



USE CASE MINISTRY OF FOREIGN AFFAIRS

Ministry of Foreign Affairs protects essential network applications with Certes Layer 4 solution

SITUATION ANALYSIS

Protecting governmental sensitive data is mission critical, especially when the data cross borders and traverse a range of networking technologies. The Ministry of Foreign Affairs (MoFA) for one major Eastern European country turned to Certes Networks to provide a simple, scalable and uncomplicated encryption management solution to protect and securely encrypt sensitive data and network applications.

As part of the preparation for integration into the Schengen Area by funding from the Schengen Facility program and the External Borders Fund, the Ministry of Foreign Affairs had installed a complex network infrastructure to secure data and deliver network operations for the country's consulates, per Eastern European regulations.

These systems are classified into two main categories:

1. National Visa Information System (SNIV), whereby visas are issued to all consular offices;
2. Network systems to ensure protection of sensitive data and applications for consular offices and consular staff (alarm, video surveillance).

Security systems are designed for highly scalable, efficient and secure consular activity, including the process of issuing visas. Network security management systems were installed inside the MoFA central operational sites. This was necessary in order to support the overall MoFA security administration, a task that can only be performed by skilled personnel accredited by the MoFA for access to classified information.

SOLUTION REQUIREMENTS

The RFP issued by the MoFA mandated a turnkey security solution that could be customized by the MoFA technical specialists as required for end-to-end encryption within the MoFA network, including the national Layer 2 core network infrastructure and the external Layer 3 consular network. They also required a scalable network encryption management solution that could easily integrate into their existing network without replacing, moving or disrupting the current infrastructure, fully interoperable with zero impact to performance.

The RFP was also enforcing the implementation of a centralized system for managing the entire life-cycle of both cryptographic keys and network-based policy generation with real-time observation of data flows, applications and behavior to enforce policies. Reports would then be generated for auditors to prove that inter-consular data was secure, thus complying with regulatory encryption and audit requirements.

DEPLOYMENT

The encryption management solution offered needed to avoid disruptive architecture changes in the network infrastructure, support AES 256-bit encryption at Layers 2, 3, 4 and maintain the performance of high availability applications running on the network. Most importantly, data security administration tools needed to be easy to use and completely de-coupled from the networking administration tools, allowing the separation of duties enforcement across their networking and security teams.

During the RFP stage, most vendors could meet only a few of the requirements. Certes Networks offered the Certes Layer 4 solution, a single platform with the ability to adjust to future changes being considered for the MoFA network infrastructure, customization and de-coupled management. As it is network agnostic, it could be deployed into either Layer 2 or Layer 3 networks, it was a natural fit.

Communications and security systems have been fully operational in all 100+ consular offices since 2010, the same year as the RFP was initiated and the project was awarded.

The Certes Layer 4 solution was designed for simple, scalable and uncomplicated implementation and deployment. It allowed redundant encrypted communication lines per each consular office plus complete central management of keys and security policies, while different teams were managing the roll-out of new networking gear and new hardware encryption appliances.



RESULTS

Five years after the first successful deployment, the MoFA requested another RFP which recommended the Certes Layer 4 solution to support network scaling and increased throughput needs.

MoFA now has almost 400 active Certes Enforcement Points running in its network, providing throughput needs up to 10 Gbps. Certes Networks key management systems, equipped with HSM cards and automated encryption features, allowing MoFA to have a robust security posture, providing a significantly higher level of confidence that data was secure and compromises would be identified quickly.

And through the Certes Layer 4 solution, encryption of data in transit is now visible for better monitoring and logging while Certes Observability enables the visual proof through observable data that their security strategy is working and is effective.



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We offer an encryption solution that is simple, scalable and uncomplicated.