WTL Helps Deliver Satellite-based Telephone Services & Internet Access to Moroccan Tele-Centres

Background

The Moroccan national telecommunications regulatory authority has initiated a 'Universal Access' project to improve availability of internet and telephony services for the whole population regardless of location. For the more remote locations that are situated beyond the range of terrestrial networks a satellite-based solution is required. This is a major initiative of national importance which will see almost 8000 locations installed over the next 4 years.

Such a high profile project requires not only satellite and telephony infrastructure but also a whole Pre-Paid business model to underpin the ongoing commercial viability.

The WTL Infrastructure Solution

Working with Nortis, a local partner for system integration and logistics, WTL proposed a solution based on deploying WTL equipment in all targeted Tele-Centres alongside a VSAT terminal. WTL's Mini-PVXs and 4 or 8 port VoIP Gateways are located in every site to allow voice calls to be made and transmitted efficiently over the VSAT. The role of the PVX is to optimise the VoIP traffic using WTL's patented NOP bandwidth saving technology which ensures that the minimum possible satellite bandwidth is used.

All traffic from the remote sites is backhauled to the satellite hub in Casablanca where the VoIP traffic is handled by a redundant pair of WTL SoIP switches. Local traffic connects via SS7 to Moroccan fixed and mobile operators. International traffic is onward routed to another WTL switch in France where Least Cost Routing is used to decide on the best carrier (VoIP or TDM) to terminate the call.

Eutelsat are providing the satellite connectivity for the combined IP data and optimised VoIP traffic. Phase 1 of the national program saw the first 105 Tele-Centres installed by the end of October 2010.

Data & Voice in One Box

A unique feature of the WTL solution is that the PVx device in the Tele-Centre manages the data from the internet PCs as well as optimising the VoIP. The PVx has built-in NAT, Router, Firewall and internet caching – all the functions that a cyber café usually has to source separately. The focus throughout this project has been to reduce cost and complexity in the Tele-Centre: even the browser used to access the central WebTL billing software runs within the PVx – removing the need for an extra dedicated billing PC.

Billing and Customer Management

A key element of the project is, of course, the commercial sustainability. The Tele-Centres are a combination of a Call Shop and a Cyber Café and are designed to meet all the communication needs of the community. As a result the WTL billing has been specially developed to handle both voice calls and web browsing.

A solution was required that allowed simple but secure and effective billing for traffic in any of the Tele-Centres. This had to be applicable for both voice and data traffic. It was also important that the running of the centres could be sub-contracted or franchised so a multi-tier billing model would be

needed. Here, WTL's WebTL application proved to be ideal. It provides an on-line provisioning and billing tool for the Tele-Centre customers. No special software is required in the shop itself – just a standard Web Browser to connect to the secure WebTL server located in Casablanca. This is seen as a huge benefit in a large scale project like this where managing version control and price lists in 100s of small, remote Tele-Centres would be totally unwieldy.

The Tele-Centres run in a Pre-Paid mode; if their account balance runs out the traffic is instantly blocked.
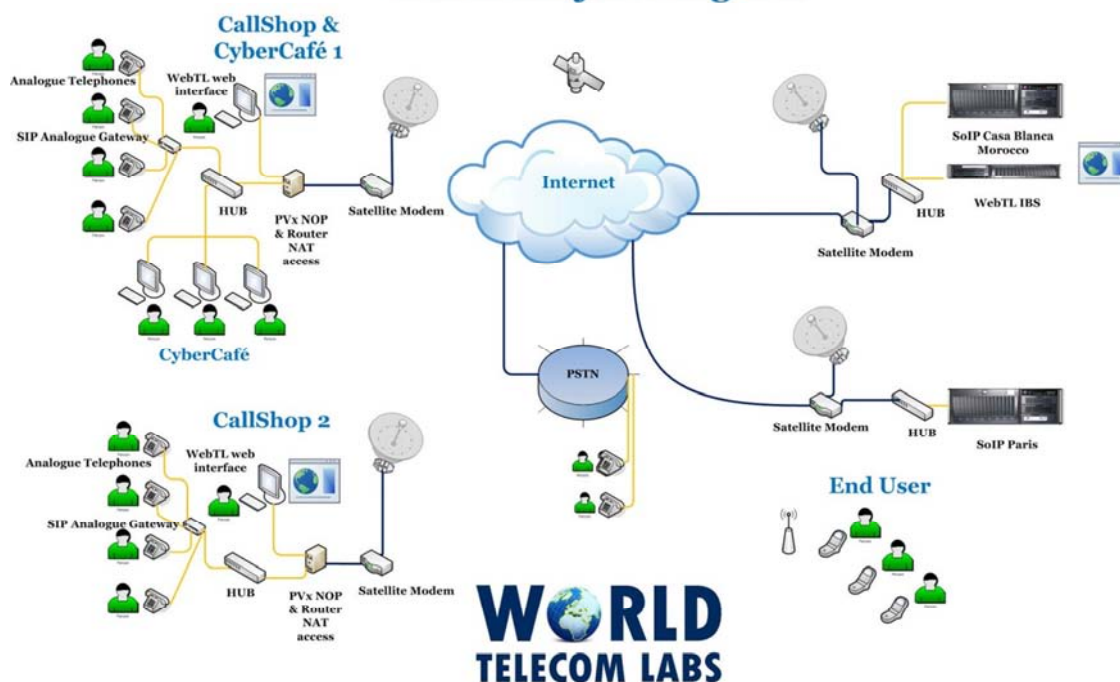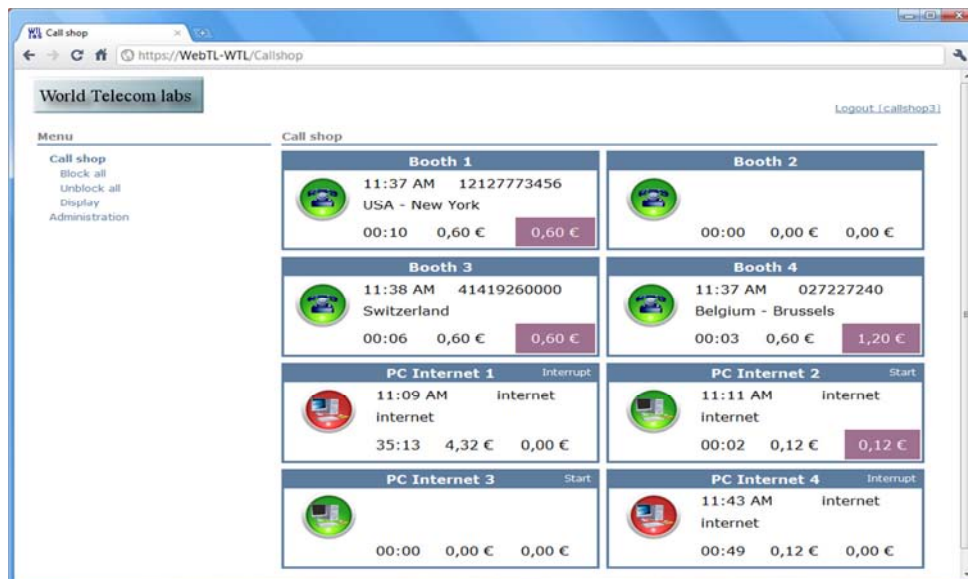

WebTL Billing - Client Display

The interface that the client sees to track live traffic is very clear and shows graphically all the booths/phones and their current status. This display can be localised to support different languages and customised by including the company's logo on all the pages (this includes the possibility to display interactive images).

WTL Solution Benefits

- Bandwidth optimisation for VoIP on satellite leg from 100s of sites
- Coherent management of data and voice from one point
- Telco-grade switches for PSTN breakout and international call routing
- SS7 <u>and</u> VoIP connectivity at central site
- Low-cost, easy to deploy billing & provisioning system
- Billing for data <u>and</u> voice traffic
- Highly secure, no risk of revenue loss
- Callthrough & Callback features also included
- Multi-tier business model with Resellers & independent Tele-Centres supported

Simon Pearson, Business Development Director of WTL said, "This is an ideal project for WTL, playing to the company's 3 main strengths, namely, satellite bandwidth optimisation for VoIP, pre-paid capability and SS7 connectivity" He added, "We believe we have a blueprint here for a cost-effective solution that will be copied in many developing regions with hard-to-reach locations".

About Nortis

Nortis is a Moroccan VSAT Operator, founded in 2000 by Telenor (Historical Operator in Norway). Nortis has since been acquired by the LCM Oilfield Services Group (HQ based in London). Nortis offers global communication solutions in 4 areas: International Leased Lines (B2B and CallCenters), Interconnected Networks, Satellite based Broadband Internet connections and Solutions for Africa

The Company's Mission is to develop and supply VSAT Telecom solutions based on the latest techniques in Data and Voice transmission. Starting from requirements analysis, Nortis handles the

design, deployment, control and maintenance of its customer's infrastructure to provide a tailored solution focused on the optimization of their telecom network.

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** or email **sales@wtl.dk**.