



White Paper

The business case for VAVOOMB™

SUMMARY

For Mobile Operators everywhere traditional revenue streams of VAS and Voice are increasingly under attack from the OTT Voice and IP messaging services that are growing in popularity. Industry analysts *Informa* estimate that a 10% increase in smart phone penetration could cost Western European operators US\$1.19 billion in voice and messaging revenues whilst a report by *Ovum* states that “Social messaging apps cost networks \$13.9billion in lost revenue in 2011”

However a more serious threat is emerging as highlighted by a recent survey from NSN which states 40% of mobile broadband subscribers are unhappy with the quality of their mobile broadband service and are planning to move to another operator this year. The key message here is that mobile broadband services are indistinguishable apart from price and hence users have little loyalty and no problems switching providers.

In order to address these challenges, operators must leverage their key assets: the trusted billing relationship with their customers and their core high quality voice network. These assets when combined with a richer, higher quality and more unified communication service will strengthen the relationship with their customers.

VAVOOMB™ is a value added solution that helps to redress the balance, bringing three key benefits to the table:

1. Monetizes the use of mobile broadband and differentiates the service offering from the competition in a unique way
2. Counters the ARPU erosion caused by OTT services
3. Strengthens the relationship between the operator and their customers

With VAVOOMB, subscribers get the best of both the traditional circuit switched and IP-centric worlds. Perhaps more importantly, it offers the killer app for customers and revenue retention for the operator.

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OPERATOR CHALLENGES**IP-BASED COMMUNICATIONS CHALLENGES**

IP-based communications together with the rapid advancement of computers continue to make a significant impact on telecoms operators worldwide. In the early 2000s, the proliferation of the Internet and the increasing affordability of the personal computer gave rise to OTT VoIP services that allowed users to call overseas for free.

OTT VoIP is cited as one reason why fixed line telecom carriers experienced a 55% drop in actual revenue between 2000 and 2010 with another 37% expected between 2010 and 2016.

The mobile world is facing a similar challenge - this time with mobile internet and the meteoric rise of smart phones and tablet devices. OTT VoIP and IP messaging services are beginning to threaten mobile operators' core voice and SMS revenues.

Examples of successful OTT service providers include:

- Skype – 82% of mVoIP application space in 2011, 60 Billion outgoing call minutes in 2010
- Viber – 22 million minutes a day 1 billion messages a month by December 2011
- WhatsApp – Sending/Receiving over 1 billion messages a day in October 2011
- Facebook Messenger - 25.9 million active monthly users in December 2011

Note that to date none of these services are profitable, but their impact is significant. Industry analysts *Informa* estimate that a 10% increase in smart phone penetration could cost western European operators US\$1.19 billion in voice and messaging revenues.

MOBILE BROADBAND CHALLENGES

When mobile broadband first came on the market, operators welcomed the subscriber growth and increase in ARPU that came with the popularity of mobile broadband devices. However, this market is flattening, as mobile broadband is effectively becoming a commodity.

Smartphone and tablet devices all require mobile broadband and this places further pressure on operators to extend and upgrade their mobile broadband infrastructure to ensure their subscribers have a good reliable mobile broadband service.

However, a recent survey by Analysys Mason showed that 26% of mobile broadband users were unhappy with their current level of service and were contemplating moving to another operator. This risk of churn is significant, but operators can address this threat by giving

their users new innovative and easy-to-use services that increase the “stickiness” of their mobile broadband offering.

Mobile broadband providers must now begin to bring real innovation and value-added services to their subscribers in order to differentiate their offerings.

OPTIONS AVAILABLE TO THE OPERATOR

Operators have four options to respond to the OTT threat:

1. They can ignore it and continue to lose revenue
2. They can block OTT services and continue to see churn
3. They can partner with OTT service providers and share a reducing percentage of the revenue
4. They can emulate the OTT threat by providing a better alternative higher quality service. In order to do this operators must leverage their key assets, including:
 - a. the trusted billing relationship with their customers.
 - b. the integrity and security of their services. Security is often overlooked by consumers until it is too late – once compromised there is no adequate remedy.
 - c. their core high quality voice & messaging network.

These assets when combined with a richer, higher quality and more unified communication service will strengthen the relationship with their customers.

VAVOOMB is a value added solution that helps to address the threat from OTT providers in the following way:

1. Monetizes the use of mobile broadband and differentiates the service offering from the competition in a unique way
2. Counters the ARPU erosion caused by OTT services
3. Strengthens the relationship between the operator and their customers

With VAVOOMB, subscribers get the best of both the circuit-switched and IP-centric worlds. Perhaps more importantly, it offers a killer app for customers and revenue retention for the operator.

PRODUCT OVERVIEW

VAVOOMB is a unique solution from Jinny Software which addresses the challenges and needs of the mobile operator. It is designed specifically to directly counter the OTT service providers while leveraging the mobile operators' strongest assets to deliver a unified rich communication service that will help drive business growth.

VAVOOMB is a single number, multi-device, rich communications service. It unifies all of a user's communications needs under one roof and makes them accessible through apps designed for smartphones, PCs, laptops and tablet devices. In simple terms VAVOOMB lets subscribers use their phone number to access all their services across all their devices at any time.

It is a carrier-class platform that can be integrated with the 3G and LTE cores in a mobile network to provide for a consistent user experience and leverage key mobile network assets to provide a differentiated service.

**KEY FEATURES**

The feature set of VAVOOMB Release 3.0 and 4.0 will ensure that the subscriber has a rich unified communications service that is secure, reliable and on trend with current and future standards.

Differentiated VoIP application: VAVOOMB provides a direct alternative to OTT services such as Skype while also supporting local call transfer to the circuit-switched mobile domain, leveraging the high-quality mobile voice network to provide a differentiated service from the proven and trusted core.

Voice, Video & Conference Calling: VAVOOMB offers all the benefits of proven VoIP business models and services in order to extend the revenues that are generated from PC-based services. Voice calls, scheduled conference calling and video calling are all available.



Multiple Device Clients: Clients are available for PC, Tablet and Smartphone devices (including iPhone, Android and RIM) and can be preloaded or downloaded from the operator website or appropriate application store.

Voicemail with visual access: VAVOOMB allows you to have different voicemail greetings for different people – all created from the easy-to-use app. Access to voicemails can be done visually from any device at any time – gone are the days of wading through a long tedious automated voice access service whilst trying to remember what key to press for what function.

Multi-Ring and call transfer: Users can configure simultaneous ringing on multiple devices or a single device. Calls can be seamlessly transferred back and forth between devices during the call. Because VAVOOMB leverages the core mobile network, call transfers can be made to any handset and not just 3G-enabled smart phone and tablet devices.

Single Identity across all devices: VAVOOMB allows the subscriber to retain their mobile number rather than some obscure VoIP identity across all devices.

Synchronized Instant Messaging: A fully integrated IM experience is available on all devices. Users can carry out an IM chat session during which they can share pictures, videos and documents. Device synchronization allows users to start an IM chat session on one device and continue it on another or use them all at once. When a user goes offline, VAVOOMB provides messaging continuity over traditional SMS.

Integrated SMS: An intuitive SMS experience is available on both handset and other device clients. Users can see all sent and received messages on all devices and full integration with the Jinny Messaging Suite is available for a comprehensive user experience.



Single Account Relationship: Integrated Charging allows online account information to be presented to the subscriber with real-time call/event history, online recharging and balance updates.



Intelligent Call Routing: Never miss a call with VAVOOMB call routing. Users can define which phones ring and in what order with fallback to voicemail platform that offers user-friendly visual client access.

RCS-e interworking: Connecting with the RCS-e community allows VAVOOMB users to participate in rich communications with their RCS-e enabled address book contacts. RCS-e service discovery will ensure that any of their contacts who become RCS-e enabled are notified of the VAVOOMB users communications capability.

Social Networking Integration: VAVOOMB users will be able to participate in IM sessions with GoogleTalk, Facebook and other contacts within their social network communities.

BENEFITS

VAVOOMB changes the competitive landscape for the mobile operator and brings significant benefit to operators and their subscribers.

OPERATOR BENEFITS

Strengthen relationship with subscribers: VAVOOMB allows operators to leverage their key assets: the trusted billing relationship with their customers and their high quality voice network. These assets should be

used to provide a richer, higher quality and more unified communication service for subscribers which in turn will strengthen the operator's relationship with their subscribers.

Counter the threat from OTT providers: Operators can now offer a richer unified communications service when compared to the OTT providers, offering additional benefits of enhanced call quality, multiple device usage, call transfer between devices, single user identity and a single user account.

Increase revenues: New revenues are immediately available by capturing the revenues from OTT providers that are unavailable to the mobile operator today. Also, by differentiating the broadband service, the operator will capture new subscribers and their associated revenues. Targeted advertising will deliver even more subscriber revenues through both customer acquisition and new targeted advertising services offered to 3rd parties.

Increase loyalty and reduce churn: Differentiation and the integrated experience of Voice, SMS, IM and social media integration will create stickiness in the service that will encourage loyalty and reduce churn across the subscriber base.

SUBSCRIBER BENEFITS

User-friendly, feature-rich service: VAVOOMB unifies all of a user's communications needs under one roof and makes them accessible across all devices. Voice (including voicemail and multi-phone alerting), Video, SMS, IM and social networking integration are all available via the VAVOOMB client.

Full mobility across multiple devices: The subscriber can choose to make and take calls across a range of devices including PCs, laptops, tablets and mobile phones with simultaneous ringing of all or any single device. Mid-call mobility is an added benefit, as calls started on one device can be moved to another device at any time, e.g. for taking the call in a private location.

Single identity: Subscribers access their services via their mobile phone number regardless of the device being used. Take outbound calls for example: the call recipient will see the incoming caller ID as the VAVOOMB user's mobile phone number instead of a strange VoIP number. Similarly, inbound calls to the VAVOOMB user's phone number can be answered on any device unbeknownst to the caller.

Single trusted account: The VAVOOMB subscriber does not need to enter into multiple separate billing relationships with other service providers whose security credentials are unknown and untested. The trusted billing relationship with the mobile operator is all that is

needed to access existing services and sign up to new ones when they become available.

Secure service offering from a trusted provider: VAVOOMB provides a secure communications service – one where voice calls and messages are not monetised and scrutinized for advertising purposes and where credit card details and payment transactions are secured under the most stringent of security precautions.

SAMPLE BUSINESS CASE

VAVOOMB is ideally suited to a subscription-based service whereby the users can sign up and enjoy the benefits for small monthly fee. The following business case demonstrates how VAVOOMB can be successfully deployed to generate new revenue from the existing subscriber base.

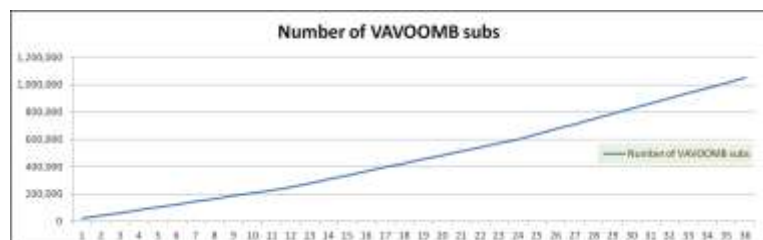
KEY ASSUMPTIONS

a. Subscriber adoption rates:

Consider an operator with a subscriber base of 5 million people that launches VAVOOMB with a marketing campaign that attracts a take up rate of 5% in the first year, 7% in the second year and 9% take up in the third year.

SERVICE PERIOD	ADOPTION RATE	VAVOOMB SUBSCRIBERS PER YEAR
Year 1	5%	250,000
Year 2	7%	350,000
Year 3	9%	450,000

Assuming a linear adoption rate, the take up results in over 1 million subscribers joining up and is as shown below:

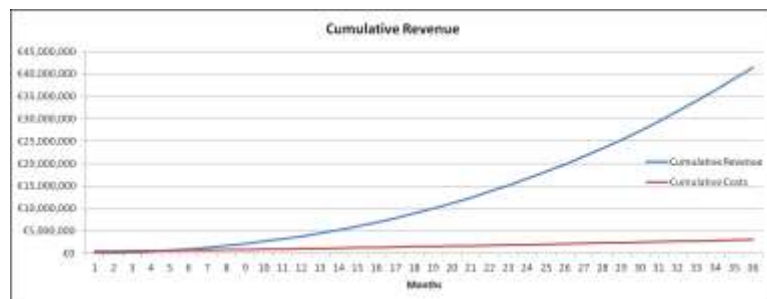


b. Subscription & usage revenue

Assume that the operator charges a monthly subscription fee of USD \$1.00 to each subscriber who signs up for the service. Also, assume that each user generates an additional revenue of USD \$1.00 for voice based calls and USD \$0.50 for VAS services e.g. increased SMS, MMS usage.

SUBSCRIBER REVENUES	FEE
Joining Fee (1 st time only)	\$0.00
Monthly subscription fee	\$1.00
Extra call revenue per sub per month	\$1.00
Extra VAS revenue per sub per month	\$0.50
TOTAL MONTHLY REVENUE PER SUB	\$2.50

The increased revenue plotted over a 3 year period is shown below:-



The cumulative revenue amounts to USD \$41,512,500 over three years which represents a significant gain in relation to the platform costs.

OPERATOR YEARLY REVENUES	
Year 1	\$3,812,500
Year 2	\$12,837,500
Year 3	\$24,862,500
TOTAL	\$41,512,500

CONCLUSION

VAVOOMB integrates an extensive array of voice and messaging services including circuit-switched calls, VoIP, intelligent call routing, visual voice mail, SMS, IM and social networking integration – providing a rich and unified communications experience for the end user.

It provides a market-changing communications model that gives subscribers a new unrivalled flexibility that they will not want to live without.

It also solves the ‘build or buy’ conundrum faced by all operators – why delay time to market by developing a service when VAVOOMB is ready to be deployed right now **and** is future-proofed for the IMS/LTE world.

By leveraging the mobile operator’s existing network assets, VAVOOMB offers a killer app for customer retention and new revenue generation that will help drive your business to the next level of growth.

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