Certification Authority: 
the key role in digital certificate deployment

PKI infrastructure at the service of public and private sector

“We have significantly valued the charismathics agnostic PKI middleware platform through which we can leverage an optimal interoperability mixing and matching various applications and client environments. DigitalSign is then able to reach out a wider spectrum of online services that require qualified digital signature.”
Fernando Moreira, CEO DigitalSign

“Certification Authorities are by nature a preferential partner to charismathics’ core business: while we can bridge diversified systems into one unique solution that supports them all, CAs benefit of a concrete increase of their activities for government entities and citizens. And DigitalSign has proved its excellence.”
Sven Gossel, Managing Director, Charismathics

Business Value

- With BT’s Managed PKI solution being part of the VeriSign Trust Network, the issued certificates by DigitalSign are trusted and recognized all over the world.
- With charismathics Smart Security Interface and its related hardware solutions in bundle, the CA can simultaneously support Windows, Linux, Mac and Sun Solaris operating systems.
- Around 90% of the organizations operating public tenders via electronic platforms are already using the BT/DigitalSign solution.
- A significant share of charismathics revenues relates to Certification Authority’s successful business cases.
- Ease-of-use and seamless integration at its best for a long lasting and solid cooperation between charismathics and DigitalSign.

Signed email creation

[Diagram of signed email creation process]

- Signing Request (SOAP/XML)
- Signing Request for email attachment (PDF, Word, etc.) or whole email or hash email content
- Signed attachment (e.g. signed PDF) or whole signed email (S/MIME) or raw signature
- Trust Servers
  - Any TSA (e.g. Ascertia TrustFinderTSA)
  - Any CA (e.g. Ascertia TrustFinder CA/RA)
  - Any OCSP Server (e.g. Ascertia TrustFinder OCSP)
- Timestamp (RFC3161)
- OCSP (RFC2560)
- Crls, CRLs (X.509)

ADSS (Enterprise Server)
- Load Balancer
Digital signature applications have been a topic for discussion rather than a real implementation until recently. Only over the last couple of years projects have multiplied throughout Europe and thus Portugal as well, involving major shares of citizens. Whether you have appreciated the advantages as an employee signing in to your corporate network, or as a citizen through your health card to access online medical records, the applications being enforced on a large scale are numerous.

Strong authentication is no longer a matter reserved to IT administrators and government authorities. It has rather stimulated a plethora of possibilities for both service providers and in turn end users. However, from a technological perspective the challenge was pretty demanding as all hardware and software vendors were called in to become more accountable, and needed to ensure the complete integration of their products into an overall system. In such projects the Certification Authority becomes the front end interface for the end-users and the main service to ensure a successful deployment. In return, it has to guarantee for both technical and legal fulfillment.

Challenge

DigitalSign has then complemented the offering by providing a simple and effective online enrollment system which allows for qualified certificate registration, even of multiple profiles, and certificate issuance within 24/48 hours. One of the greatest achievement the solution has been applied to is the management of tenders, a process which has then quickly transitioned from being fully paper-based to completely paper-free.

Solution

charismathics has complied with the above criteria through the features of its Smart Security Interface, and has been supplying DigitalSign with smart cards and USB cryptographic tokens as well. The offering has been packed up with the qualified certificates issued by the CA which would ensure non repudiation of the delivering and recipient party. CSSI was selected thanks to its main value, an horizontal approach aimed at supporting the greatest possible number of computer and smart card operating systems as well as third party applications. Such policy is twofold beneficial: on the one hand it reduces the ROI by creating competition among the vendors involved, on the other hand it allows for technological flexibility at whatever stage of the project.

About Charismatics

charismathics is a global leader in identity management software. Its premier product, the charismathics Smart Security Interface (CSSI), makes it cost-effective and easy for enterprises to integrate multiple authentication solutions into a single, transparent interface. Since 2003, charismathics has pioneered the field of Public Key Infrastructure (PKI), introducing the first PKI client to support Trusted Platform Modules (TPM) and the first PKI client to support pre-boot environments. charismathics’ iEnigma software secures handheld devices such as the iPhone and iPod Touch and provides streamlined two-factor authentication for the enterprise. charismathics offers its security products and services in a variety of industries including building security, banking and finance, healthcare, telecommunications, government and computer manufacturing.

About Digital Sign

DigitalSign is a company for electronic security entitled by the Portuguese Register to issue qualified digital certificates with the support of British Telecommunication plc. Mainly partnering with Verisign for electronic security certificates, DigitalSign can then offer not just the domestic market but multinational companies as well a number of state-of-the-art services and products. Our mission is to facilitate customer’s security and reliability to optimize the benefits of this revolution underway in the areas of electronic commerce and communications. By planning processes and developing custom network security DigitalSign identifies, certifies and provides encrypted communication between the parties.