

Xplorium Covers the Globe with WTL's SolP Gateway

Background

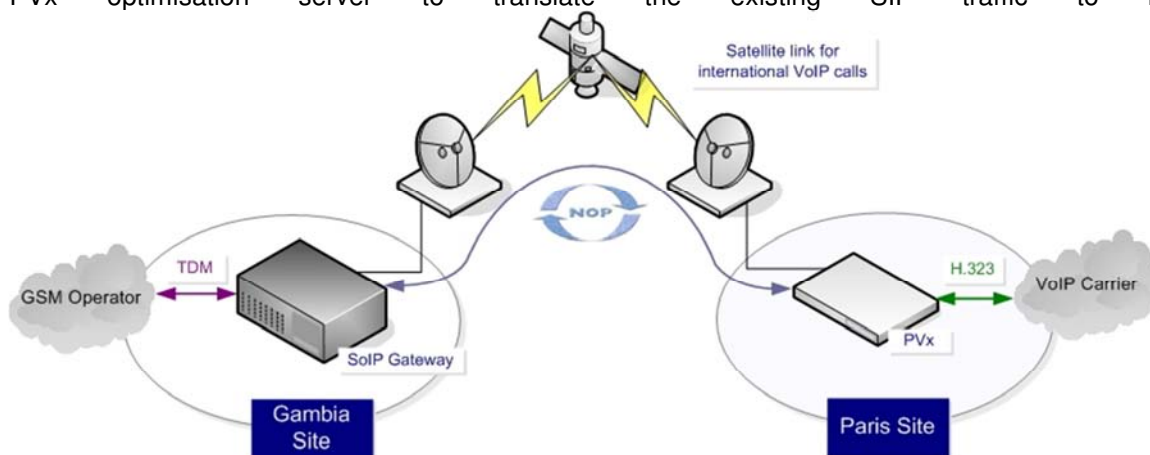
Xplorium is one of the biggest international wholesale VoIP carriers, with a significant international presence: Europe, the United States, the Middle East, Latin America and Africa. One of the company's specialities is carrying the international traffic of GSM operators in addition to many other varied retails services. In a number of locations the traffic is carried via satellite and this gives rise to concerns about the voice quality and the efficiency of transmission. In 2007 Xplorium were looking for equipment for their VoIP PoPs that would address these issues.

WTL Solution

WTL proposed several products for different parts of the Xplorium network. The key factor was to use WTL's patented NOP (Network Optimisation Protocol) bandwidth saving technology. Simply put, this technique packs multiple VoIP voice samples into a single IP packet. Because the samples are not modified, quality is unaffected but, on multi-call links, significant savings can be made on the packet overhead. Also, since single samples are taken from each active call rather than queuing multiple samples from the same call, delay is not increased.

NOP is available either within WTL's SolP gateways (a combined SS7-VoIP media and signaling gateway) or the PVx (a server-based network appliance). Because of WTL's switching background, these products can be configured in point to point, star or mesh topologies, and work with SIP or H.323 gear from most vendors.

Certain sites already had VoIP gateways installed from other manufacturers. Here WTL proposed the PVx optimisation server to translate the existing SIP traffic to NOP.



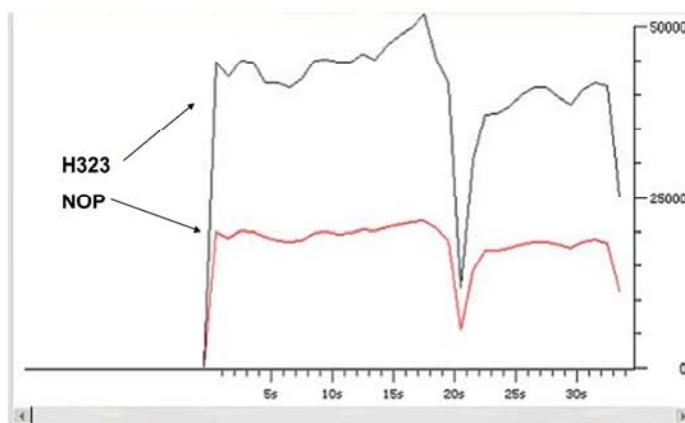
However, in a number of locations traffic needed to be collected direct from a GSM network switch. The best way of doing this was to connect via E1s using SS7 signalling, and the SolP gateway was suggested.

Voice Quality vs. Bandwidth Used

Xplorium carried out a trial of the WTL technology which demonstrated the high voice quality and confirmed that significant bandwidth savings were actually achieved. This led to the first operational link being deployed between Gambia and Xplorium's NOC in Paris with a capacity for 360 optimised VoIP calls (equivalent to 12 E1s). This was soon followed by a number of other African locations, with the traffic again being sent to the Paris hub.

Xplorium's Technical Director, Karim Charif, commented, "We have tried a number of types of equipment for backhauling traffic, but none has all the elements in the same package like WTL. We have already deployed this solution in many different countries without a problem and the bandwidth savings we are seeing on the satellite capacity are very impressive."

In fact, the NOP not only gives double the capacity of standard VoIP but it also protects the voice quality of the traffic from any underlying problems with the satellite link such as lengthy delay, high jitter or packet loss. Simon Pearson, WTL's Business Development Director explains, "For this installation we have been able to draw on the improvements that we made to NOP in a recent European Space Agency (ESA) funded project. This allows us almost to do the impossible – in some cases we can save bandwidth and improve the voice quality of VoIP over satellite. We have added features specifically to counteract the common problems of satellite transmission of VoIP, namely variable delay or jitter, long delay and packet loss in busy contended services. Independent laboratory testing has shown that this can lead to better MOS scores for our NOP than for standard SIP in a satellite environment."



NOP v. H323 bits per second per call

VoIP in Tough Locations

Xplorium's business takes them to some difficult locations, so the equipment that they use has to be easy to set up, highly remotely manageable, and reliable in service. WTL products have satisfied these requirements fully.

A web-based set up utility, SW Config, is supplied and requires minimal training before an engineer can use it to install the products. Even the usually difficult task of configuring SS7 interfaces for interconnect with local operators in Africa can be achieved relatively simply. "My engineers love the simple set-up of the WTL gear. We did the install and configuration in Gambia on our own, including the SS7 set up," offered Charif, "but if we do need help, the WTL support has always been first class,"

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Changing the Way the World Communicates

he added. All WTL equipment is designed to be totally remotely manageable using a highly optimised, secure, IP-based in-band management channel.

Next Steps

Xplorium are steadily migrating their network to WTL equipment and using NOP on all the principal long distance links. As Charif puts it, "Wherever we go now, we take WTL with us. We have already installed in 8 different locations and we have others planned." A duplicate hub location is planned in the near future to give complete resilience in the network back-end.

About Xplorium/Comium Group

Founded in 1996, Xplorium is an international voice carrier committed to provide new telecommunication solutions by supplying state-of-the-art services to its clients. Present in Europe, the United States, the Middle East, and Africa, we are devoted to deploy cutting edge technology to ensure clients' competitive advantage.

Xplorium's expertise is dedicated to help forward-looking corporations worldwide implement VoIP solutions making it possible for them to communicate and cooperate with each other, no matter what systems they use. Consequently this has stemmed in a rollout of enhanced services transmitted over our flexible, advanced, and cost effective network. These services exceed conventional telecommunication requirements to include Voice over Internet Protocol and Internet applications.

Xplorium's network flexibility allows clients easy and fast interconnection offering them new market opportunities in today's telecommunication and information services environment. The diversity of our network architecture supplies the ability to reduce costs, improve market share, produce overall profit margins and differentiate services. Our team of telecommunication experts masters all the necessary functions for call rating, billing, reporting, customer support, and 24-hour network management.

Xplorium's client base includes a wide range of both domestic and international clients. To be attentive to our clients' needs and promptly respond with innovative personalized solutions is our priority and an integral factor of our success.

Xplorium's strategic affiliation with Comium, a leading group in the provision of New World Telecommunications Services, has earned us a vast, varied experience and professional know-how. By providing specialized services in both government and private sectors, Comium's field of expertise covers the planning, design, installation, and operation of large telecommunication projects on a turnkey basis, as well as providing related products and services.

NGN (Next Generation Network)

Xplorium is strengthening its core business with its new NGN (Next Generation Network) enabling a common way to exchange, secure, monitor, control, and bill for voice and multimedia sessions flowing through IP networks, which will add new revenue-generating services including real time data, video and fixed-mobile / mobile-fixed convergence. A clear evolution path that provides ready elements to deploy a secure service that supports a full range of multimedia capabilities were also deciding factors in Xplorium's selection of a new upcoming VoIP network solution. Thus the NGN is the basis which will allow Xplorium to very quickly adapt to community and customer's needs and demands with its expanding residential and business customers benefiting of high quality services and innovative features at highly competitive rates.

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Xplorium's Retail and Corporate Products & Services

Xplorium provides a full range of high quality communication services and solutions. It offers a wide and affordable variety of retail and corporate VoIP solutions making it easier to communicate internationally at the lowest rates and the best voice quality. Solutions include end-user/corporate gateways, IP-PBXs, IP Phones, Wifi Phones, Video Conferencing, and also international DIDs, all merged together to offer the highest technology services of IP Telephony. In addition, Call Shops & Internet Cafés systems that facilitate the cost reductions cycle.

About WTL

World Telecom Labs is a Belgium-based company which has long been a pioneer 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