

Nalongsone Danddank Student ID : 14958950 StarID: jf3893pd

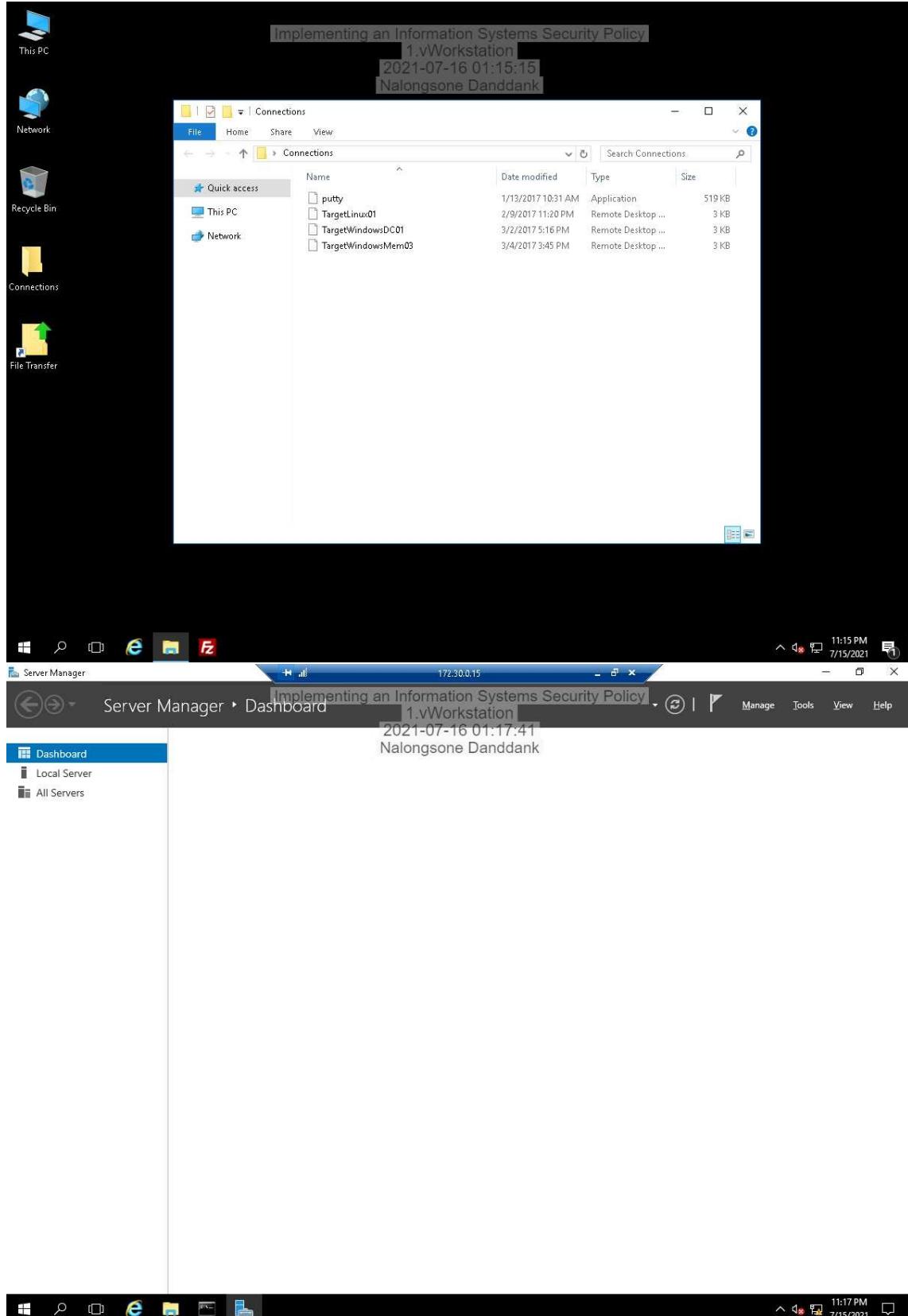
Email: nalongsone.danddank@my.metrostate.edu\

ICS382/CYBR332-51 —Computer Security

Lab #10 Report

IMPLEMENTING AN INFORMATION SYSTEMS SECURITY POLICY

Part 1: Configure a Domain-Level Policy.



Group Policy Management

File Action View Window Help

172.30.0.15

Minimize

Implementing an Information Systems Security Policy

1.vWorkstation

Default Domain - 7/15/2021 01:19:35

Scope: Domain - 1.vWorkstation

Nalongsone-Dandank

Links

Display links in this location: securelabsondemand.com

The following sites, domains, and OUs are linked to this GPO:

Location	Enforced	Link Enabled	Path
securelabsondemand.com	No	Yes	securelabsondemand.com

Security Filtering

The settings in this GPO can only apply to the following groups, users, and computers:

Name: Authenticated Users

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none>

Open

Group Policy Management

File Action View Window Help

172.30.0.15

11:19 PM

7/15/2021

Implementing an Information Systems Security Policy

1.vWorkstation

Default Domain - 7/15/2021 01:25:11

Scope: Domain - 1.vWorkstation

Nalongsone-Dandank

Links

Display links in this location: securelabsondemand.com

The following sites, domains, and OUs are linked to this GPO:

Location	Enforced	Link Enabled	Path
securelabsondemand.com	No	Yes	securelabsondemand.com

Security Filtering

The settings in this GPO can only apply to the following groups, users, and computers:

Name: Authenticated Users

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none>

Open

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy
1.vWorkstation
2021-07-16 01:27:46 Nalongsone Danddank

Group Policy Management Editor

File Action View Help

Computer Configuration Policies Windows Settings Security Settings Account Policies

Policy Setting

- Enforce password history Not Defined
- Maximum password age Not Defined
- Minimum password age Not Defined
- Minimum password length 7 characters
- Password must meet complexity requirements Enabled
- Store passwords using reversible encryption Disabled

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:
<none>

The screenshot shows the Group Policy Management Editor window. The left pane displays a tree structure of Group Policy objects (GPOs) under 'Forest: securelabsondemand.com'. The right pane shows a table of policy settings under 'Computer Configuration / Policies / Windows Settings / Security Settings / Account Policies'. The 'Enforce password history' setting is selected, showing its current value as 'Not Defined'. Below the table are buttons for 'Add...', 'Remove', and 'Properties'. A 'WMI Filtering' section at the bottom indicates that the GPO is linked to no filters.

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy
1.vWorkstation
2021-07-16 01:28:45 Nalongsone Danddank

Group Policy Management Editor

File Action View Help

Computer Configuration Policies Windows Settings Security Settings Account Policies

Security Policy Setting Explain

Enforce password history

Define this policy setting

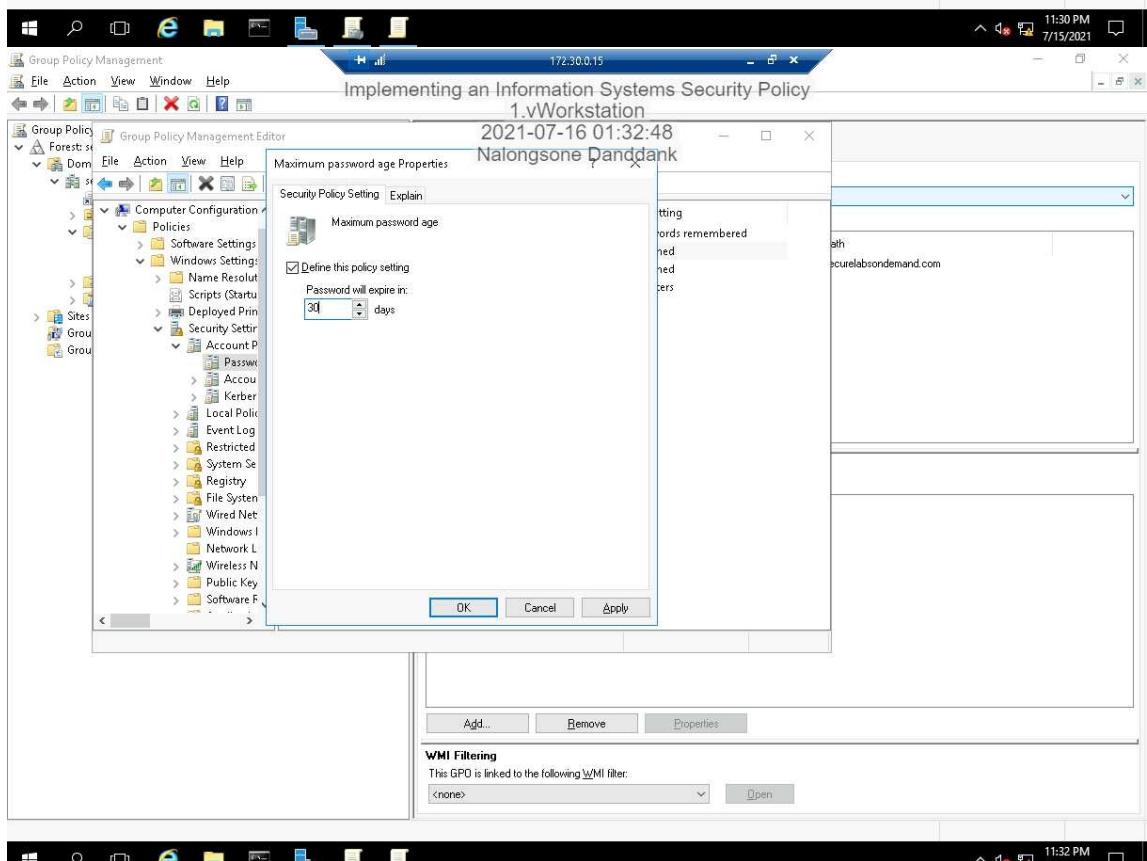
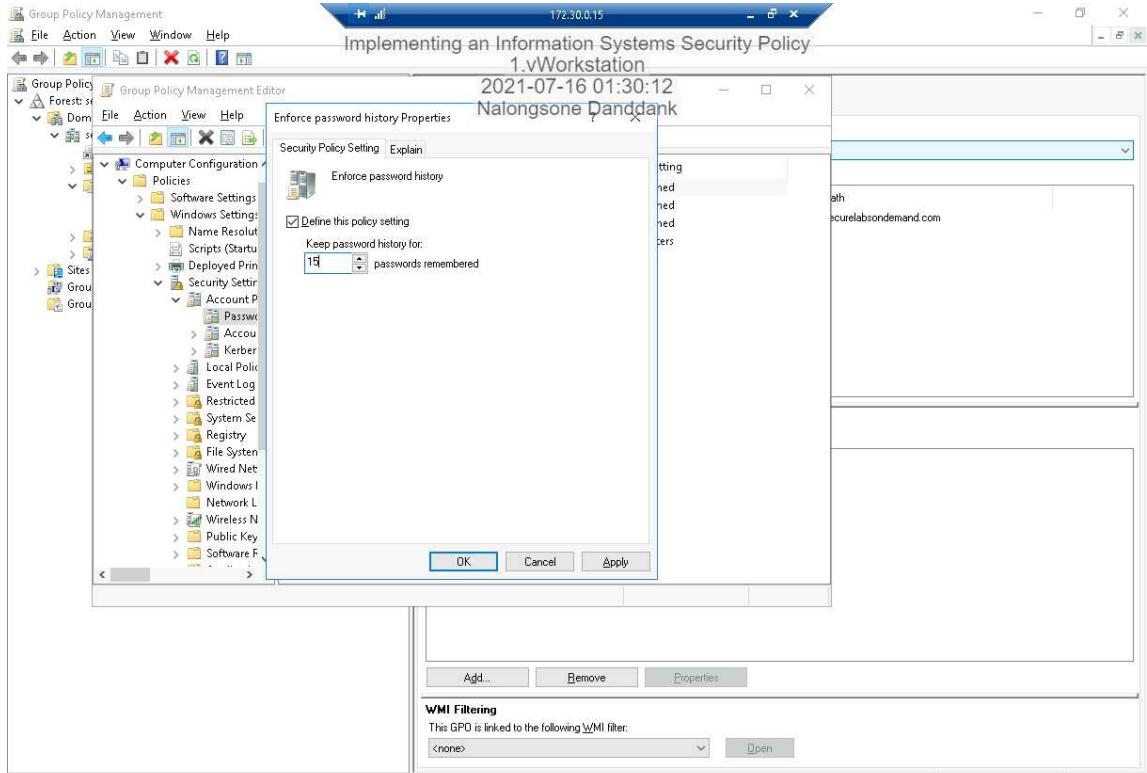
OK Cancel Apply

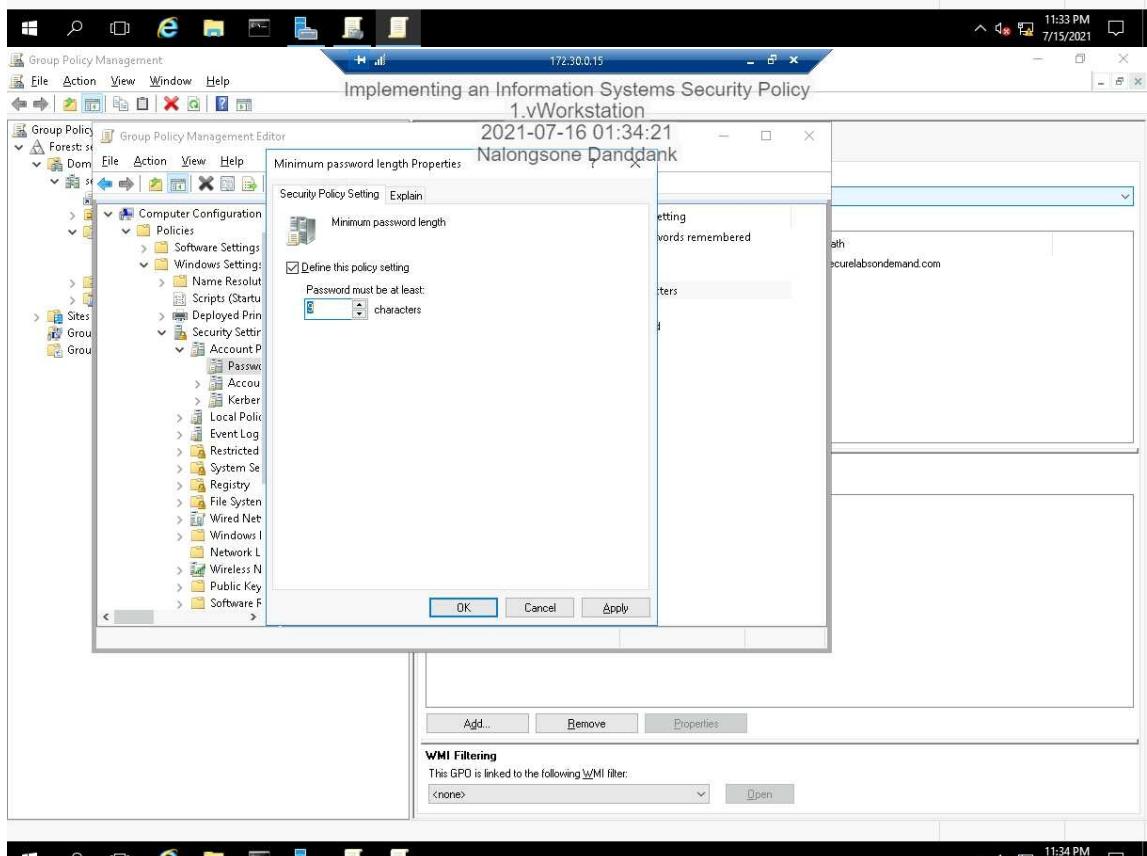
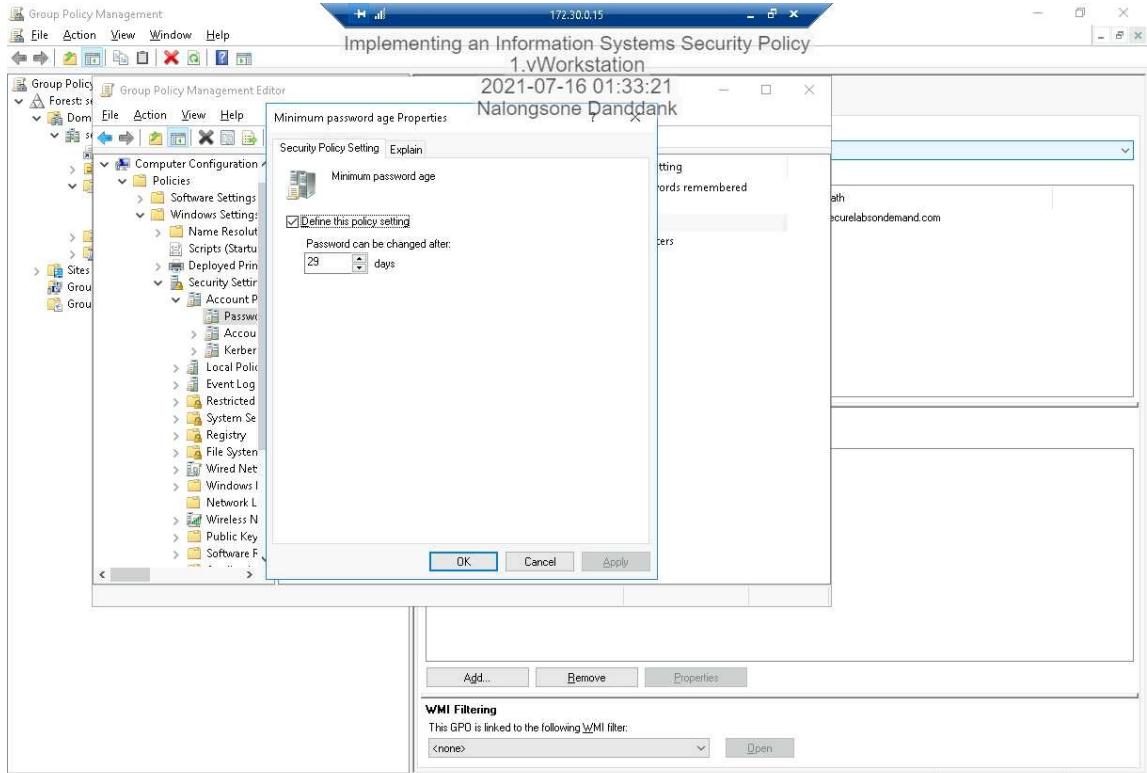
Add... Remove Properties

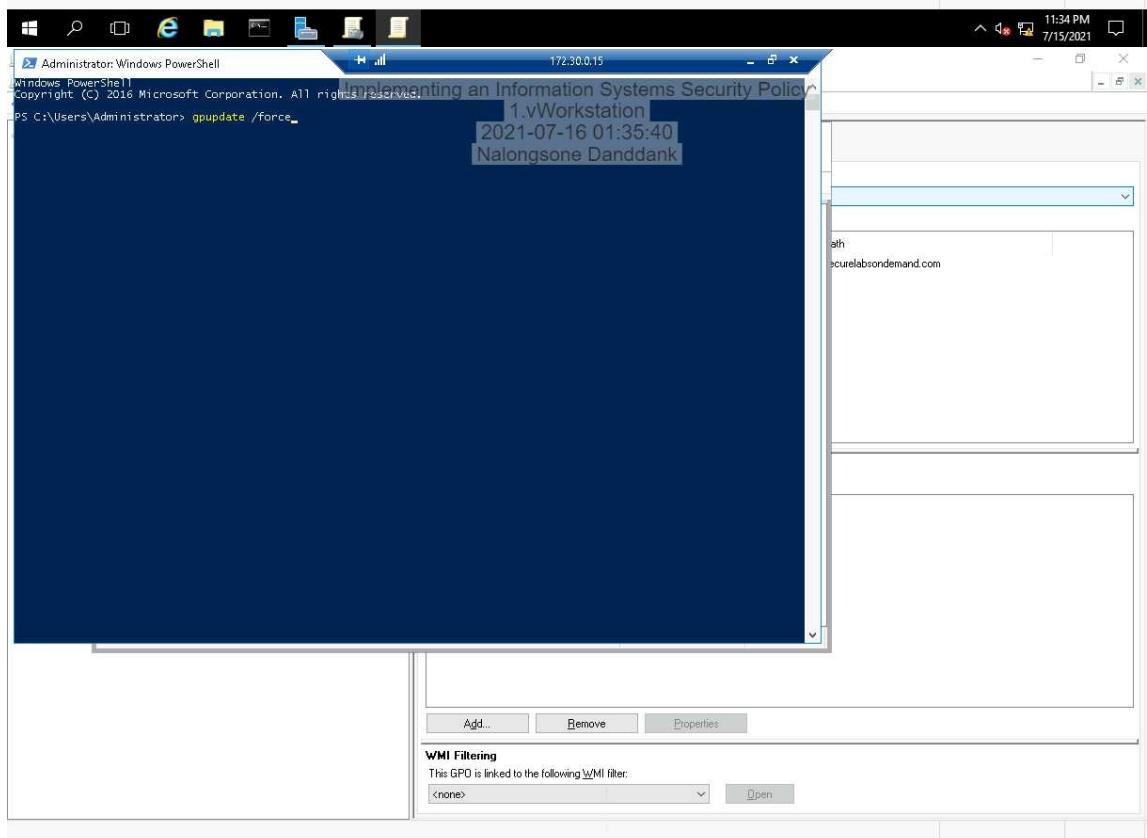
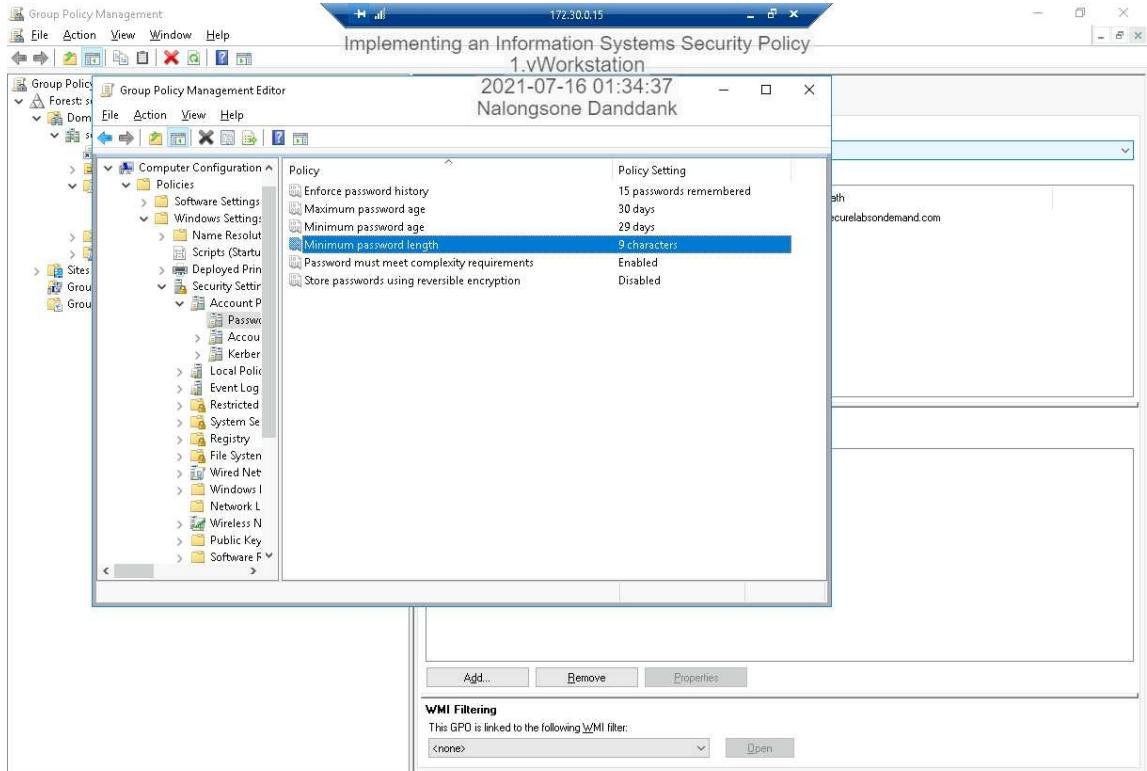
WMI Filtering

This GPO is linked to the following WMI filter:
<none>

The screenshot shows the 'Enforce password history' policy setting properties dialog box. It includes tabs for 'Security Policy Setting' and 'Explain'. Under 'Security Policy Setting', there is a checkbox labeled 'Define this policy setting' which is checked. Below the checkbox is a dropdown menu with the option 'passwords remembered' selected. At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons. The 'Add...', 'Remove', and 'Properties' buttons are also present in the bottom right corner of the main editor window.



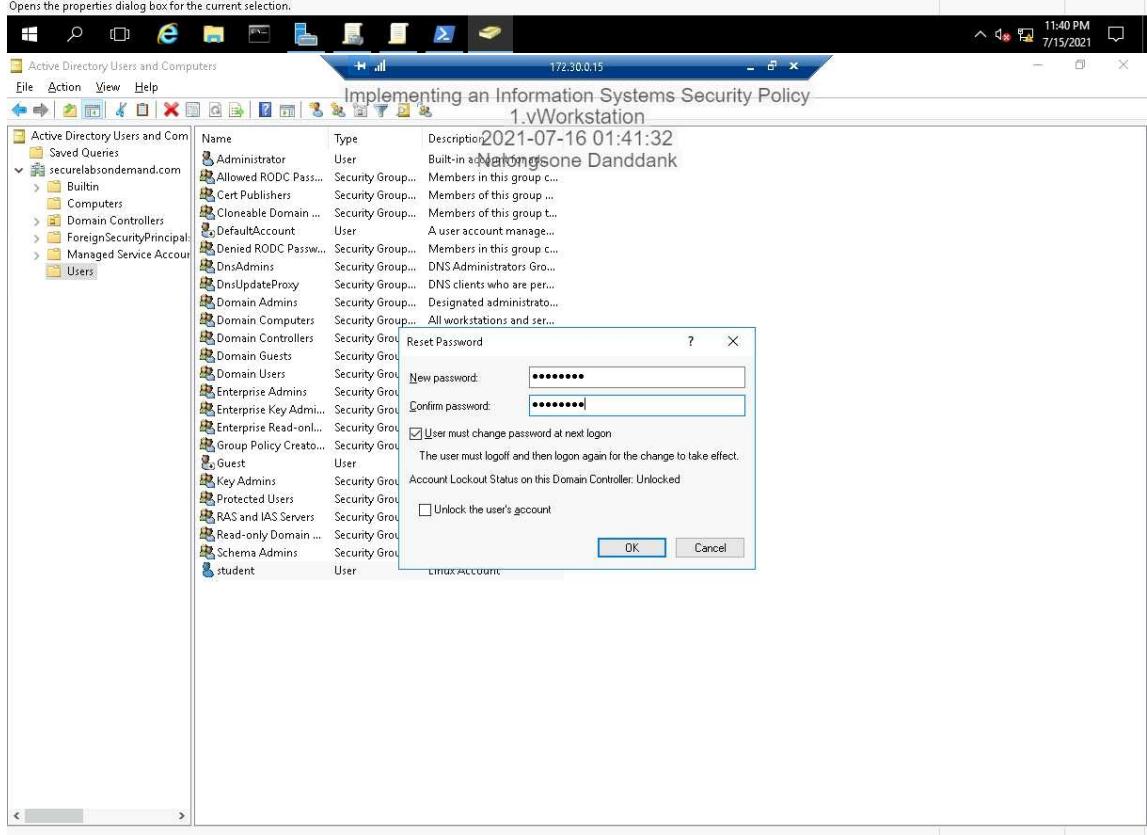
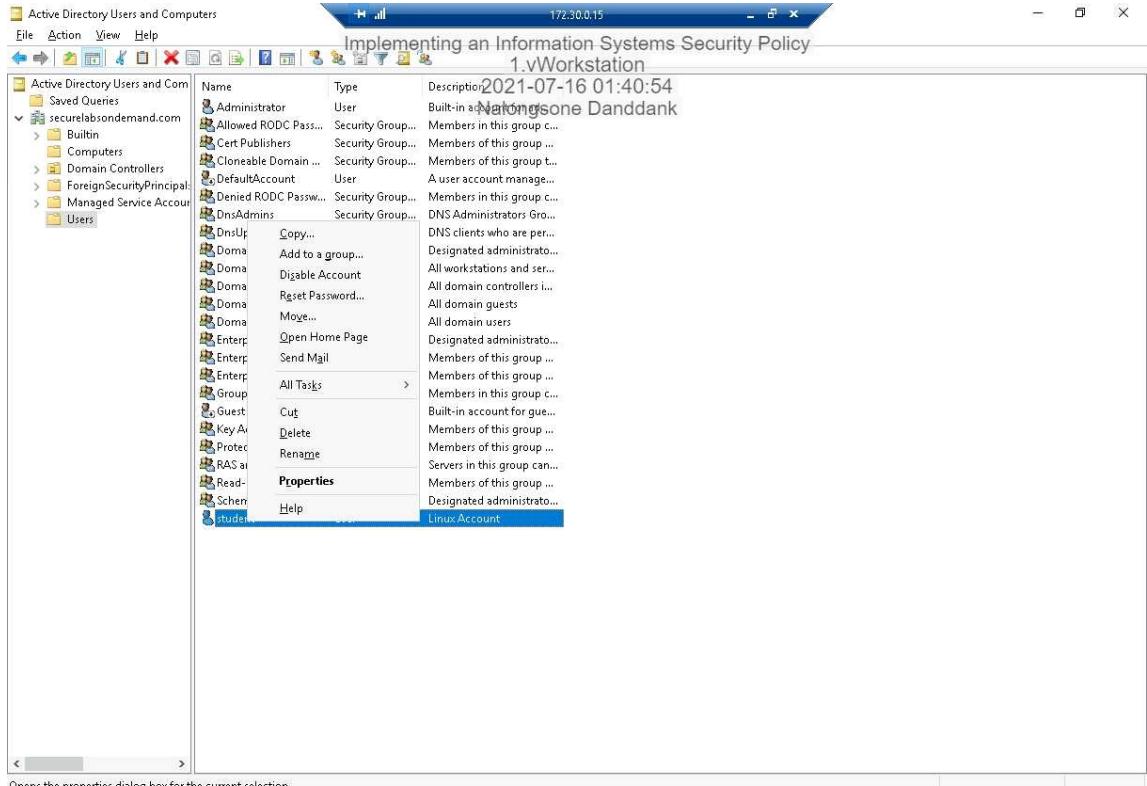




The screenshot shows a Windows desktop environment with three main windows:

- Administrator: Windows PowerShell**: A terminal window titled "Implementing an Information Systems Security Policy" running on port 172.30.0.15. It displays the command `gpupdate /force` and its output: "Computer Policy update has completed successfully. User Policy update has completed successfully." The timestamp is 2021-07-16 01:36:30.
- GPO Properties**: A dialog box for a GPO named "1.vWorkstation". It shows the WMI Filtering section with the message: "This GPO is linked to the following WMI filter: <none>". Buttons for "Add...", "Remove", and "Properties" are visible.
- Active Directory Users and Computers**: A management console window showing the "1.vWorkstation" GPO. The left pane lists objects like "Saved Queries", "Builtin", "Computers", "Domain Controllers", "ForeignSecurityPrincipals", "Managed Service Accounts", and "Users". The right pane displays a table with one item:

Name	Type	Description
TARGETWIN...	Computer	2021-07-16 01:37:58 Nalongsone Danddank



Active Directory Users and Computers

File Action View Help

Implementing an Information Systems Security Policy

1.vWorkstation

2021-07-16 01:42:17

Nalongsone Danddank

Active Directory Users and Computers

Name Type Description

- Administrator User Built-in account for managing the computer/domain
- Allowed RODC Pass... Security Group... Members in this group can have their passwords replicated to all read-only domain controllers in the domain
- Cert Publishers Security Group... Members of this group are permitted to publish certificates to the directory
- Cloneable Domain ... Security Group... Members of this group that are domain controllers may be cloned.
- DefaultAccount User A user account managed by the system.
- Denied RODC Pass... Security Group... Members in this group cannot have their passwords replicated to any read-only domain controllers in the domain
- DnsAdmins Security Group... DNS Administrators Group
- DnsUpdateProxy Security Group... DNS clients who are permitted to perform dynamic updates on behalf of some other clients (such as DHCP servers).
- Domain Admins Security Group... Designated administrators of the domain
- Domain Computers Security Group... All workstations and servers joined to the domain
- Domain Controllers Security Group... All domain controllers in the domain
- Domain Guests Security Group... All domain guests
- Domain Users Security Group... All domain users
- Enterprise Admins Security Group... Active Directory Domain Services
- Enterprise Key Admin... Security Group...
- Enterprise Read-onl... Security Group...
- Group Policy Creato... Security Group...
- Guest User
- Key Admins Security Group...
- Protected Users Security Group...
- RAS and IAS Servers Security Group...
- Read-only Domain ... Security Group...
- Schema Admins Security Group...
- student User

LINUX ACCOUNT

Windows cannot complete the password change for student because:
The password does not meet the password policy requirements. Check
the minimum password length, password complexity and password
history requirements.

OK

Active Directory Users and Computers

File Action View Help

Implementing an Information Systems Security Policy

1.vWorkstation

2021-07-16 02:40:25

Nalongsone Danddank

Active Directory Users and Computers

Name Type Description

- Administrator User Built-in account for managing the computer/domain
- Allowed RODC Password Replication Group Security Group... Members in this group can have their passwords replicated to all read-only domain controllers in the domain
- Cert Publishers Security Group... Members of this group are permitted to publish certificates to the directory
- Cloneable Domain Controllers Security Group... Members of this group that are domain controllers may be cloned.
- DefaultAccount User A user account managed by the system.
- Denied RODC Password Replication Group Security Group... Members in this group cannot have their passwords replicated to any read-only domain controllers in the domain
- DnsAdmins Security Group... DNS Administrators Group
- DnsUpdateProxy Security Group... DNS clients who are permitted to perform dynamic updates on behalf of some other clients (such as DHCP servers).
- Domain Admins Security Group... Designated administrators of the domain
- Domain Computers Security Group... All workstations and servers joined to the domain
- Domain Controllers Security Group... All domain controllers in the domain
- Domain Guests Security Group... All domain guests
- Domain Users Security Group... All domain users
- Enterprise Admins Security Group... Active Directory Domain Services
- Enterprise Key Admin... Security Group...
- Enterprise Read-only Domain Cont... Security Group...
- Group Policy Creator Owners Security Group...
- Guest User
- Key Admins Security Group...
- Protected Users Security Group...
- RAS and IAS Servers Security Group...
- Read-only Domain Controllers Security Group...
- Schema Admins Security Group...
- student User

Linux Account

Reset Password

New password: Confirm password:

User must change password at next logon.
The user must logoff and then logon again for the change to take effect.

Account Lockout Status on this Domain Controller: Unlocked

Unlock the user's account

OK Cancel

Administrative actions on key objects within the forest:
Change Controllers in the enterprise
Policy for the domain
Computer/domain
Administrative actions on key objects within the domain.
Physical protections against authentication security threats. See <http://go.microsoft.com/fwlink/?linkid=84533>
User properties of users
Change Controllers in the domain

12:40 AM 7/16/2021

Active Directory Users and Computers

File Action View Help

Implementing an Information Systems Security Policy

1.vWorkstation

172.30.0.15

Active Directory Users and Com
Saved Queries
securelabsondemand.com
Builtin
Computers
Domain Controllers
ForeignSecurityPrincipals
Managed Service Accounts
Users

Name	Type	Description
Administrator	User	Built-in account
Allowed RODC Passw...	Security Group...	Members in this group can...
Cert Publishers	Security Group...	Members of this group can...
Cloneable Domain ...	Security Group...	Members of this group can...
DefaultAccount	User	A user account manage...
Denied RODC Passw...	Security Group...	Members in this group cannot...
DnsAdmins	Security Group...	DNS Administrators Group
DnsUpdateProxy	Security Group...	DNS clients who are performing...
Domain Admins	Security Group...	Designated administrators
Domain Computers	Security Group...	All workstations and servers
Domain Controllers	Security Group...	All domain controllers in the...
Domain Guests	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise Admins	Security Group...	Designated administrators
Enterprise Key Adm...	Security Group...	
Enterprise Read-onl...	Security Group...	
Group Policy Creato...	Security Group...	
Guest	User	
Key Admins	Security Group...	
Protected Users	Security Group...	
RAS and IAS Servers	Security Group...	
Read-only Domain ...	Security Group...	
Schema Admins	Security Group...	
student	User	Linux Account

The password for student has been changed.

OK

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

172.30.0.15

Group Policy Management Editor

File Action View Help

172.30.0.15

Nalongsone Danddank

2021-07-16 02:42:37

Computer Configuration Policies Software Settings Windows Settings Name Resolution Scripts (Startup/Shutdown) Deployed Printers Security Settings Account Policies Accounts Kerberos Local Policies Event Log Restricted System Services Registry File System Wired Network Wireless Network Public Key Software Features

Policy Setting

Account lockout duration: 10 minutes

Account lockout threshold: 5 invalid logon attempts

Reset account lockout counter after: 10 minutes

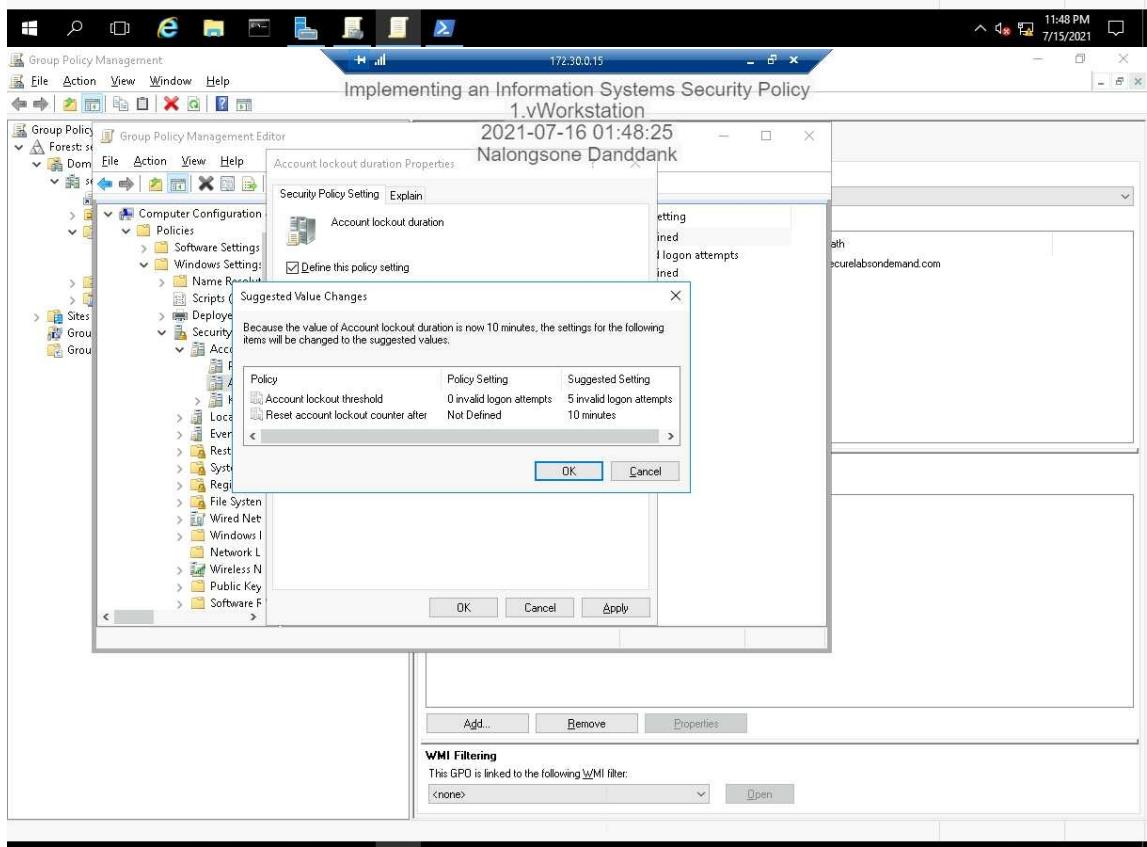
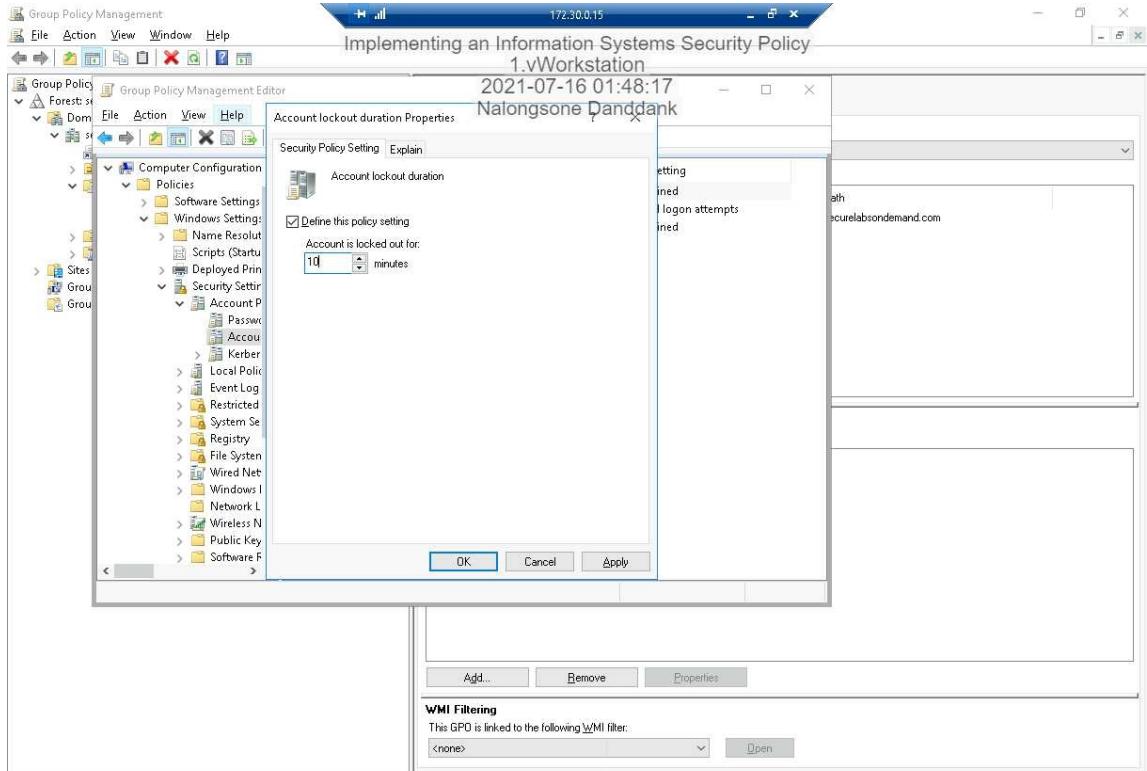
Add... Remove Properties

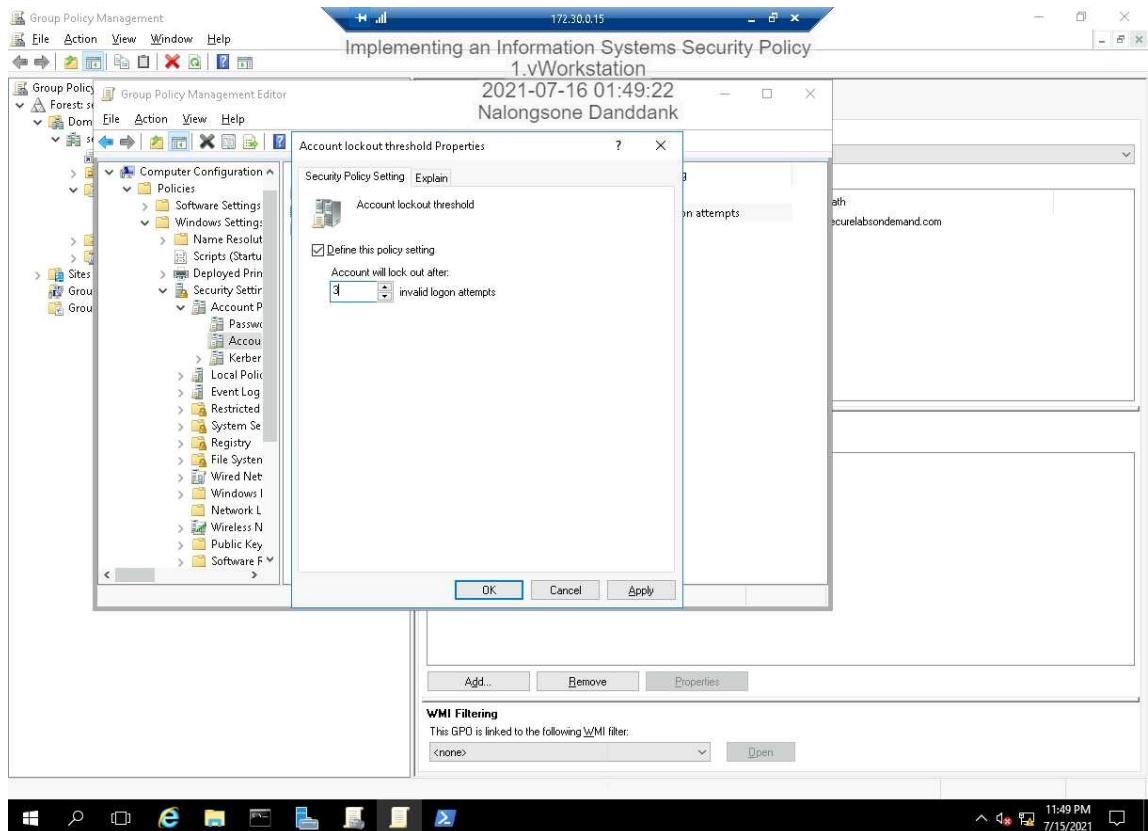
WMI Filtering

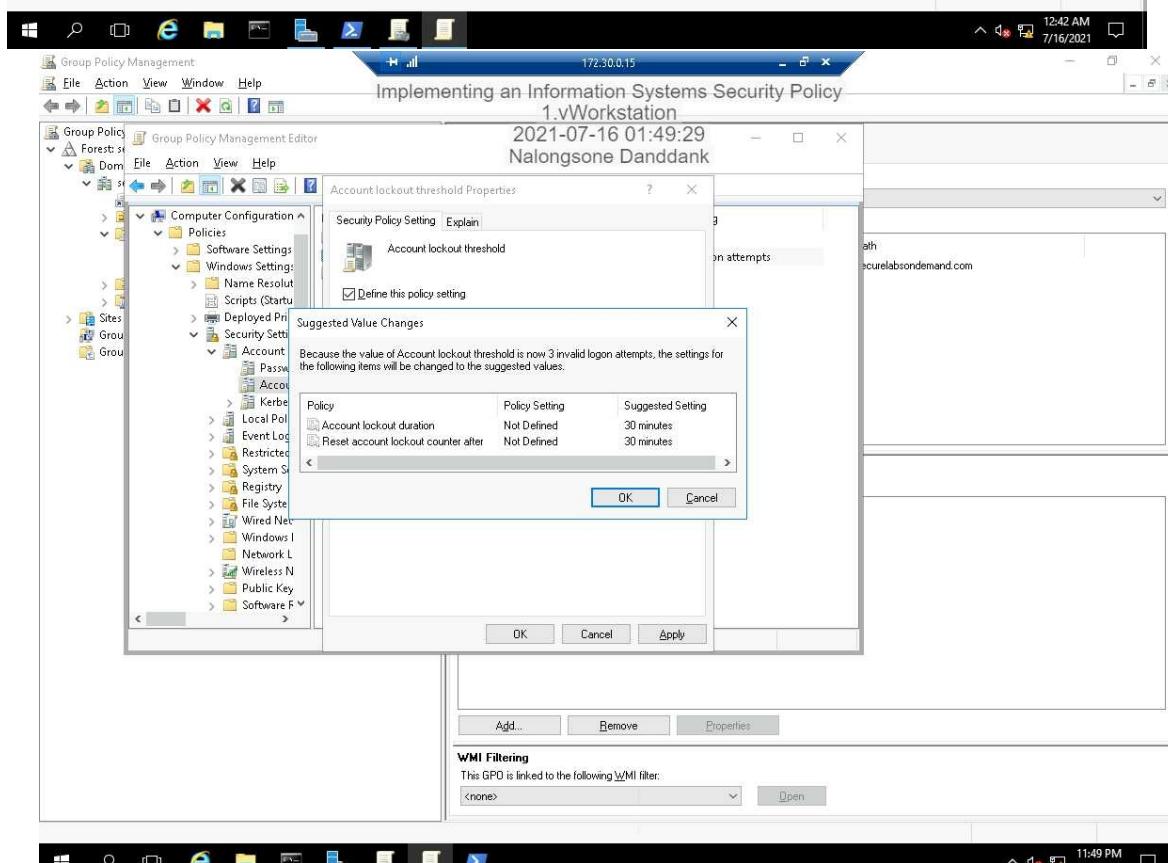
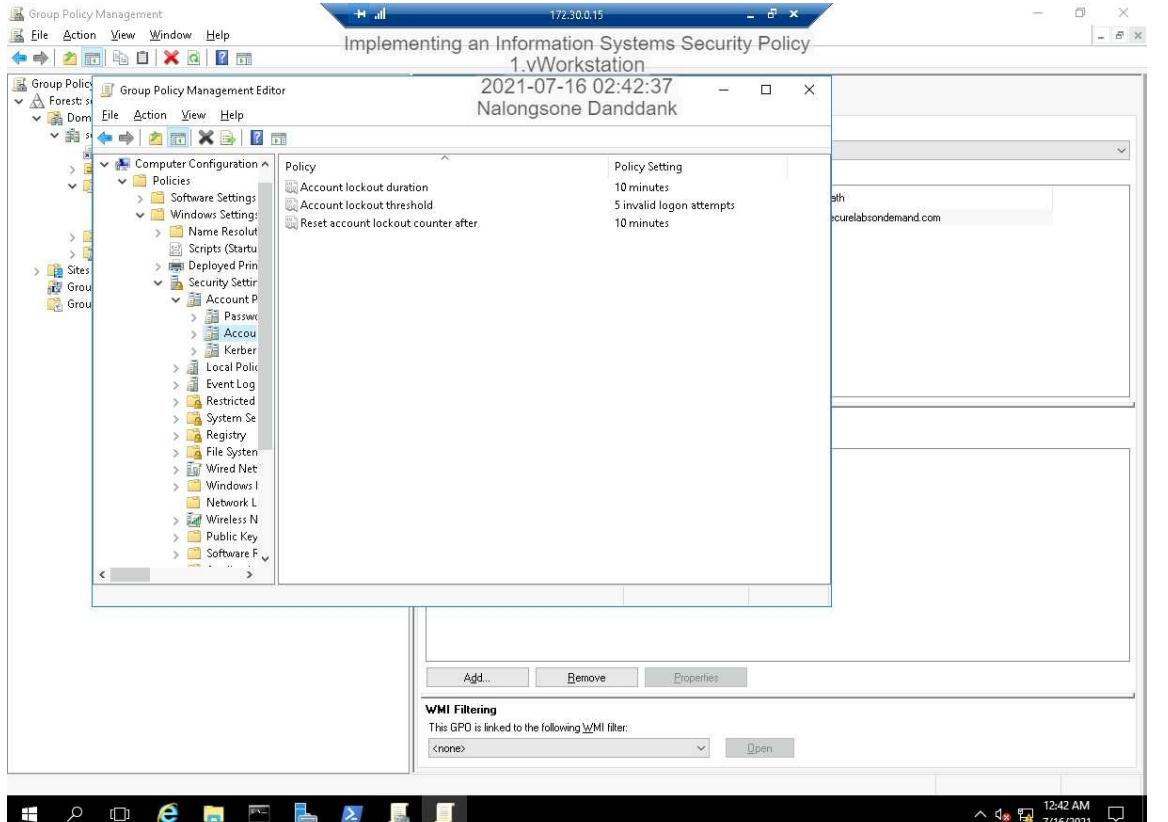
This GPO is linked to the following WMI filter:

<none>

Open







Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy
1.vWorkstation

172.30.0.15

Group Policy Management Editor

File Action View Help

Computer Configuration Policies Windows Settings Security Settings Account Policies

Policy Setting

Policy	Setting
Audit account logon events	Not Defined
Audit account management	Not Defined
Audit directory service access	Not Defined
Audit logon events	Not Defined
Audit object access	Not Defined
Audit policy change	Not Defined
Audit privilege use	Not Defined
Audit process tracking	Not Defined
Audit system events	Not Defined

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none>

Open

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy
1.vWorkstation

172.30.0.15

Nalongsone Danddank

Group Policy Management Editor

File Action View Help

Computer Configuration Policies Windows Settings Security Settings Account Policies

Audit account logon events Properties

Security Policy Setting Explain

Audit account logon events

Define these policy settings

Audit these attempts:

Success

Failure

OK Cancel Apply

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none>

Open

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy
1.vWorkstation

172.30.0.15

Group Policy Management Editor

File Action View Help

Computer Configuration Policies Windows Settings Security Settings Account Policies Local Policies Event Log Registry File System Network

Policy Setting

Policy	Setting
Audit account logon events	Success, Failure
Audit account management	Not Defined
Audit directory service access	Not Defined
Audit logon events	Not Defined
Audit object access	Not Defined
Audit policy change	Not Defined
Audit privilege use	Not Defined
Audit process tracking	Not Defined
Audit system events	Not Defined

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none>

Open

Server Manager

Implementing an Information Systems Security Policy
1.vWorkstation

172.30.0.15

12:45 AM 7/16/2021

Server Manager > Dashboard

WELCOME TO SERVER MANAGER

Nalongsone Danddank

Event Viewer

File Action View Help

Event Viewer (Local)

Custom Views Windows Logs Applications and Services Logs Subscriptions

Security Number of events: 10,196

Keywords	Date and Time	Source
Audit Success	7/15/2021 11:52:08 PM	Micros...
Audit Success	7/15/2021 11:53:08 PM	Micros...
Audit Success	7/15/2021 11:53:09 PM	Micros...
Audit Success	7/15/2021 11:53:09 PM	Micros...
Audit Success	7/15/2021 11:53:09 PM	Micros...
Audit Success	7/15/2021 11:53:09 PM	Micros...
Audit Success	7/15/2021 11:53:09 PM	Micros...
Audit Success	7/15/2021 11:52:48 PM	Micros...
Audit Success	7/15/2021 11:52:49 PM	Micros...
Audit Success	7/15/2021 11:52:49 PM	Micros...
Audit Success	7/15/2021 11:52:49 PM	Micros...
Audit Success	7/15/2021 11:52:49 PM	Micros...

Actions

Security

- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 4634, Microsoft Windows security auditing.

General Details

An account was logged off.

Subject:

Local Server 1 All Servers 1

Manageability

11:53 PM 7/15/2021

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

Default Domain Policy 2021-07-16 01:55:52

Scope: Domain: securelabsondemand.com

Links

Display links in this location: securelabsondemand.com

The following sites, domains, and OUs are linked to this GPO:

Location	Enforced	Link Enabled	Path
securelabsondemand.com	Enforced	No	securelabsondemand.com
securelabsondemand.com	<input checked="" type="checkbox"/> Link Enabled	<input type="checkbox"/>	
securelabsondemand.com	<input type="checkbox"/>	<input checked="" type="checkbox"/> Delete Link(s)	

Security Filtering

The settings in this GPO can only apply to the following groups, users, and computers:

Name: Authenticated Users

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none> Open

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

Default Domain Policy 2021-07-16 01:56:01

Scope: Domain: securelabsondemand.com

Links

Display links in this location: securelabsondemand.com

The following sites, domains, and OUs are linked to this GPO:

Location	Enforced	Link Enabled	Path
securelabsondemand.com	Yes	Yes	securelabsondemand.com

Security Filtering

The settings in this GPO can only apply to the following groups, users, and computers:

Name: Authenticated Users

Add... Remove Properties

WMI Filtering

This GPO is linked to the following WMI filter:

<none> Open

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

Domain Controller 2021-07-16 01:58:43

Linked Group Policies: No Delegation

Group Policy Management

Forest: securelabsondemand.com

Domains: securelabsondemand.com

- Default Domain Policy
- Domain Controllers
- Group Policy Objects
 - Default Domain Controllers Policy
 - Default Domain Policy
- WMI Filters
- Starter GPOs

Sites

Group Policy Modeling

Group Policy Results

Link Order GPO

Link Order	GPO	Enforced	Link Enabled	GPO Status
1	Default Domain Controllers Policy	No	Yes	Enabled

Context menu for Default Domain Controllers Policy:

- Edit
- Enforced
- Link Enabled** (selected)
- Save Report...
- Delete
- Rename
- Refresh

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

2021-07-16 02:00:41

Nalongsone Danddank

Group Policy Management Editor

Forest: securelabsondemand.com

Domain: securelabsondemand.com

Computer Configuration

Policies

- Software Settings
- Windows Settings
 - Name Resolution
 - Scripts (Startup/Shutdown)
 - Deployed Printers
 - Security Settings
 - Account Policies
 - Local Policies
 - Event Log
 - Restricted Groups
 - System Security
 - Registry
 - File System
 - Wired Network
 - Windows Firewall
 - Network Location
 - Wireless Network
 - Public Key
 - Software Firewall

Group Policy Management

File Action View Window Help

Implementing an Information Systems Security Policy

1.vWorkstation

Domain Controller 2021-07-16 02:03:33

Nalongsone Danddank

Group Policy Management

Administrator:Windows PowerShell

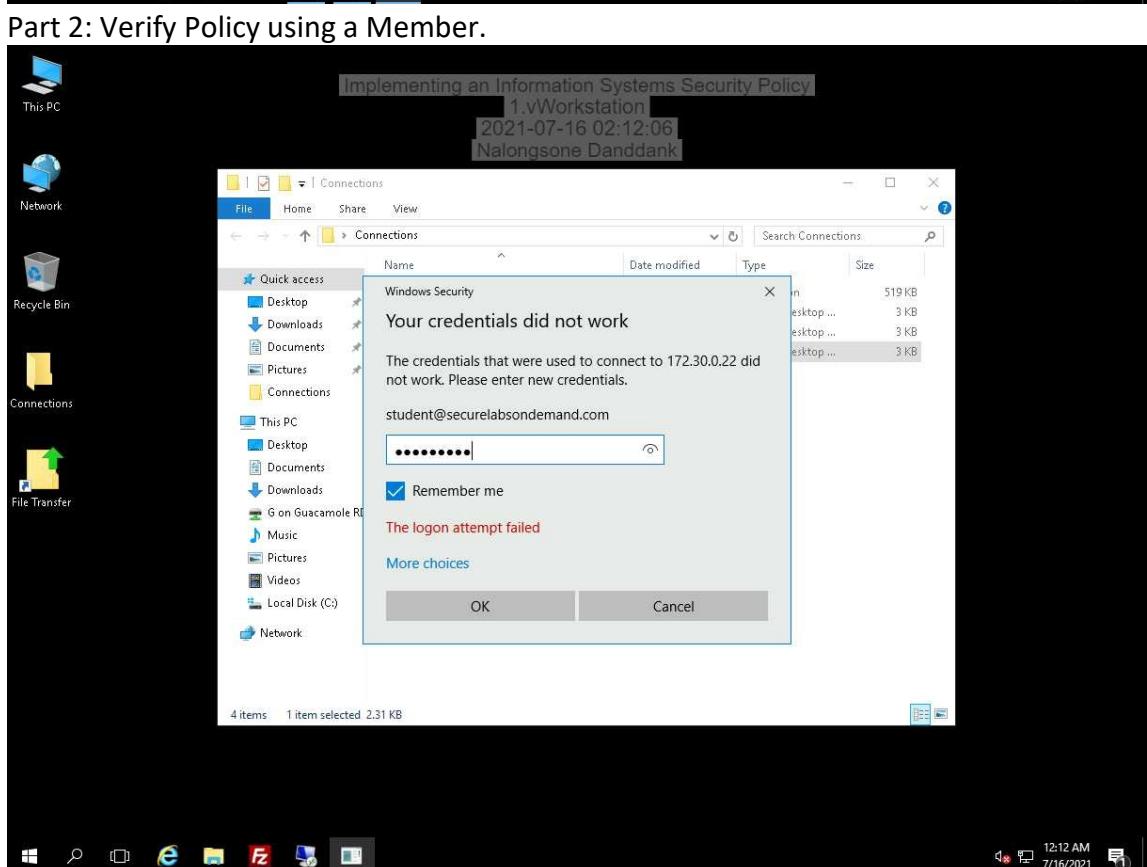
```
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> gpupdate /force
Updating policy...
Computer Policy update has completed successfully.
User Policy update has completed successfully.

PS C:\Users\Administrator> gpupdate /force
Updating policy...
Computer Policy update has completed successfully.
User Policy update has completed successfully.

PS C:\Users\Administrator>
```

Enforced	Link Enabled	GPO Status
No	Yes	Enabled



Server Manager 172.30.0.22 Server Manager > Dashboard 2021-07-16 03:01:09 Manage Tools View Help

WELCOME TO SERVER MANAGER Nalongsone Danddank

QUICK START

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

4 Create a server group

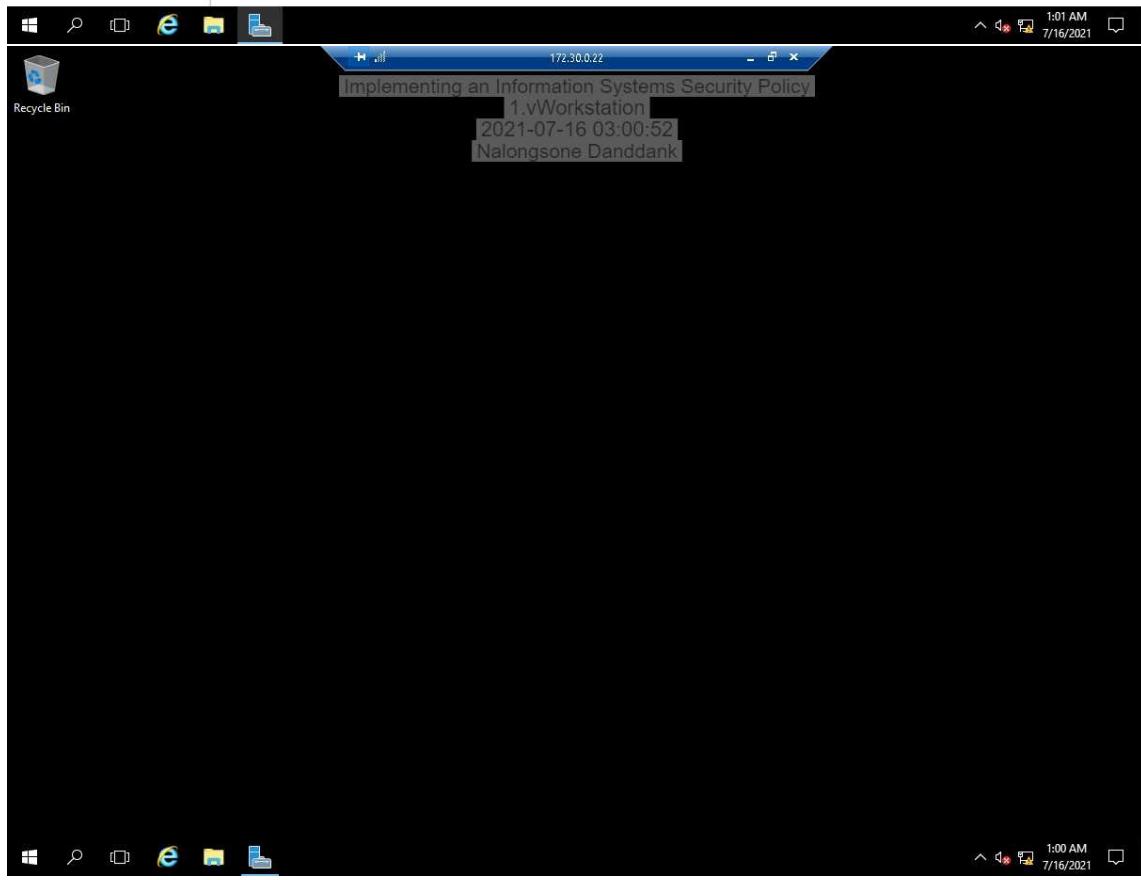
5 Connect this server to cloud services

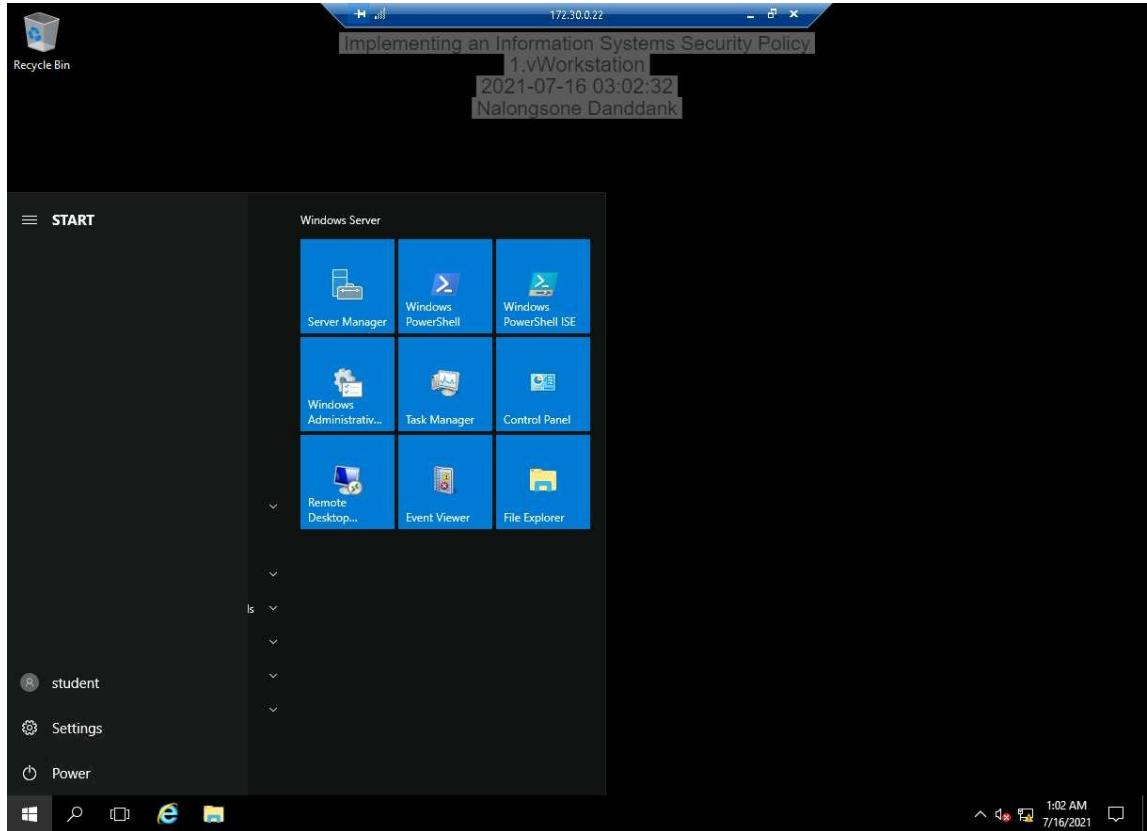
WHAT'S NEW

LEARN MORE Hide

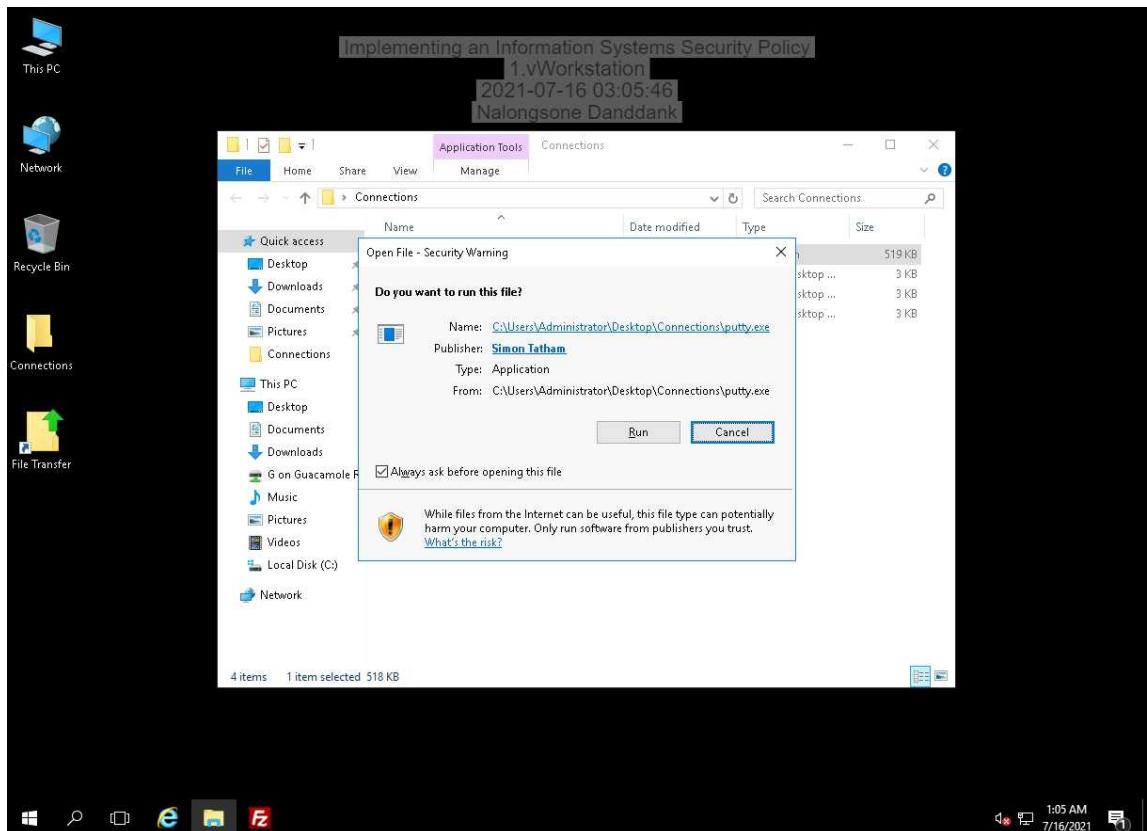
ROLES AND SERVER GROUPS Roles: 1 | Server groups: 1 | Servers total: 1

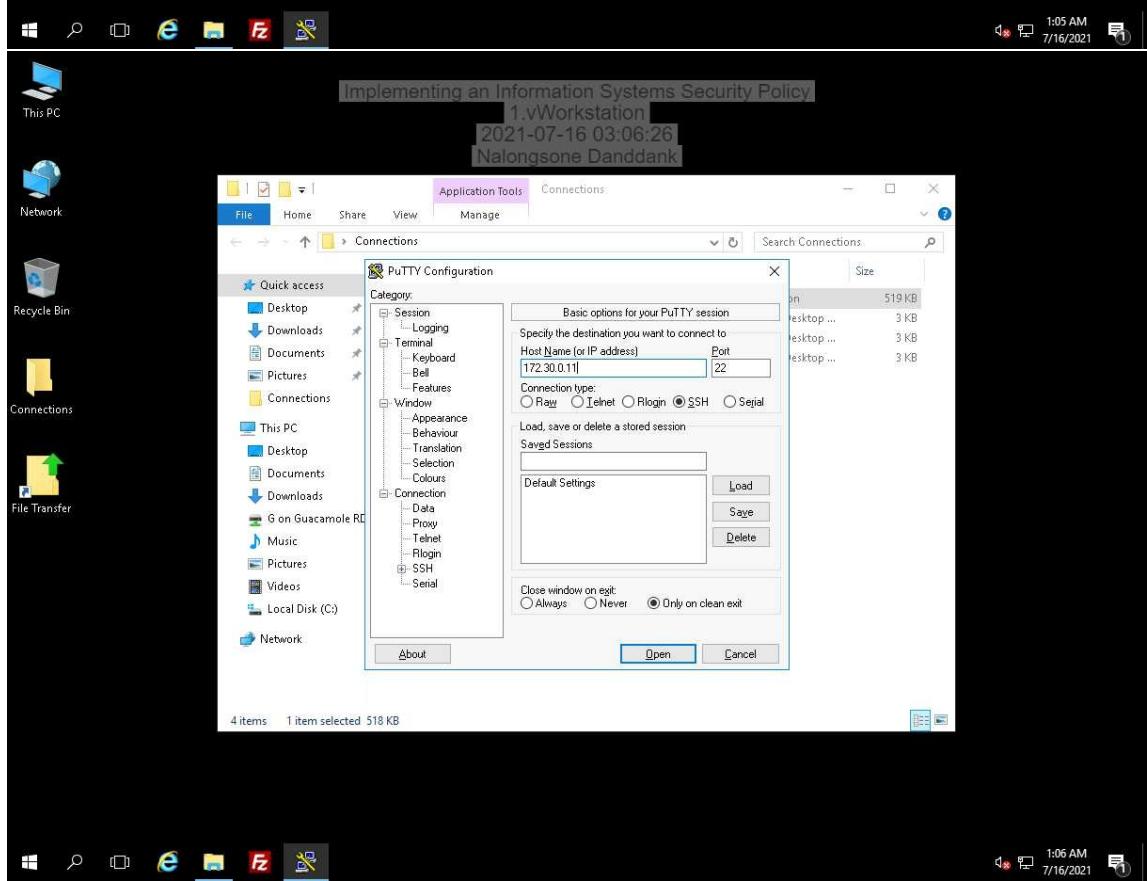
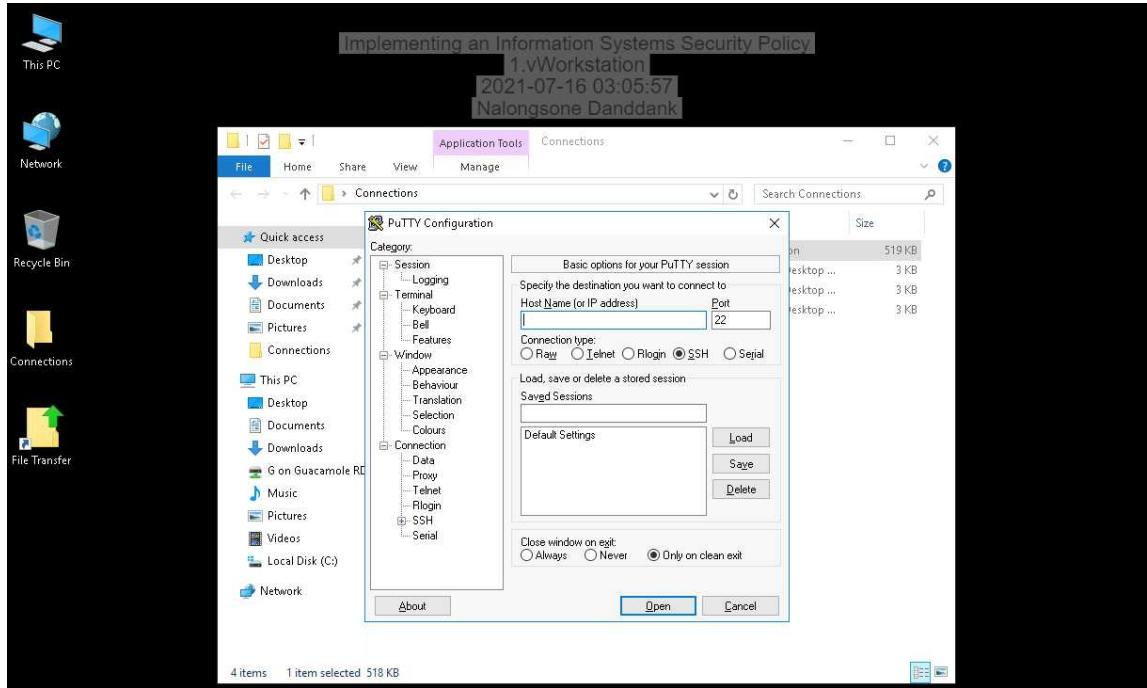
File and Storage Services	Local Server	All Servers
Manageability	Manageability	Manageability
Events	Events	Events
Performance	Services	Services
BPA results	Performance	Performance
	BPA results	BPA results
	7/16/2021 1:00 AM	7/16/2021 1:00 AM

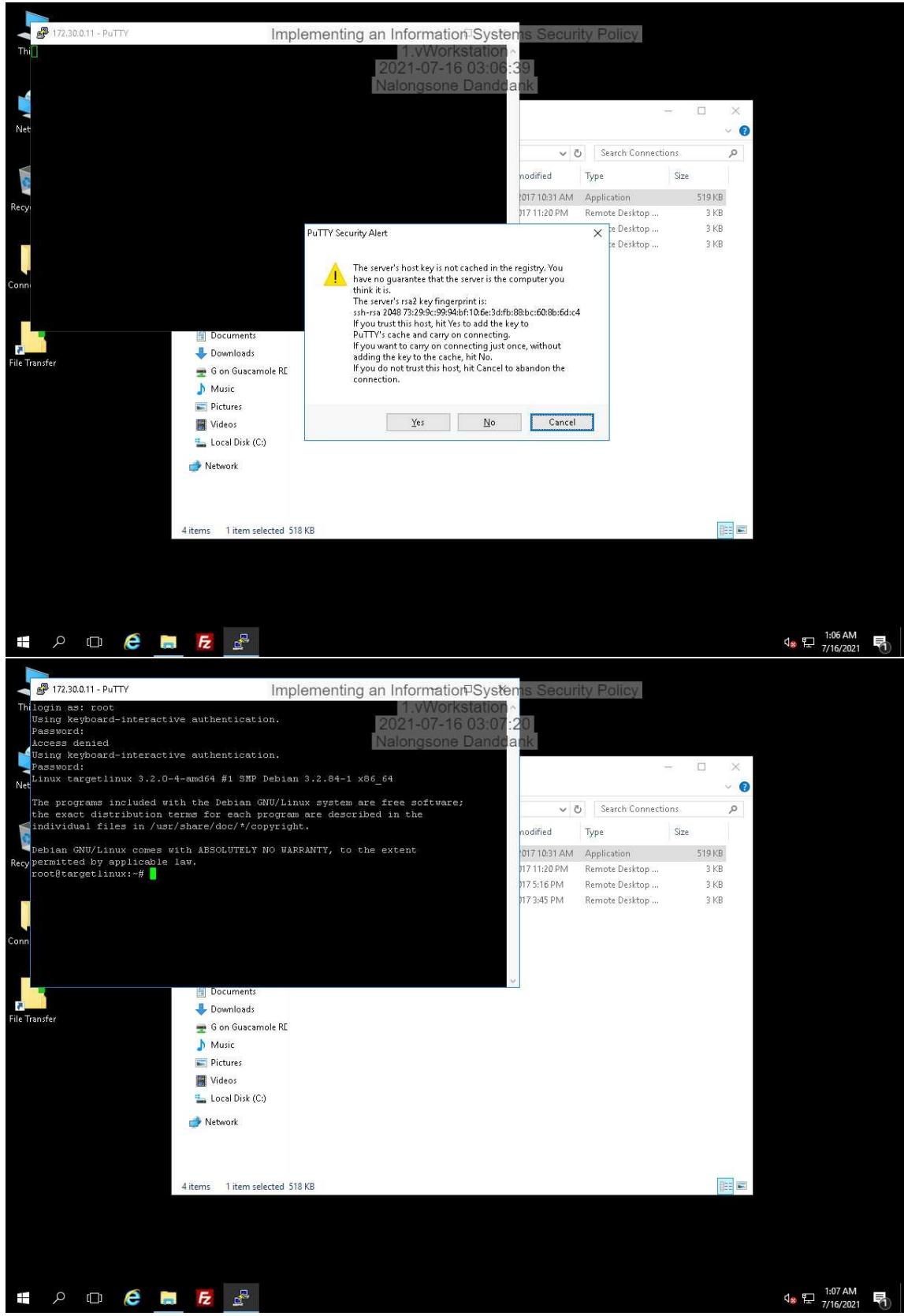


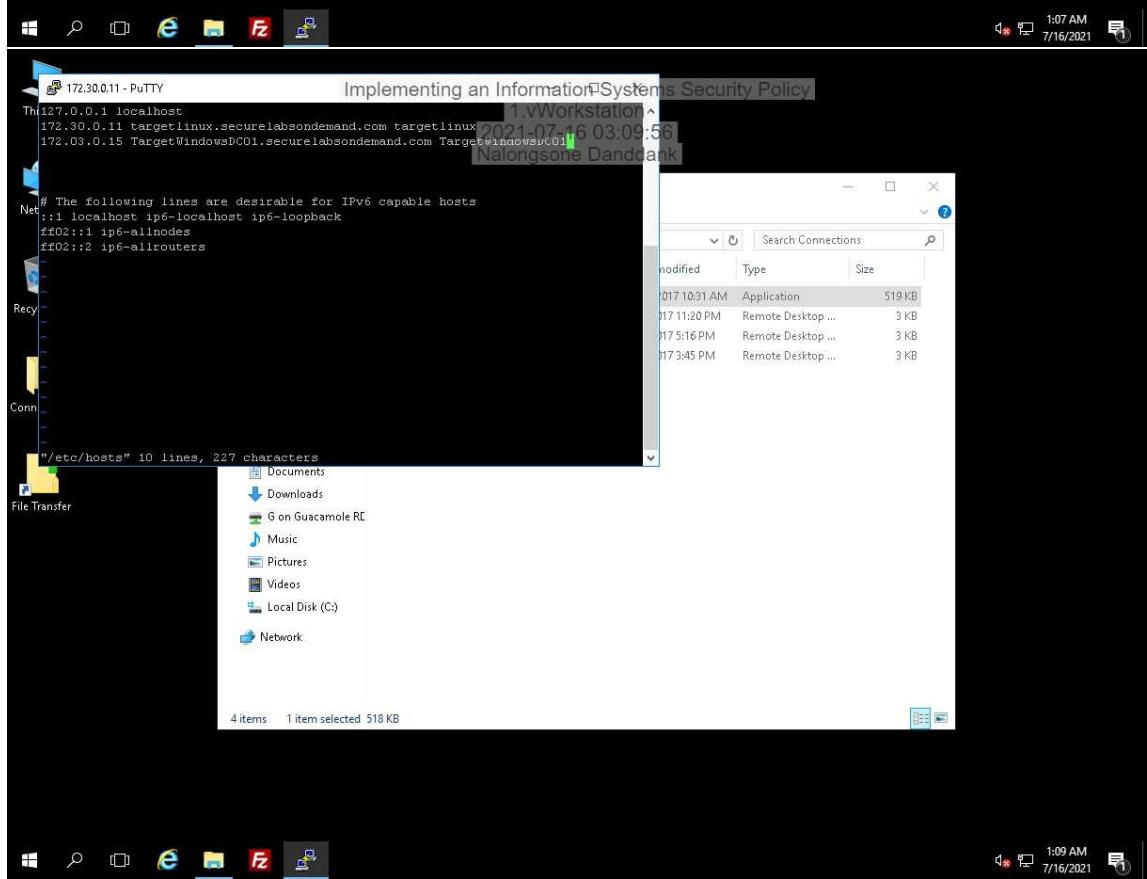
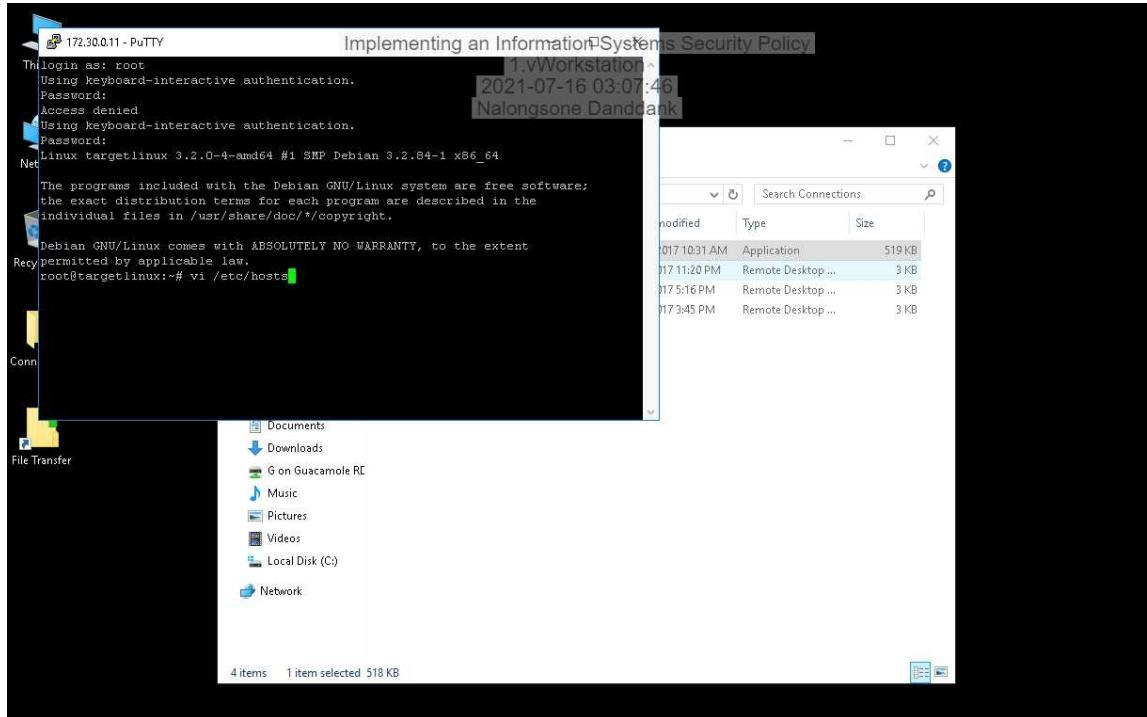


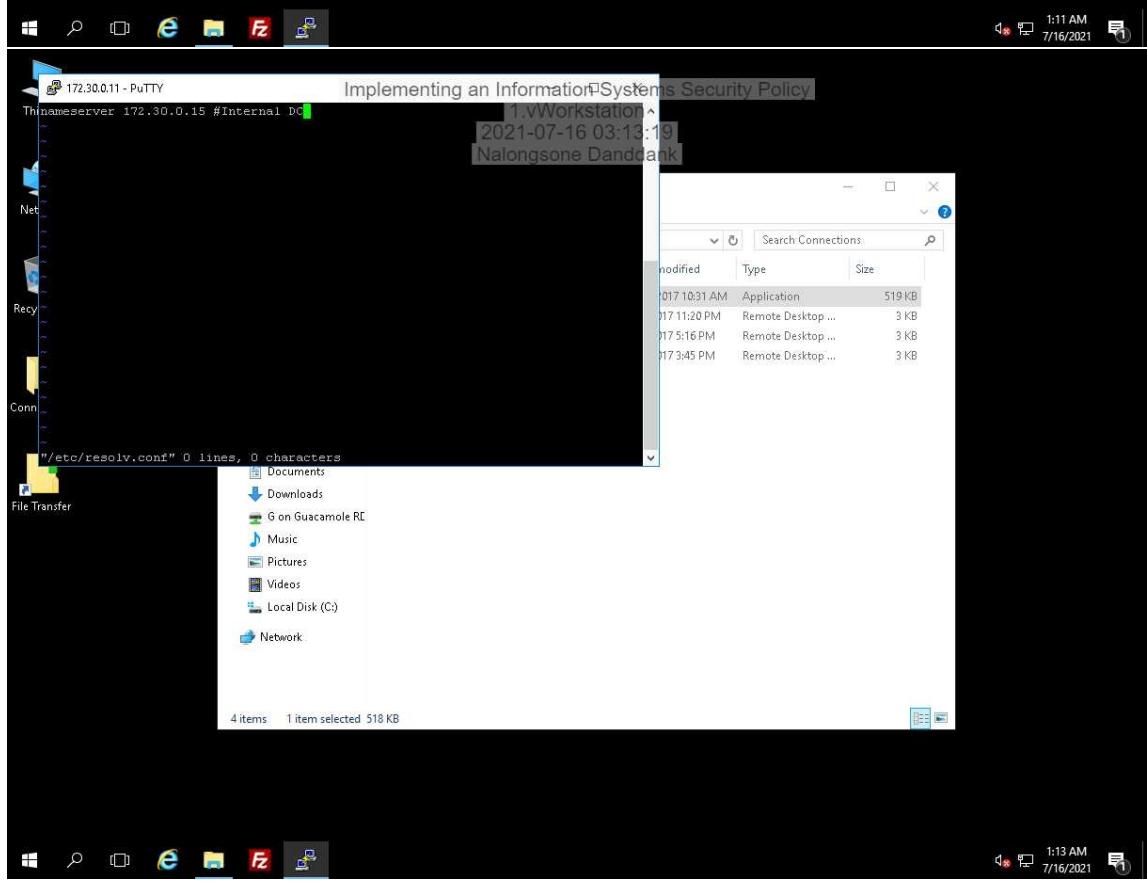
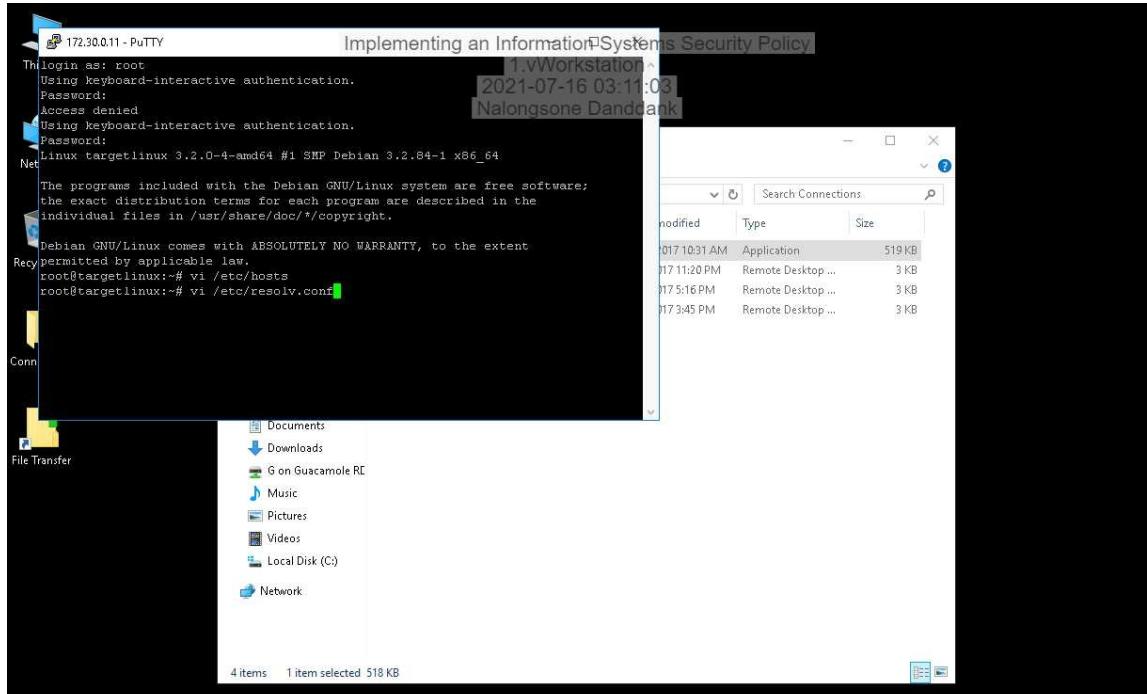
Part 3: Add a Linux Workstation as a member of a Windows Domain.

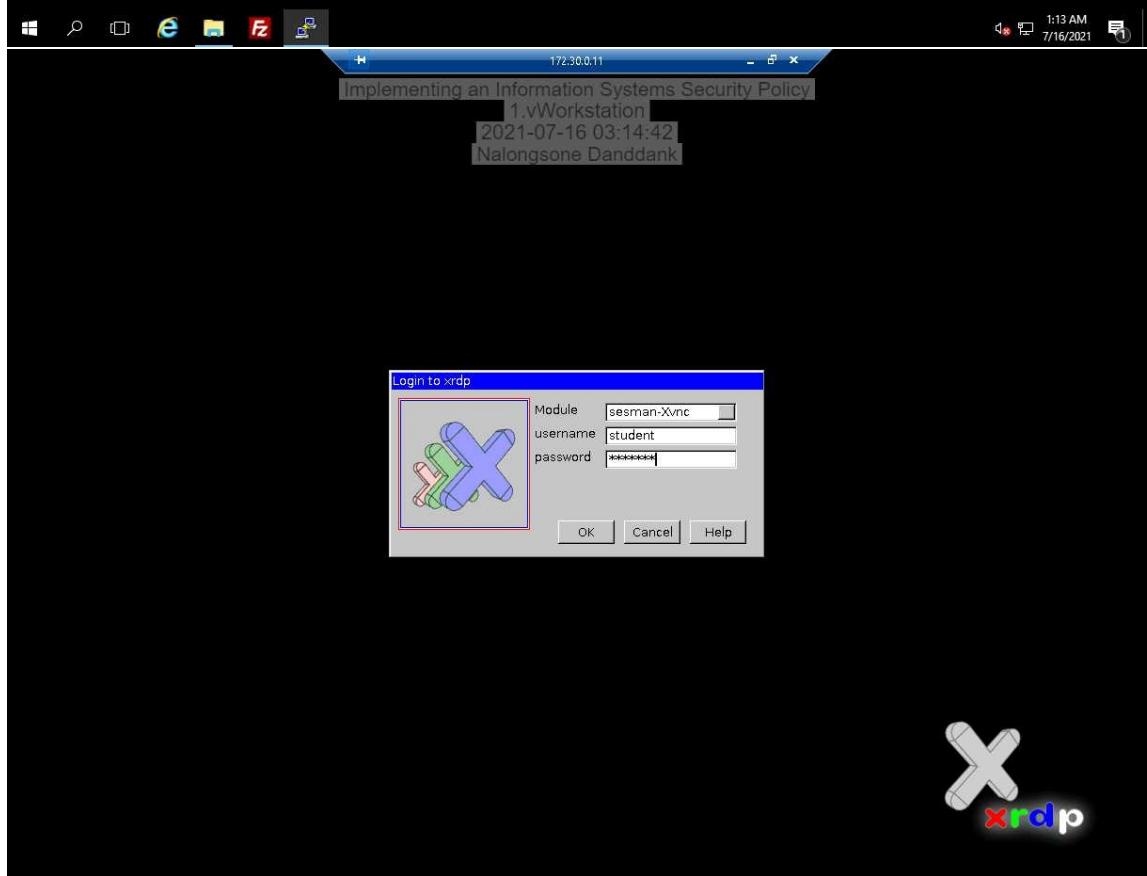
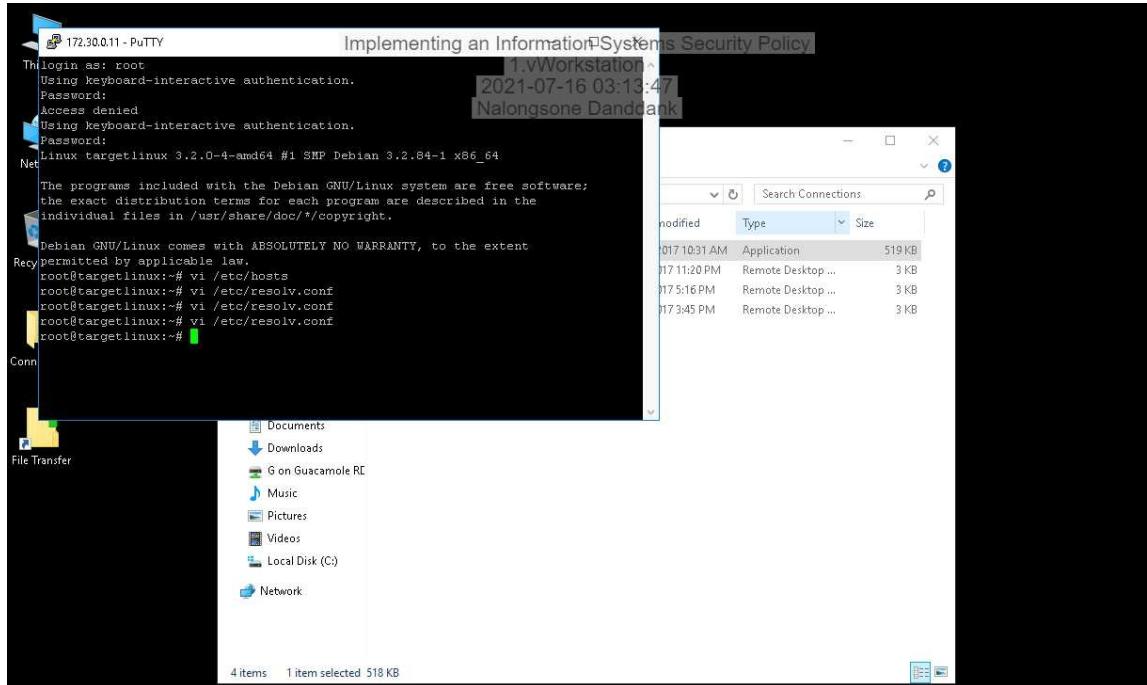


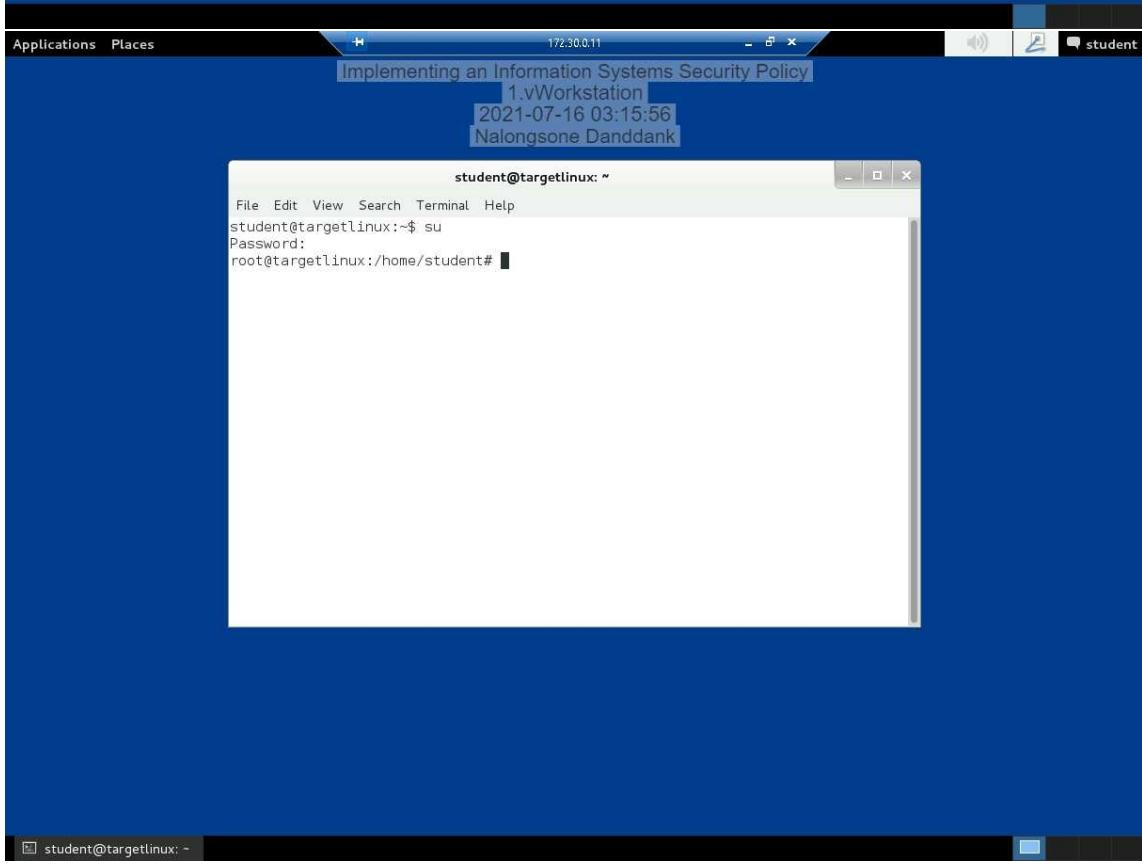
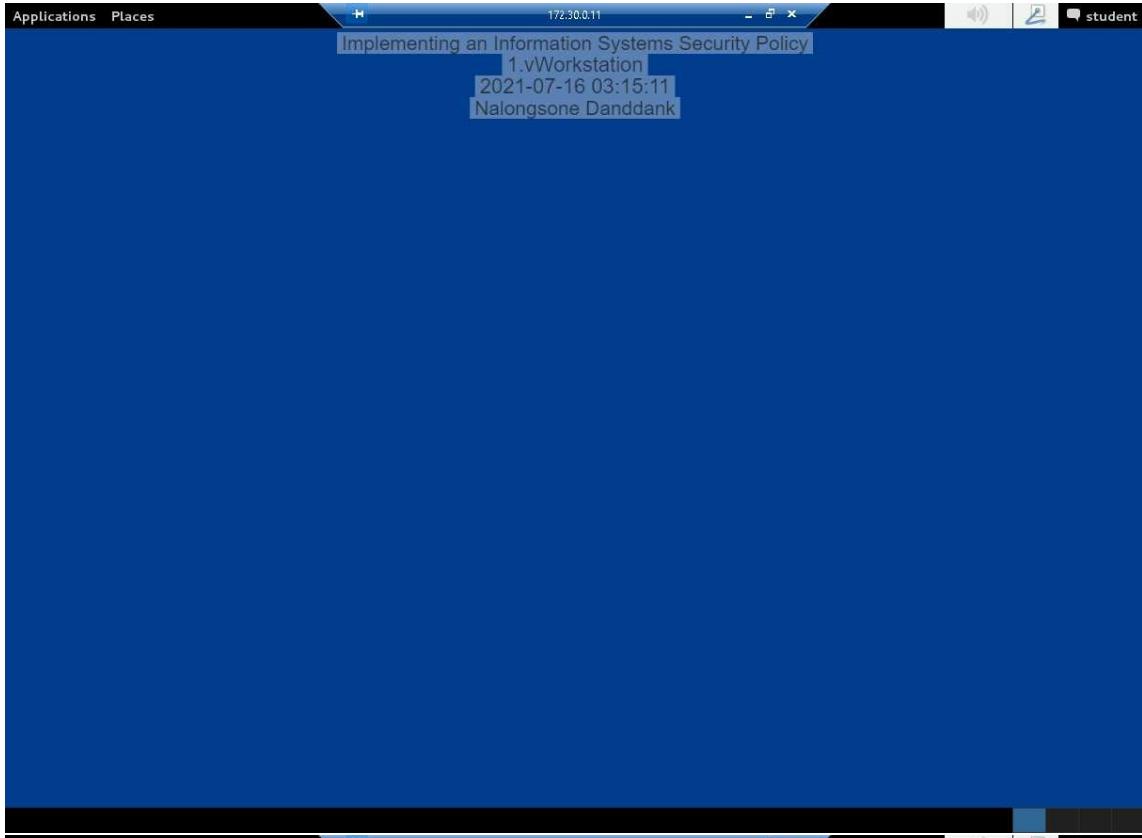












student@targetlinux: ~

```
File Edit View Search Terminal Help
student@targetlinux:~$ su
Password:
root@targetlinux:/home/student# domainjoin-cli join securelabsondemand.com Adnub
ustrator
Joining to AD Domain: securelabsondemand.com
With Computer DNS Name: targetlinux.securelabsondemand.com

Adnubistrator@SECURELABSONDEMAND.COM's password:

Error: LW_ERROR_INVALID_ACCOUNT [code 0x00009c84]

The user account is invalid
root@targetlinux:/home/student#
```

student@targetlinux: ~

```
File Edit View Search Terminal Help
student@targetlinux:~$ su
Password:
root@targetlinux:/home/student# domainjoin-cli join securelabsondemand.com Adnub
ustrator
Joining to AD Domain: securelabsondemand.com
With Computer DNS Name: targetlinux.securelabsondemand.com

Adnubistrator@SECURELABSONDEMAND.COM's password:

Error: LW_ERROR_INVALID_ACCOUNT [code 0x00009c84]

The user account is invalid
root@targetlinux:/home/student# domainjoin-cli join securelabsondemand.com Administrator
Joining to AD Domain: securelabsondemand.com
With Computer DNS Name: targetlinux.securelabsondemand.com

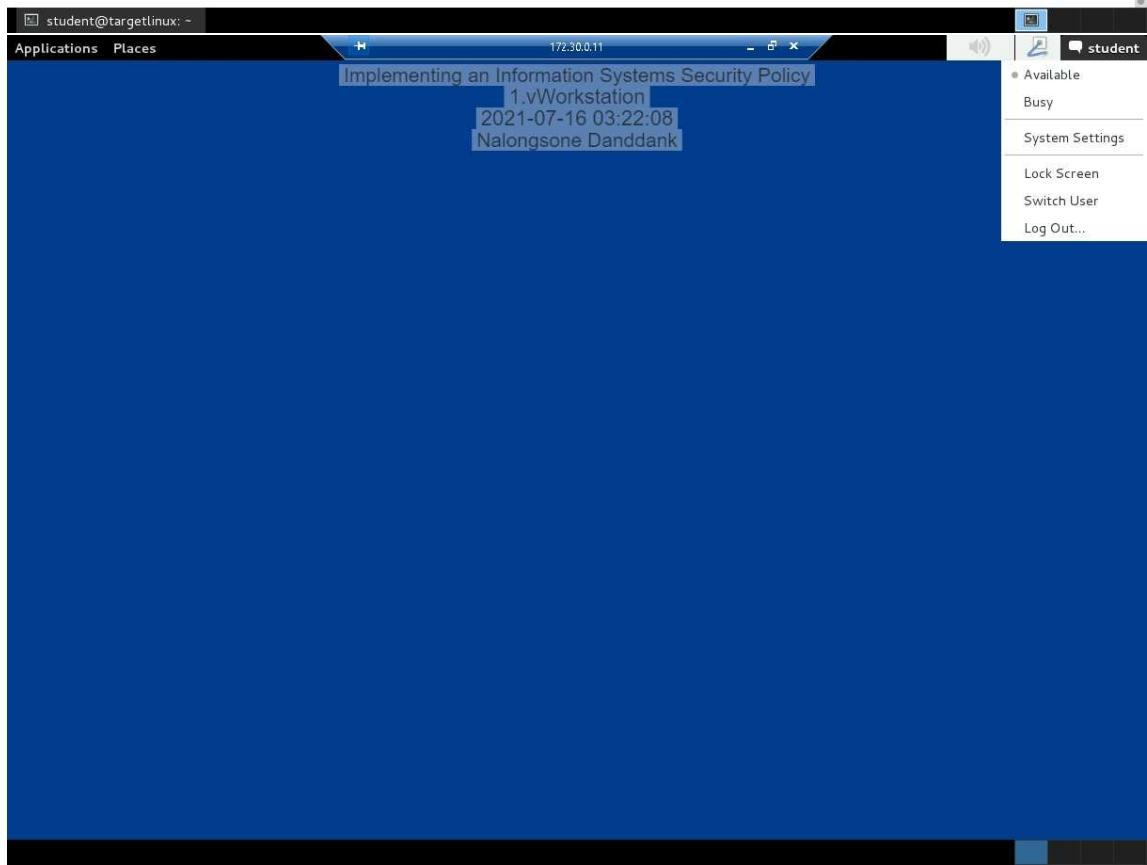
Administrator@SECURELABSONDEMAND.COM's password:
SUCCESS
root@targetlinux:/home/student#
```

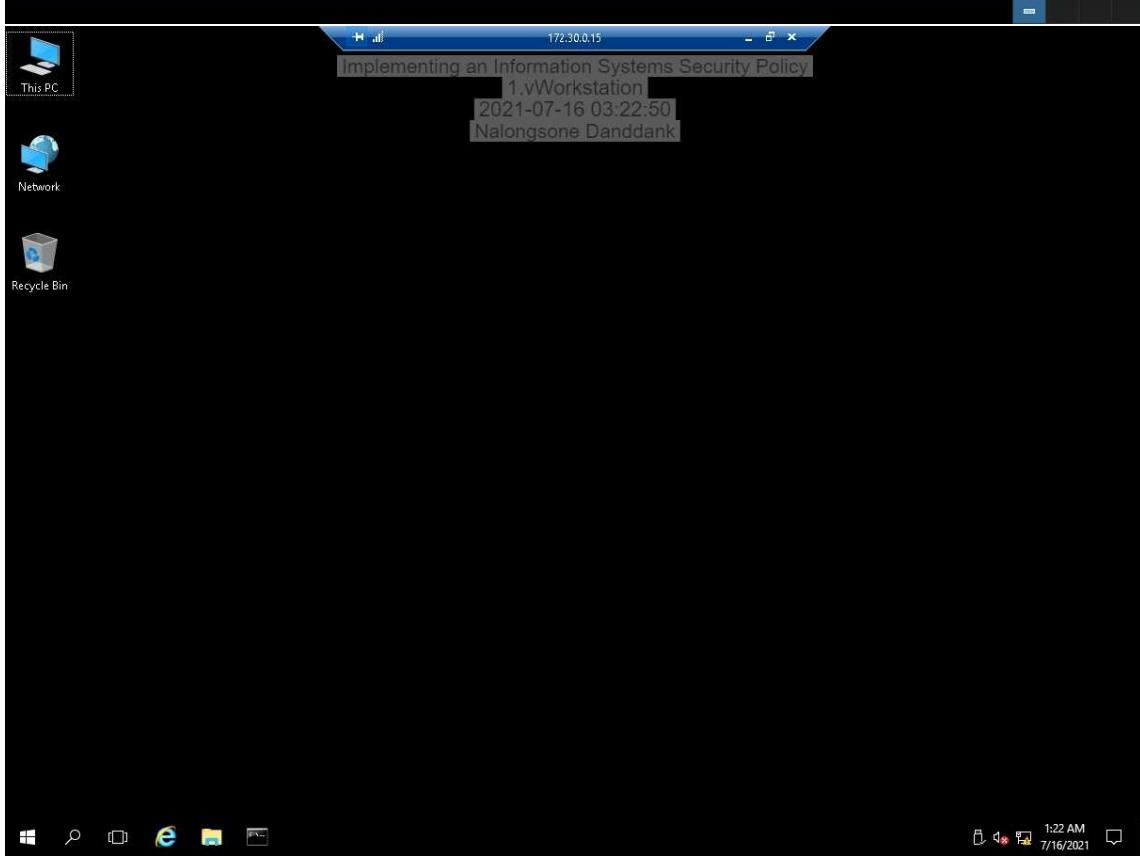
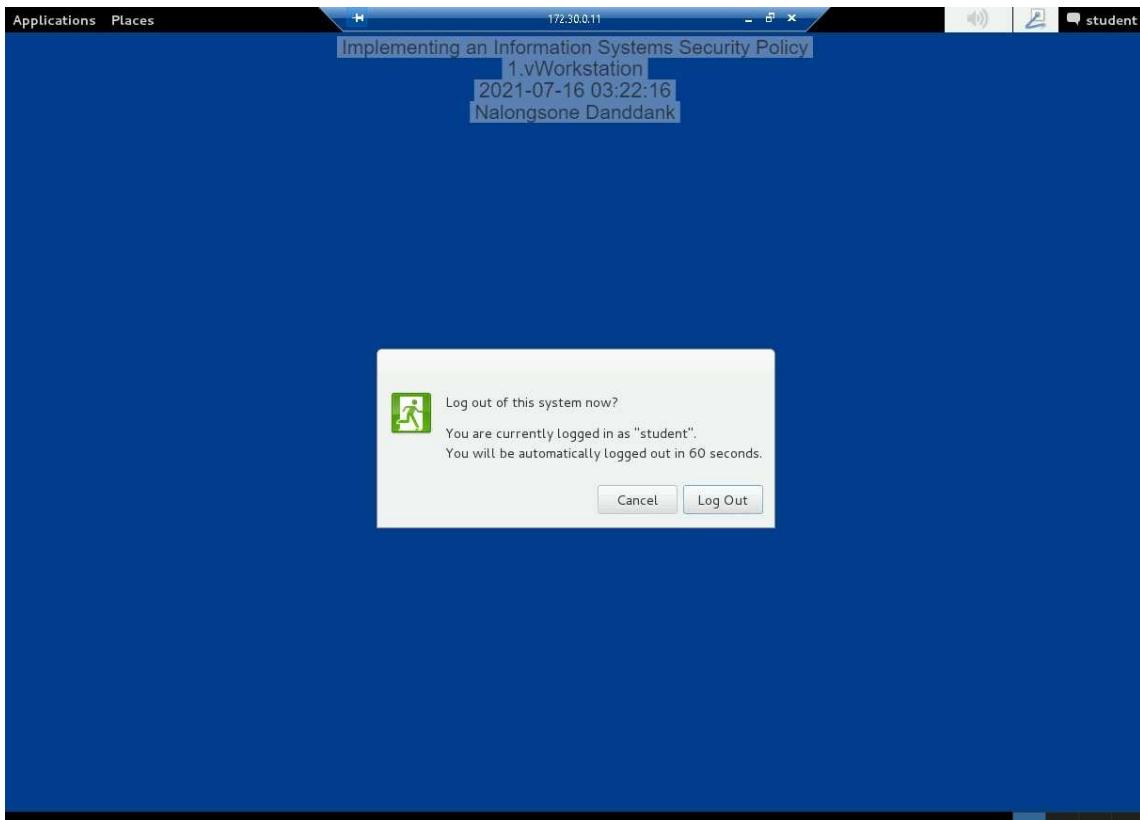
```
Applications Places + 172.30.0.11 - x student
Implementing an Information Systems Security Policy
File Edit View Search Terminal Help 1.vWorkstation
student@targetlinux:~$ su
Password: Nalongsone Danddank
root@targetlinux:/home/student# domainjoin-cli join securelabsondemand.com Adhub
Administrator
Joining to AD Domain: securelabsondemand.com
With Computer DNS Name: targetlinux.securelabsondemand.com

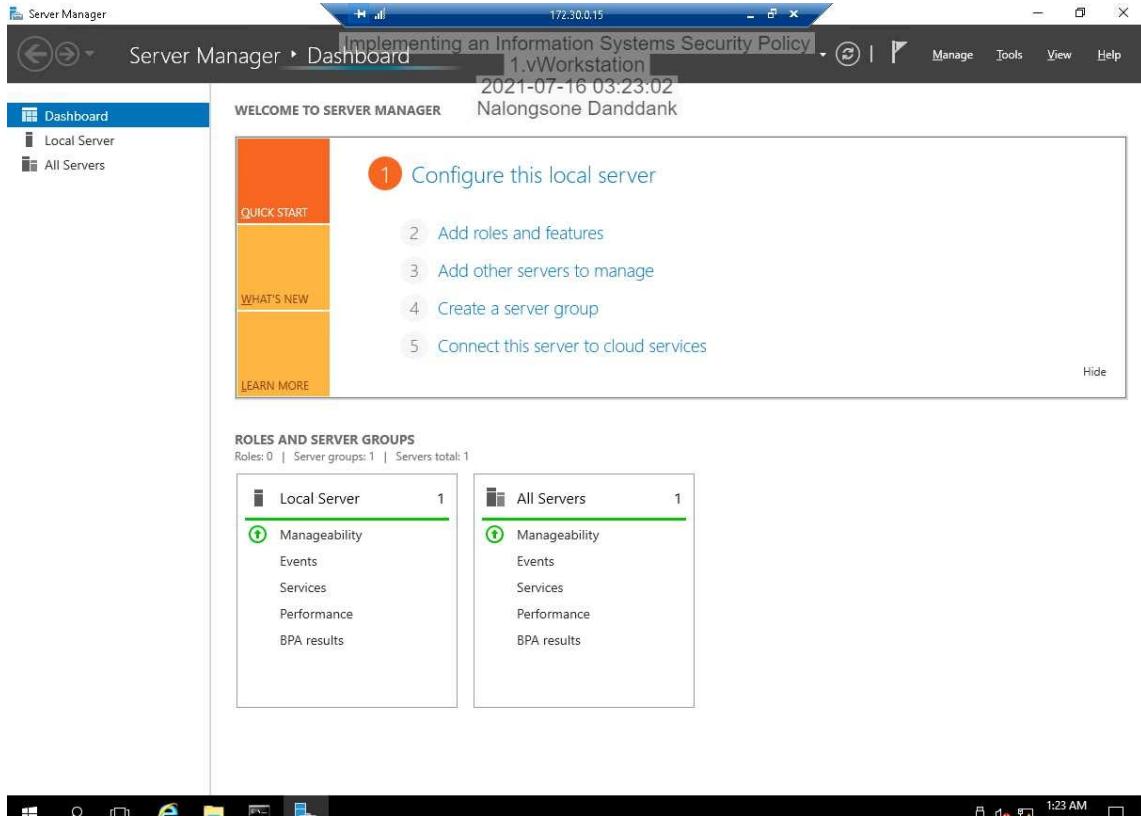
AdhubAdministrator@SECURELABSONDEMAND.COM's password:
Error: LW_ERROR_INVALID_ACCOUNT [code 0x00009c84]

The user account is invalid
root@targetlinux:/home/student# domainjoin-cli join securelabsondemand.com Administrator
Joining to AD Domain: securelabsondemand.com
With Computer DNS Name: targetlinux.securelabsondemand.com

Administrator@SECURELABSONDEMAND.COM's password:
SUCCESS
root@targetlinux:/home/student# exit
exit
student@targetlinux:~$
```

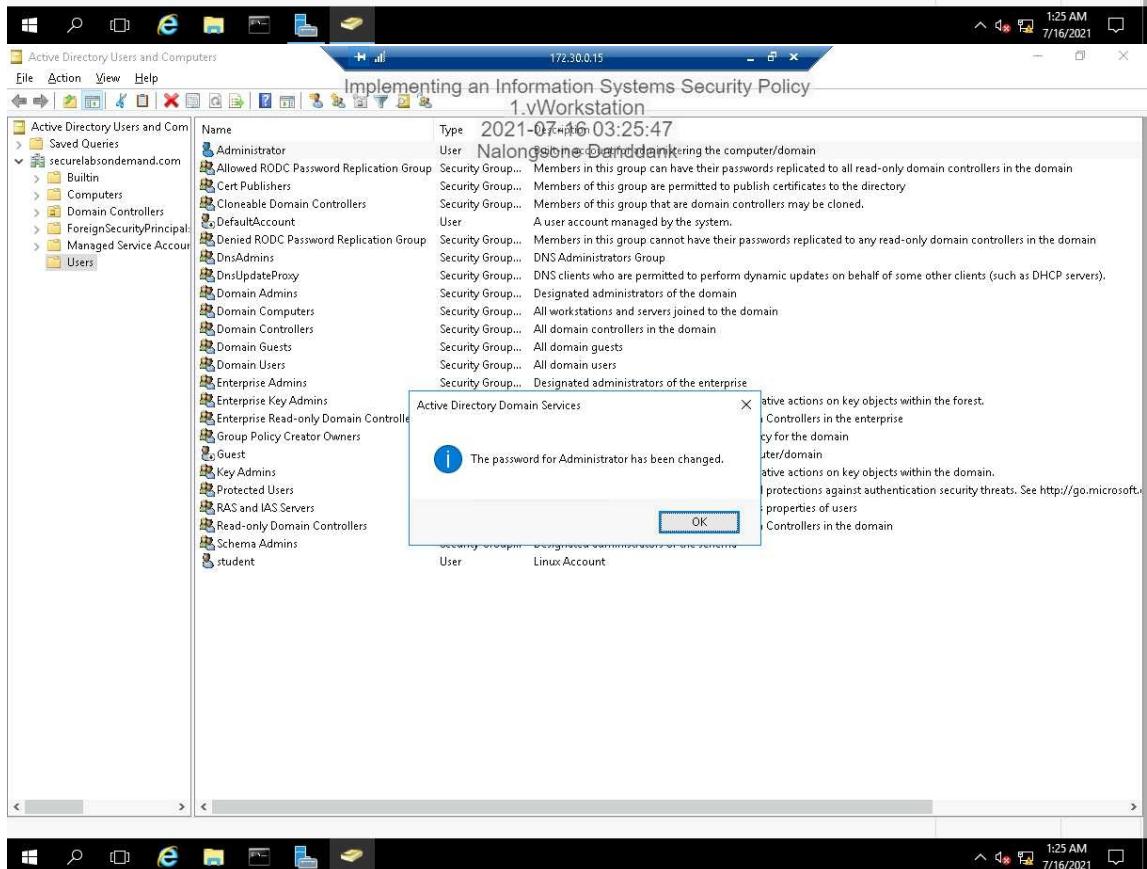
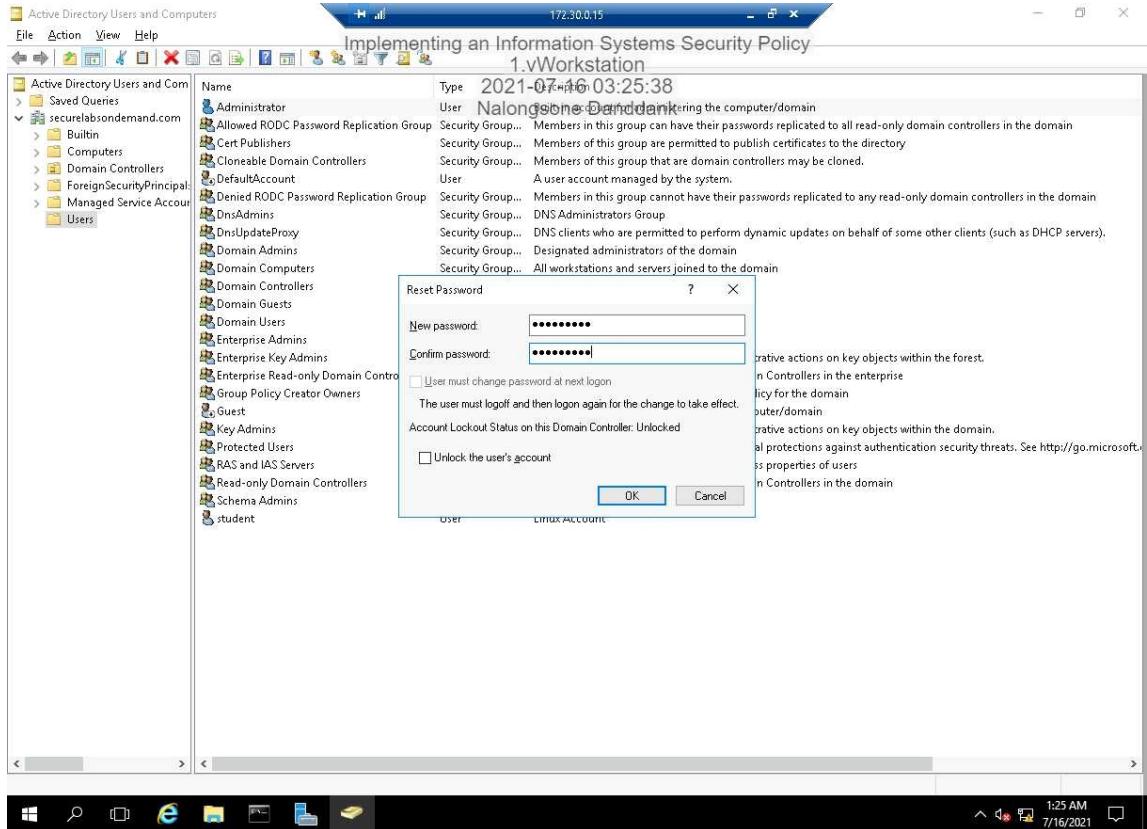


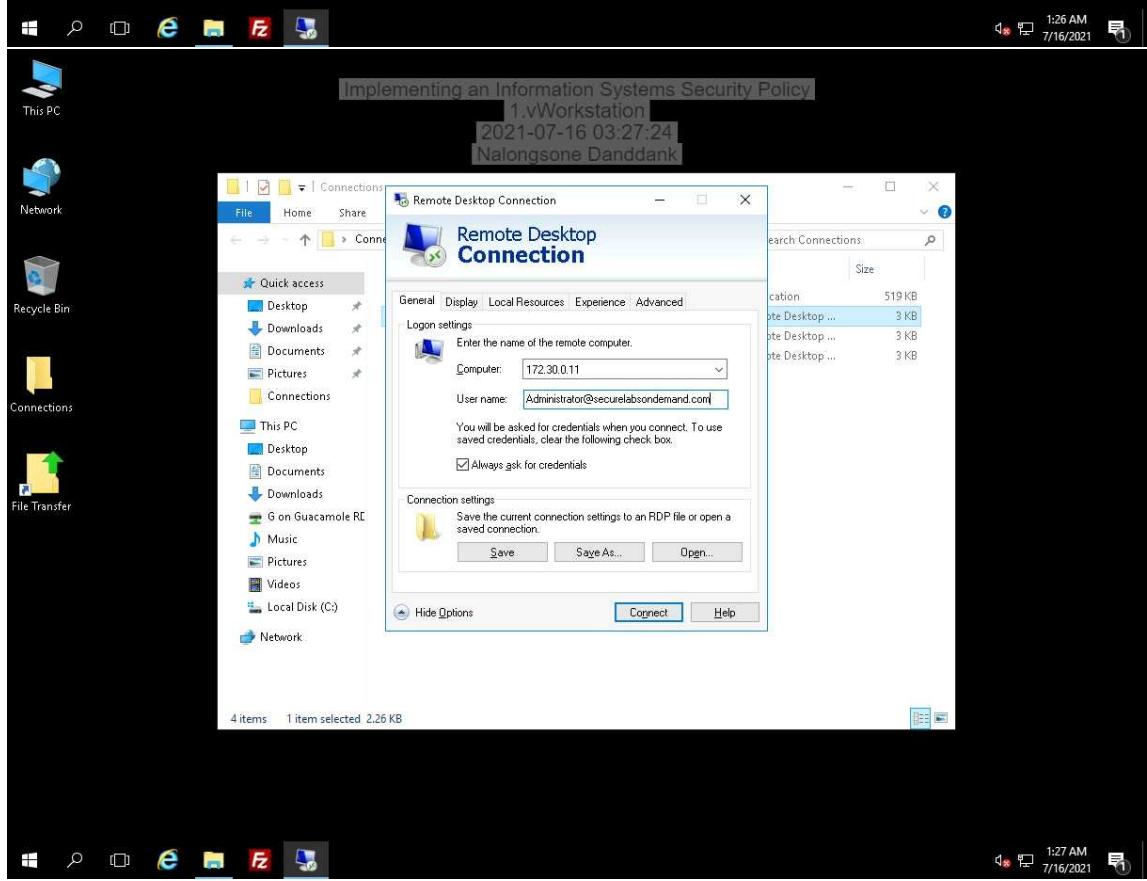
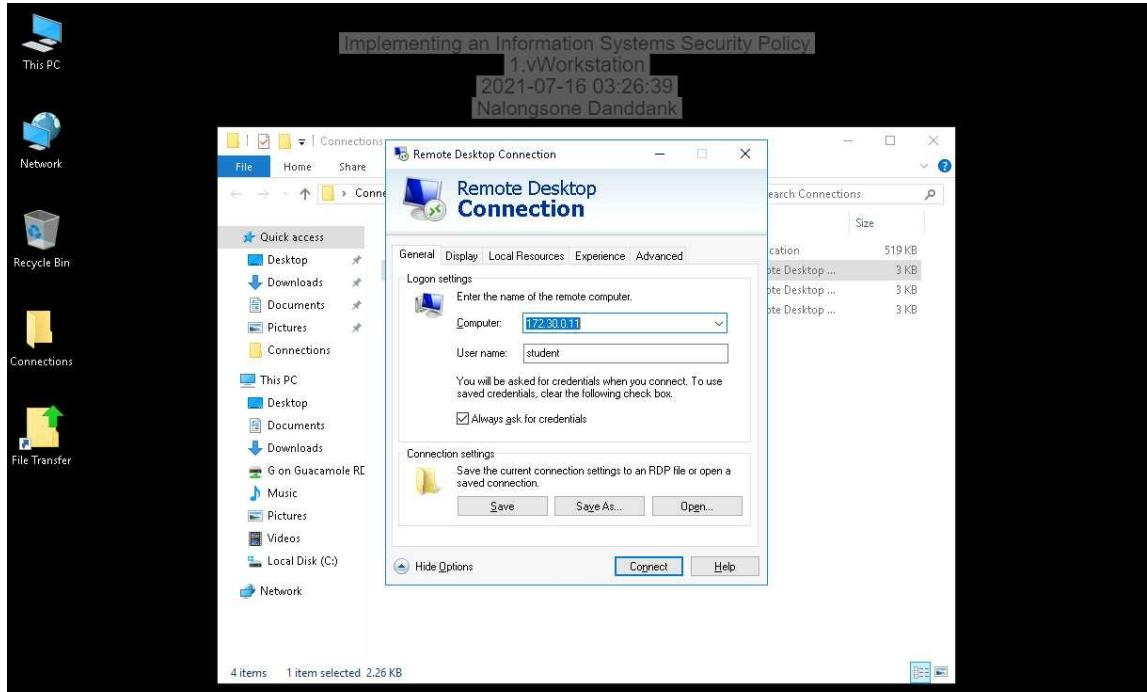




The screenshot shows the Active Directory Users and Computers (ADUC) interface. The title bar reads 'Active Directory Users and Computers' and 'Implementing an Information Systems Security Policy'. The left pane shows a tree view of Active Directory objects, including 'Active Directory Users and Com', 'Saved Queries', and several security groups under 'Domain Controllers'. The right pane displays a detailed list of security groups with their descriptions:

Name	Type	Description
Administrator	User	Administrators - Members of this group have full control over the computer/domain
Allowed RODC Password Replication Group	Security Group...	Members in this group can have their passwords replicated to all read-only domain controllers in the domain
Cert Publishers	Security Group...	Members of this group are permitted to publish certificates to the directory
Cloneable Domain Controllers	Security Group...	Members of this group that are domain controllers may be cloned.
DefaultAccount	User	A user account managed by the system.
Denied RODC Password Replication Group	Security Group...	Members in this group cannot have their passwords replicated to any read-only domain controllers in the domain
DnsAdmins	Security Group...	DNS Administrators Group
DnsUpdateProxy	Security Group...	DNS clients who are permitted to perform dynamic updates on behalf of some other clients (such as DHCP servers).
Domain Admins	Security Group...	Designated administrators of the domain
Domain Computers	Security Group...	All workstations and servers joined to the domain
Domain Controllers	Security Group...	All domain controllers in the domain
Domain Guests	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise Admins	Security Group...	Designated administrators of the enterprise
Enterprise Key Admins	Security Group...	Members of this group can perform administrative actions on key objects within the forest.
Enterprise Read-only Domain Controllers	Security Group...	Members of this group are Read-Only Domain Controllers in the enterprise
Group Policy Creator Owners	Security Group...	Members in this group can modify group policy for the domain
Guest	User	Built-in account for guest access to the computer/domain
Key Admins	Security Group...	Members of this group can perform administrative actions on key objects within the domain.
Protected Users	Security Group...	Members of this group are afforded additional protections against authentication security threats. See http://go.microsoft.com/fwlink/?LinkId=213543
RAS and IAS Servers	Security Group...	Servers in this group can access remote access properties of users
Read-only Domain Controllers	Security Group...	Members of this group are Read-Only Domain Controllers in the domain
Schema Admins	Security Group...	Designated administrators of the schema
student	User	Linux Account







End.