

NOT FOR SALE

Republic of the Philippines
Department of Education
National Capital Region
Division of Pasig City
STA LUCIA HIGH SCHOOL
City of Pasig



**Technical-Vocational and Livelihood Track
Information and Communications Technology (ICT) Strand**

Grade
12

Computer Systems Servicing NC II

QUARTER 1

LO 1: SET UP USER ACCESS

SELF- LEARNING MODULE 9 :

Understanding Server Roles

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COC 3 : SET UP COMPUTER SERVERS

Introductory Message

For the facilitator:

Welcome to the Technical Vocational Livelihood Education ICT Grade 12 CSS NC II Module on Set Up User Access: **Understanding Server Roles.**

This module was collaboratively designed, developed and reviewed by educators from Schools Division Office of Pasig City headed by its Officer-In-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin in partnership with the Local Government of Pasig through its Mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) while overcoming their personal, social, and economic constraints in schooling.

This learning material hopes to engage the learners into guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs namely: Communication, Collaboration, Creativity, Critical Thinking and Character while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the Technical Vocational Livelihood Education ICT Grade 12 CSS NC II Module on Set Up User Access: **Understanding Server Roles.**

The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



Expectation - These are what you will be able to know after completing the lessons in the module



Pre-test - This will measure your prior knowledge and the concepts to be mastered throughout the lesson.



Recap - This section will measure what learnings and skills that you understand from the previous lesson.



Lesson- This section will discuss the topic for this module.



Activities - This is a set of activities you will perform.



Wrap Up- This section summarizes the concepts and applications of the lessons.



Valuing-this part will check the integration of values in the learning competency.



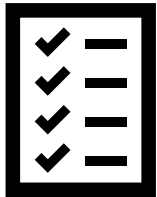
Post-test - This will measure how much you have learned from the entire module.



EXPECTATION

After completing the lesson the learners should be able to:

- A. understand the different server roles in Windows server 2008 R2
- B. identify the functionalities of each server roles.
- C. appreciate the importance of server roles in implementing IT server infrastructure.

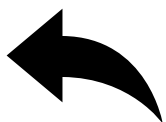


PRE-TEST

IDENTIFICATION :

Directions: Identify the following role servers in Windows Server 2008 R2.

- _____ 1. Helps you to protect information from unauthorized use.
- _____ 2. Stores information about the objects on the network and makes this information available to users and network administrators.
- _____ 3. Provides technologies that help you manage storage, enable file replication and manage shared folders.
- _____ 4. Provides name resolution for TCP/IP networks.
- _____ 5. Enables you to centrally configure, manage and provide temporary IP addresses and related information for client computers.



RECAP

Multiple Choice

Directions: Read each statement below carefully. Write only the letter that corresponds to your answer on the space provided before each number.

- _____ 1. Part of the basic interface that contains tools for systems administrators and advanced users.
 - a. Server manager
 - b. Administrative tool
 - c. Configuration
 - d. Initial configuration task
- _____ 2. Part of configuration that helps you to schedule automated task that perform action on specific time or when certain event occurs.
 - a. Windows Firewall with Advanced Security
 - b. WMI Control
 - c. Local Users and Groups
 - d. Task Scheduler

- _____ 3. This area includes a table listing installed features on your computer and provides command links to add and remove features.
- a. Diagnostics
 - b. Configuration
 - c. Features Summary
 - d. Roles Summary
- _____ 4. Server Manager console having the lists of roles that are installed in the computer (server) in alphabetical order.
- a. Roles Summary
 - b. Configuration
 - c. Diagnostics
 - d. Features Summary
- _____ 5. Which of the following processor supports Windows Server 2008 R2 version?
- a. 32-bit
 - b. 64-bit
 - c. Both 32 and 64-bit
 - d. None of these



LESSON

Understanding Server Roles

Introduction

Server roles in Windows Server 2008 R2 are used to organize the functionality of the operating system. The server roles are an expansion of the server roles of previous versions of Windows, with significant enhancements. Roles usually include a number of related functions or services that make up the capabilities that the server will offer. A role designates a primary function of the server, although a given server can have multiple roles

To help organize and manage the expanded functionality of Windows Server 2008 R2, the platform continues to use the roles and features paradigm. The roles and features enable administrators to add and manage functionality in coherent blocks. This includes tools to summarize, manage, and maintain the installed roles and features. This lesson is limited only on the seventeen (17) server roles that can be installed locally on the server and the overview of each roles. The illustration below is the interface of the list of roles.

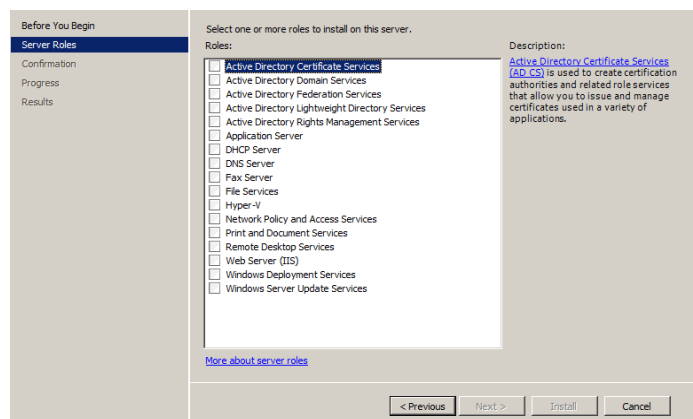


Fig. 1. Interface of server roles.

List of roles to be installed can be accessed by clicking the server manager button. Under Server Manager, right-click the roles console and click add roles or click add roles on the summary page as shown below:

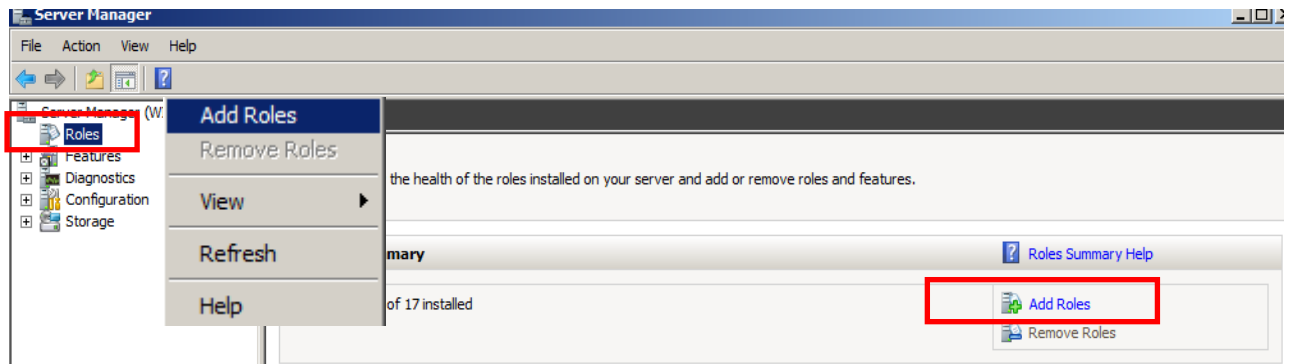
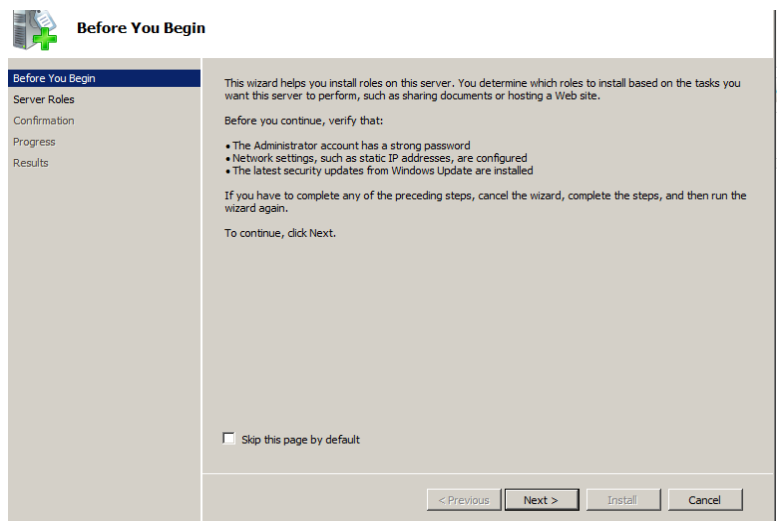


Fig. 2. Accessing the roles.

A verification wizard will appear to remind you of some required configuration before you proceed. Clicking NEXT button will take you to the roles to be installed as shown in fig.1 above.

Fig. 3. A verification wizard reminding the required configuration.

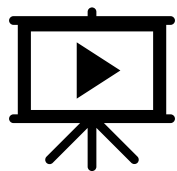


The following are the server roles listed in the page:

1. **Active Directory Certificate Services** (AD CS) – Used to create certification authorities and related role services that allow you to issue and manage certificates used in the variety of applications.
2. **Active Directory Domain Services** (AD DS) – stores information about the objects on the network and makes this information available to users and network administrators.
3. **Active Directory Federation Services** (AD FS)- provides simplified and secured identity federation and web -single sign on (SSO) capabilities .
4. **Active Directory Lightweight Directory Services** (AD LDS) – provides a store for application- specific data for directory-enabled application that do not require infrastructure of Active Directory Domain Services or AD DS.
5. **Active Directory Rights Management Services** (AD RMS) – helps you to protect information from unauthorized use.
6. **Application Server** – provides central management and hosting of high performance distributed business applications.
7. **Dynamic Host Configuration Protocol (DHCP) Server** – enables you to centrally configure, manage and provide temporary IP addresses and related information for client computers.

8. **Domain Name System (DNS)** – provides name resolution for TCP/IP networks.
9. **Fax Server** - sends and receives faxes and allows you to manage fax resources.
10. **File Services** – provides technologies that help you manage storage, enable file replication and manage shared folders.
11. **Hyper-V** – provides the services that you can use to create and manage virtual machines and their resources.
12. **Network Policy and Active Services** – provides Network Policy Servers (NPS) Routing and Remote Access, Health Registration Authority (HRA), and Health Credential Authorization Protocol (HCAP).
13. **Print and Documents Services** - enables you to print centralize print server and network printer manage tasks.
14. **Remote Desktop Services** – formerly Terminal Services, provides technologies that enable users to access Windows-based programs that are installed on an RD Session Host server or to access the full Windows Desktop.
15. **Web Server (IIS)** - provides a realiable, manageable and scalable Web application infrastructure.
16. **Windows Deployment Services** – provides a simplified, secure means of rapidly and remotely deploying Windows operating systems to computers over the network.
17. **Windows Server Update Services (WSUS)** – allow network administrators to specify the Microsoft updates that should be installed.

It is not compulsory to install all the roles enumerated above. It depends on your infrastructure as needed.



A C T I V I T I E S

Activity 1. Situational

Direction: Read each situation carefully. Provide the necessary roles in the given situation. Write the appropriate role that corresponds to the given situation in the space provided before each number. Do this on your worksheet.

_____ 1. The Systems Administrator wants to store and manage information about the users, computers and other resources in the network securely. He is planning to facilitate resources sharing and collaboration among users.

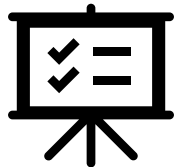
_____ 2. The company needs an integrated environment for deploying and running custom business applications that are built with Microsoft .Net Framework 3.0.

_____ 3. The company has 100 computer to set up for their newly opened branch. The Systems Administrator needs to assign valid IP addresses automatically on each computer from the server.

_____ 4. Most of the users prefer a friendly name which can easily remember and locate the domain instead of numerical addresses. So the Systems Admini

nistrator needs to install a server role that will integrate on the Active Directory Domain Services or AD DS.

_____5. For a centralized infrastructure, the IT Manager plans to make a common file be accessed by the users and share them across the network. Files must be accessed remotely instead of having to pass the file between two computers.



W R A P – U P

Server roles in Windows Server 2008 R2 are used to organize the functionality of the operating system. The server roles are an expansion of the server roles of previous versions of Windows, with significant enhancements. Roles usually include a number of related functions or services that make up the capabilities that the server will offer. A role designates a primary function of the server, although a given server can have multiple roles



V A L U I N G

The roles and features enable administrators to add and manage functionality in coherent blocks. This includes tools to summarize, manage, and maintain the installed roles and features.

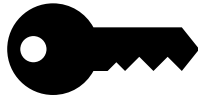


POST TEST

Multiple choice

Directions: Read each statement below carefully. Write only the letter that corresponds to your answer on the space provided before each number. Do this on your worksheet provided for this activity.

- _____ 1. Stores information about the objects on the network and makes this information available to users and network administrators.
- | | |
|-----------------|----------|
| a. Print Server | c. AD DS |
| b. DHCP | d. AD CS |
- _____ 2. Provides technologies that help you manage storage, enable file replication and manage shared folders.
- | | |
|------------------|------------|
| a. File Services | c. Hyper-V |
| b. WSUS | d. AD DS |
- _____ 3. It provides name resolution for TCP/IP networks
- | | |
|---------------|---------|
| a. Web Server | c. DHCP |
| b. AD RMS | d. DNS |
- _____ 4. Enables you to centrally configure, manage and provide temporary IP addresses and related information for client computers.
- | | |
|----------|---------------------------------|
| a. AD DS | c. DNS |
| b. DHCP | d. Print and Documents Services |
- _____ 5. Used to create certification authorities and related role services that allow you to issue and manage certificates used in the variety of applications.
- | | |
|----------|---------|
| a. AD CS | c. DNS |
| b. AD DS | d. DHCP |



KEY TO CORRECTION

PRETEST : A. AD RMS B. AD DS C. File Services D. DNS E. Features Summary	RECAP 1. B 2. D 3. C 4. A 5. B	ACTIVITY Situational 1. AD DS 2. Application Server 3. DHCP 4. DNS 5. File Services	POST TEST 1. C 2. A 3. D 4. B 5. A
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Images:

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(accessed June 20, 2020)

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