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CASE STUDY

Spanish Engineering Organization Bridges Cost Savings with Business Efficiency Using ActivIdentity Smart Card Solutions

"Deploying ActivIdentity ActivClient has been one of our best business decisions for streamlining our Public Works plan approval process – ensuring our digital signature solution is secure and mobile."

– **Emilio Marin,** CTO, *Colegio De Ingenieros De Caminos, Canales, y Puertos*

Chartered by the Spanish Ministry of Public Works, the Colegio de Ingenieros de Caminos, Canales, y Puertos (CICCP) is the official civil engineering organization of certified engineers working throughout Spain. With over 20,000 affiliated engineers, CICCP members are responsible for planning, designing, reviewing building, and approving the public works plans and specifications for Spain's public infrastructure. In keeping with its mission of ensuring safe and secure transportation, communications, energy, and port construction, CICCP chose ActivIdentity as a key partner for securing the foundation of their smart card-based ID card and business process improvement project.

The Challenge

Delivering An Electronic Public Works Approval Process That Is Legally Binding

CICCP needed to provide its member engineers with an efficient and secure digital signature solution to expedite the approval process for public works projects throughout the 19 provinces of Spain – covering more than 20 million plan reviews per year. The previous system of paper-based plan review cycles and signing of physical blueprints had proven to be cumbersome and time consuming. In addition, document management and archiving of hardcopy records required massive amounts of space to store over 25 years of historic project plans. A nine kilometer railway project would, for example, on average require storage of five large archiving boxes. These challenges presented an opportunity to leverage the latest digital identity technology advances to expedite a core business function. With recent government recognition of digital certificates

and PKI solutions as legally binding signatures, CICCP decided to invest in smart card based digital signature solutions to reduce cost, improve the work experience of their members and to provide more responsive service for the Spanish population. The decision to move to the combination of smart cards, PDF image capture, and electronic archiving of plans enabled a dramatic reduction in time and resource expenditure. In fact, CICCP anticipates that it's initial technology investment of $1.2 million will result in a savings of over $90 million over a one year period.

Signed PDF Capability

Consider, for example, a bridge project that in the past would have required 12 copies of blueprints at an average cost of $10,000 each. All 8,000 pages of that plan required a separate signature and physical stamp from the CICCP-certified engineer. With the ActivIdentity smart card client software solution and the U-Sign PDF, signing solution developed by ActivIdentity channel partner, ipsCA, the approval process is documented via an x.509 standard digital signature which is embedded with PDF documents condensed into a two gigabyte file on CD or DVD. As a result of this Adobe® integration, the Acrobat® file can be signed more than once by the multiple parties involved in the sign-off process to reflect status at each step in the plan review. Each signature is associated with a specific version of the document thatrepresents the state of the plan when signed by that respective person.

By storing the private key within the secure cryptographic environment of the smart card chip, the organization gains the three ActivIdentity ActivClient™ benefits of increased security since the user's private keys for digital signature are stored on the smart card; non-repudiation for legal approval and validity; as well as mobility of the digital signature credentials in the form factor of the smart card. ipsCA integrated the solution for CICCP – including the PKI infrastructure based on Microsoft® 2000 CA. They developed a digital signature plug-in "U-Sign PDF" based on certificate technology for Adobe Acrobat software, that interfaces transparently with ActivIdentity ActivClient. The plug-in U-Sign PDF extends Adobe Acrobat digital signature capabilities with CRL, OCSP, VA validation and Time Stamping – making electronic documents legally valid and binding.

The ActivIdentity Solution

Smart Card-Based Badge with Digital Signature Capability

For the full deployment stage, all 20,000 CICCP engineers will be issued a photo ID smart card that serves as their membership badge and stores their individual digital certificate private keys. The cardholder then installs ActivIdentity ActivClient smart card middleware on his / her PC to handle the secure communication for the PKI transaction.

"We're a non-profit organization with members dispersed across a large geographic area, and using a diversity of computing platforms. ActivIdentity ActivClient was the only solution that would allow us to deploy a uniform smart card software and digital signature solution that works across the IT infrastructure of our 20,000 CICCP members – regardless of whether they do their work on Microsoft Windows, Mac OSX, Linux, or Sun Solaris. ActivIdentity's ease of installation and convenience enabled us to deploy quickly and efficiently to thousands of users."

– **Emilio Marin,** CTO, *Colegio De Ingenieros De Caminos, Canales, y Puertos*

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About ActivIdentity

ActivIdentity Corporation (NASDAQ: ACTI) is a global leader in strong authentication and credential management, providing solutions to confidently establish a person's identity when interacting digitally. For more than two decades the company's experience has been leveraged by security-minded organizations in large-scale deployments such as the U.S. Department of Defense, Nissan, and Saudi Aramco. The company's customers have issued more than 100 million credentials, securing the holder's digital identity.

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