



SEIZE THE POWER

*HOW A NEW USER EXPERIENCE WILL HELP
OPERATORS WIN IN THE MOBILE APP REVOLUTION*

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EXECUTIVE SUMMARY

The upsurge of mobile broadband and smartphones has paved the way for OTT (Over the Top) apps to aggressively compete with mobile operators for consumer loyalty and dollars. Consumers are experimenting with OTTs more and more trying to get:

- 1 INCREASED COVERAGE AND VOICE QUALITY INSIDE BUILDINGS AND OUTSIDE NETWORK COVERAGE
- 2 A WAY TO SAVE MONEY
- 3 THE ABILITY TO ANSWER CALLS ON DIFFERENT DEVICES TO CAPITALIZE ON EACH DEVICE'S STRENGTHS FOR VOICE, VIDEO AND MESSAGING
- 4 A COHESIVE, EASY-TO-USE END-TO-END USER EXPERIENCE

Operators need to decide how they want to respond to the OTTs and they need to act on that decision before subscribers transfer their loyalty.

Operators can either stand back and let the OTTs take the lead, becoming a pipeline for OTT services, or they can respond by building their own multi-device communication platform; adding VoIP calling to handsets and extending voice, video, messaging and file sharing services to tablets and PCs

By giving subscribers a quality multi-device communication experience operators can offset the OTT threat while increasing subscriber loyalty and positioning themselves at the forefront of the mobile broadband world with a monetizable solution.

OTTs ARE CHANGING HOW PEOPLE COMMUNICATE

The arrival of mobile broadband and smartphones created an environment that allowed companies to develop innovative OTT communications apps that are making inroads into the mobile communications market.

As mobile devices get smarter and faster consumers are relying on them and looking for opportunities to use them in more ways and more places.

OTTs Are Cutting into Voice and Messaging Revenue

OTT apps are offering solutions that are catching consumer interest, and the resulting uptake of OTT apps is starting to taking a toll on voice and messaging revenues. A recent survey of mobile operators found that one-third of operators are seeing a decline in revenue and three-quarters of operators are worried about losing revenues to mobile application providers. Thirty-two percent of respondents thought traffic from messaging, voice and video calling would decline between 11% and 20%, and a further 20% expected a decline of 31% to 40% over the next 5 to 10 year period.ⁱ

Customers are Looking for More

OTT apps like Skype™, Viber™, Google Voice™, iMessage™ and WhatsApp® are cutting into voice and messaging revenue by providing the customer experience people are looking for including:

- Better coverage and voice quality: As people get more and more dependent on their phones they want to use them everywhere and they expect great coverage and voice quality even when they are inside buildings or outside their mobile coverage area. The OTTs are delivering on this and operators need to step up and make sure their subscribers are getting the coverage and quality they expect everywhere.
- A way to save money: Even though consumer expectations are rising, they aren't willing to pay for increased services, and the OTTs are giving them what they want with Wi-Fi calling and free messaging. In 2011 it's estimated that Skype claimed one-third of the cross border minutes placed via Skype or a Telco.ⁱⁱ That trend will continue unless operators help consumers reduce their mobile phone bill.

- The ability to use multiple devices to get the best voice, video and messaging experiences: People want to be able to use the best device for the type of communication they are engaging in and OTT apps like Skype, Google Talk and many others work well on multiple devices allowing people to talk on their phone and have video calls on their PC or tablet.
- A simplified end-to-end user experience: People want things to be easy to use. Most OTTs avoid complexity by focusing on a subset of the services people are looking for, allowing them to create an app with a simple user experience and then package it with an easy download experience.
- OTTs aren't making inroads just because they're cheap; they're making headway because they offering good coverage and voice quality on multiple devices with a simple experience that people want.

THE MOBILE OPERATOR RESPONSE

Mobile operators can respond to the OTT pressure in one of four ways:

- 1 **BUSINESS AS USUAL:** Ignoring the OTT threat and waiting for it to level out while hoping for the best
- 2 **BLOCKING VOIP TRAFFIC AND OTTs:** Either blocking VoIP traffic and OTTs in service plans or charging for it
- 3 **PARTNERING WITH OTTs:** Including OTT apps with phone and service plans or promoting the use of specific OTTs
- 4 **LAUNCHING THEIR OWN SOLUTIONS:** Putting together a set of multi-platform services to compete with OTTs and other operators

Ignoring or blocking the OTTs isn't going to work for operators in the long run. At best they'll become pipelines for the OTTs and at worst they'll lose subscribers to OTTs

and more aggressive operators. Consumers have a lot of communication choices today, and those choices are easy to find.

Partnering with an OTT: Becoming the Pipeline

One option that operators have is to partner with an OTT app developer. By doing this operators become the pipeline behind the apps and can focus on their core strengths.

One problem with this solution is that OTT apps require an internet connection. Whenever there isn't a reliable data or Wi-Fi connection a VoIP app isn't going to work and calls will drop and people will have to re-originate the call as a circuit switched call. When operators partner with an OTT, customers will find that their coverage problems haven't been eliminated; they've evolved into new issues.

Operators also risk giving up ownership of the customer's mobile identity if they partner with an OTT. Right now the primary way to reach someone on their mobile phone is by calling their mobile phone number. Most OTT apps have their own UserIDs and the more people use an OTT, the more they are going to get attached to that UserID. It won't take long before it is more important to the consumer to keep their AliceSmyth123 ID than their mobile phone number and the account associated with it.

Launching an Operator Owned Solution

Launching their own solution allows an operator to meet the needs of their subscribers, build on existing customer trust and expand their brand onto other devices.

A common operator concern is that any solution they offer may reduce subscriber voice minutes. However, consumers are going to find a way to reduce their minutes no matter what, and operators can't be afraid to launch services that may cannibalize voice minutes to give consumers what they want and keep them loyal.

An operator owned solution also ensures the operator maintains ownership of the customers' account and communication identity. People are creatures of habit, and if an operator offers a complete set of services that people want, they aren't going to look around for a new solution that means setting up a new set of services on several devices, entering into new contracts and updating the contact information other people have for them.

If operators create a solution that satisfies customers they can stem the flow of subscribers turning to the OTTs.

PROVIDE BETTER COVERAGE AND QUALITY WHILE SAVING CONSUMERS MONEY WITH VOIP

The first thing operators need to do is provide VoIP calling from their customers' existing handsets. With the increasing prevalence of Wi-Fi and mobile data coverage, VoIP calling will help customers meet their goals for better coverage and quality with reduced costs.

While it may cannibalize some voice minutes, VoIP will also increase the amount consumers use their mobile plan when roaming and when inside buildings – places they couldn't use their plans before.

Simple Circuit Switch to Wi-Fi Hand-overs

Operators can do VoIP calling from handsets better than the OTTs because operators can transfer a live call from a circuit switch to Wi-Fi and vice versa and maintain control of both sides of the hand-over. Currently OTTs can't make the hand-over at all, and even if they could they would have to give up control of the call to the operator resulting in unintuitive billing patterns whenever parts of a call are under an operator's control and parts under the OTT's control. On top of that, if calls persistently dropped how would the consumer know who to contact?

This hand-over ability is a key differentiator for operators and they need to make it as straight forward as possible. However, they shouldn't always rely only on an automatic hand-over because the Wi-Fi degradation curve isn't gradual. Wi-Fi signals remain relatively flat and then suddenly drop off a cliff. As a consumer moves out of a Wi-Fi zone the signal degrades so quickly that the Wi-Fi call may drop before the hand-over can be made.

Any solution that an operator implements has to improve the user experience all around. Automatic hand-overs are clearly the best experience when an operator can consistently do it well. However, if the hand-over isn't perfect at Wi-Fi endpoints it's better to use a manual hand-over that the consumer can control rather than giving them an automatic but unpredictable experience.

EXTEND THE EXPERIENCE TO OTHER DEVICES

People are seldom far from at least one of their cell phone, tablet or PC. Operators should give their customers the ability to take full advantage of this access by allowing them to twin internet enabled devices with their mobile phone number so that they can communicate via the most convenient device. Consumers should be able to use their tablet to answer a call when they are surfing the net in front of the TV rather than getting up to find the phone they left in the next room.

People also want to take advantage of the strengths of each of their devices. PCs and tablets have better Wi-Fi capabilities than phones; they have better cameras, screens and video processors for a more immersive video experience; and their speakers are better suited to speakerphone calls. PCs also give a better messaging experience because of the keyboard, but a phone is still the best choice for a regular call.

Operators need an interconnected app on all devices that includes an intuitive hand-over to let consumers switch active calls to the best suited device. Pre-installed interconnected apps also differentiate operator tablets from those sold elsewhere.

Operators could also extend the interconnectivity to home SIP phones twinned with a subscriber's mobile phone number as part of a cohesive one-stop experience.

Connecting Internet Enabled Devices in the Mobile Office

SMBs (small and medium businesses) are also interested in twinning devices.

As the number of mobile workers increases, more and more people need to be able to use the device at hand to take a phone call in their office or car, participate in a video conference from a hotel room or client site and be able to quickly message coworkers with a question wherever they are.

SMBs are not only interested in twinning PCs, SIP phones and mobile devices with one phone number; they also want to get rid of PBXs by creating business groups, and virtual extensions. Some businesses are also interested in creating a local presence in different parts of the world with local numbers.

Operators can also offer SMBs file, video, photo and contact sharing services so that people can access the information they need wherever they are and from whatever device they have with them creating a truly interconnected user experience.

CREATE A SIMPLE END-TO-END EXPERIENCE

OTTs generally focus on a communication niche, and OTTs in the same niche don't talk to each other. While this lets them create an easy to use product, it also means consumers have to install, setup and learn multiple apps. People are getting tired of the fragmented experience this creates and they don't want to create (and forget) another UserID and password. Eighty-six percent of people say that in many situations they would try to find a different service rather than create another account.ⁱⁱⁱ

Operators have an opportunity to address this situation with an integrated communications experience that the OTTs don't offer.

Easy Setup is a Must

Adding an operator's app to an existing handset can't involve a convoluted setup process where customers have to create UserIDs, register and jump through hoops to do some of the set up on a PC and some of it on the phone. Adding VoIP calling, or any other app, to an existing phone has to be incredibly easy to do so that people can install it and be up and running in seconds.

Operators should use the customer data that is already in their systems to create a quick painless installation and setup experience that most OTTs can't replicate.

Cross Platform and Multi-device Experiences Have To Be Cohesive

The operator's solution has to be intuitive, and have an easily recognizable front end that users are familiar with. A soft phone should work like a real phone, an Android™ app should work like other Android apps, and the primary features, commands and icons need to work the same way on a tablet, PC or smartphone while taking advantage of the strengths of each platform.

OTTs often fall down in this area, porting an iOS® app to Android and disconcerting their Android users. Operators can capitalize on this weakness by creating a solid cross-platform multi-device solution that will allow people to seamlessly move between their iPhone® their Android tablet and their Windows® laptop.

Extend the Experience to Communicating with the OTT Apps

Once operators have done what they can to protect their voice and messaging revenue, they can stop worrying as much about the threat posed by the OTT's and start to interact with the OTTs. Operators can use the platform they create to help subscribers engage with contacts who use a variety of OTT apps. For example, an operator platform could allow subscribers to send a message to a contact, detect where that contact is currently online, and have that message delivered where the contact is active – Skype, Facebook®, Twitter® or any other app. Subscribers would no longer need to install all of the apps their contacts use because their mobile operator's app does everything for them; creating a complete user experience that the OTT's can't come close to.

USING A MULTI-DEVICE COMMUNICATION PLATFORM TO BUILD REVENUE

Customer retention and building loyalty should be the operator's first goal. A two percent increase in customer retention can have the same effect on profits as cutting costs by ten percent, and acquiring a new customer can cost up to five times more than retaining a current customer.^{iv}

Loyal, engaged customers also tend to be less price sensitive, more open to purchasing additional services, and more likely to recommend products and services to others. Seventy-six percent of people will pay 5% more for a good customer experience and 10% will pay up to 25% more for a superior customer experience.^v While a good customer experience includes many touch points with the operator, providing the services customers want in a straight forward and easy to use manner is a large contributor to the overall customer experience.

With loyal customers operators can use their multi-device communication client solution as a springboard for revenue generating services like:

- Premium paid features like group video; video-mail; contact, photo and file sharing
- Pull through advertising for operator products and services on all platforms
- Paid advertising like banners in apps and mobile messaging ads
- Additional paid identities like local numbers in a variety of cities
- Entrance into SMB markets, especially those with a mobile work force

Building a multi-device communication platform gives an operator a solid foundation for building future revenue through advertising, offering premium paid features or adding features to service bundles to encourage subscribers to move up the value chain.

BUILD ON A CARRIER GRADE INFRASTRUCTURE

Pulling together all of the features and platforms isn't enough. Operators need to extend their current quality levels to any new platform and service they implement by ensuring they build a carrier grade infrastructure instead of an app store grade solution.

Operators should make sure that the solution they implement:

- Has a rock solid voice and video that will scale to support 5, 10 million or more users as VoIP calling increases in popularity
- Works on today's networks, tomorrows IMS based networks and throughout the transition between the two
- Is easy to provision and get up and running quickly
- Is easy to distribute and for customers to install on existing

To compete with OTTs, operator apps can't only come preinstalled on new devices. They have to be easy for customers to download the app and install it on existing devices.

THE TIME IS NOW

The window of opportunity for operators to launch their own solution and build the experience their customers are looking for is small. OTTs are quickly gaining traction and operators have to get in on the action with a solid solution before any of the current players are too entrenched. As it stands:

- Skype currently has a 78% market share for software VOIP with an average of 200 million monthly connected users;^{vi}
- Viber has more than 20 million active users;^{vii}
- WhatsApp is one of the top selling apps in the App store and a top 10 revenue generating app in 47 countries.^{viii}
- Competitive operators are already launching their own solutions

Operators have to act now if they are going to reduce churn, attrition and revenue decline.

CONCLUSION

The mobile telephony landscape is changing whether mobile operators like it or not. Operators need to quickly decide how they are going to respond to the changes and act before OTTs and other operators lure away subscribers and lock them into a new identity and brand.

The best way to address this change is to embrace it and develop an inter-connected solution that adds VoIP calling to handsets and extends voice, video and messaging to tablets and PCs so consumers can take advantage of all their devices.

Elements of a Successful Solution

When an operator evaluates a multi-device communication solution they need to make sure it:

- Provides the features people want on an easy-to-use platform
- Has the ability to easily switch between circuit switched and mobile data manually ensuring a consistent user experience
- Has a straight forward hand-over between devices so consumers can use the device that is most appropriate for the task at hand
- Works in today's mobile networks, is ready for future IMS environments and will evolve gracefully between the two
- Is easy for the operator to implement so it can be up and running as soon as possible

The bottom line is this: to reduce churn and attrition, and create new top level revenue, operators need to focus on the mobile user experience, implementing a customer focused solution, and they need to do it now.

METASWITCH ACCESSION

Operators interested in creating a multi-device communication platform should look at Metaswitch's Accession Immersive Multimedia Telephony solutions

“Immersive multimedia telephony enables a conversation or session to move freely between preferred end devices and take advantage of local network connectivity or

handset capabilities while instantly sharing content that is related to the participants actions, surroundings or needs.”

ACCESSION IMT: A suite of solutions that enable carriers to deliver immersive multimedia telephony with fluid call control across numerous wireline and wireless endpoints

ACCESSION IMX: A solution for delivering an immersive multimedia experience, managed by Metaswitch, that eliminates the need for carriers to purchase and deploy hardware

Subscriber features

Circuit switched calls are enriched with:

- ■ ■ Easy network hopping (Circuit Switched to VoIP) that can be controlled by the subscriber
- ■ ■ In-call switching from a voice to a video call
- ■ ■ Call answering on any device
- ■ ■ Easy device hopping – push or pull a call from tablet to phone or vice versa
- ■ ■ In-call media sharing – send contacts files or photos
- ■ ■ Quick and painless installation on handsets, tablets and PCs

Revenue Generation

- ■ ■ Videomail that's accessible as video, audio or text
- ■ ■ Built in advertising and coupon pushing platforms
- ■ ■ Video conferencing
- ■ ■ Additional phone numbers
- ■ ■ SMB support for mobile workforces through device twinning, work groups and virtual extensions

Solid Scalable Architecture

- ■ ■ A scalable platform that can handle tens of millions of subscribers
- ■ ■ An easy provisioning process that will have operators up and running quickly
- ■ ■ Support for major operating systems including iOS and Android

Metaswitch has an IMS compliant application server and RCS enablers ensuring Accession evolves along with technologies like IMS and RCS.

Accession is built on Metaswitch's 30 year pedigree of developing rock solid core network server infrastructures, and their agile, innovative rapid client development work. Most vendors can provide one or the other, but Metaswitch offers the right balance of both.

To learn more and see a demo of Accession IMT and IMX visit:

www.metaswitch.com/accession-imt

ABOUT METASWITCH

Metaswitch Networks is a leading provider of the software that powers a whole new generation of communications services, and the solutions that fuel the rapid migration to all-IP architectures. Hundreds of network operators worldwide defend, extend and brand their business by building on Metaswitch to deliver a reliable, scalable, and immersive communications experience. For more information, please visit www.metaswitch.com.

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