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# Spain Is Ripe for Cloud Computing but Slow to Adopt

By RAPHAEL MINDER

MADRID — Spain, whose economy has been among the hardest hit by the financial crisis, is seen by many technology experts as fertile ground for developing cloud computing, with its potential to cut fixed costs.

Fifty percent of the country's gross domestic product and 43 percent of Spanish jobs are in services, which is the area "best positioned to lead the migration to the cloud," according to a study published in May by the Bankinter Foundation of Innovation and consultants from [Accenture](#).

But the adoption of cloud computing is proving slow for many reasons, observers say: The financial sector, a natural client of data-oriented services, faces regulations limiting the transfer of customer information; small and medium-size businesses, which could take advantage of the lower cost for information services, have been profoundly shaken by the economic crisis; and the bloated public sector is fighting to protect wages and jobs in a country where unemployment hovers around 20 percent.

Outside of those constraints, an overall resistance to change is blocking cloud computing's adoption. "Spain is a conservative market, where the customers tend to be risk-averse," said Martin Buhr, a former senior executive of [Amazon](#) Web Services who recently joined Nimbula, a start-up company that makes software for cloud services.

Cloud computing and related services generated €198 million, or \$260 million, in revenue in Spain last year, according to IDC, a market research company.

Spain has one of the largest civil services in Europe, employing about three million people. In its report, the Bankinter foundation said that cloud computing was not only "the best-placed technology" to facilitate telecommuting and reduce the costs linked to staffing public

buildings, but also that the cloud could “help improve the efficiency of an administrative system that is very widely dispersed among state, regional and local bodies, by virtualizing part of the services and moving them to the cloud.”

In practice, however, cloud proponents are still struggling to get that message across to the top echelons of public administration.

“There are some ministries that have tested cloud computing and that I believe are close to making decisions,” said Alberto Roman, a sales account manager in Spain for Terremark, a U.S. firm specializing in cloud computing services. “What we’re seeing in the public sector is that the adoption of cloud computing might be slower than some people want, but they are clearly looking outside to see how things are changing, notably in the U.S. and the U.K.

“I think we will see a shift in this area, even if the big arrival of the cloud in Spanish public administration might not come before another two years,” he said.

Other executives are more gloomy. “There is huge potential for improvement in the public administration, but I’m not optimistic,” said Alejandro Fernández, co-founder of Fractalia Software, a Spanish IT company.

The government, however, insists that its staff is on track to embrace cloud computing as part of a broader plan to modernize public administration that was unveiled this summer. “We are on a path that is perhaps more about a cultural change than a technological change,” said Juan Tomás Hernani, general secretary for innovation within the Spanish Ministry of Science and Innovation. “But I do think that we have now put ourselves in a position to take that step.”

Spanish banks, meanwhile, are also moving into cloud computing, but with great caution. BBVA and Bankinter, for instance, are both testing the possibility of externalizing some basic functions, like e-mail and office automation. Executives from both banks, however, insisted separately that several hurdles were still obstructing the wide-scale adoption of cloud computing in banking.

“In Europe, but especially in Spain, we have very strong regulation concerning where protected financial data can be stored,” said Idoia Maguregui, Bankinter’s director of technology, “and this regulation makes it difficult for such data to move out of the direct control of a bank.”

A BBVA executive also questions how useful outsourcing services to the cloud could be for a

big bank. “You cannot give a standard service to a bank like ours,” said Pedro Suja, BBVA’s head of European infrastructure. “The provider has to build to our own specificities, which is an investment that we have already done.”

He gave as an example the company’s e-mail system, in which correspondence is archived for several years, a result of strict regulations. “I feel that for many services, we already have them very well constructed within the bank,” Mr. Suja said. “We don’t really see the savings from a change.”

In the near term, small and medium-sized enterprises in Spain could see the most benefit from cloud computing. For instance, the Bankinter Foundation’s study found that only 14.2 percent of small- and medium-size businesses shared electronic information with their production or distribution partners.

At the same time, smaller companies can ill afford to make significant infrastructure investments in the midst of a financial crisis. “There is an opportunity for cloud providers, who can provide these services on a pay-per-use basis, freeing the firms from initial investments in software licenses and development,” the Bankinter Foundation study said.

Meanwhile, some Spanish companies are betting heavily on cloud computing — even if their focus is not necessarily on Spain. Last February, [Telefónica](#), the Spanish telecommunications operator, agreed to extend its cooperation with NEC of Japan to develop cloud computing applications jointly in Latin America, where the Spanish operator has a strong presence.

For now, the priority for cloud computing proponents may simply be to raise awareness, said Adolfo Borrero Villalón, president of a regional association of about 400 technology companies from Andalusia, in the south of Spain.

In late October, his association will open a cloud computing demonstration center in Seville, funded by both the public and private sectors. “We really still need to preach the new gospel to both normal people and companies here,” he said.