Norwegian Ministry of Foreign Affairs Goes to Aruba for Secure Wireless and Guest Access

The Foreign Service of Norway comprises the Ministry of Foreign Affairs (MFA) and 109 foreign service missions, including embassies, permanent delegations and general consulates. It represents a global span of remote offices connected back to the Norwegian capital, Oslo. Each embassy hosts a team of employees and local staff who operate the mission, representing the interests of Norway in the local country and providing services to Norwegian nationals. The embassies' senior diplomatic personnel and administration staff require highly available and secure communications back to the MFA offices in Oslo.

In 2006, as part of an ongoing program to ensure efficient delivery of public services for the Norwegian people, MFA sought a solution that would allow them to reduce the installation cost of networks at their remote foreign missions and improve security for new applications.

SECURITY DRIVES THE NEED FOR A NEW NETWORK

Each embassy represents a small- to medium-sized branch office connected back to Oslo by satellite and landline links. Historically, to ensure security within the embassy, the LAN consisted of optical fibre with optical transceivers to connect network equipment such as servers, printers and PCs. The networks were installed by engineers flown out to each site from Norway,

The optical fiber network within the embassy provided physical layer security within the internal areas of the building. However, a requirement to extend the network outside of the secure perimeter of the embassy walls posed a problem;

optical fiber in a public area would not be inherently secure and could not provide adequate security for a new initiative: biometric passport terminals.

As part of the ongoing update to passport security, by mid-2009, all European Union and European Economic Area states, of which Norway is one, are required to implement biometric passports. Consequently, each embassy or mission is being equipped with biometric terminals to enable the collection of essential information. The terminals will be placed in public areas within the embassy grounds and consist of a fingerprint reader, signature pad, camera with lighting and a VoIP phone for real-time communication.

"It is very important that our embassy networks are highly secure," said Glenn Jone Østebø, senior technical advisor at MFA. "Within the embassy, our employees need a secure connection to Oslo. However, the biometric terminals used for passport and visas are placed in public locations. Using wireless in the public areas is much more secure than putting in a wired connection."

Requirements:

- Scalable solution that's easy to deploy at remote offices without on-site support
- Centralised management
- Dependable Internet access to guests in a very difficult Wi-Fi environment

Solution:

- 2 Aruba 6000 Multi-service Mobility Controllers equipped with Aruba M3 modules
- 1 Aruba 800 Mobility Controller per embassy or mission (up to 109)
- Between 2 and 9 Aruba AP-61 and/or Aruba AP-70 Access Points per embassy

Benefits:

- Secures data within embassies.
- Provides employees with secure mobile access to data within Oslo Headquarters
- Automatically switches to alternative WAN link should satellite connection be unavailable.
- Centralised 802.1X authentication with local backup
- Adaptive Radio Management automatically compensates for different office construction and RF environment
- Centralised management

MAKING THE MOVE TO WIRELESS

In April 2006, MFA approached analyst firm Gartner to obtain advice on which companies they would recommend for a wireless LAN (WLAN) implementation where security and ease of deployment in a remote office were key. Three vendors, including Aruba, were shortlisted and given an opportunity to demonstrate their solutions. During the summer of 2006, only Aruba was able to demonstrate a viable solution using a quantity of equipment that could be realistically deployed at a remote location without technical specialists being present during each installation.

Implementation of the wireless network commenced in late summer 2007 with trial deployments at a number of embassies, the installation of an all-wireless office at MFA's education centre in Oslo, and provisioning of guest-WLAN access in MFA's headquarters building. The solution is currently being rolled out and is expected to be in place in 60 embassies and offices by the end of 2008, and in all 109 embassies by mid-2009.

"In a number of locations, we had previously used point-wireless solutions – the sort of solutions more commonly used in small office environments," said Østebø. "When we deployed Aruba as a replacement, those locations that were already used to wireless reported a very noticeable improvement in coverage within the building."

Beyond the embassy networks, MFA is deploying Aruba's Remote Access Point (RAP) technology at the homes of key staff. Targeted at organizations with mobile workers, RAP software is loaded onto a standard Aruba access point and offers a truly instant-on, no set-up connectivity solution with the security of a VPN, but no client software to manage. "We extend MFA's secure wireless network into residences to allow employees to work securely away from the office, while offering a 'family user SSID' so that family members can also benefit from a secure connection for Internet access," continued Østebø. "Best of all, employees working from home over the RAP say that the network connection is just as fast as being in the office, and much faster than using a VPN client on a PC."

Company Overview:

The Ministry of Foreign Affairs and the 109 foreign service missions, which include embassies, permanent delegations and general consulates, together make up the Foreign Service. The Foreign Service is an international, knowledge-based organisation, currently made up of 1400 people, of whom 770 are Ministry employees. At the foreign service missions, 630 staff members posted from Norway work alongside around 900 locally employed staff. A number of special delegates sent from various ministries and institutions in Norway are also connected to the foreign service missions.

With its eight departments, the Ministry of Foreign Affairs is the largest ministry in the Norwegian government administration.

"When we deployed Aruba as a replacement, those locations that were already used to wireless reported a very noticeable improvement in coverage within the building."

Glenn Jone Østebø
Senior Technical Advisor
Norwegian Ministry of Foreign Affairs

ARUBA networks

WWW.ARUBANETWORKS.COM

1344 Crossman Avenue. Sunnyvale, CA 94089 | Tel. +1 408.227.4500 | Fax. +1 408.227.4550