SERVER ADMINISTRATION IT 321 | PRELIM

| LASTNAME, FIRSTNAME | GULTIAN, GERIC | DATE | 2/19/2025 |
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| ID NUMBER | 220000000886 | REMARKS | \_\_\_ / 20 |

**TASK 2: DOWNLOAD AND INSTALL WINDOWS SERVER**

**Objectives:** To provide students with the essential skills and practical experience required to download, install, and configure Windows Server 2016 for use in enterprise environments.

1. Identify and verify the hardware and software requirements for Windows Server 2016. Access the appropriate installation media from official Microsoft sources, and prepare it for installation (e.g., ISO file, bootable USB).. 2. Perform a clean installation of Windows Server 2016 using the installation media. Select the appropriate installation type (e.g., Desktop Experience or Server Core) based on the task requirements.

3. Complete initial server configurations, including setting up administrator credentials, configuring network settings, activating the product license, and applying system updates.

| **Online Resource** | |
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| Microsoft Server 2016 | *Recommended Environment*  Server Edition: 2016  Online Source: https://www.microsoft.com/en-us/evalcenter/evaluate-windows-server-2016  Note: If encountered issue with internet connection, ask assistance to your instructor. File: LocalNetwork/IT321/Installers/VMware-player-16.exe |

**General Instruction:**

1. Follow the task instructions provided for this activity.

2. Record your screen while completing the task, ensuring your face and voice are included in the video. 3. Save the video with the filename format: **Lastname\_Section\_Task2.mp4** (e.g., *Doe\_BSCS1\_Task2.mp4*). 4. Upload the video to your YouTube channel and set the privacy to **Unlisted** or **Public** as appropriate. 5. Submit the YouTube video link through the designated submission platform or form.

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Before going through the technical process of installing Windows Server 2016, you need to understand the different windows server editions. **As a system administrator**, you may be called to choose the Windows version you will deploy in your organization. Each **Windows Server Edition** is designed to meet the needs of each organization from the small one to the large one. The difference resides in the features available and the price of each edition. Before choosing your Windows Server edition, you first have to assess your organization's needs in terms of the number of users of devices you need to connect to your network and the budget available. There are **primarily three Windows server editions**;

1. **Windows Server Essential Edition** is designed for small-sized organizations with up to 25 users and 50 devices that can only run one instance of the server on a physical or virtual machine.

2. **Windows Server Standard Edition** is designed for small to medium-sized organizations. It allows you to run one instance on a physical server and two additional virtual cases on that server. If you need to run different virtual instances, buy other standard licenses.

3. **Windows Server Data Center Edition** is optimized for large-scale virtualization. It allows one server to run unlimited virtualized Windows Server instances. It's the addition that costs the most. The advantage is that instead of having many physical servers that cost you energy and maintenance, you can have one physical server with enough resources in terms of CPU memory size and disk space to start the data center Edition and run as many Windows Server virtual instances as you need.

| **Tasks** |
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| **Part 1: Accessing the Source and Downloading Windows Server 2016** |
| 1. **Verify System Requirements**: Press Win + R, type dxdiag then hit enter to verify system requirements.  ● Ensure your physical (Host) machine meets the minimum requirements for running VMware Player and hosting a virtual machine with Windows Server 2016.  ● Minimum requirements for Windows Server 2016:  ○ Processor: 1.4 GHz 64-bit processor  ○ RAM: 2 GB (4 GB recommended for GUI installations)  ○ Disk Space: At least 32 GB |
| 2. **Download Windows Server 2016 ISO**:  ● Visit the Microsoft Evaluation Center.  ● Search for "Windows Server 2016" and select the appropriate edition (e.g., Standard or Datacenter). ● Sign in with your Microsoft account to access the download.  ● Choose the **ISO file** format for download.  ● Save the file to a designated folder on your machine. |

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| **Part 2: Preparing VMware Player for Installation** |
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| 3. **Launch VMware Workstation Player**:  ● Open the VMware Player application after installation.    Skip Software Updates and choose Remind Later. |
| 4. **Specify Virtual Machine Name and Location**:  ● Select Edit virtual machine settings.  ● In the Hardware tab, select CD/DVD (SATA).  ● Set the connection to use ISO image file then browse to the downloaded Windows Server ISO file. ● Click **OK** and power on the virtual machine. |
| **Part 3: Installing Windows Server 2016** |
| 5. **Start the Virtual Machine**:  ● Select the newly created virtual machine from the VMware Player interface and click **Play virtual machine**. ● Press enter to boot using the disc. |

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| **6. Windows Server Setup**  ● Install and follow recommended default settings. |

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| Select the Windows Server Standard Evaluation (Desktop Experience).  Read then accept the license and terms.  Select install windows only.  After the windows server setup, enable other VMware features to improve mouse movement, video, and performance. |
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| **7. Customize Settings** |

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| Course requirements:  Username: Administrator  Password: EmailAddress  Compare Guest IP Address to Host IP Address  Launch a browser  Check the internet |
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Done!

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| **Reflections** |
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| What challenges did you encounter during the installation of the guest OS, and how did you overcome them?  None |
| What features of virtualization stood out to you during this process?  During the installation process, several key virtualization features stood out. The isolation and sandbox environment of a virtual machine (VM) allows safe testing and configuration without affecting the host system. Snapshots and rollbacks provide the ability to revert to a previous state in case of errors, ensuring a reliable testing environment. Efficient resource allocation enables dynamic assignment of CPU, RAM, and disk space, optimizing performance while maintaining host system stability. Additionally, cross-platform testing allows multiple operating systems to run on a single machine, making it useful for compatibility and networking experiments. |
| How do you see the use of virtual machines benefiting your future projects or learning?  Virtual machines offer several advantages that will be beneficial for future projects and learning. Server administration and network management become more practical through VM-based installations and configurations, preparing me for real-world IT tasks. Software testing and development are enhanced as VMs provide a safe environment for debugging and deployment. |