

## Dundee City Council 'Scales Up' Remote Working With AEP Netilla Security Platform

### *SSL VPN helps council manage increasing interest in remote working*

When Dundee City Council introduced a remote working policy for council employees, they were surprised at how popular it was. So many staff were keen to enjoy the flexibility and work-life balance benefits, the council very quickly had close to 500 remote workers and demand was increasing steadily.

To facilitate remote working, Dundee's IT department had implemented a client based IPsec Virtual Private Network (VPN) gateway. This provided employees with remote access to the applications that resided on the council's corporate and schools network.

Those who had taken the option to work remotely included staff from the finance and other administrative departments, as well as environmental health workers who are often on the move and wanted the flexibility to work from home or out of the office. Similarly, teachers in Dundee's ten secondary schools and 43 primary schools were accessing email and applications on the schools' network from home, while many of the city's councillors benefited from the ability to access emails remotely. Social and care workers were also using the system to access the council network from 40 different council sites throughout the city, which were equipped with PCs and cable modems.

As the base of users grew, the IT team found the existing IPsec VPN was eating up increasing amounts of administration and support time.

"Every time a new employee was granted permission to work remotely or someone left, we would have to load or reconfigure the client software on the user PC," explained Graeme Quinn, IT Team Leader - Network Management, at Dundee City Council. "And the system relied on digital certificates which were created on a separate certificate server. They were a security measure and were required by users to access the VPN. If these certificates went unused for a period of weeks, they would expire and it was becoming a bit

of an administrative headache and disruption for the IT team to be constantly generating new certificates."

With the escalating interest in remote working, the IT team decided to look for an up-to-date solution which would be easier to maintain and could handle the growing numbers of users. Security was also a key requirement, as Quinn stressed:

"Our network can contain confidential information relating to areas such as social work, housing benefit and criminal justice records. We have a responsibility to ensure that our systems incorporate high levels of security to protect this data from prying eyes."

### The Solution

Working with Enforce Technology, one of the UK's leading security consultants and integrators, Dundee City Council's IT team evaluated a number of Secure Sockets Layer (SSL) VPN solutions. SSL VPNs, which are emerging as an alternative to IPsec VPNs, are well regarded for their flexibility, ease of use and for being simple to manage and support. They rely on the standard SSL web protocol that is designed for server authentication, data encryption and message integrity over Internet links.

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SSL VPNs minimize the need to configure and maintain remote devices because they function in a 'clientless' environment, operating through Web browsers that are built into every PC. Because most users are familiar with browsers, little training and support is needed, translating into lower support costs. Moreover, it is possible to log on to an SSL VPN from any PC with a browser; users are not restricted to logging on from a specific machine.

Dundee decided that that the AEP Netilla Security Platform (NSP) from AEP Networks would most effectively meet its needs, as Quinn described:

"NSP can be set up as an independent device which manages all aspects of remote access, and the team from Enforce Technology was able to demonstrate that it would be easy to implement and

maintain and had all the functionality we required. The other systems we looked at appeared to be unnecessarily complicated, without offering any additional benefits.”

“We also like the fact that NSP would easily integrate with the Active Directory that we use as part of our authentication system to manage user IDs and passwords,” said Quinn.

Dundee’s IT team was reassured about the security afforded by NSP. The system uses an ‘application layer proxy’, which means that end users need never directly connect to the private side network. The NSP appliance intermediates between the network and the end users, presenting them with a ‘proxy’ of the application, protecting the application servers from direct exposure to the Internet. NSP is able to apply security policy, functioning as a gatekeeper between network and the Internet. Network resources are further protected by the PKI protection built into the appliance.

## The Results

With the help of Enforce Technology, Dundee City Council was able to install NSP and have it up and running in a very smooth implementation. And the IT team is finding that it has to devote very little time to maintaining the system, according to Quinn:

“New users can be added to the AEP Netilla ‘box’ within minutes and we no longer have to spend time loading software on client PCs. Once they receive management approval to work remotely, we set up users’ details on the system and send them email instructions which explain how to use it.

“They go to the required URL and log in via their ID and password. This lets them onto the system and they are immediately into familiar territory – able to see and access the applications on our network, which they have been used to accessing from their desktop PC.”

At Dundee City Council, the NSP is configured to provide users with ‘Thin’ application access to the council’s Windows-based corporate and schools networks. This means that with just a Web browser, they can interact with actual applications that reside on the network in the same format as in the office – but within a browser window securely over the Web. This integrated approach, unique to AEP among

SSL VPN vendors, is designed to allow simple, secure access to Windows Terminal Servers as well as UNIX, Linux, and 3270 mainframe applications quickly and easily, and without third-party server-based software.

“Because NSP authenticates directly with our Active Directory we do not have to maintain a separate user database of remote workers. And, of course, it is a huge relief that we no longer have the headache of renewing digital certificates which was a constant interruption on the previous system,” said Quinn.

One of the security features that Dundee finds very useful is the ability to set up rule-based policies to create user realms within NSP. This uses the council’s Active Directory to define the applications or parts of the network that users or groups of users are able to access.

“By implementing a layered security model using separate realms, we have the flexibility to restrict access to specific confidential information or parts of the network,” said Quinn.

A side benefit of introducing NSP is that it allows IT contractors who supply upgrades or maintenance work to do it remotely – allowing them to be more responsive to the council.

“Some of the contractors were initially quite sceptical because they did not feel that web based VPN access would be reliable enough. But they were soon persuaded and we now hardly ever see them on site because they can generally do all their work remotely – allowing us to benefit from a faster service,” Quinn said.

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Looking to the future, Dundee City Council will be expanding and building on its remote working programme. Recent trials have involved some departments that have teams of workers that are permanently based at home. Providing these trials are successful, they will be rolled out to a variety of other departments throughout the council.

“We are seeing so much interest in remote working, it has got to be the future,” concluded Quinn. “As more users adopt it, NSP will allow us to scale up, without putting undue pressure on the IT team or having to worry about security issues.”

### About AEP Networks

AEP Networks offers a comprehensive Policy Networking solution that provides complete security starting at the endpoints and working throughout a network—from the edge to the core. AEP's integrated portfolio of security products includes network admission control enforcement points, identity-based application security gateways, SSL

VPNs, high assurance IPsec-based VPN encryptors, and hardware security modules for key management.

Our products address the most demanding security requirements of public-sector organizations and commercial enterprises internationally. The company is headquartered in Somerset, New Jersey, with offices worldwide

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