Introduction to Windows Server 2008

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Learning Objectives

▶ Identify the key features of each Windows Server 2008 edition

▶ Understand client systems that can be used with Windows Server 2008

▶ Identify important general features of Windows Server 2008

▶ Plan a Windows Server 2008 networking model

▶ Understand and implement networking protocols used by Windows Server 2008

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Windows Server 2008 Platforms

- ▶ Different styles of operating systems

  - ▶ For different business needs

- ▶ Eight versions:

  - ▶ Windows Server 2008 Standard Edition

  - ▶ Windows Server 2008 Enterprise Edition

  - ▶ Windows Web Server 2008

  - ▶ Windows Server 2008 Datacenter Edition

  - ▶ Windows Server 2008 for Itanium-Based Systems

  - ▶ Windows Server 2008 Standard Edition without Hyper-V

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Windows Server 2008 Platforms (cont'd.)

▶ Windows Server 2008 Enterprise Edition without Hyper-V

▶ Windows Server 2008 Datacenter Edition without Hyper-V

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Windows Server 2008 Standard Edition

- Most basic server version

- Basis for other versions

- Everyday needs of small to large businesses

- Used on x86 and x64 computers

- Supports:

  - File and print sharing

  - Essential network services

  - Application and other sharing

  - Multiprocessor computers

    - **Symmetric multiprocessor (SMP)**

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Windows Server 2008 Standard Edition (cont'd.)

► Compatible with Microsoft .NET Framework and Microsoft Visual Studio .NET

► **Hyper-V**

  ► **Virtualization** environment

  ► Cuts cost by using fewer computers

  ► Only runs on x64 computers

Windows Server 2008 Enterprise Edition

▶ Intended for midsized and large organizations with scaling needs

▶ Supports x86 and x64

▶ Enables **clustering**

  ▶ Links two or more computers systems to provide fail-safe services

▶ Supports **hot-add memory**

  ▶ Can add RAM without shutting down

▶ **Fault tolerant memory sync**

▶ Provides Microsoft Metadirectory Services

Windows Web Server 2008

▶ Designed for hosting and deploying Web services and applications

▶ Supports x86 and x64 computers

▶ Cannot be used to manage directory resources via hosting Active Directory

Windows Server 2008 Datacenter Edition

► Designed for:

  ► Environments with mission-critical applications

  ► Very large databases

  ► Information access requiring high availability

► Support for clustering with up to 16 computers

► RAM capabilities identical to Enterprise Edition

Windows Server 2008 for Itanium-Based Systems

▶ Itanium processor

　▶ 64-bit processor that allows more instructions per processor cycle than typical x86 and x64 processors

▶ 2TB maximum RAM

▶ Supports:

　▶ Hot-add memory, processor

　▶ Hot-replace processor

　▶ SMP

▶ Intended for resource-intensive applications

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Windows Server 2008 Versions Without Hyper-V

▶ Non-Hyper-V versions:

  ▶ Windows Server 2008 Standard Edition without Hyper-V

  ▶ Windows Server 2008 Enterprise Edition without Hyper-V

  ▶ Windows Server 2008 Datacenter Edition without Hyper-V

▶ Small cost savings

▶ Steps to access virtual server in Microsoft Hyper-V

Windows Server 2008 Versions Without Hyper-V (cont'd.)

▶ Activity 1-1: D
Edition
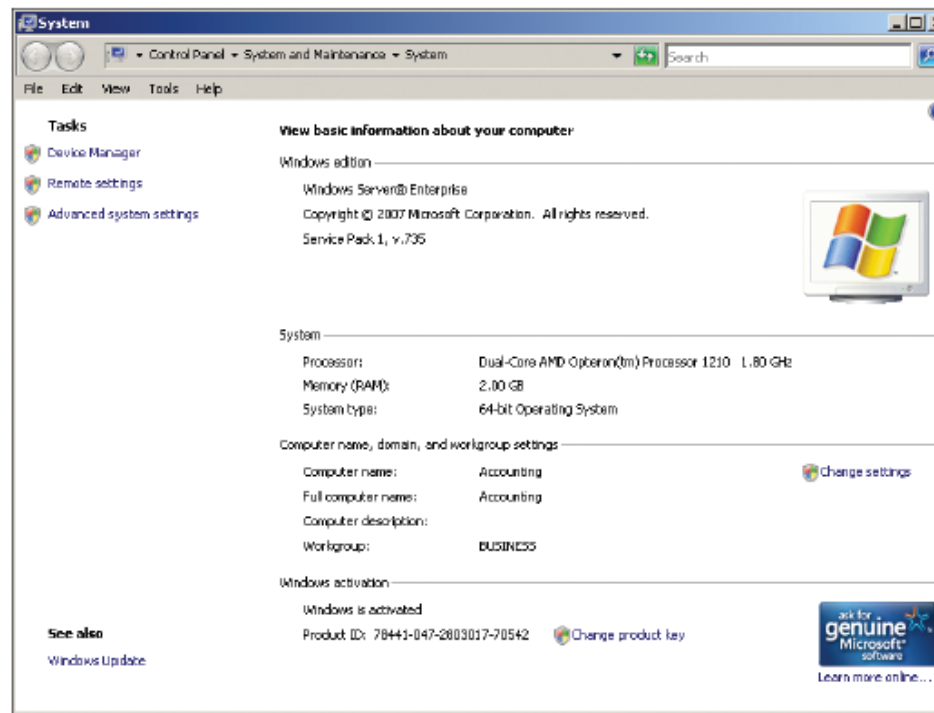
Figure 1-2 Viewing information about the Windows Server 2008 system
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Using Windows Server 2008 with Client Systems

▶ **Client**

  ▶ Accesses resources on another computer via a network or direct cable connection

▶ **Workstation**

  ▶ Has its own central processing unit (CPU)

  ▶ Can be used as a stand-alone or network computer

▶ **Total cost of ownership (TCO)**

  ▶ Full cost of owning a network

  ▶ Using Windows Server 2008 and Windows Vista or Windows 7 reduces TCO

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Using Windows Server 2008 with Client Systems (cont'd.)

▶ **Domain**

  ▶ Grouping of network objects, such as computers, servers, and user accounts

▶ Windows 7

  ▶ Ideal for networking

  ▶ Advantages and new features

▶ **Active Directory**

  ▶ Database of computers, users, groups of users, shared printers, shared folders, and other network resources

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Using Windows Server 2008 with Client Systems (cont'd.)

▶ **Subsystem for UNIX-based Applications (SUA)**

  ▶ Windows Server 2008 support for UNIX and Linux clients

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Windows Server 2008 Features

▶ Server Manager

▶ Security

▶ Clustering

▶ Enhanced Web services

▶ Windows Server Core

▶ Windows PowerShell

▶ Virtualization

▶ Reliability

▶ Multitasking and multithreading

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Server Manager

▶ Manage configuration from one tool

▶ Uses of Server Manager:

  ▶ View computer configuration information

  ▶ Change properties of a system

  ▶ View network connections

  ▶ Configure Remote Desktop

  ▶ Configure security

Server Manager

- Uses of Server Manager (cont'd.):
    - Configure security
    - Configure server roles
    - Add and remove features
    - Run diagnostics
    - Manage storage and backup

Security

▶ **Network Access Protection (NAP)**

    ▶ Umbrella of security protection features

    ▶ Capabilities

▶ Security implemented by default

▶ Security Configuration Wizard (SCW)

    ▶ Simplifies security configuration

▶ Other basic security features