

Borderless European Cloud Risks

Fragmentation

Posted by: Jennifer Schenker on May 24, 2010

Nationalism is rearing its head in cyberspace. A proposal is gaining ground in France to build a federation of interconnected local computing clouds—funded in part by the government—to protect the country's sovereignty, data privacy, and jobs. Some observers fear the idea could spread to other countries on the Continent, potentially undermining the promised benefits to Europeans of universal cloud computing, which is being billed as the biggest shift in information technology since personal computers were introduced in the 1970s.

The idea for a cloud *à la Française* is in part a backlash against American providers of cloud computing services such as [Google](#), [Amazon](#), [IBM](#), and [Microsoft](#). As with Europe's \$6 billion [Galileo sat-nav system](#)—an alternative to the U.S.-operated GPS—and various Old World search engine projects such as France's [Quaero](#), some Europeans worry about becoming overly dependent on American technology in key strategic areas.

On May 17, a group of French technology companies and businesses known as the [Association for a Digital Economy in France](#) (l'ADEN), called on local governments in France to partner with private companies to build a network of data centers and shared cloud platforms and services that would cater to the computing needs of French businesses, organizations, governments, and citizens. Such a network would provide an alternative to handing over data and processes to American providers. The group has suggested that the local cloud infrastructure could be built with the help of funds set aside for France's "*grand emprunt national*," a €4.5 billion economic stimulus package that will kick in at the end of next year.

Cloud computing is the term for a new form of distributed computing that allows consumers, enterprises, and governments to store their data and applications on remote networked servers, rather than on local computers and data centers, and to tap into computer applications and other software via the network—freeing themselves from building and managing their own technology infrastructure. In addition to reducing operational costs, analysts say the shift to cloud technologies allows radical business innovation and [new business models](#).

Some industry experts in Europe believe only giants like Google and Amazon can achieve the necessary economies of scale in building the massive data centers that underpin the cloud. They fear that national projects will be white elephants and question whether big enterprise customers like [Danone](#) and [Carrefour](#) will be willing to pay the price of French sovereignty.

"Interconnection of hybrid clouds is not a simple problem, and the risk is that the benefits come slowly and that local champions cannot grow and reach critical mass fast enough," say Pierre Liautaud, a Frenchman who has worked in the tech industry for 25 years, holding executive positions at both IBM and Microsoft, as well as running several startups. Liautaud is

currently organizing a November conference for the [European Tech Tour Association](#) to highlight European startups in cloud computing, most of which are concentrating on applications that run on top of infrastructure run by companies such as Google, Amazon, and Microsoft.

Yet some business people argue that European corporations won't remain globally competitive if they're not in charge of their underlying cloud computing infrastructure and software. They say Europe can't afford to let American companies control a technology that could underpin every consumer, business, and government service of the future. "Europe cannot stay away from owning its own cloud infrastructure," says François Bourdoncle, CEO of [Exalead](#), a Paris-based provider of infrastructure software for the cloud. "It is a critical element of competitiveness—not even considering the sovereignty part of it—to control where your data is hosted, how it is being used, and how you access it."

Bourdoncle and others say the industry is at an inflection point. Some liken it to the moment when Europe realized that computer chips would be key to the future and that it needed to have its own global champion. The French and Italian governments set about fusing two national semiconductor companies to create [STMicroelectronics](#), which today ranks among the top 10 chipmakers globally. Now, it's time to do the same in cloud computing, they argue. At stake is a market that tech consultancy [IDC](#) projects will grow from \$17.4 billion in 2009 to \$44 billion in 2013.

For cloud computing to reach that kind of market size, the industry must address important issues that are alarming consumers, businesses, and governments. According to [a report](#) prepared by the [World Economic Forum](#) and consultancy [Accenture](#), the challenges include keeping data and systems secure, maintaining the privacy of people and organizations, preventing customers from being locked into one cloud provider, and creating the right regulatory balance between customer protection and business efficiency.

Some Europeans question to what extent American companies like Google can be trusted to guard data privacy. Earlier this month European privacy regulators [reacted angrily](#) to the disclosure by Google that it inadvertently collected private data from Wi-Fi networks while compiling its StreetView service in several European countries.

Distributing data storage is supposed to make it safer, but some European companies, particularly in Germany, are reluctant to let American companies transport their data across borders and out of the country. National data protections laws further confuse the market, raising questions over whether Europe will have a single market for cloud computing. And the May 17 position paper from l'ADEN arguing in favor of a French cloud makes market fragmentation a real possibility.

The French government has already said it will set aside €2.5 billion of its €4.5 billion stimulus

plan for digital services, including cloud computing. The French business newspaper *Les Echos* reported [earlier this year](#) that [Dassault Systemes, France Telecom's Orange Business Services](#), and [Thales](#) were lobbying the government to set aside €700 million for cloud computing.

The budget isn't yet set in stone but pressure is clearly mounting for the government to step in. Politicians in France have been vocal about issues of national security, the implication being that cloud computing – if controlled by the likes of Google and Amazon – would hurt data privacy and leave companies vulnerable to industrial espionage.

In its May 17 statement L'ADEN, whose members include [Orange Business Services](#) and [Bouygues Telecom](#), gives a list of reasons for the government to back a plan to build a federation of local clouds including:

- Safeguarding national sovereignty: "Notably against big American and Asian players in cloud computing and in order to conserve knowledge and technological competence on French territory as well as protecting data privacy and sensitive industrial information."
- Creating jobs: "Developing locally based IT infrastructure will avoid workers having to relocate outside France and [will] facilitate the development of teleworking."
- Developing secure digital services in areas such as health, education, the legal system and government services.
- Ensuring the development of businesses of all sizes by making the best IT infrastructure available locally to companies throughout all regions in France
- Avoiding the under-utilization of existing French data centers and rendering them obsolete.

Ivan Ferneti, a principal at London-based private equity firm [Doughty Hanson Technology Ventures](#), which has invested in European-based cloud startups, expressed skepticism about the ADEN proposal. Managing a sophisticated set of services from a state-of-the-art data center requires deep knowledge and experience in many IT fields, he says.

"This is why running cloud data centers works only for the likes of Amazon, Microsoft, Google and a very few others who will get bigger and bigger," he says. "If local government and politicians believe they can create local employment with cloud infrastructure investments they are misled."

European serial entrepreneur Roman Stanek, currently founder and CEO of [Good Data](#), a cloud computing company that provides collaborative analytics on demand, also questions the ability

of individual European countries to compete on infrastructure. "There is enough demand for infrastructure-as-a-service, for example, from Amazon.com, but I don't believe that the local European infrastructure will see enough demand, and therefore, scale, to compete," says Stanek, a Czech who previously founded NetBeans, which was sold to Sun Microsystems and Systinet, which was sold to [Hewlett-Packard](#).

Bourdoncle of [Exalead](#) sees it differently. His company is part of the Quaero projet, which is often painted as a misguided French government attempt to build a "Google killer." Bourdoncle bristles at that description. He describes Quaero (Latin for "I Seek") as a €100 million large-scale collaborative research program around multimedia indexing. (More details about the project's progress will be revealed to journalists on May 27 at a Paris press event.)

In addition to furthering multimedia search, Exalead owns technologies that can target important areas of cloud computing, such as distributed storage to replace today's relational databases, which Bourdoncle says don't scale up to the cloud. European companies can and should build infrastructure software, he argues, because that's where the margins are, and doing so will deliver more choices to customers. "Fragmentation of the market is a good thing because it brings competition," says Bourdoncle. "What's important is that [American companies like Google and Amazon] collaborate to make their infrastructure interoperable with that of others."

Only a few global players are likely to succeed at offering cloud computing infrastructure and services in horizontal segments like customer relationship management. Right now, the leaders are American, says David Bradshaw, research manager for European cloud services at IDC. But a large number of players may succeed in niche markets or by creating new kinds of applications for consumers and business, Bradshaw says. Indeed, IDC forecasts roughly half of all of the projected revenue from cloud computing will come from applications. Providing mobile cloud services is also seen as a big area of opportunity for European companies such as [BT](#), [Telefonica](#), and Orange.

"We could do with a bit more competition in some areas but services created by local vendors need to make commercial sense," says Bradshaw, "Otherwise, Europe could end up with enormously costly white elephants."

Guest blog post from
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