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Data Center Consolidation in Western Europe Faces Limitations

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Organizations embarking on pan-European data center site consolidation projects will encounter language, legal and organizational problems. The cost of overcoming these may present a significant counterbalance to the perceived benefits of consolidation.

ANALYSIS

Data center physical site consolidation in Western Europe is happening at a much slower rate than was expected a few years ago. Based on Gartner client feedback, this is due to geopolitical, cultural and legal differences. As a result, the number of large consolidated sites will remain fairly low, and enterprises will typically operate with a higher cost of IT service delivery than could be achieved otherwise.

In Western Europe, the level of data center site consolidation has not been as high as in North America, and the interest in new projects seems low. To understand why, it is important to put site consolidation in the context of global data center strategies and then focus on European-specific trends.

During the past five years, most large IT organizations have gone through systematic programs of cost cutting and server rationalization. This has led to a focus on the number and type of physical data centers that an organization may own. The emerging data center model is to have megacenters in each of the major geographical regions of the world, with some form of local backup. Hence, in this scenario, North America, Europe, Africa and the Asia/Pacific region would each have a main data center serving those regions. That primary facility would then have a local backup site. This may be outsourced to a third party via another live data center sharing the workload with the primary site or a lights-out facility (that is, sites with minimal or no regular staff).

By shutting down redundant sites and getting as close as possible to the megacenter model, companies have saved millions of dollars in people and real estate costs, and have moved toward better IT infrastructure management. Moreover, they have reduced expenditures on disaster recovery options, the number of software licenses and facilities.

Growth of European Data Centers

From a historical perspective, most business in Europe was not pan-European in the early 1970s when computer data processing was growing. Driven by the equipment of the large mainframe vendors, most companies developed multiple data centers within their countries of business. Telecommunications links, failover technology, and operational processes and tools were not robust enough to provide services over wide areas. Hence, it continues to be normal for an organization to have three to eight data centers in a single country, each data center not more than 100 kilometers away from any other.

As the single European market developed and businesses became more pan-European, most organizations sustained, and then built up, their IT services in each country where they operated. This happened because of language, cultural and local business needs. For example, although the actual distance between Paris and Amsterdam is not that great, companies simply had to build separate facilities in each of these cities. Furthermore, the high cost and provision of cross-border, leased telecommunications lines added to the situation. The result is that the density of data centers in Western Europe is very high.

During the past few years, many large organizations have realized that such a high density of sites creates duplications and costs more. For example, electrical and mechanical facility costs can be as high as 30% of a data center's budget (and are increasing), and each site carries such a load. Also, people costs are often duplicated, and disaster recovery contracts can be needlessly expensive. During the past 10 years, some European countries, such as Ireland, have offered incentives for the development of business offices. Despite the apparent financial and service delivery benefits, the level of site consolidation has remained low.

Reasons for Limited Data Center Site Consolidation

Employment Laws

Countries in Western Europe have different employment laws. One of the key savings in site consolidation is through labor force reduction, but such laws can severely limit the benefits. For example, Germany and France have strict rules about the transfer of jobs and the changes of roles. Unions and worker councils tend to be strong, and the legal system protects workers' rights. Organizations looking to implement data center consolidation projects involving these countries face a more complex set of employment legal issues than, for example, companies in the U.K., where the laws are more relaxed.

Limitations of Labor Arbitrage

After the introduction of the euro in 2002, company IT planners felt that labor arbitrage would help migrate IT data centers to parts of Europe where labor rates were low. They feared that countries such as France and Germany, where costs are higher, would lose IT facilities and jobs to other countries, such as Spain. This has not happened for a number of reasons. The differentials in labor costs are not as great as once imagined and seem minor when compared with Eastern Europe, India and China. Also, the issues of legislation, organizational structures and geopolitical impact often deter organizations from such a move.

European Union Legislative Issues

As the integrated European economy emerges, legislation is being developed that balances the laws of different countries with those of a wider European framework. This affects the IT community in numerous ways and has ramifications for data center site consolidation projects. For example, "Challenges for European Information Society beyond 2005," a report from the European Union (EU), outlines the issues of security, privacy, labor skills and citizenship within the member countries. Specific acts and directives focus on the individual issues. For example, the Privacy and Electronic Communication Directive of 2002 contains provisions for issues such as unsolicited e-mail, the use of cookies and the inclusion of personal data in public directories.

The effects of the implementation of some of the legislation remain unclear. This pertains to data retention and access across national boundaries, and the responsibility of company executives to ensure accuracy and privacy of such data. As a result, many organizations need to hold information particular to a certain country in databases hosted in the country involved. The legislation is complicated and not thoroughly tested; therefore, many organizations are reluctant to move their data centers into a completely centralized IT environment.

Language and Cultural Differences

Although Western Europe is only approximately two-thirds the size of the U.S., its population is 50% higher. More than 20 languages are spoken, and there have always been trade and commerce between the various countries, but Western European countries have a rich history of independent development. The single currency introduced on 1 January 2002 in 12 of the 15 countries of the EU has made trading easier, and it's generally accepted that English is the language of business. However, national languages and culture will always remain strong, and many organizations accept the need for local country and language support. Based on this information, savings made from closing data centers in a particular country need to be measured against the loss of good will within the organization in the country facing closure.

The benefits of proximity to, and cultural sympathies with, users in a particular country should not be underestimated. Hence, site consolidation that takes these factors into account can be achieved but typically will cost more. For example, moving from local country help desks to a

single European service center can yield financial and operational benefits. However, organizations also will need to budget money for "soft skills." This investment will enhance the multilingual support by fostering a multicultural atmosphere through better language training and rotation of staff. Gartner's experience is that many European business leaders are slow in adopting this balanced approach.

Country Geopolitical Issues

Although Western Europe is modeled as a single economy, national rivalries exist. The effect for data center consolidation is that there is, surprisingly, a lot of resistance to shutting down a site in one country to move the work to another country, even though the organization overall may benefit. The perception among the data center people and, in some cases, the country business managers, is that "I will not give up my empire for the nation next door!" This nationalist thinking is often couched in softer excuses, such as the need for local languages or the need to be close to customers. In essence, a sense of country pride overrides good business sense. This problem can become an issue outside the realm of the IT organization, and many business leaders are not willing to encounter such internal wrath. For example, a Gartner client is aware of the benefits of closing one of its two data centers in France and moving the work to Germany. However, it is unwilling to push the project because it is afraid of the backlash within the organization.

Organizational Hierarchies and Resistance to Change

Data centers are like most organizational structures: They have hierarchies, and the egos of the managers can sometimes cause difficulties. Whether data centers within a country or across countries are of concern, the senior IT managers find it difficult to accept that their "empires" will be closed to the perceived benefit of another data center. This is especially so where their jobs and reputations may be in question. This natural resistance to change can extend deep into the staff structure of the site facing closure. This approach can severely extend the time frame of such a consolidation project because a data center's staff can "drag its heels." For example, a client in the U.K. found that the work on a consolidation project that should have been completed within six months was not close to completion after 14 months because the IT staff found excuses why not to comply with project deadlines. Consolidation projects are disruptive and affect workers' livelihood. IT organizations need to work with HR departments to manage the issues and develop effective communication plans.

Technology Inhibitors

Consolidating multiple data centers into a single center requires that the consolidated site has sufficient technology bandwidth to cope with the larger volume of IT systems. This includes network bandwidth, facilities (for example, power, cooling and uninterrupted power supplies), floor space, and backup and data recovery capabilities. As IT systems get larger, not all organizations have target sites that can accommodate the new systems. The specific issue of power and cooling for the next generation of high-density hardware will probably make most current data centers inappropriate for any large-scale consolidation project. In some cases, organizations may end up building new facilities to a higher "design envelope" than ones used during the past five years, and thereby delay active consolidation activities until such sites are secured.

Looking Ahead

As more countries from Eastern Europe join the EU, many organizations will look to Eastern Europe to fulfill their IT needs. This trend to use nearshore sources has had limited uptake so far and will not resolve the issue of having too many data centers in Western Europe. The same is true with regard to India and China. These countries will provide a less-expensive source of labor and, possibly, a more focused and skilled workforce, but the legal and cultural issues will remain.

In general, during the next 10 years, a relatively small number organizations will consolidate their physical sites in Europe and farther afield, and will gain advantages in a global economy. However, many more organizations will be reluctant to try to overcome the hurdles outlined above and, as a result, will suffer from high IT costs which, in turn, will affect their global competitiveness.

Recommendations

Some organizations have been successful at pan-European consolidation projects. Based on the lessons learned, we recommend the following steps. IT organizations need to:

1. Understand the technology of their data centers that are located across Europe and quantify the operational costs involved in running them.
2. Move the sites to a standard set of operational service delivery processes. This will result in the lowest cost of service delivery and an easier transition during the consolidation process.
3. Determine which projects require in-country site consolidation first.
4. View pan-European data center consolidation as a sought-after scenario, but balance the financial savings against the issues of EU legislation and possible degradation of employee goodwill.
5. Work the corporate HR department to manage the effects on the organization's employees.

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