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## 4.5.7 Device Driver Installation Facts

This lesson covers the following topics:

- Device installation considerations
- Device Manager

## **Device Installation Considerations**

Be aware of the following when installing devices:

- Before purchasing or installing the device, verify that the device is compatible with the version of Windows you are running. You can:
  - Check the product documentation and look for the Certified for Windows logo.
  - Check the Microsoft Hardware Compatibility List (HCL).
  - Contact the manufacturer to see if the device is compatible.
- Obtain the latest driver before installation. Instead of using the driver included on the installation disc, check the manufacturer's website for the latest driver.
- Read the product documentation and follow the instructions for installation. Always follow the manufacturer's instructions for installing and configuring a device.
- For USB devices, you will typically install the driver prior to connecting the device.
- For internal and non-hot swappable devices, turn off and unplug the system before installing the device.
- Windows will automatically configure a device if:
  - The device is fully plug and play capable.
  - There are no resource conflicts or other problems.
  - Windows finds a suitable driver in its driver database.
  - The driver is signed and from a trusted publisher.
- On Windows, unsigned and self-signed drivers must be manually approved. However, you cannot install unsigned drivers on x64 versions of Windows.

## **Device Manager**

Use Device Manager to view installed devices and their status.

- To open Device Manager:
  - Right-click Start and select Device Manager.
  - In the search field on the taskbar, type **Device Manager**.
  - Press the Windows key + R and type devmgmt.msc.
- Use the device icon to identify the status of the device:
  - If the icon for the device is not there, then Windows did not detect the device. Try scanning for new hardware or rebooting the system to detect the device.
  - A normal icon means the device was configured, the appropriate driver was installed, and the device is working properly.
  - An icon with a yellow exclamation mark means the device was detected, but could not be configured properly. In this case, make sure you
    have the latest driver for the device.
  - An icon with a black down-arrow means the device is disabled.
- To identify the system resources used by a device:
  - 1. Right-click the *device* and select **Properties**.
  - 2. Select the **Resources** tab.
- To view all resources used by the computer:
  - On the file menu in Device Manager, select View > Resources by type (or Resources by connection).
  - Alternatively, press the Windows key + R, type Msinfo32.

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