MCSE Guide to Microsoft Windows 7

Chapter 6
User Management

Objectives

- Describe local user accounts and groups

- Create and manage user accounts

- Manage Profiles

- Describe Windows 7 integration with networks

- Configure and use Parental Controls

User Accounts

- User account
  - Required for individuals to log on to Windows 7 and use resources on the computer
  - Has attributes that describe user and control access

- Local user accounts
  - User accounts created in Windows 7
  - Exist only on the local computer

- User accounts are stored in the Security Accounts Manager (SAM) database
  - Within the SAM database, each user account is assigned a Security Identifier (SID)

Logon Methods

- Windows 7 configurations
  - Standalone
  - Workgroup member
  - Domain client

- Windows Welcome
  - Logon method used by standalone computers and workgroup members
  - Authenticates users by using local SAM database

- Secure Logon
  - Increases security on your computer by forcing you to press Ctrl+Alt+Delete before logging on

Logon Methods (cont'd.)

Figure 6-1 Windows Welcome logon method
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Logon Methods (cont'd.)

- Secure Logon (cont'd.)
  - Protects your computer from viruses and spyware that may attempt to steal your password
  - When the computer is a domain client, then secure logon is required

- Fast User Switching
  - Allows multiple users to have applications running in the background at the same time
  - One user can be actively using the computer at a time
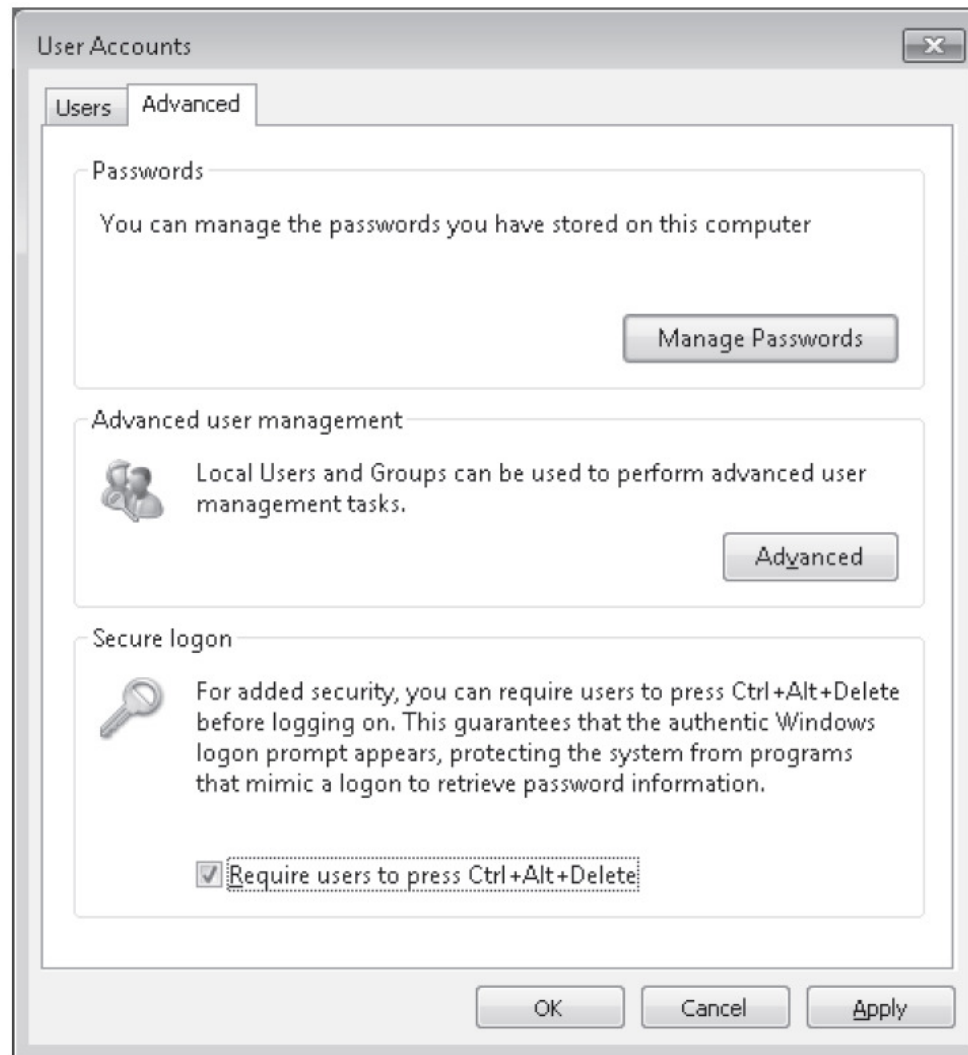
Logon Methods (cont'd.)

Figure 6-2 Advanced User Accounts applet Advanced tab
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Logon Methods (cont'd.)

- Automatic Logon
  - Sometimes it is desirable for the computer to automatically log on as a specific user
    - Each time it is started
  - Automatic logon is configured on the Users tab of the User Accounts applet
  - Holding down the Shift key during the boot process stops the automatic logon from occurring
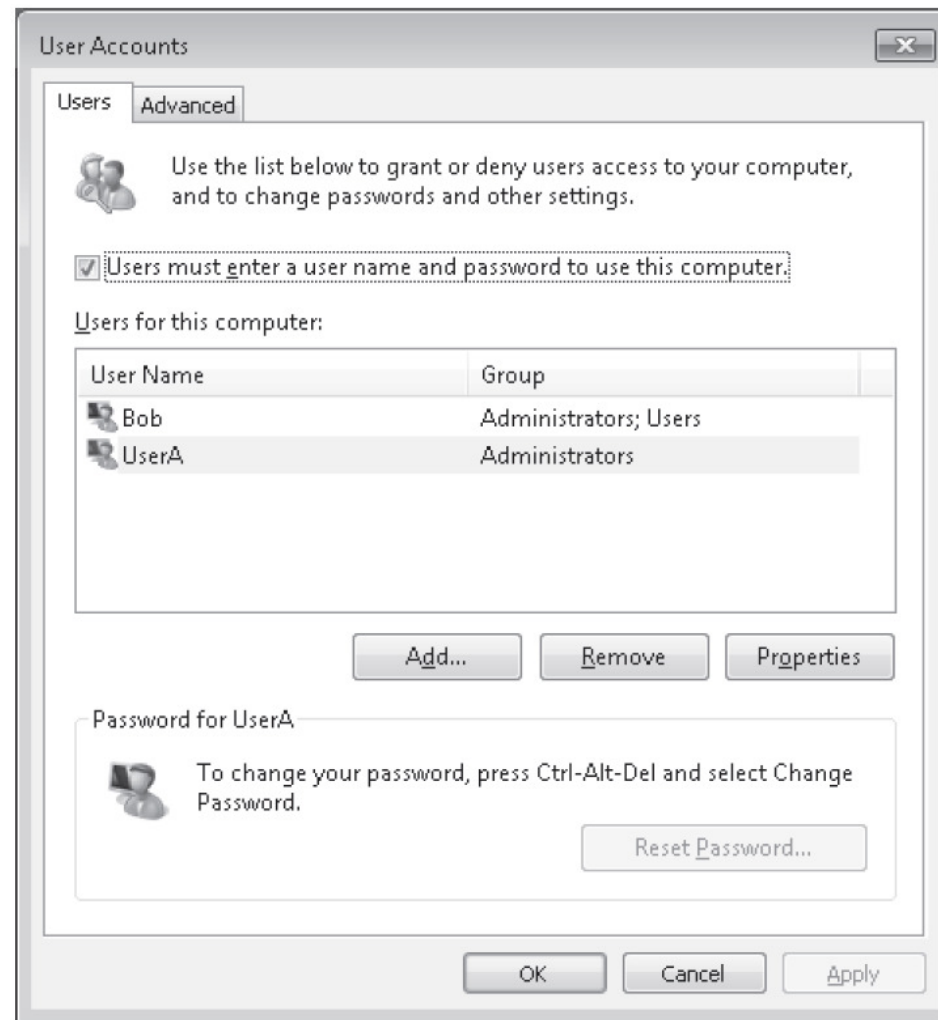
Logon Methods (cont'd.)

Figure 6-3 Advanced User Accounts applet Users tab
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Naming Conventions

- Naming convention
  - Standard process for creating names on a network or standalone computer

- Even small networks benefit from resources with meaningful names

- Some common naming conventions
  - First name
  - First name and last initial
  - First initial and last name

Naming Conventions (cont'd.)

- Restrictions imposed by Windows 7
    - User logon names must be unique
    - User logon names must be 20 characters or less
    - User logon names are not case sensitive
    - User logon names cannot contain invalid characters

Default User Accounts

- Administrator
  - Most powerful local user account possible
  - Unlimited access and unrestricted privileges to every aspect of Windows
  - Characteristics
    - Not visible on the logon screen
    - Has a blank password by default
    - Cannot be deleted
    - Cannot be locked out due to incorrect logon attempts
    - Cannot be removed from local administrators group

Default User Accounts (cont'd.)

- Administrator (cont'd.)
  - Characteristics (cont'd.)
    - Can be disabled
    - Can be renamed
  - Disabled by default in Windows 7

- Guest
  - One of the least privileged user accounts in Windows
  - Has extremely limited access to resources and computer activities

Default User Accounts (cont'd.)

- Guest (cont'd.)
  - Intended for occasional use by low-security users
  - Characteristics
    - Cannot be deleted
    - Cannot be locked out
    - Is disabled by default
    - Has a blank password by default
    - Can be renamed
    - Is a member of the Guests group by default
    - Is a member of the Everyone group

Default User Accounts (cont'd.)

- Initial Account
  - User created during installation is given administrative privileges
  - Initial Account is different from Administrator account in that it:
    - Is visible on the logon screen
    - Does not have a blank password by default
    - Can be deleted
    - Can be locked out due to incorrect logon attempts
    - Can be removed from the Administrators group

Default Groups

- Groups are used to simplify the process of assigning security rights and permissions

- Members of a group have access
  - To all resources that the group has been given permissions to access

- Windows 7 built-in groups
  - Administrators
  - Backup Operators
  - Cryptographic Operators
  - Distributed COM Users

Default Groups (cont'd.)

- Windows 7 built-in groups (cont'd.)
    - Event Log Readers
    - Guests
    - IIS_IUSRS
    - Network Configuration Operators
    - Performance Log Users
    - Performance Monitor Users
    - Power Users
    - Remote Desktop Users
    - Replicator
    - Users

Creating Users

- Creating a user can be done from:
  - Control Panel
  - Local Users and Groups MMC snap-in
  - Advanced User Accounts applet

- Standard user account
  - Derives its privileges from being a member of the local Users group
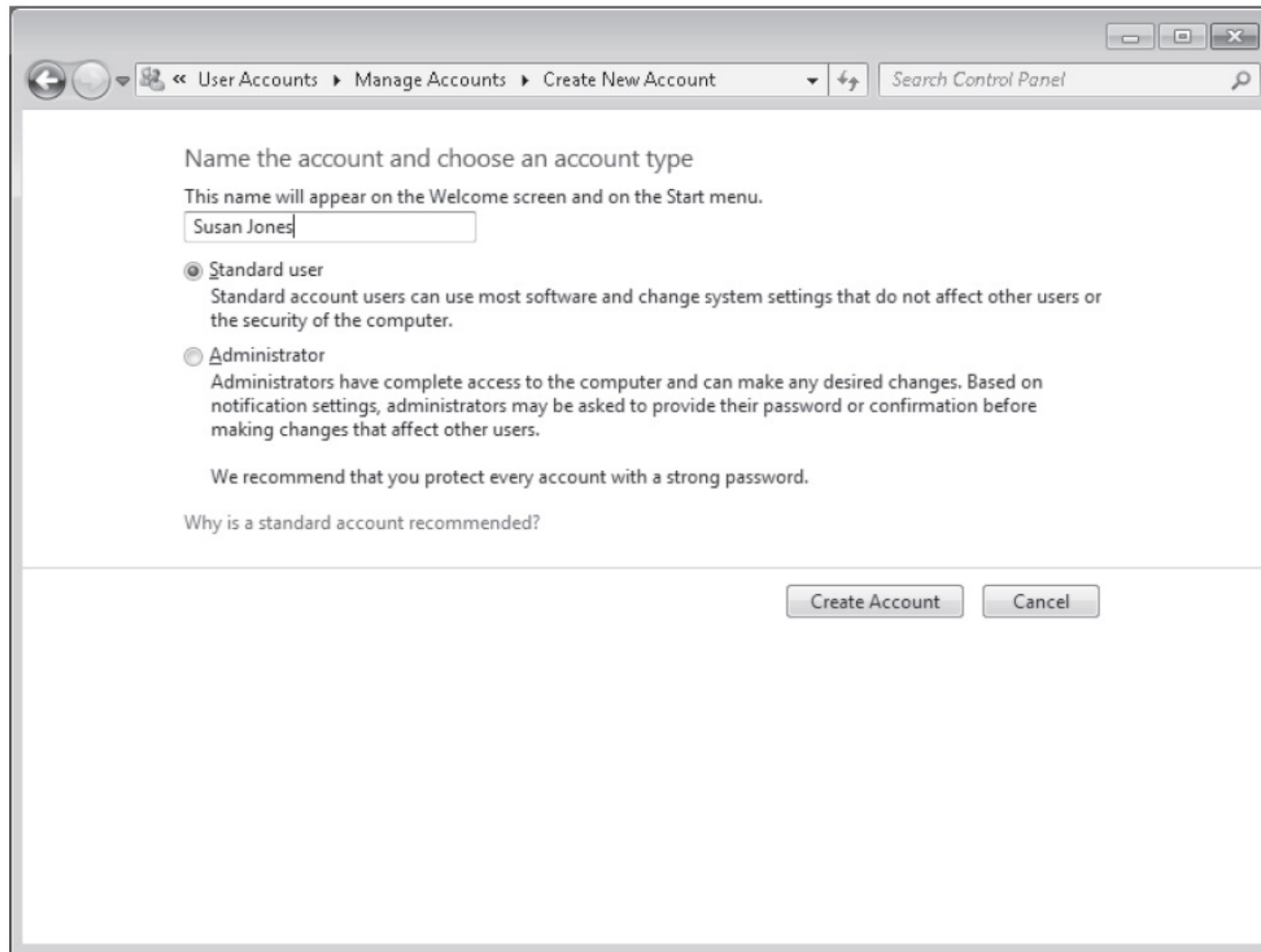 - Cannot compromise the security or stability of Windows 7

Creating Users (cont'd.)

Figure 6-4 Creating a user
Courtesy Course Technology/Cengage Learning

Creating Users (cont'd.)

- Administrator account
  - Derives its privileges from being a member of the local Administrators group
  - Has complete access to the system
- Most actions that are triggered by an Administrator do not result in a prompt from User Account Control
  - Changes triggered by software do result in a prompt from User Account Control

User Accounts Applet

- User Accounts applet in Control Panel
  - Simplified interface for user management
- Users can perform basic administration for their accounts using this interface
- Administrative options with a shield beside them are restricted to administrative users
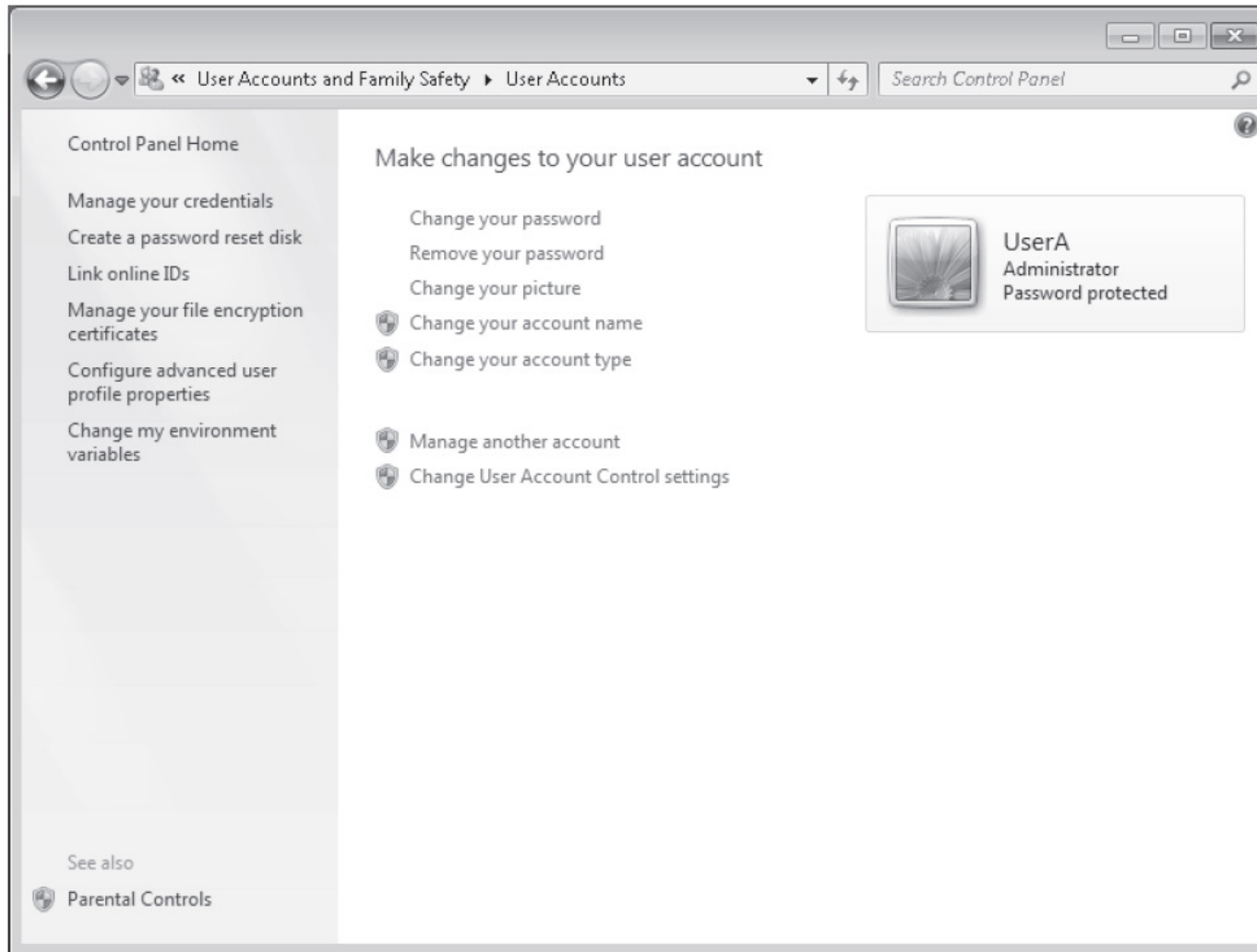
User Accounts Applet (cont'd.)

Figure 6-5 User Accounts applet
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Local Users and Groups MMC Snap-In

- Allows you to create and manage both user accounts and groups

- General user tasks you can perform
  - Create a new user
  - Delete a user
  - Rename a user
  - Set a user password

- Other user options can be configured in the properties of the user account
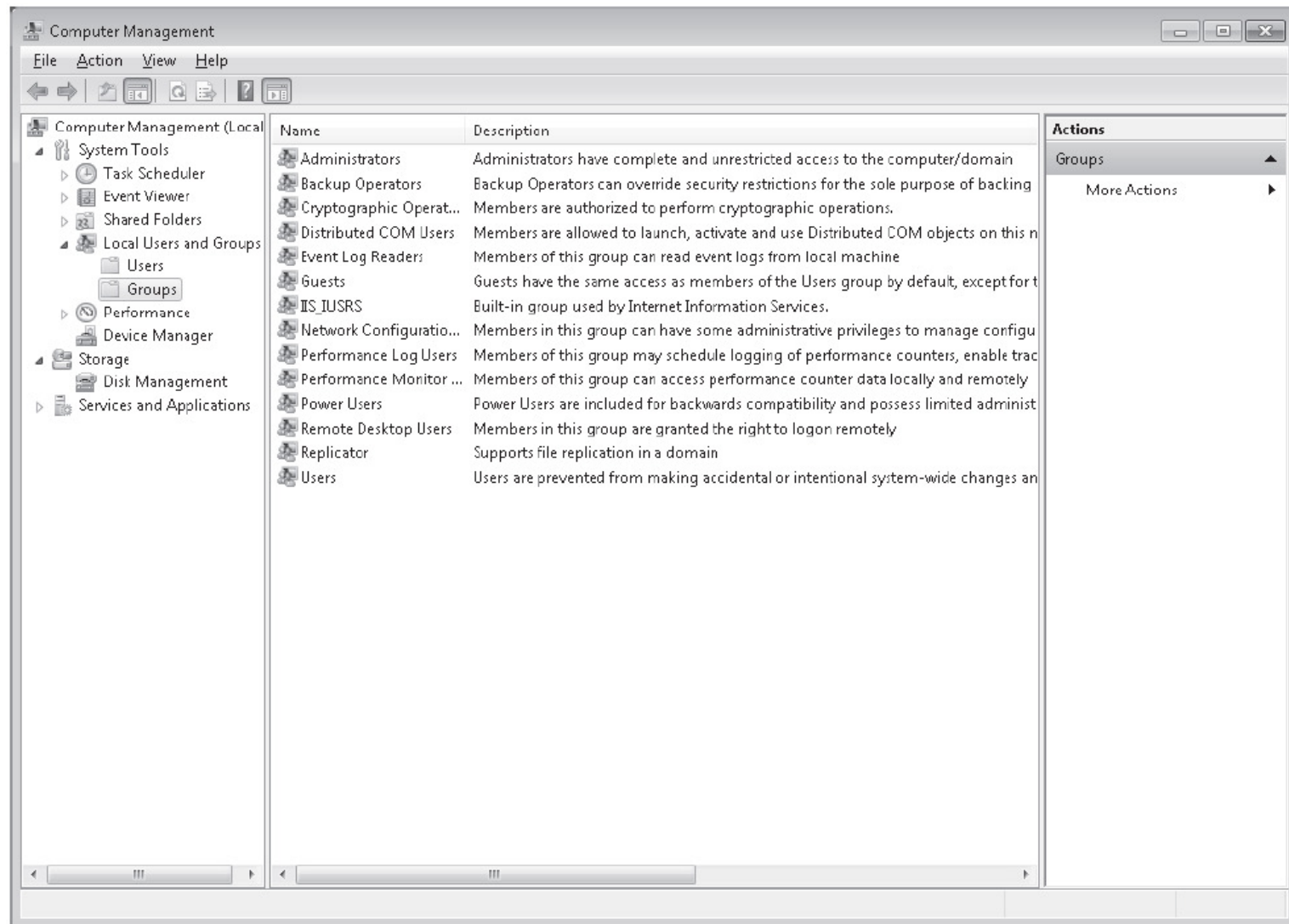
Figure 6-6 Local Users and Groups MMC snap-in
Courtesy Course Technology/Cengage Learning

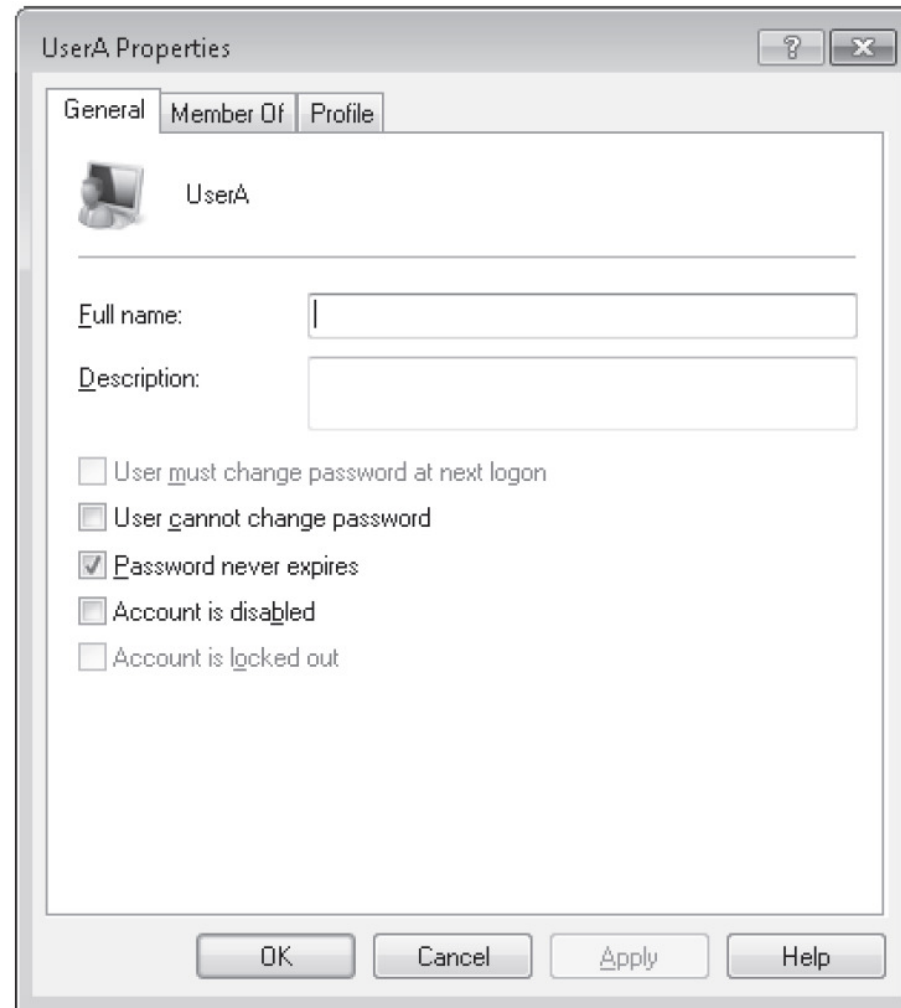# Local Users and Groups MMC Snap-In (cont'd.)

Figure 6-7 User Properties General tab
Courtesy Course Technology/Cengage Learning

Local Users and Groups MMC Snap-In (cont'd.)

- **Member Of tab**
  - Lists groups of which the user account is a member
    - Any rights and permissions assigned to these groups are also given to the user account

- **Profile tab**
  - Often used in corporate environments for domain-level accounts
  - Profile path specifies location of profile for this user
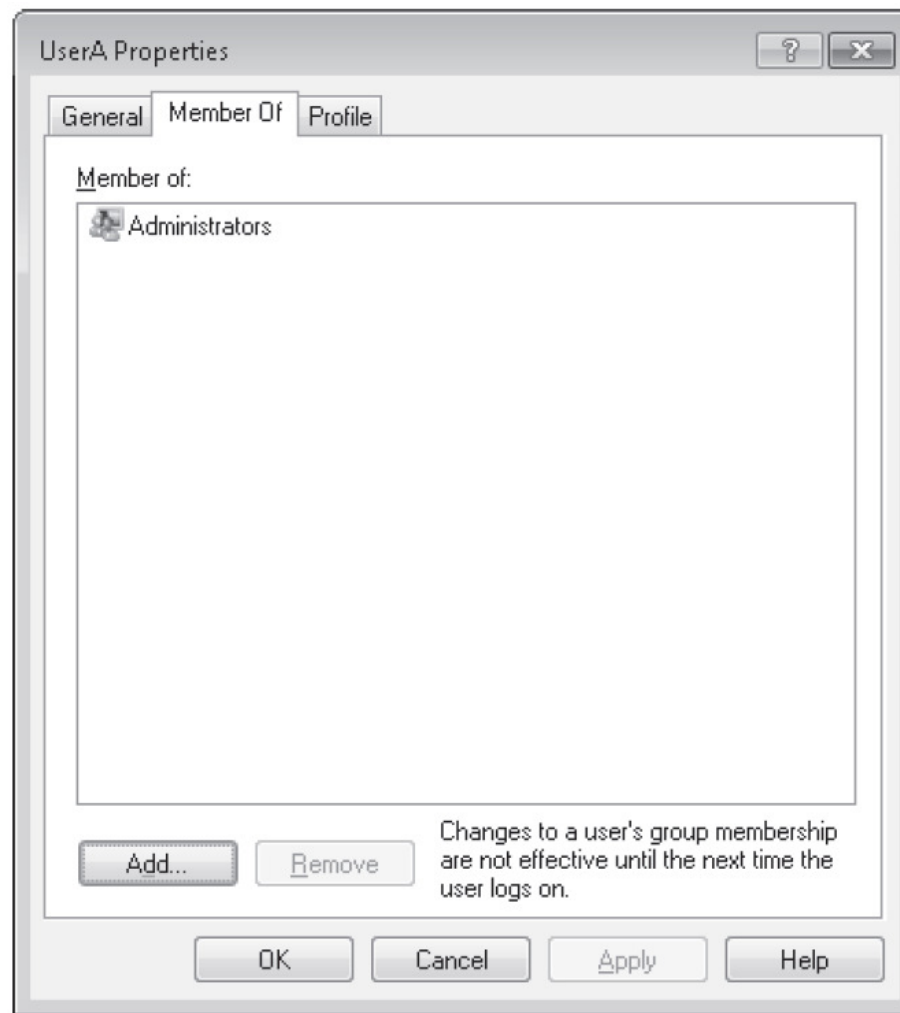   - By default, profiles are stored in C:\Users\%USERNAME%

Figure 6-8 User Properties Member Of tab
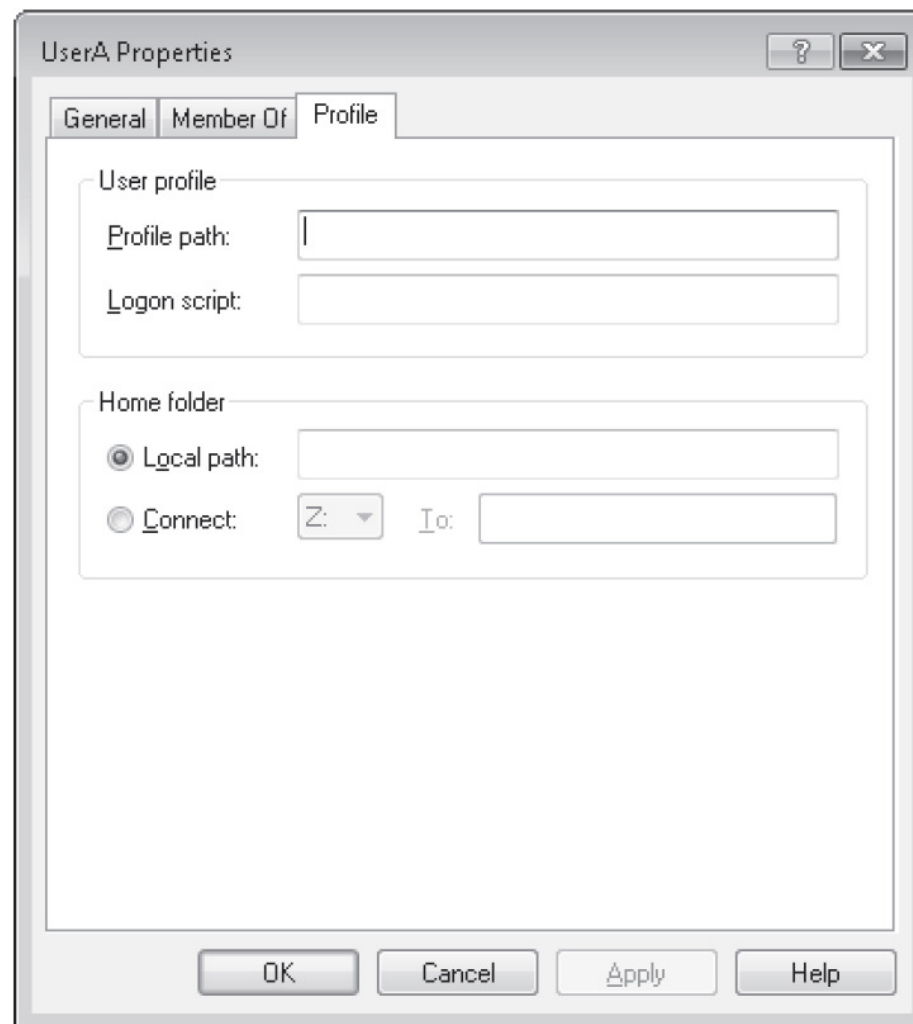*Courtesy Course Technology/Cengage Learning*

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Figure 6-9 User Properties Profile tab
Courtesy Course Technology/Cengage Learning

Local Users and Groups MMC Snap-In (cont'd.)

- Logon script box

  - Defines a script that is run each time during logon

- Home folder

  - Defines a default location for saving files

- When you view the properties of a group, there is only a single tab

  - Provides a description of the group and a list of the group members

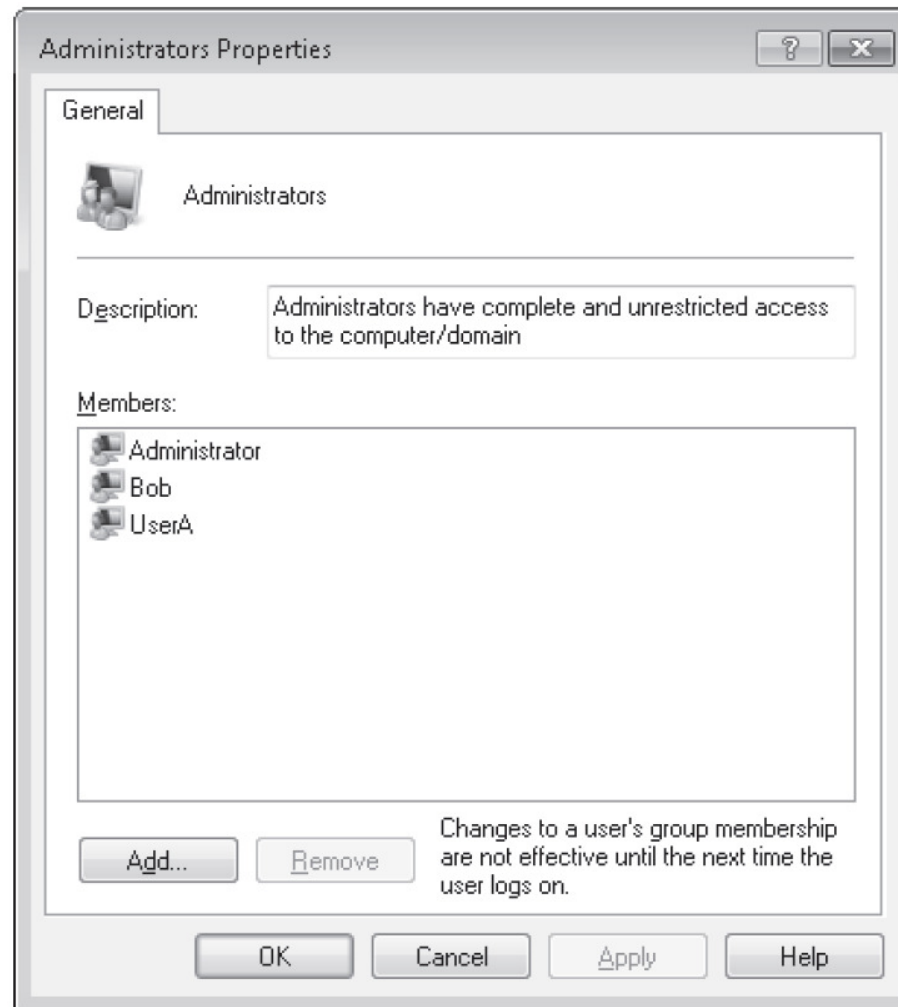 - You can add and remove users from the group here

Figure 6-10 Administrators Properties General tab
Courtesy Course Technology/Cengage Learning

Advanced User Accounts Applet

- Available only by starting it from the command line
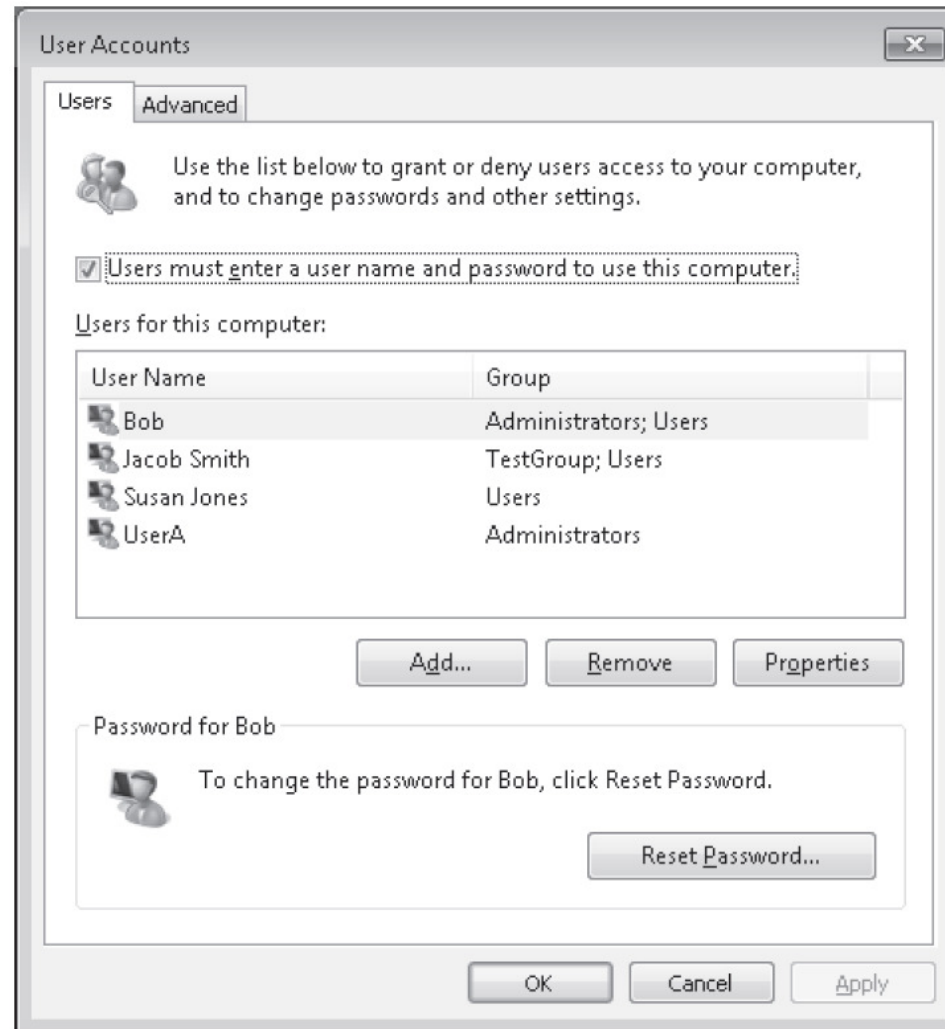- To start the advanced User Accounts applet from a command line, use the netplwiz command

Figure 6-11 Advanced User Accounts applet Users tab
Courtesy Course Technology/Cengage Learning

Managing Profiles

- User profile

  – Collection of desktop and environment configurations for a specific user or group of users

- By default, each user has a separate profile stored in C:\Users

- Profile folders and information

  – AppData

  – Application Data

  – Contacts

  – Cookies

Managing Profiles (cont'd.)

- Profile folders and information (cont'd.)
  - Desktop
  - Documents
  - Downloads
  - Favorites
  - Links
  - Local Settings
  - Music
  - My Documents
  - NetHood

Managing Profiles (cont'd.)

- Profile folders and information (cont'd.)
  - Pictures
  - PrintHood
  - Recent
  - Saved Games
  - Searches
  - SendTo
  - Start Menu
  - Templates
  - Videos

Managing Profiles (cont'd.)

- Profile folders and information (cont'd.)
  - NTUSER.DAT
  - NTUSER.DAT.LOG
  - NTUSER.DAT{guid}.TM.blf
  - NTUSER.DAT{guid}.TMContainerxxxxxx.regtrans-ms
  - Ntuser.ini

The Default Profile

- Default profile: when new user profiles are created
- Windows 7 copies the default user profile to create a profile for the new user
- To configure the default profile
  - Create new local user with administrative privileges
  - Log on as the designated local user
  - Modify the new user's profile as desired
  - Create an answer file with CopyProfile parameter set to true
  - Run Sysprep with the /generalize option
  - Image the computer and deploy the image

The Default Profile (cont'd.)

- Editing the Default User Profile Without Using Sysprep
  - Edit the registry settings in the default profile
  - Modify individual settings or import registry keys exported from an already configured profile
  - Update specific files in the default user profile

Mandatory Profiles

- Mandatory profile

  – Profile that cannot be modified

- Users can make changes to their desktop settings while they are logged on

  – But the changes are not saved

- Most mandatory profiles are implemented as roaming user profiles

- To change a profile to a mandatory profile, you rename the file NTUSER.DAT to NTUSER.MAN

Roaming Profiles

- Roaming profile
  - Stored in a network location rather than on the local hard drive
  - Settings move with a user from computer to computer on the network
- Useful when a corporation uses Outlook and Exchange for an e-mail system
- To configure a roaming profile
  - You must edit the user account to point the profile directory at a network location
- A roaming profile is copied to the local computer

The Public Profile

- Public profile
  - Different from other profiles because it is not a complete profile
  - Does not include an NTUSER.DAT file and consequently does not include any registry settings

- Public profile folders
  - Favorites
  - Libraries
  - Public Desktop
  - Public Documents
  - Public Downloads

The Public Profile (cont'd.)

- Public profile folders (cont'd.)
    - Public Music
    - Public Pictures
    - Public Recorded TV
    - Public Videos

The Start Menu

- Start menu
  - Collection of folders and shortcuts to applications
- Modifying the Start menu is as simple as creating folders and shortcuts
- Users all have a personal version of the Start menu that is stored in their profile
- Use Windows Explorer to access and modify the contents of the Start Menu
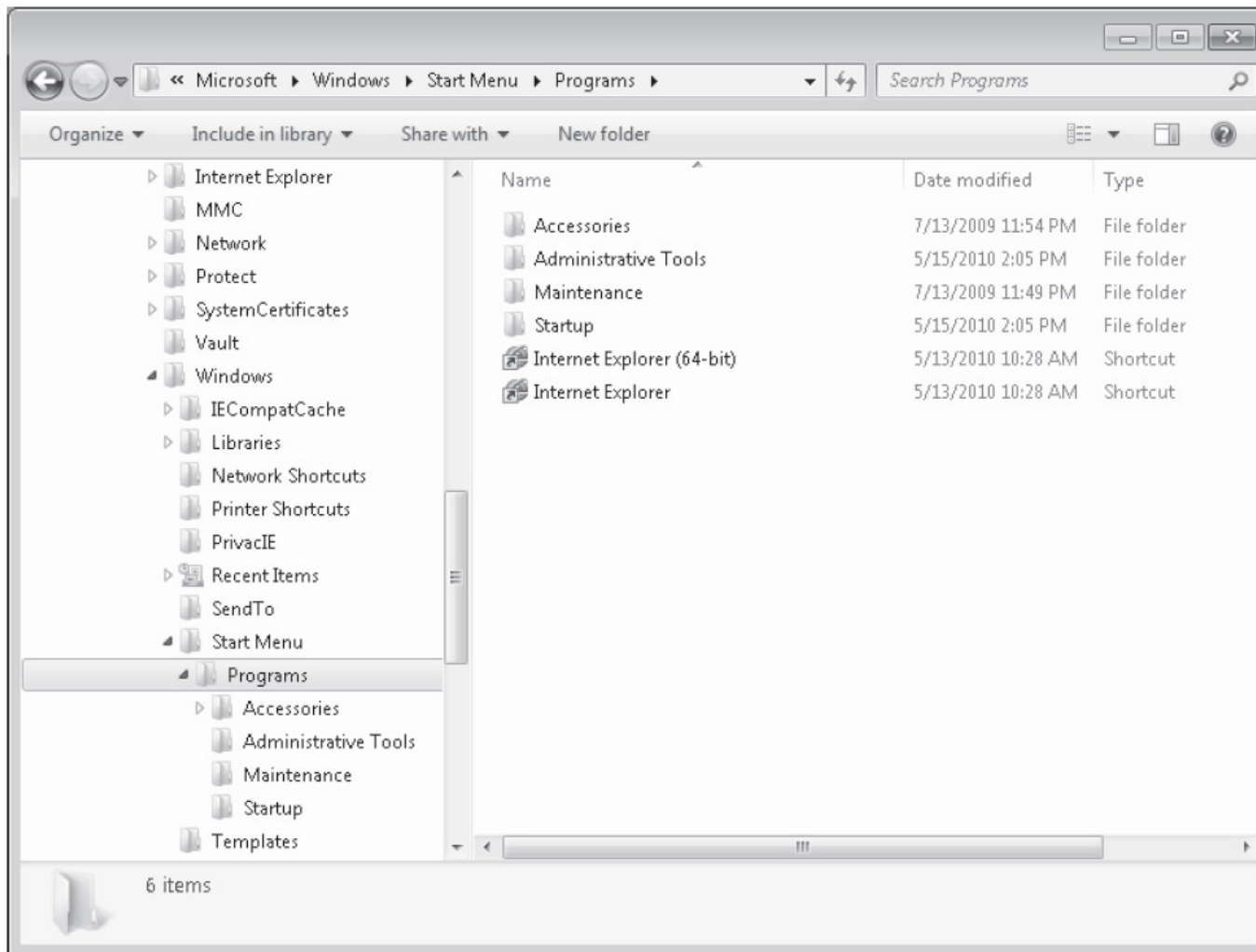
The Start Menu (cont'd.)

Figure 6-13 The Start menu in Windows Explorer
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Network Integration

- User logon and authorization is very different in a networked environment

- Network types
  - Peer-to-peer
  - Domain-based

Peer-to-Peer Networks

- Peer-to-peer network (or workgroup)
  - Consists of multiple Windows computers that share information

- No computer on the network serves as a central authoritative source of user information

- Each computer maintains a separate list of users and groups in its own SAM database

- Most commonly implemented in homes and small offices

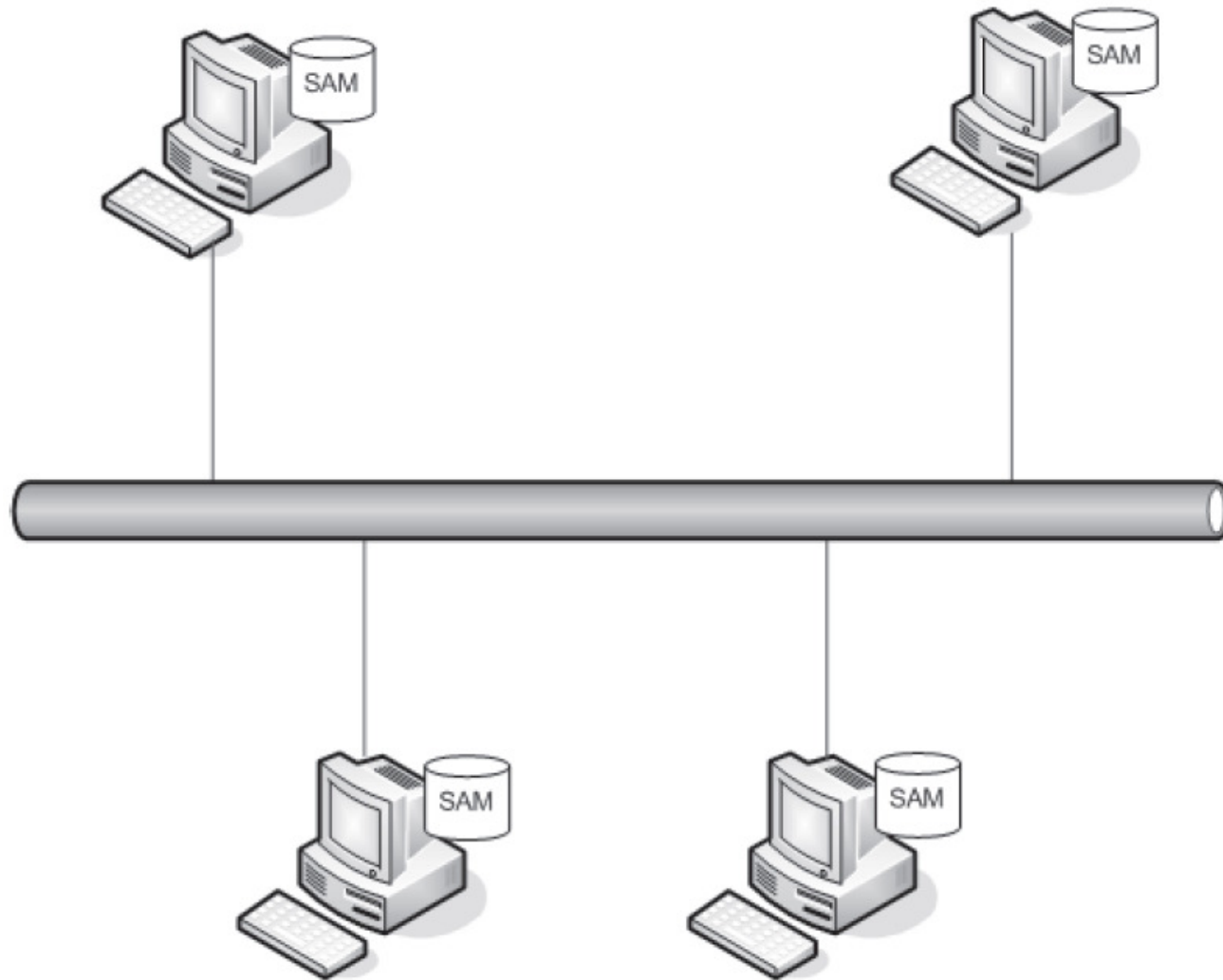- Windows 7 has a limit of 20 connections

Peer-to-Peer Networks (cont'd.)

Figure 6-14 Peer-to-peer network
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Peer-to-Peer Networks (cont'd.)

- Access shares or printers on a remote computer
  - You must log on as a user that exists on the remote computer

- Pass-through authentication
  - Simplest authentication method for users
  - Remote computer has a user account with the exact same name and password as the local machine

- No automated mechanism to synchronize user accounts and passwords between computers

Domain-Based Networks

- User accounts for domain-based networks are much easier to manage

- Domain controller
  - Central server responsible for maintaining user accounts and computer accounts

- Computers in the domain share the user accounts on the domain controller
  - User accounts only need be created once
  - No concerns about synchronizing passwords between multiple accounts
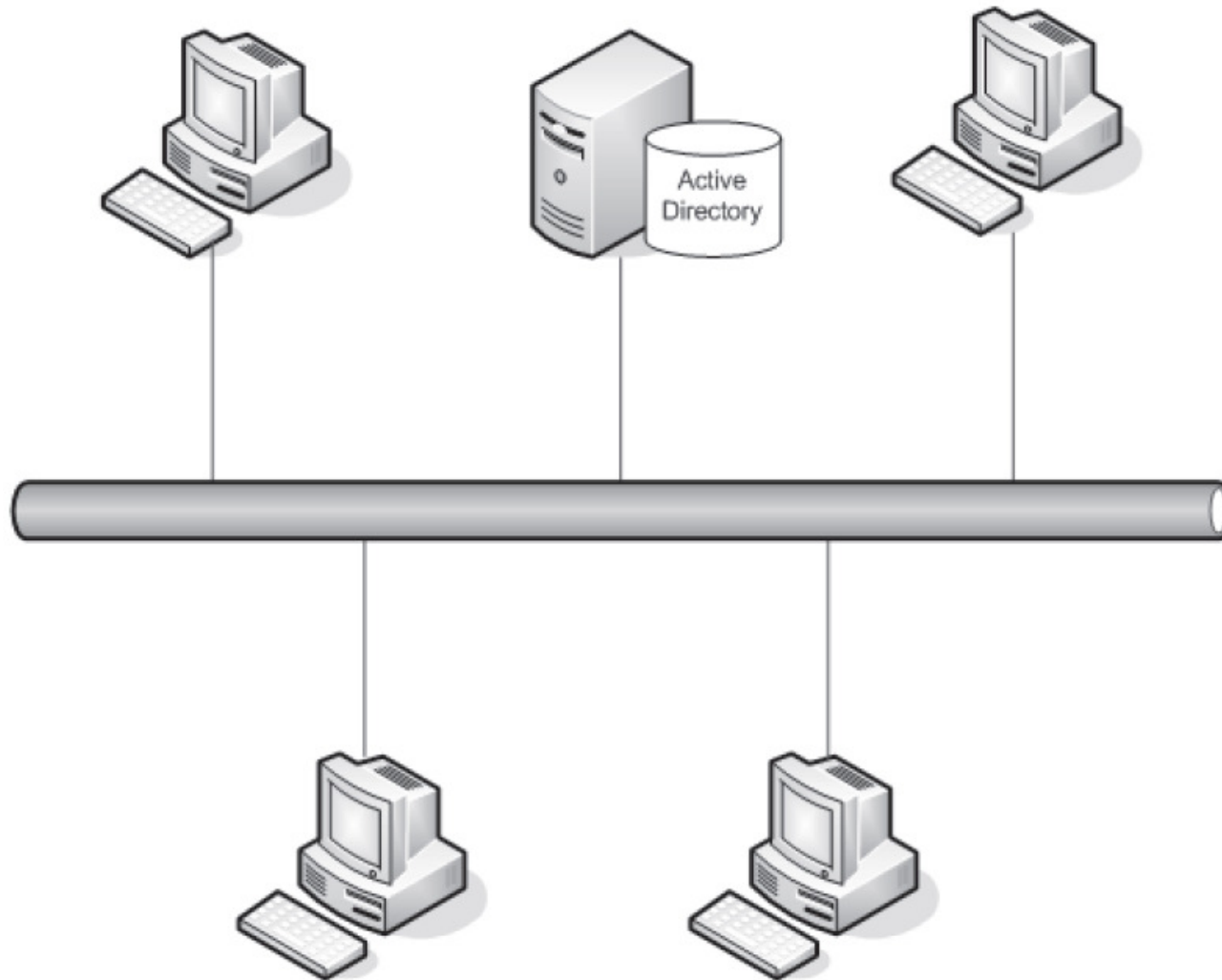
Domain-Based Networks (cont'd.)

Figure 6-15 Domain-based network
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Domain-Based Networks (cont'd.)

- To participate in a domain

  - Windows 7 computers are joined to the domain

- Domain Admins group becomes a member of the local Administrators group

  - To allow centralized administration by the domain administrators

- Domain Users group becomes a member of the local Users group

  - To allow all users in the domain to log on to Windows 7

Cached Credentials

- When you use Windows 7 and log on to a domain
  - Your authentication credentials are automatically cached in Windows 7
    - Important for mobile computers that are not always connected to the domain

- After credentials are cached locally
  - You can log on to a computer using a domain user account
    - Even when the domain cannot be contacted

Parental Controls

- Parental Controls
  - Method for controlling how Windows 7 is used by specific user accounts
  - The accounts must be Standard user accounts

- Tasks performed with Parental Controls
  - Configure time limits
  - Control game playing
  - Allow and block programs

Time Limits

- Time limits
  - Control when a user is able to log on and use the computer
  - Allow you to restrict logons to certain times of the day
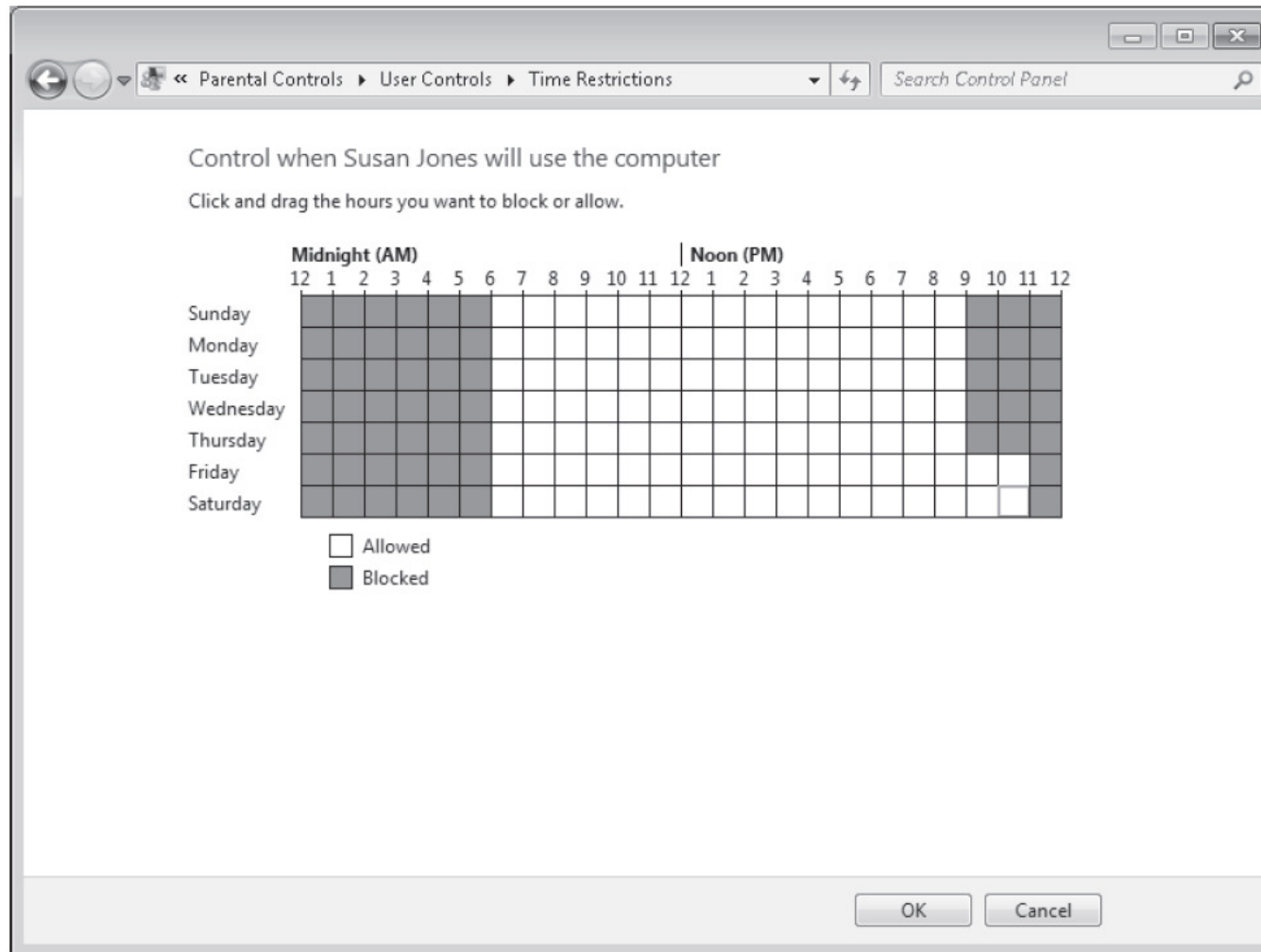   - The times can vary for each day

Time Limits (cont'd.)

Figure 6-16 Time limits
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Game Controls

- Game controls are used to limit access to games

- You can block games based on the game rating

- Default ratings
  - Early Childhood (EC)
  - Everyone (E)
  - Everyone 10+ (E10+)
  - Teen (T)
  - Mature (M)
  - Adults Only (AO)

Game Controls (cont'd.)

- Additional categories
  - Online Rating Notice
  - Blood and Gore
  - Drug Reference
  - Intense Violence
  - Nudity
  - Real Gambling
  - Sexual Violence
  - Use of Alcohol
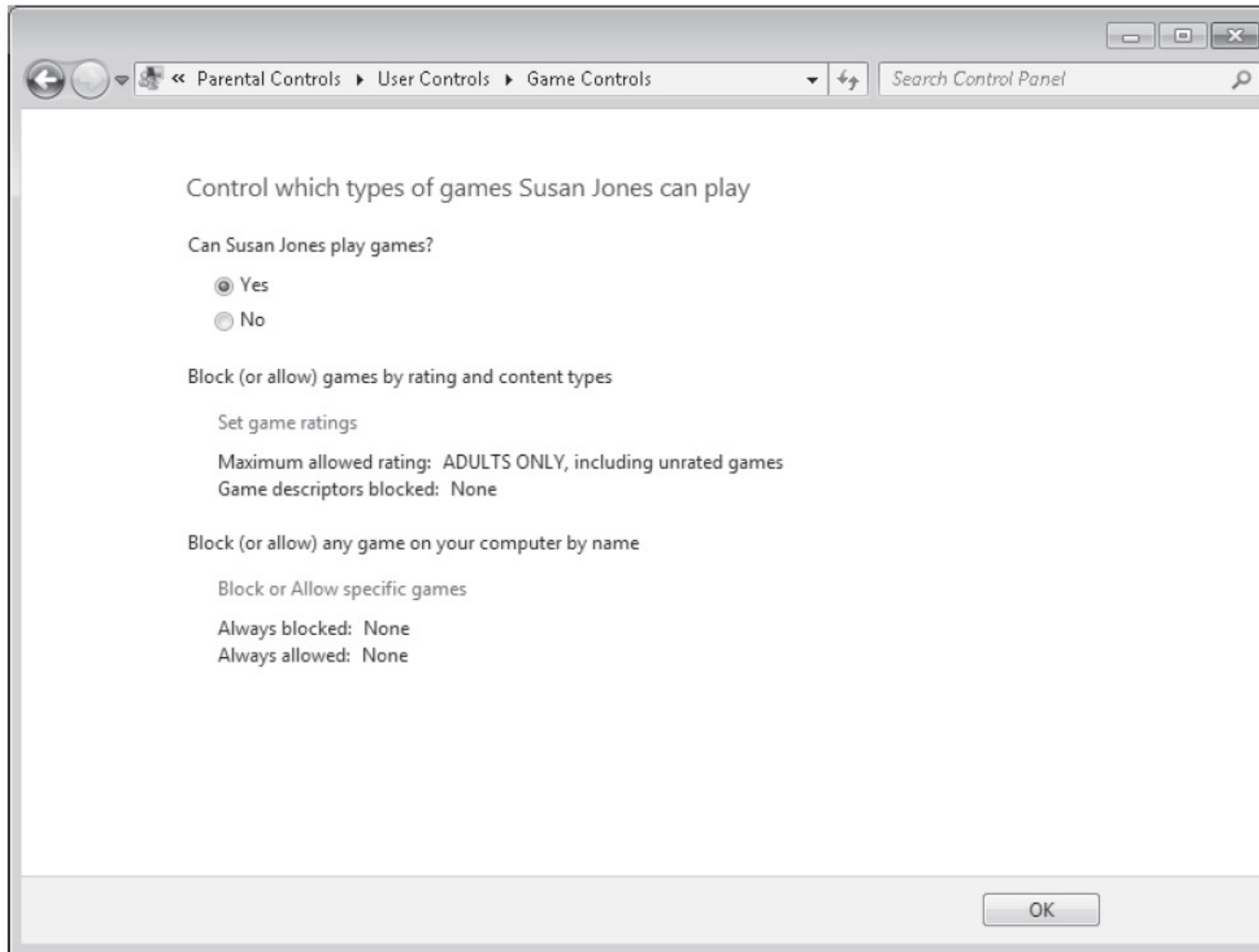 - Use of Tobacco

Game Controls (cont'd.)

Figure 6-17 Game controls
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Block Programs

- By default, users can run all programs that are installed

- You can restrict users to running only approved applications
  - You can manually add programs to the list of approved applications
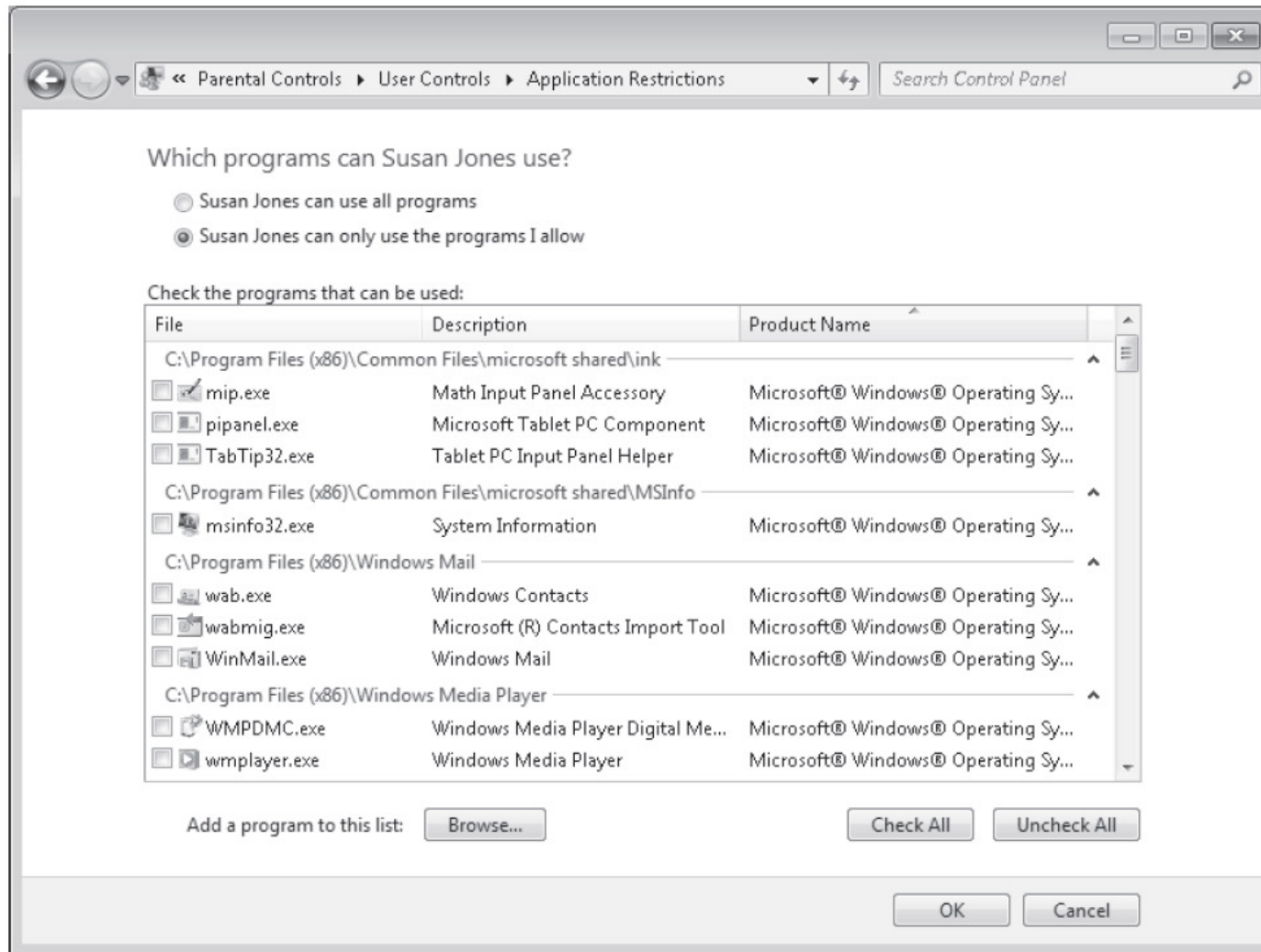
Block Programs (cont'd.)

Figure 6-18 Allowed programs
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Summary

- User accounts are required for users to log on to Windows 7 and use computer resources

- Windows 7 log on security can be enhanced by enabling secure logon

- Fast user switching allows multiple users to be logged on to a computer at the same time

- Three default accounts are created upon installation of Windows 7: Administrator, Guest, and the initial user account

Summary (cont'd.)

- Groups help simplify management by organizing users

- Users can be created from Control Panel, the User and Groups MMC snap-in, or the advanced User Accounts applet

- User profiles store user-specific settings

- You can modify profiles to make them mandatory or roaming

- In a peer-to-peer network, each computer authenticates users using the local SAM database

Summary (cont'd.)

- In a domain-based network, user authentication is controlled centrally by a domain controller

- Parental Controls allow you to configure time limits, control game playing, and allow or block programs