

Case Study -- Turkish Petroleum

- a solution provided by system integrator Net Iletisim

Turkish Petroleum Strikes Oil with Remote SIP Connectivity

SOLUTION: Ingate Firewall® 1190 with Remote SIP Connectivity.

RESULT: Turkish Petroleum's remote workers can benefit from the centrally located Avaya IP-PBX and inherent SIP capabilities to make VoIP calls from anywhere, anytime, reducing telephony costs significantly

Turkish Petroleum Corporation is truly a global company with a distributed workforce. The country's national oil company, Turkish Petroleum has thousands of employees working abroad sourcing for petroleum. They work 'round the clock to discover Turkey's oil and natural gas potential and bring it to market.

With more than 4,000 employees in Turkey and more scattered in branch offices, the company needed to reduce their remote workers' phone bills and shrink high roaming charges. They also wanted to give employees the same access to the IP-phone system as their colleagues in the home office so they, too, could use Instant Messaging, VoIP, realtime video and all the productivity-boosting applications available with their SIP-based Avaya PBX.

Avaya reseller and system integrator Net Iletisim installed an Ingate Firewall® 1190 with the Remote SIP Connectivity software module (providing FENT, Far-End NAT Traversal) at Turkish Petroleum's headquarters in Ankara. Besides providing the basic high level of security necessary for SIP traffic as well as protecting the PBX and the network from incoming malicious attacks, this Ingate Firewall thus extended the capabilities of Turkish Petroleum's IP-PBX to all remote workers working behind NAT, wherever they were, without the need for any additional hardware at each site. And, it should also be mentioned, of course without recurring to VPN and the related limitations.

With one Ingate at the customer headquarters, all of their remote workers can enjoy the benefits of Turkish Petroleum's IP-PBX from anywhere in the world. That means they can make VoIP calls anywhere, anytime, with only one Ingate Firewall installed in Ankara," said Tahir Odabas, IT Manager, Net Iletisim.

"The potential for cost-savings was the major driving factor in choosing Ingate," he continued.



VoIP Anywhere, Anytime

Turkish Petroleum's remote workers have Internet access to the Ankara IP-PBX from hotels and oil platforms via satellite links or normal public ADSL links. On every site there is a router with NAT. It was required that a variety of IP phones should be possible to use, besides the Avaya One-x 9640 and 9620 desk phones. Full functionality must also be possible in countries like Libya and Irak.

The Ingate Remote SIP Connectivity SW enabled the access to the IP-PBX in Ankara beyond the corporate Local Area Network (LAN), to remote locations, assuring the required traversal of SIP through the NATs, while the required SIP interoperability features were handled by the basic Ingate Firewall functionality.

Even based Nokia E72/E75 mobile phones can now be used!

Turkish Petroleum's mobile workforce was already using Nokia E72/E75 mobile phones. These phones could be provided with a SIP client, but after a certain software upgrade they nevertheless had problems communicating with the Avaya IP-PBX. The Ingate solved these interoperability issues, normalizing the communication between the SIP client in the Nokia and the IP-PBX, making remote access from any WLAN possible.

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Redundancy

Net Iletisim plans to provide redundancy by installing a second Ingate Firewall 1190 at the customer headquarters to create a failover pair. This multiple Firewall distribution provides a resilient and fault-tolerant network, to ensure that mission-critical applications such as voice are always available. The backup server might be a machine in another physical location, presumably not vulnerable to anything that would cause the primary host(s) to become unavailable.

SIP Trunking

The Turkish Petroleum Corporation is using traditional ISDN/PRI lines for PSTN calls and SIP/GSM gateways for GSM calls. While most of the calls are

local, much of the operations are actually international. The present plan is to utilize Ingates to create SIP trunks between the head office in Ankara and several smaller branch offices located in different countries. All incoming and outgoing calls will from the Ankara office be channeled via an ITSP, Internet Telephony Service Provider. Such a SIP trunking solution offers significant cost-savings for enterprises, eliminating the need for local PSTN gateways, costly ISDN BRIs (Basic Rate Interfaces) or PRIs (Primary Rate Interfaces).

With SIP trunks no additional costs for leased lines will be required since communications between the branches offices will all be running over the Internet. This traffic will moreover travel directly between the offices, so there is not any extra load placed on the Ankara equipment or Internet bandwidth.

Looking Ahead

Turkish Petroleum Corporation plans to rollout the Ingate solution to nearly 400 users in the near future.

