Remote Supervisor Adapter II

IBM

Installation Instructions for Microsoft Windows Users

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Contents

Configuring the Remote Supervisor Adapter II using Microsoft Windows

This document gives detailed installation instructions for installing the IBM® Remote Supervisor Adapter II software and firmware that you downloaded from the IBM Support Web site. These instructions are specific to the Microsoft® Windows® 2000 operating system.

The following topics are covered in this document:

- Updating the video adapter BIOS code
- Updating the server BIOS code
- Updating the diagnostics code
- Installing the Remote Supervisor Adapter II device driver
- Updating the Remote Supervisor Adapter II firmware
- Updating the integrated system management processor (ISMP) firmware
- Installing the video device driver
- Using the Configuration/Setup Utility
- Using the Advanced Settings Utility

Before using the instructions in this document, be sure that:

- You have downloaded the Remote Supervisor Adapter II software and firmware according to the instructions in the *Remote Supervisor Adapter II Installation Guide*. The files you downloaded and unpacked are in the *d*:\ibmssp directory (where *d* is the hard disk drive letter).

  Note: If you downloaded and unpacked the files to a different directory path, be sure to make the appropriate changes in these instructions.

- You have read the readme file that is in the *d*:\ibmssp directory (where *d* is the hard disk drive letter). This readme file contains a list of file names with their descriptions.

Updating the video adapter BIOS code

You must update the video adapter basic input/output system (BIOS) code on the Remote Supervisor Adapter II. The video adapter BIOS code update is included in the system service package that you downloaded from the IBM Support Web site.

Complete the following steps to create a video adapter BIOS code update startable diskette and update the video adapter BIOS code:

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click **filename.exe**, where *filename* is the file name for the Video Adapter BIOS that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive and a startable diskette is created.
4. To update the video adapter BIOS code, restart the server with the Video Adapter BIOS code update diskette in the diskette drive.
5. After the video adapter BIOS code update is completed, remove the diskette from the diskette drive and label the diskette. Follow the instructions on the screen.

Updating the server BIOS code

You must update the server basic input/output system (BIOS) code for Remote Supervisor Adapter II support. The flash BIOS update for your server is included in the system service package that you downloaded from the IBM Support Web site.

Complete the following steps to create a flash BIOS update startable diskette and update the BIOS code:

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click **filename**.exe, where *filename* is the file name for the Flash BIOS Update Diskette that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive and a startable diskette is created.
4. To update the server BIOS code, restart the server with the Flash BIOS Update diskette in the diskette drive.
5. From the menu, select **1 - Update POST/BIOS** and follow the instructions on the screen.
6. After the flash BIOS update is completed, remove the diskette from the diskette drive and label the diskette "Flash BIOS Update". You will need this diskette when you update the server diagnostics in the following section.

Updating the server diagnostics code

You must update the server diagnostics code for Remote Supervisor Adapter II support. The diagnostics code for your server is included in the system service package that you downloaded from the IBM Support Web site.

Complete the following steps to create the diskettes and update the diagnostics code. You will create two diagnostics flash update diskettes.

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click **filename**.exe, where *filename* is the file name for Diagnostics Flash Update Diskette 1 of 2 that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive.
4. Remove the diskette from the diskette drive and label the diskette.
5. Insert a second blank diskette into the diskette drive.
6. Double-click **filename**.exe, where *filename* is the file name for Diagnostics Flash Update Diskette 2 of 2 that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive.
7. Remove the diskette from the diskette drive and label the diskette.
8. To update the diagnostics code, insert the Flash BIOS Update diskette (that you created in "Updating the server BIOS code") into the diskette drive and restart the server.
9. From the menu, select **2 - Update Diagnostics** and follow the instructions on the screen.

Remote Supervisor Adapter II device drivers for Windows 2000

Be sure to install the Remote Supervisor Adapter II device drivers before updating the Remote Supervisor Adapter II firmware or using the Advanced Settings Utility. For information about the utility, see "Using the Advanced Settings Utility to configure Remote Supervisor Adapter II settings" on page 7.

Overview

The Remote Supervisor Adapter II device drivers enable communication between the Remote Supervisor Adapter II and the operating system of the server in which the Remote Supervisor Adapter II is installed. You must install the Remote Supervisor Adapter II device drivers to perform the following functions:

- In-band management
- Operating-system shutdown
- Operating-system watchdog
- Loader watchdog

You must install the Remote Supervisor Adapter II device drivers if any of the following software programs were running on the server before you installed the Remote Supervisor Adapter II:

- Automatic Server Restart (ASR)
- IBM Director
- Universal Manageability (UM) Services

The Remote Supervisor Adapter II device drivers are included in the system service package that you downloaded from the IBM Support Web site.

The Remote Supervisor Adapter II device drivers are supported on the following Microsoft Windows operating systems:

- Microsoft Windows 2000 Server
- Microsoft Windows 2000 Advanced Server

Note: If you are installing device drivers manually, note the following information:

- Make sure that the operating system is installed on your server before you install the Remote Supervisor Adapter II device drivers. For information about installing the operating system, see the documentation that comes with your server.
- Be sure to stop any system-management application (for example, IBM Director, or Universal Manageability [UM] Services) before installing the Remote Supervisor Adapter II device drivers. For information about IBM system-management applications, see your server documentation.

Creating a diskette and installing the device drivers

Complete the following steps to create the device driver diskette and to install the Remote Supervisor Adapter II device driver for the Microsoft Windows 2000 operating system.

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click *filename*.exe, where *filename* is the file name for the Advanced System Management Device Driver for Windows that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive.

4. To install the Remote Supervisor Adapter II device drivers (that you extracted from the Advanced System Management Device Driver for Windows file), at the Windows 2000 command prompt, type

   `a:\win2000\setup`, where *a* is the diskette drive letter.

Note: During the installation of the Remote Supervisor Adapter II device drivers, the Windows 2000 Hardware wizard might start because it has detected the Remote Supervisor Adapter II hardware. To close the wizard, click **Cancel**. The actions of the wizard are not needed.

Updating the Remote Supervisor Adapter II firmware code

Note: Be sure you install the Remote Supervisor Adapter II device driver for Windows 2000 before you update the Remote Supervisor Adapter II firmware.

You must update the Remote Supervisor Adapter II firmware code for full feature support. There are two Remote Supervisor Adapter II firmware update files that are included in the system service package that you downloaded from the IBM Support Web site:

- **Remote Supervisor Adapter II Firmware Update (Packet file)**

  You will need to access this packet file when you use the Update Firmware feature in the Remote Supervisor Adapter II Web interface to update the Remote Supervisor Adapter II firmware. To create a diskette containing the packet file, see "Creating an update diskette containing the packet file".

- **Remote Supervisor Adapter II Firmware Update for Windows**

  You will need the files contained in this Firmware Update for Windows file when you update the Remote Supervisor Adapter II firmware from a command prompt. For more information, see "Updating the Remote Supervisor Adapter II firmware from the command prompt" on page 5.

Creating an update diskette containing the packet file

Complete the following steps to create a diskette containing the firmware update packet file:

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click **filename.exe**, where *filename* is the file name for the Remote Supervisor Adapter II Firmware Update (packet file) that is listed in the readme file.

   Note: Be sure to select the firmware update for the Remote Supervisor Adapter II product and not the Remote Supervisor Adapter product.

   The files are automatically extracted to the diskette in the diskette drive.
4. Remove the diskette from the diskette drive and label the diskette.
5. To update the Remote Supervisor Adapter II firmware, use the Update Firmware feature of the Remote Supervisor Adapter II Web interface. For information about using this feature, see the "Updating firmware" section in the *IBM Remote Supervisor Adapter II User's Guide*.

Updating the Remote Supervisor Adapter II firmware from the command prompt

Complete the following steps to update the Remote Supervisor Adapter II firmware code from the Windows 2000 command prompt:

1. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
2. Double-click **filename.exe**, where *filename* is the file name for the Remote Supervisor Adapter II Firmware Update for Windows that is listed in the readme file.

   The files are automatically extracted to the d:\ibmssp directory.
3. At the Windows 2000 command prompt, type the following command and press Enter:

   d:\ibmssp, where *d* is the hard disk drive letter.
4. To update the Remote Supervisor Adapter II firmware, type the following command and press Enter:

   wflash.exe -r

Updating the integrated system management processor firmware code

If your server has an integrated system management processor (ISMP), you must update the ISMP firmware code for Remote Supervisor Adapter II support. The ISMP firmware code for your server is included in the system service package that you downloaded from the IBM Support Web site.

Complete the following steps to create an ISMP firmware update startable diskette and update the ISMP firmware code:

1. Insert a blank diskette into the diskette drive.
2. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
3. Double-click **filename.exe**, where *filename* is the file name for the integrated system management processor update that is listed in the readme file.

   The files are automatically extracted to the diskette in the diskette drive and a startable diskette is created.
4. To update the ISMP firmware code, restart the server with the integrated system management processor update diskette in the diskette drive.
5. After the ISMP firmware code is updated, remove the diskette from the diskette drive and label the diskette.

Installing the video device driver

If the server in which the Remote Supervisor Adapter II is installed is running the Microsoft Windows 2000 operating system, you must install the video device driver for remote video support for the Remote Supervisor Adapter II. The video device driver is included in the system service package that you downloaded from the IBM Support Web site.

Complete the following steps to install the video device driver if your server is running the Windows 2000 operating system:

1. Remove any previous version of the device driver:

   a. Go to the Windows Control Panel and click **Add/Remove Programs**.
   b. Click **ATI Control Panel**, if present; then, click **Change/Remove**. Follow the instructions in the resulting screens. When queried, indicate that you do not want to restart the server.

    c. Click **ATI Display Driver**; then, click **Change/Remove**. Follow the instructions in the resulting screens. Restart the server when queried to do so.

2. Create a folder named *d*:\video, where *d* is the hard disk drive letter.

3. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.

4. Double-click *filename*.**exe**, where *filename* is the file name for the ATI Radeon Video Device Driver that is listed in the readme file.

5. Follow the instructions in the InstallShield Wizard. In the Location to Save Files window, click **Change** and select the *d*:\video directory. The files are automatically extracted to the *d*:\video directory.

6. In the Windows Control Panel, click **Add New Programs**; then, click **CD or Floppy** and follow the instructions on the screen. Click **Browse** to direct the utility to the *d*:\video directory, which is where the video device driver files are located.

7. Install the Windows 2000 ATI RADEON driver. Follow the directions in the InstallShield screens. If you are asked whether to continue installing ATI, click **Yes**.

    Note: It might be necessary to change the file type from **Setup Programs** to **Programs** in the Browse window to see the device-driver files.

8. When queried, indicate that you want to restart the server.

Using the Configuration/Setup Utility to view and change Remote Supervisor Adapter II settings

The Configuration/Setup Utility program is a menu-driven utility program that is part of the BIOS code that comes with your server. You can use this utility program to view and change the following Remote Supervisor Adapter II information:

- MAC address
- DHCP setting
- Current IP address
- Subnet mask

Complete the following steps to use the Configuration/Setup Utility program to view and change the Remote Supervisor Adapter II settings:

1. If you have not already done so, update the server BIOS code. For more information, see "Updating the server BIOS code" on page 2.

2. Turn on or restart the server and watch the monitor screen.

3. When the message `Press F1 for Configuration/Setup` appears, press F1.

    Note: If you have previously set both levels of passwords (power-on and administrator), you must type the administrator password to access the full Configuration/Setup Utility menu. Without the administrator password, limited Configuration/Setup Utility program functions are available.

4. Select **Advanced Setup** and then select **RSA II Settings**. The RSA II Settings window opens.

5. Select the values you want to change. If you want to change the **DHCP Control** setting, the values are:
   - **Try DHCP server. If it fails, use static IP config.** (default)
   - **DHCP Enabled**
   - **Use Static IP**

6. If you make changes, select **Save Values and Reboot RSA II**.

Note: If you plan to use DHCP, record the MAC Address of the Remote Supervisor Adapter II and give it to your network administrator. Your network administrator will give you the IP address.

Using the Advanced Settings Utility to configure Remote Supervisor Adapter II settings

You can use the Advanced Settings Utility to directly configure the Remote Supervisor Adapter II. This command-driven utility is included in the system service package that you downloaded from the IBM Support Web site.

You can perform the following tasks using the Advanced Settings Utility:
- Configure the Remote Supervisor Adapter II Ethernet settings
- Configure the Remote Supervisor Adapter II serial connection settings

Note: Be sure to install the Remote Supervisor Adapter II device drivers *before* using the Advanced Settings Utility. To install the device drivers, see "Remote Supervisor Adapter II device drivers for Windows 2000" on page 3.

Unpacking the utility files

Complete the following steps to unpack the Advanced Settings Utility files:
1. Change to the *d*:\ibmssp directory, where *d* is the hard disk drive letter.
2. Double-click **filename.exe**, where *filename* is the file name for the Remote Supervisor Adapter II Advanced Settings Utility for Windows that is listed in the readme file.

    The files are automatically extracted to the *d*:\ibmssp directory.
3. At the Windows 2000 command prompt, type the following command and press Enter:

    d:\ibmssp, where *d* is the hard disk drive letter.

    You have to type the **asu** commands from the directory in which the Advanced Settings Utility files are located.

Using the asu command

The Advanced Settings Utility uses the **asu** command. You can use the following modes with the **asu** command.

Notes:
1. In the following list of commands, *setting* is the Remote Supervisor Adapter II setting that you want to view or change, and *value* is the value that you are placing on the setting.
2. If *value* contains spaces, enclose the value string with quotation marks (").
- To see all of the **asu** command modes and options, type the following command:

    asu
- To change a value, type the following command:

    asu set *setting value*
- To show the current value, type the following command:

    asu show *setting value*

- To show all possible values, type the following command:

  ```
  asu showvalues setting value
  ```

You will need to install a code patch to update the asu command files before using the **asu** command. Complete the following steps to install the code patch:

1. At the Windows 2000 command prompt, type the following command and press Enter:

   d:\ibmssp, where *d* is the hard disk drive letter.

2. Type

   asu patchadd *filename*.def, where *filename* is the file name of the *.def file in the *d*:\ibmssp directory.

Configuring the Ethernet settings

The Remote Supervisor Adapter II requires configuration to enable remote access to the adapter through the adapter Ethernet and serial connectors.

For detailed information about using the Remote Supervisor Adapter II Web interface for remote access, see the *IBM Remote Supervisor Adapter II User's Guide*.

You can use the Advanced Settings Utility to configure the Remote Supervisor Adapter II Ethernet settings.

Note: If you have an accessible, active, and configured Dynamic Host Configuration Protocol (DHCP) server on your network, the host name, IP address, gateway address, and subnet mask are set automatically. You can use the Configuration/Setup Utility program that is part of the server BIOS code to select DHPC server settings. For more information, see "Using the Configuration/Setup Utility to view and change Remote Supervisor Adapter II settings" on page 6. You can also configure the DHCP setting using the Advanced Settings Utility. To use the utility, continue with the following procedure.

If you have an enabled DHCP server and you want to configure the serial connector, go to "Configuring the serial connection" on page 9.

Complete the following steps to configure the Ethernet settings if you do not have a DHCP server on your network:

1. If you have not already done so, unpack the files in the Remote Supervisor Adapter II Advanced Settings Utility for Windows file. For more information, see "Unpacking the utility files" on page 7.

2. At the Windows 2000 command prompt, type the following command and press Enter:

   d:\ibmssp, where *d* is the hard disk drive letter.

3. To view a list of all settings and their assigned values, type the following command and press Enter:

   ```
   asu show all
   ```

4. From the following list, select the items that you want to set:
   - To enable the network interface on the Remote Supervisor Adapter II, type the following command and press Enter:

     ```
     asu set RSA_Network1 Enabled
     ```

- To set the IP address, type `asu set RSA_HostIPAddress1`, type the IP address of the Remote Supervisor Adapter II, and press Enter.
- To set the subnet mask, type `asu set RSA_HostIPSubnet1`, type the value for the subnet mask, and press Enter. The default value is 255.255.255.0.
- To set the gateway IP address, type `asu set RSA_GatewayIPAddress1`, type the IP address of the gateway, and press Enter.
- To enable DHCP, type `asu set RSA_DHCP1 Enabled`, and press Enter.
- To set the data-transfer rate, type `asu set RSA_LANDataRate1 "10M Ethernet"` for 10 Mbps data-transfer rate or `asu set RSA_LANDataRate1 "100M Ethernet"` for 100 Mbps data-transfer rate, and press Enter.
- To set duplex mode, type `asu set RSA_Duplex1 Half`, `Full`, or `Auto`, and press Enter.

5. To exit the command prompt, type `exit`.

Configuring the serial connection

You can use the Advanced Settings Utility to configure the Remote Supervisor Adapter II serial connection. The serial connector connects to a modem for dial-out support only.

Complete the following steps to configure the Remote Supervisor Adapter II serial connection for access to a modem:

1. If you have not already done so, unpack the files in the Remote Supervisor Adapter II Advanced Settings Utility for Windows file. For more information, see "Unpacking the utility files" on page 7.

2. At the Windows 2000 command prompt, type the following command and press Enter:

   `d:\ibmssp`, where *d* is the hard disk drive letter.

3. To view a list of all of the settings and assigned values, type the following command and press Enter:

   `asu show all`

4. You can select from the commands in the following list:

   - To change the modem baud rate, type the following command and press Enter:

     `asu set RSA_ModemBaudRate1` *value*, where *value* is a number from 2400 to 57600 in increments of 2400 (for example, 2400, 4800, 7200, 9600, ...57600). The default is 57600.

     Note: Make sure that the baud rate matches the baud rate of the device you are connecting to the serial connector on the Remote Supervisor Adapter II.

   - To change the modem parity, type the following command and press Enter:

     `asu set RSA_ModemParity1` *value*, where *value* is None, Odd, Even, Mark, or Space. The default is None.

   - To change modem stop bits, type the following command and press Enter:

     `asu set RSA_ModemStopBits1` *value*, where *value* is either 1 or 2. The default is 1.

5. To exit the command prompt, type `Exit`.

Appendix. Notices

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