Windows Server 2019 Deployment and Active Directory Configuration

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# Project Overview

This project involved installing Windows Server 2019 and configuring core infrastructure services such as Active Directory Domain Services (AD DS), DNS, and Group Policy.

## Task 1: Windows Server 2019 Installation

- Installed Windows Server 2019 with:  
 - Hostname: IT2-DC01  
 - 4 vCPU, 4 GB RAM, 60 GB HDD  
- Created a local Administrator account

📸 Screenshot 1: System configuration after installationA screenshot of a computer

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📸 Screenshot 2: Administrator account created and set up completeA screenshot of a computer

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## Task 2: Active Directory and DNS Setup

- Configured a static IPv4 address

📸 Screenshot 3A screenshot of a computer

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- Renamed and joined the machine to the domain NORTHERNCOLLEGE.LOCAL

📸 Screenshot 4A computer screen with a black and white screen

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- Disabled IPv6 and IE Enhanced Security

📸 Screenshot 5A computer screen with a black screen

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- Installed AD DS and DNS roles

📸 Screenshot 6A computer screen shot of a computer screen

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- Promoted server to Domain Controller

📸 Screenshot 7 – 10A computer screen with a black screen

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## Domain Configuration

- Root domain created: NORTHERNCOLLEGE.LOCAL

- NetBIOS Name: auto-assigned

- Custom AD site renamed to CANADA

📸 Screenshot 11A computer screen with a black screen

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- Created Organizational Units:  
 - Users  
 - Servers  
 - Groups  
 - Workstations

📸 Screenshot 12A computer screen with a black screen

Description automatically generated

## Group Policy and Firewall Rules

- Created GPO: Firewall

📸 Screenshot 13A computer screen with a black screen

AI-generated content may be incorrect.

- Configured:  
 - Firewall: OFF  
 - Inbound/Outbound: Allowed

📸 Screenshot 14A computer screen with a computer screen

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Description automatically generated

- Added Inbound Rule for AD DS

📸 Screenshot 15A computer screen with a black screen

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- Added Outbound Rule for File & Printer Sharing and WMI

📸 Screenshot 16A screenshot of a computer

Description automatically generatedA screenshot of a computer

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## FSMO Role Verification

- Ran netdom query fsmo to verify FSMO role ownership

📸 Screenshot 17A computer screen shot of a black screen

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# Conclusion

Successfully installed and configured Windows Server 2019, AD DS, DNS, Group Policy, and firewall rules. Gained hands-on experience in deploying a domain controller and managing Windows infrastructure.