System Use Narrative and Requirements Outline (SUNARUO)

# 1. System Context

The system involves two interconnected domains, MCS.Local and Alex.mcs.local, each with specific roles, users, and security policies. The domains communicate through web servers (web1.com and web2.com) and use DNS for name resolution. User authentication and permissions are enforced to ensure security and functionality within the network.

# 2. Key Components

## Domains:

• MCS.Local (Primary Domain)

• Alex.mcs.local (Secondary Domain)

## Servers:

• Domain Controllers (DC):

- Manage user authentication and permissions.  
 - Provide NTP services for time synchronization.

• Web Servers:

- web1.com: Uses HTTPS, linked to MCS.Local.

- web2.com: Uses HTTP, linked to Alex.mcs.local.

## DNS Configuration:

• Primary DNS: web1.com mapped to MCS.Local.

• Secondary DNS: web2.com mapped to Alex.mcs.local.

# 3. User Scenarios

## 3.1 Ahmed's Scenario

• Domain: MCS.Local

• Actions:  
 1. Logs into the domain using Ahmed@MCS.Local.  
 2. Accesses the web server web1.com via HTTPS.

• Restrictions:  
 - Cannot access the Control Panel.  
 - Cannot use flash memory devices (USB).

## 3.2 Aly's Scenario

• Domain: Alex.mcs.local

• Actions:  
 1. Logs into the domain using Aly@Alex.mcs.local.  
 2. Finds the company logo displayed on the desktop.  
 3. Accesses the web server web2.com via HTTP.

• DNS: Uses web2.com mapped to the secondary DNS.

# 4. Functional Requirements

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| --- | --- |
| ID | Requirement |
| FR-01 | Ahmed must authenticate with MCS.Local and access web1.com via HTTPS. |
| FR-02 | Aly must authenticate with Alex.mcs.local and access web2.com via HTTP. |
| FR-03 | Ahmed’s login must restrict access to the Control Panel. |
| FR-04 | Ahmed’s login must disable the use of flash memory devices (USB). |
| FR-05 | Aly’s login must display the company logo on the desktop. |
| FR-06 | DNS must resolve web1.com in MCS.Local and web2.com in Alex.mcs.local. |
| FR-07 | NTP services must synchronize time between domain controllers and clients. |

# 5. Non-Functional Requirements

|  |  |
| --- | --- |
| ID | Requirement |
| NFR-01 | Communication with web1.com must be secured using HTTPS. |
| NFR-02 | DNS redundancy must be achieved through primary (MCS.Local) and secondary (Alex.mcs.local) DNS. |
| NFR-03 | System must ensure users have appropriate restrictions for security and compliance. |
| NFR-04 | Time synchronization must be reliable using NTP services. |

# 6. Diagram

