

## Groupe Agricola Rises to Challenge of Data Centre Virtualisation



### Groupe Agricola

**HQ :** Paris

**Number of employees :** 850

**Project Name:** Nexus Project

**Project Manager :** Julien Mousqueton, System and Network Architect

**Servers :** 200 virtual servers, 20 ESX hosts (physical servers)

**Percent virtualized :** 99%

**Result :** 50% Reduction in physical DMZ servers after implementing Nexus 1000V and vSphere Enterprise Plus.

Groupe Agricola, the French insurance conglomerate, has deployed Cisco® Nexus 1000V and 5000 Series Switches to virtualise its infrastructure, and this change has been met with high business user satisfaction.

Virtualising the data centre with VMware brings many benefits, but it also brings new challenges involving how organizations design and manage their network and security teams. If not properly configured virtualisation can place strains on the network, even if server administrators see gains in server capacity optimisation. In the case of Groupe Agricola, the deployment of a suite of Cisco Nexus virtual switches, combined with VMware vSphere management tools, facilitated cooperation between server and networking teams and resolved challenges arising from this infrastructure consolidation project. Groupe Agricola manages retirement, injury, health care, and savings plans for employees in the agricultural sector. When the group decided to consolidate the IT infrastructure three years ago, VMware, the market leader, was the natural choice. Today 99 percent of the group's servers, critical and noncritical, are virtualised on the VMware vSphere platform. Two hundred virtual machines (200 VM servers running on 20 ESX version 4) support applications including Oracle, Business Objects, or Lotus Domino. But for the network engineers, the server infrastructure was just so many undifferentiated black boxes.

### Roles and Responsibility Challenge, Not Technical Challenge

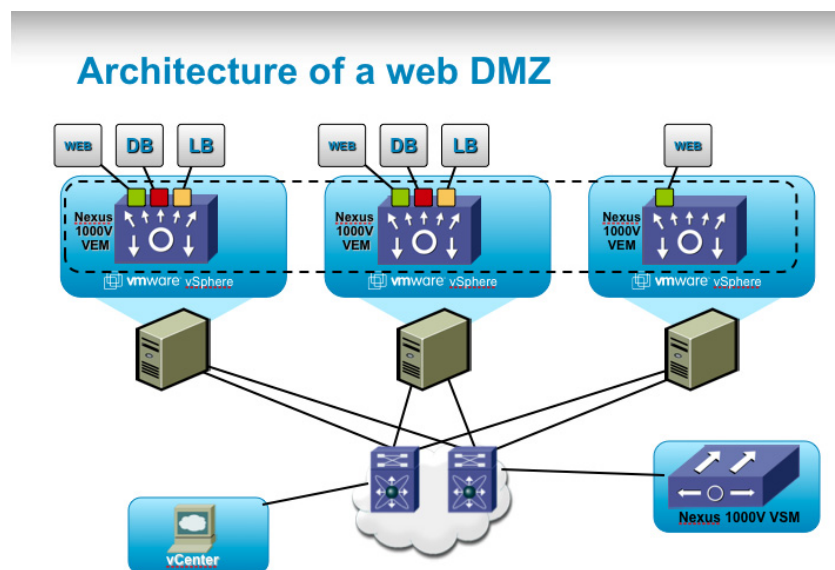
In a classical data centre, when a physical server is installed it is connected to a known physical port on a switch, and the network administrator configures the appropriate policies: VLAN membership, traffic shaping, I/O filtering, network addresses, etc. In a virtualised data centre, everything changes. Network switches cannot be configured with individual policies for each virtual machine; network administrators can only see to the underlying physical platform, the server. Also, for all the benefits that vMotion brings to the data centre, it complicates the job of the network engineer as applications migrate across physical ports. Server virtualisation is a serious challenge for the network administrator. According to Julien Mousqueton, network designer with Groupe Agricola, "It was worse than that. Certain network parameters were being configured on the server by system administrators, and were no longer under the control of the networking team." In designing Groupe Agricola's new virtualised data centre, the principal challenge was an operational and people challenge. Several cross-functional meetings were needed to define the roles and authority of each team, and to demonstrate the advantages of a new virtualised architecture. The time spent proved to be essential to the success of the project.





switches in the storage area network (SAN), spread across two sites. The Cisco Nexus 5020 Series Switches answered many of the company's needs. The Fibre Channel over Ethernet (FCoE) technology unified its I/O. Groupe Agricola also needed to increase its bandwidth to accommodate the ever-increasing number of virtual machines on the network. This meant moving to 10 Gb Ethernet.

**Figure 2.** Groupe Agricola have virtualized two DMZ



According to Mousqueton, "We've reduced the number of cables per server from 16 to 6. The impact is significant, especially as far as cooling capacity is concerned." The team connected the vSphere virtual servers and Nexus 5020 switches using controller area network (CAN) cards, further reducing the number of cables needed. A CAN card costs less than the combined costs of a quad Ethernet adapter and a dual Fibre Channel adapter, and Nexus switches follow the Cisco philosophy for ease of deployment. For Groupe Agricola, this approach enabled configuration with very high levels of service continuity.

### **Building an Advanced Data Centre**

By selecting Cisco Nexus 1000V and 5000 Series Switches and VMware vSphere, Groupe Agricola overcame resistance to server virtualisation and deployed infrastructure at the forefront of today's technologies. According to Mousqueton, "The combination of these solutions allows our IT teams to discover new benefits to virtualised infrastructure, because we can now administer a network in a virtual environment the same way as we have done in the physical world, and it is simplified and intuitive."

## **Groupe AGRICA**

The french company based in Paris Groupe Agricola manages state-mandated social security schemes (retirement, injury, health care and savings plans) for employees in the agricultural sector. Groupe Agricola has 850 employees in France, cover over 818 000 pensionners and 1.4 million active employees from 156 000 Enterprises

It's innovative architecture, codenamed "Nexus Project" combines VMware vSphere, Cisco Nexus 1000v and Nexus 5020. For its storage infrastructure, Groupe Agricola has 2 EMC CX3/20 with synchronous mirroring and 2 Pillar Data Systems Axiom 600 with FalconStor IpStor. Groupe Agricola is also well known, as it was one of the first company to roll out a VDI project with VMware View. Today, Groupe Agricola manage 200 Virtual Servers running on 20 ESX hosts, and 550 Virtual Desktops running on 8 ESX hosts. Almost 99% of servers are virtualized yet.



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