



For Le Bourget Communauté, there's no limit to what can be virtualized!



Communauté de Communes de l'Aéroport du Bourget

HQ: Le Bourget
France

Cities: 3

Population: 82243 inhabitants

Project Manager:

David Larose

Servers:

9 blade servers
1 DMZ
16 VDI virtualized servers
Nexus 1000V and 7000
vSphere 4.0

Virtualization level: 99%

Result:

70 virtual servers
virtualized network edge
virtual mode VoIP
Big savings and better control of the virtual infrastructure

With vSphere virtualization from VMware and the Cisco Nexus® 1000V virtual switch, Le Bourget Communauté has virtualized their servers and desktops. Voice over IP (VoIP) virtualization, an impossible task prior to the arrival of the of the Cisco® Nexus 1000v virtual switch, is the next step.

David Larose heads the IT infrastructure team for the Communauté de Communes de l'aéroport du Bourget, a group of three municipal authorities (Le Bourget, Drancy, and Dunny) in the northeastern suburbs of Paris. One thousand desktop PCs support the efforts of 2500 employees, delivering a vast range of services to the public. User needs are challenging in their diversity : from the welcome desk to the back office, running software ranging from standard office automation applications to specialized tools for planning and operations, with PCs located in town halls, schools, libraries, and multiple other facilities, including self-service kiosks for the public. The CIO of Le Bourget Communauté, however, has everything under control.

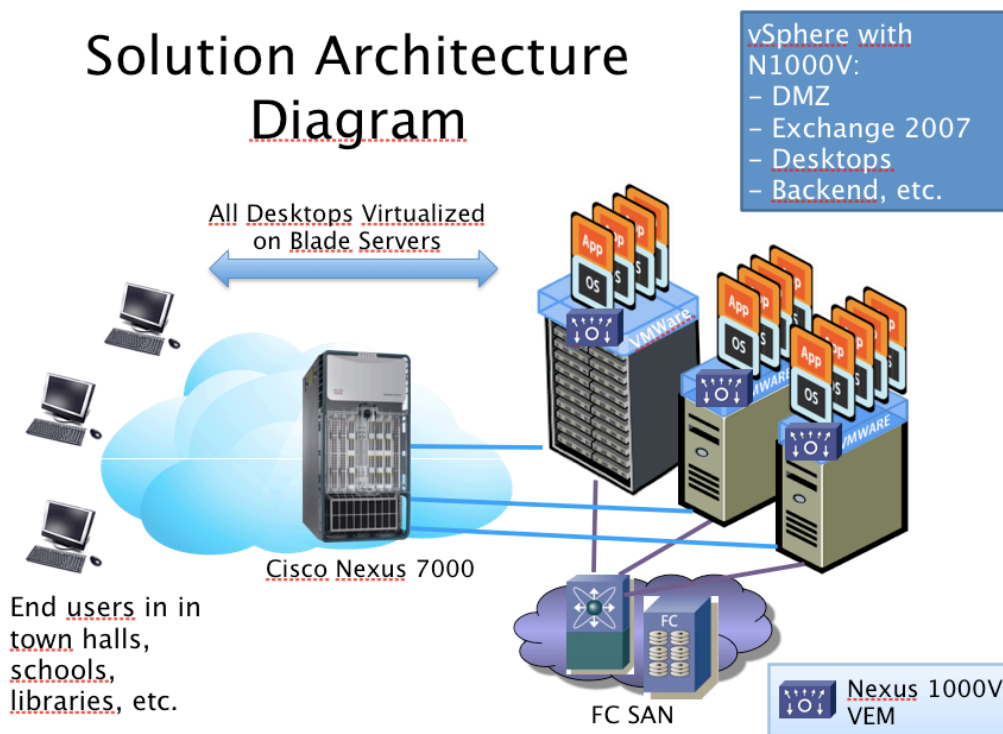
The project began in 2008 with the launch of an ambitious plan to virtualize the infrastructure, with the objective of saving space. Additional benefits included having servers dedicated to specific functions, difficult with the previous infrastructure, and easy cloning of servers for test purposes. Twenty-seven physical servers, supporting various applications with multiple data storage models, were virtualized. "We virtualized everything, including the DMZ and the Exchange 2007 server, despite Microsoft telling us it wouldn't work," says Larose. "We're now running 70 virtual servers." Satisfied with the results, the organization made the decision to extend the program, virtualizing the 1000 desktop PCs over the network.

The virtual desktop deployment is based on 16 blade servers hosted in the Drancy data center. Focusing on machines running less demanding office automation applications reduces the CPU load. Applications are virtualized using VMware ThinApp, reducing the number of templates needed, with just one Windows XP master. Storage requirements are kept under control by using a linked clone deployment, such that only the differences between the virtual desktop and the template need to be saved to disk. "Our 6TB SAN is easily big enough for our needs," says Larose. "A year ago, before the linked clone technology was available, I would have needed much more."

With a total cost of about €400,000, Larose calculates that he has saved roughly 20 percent compared with the cost of desktop hardware renewal, and virtualization has revitalized certain outdated PCs. Further savings are expected, in particular lower electricity bills, with savings of about 2.2 GW over the next three years.

Improved efficiency and reliability

Le Bourget Communauté has not finished virtualizing yet, though. The CIO has now decided to virtualize the VoIP system on IPv6, simultaneously improving the security of the network edge and optimizing overall management of the network of virtual machines. The trigger for this new phase was the installation of the Nexus 1000V switch. “Without this switch it would have been impossible to think about virtualizing the VoIP infrastructure,” says Larose. “It means I can deliver guaranteed QoS levels for my end users.” Configuration tasks can be carried out three times faster on the Nexus 1000V. “We’re spending one-third of the time we used to, and our VDI deployment is more reliable,” says Larose. “In fact, with the Nexus 1000V, we no longer have to think about virtualization. We just virtualize, with no limits on what we want to do.”



Teams cooperate more effectively

The changes introduced by vSphere and the Nexus 1000V go beyond the technical integration, with network administrators and system administrators now cooperating more effectively. “The network team is more comfortable now, because they’re back in control of a network, which was being

