

Case Study

Bologna Province

"When the VDI solution and the Zero Clients are fully operational, we will save at least 50% of the cost of maintaining user workstations and the energy bill will be ten times smaller."

Gian Luca Sanzani, Systems Management and Development Service Manager, Bologna Province



The customer

Bologna Province is an organization serving just under one million residents, in an area covering approximately 1,425 square miles. On the basis of national laws and provisions of the Emilia-Romagna Region, the organization is responsible for various administrative functions ranging from the protection of environmental resources to the promotion of cultural assets, and from schools to roads, as well as providing technical and administrative assistance to local organizations in the area. For 2011, the budget includes receipts of less than 170 Million Euros and a surplus of around 10.7 Million Euros.

The Challenge

For the last two years, the IT structure, which supports local government in delivering services and operational management, has been undergoing a technological overhaul based on system virtualization. It began with the data center and is now focusing on PCs. Management cost savings, green IT and improving service quality are the requirements of the project which is intended to involve most of the more than one thousand PCs in all the Province's offices. From a technical point of view, the choice was also guided by the need to fit in with the overall virtualization project based on VMware. Centralizing the user machine stock will also make it easy to handle major updates, such as the update linked to the move to Windows 7.

The Solution

The virtualization project started in early 2011 with a prototype involving several tens of machines but the intention is to carry out a gradual replacement of the current desktops. Over a three-year period, this will cover 70% of the entire stock. The decision was taken for Fujitsu's Zero Client technology which replaces the traditional PC by a totally virtualized intelligent front-end display. "Thanks to the try & buy offer," explains Gian Luca Sanzani, the Systems Management and Development Service Manager in the E-Government Systems and Communication Sector, "We quickly started the initial test phase, with a field test of what impact the solution would have."

The customer

Country: Italy
Sector: Public Administration
Year of incorporation: 1951
Employees: approx. 1,000
Website: www.provincia.bologna.it



The Challenge

Bologna Province has started a technological overhaul based on virtualization and this is being extended from the data center to the user workstations. The project's main objective is to increase the quality of IT services, in terms of both performance and reliability, significantly reducing the organization's IT management costs.

The solution

About 70% of the current stock of PCs (more than a thousand machines) will be gradually replaced by a Client Virtualization solution using Fujitsu's Zero Client technology for the user terminals and VMware for the desktop virtualization. With the contribution of its partner Sisge Informatica, a prototype has been made involving several tens of machines and this has made it possible to assess the impact of the solution in a field test.

The Benefits

- Drastic reduction in machine outages and improved performance of individual stations.
- When fully operational, administration costs are expected to fall by 50% and energy usage should be ten times lower.
- Doubling of the life cycle of user workstations, with recovery of the ROI from the third year of use.

The Benefits

The first Zero Clients were provided to a select group of users at the main office in Bologna and another approximately fifty are due to be installed during 2011. For those who have already tried the solution, the workplace situation has not changed substantially as many critical applications (Web browser, antivirus, NetWare client, Java virtual machine, to mention a few) had already been distributed through Citrix XenApp. However, even in the short period of use, users found improved performance and operational continuity compared with the PCs. "Centralizing user workstation management," explains Sanzani, "Proved to be a more or less obligatory step as it allows us to control more efficiently the component of the information system which is currently the weakest, as it can be attacked from outside and is subject to actions by users which are often hard to control and monitor."

When fully operational, the solution will be extended to all five offices of the Province in Bologna and also to about thirty offices throughout the area. At that point, they will also be able to measure properly the effects on management costs and consumption. Based on the upstream estimates, the organization expects PC administration costs to be reduced by at least 50%; these are currently valued at around 200,000 Euros per year. On top of this, energy usage is expected to be reduced by a factor of 10, with an obvious positive impact on the electricity bill. "The life cycle of the Zero Clients is double that of traditional desktops," adds Sanzani, "Whereas machine stoppages for technical problems are more or less eliminated, thanks to support of the virtualized client from the data center; this generates an increase in employee productivity." As well as the gradual replacement of a good proportion of the company's PCs, Bologna Province also intends to facilitate teleworking, through the use of Fujitsu's Portable Zero Client solution, a USB stick which enables the access to your corporate desktop from any private device, just by being attached to it. Finally, Bologna Province will also use the Zero Clients in its own IT classrooms, increasing the efficiency of course delivery.

Products and services

- Fujitsu Zero Client D602 devices.
- Fujitsu PRIMERGY RX300 S6 dual-processor rack server with VMware vSphere 4 virtualization environment.
- Try & buy type offer, with production of a prototype for a first field test of the solution
- Upstream analytical support for assessing the impact on administration, ROI and energy usage.

The partner's role

Sisge Informatica, one of Fujitsu's top SELECT Expert Partners and a certified VMware partner, has played a significant part in implementing the Bologna Province desktop virtualization project. It is already significantly involved in Italian public administration with over a hundred active clients. The company's support was particularly important during the analysis of the impact the solution might have from a technical and economic point of view. "We estimated, for example, that the standardization of workstations guaranteed by the Zero Clients would reduce the number of calls for technical assistance by 50%," explains Enzo Castellaneta, Key Account Manager at Sisge Informatica. The partner has also supported the organization's IT structure in the many advanced procedures undertaken over time, for example regarding strong authentication (linked to the identification badges for each employee) and the single sign-on.

Conclusion

Technological and economic reasons came together in the decision-making process which led Bologna Province to extend to desktops the virtualization work already started at data center level. The TCO (Total Cost of Ownership) of a PC today is measured above all in terms of the cost of assistance linked to frequent requests for technical intervention, in terms of the relatively short life cycle and especially in terms of the lack of control of large numbers of PCs dispersed across the area. Using the Zero Client solution, the organization has started a project which will extend the life cycle of individual workstations to eight years, will reduce energy usage by at least ten times current usage, and will lead to assistance being provided by phone in 90% of cases, with the resulting halving of resources to be used in this area.

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