SUCCESS STORY

Association of Highway, Canal, and Port Engineers

Highway engineers leverage digital approval processes using Adobe® Acrobat® software

Association of Highway, Canal, and Port Engineers

- Chartered by the Spanish Ministry of Public Works, the Association of Highway, Canal, and Port Engineers, known as the Colegio de Ingenieros de Caminos, Canales, y Puertos (CICCP), is the official civil engineering organization of certified engineers working throughout Spain.
- Location: Madrid, Spain

www.ciccp.es

Industry
Government

Solution
Electronic Document Management

Product Used
Adobe Acrobat

Organization Profile

A single copy of each of the hundreds of plans required to construct nine kilometers of railroad takes up five large boxes in the offices of the Association of Highway, Canal, and Port Engineers. So how much space would be required for a dozen copies of the 5,000 plans for a project such as Barcelona's New Metro Line? Unbelievably, they take up almost no space at all—just one CD. The difference between the two is Adobe Portable Document Format (PDF) technology.

Challenges Faced

Streamline document distribution processes

Ten million plans go through the Association of Highway, Canal, and Port Engineers annually. Ten million plans that have to be printed, bound, sent, reviewed, compared, and individually affixed with the Association's rubber stamp of approval. If project documents that require approval arrive at other professional associations in big, heavy packages, large infrastructure projects may even require trucks to move the materials, as was the case for the Association of Aeronautic Engineers with the remodeling of the Barajas Airport.

Establish a digital document approval platform

Between five and twelve copies of each set of documents may be necessary for a given project. If a project undergoes any change, the printing, collating, binding, and sending of the original and all the copies would have to be repeated. Add to that the manual stamping of every page and plan with the Association's seal and the results are a serious undertaking in time and money.

Reduce costs

The cost of presenting a medium or small project to the Association can reach 10,000 euros, even before the time and work required on the project itself. "We could not continue using 21st century technologies to make the projects and continue presenting them and approving them with 19th century technology," says Emilio Marín Barragán, director of the Association's Information Technology Office. "Obviously we needed to make the jump to the electronic signature."

Electronic signature processes consist of adding to a document electronically generated, unique identification information on its author and other characteristics such as date, restrictions on revision, and so on. The electronic signature of the user who signs the document is provided by a certifying authority that authenticates the identity of that user.

Adobe®

"We didn't deceive ourselves: Adobe PDF is the worldwide standard in the transmission of documents."

Emilio Marín Barragán, Director of the Information Technology Office, Association of Highway, Canal, and Port Engineers

"Professional associations are the organizations delegated by the State to certify an individual's qualification to practice a profession," explains Marín Barragán. "We are the ones who guarantee that our members are qualified to practice the profession. The issue was whether to certify now by electronic means."

Success Strategy

"From the time we started analyzing the different options, we were already clear that the solution would use Adobe PDF technology. We didn't deceive ourselves: Adobe PDF is the worldwide standard in the transmission of documents," says Marín Barragán. After several studies, the Association decided to tackle the project with ipsCA, a company that has issued digital certificates since 1995 and is currently the fourth certifying authority in the world in number of server ssl X.509 certificates and the second in Spain of user certificates.

To carry out the process, the Association provides members and Association secretaries, with a digital identity card that contains a digital signature and authenticates the holder as a member. The holder also receives a program for imprinting that signature in Adobe PDF documents. Then, the Association adds to the document, signed digitally by the author, its electronic stamp of approval.

As far as it was concerned, the Association faced a difficult challenge: for public administrations to admit documents in electronic format. "Paradoxically, applicable Spanish legislation had gotten ahead of the facts. In many cases, public administrations had more desire than means. But progress has been made very quickly," says Marín Barragán. To convince users was easier: "The savings in time and money is so significant that it erases all doubt."

Business Benefits

- Reduced the costs and time associated with document distribution and transmission
- Established a secure and legal electronic signature process
- Simplified management procedures

With its Adobe PDF-based solution, explains Marín Barragán, "Adobe PDF documents can be sent to the Administration or corresponding destination, with the guarantee that both its authorship and record of approval have been completed. The document cannot be modified without permanently invalidating the signatures, both of the member and of the Association approval."

"The work plan began from generating the documents in Adobe PDF," says Rodolfo Lamascolo of ipsCA. "To sign, users simply open the document, complete the form in question, and sign the document. The document can then be sent to recipients by e-mail, CD, or ftp. Confidential information is sent by e-mail, as an attachment, signed and encoded." ipsCa developed the corresponding plug-in and the project. What formerly took days of printing, binding and sending now takes a matter of minutes.

The first digital ID cards, outfitted with a cryptographic microchip like the one used by the National Mint, were first printed in the beginning of 2002. "And now we are truly in the 21st century," concludes Emilio Marín Barragán.

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