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Top UK VoIP Service Provider Picks WTL for Europe's First Distributed SoftSwitch

Background

hSo is a London-based company that was established to offer integrated IT and communication services to blue-chip organisations in the UK. The company has rapidly built an impressive customer list for services such as hSo Vault (secure data back up) hSo Access (data networking for remote workers) and hSo Voice (high quality telecommunications at low cost). The services are offered via some of the UK's leading commercial landlords. hSo decided that they wished to migrate their existing proprietary VoIP network to standards-based equipment and to switch to a carrier-class switch architecture (a pair of large PABXs had previously been used for carrier interconnect).

WTL Solution

WTL proposed a solution based on twin, IPNx switches in 2 different physical locations but linked to operate as a distributed SoftSwitch in a 1+1 redundant fashion. Connection to the CPE uses SIP or H323 over hSo's secure, private IP network. As with hSo's entire architecture carrier connections have been designed to be resilient. Dual, redundant SS7 signalling links and trunks connect to a choice of carriers.

IP to SS7 Architecture
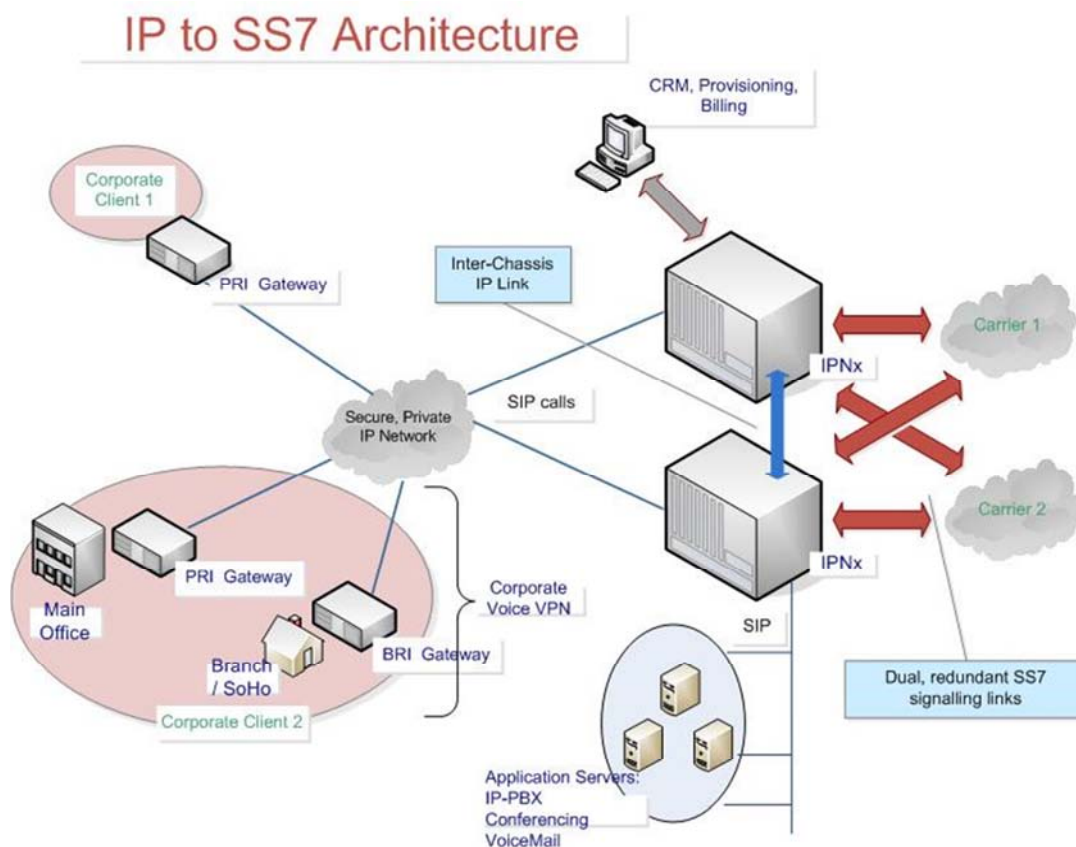
WTL worked closely with hSo to validate a list of recommended suppliers of CPE equipment to ensure highly reliable interworking. Security was a prime concern so particular attention was given to this during the acceptance phase. Testing also ensured that all types of traffic were properly supported (different voice and fax calls, for example).

Voice VPNs were also created to allow multiple offices and home workers to be part of the corporate voice network with own extension numbers.

hSo's Products and Services Director Avner Peleg stressed the factors that influenced the company's decision, "We address the high quality end of the market with a number of blue chip clients so it almost goes without saying that security and reliability are core to our proposition. We found that the WTL product was one of the few that met our requirements. We were also impressed by the range of extra features that came as standard with the product – redundant SS7 and the ability to create voice VPNs for our clients for example. WTL were also very willing to work with us before deployment to prove the inter-working with our chosen CPE suppliers."

Business Development Director Simon Pearson pointed out, "We were very satisfied to win the business at hSo. The selection process was extremely thorough and carried out in a most professional manner – this means we were chosen from the whole industry as having the best solution for the job. This project really showcases some of the key product strengths of WTL and it is applicable to anybody who needs a secure reliable interface between the VoIP world and the conventional telephone network. I would expect a lot of ISPs to start buying this type of solution as their traffic increases and they realise the challenges of being in the telco business."

Outsourced Management

Following their own business model of offering outsourcing of non-core services hSo have contracted part of the management of this solution to WTL. A web based system has been set up allowing hSo to request adds, moves and changes and WTL offer an SLA-backed fulfilment service which ensures that, for example, new customers are added to the switch within 24 hours.

Extra Resilience

A key principle of the network operated by hSo is the high degree of resilience built in. The system should be secure against any single failure. This approach is followed at all levels. For example, the switches are sited in different co-locations in the UK to avoid power or carrier outages. The two IPNxs are then interconnected with a high speed IP link. hSo's Avner Peleg is proud of the high availability network architecture that has been deployed, "As far as we are aware, we are the first operator in Europe to deploy a geographically separated switch (either SoftSwitch or legacy). Naturally, we use this as a USP (Unique Selling Point) when selling the benefits of our service to potential customers".

An advanced feature which supports the resilient design is the deployment of an intelligent distributed SS7 signalling scheme. Known as D-MTP3 this WTL technology allows a pair of SS7 signalling links to be split over two physically separate switches.

The dual IPNx approach provides the architecture for sharing a point code over two active SS7 signalling engines. Using this technique, the links in an SS7 link set can be spread between two separate chassis with DMTP3 running in each. In normal operation, signalling can be shared between two units. In the event of a failure, signalling is maintained by the remaining unit.

"This level of resilience is unusual in anything less than major Class 5 switches for 5 times the price." claimed Pearson, "We feel that we have set a new standard here for Next Generation or Soft Switches."

A further benefit of a resilient design distributed over 2 switches is that planned maintenance by the carrier or the IPNx switch operator does not have to result in a complete loss of service. Whilst one of

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the signalling links is out of service the other can continue processing SS7 signalling messages and traffic can continue to be carried on the remaining trunks.

Resilient SS7 Architecture
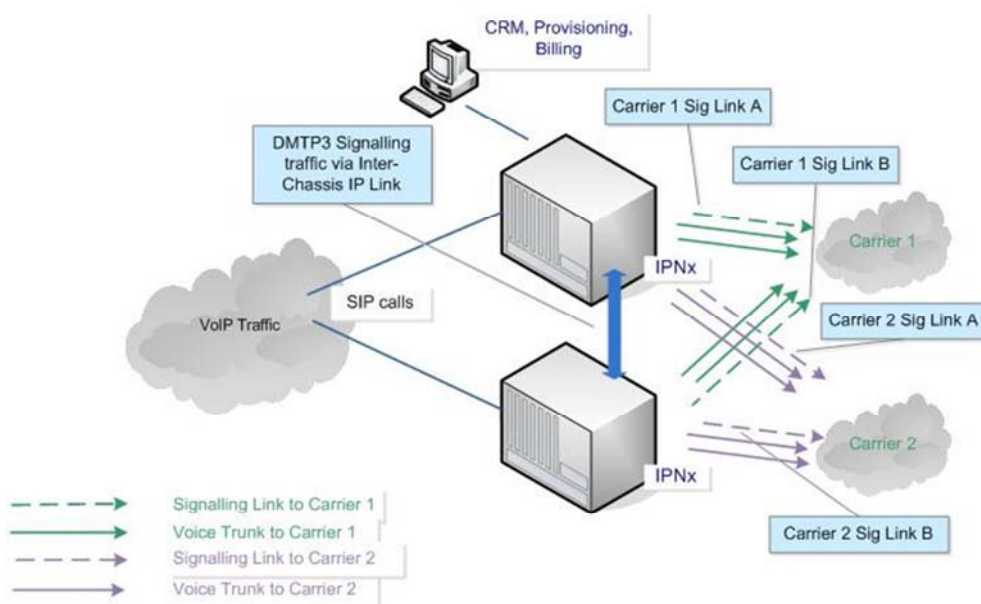
Future

hSo will continue to roll out their Voice+ outsourced telecoms service to more and more clients around the UK. The road map also includes offering hosted IP PBX functionality at some point. This will be achieved by linking SIP-based application servers to the IPNxs.

It is also expected that the high performance, high reliability infrastructure will also be offered to other operators looking for top quality termination to the UK PSTN.

Benefits of WTL Solution

- ➢ Open solution based on VoIP and telecom standards
- ➢ SIP and H323 support on same switches
- ➢ Highly interoperable allowing wide choice of CPE or carriers
- ➢ Strong security and authentication features
- ➢ Customer provisioning outsourced to WTL
- ➢ 1+ 1 Redundant design
- ➢ Intelligent SS7 redundancy (Distributed MTP3)
- ➢ Support during network installation and deployment

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About hSo

hSo, one of the UK's leading integrated communications providers, offers its managed IT services to SMEs

The innovative range of hSo solutions available to SMEs includes hSo:VOICE+, a fully-managed Voice over Internet Protocol (VoIP) service, providing telephony customers with increased resiliency, functionality and dramatic cost savings.

Voice+ is the UK's first managed Voice over IP (VoIP) based communications platform and offers users unrivalled levels of 'future-proofing', resilience and guaranteed cost savings - often with no initial capital outlay. Voice+ is suitable for single and multi-site organisations and, as well as offering reduced running costs and a resilient call delivery platform, also gives mobile workforces instant, remote access to all of their personal organisation tools including email and diary functions. Voice+ connects directly to the customers' existing PBX using standard PBX connections such as DPNSS and Qsig. This solution also provides an additional direct network connection so that businesses benefit from increased resiliency should the incumbent provider experience exchange problems.

Customers include Fish4, Seddons, the Higham Group and Infocorp.

Call: +44 (0) 870 112 1122
Web: www.hso-uk.com

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**.