

# Antwerp Port Authority Selects Luna Network HSMs for eInvoicing

Managing the fourth-largest port in the world requires compliance with European Directive on Invoicing requirements for guaranteeing origin and content of ships' cargo. To comply with directives and ensure integration with existing technology partners, the Antwerp Port Authority chose Thales Luna Network Hardware Security Modules (HSMs).

## The Organization

The Antwerp Port Authority manages Europe's second biggest port, and the fourth largest globally, which offers an ideal gateway to Europe. More than 200 forwarding companies based in Antwerp help to secure shipping contracts across multiple market sectors, including steel, fruit, coffee, and tobacco. Numerous companies handle more than 16,000 seagoing ships and 65,000 barges that call at the port annually.

## The Business Need

The European Directive on Invoicing (EC/115/2001) requires member states, including Belgium, to implement electronic invoicing into their local value-added tax (VAT) legislation to improve and streamline cross-border invoicing. The VAT rules require suppliers to guarantee the authenticity of origin and the integrity of the content for the invoices they create. Authenticity of origin ensures that the message content was actually created by

the person or legal entity that signed it, while integrity assures that no changes have been made to the content of the invoice during transit.

## Challenge

The Antwerp Port Authority needed to establish and maintain a secure and trusted electronic invoicing solution that integrated with existing technology partners.

## Solution

Thales Luna Network HSM securely stores digital signatures and cryptographic keys, while integrating with Adobe and GlobalSign solutions.

## Benefit

The Antwerp Port Authority was able to leverage its IT investments to implement a compliant security solution that guarantees the integrity and authenticity of electronic invoices.



**Port of  
Antwerp**

"We need a reliable partner to generate added value for our business and for our customers. Thales, with its security expertise and leading technology, is the best choice to ensure the authenticity of our invoices and bring peace of mind to us and all our customers."

- Cesar Amar, Vice President of Technology at FNA

## The Solution

In order to comply with the VAT law, Antwerp Port Authority implemented an advanced e-invoice solution based on digital signatures. Antwerp Port Authority leveraged its multi-partner investment in Adobe Experience Manager Forms and GlobalSign's DocumentSign digital certificates by selecting Luna HSMs for storage of digital signatures and protection of cryptographic keys.

After Adobe LiveCycle ES converts an invoice into a PDF/A (Archive)-compliant document, digital signatures are applied using a digital certificate to ensure the authenticity and integrity of the PDF. A secure, embedded time stamp locks down the exact time of signature creation, which meets a key VAT requirement for archival and storage. The Certified Document Service (CDS) digital certificates are provided by GlobalSign, a trusted Certificate Authority that delivers high-assurance digital identities to organizations and users worldwide.

The PDF invoices are digitally signed with a secure private signing key, which requires a cryptographic HSM capable of performing certificate authority management tasks. The Luna Network HSM stores the keys within the secure confines of the appliance throughout the key lifecycle. The integrity of both cryptographic keys and digital certificates is vital to the integrity of the overall security system—if the keys or digital certificates are compromised, the entire system is rendered obsolete. The Thales solution allows Antwerp Port Authority to secure digitally-certified invoices and to cryptographically bind the identity of the certifying party to the invoice. The Adobe PDF Reader automatically verifies all of the embedded information and visually highlights the authenticity and integrity of the document, allowing the recipient to easily detect whether the document has been altered after being certified.

## The Benefits

The Thales, Adobe, and GlobalSign joint solution allows the Antwerp Port Authority to leverage their IT investments and apply a compliant security solution that guarantees the authenticity and integrity of electronic invoices. All parties recognize the need to reduce their carbon footprint throughout the supply chain, as well as leverage the financial savings to reduce billing costs. By applying digital signature and encryption technologies within a Public Key Infrastructure (PKI) network environment, Antwerp Port Authority quickly brought digital invoicing processes online, thereby streamlining workflow, lowering costs, and meeting mandatory European directives for compliance. For the party relying on the e-invoice, the secure Adobe PDF Reader allows for easy validating, processing, and archiving. Viewing and validating the e-invoices is also automated thanks to the out-of-the-box integrated trust solution between Adobe Reader and the Adobe Certified Document Services platform.

## About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

