

Organization

Site: www.aviareto.aero

Industry: Financial Services

Headquarters: Dublin, Ireland

KEY CHALLENGES

- Protect online interactions between aviation finance business partners
- Meet legislative requirements for non-repudiation

Solution

Symantec™ Managed PKI Service

Benefits

- Avoided legal consequences of non-repudiation
- Secured critical and large aviation finance transactions—helped maintain billions of dollars of assets
- Enabled team to rapidly issue, renew, and revoke digital certificates
- Allowed team to configure and monitor the service from any modern web browser
- Deployed certificates without inconvenient user names and passwords
- Enabled digital certificates to registered and sent in minutes
- Cited as “maybe the most successful global electronic commerce network ever built in terms of the speed with which it was developed and implemented, its adoption rate, and the dearth of controversy surrounding its operation”

Aviareto: Managers of The International Registry

Security Flies High at Aircraft Objects Registry with DigiCert

Where are half of the world's aircraft financed and leased from? New York? London? In fact, the answer is Dublin. Aviareto, headquartered in Ireland, is home to a global electronic registry, with multi-billion dollars worth of registered aircraft assets. In order to establish 'priority of interests' and meet legislative requirements, the International Registry relies on a Symantec™ Managed PKI Service to guarantee that a transferred message regarding aviation finance has been sent and received by the parties claiming to have sent and received the message—whether it is an airline, aerospace manufacturer, a bank, or a lawyer engaged on the agreement. This trusted DigiCert technology helps secure the aircraft finance transactions, reduces the cost and complexity associated with a public key infrastructure (PKI), and streamlines the end-to-end administration process.

A global register of airframe interests

The International Registry is one of Ireland's best kept secrets: an authoritative, highly respected global e-commerce system for recording the legal 'priority of interests' on airframes, aircraft engines, and helicopters. It currently has aircraft assets estimated to be hundreds of billions of dollars in value. The International Registry operates under the legal framework of the Cape Town Convention and the Aircraft Protocol, which was signed in 2001 to create international standards for registration of ownership, leases, and various legal remedies for default in financing agreements, including repossession and the effect of particular states' bankruptcy laws.

Aviareto, a joint venture between SITA and the Irish Government, has a contract with the International Civil Aviation Authority (ICAO) to operate the not-for-profit International Registry as required by the Cape Town Treaty.

The International Registry has been widely recognized as a state-of-the-art global e-commerce system that was successfully deployed in Internet time. One particular advocate has been Professor Jane K. Winn, of the University Of Washington School Of Law, who wrote in a recent Legal Studies Research Paper , “The International Registry may be the most successful global electronic commerce network ever built in terms of the speed with which it was developed and implemented, its adoption rate, and the dearth of controversy surrounding its operation.”



The enormous value of the assets being registered in the International registry dwarfs the cost to interested parties of securing their digital signature credentials.

—Kevin Thomas,
Head of Operations,
International Aircraft Registry

Part of the reason for this success is the International Registry's sophisticated use of the Symantec Managed PKI Service.

The driver for the International Registry's use of digital signatures and the Symantec Managed PKI Service is non-repudiation. This refers to a state of affairs where the purported maker of a statement will not be able to successfully challenge the validity of the statement or contract. The term is often seen in a legal setting wherein the authenticity of a signature is being challenged.

Kevin Thomas, Head of Operations at the Aviareto, explains what this means in practice. "If two parties involved in the financing of an aircraft entered into dispute, for example, or an airline operating an aircraft goes into liquidation and a bank seeks repossession of that aircraft, as per the terms of a mortgage on that aircraft, the priority of financial interests on the aircraft versus competing creditors of the airline needs to be 100 percent. In other words, who gets paid from the proceeds of the repossession of the aircraft and in what order. Digital signatures provide proof of the integrity and origin of that data—and safeguard against non-repudiation."

Establishing non-repudiation with the Symantec Managed PKI Service

The International Registry relies on a Symantec Managed PKI Service to secure these critical transactions among airlines, aerospace manufacturers, banks, lawyers, and other interested parties, and meet the requirement for non-repudiation. The sender of a message cannot later deny having sent the message and that the recipient cannot deny having received the message. The Managed PKI service enables Thomas' team to issue, renew, and revoke digital certificates that can be used to power strong authentication, encryption, and the enables the digital signing procedure in the application. The best-in-class solution also enables the team to configure and monitor the service from any modern web browser, and deploy certificates on registered parties' devices without inconvenient user names and passwords.

Thomas explains, "In order to access the International Registry, users are issued with digital certificates as part of the process of opening an account. Parties with accounts are required to take the necessary steps to secure their digital certificates – in particular their private keys. Mandating this level of security is not always specified for e-commerce systems dealing with less valuable or more varied assets, but aircraft objects in the International Registry are worth a significant amount of money. The enormous value of the assets being registered in the International Registry dwarfs the cost to interested parties of securing their digital signature credentials."



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—Kevin Thomas
Head of Operations,
International Aircraft Registry



The great advantage of the Managed PKI Service is its ease of use. Despite the International Registry having more than 11,000 active users, it remains a relatively small, lean organization. The DigiCert solution maximizes the efficiency of the company's resources by automating the process of provisioning certificates and configuring applications to use those certificates. "It only takes minutes for users to register their financial interests on the IR," says Thomas.

Viewed from one angle, the success of the International Registry is remarkable. The Managed PKI Service was deployed extremely quickly, and there have been no disputes regarding its operation since its inception. Viewed from another angle, its success is entirely predictable, given the disparity in the price of access to the International Registry and the value of the interests recorded in it. "This Managed PKI Service is the core of the International Registry's security," says Thomas. "It meets our requirements for authentication and non-repudiation, while lowering the cost of and complexity of PKI."

About DigiCert

DigiCert, with the addition of Symantec's Website Security business, is a leading global provider of digital certificates. The world's leading banks, e-commerce, technology, healthcare and manufacturing companies rely on us to provide scalable encryption and authentication for their most valuable online properties. Beyond the web, DigiCert innovates with leading scalable, automated PKI-based solutions for identity, authentication, and encryption for the Internet of Things (IoT) and other emerging, connected markets. For additional information, please visit www.websecurity.symantec.com or connect with us on Facebook, Twitter, and LinkedIn.

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