

SESSION REPORT

Windows Server Administration

Session project: AD DS, DNS, DHCP, WSUS, GPO, backup, IIS, FTP, and SSH

PROGRAM	AEC Infrastructure Informatique et Cybersecurite
INSTITUTION	College de Bois-de-Boulogne
TEAM	Session project with a lab partner
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1. Objective

Build and validate a small multi-server Windows Server 2022 environment covering identity, name resolution, patch management, group policy, backup, file and profile services, and a domain-joined application server.

2. Lab architecture

- SRV-AD-01 (Windows Server 2022): primary domain controller, AD DS, primary DNS, DHCP, and WSUS.
- SRV-INFRA-02 (Windows Server 2022): secondary DNS and the backup server.
- SRV-WEB-01 (Windows Server 2022): domain-joined application server running IIS, FTP, and SSH.
- CLT-01 (Windows 10/11): client machine, DHCP client.

Machine	Role	IP address	Preferred DNS	Secondary DNS
SRV-AD-01	AD DS + DNS + DHCP + WSUS	192.168.10.10	127.0.0.1	192.168.10.11
SRV-INFRA-02	Secondary DNS + backup	192.168.10.11	192.168.10.10	127.0.0.1
SRV-WEB-01	IIS + FTP + SSH	192.168.10.20	192.168.10.10	192.168.10.11
CLT-01	DHCP client	DHCP	Automatic	Automatic

3. Work performed

Base infrastructure: AD, DNS, DHCP

Installed AD DS on SRV-AD-01 and promoted it to a domain controller for the domain spring.local, with an OU structure split into Production, Administration, and Utilisateurs. Configured a DHCP scope (192.168.10.100-200) with option 003 (gateway) and option 006 (DNS pointing at SRV-AD-01, then SRV-INFRA-02), plus a MAC-based reservation for CLT-01.

Secondary DNS

Installed the DNS role on SRV-INFRA-02, authorized zone transfers from SRV-AD-01, and created a secondary zone on SRV-INFRA-02 with scheduled automatic replication, giving the domain DNS redundancy.

WSUS

Installed WSUS on SRV-AD-01 with a WID database and dedicated content storage, then ran the configuration wizard: Microsoft Update as the upstream source, French and English languages, Windows Server 2022 and Windows 10/11 as the only products, and critical, security, and definition updates as the classifications, with a daily automatic synchronization.

Created WSUS computer groups (Production, Administration, Utilisateurs) matching the OUs, enabled client-side targeting, and linked a GPO-WSUS policy pointing clients at <http://srv-ad-01:8530> with the target group set per OU.

Fix applied: the client never registered with WSUS because its computer account sat outside the OU the GPO was linked to, and because `wuaclt /detectnow` no longer works on Windows 10. Moved the computer account into the correct OU and used the modern Settings > Windows Update flow to force registration; `wuaclt /reportnow` was used afterward to speed up status reporting.

Backup

Installed Windows Server Backup on SRV-INFRA-02 and scheduled a daily backup of the Profiles\$, Donnees\$, and SYSVOL shares to a secondary disk.

Roaming profiles and folder redirection

Created the Profiles\$ and Donnees\$ shares on SRV-AD-01 with NTFS permissions restricted to the owning user via Authenticated Users special permissions, then set a test user's AD profile path to point at the share.

Group Policy

Linked GPOs for: blocking Control Panel and the command prompt for the Utilisateurs OU, forcing a desktop wallpaper from a network share, mapping the Donnees\$ share to drive Z:, and redirecting the Documents folder to the server to avoid roaming-profile corruption.

Web, FTP, and SSH (SRV-WEB-01)

Hosted a static internal site (www.spring.local) in IIS with DNS pointing the hostname at SRV-WEB-01, created an isolated FTP site so each user only sees their own folder, and installed OpenSSH Server, restricting SSH access to the Admins_Reseau group.

4. Validation

Test	Result
Profile roaming	A file created on the desktop while logged in on one machine reappeared after logging in on another, confirming the roaming profile and folder redirection worked.
DNS resolution	<code>nslookup www.spring.local</code> returned the IIS server's IP.
GPO lockdown	Opening <code>cmd.exe</code> as a standard user was blocked, as configured by the Securite GPO.
SFTP transfer	A file transfer over SFTP on port 22 to SRV-WEB-01 succeeded for an Admins_Reseau account.
WSUS delivery	CLT-01 appeared in the correct WSUS computer group and had at least one approved update downloaded and installed.

5. Conclusion

All validation tests passed. The lab covers the core services a small Windows domain depends on: directory, name resolution with redundancy, centralized patching, policy enforcement, backup, and a domain-joined application server with web, file transfer, and remote access. Screenshots for every step were captured in the original submission and are retained there.