

# 3MSA – Microsoft Windows Active Directory

Document content

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Subject  
Delivery

Version 1.0  
Last update: 16/023/2018  
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## 1 SUBJECT

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You are working for a big company that sells clothes over the world. At the beginning the company was specialised on luxury clothes. Then two years ago the company opened a branch for luxury accessories and another one for cheap clothes and accessories too.

You decide to improve the Active Directory architecture and business processes. You are two on this project. You also have to be sure that during the entire process all employees can continue to work.

The actual architecture are based on Windows server 2008 R2. You decide to migrate this architecture on Windows Server 2016. But before to shut down 2008 R2 servers you have to produce the following architecture and respect company requirements. Your presentation will demonstrate that all requirements are respected and you will show in live that the company can work without 2008 R2 servers.

### 1.1 ARCHITECTURE

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You have to use the virtual machine that contains the actual Active Directory (download it at: [https://supinfo.com.sharepoint.com/:u:/s/courses/ERLrjUkZ8D1ElsMX2nrDGe0BoX3ei\\_BX1Z4sUWeRXISNzg?e=TvvmzG](https://supinfo.com.sharepoint.com/:u:/s/courses/ERLrjUkZ8D1ElsMX2nrDGe0BoX3ei_BX1Z4sUWeRXISNzg?e=TvvmzG) ). You probably have to change IP configuration. Password used for the virtual machine is Sup1nf0

Then according to the following requirements build an Active Directory Architecture:

- The architecture must continue to run with the 2008R2 server.
- You must only have one forest named vetlux.lan
- The 2008R2 server and your 2016 server for vetlux.lan must work together and replicate each other.
- You must have another domain that will be vetcheap.lan
- On the production center for vetcheap.lan you have to promote a secure domain controller.
- You also must have acc.vetlux.lan and acc.vetcheap.lan. Be sure these two domains communicate directly and efficiently together.
- For your demonstration have a Windows 10 client integrated to vetlux.lan

Tips: Don't forget to make a schema of your architecture.

## 1.2 HUMAN RESOURCES

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The next step is the simplification of Human Resources management. To do this you decide to create a PowerShell script for HR people.

This script must enable HR to add new employees directly on vetlux.lan with the following information:

- First name and Last name
- Address
- Phone number
- CNI number
- RIB number
- Enable date: the account must be enable 1 day before the employee hire date
- Disable date: in case of determinate end date
- Logon name: apply a naming convention of your choice based on first name and last name
- Department: according to the department the new employee must be placed in the correct OU and have the correct rights.

Except for Disable date all information are mandatory. You can have to modify user attributes to respect the previous request.

The script also must allow HR to modify user's information and search a user.

## 1.3 GPO

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You have to configure 3 GPOs that will improve users' environment.

The first one must improve security settings for the entire company accounts' passwords:

- Length: 7
- Complexity: yes
- History: 3
- Maximum age: 40 days
- Deployment of Antivirus software: Assigned to computers

The second one is for software deployment on the new windows 10 operating system only:

- 7-zip : Assigned to computers
- RealVNC: Assigned to users
- Google Chrome: Published to users
- Firefox: Published to users

You must configure the last GPO for Sales employees with roaming profile and folder redirection for Desktop and Documents.

## 1.4 BONUS: GUI (3 POINTS)

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Human resources are complaining about the interface of your script that manage users. So you decide to build a graphical interface in your script.

Tips: You can use the framework .NET in powershell scripts.

Note: You will be evaluated on this part only if you have finished the scripting part.

## 2 DELIVERY

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### 2.1 DELIVERY

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This project can be realised by group of 2 students maximum.

Notation will be mainly based on the presentation that will illustrate your work.

The presentation must be made in 20 minutes. Please reserve a couple of minutes for questions.

During the presentation, it is **mandatory** that your architecture is functional. You will be evaluated on a running architecture only.

No Screenshots or videos can be considered as a proof.

You have to **upload a delivery on [sce.sad.supinfo.com](http://sce.sad.supinfo.com) to be evaluated** before the **deadline** specified on the site for your campus. For this project, you will include a presentation of your team and what you have done to answer to client requests.

### 2.2 PROJECT NOTATION

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#### 2.2.1 Project (16 points)

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During your presentation you will be evaluated on the following points:

- Architecture (3 points)
- Human resources (10 points)
  - o Scripts (7 points)
  - o Schema (3 points)
- GPO (3 points)
- BONUS (3 points)

## 2.2.2 Oral (4 points)

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Oral presentation quality (2 points)

Speaking time repartition (1 points)

Using of Windows terms and solutions presentation (1 points)