joint approach including both unilateral and collaborative elements. Depending on the strategy employed, there will be differing prospects of achieving a state of Universal Instant Reach.

¹⁶ Ovum, 2012

A. Unilateral approach

Mobile operators could consider launching their own IP communications service, following the example of large players (e.g. Telefónica with TuMe, T-Mobile with Bobsled or Orange with LibOn). These numerous initiatives have created a vicious circle for mobile operators:

- The multiplication of services has led to market fragmentation for IP communication services
- Fragmentation of services led to the fragmentation of user communities, in a business where scalability is a key success factors
- The lack of scale made it difficult to spark the developers' interest
- With a limited number of applications and features, the operators' ecosystems failed to attract new customers

This approach also revealed a number of drawbacks for mobile operators:

- **Long time-to-market**, as it is necessary to develop a new platform to provide the IP communications service
- **Significant technical costs** as the platform costs cannot be mutualized
- **Significant risks**, as the service's potential is uncertain, and the costs of technical developments are supported by a single mobile operator

B. Collaborative approach

Developing a combined multi-operator approach is an alternative that could help solve the market fragmentation issue. The GSMA-led RCS platform joyn has been gradually adopted by a number of telecom operators. Korean players SK Telecom, KT Corp. and LGU+ have recently joined Orange, Telefónica, Telenor and T-Mobile in the joyn initiative to offer IP-based rich communications to their customers.

This approach has several benefits:

- **Scalability**, if most of mobile operators promote this solution on their customer bases **Cost mutualization**, as development and technical costs are supported by all the mobile operators involved in the collaborative approach
- **Shorter time-to-market**, as the platform developed can be replicated and shared in all the target countries and the development capabilities mutualized
- **Limited risk**, as scale is easier to reach and cost mutualized among players













C. Combined approach



According to a MobileSquared survey, 25% of operators elected a dual OTT approach in 2012: roll-out LTE and offer their own rich communication service, while partnering with OTT providers (e.g. Orange joined the joyn initiative and launched the LibOn service).

With this dual strategy, operators can promote OTT services and usages with current solutions in order to educate the market, be perceived as innovators in the OTT space, and migrate customers to their own rich communication suite as soon as the service is available. This strategy is risky as the large adoption of a non-Telco OTT solution might make it difficult for operators to migrate users to a new solution.

We believe a collaborative approach is the optimal strategy for launching and scaling operator IP communications services in the pursuit of Universal Instant Reach. An individual approach will leave operators competing directly with existing OTT players and leading to further fragmentation of the market and an increased number of walled-garden ecosystems, whilst a joint approach leads to resource inefficiencies and can create strategic confusion both internally within organisations and externally to the market.

Exhibit 9: Analysis of the three approaches to IP Communications

	Customer reach potential	Time-to-market	Technical costs mutualization	Capability to limit risk for MNO
Unilateral approach				
Collaborative approach		 High replicability by country	 Hosted platform with mutualized costs	 Multi-MNO approach
Combined approach				

 High
 Low

Optimal

3. Understanding the value of Universal Instant Reach and its relevance per country

Through the development of IP communications, operators should realise the differentiated value of offering a Universal Instant Reach solution versus a Universal Reach solution. In its development Universal Instant Reach can be provided on a localised scale in an initial state before being expanded. As such, we believe operators should work towards Universal Instant Reach taking a market-based approach.

Mobile operators have to understand customer primary contact circles and ensure that they offer Universal Instant Reach within these. Primarily, this is within a single market but across operators, device types and mobile OS.

It is fundamental that Universal Instant Reach is achieved within a specific market with interoperability across all network operators. Whilst Group-based launches will develop international reach, there is a requirement for all operators in one territory to launch IP Communications in order for it to be successful. For customers and third parties there is a clear value proposition of market-based Universal Instant Reach:

- Third parties interested in using mobile networks to provide Universal Instant Reach, such as public sector authorities or advertisers are likely to do so on a market by market basis.
- Customers want to use Universal Instant Reach with their social circles, which are often built around in-market contacts

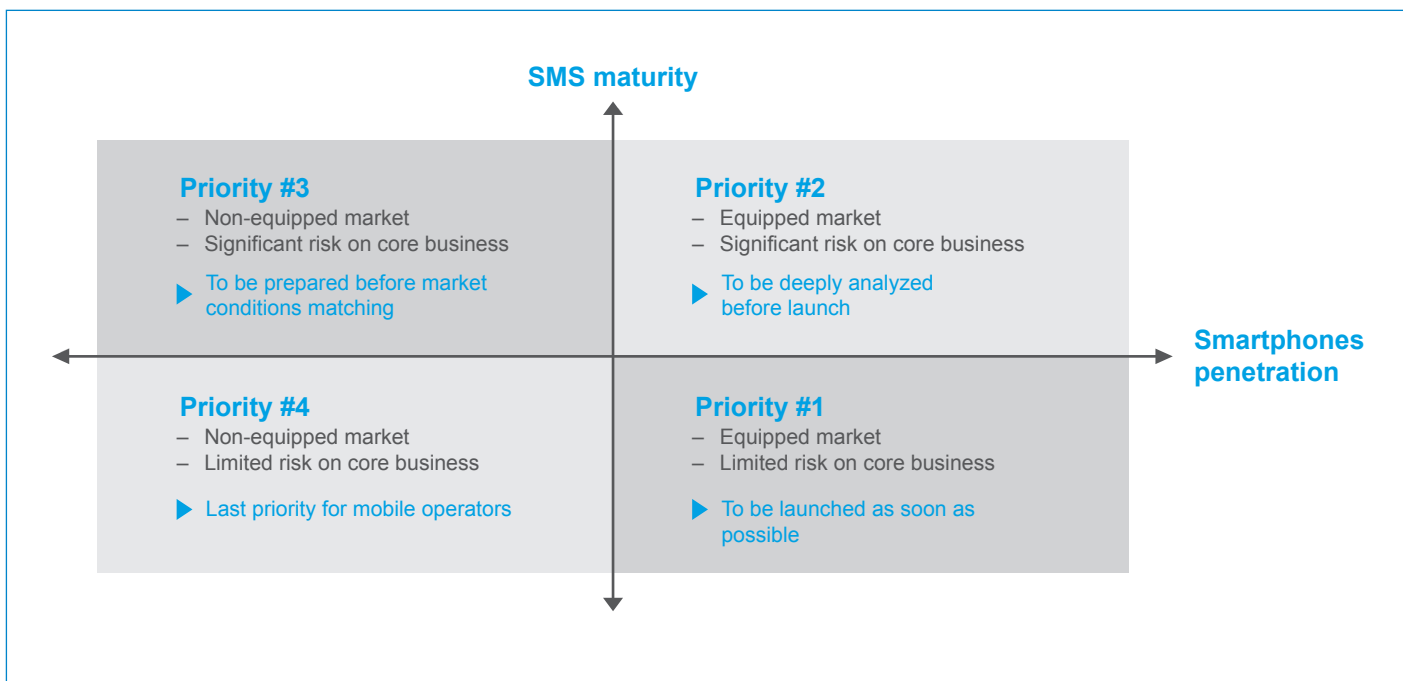
As a second stage, operators should target the achievement of Universal Instant Reach on key international corridors, such as Spain and Latin America, or the UK and India, which reflect extensions of domestic contact circles.

On domestic markets, the approach should be adapted to the country's situation. Market prioritization should be based on the analysis of two main criteria: SMS maturity and Smartphone penetration.

- **Countries with low SMS maturity and high Smartphone penetration** should be considered as the priority, as the wide penetration of Smartphones will quickly lead to the development of Universal Instant Reach solutions by online players
- **Countries with high SMS maturity and high Smartphone penetration** are the next priority, due to the significant risk of cannibalization on the core business
- **Countries with high SMS maturity and low Smartphone penetration** are not a priority on the short term, as the conditions for the development of full-IP Universal Instant Reach solutions are not met
- **Countries with low SMS maturity and low Smartphone penetration** are not a priority as they are not mature for Universal Instant Reach in terms of usages or equipment

This prioritisation can be conducted by mobile operators at Group level to identify priority markets – however, once markets have been prioritised the operator Group must work with its local competitors to advocate for the need to launch IP Communications simultaneously with interoperable solutions in order to reach Universal Instant Reach.

Exhibit 10: Market-by-market segmented approach ¹⁷



4. Re-thinking models for collaboration to speed achievement of Universal Instant Reach

The mobile industry has been able to grow to a global platform of six billion connections via collaboration. However, the market shift introduced by the IP layer and the emergence of IP-based communications providers has radically changed the requirements for new service launches. As such, to effectively reach Universal Instant Reach, operators must consider two key elements:

- Decreasing the time to set-up network interoperability
- Leverage relationships with device manufacturers to have operator IP communications, RCS, embedded within devices

A. Decreasing the time to set-up network interoperability

From a technical perspective, the collaborative approach could be translated into the development of a hosted and shared solution, which has several technical advantages:

- **Cost reduction and lower financial risk:** by mutualizing investments in a hosted Universal Instant Reach platform, mobile operators will share platform CAPEX and OPEX
- **Faster time-to-market:** once launched and operational, the hosted solution can accelerate time-to-market in new countries compared to country-by-country unilateral launches by national operators

Platform mutualisation at the IP layer does not, however, prohibit the launch of a unique offer. It creates the conditions for competition at the service level: pricing, additional features, etc. Collaboration at the platform layer will allow increased reach of solutions and enable Universal Instant Reach, where a fragmented approach would require the inter-linking of multiple walled gardens.

¹⁷ Greenwich Consulting analysis

Exhibit 11: Proposed positioning of the mutualized IP platform within the ecosystem

	If no mutualized approach from mobile operators						If mutualized approach			
Service layer	Service from MNO#1	Services from online players	Service from MNO#2	Services from online players	Service from MNO#3	Services from online players	Service from MNO#1	Service from MNO#2	Service from MNO#3	Service from online players
IP layer	IP platform from MNO#1	IP platforms from online players	IP platform from MNO#2	IP platforms from online players	IP platform from MNO#3	IP platforms from online players	Mutualized IP platform			
Network layer	MNO#1		MNO#2		MNO#3		MNO#1		MNO#2	

In developing their IP Communications services, mobile operators can take two approaches – they can either build their own solutions based off IMS, or they can look to a third party to host such a solution on their behalf. Given the speed to market for IP-based service providers, it is questionable whether the traditional interoperability model of inter-operator agreements and technical interconnect is still viable in order to deliver a Universal Instant Reach proposition. Whilst a hosted solution would require inter-operator agreements it would simplify the technical interconnect and offer a quicker route to market.

B. Leverage relationships with device manufacturers

One of the key differentiating criteria of SMS and voice is the immediacy, the capability to communicate with anyone else in the world without prerequisite action such as the installation of an application or the configuration of an account. To attain true Universal Instant Reach, operator IP communications services should be native on all devices. As such, mobile operators should partner and collaborate closely with device manufacturers and RCS within their device specifications.

A second approach would be to collaborate with OS providers to make the service native on their OS, however they may refuse to collaborate as this type of solution could directly compete with applications available in their application store and on which they get revenues.

5. The value to third parties – the differentiated value of Universal Instant Reach and sharing the customer

As discussed in the chapter ‘The Value of Universal Instant Reach’, third parties see a clear differentiation between the reach offered by non-operator IP Communications services. It provides a full eco-system of customers from which effective segmentation can be drawn, and it opens the potential for real-time communications.

It is therefore critical for mobile operators to seek alternative sources of revenue, notably from third parties in B2B2C models. The expected ARPU decrease (shown on exhibit 9) for mobile operators in the upcoming years could be partially explained by the lower willingness to pay for communication on the end-user part¹⁸. By targeting, and ultimately reaching, and end state of Universal Instant Reach, mobile operators are able to offer clear differentiation for their IP communications platforms and develop a compelling value proposition to third parties.

In current global ecosystems such as application stores, platform owners charge a percentage of the value generated in their ecosystems, up to 30% of the selling price¹⁹. There is an opportunity for mobile operators to generate significant revenues on applications and services distributed through a mutualized platform, and partially offset end-user ARPU decline. This model will increase the breadth of services offered to customers, potentially increasing future loyalty and therefore churn rates.

Following this strategy, mobile operators would work with third parties to enable services as well as directly provide their own. This requires new business models to ‘share’ the customer and their value with third parties. Such a strategy would start a virtuous circle for mobile operators: the more innovations there will be on their Universal Instant Reach platform, the more attractive it will be for customers, and the more it will generate revenues and attract new developers, which will, in turn, enrich the ecosystem.

¹⁸ Interviews with mobile operators

¹⁹ Apple and Android application store fees, excluding initial flat fee (between 25\$ and 99\$)