The Over The Top (OTT) Challenge

Over the past few years, we have witnessed the smartphone and tablet revolution; and now many subscribers rely on their devices for their communications, work and leisure needs. In 2011 alone, almost half a billion new smartphone devices were sold worldwide[1]. These devices need mobile network connectivity, bringing operators many new opportunities and challenges.

One of the challenges is that the devices provide easy access to Internet based social media and communications services such as Skype, Facebook, and services by Apple and Google. In some instances these services provide an alternative communications channel causing some erosion to operators. In more extreme cases, subscribers prefer these alternative services whenever possible, and they are cannibalizing the operator's voice and messaging services. The operator is marginalized and can only provide an increasingly commoditized data service. For example, KPN reported a 10% decline in SMS traffic (year to March 2011) and attributed it to the impact of cannibalization by alternative messaging services.[2]

Operator Key Strengths

These trends are of great concern; and if left unchecked will continue to erode revenue, however, operators have several key strengths that can be leveraged to provide innovative new services.

Operators provide a trusted, highly available, reliable, universal and private global network. Subscribers intuitively assume that when they switch their phone on they will instantly be able to dial or message any other subscriber worldwide, without worrying about logging on, call privacy or indeed whether their destination is on line. The call or message will complete, and if the other party is unavailable there are simple and effective solutions for off-line messaging. Operators also enjoy a close relationship with their subscribers due to their customer service and network stores. The OTT services cannot match this convenience and universality.

These key strengths and the value proposition of reliable, simple, secure, universal communications are strong differentiators that favor the operators

The Benefits of Ethrix's EVoIP® VAS over Cloud Platform

The **Ethrix EVoIP® VAS over Cloud Platform** is highly differentiated and offers lower costs, simpler and more flexible deployment and operation and an enhanced Return on Investment.

An **open, flexible, hardware agnostic, 4G Ready, Next Generation, State of the Art IP VAS** – that is available today

- Built **on Ethrix's advanced software and architecture** using non-proprietary, industry standard tools, environments and best practices

- **Meeting the OTT Challenge** by providing a **compelling user experience** with new services, smartphone applications and simple web access - driving value, revenue and enhancing the operator's brand

- **Attractive CapEx driven** by a simplified licensing and system sizing model

- **Hardware Agnostic** and can be deployed in a **private cloud** or on platforms from the operator's IT vendor of choice (subject to SLA)

- A **Green Implementation** with a substantially reduced system footprint

- Supports multi-site deployment and **geographic redundancy**

- **Pure IP** – Built on **industry standards** and easily integrated into the operator eco-system

- **Hybrid (TDM/IP) environment** support

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[1] http://www.strategyanalytics.com/default.aspx?mod=pressreleaseviewer&a0=5170

[2] http://www.telecoms.com/27540/kpn-says-ip-based-messaging-cannibalised-sms-traffic-in-q1-but-consumer-kpis-show-overall-sms-growth/
& http://blogs.wsj.com/source/2011/04/21/kpn-outsmarted-by-smartphones/

over the OTT services. The dual challenge for the operators is to innovate and to simultaneously control costs. The operators must use their strengths to innovate in their core service offering and to provide more exciting and useful user experiences. Yet at the same time, they must control the cost to give subscribers increased value with greater functionality at a lower price point. Consumers will always be attracted by free services; however, these services are less accessible and convenient than mobile voice and messaging services. The communications provider is considered to be   trusted and easily accessible and if it can offer innovative, high value services then the vast majority of subscribers will pay for the convenience and customer service and not migrate to the OTT services.

Operators are looking for ways to innovate and improve their core service offerings. One alternative being considered is **RCE - Rich Communications Ecosystem** (or **RCS-e** the Rich Communications Suite-enhanced) the initiative that has grown out of the RCS (Rich Communications Suite) activity. RCE will provide rich call, messaging and file transfer over IMS infrastructure. RCE is due to start deployment in 2012 primarily in Europe.

Ethrix's EVoIP® VAS over Cloud OTT Solution

Ethrix's EVoIP® VAS over Cloud Platform empowers operators and allows them to provide exciting, innovative services that can be easily customized and can be controlled using smartphone clients. The EVoIP® VAS over Cloud Platform allows operators to control their Total Cost of Ownership (TCO) for maximal efficiency. The services leverage the operator's core assets, and can be universally available to all subscribers over the operator's current infrastructure. For operators considering RCE these services are complementary to the RCE core services and because the EVoIP® Voice over Cloud Platform is all-IP and 4G Ready there is no need for complex migration when RCE is deployed. The services available include **Call Recording**, **Customized Ring Back Tone**, and **Voicemail** with many exciting new services such as **Visual Voicemail** and **Message to Email** that fundamentally change the voicemail user experience by offering an enhanced accessible user experience. These services have viral adoption patterns and leverage the operator's network capabilities, for example, call recording and ring back tone are natural services in the operator environment.

Many of these services are extremely **social and community focused**. For example, the CRBT service is a personal service that allows the user to specify the music for a each of their callers and tells the callers something about themselves and about their mood. It is a social media experience. Their preferences can be easily shared on other social media platforms. These services also offer operator new revenue opportunities, for example CRBT allows the selling of downloadable music.

These new services have an improved user experience as they can be controlled by a **Super Smartphone Application** that is easily operator branded. The smartphone application is fun to use, convenient, provides a network OTT experience and improves the operator's branding and perceived value. It is also helps to drive viral adoption of the services.

One of the critical factors in improving the user experience and value is **the ability to customize the service** to make it more relevant to different consumer segments. This can include, for example seasonal branding and promotions or cross marketing promoting films and bands with teenagers, or sports teams with supporter segments. These initiatives increase subscriber stickiness, improve adoption rates and allow the operator to constantly refresh the services. In order to be successful the operator must be able implement the changes from design to deployment very quickly with low project costs. The

enabling VAS migration now and saving upgrade pain in the future

- **Open System Standardization** – Built using well known protocols and APIs with industry standard tools over IT platforms

- **Reduced Maintenance** costs because the underlying platform is part of the operator's IT solution and due to comprehensive remote maintenance capabilities from Ethrix's 7 x 24 Network Operations Centre

- A **robust EVoIP® VAS over Cloud Platform** enabling the rapid implementation and deployment of many market-leading revenue generating value added services including the **EVoIP® Voicemail.** This simplifies the ongoing VAS maintenance procedures.

- **Field Proven** – The **EVoIP® VAS Platform** is field proven in a wide variety of operator networks worldwide.

- Service Creation - using **industry standard IDE tools** and backed up with Microsoft Silver ISV partnership status

- **The Ethrix Difference** – Our corporate DNA of

EVoIP® Voice over Cloud Platform comes with a comprehensive IDE (Integrated Development Environment) toolkit that is based on the industry standard Microsoft IDE. This means that operators have complete control over the service design process using their own development teams and with a very short learning curve. This flexibility empowers operators, allowing them to make changes very quickly at low cost for the greatest impact.

Ethrix's EVoIP® VAS over the Cloud Platform

In order to offer subscribers increased value and improved price to performance; operators must effectively control their costs.

Ethrix's market leading EVoIP® VAS over Cloud Platform is completely **hardware agnostic** and **can run in an operator's Cloud environment or on standard IT Telco hardware**, with considerable CapEx and OpEx savings. EVoIP® allows the simple development and deployment of multiple VAS solutions on the same robust infrastructure. A single EVoIP® VAS over Cloud Platform can host multiple VAS applications such as Voicemail, CRBT and IVR.

Service creation is rapid and flexible using the EVoIP® toolkit that runs on industry standard tools. The operator can develop their own services in their own environment with their own developers making it feasible to rapidly deploy numerous focused VAS applications with low project overhead.

EVoIP® is engineered to be tightly integrated in the operator's production environment. All computing elements, databases and storage are **supplied and maintained by the operator's IT vendors of choice.** EVoIP® is completely **native IP and is 4G network ready** using the SIP protocol family (although it can also support legacy connectivity using standard gateways.) EVoIP® uses standard protocols and API's for both system operation and network integration.

The EVoIP ® **VAS over Cloud** Platform has a low OpEx requirement. System hardware is maintained by the IT vendor; typically under existing service contracts by the existing engineering team and with standard spare parts. Comprehensive remote application support is provided from Ethrix's 7 x 24 Network Operations Centre. Compared to legacy systems EVoIP® has a very small system footprint and power requirement, making the system environmental friendly.

The Ethrix Difference – Our Corporate DNA

Ethrix's EVoIP® Voice over Cloud Platform allows operators to compete with OTT solutions by providing innovative mass market services over an extremely efficient and flexible platform.

One of the principal advantages of EVoIP® Voice over Cloud Platform is the **Ethrix Difference** and our **corporate DNA**.

Our corporate DNA is our agility and **uncompromising customer dedication** that allows us to meet our customer's needs and ensures complete project focus and success.

The **Ethrix Difference** is built on our corporate DNA, on our belief in using industry standard infrastructure, tools and IDE and it has been refined by designing and deploying many value added services for telecom operators worldwide.