

Customer Case Study

Hosted PBX with call encryption

nfon AG, a service provider based in Munich, Germany is successfully providing hosted PBX services for the corporate market. These services offer an attractive option for organisations of all sizes. Increasingly nfon's users are demanding encryption on the links between desktop VoIP phones and their virtual PBX at nfon's hosting centre. nfon turned to the Power Sec to solve this problem.

The Problem

nfon AG is a successful ITSP providing hosted PBX services to the corporate market in Germany and in other European countries. The company's value lies in its ability to offer cost effective telephony services to its customer base. nfon takes complete responsibility for the delivery of both internal and external phone services which means that their users avoid both the capital costs of installing their own PBX and the overhead of managing that system. The hosted PBX option is particularly attractive for any geographically distributed organisation such as retail and the banking sector.

nfon's infrastructure and close association with a number of the backbone Internet providers means that users can rely on high quality VoIP links from any location using DSL Interconnections. The low cost of these links is a key factor in controlling the overall service cost.

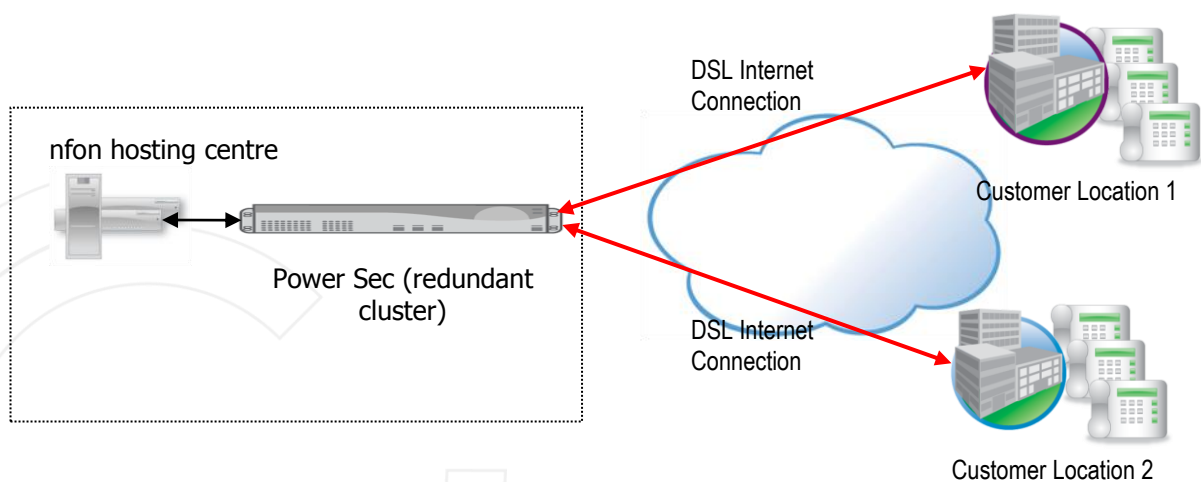
A hosted PBX service provided by nfon handles all internal and external communications. This includes communication with customers and suppliers and interoffice calls. As these calls may run over the public Internet, many of nfon's customers and particularly those handling information which is subject to regulatory and privacy controls are demanding call encryption.

Adding call encryption to its existing systems while maintaining their cost advantages proved a challenge for nfon.

The Solution

To solve this problem, nfon turned to the Power Sec.

The Power Sec provides standards based call encryption which allows nfon to offer this service to their customer base without the need to install additional equipment at the customer's premises. All a customer needs is a handset capable of supporting the same encryption standards.



The Power Sec provides encryption for SIP signaling (call setup) and RTP media. SIP signaling is protected with TLS, while RTP is encrypted using Secure RTP (SRTP). In both cases the Power Sec uses strong encryption algorithms such as AES with key lengths of up to 256 bits for symmetric algorithms and 2048 for asymmetric algorithms. The actual algorithm and key length chosen for an individual call is dependent on the capability of the handset. nfon use Aastra and snom handsets both of which offer compatible encryption services.

nfon's back-end provisioning service means that call encryption can quickly be enabled at the customer's request. The Power Sec installed at the nfon hosting centre will automatically set up encryption for all calls between the customer's handsets and the hosted PBX. This means that if the user's handsets are capable of supporting encryption, encrypted calls can be enabled as required without visiting the customer's premises. Once the service is enabled, users benefit from encryption on all calls made between office locations and on all calls routed via nfon's PSTN gateway.

To ensure service continuity, nfon have installed a redundant cluster of Power Secs at their data centre. This cluster will scale to handle many thousands of calls.

Solution Benefits

By selecting the Power Sec nfon are able to meet their customer's demands for call encryption and to provide that service as a cost effective option for their customer base. The design of the SIP Security Controller means that this value added service can be enabled quickly and efficiently with no requirement for additional equipment or configuration changes on the customer's network.

This service gives nfon a competitive edge by enabling them to offer call encryption to customers that require this service for internal policy reasons or to meet regulatory requirements. nfon's customers benefit from being able to combine the flexibility and cost benefits of a hosted PBX service with the data protection and security provided by call encryption.