

## *SS7 Gateway with RADIUS Supports Leading ISP's Triple Play Proposition*

### **Background**

ABCom is the leading and longest established ISP in Albania and is the **only** broadband cable operator in the country that offers Triple play. Due to the success of their initial VoIP service they needed to improve both the fixed Telephony part of their bundled service and also their interconnection with the main operators in the country. ABCom had quickly grown their volume of voice minutes since the service was launched and the traffic level now required a 'carrier-grade' gateway to manage breakout to the PSTN and mobile networks. The platform would also have to be resilient.

ABCom's business model already made use of a VoIP billing solution from PortaOne which the company intended to continue with. Therefore, the gateway selected would have to interwork at a deep level with the installed billing system.

### **The WTL SS7/SIP/RADIUS Gateway**

Following a thorough shortlist and selection process covering many leading vendors, the company chose WTL as their supplier. The WTL solution was based on a redundant pair of SoIP Gateways with built-in RADIUS support.

ABCom needed a very flexible set up because in their network architecture calls may be collected either from their Triple Play customers using SIP trunks or from conventional TDM (both SS7 and ISDN) connections. Equally, termination might be to VoIP-based or traditional carriers depending on Least Cost Routing decisions. This type of configuration presented no problem at all for the WTL switching engine within the SoIP. The routing logic and number manipulation are almost unlimited in the WTL software and ABCom's requirements in this area were very quickly satisfied.

A central reason for this project was ABCom's need for a more resilient, robust solution at the heart of their network. This meant that DMTP3, the WTL redundant, distributed SS7 signalling technology was a key selling point. Simply, this allows ABCom to split their essential SS7 signalling links and voice trunks across 2 physical WTL platforms and results in a very high availability system even in the case of major system failures at ABCom or the public network operators they connect to.

### **RADIUS "Triple A" Support**

As a long term technology partner of PortaOne, WTL was very well placed to offer integration with the company's installed billing software. In this network, the WTL SoIP acts as a signaling & media gateway with all the business logic being supplied by PortaSIP and PortaBilling. In a classic example of the use of RADIUS, the "Triple A" functions of Authentication, Authorisation and Accounting are outsourced to an external server.

Calls are collected from subscribers by the SoIP via either SIP trunks or SS7 interfaces. Based on calling number, IP address, customer-entered PIN or a SIP Digest exchange the SoIP passes the caller's credentials to PortaBilling for validation. If the caller is recognized then PortaBilling signals to the SoIP that the call can proceed. If the call is Pre-Paid then this is also managed by PortaOne and when the subscribers account runs down to a certain level a 'Kill' command is sent to the SoIP which

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cuts the call. For the Post-Paid case, the call runs its course and when the parties hang up, the SolP sends a RADIUS accounting record to PortaBilling which uses its rate tables to calculate the call cost. This design allows PortaBilling to support both TDM and VoIP without calls looping back and forth. Only RADIUS messages pass between WTL and PortaBilling: the media (voice packets) do not go to the billing system but remain in the SolP to be switched.

**Vladimir Dedolli**, Chief Technical Officer of ABCom praised WTL's implementation, *"We selected our vendor very carefully for this part of our network. This is a critical stage in the development of our company. We have become a major player in Triple Play and we have to have a very strong voice element within this."*

**Simon Pearson**, Business Development Director of WTL said, *"It has been a great pleasure to work with such a technically competent company as ABCom. The installation went quickly and smoothly – this is largely down to good preparation and our partnership with the installed billing supplier PortaOne. We have always claimed that we have the most flexible and widely compatible gateway on the market and our RADIUS AAA support just adds even more substance to that claim."*

## About ABCom

ABCom was one of the first ISPs to be established in Albania in 1998. Since then the company has grown continuously based on its innovative approach offering customers cutting edge technological solutions.

In 2009 the company launched a Triple Play offer which has been highly successful. For more information please visit [www.abcom.al](http://www.abcom.al) or email [info@abcom.al](mailto:info@abcom.al)

## About WTL

World Telecom Labs is a Belgium-based company which has long been a leader in the provision of VoIP switches, Pre-Paid applications and signalling gateways for emerging carriers and telecom service operators. WTL has an installed base of 100,000s of voice ports with service providers worldwide switching billions of minutes of VoIP traffic using WTL equipment. For more information about WTL and its products, please visit [www.wtl.dk](http://www.wtl.dk) or email [sales@wtl.dk](mailto:sales@wtl.dk).