

Soft IVR Deployment By Leading Swiss Operator

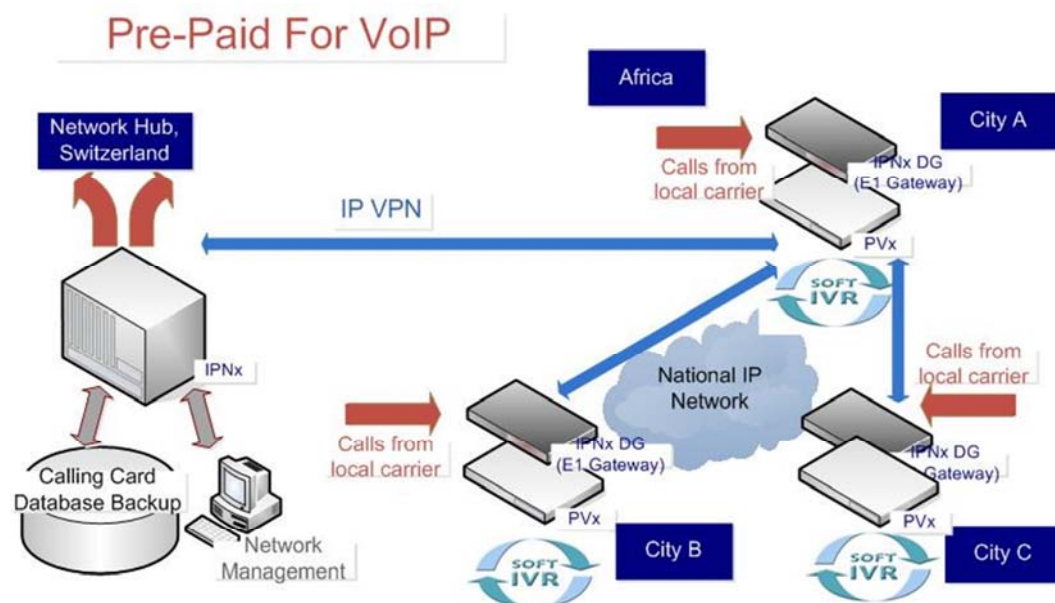
Background

A long term customer of WTL, based in Geneva, Switzerland, is an operator providing wholesale, termination, transit and carrier services, Calling Cards and other retail telecom products. The Company operates its own worldwide IP network and has one of the most extensive networks of any next-generation operator with 15 switches worldwide.

As part of a continuing expansion plan the customer wished to offer its products in an increasing number of countries. These included countries traditionally difficult to serve in Africa and Asia. The problem was that there was a market for the company's products but the costs and risks of offering the services might be too great. Locating a dedicated Calling Card platform with specialist hardware to play messages and detect digits in the country would be expensive. On the other hand, carrying all calls back to Switzerland for message playing and authentication would be wasteful of the long distance bandwidth.

The WTL Solution

WTL worked with the customer to design a solution based on SIP gateways and the recently introduced Soft IVR, a SoftSwitch and SIP Application Server. A country in sub-Saharan Africa where the customer holds an operator license was chosen for the first phase of deployment. The network was created linking the 3 principal cities in the target country using an IP network. The cities each have a Soft IVR server, a 2 E1 IPNx DG VoIP gateway and connections to the local PTT. The Soft IVR server in the capital city has an international IP VPN connection to the network hub in Switzerland.



Subscribers make calls to local numbers; the PTT delivers these calls over the rented E1s to the IPNx DG in the nearest city where the calls are converted into standard SIP packetised voice. The call must now be authenticated. In previous implementations this would have to be done by back-hauling the call to a central Calling Card platform in Switzerland (wasting valuable international bandwidth) or to an expensive Calling Card platform with dedicated voice processing somewhere in the country. However, using Soft IVR the call is dealt with quickly and efficiently in the local server.

Having checked that the caller has sufficient balance in their account the call can be routed. If it is a national call it can be routed over a private IP link to the IPNx DG nearest to the destination. If the call is international it is routed over an IP VPN to the network hub in Switzerland. In Switzerland the customer has a large IPNx switch from WTL which is connected to many carriers and to WTL switches in other countries so the call will be Least Cost Routed to its ultimate destination.

There is, however, one other benefit of this design: if handled as normal SIP traffic the international calls would occupy too much of the IP VPN to Switzerland. So, the Soft IVR server now converts the calls into NOP (WTL's patented Network Optimisation Protocol). This gives up to 16 to 1 compression of the traffic with very good audio quality and allows the greater call capacity needed. At the Swiss hub (or at another point if the call is onward routed in the customer's network) the traffic is turned back from NOP to TDM or standard SIP as required.

Why Chose Soft IVR?

Key to the selection of Soft IVR was the ability to offer a full IVR (Interactive Voice Response) service without the need for specialised, DSP-based hardware. The customer was already familiar with the WTL Pre-Paid and other applications and knew from experience that these could be depended on to give them all the flexibility and reliability that their services demanded.

Soft IVR is being used initially to offer a Pre-Paid Calling Card service in the target country and there are plans to roll out to 6 more locations in Africa, Middle East and Asia in the near future.

The company's President talked about the selection of Soft IVR, "At first it seemed a little bit too good to be true – to get a full Pre-Paid service with all the message playing, digit detection, routing and the very precise rating that we have to use for Calling Cards, all on a single server. So, we ran a short trial and it met our requirements from day 1. The voice quality of the messages being played and the accuracy of the digit detection were my main concern but both were excellent." We could have used the built-in voice prompts delivered with the Soft IVR system but, for reasons of branding and corporate identity, they have recorded their own custom prompts which were easily loaded into the Soft IVR servers.

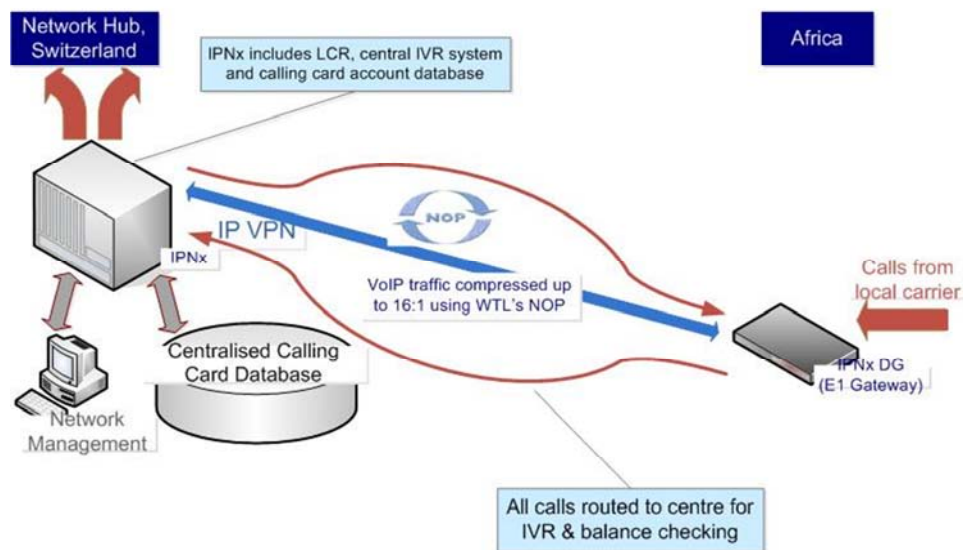
Resilient Calling Card Database

The Soft IVR also integrates perfectly with WTL's IPNx carrier-class switch used elsewhere in the network. This has a very useful benefit – the sites can all share the same Calling Card data. A smart database back up scheme means that the sites exchange database updates with each other. So, even if a unit in one location were to fail, account records, PIN numbers and balances would not be lost. This makes the network much easier to manage. Rating and routing tables can be created in Switzerland and then simply shared with the Soft IVR platforms – the database sharing automatically takes care of the updates.

In this case, Soft IVR is being used with WTL's own VoIP gateways. However, the support for both H323 and SIP standards means that the same set of extra features can be delivered for any existing VoIP network.

Managing Director of WTL, Leigh Smith added, "People are used to the broad set of services that can be run on the IPNx switch but the lower price point of Soft IVR means they can deploy in a lot more

Calling Card Network Before Soft IVR



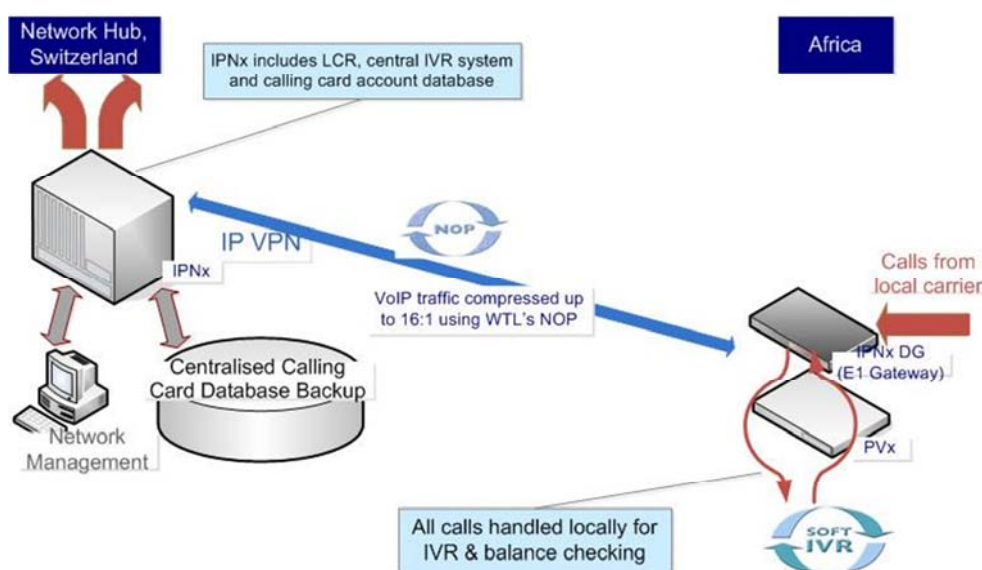
Soft IVR Features

Soft IVR is extremely versatile, capable of delivering Pre-Paid and Callback services and generating comprehensive CDRs for any VoIP network. Sophisticated rating and routing features are also available. Both H323 and SIP are supported (simultaneously and with conversion from one to the other).

Case Study... Case Study... Case Study...

Changing the Way the World Communicates

Calling Card Network With Soft IVR



Benefits Of The Solution

- Low cost way of launching a service
- Pre-paid services are ideal for a developing market
- Leverages the infrastructure already installed and paid for in Europe
- Uses VPN over the internet = low cost, fast deployment but some guarantees of service levels
- Smart database backup techniques mean that account data is always stored in more than one place
- Messages are played from in-country Soft IVR platforms so long distance bandwidth is not wasted
- Soft IVR does not use costly (sometimes unreliable) specialist DSPs to play messages / detect DTMF
- Fully remotely manageable
- Use of NOP on backhaul to Switzerland saves bandwidth but with high voice quality
- Greatly improved usage of limited bandwidth
- Equipment is fully networkable so other locations are easily added

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.