Ethrix's EVoIP®VAS over Cloud Platform

Ethrix's EVoIP® VAS over Cloud Platform is an open, all-IP, 4G-ready, hardware agnostic, Value Added Services (VAS) platform that delivers VAS over the Cloud. A single EVoIP® VAS over Cloud Platform can support multiple value added services such as CRBT (Ringback Tones), Network IVR and Voicemail. It is field proven in operators worldwide and supports next generation all-IP and hybrid IP/TDM networks. The EVoIP® VAS over Cloud Platform is very flexible, services can be developed by the operator using standard tools and EVoIP® is easy to maintain. The EVoIP® design ensures that it requires low capital investment and attractive operational budgetary requirements.

EVoIP® VAS over Cloud Platform is tomorrow's state of the art VAS system and it is available today.

EVoIP® Voice over Cloud offers a compelling user experience with an operator branded Smartphone Super Application[1] that allows subscribers to control and share their various operator services. The super application is fun to use and increases the operator's perceived value. The EVoIP® Voice over Cloud Platform and Super Application are powerful tools in driving subscriber loyalty and preferences in the face of the OTT (Over The Top) disruptive threats.

VAS Market Dynamics

Value Added Services are lucrative revenue drivers and high impact differentiators for operators. Operators recognize that the traditional portfolio of one-size-fits-all VAS applications can now be expanded to provide compelling granular solutions

[1]Available on Android and on from the Apple store.

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

- A **compelling user experience** with new services and simple web access driving 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

for smaller, focused (long-tail) customer orientated segments, or to support seasonal campaigns and services driving new revenue and loyalty. Legacy VAS applications are deployed as vertically-integrated, single-application, proprietary silos running over dedicated Telco grade hardware, with minimal resource sharing between applications; making them expensive to both deploy and to maintain. These traditional VAS platforms are naturally tightly integrated to, and optimized for, the traditional TDM network environment, but, like all proprietary systems they tend to be expensive both in terms of initial capital investment (CapEx) and in ongoing operations (OpEx).

Telco-IT Convergence - From Proprietary Solutions to the Cloud

The Telecom industry has undergone a paradigm shift driven by the relentless developments in the IT and communications industries. Operators realize that the traditional concept of pure Telco platforms is now inefficient, expensive and generally trails behind the state of the art. Therefore, operators expect the systems to run on standard IT platforms in production environments.

Telco-IT Convergence increases flexibility and reduces costs due to economies of scale and vastly simplified maintenance concepts. Operators are now taking full advantage of Telco-IT Convergence and are deploying some applications on private clouds to further maximize efficiency and flexibility.

Transition to All IP Networks – Towards LTE

At the same time, many Telecom operators have begun to transition their core networks from TDM to IP infrastructure, as it offers increased efficiency, flexibility and support for the next generations of cellular networks (4G and beyond). Today, IP is ubiquitous and typically many networks operate as a hybrid TDM/IP environment. The huge numbers of smartphones, tablets and applications are driving the migration to IP. Many networks are constantly increasing their bandwidth and are actively planning or deploying LTE (Long Term Evolution) networks that will allow many new, exciting hybrid services and applications.

- 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 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 uncompromising customer focus and agility honed over many successful projects ■

The VAS Challenge

Today the VAS challenge is to drive more revenue by providing a richer choice of segmented applica Today the VAS challenge is to drive more revenue by providing a richer choice of segmented applications that can be easily deployed and customized by the operator using industry standard tools. The VAS platforms must be easy to maintain and have both low capital outlay (CapEx) and tightly controlled OpEx costs. VAS platforms should be hardware agnostic and take advantage of the Telco-IT Convergence to run on any suitable platform in the operator's environment. Looking to the future the VAS systems must be extremely flexible, be IP native and be ready for the next generation of networks such as 4G.

Some consumers now access alternative communications solutions from Internet based services such as Facebook, Skype and Google. These OTT (Over The Top) services challenge the operator's traditional position, branding, customer loyalty and erode revenue. The core strengths of operators are their close subscriber relationship because they are a reliable, universal, private and trusted communications provider with accessible customer service. Operators can meet the OTT challenge by leveraging their core strengths and providing more reliable, private, accessible and exciting services.

Ethrix's EVoIP® VAS over Cloud Platform allows operators to immediately provide increased value and enhanced user experience to the subscriber mass market. Ethrix provides operator branded, smartphone super-applications that enhance the customer experience and offer increased subscriber value. The EVoIP® IDE toolkit allows operators to rapidly customize, seasonally brand and create new highly targeted services over an extremely reliable and flexible platform.

Ethrix's EVoIP® VAS over Cloud Platform

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

The Ethrix Difference – Our Corporate DNA

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 ∎

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 (such as Microsoft Visual Studio). 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■

Ethrix VAS over Cloud Leadership

Ethrix has always been at the forefront of innovation in native IP value added services solutions. For almost decade Ethrix has provided operators worldwide with state of the art VAS systems and has successfully established itself as the leading supplier of VAS platforms in many regions. The Ethrix product portfolio combines high quality with a clear business case and advanced product capabilities. The Ethrix EVoIP$^®$ VAS over Cloud Platform takes this product leadership and innovation to the next generation, delivering a VAS platform that can be deployed over the cloud, is truly hardware agnostic and is 4G ready. Ethrix's EVoIP$^®$ VAS over Cloud Platform and EVoIP$^®$ applications such as Voicemail and CRBT are field proven in both pure IP and in hybrid IP/TDM environments and provide service to millions of subscribers worldwide each day.