Server Report

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Active Directory infrastructure (Chart)

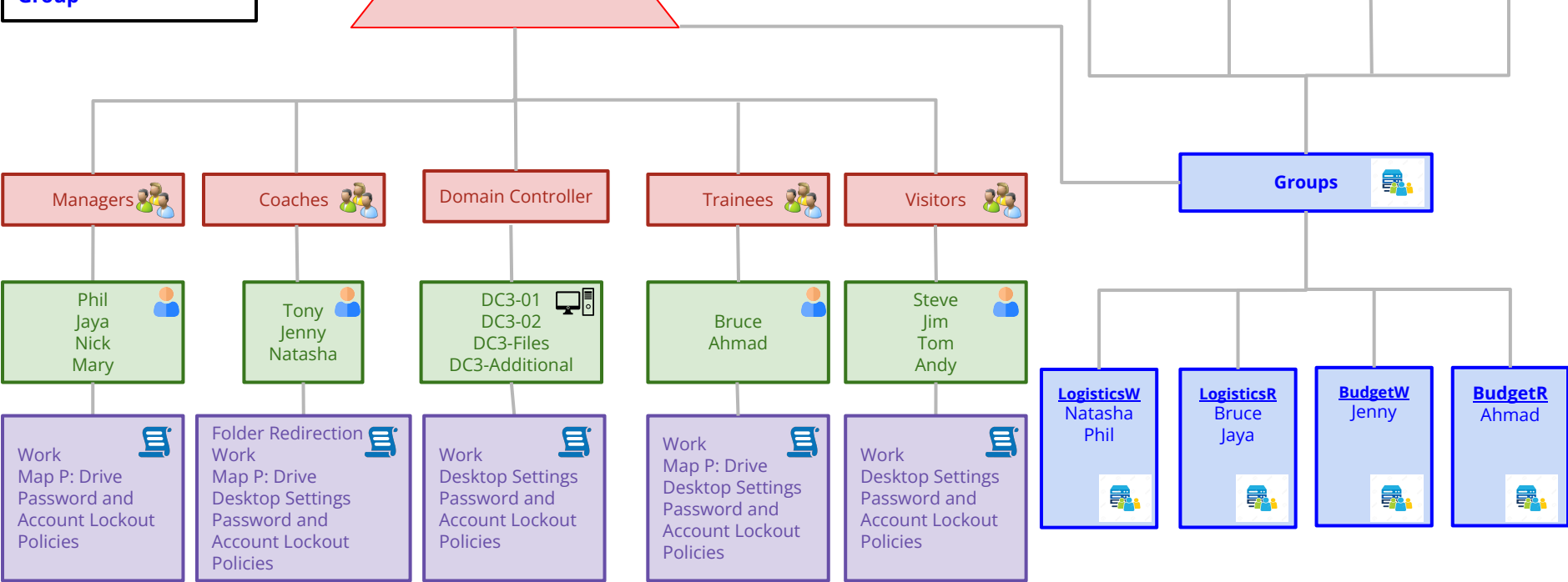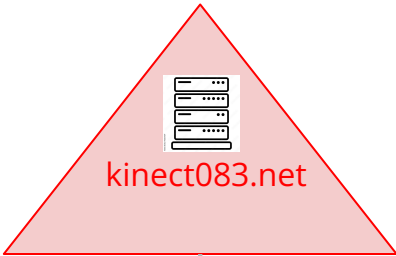Legend:
Domain
Organisational Unit
Members
Policy
Group

kinect083.net

DLManager
Phil
Jaya
Nick
Mary

DLCoaches
Tony
Jenny
Natasha

DLTrainees
Bruce
Ahmad

DLVisitors
Steve
Jim
Tom
Andy

Managers

Coaches

Domain Controller

Trainees

Visitors

Groups

Phil
Jaya
Nick
Mary

Tony
Jenny
Natasha

DC3-01
DC3-02
DC3-Files
DC3-Additional

Bruce
Ahmad

Steve
Jim
Tom
Andy

Work
Map P: Drive
Password and
Account Lockout
Policies

Folder Redirection
Work
Map P: Drive
Desktop Settings
Password and
Account Lockout
Policies

Work
Desktop Settings
Password and
Account Lockout
Policies

Work
Map P: Drive
Desktop Settings
Password and
Account Lockout
Policies

Work
Desktop Settings
Password and
Account Lockout
Policies

LogisticsW
Natasha
Phil

LogisticsR
Bruce
Jaya

BudgetW
Jenny

BudgetR
Ahmad

Bulk import of Domain Users

1. Create an excel sheet that the table below.
2. Make sure the excel sheet matches the bulk import commands.
3. Use command such that it would retrieve information from the excel
4. Have the commands to check if the user already exists in the domain.
5. Ensure excel spreadsheet is in VMware.
6. Ensure that the import file path is correct.
7. Check if users are added in active directory users and computers.
8. Add them to the group that they belong to.

Bulk import of Domain Users (Table)

firstname	lastname	username	email	OU
Phil	Tan	Phil	Phil@kinect083.net	OU=Managers,DC=kinect083,DC=net
Jaya	Kumar	Jaya	Jaya@kinect083.net	OU=Managers,DC=kinect083,DC=net
Nick	Ong	Nick	Nick@kinect083.net	OU=Managers,DC=kinect083,DC=net
Mary	Hans	Mary	Mary@kinect083.net	OU=Managers,DC=kinect083,DC=net
Tony	Starks	Tony	Tony@kinect083.net	OU=Coaches,DC=kinect083,DC=net
Jenny	Lopez	Jenny	Jenny@kinect083.net	OU=Coaches,DC=kinect083,DC=net
Natahsha	Kim	Natahsha	Natahsha@kinect083	OU=Coaches,DC=kinect083,DC=net
Bruce	Lee	Bruce	Bruce@kinect083.net	OU=Trainees,DC=kinect083,DC=net
Ahmad	Saleh	Ahmad	Ahmad@kinect083.ne	OU=Trainees,DC=kinect083,DC=net
Steve	Aston	Steve	Steve@kinect083.net	OU=Visitors,DC=kinect083,DC=net
Jim	Koh	Jim	Jim@kinect083.net	OU=Visitors,DC=kinect083,DC=net
Tom	Johnson	Tom	Tom@kinect083.net	OU=Visitors,DC=kinect083,DC=net
Andy	Soh	Andy	Andy@kinect083.net	OU=Visitors,DC=kinect083,DC=net
Ryan	Tan	Ryan	Ryan@kinect083.net	OU=Visitors,DC=kinect083,DC=net
John	Poh	John	John@kinect083.net	OU=Visitors,DC=kinect083,DC=net

Bulk import of Domain Users

```
S C:\Users\administrator> Import-Module activedirectory

S C:\Users\administrator> #Store the data from your file in the $ADUsers variable

ADUsers = Import-csv 'C:\Users\admin\Documents\Serverfinal.csv'

Loop through each row containing user details in the CSV file

oreach ($User in $ADUsers)

Read user data from each field in each row and assign the data to a variable as below
Username = $User.username
Firstname = $User.firstname
Lastname = $User.lastname
OU = $User.ou
email = $User.email


Check to see if the user already exists in the AD

f (Get-ADUser -F {SamAccountName -eq $Username})

If the user does exist, give a warning
rite-Warning "A user account with username $Username already exists in Active Directory."

lse

User does not exist then proceed to create the new user account
Account will be created in the OU provided by the $OU variable read from the CSV file
ew-ADUser `
SamAccountName $Username `
UserPrincipalName "$Username@kinect083.net" `
Name "$Firstname $Lastname" `
GivenName $Firstname `
Surname $Lastname `
Enabled $True `
Path $OU `
EmailAddress $email `
PasswordNotRequired $True `
```

Bulk import of Domain Users

```
'ARNING: One or more headers were not specified. Default names starting with "H" have been used in place of any missing
headers.
'ARNING: A user account with username Phil already exists in Active Directory.
'ARNING: A user account with username Jaya already exists in Active Directory.
'ARNING: A user account with username Nick already exists in Active Directory.
'ARNING: A user account with username Mary already exists in Active Directory.
'ARNING: A user account with username Tony already exists in Active Directory.
'ARNING: A user account with username Jenny already exists in Active Directory.
'ARNING: A user account with username Natahsha already exists in Active Directory.
'ARNING: A user account with username Bruce already exists in Active Directory.
'ARNING: A user account with username Ahmad already exists in Active Directory.
'ARNING: A user account with username Steve already exists in Active Directory.
'ARNING: A user account with username Jim already exists in Active Directory.
'ARNING: A user account with username Tom already exists in Active Directory.
'ARNING: A user account with username Andy already exists in Active Directory.

S C:\Users\administrator>
```

2 users here were added : John Poh and Ryan Tan

All the Users (Table)

First Name	Last Name	Logon Name	OU	Member Of	Email Address
Phil	Tan	Phil	Managers	DLManagers, LogisticsW	Phil@kinect083.net
Jaya	Kumar	Jaya	Managers	DLManagers, LogisticsR	Jaya@kinect083.net
Nick	Ong	Nick	Managers	DLManagers	Nick@kinect083.net
Mary	Hans	Mary	Managers	DLManagers	Mary@kinect083.net
Tony	Starks	Tony	Coaches	DLCoaches, BudgetR	Tony@kinect083.net
Jenny	Lopez	Jenny	Coaches	DLCoaches, BudgetW	Jenny@kinect083.net
Natahsha	Kim	Natahsha	Coaches	DLCoaches, LogisticsW	Natahsha@kinect083.net
Bruce	Lee	Bruce	Trainees	DLTrainees, LogisticsR	Bruce@kinect083.net
Ahmad	Saleh	Ahmad	Trainees	DLTrainees, LogisticsW	Ahmad@kinect083.net
Steve	Aston	Steve	Visitors	DLVisitors	Steve@kinect083.net
Jim	Koh	Jim	Visitors	DLVisitors	Jim@kinect083.net
Tom	Johnson	Tom	Visitors	DLVisitors	Tom@kinect083.net
Andy	Soh	Andy	Visitors	DLVisitors	Andy@kinect083.net
Ryan	Tan	Ryan	Visitors	DLVisitors	Ryan@kinect083.net
John	Poh	John	Visitors	DLVisitors	John@kinect083.net

Domain Users

Organizational Units

- Coaches
- Domain Controllers
- Managers
- Trainees
- Visitors

Visitors

Name	Type
Andy Soh	User
Jim Koh	User
Steve Aston	User
Tom Johnson	User

Coaches

Name	Type
Jenny Lopez	User
Natahsha Kim	User
Tony Starks	User

Trainees

Name	Type
Ahmad Saleh	User
Bruce Lee	User

Managers

Name	Type
Jaya Kumar	User
Mary Hans	User
Nick Ong	User
Phil Tan	User

Domain Controllers

Name	Type	DC Type	Site
DC3-01	Computer	GC	Default-First-Si...
DC3-02	Computer	GC	Default-First-Si...
DC3-ADDITI...	Computer	GC	Default-First-Si...
DC3-FILES	Computer	GC	Default-First-Si...

Network Infrastructure

DC3-01
Static IP Address : 174.29.141.2
Roles : Primary AD DS, Primary
DNS, IIS

DC3-Additional
Static IP Address : 174.29.141.5
Roles: AD FS, IIS, AD CS, **AD DS Redundancy**, File and Storage Services (Work Folders), **Secondary DNS**

DC3-Client
DHCP Automatic IP
Roles : Client
IP Scope :
174.29.141.1 - 174.29.141.254
Exclusion Range: 174.29.141.1 - 174.29.141.5

DC3-02
Static IP Address : 174.29.141.3
Roles : DHCP Server

DC3-Files
Static IP Address : 174.29.141.4
Roles : FSRM, File Server, Storage Services, **DHCP Redundancy**

File Shares (table)

Share	Local Path	Read	Write	Full Control
Shares	E:\shares	**–**	**–**	Authenticated Users
Coaches	E:\shares\coaches	**–**	DLCoaches	Administrators
Managers	E:\shares\managers	**–**	DLManagers	Administrators
Budget	E:\shares\projects\budget	BudgetR	BudgetW	Administrators
Intranet	E:\shares\projects\intranet	Authenticated Users	DLManagers	Administrators
Logistics	E:\shares\projects\logistics	LogisticsR	LogisticsW	Administrators
Redirected	E:\shares\redirected	**–**	DLCoaches	Administrators
Trainees	E:\shares\trainees	**–**	DLTrainees	Administrators
Users	E:\shares\users	**–**	Authenticated Users	Administrators

Group Policy and Restriction (table)

GPO name	Linked to	Group Policy	Details
Desktop Settings	Coaches,Visitors,Trainees, Domain controllers	Remove Recycle Bin icon from Desktop Prevent changing screen saver Prevent changing desktop background	Enabled Enabled Enabled
Folder Redirection - DLCoaches	DLCoaches	Folder Redirection	Path: \DC3-Files\E\shares\redirected\%USERNAME%\Desktop
Work	Domain,kinect083.net	Give access to work folder	Give access to work folder to everyone in the domain
Map P: Drive	Coaches,Managers,Trainees	Drive Map P:	Drive P: Will be used to map project shares to everyone except for users under visitor OU
Password and Account Lockout Policies	Coaches,Managers,Trainees,Visitor	Enforce password history passwords remembered Minimum password length characters Password must meet complexity requirements Account lockout duration Account lockout threshold Reset account lockout counter after	5 passwords remembered 5 characters Enabled 30 minutes 5 invalid logon attempts 30 minutes
Visitor Restrictions	Visitor	Prohibit access to Control Panel and PC settings Disable changing home page settings	Enabled Enabled
Map G: Drive	Coaches,Managers,Trainees	Drive Map G:	Drive G: Will be used to map groups to different users.
Disable first sign-in	Coaches,Managers,Trainees,Visitors	Show first sign-in animation	Enabled

Webpage implementation (homepage)

When we click here it should bring us to the next page (next slide).

Webpage implementation (Subpage)
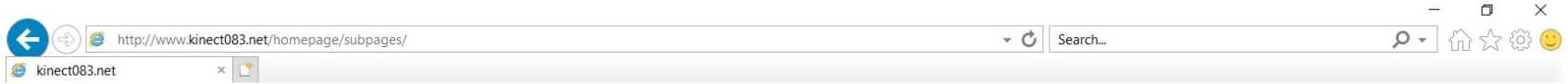
Additional Features

- AD CS
  - Active Directory Certificate Services is a server role that enables the organization to create, issue, and manage digital certificates. These certificates can be utilised for a number of tasks, such as data encryption, user authentication, and communication security.
  - Here are some advantages of AD CS:
    - The organization can manage and issue SSL/TLS certificates thanks to AD CS. Server, client, and service communications can all be protected using these certificates. Data exchanged over the network is less vulnerable to eavesdropping and tampering when communication is encrypted.
    - Certificates can be used for strong authentication when it comes to user and device identification. For VPN connections and remote access, this is especially crucial. Comparing certificates to conventional usernames and passwords, you can see that they offer a more secure authentication method.
    - By encrypting email content and verifying the sender's identity, digital certificates can enable secure email communication. This is essential for protecting the confidentiality and integrity of sensitive data.

Additional Features

- AD FS
  - Active Directory Federation Services provides single sign-on (SSO) capabilities across different applications and systems, both within the organization and with external partners.
  - Here's how AD FS could be beneficial:
    - Seamless User Experience: AD FS enables users to access multiple applications and services with a single set of credentials. This eliminates the need to remember different usernames and passwords for various systems, enhancing user experience and productivity.
    - Integration with External Partners: If the training organization collaborates with external partners, AD FS can allow users from partner organizations to access resources using their own organization's credentials. This simplifies collaboration while maintaining security.
    - Centralized Authentication and Authorization: AD FS centralizes authentication and authorization processes, making it easier for IT administrators to manage user access and security policies across different applications.

Additional Features

- How does AD FS work?
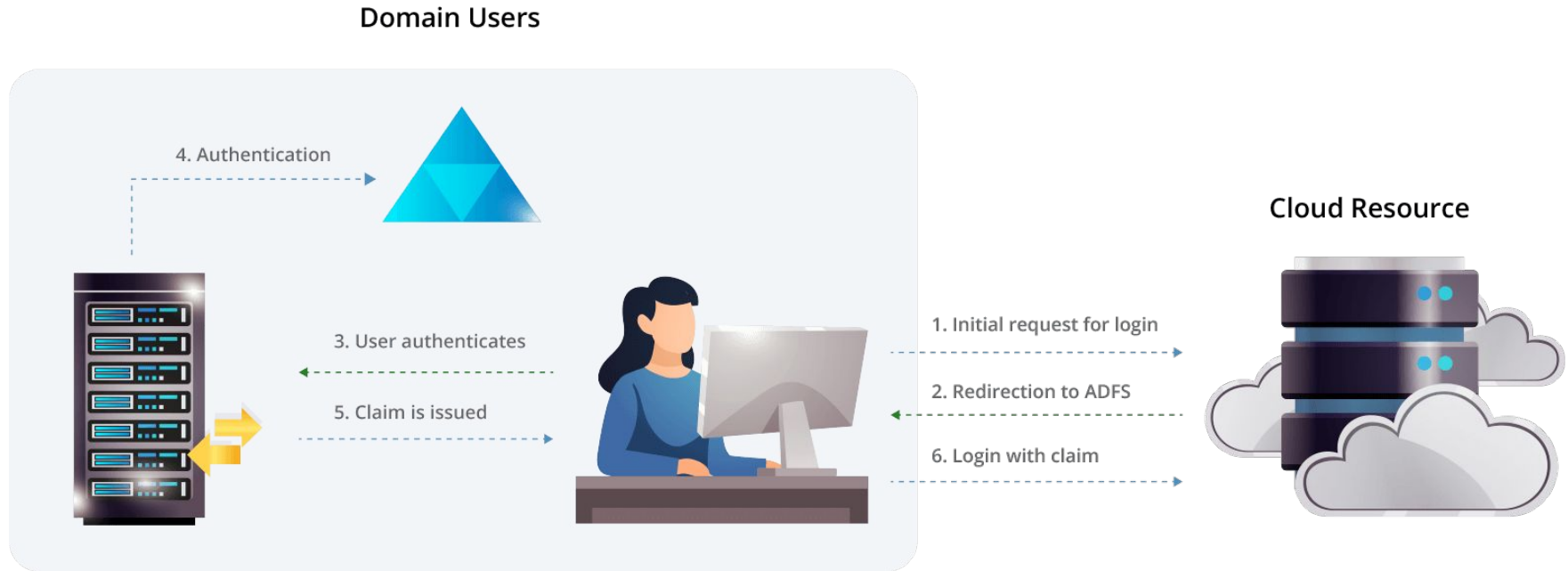
Additional Features

- **Work Folders**
  - Work Folders is a feature that enables users to access their work files securely from various devices while keeping the data centralized and under the organization's control.
  - Here are some advantages of Work Folders:
    - Users can access their work files from personal computers and mobile phones using Work Folders, while still maintaining data security and compliance. This is particularly crucial in the remote and hybrid work environments of today.
    - Data synchronisation ensures that users always have access to the most recent version of their files, whether they are online or offline. Work Folders automatically synchronises files between the user's device and the server.
    - Work Folders' data protection and control features enable businesses to maintain control over corporate data even when it is accessed from personal devices. Files are kept on the company's server, lowering the possibility of data leakage.

User Acceptance Tests (table)

User	G Drive	P Drive	U Drive	Budget	Intranet	Logistics
Phil	Yes ☑	Yes ☑	Yes ☑	No ⊗	Write ✏	Write ✏
Tony	Yes ☑	Yes ☑	Yes ☑	Read 📖	Read 📖	No ⊗
Bruce	Yes ☑	Yes ☑	Yes ☑	No ⊗	Read 📖	Read 📖
Steve	No ⊗	No ⊗	Yes ☑	No ⊗	No ⊗	No ⊗
Andy	No ⊗	No ⊗	Yes ☑	No ⊗	No ⊗	No ⊗