Avaya Virtual Services Platform 9000

Important Notice

CP Module Compact Flash Replacement

Issue

The 9080 CP module, used on the Virtual Services Platform 9000 (VSP 9000) uses an internal and external compact flash (CF) card. Specific versions of these compact flash cards have internal microcode errata and require field replacement of these compact flash cards. This errata applies to shipments that occurred in 2010 and early 2011. See the following sections for information about how to identify if your cards have the errata.

Symptom

If a 9080 CP module is reset during a DMA write to the CF card, the CF card can become non-responsive to additional read or write requests until the 9080 CP module has been power cycled. This problem can occur with both the internal and external CF cards. You must replace both CF cards and return the cards to Avaya for reformatting and a microcode update.

ATTENTION:

This notice assumes that the chassis is a functioning, dual-CP module chassis. If you use only one CP module, contact your Avaya Support team before proceeding.

Identifying the version of the CF cards using software

You can perform this verification procedure using Release 3.0.0.0 or later software.

Prerequisites

- The HA-CPU flag is true
- You have console access to both CP modules.

Procedure steps

1. On the console port of a CP module, perform the following actions to determine if you are connected to the Master CP:

    a. Login using the rwa account.

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b. At the prompt, enter **enable**.
c. Verify if you see an at sign (@) for the first character of the prompt.

   If you see an @ sign for the first character, you are connected to the Backup CP module. If you do not see an @ sign, you are connected to the Master CP module.

d. If you see the @ sign, perform steps a, b, and c on the console port of the other CP module to verify you no longer see the @ sign.
e. Make note of which slot is the Master and which slot is the Backup.
   To identify the slot number, look at the prompt. The slot number appears after the colon (:) in the prompt.

2. From the Master CP console connection, use the following command to determine if the internal and external flash are the version that requires an upgrade:

   show sys-info card

   Look for the lines that begin with *IntFlashFWRev* and *ExtFlashFWRev*. These lines show information about the internal and external flash devices on the CP module. Flash devices that show the string *K1169-2* have the errata and must be replaced. In the following example output, only the external flash must be replaced:

```
IntFlashFWRev : STI Flash 8.0.0 06/20/07
ExtFlashFWRev : STEC M2+ CF 9.0.2 K1169-2
```

3. If the flash is a suspect version, continue with the procedure Replacing the CF cards. If the flash is not a suspect version, you do not need to proceed further.

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Identifying the version of the CF cards using visual inspection

You can visually inspect the cards to determine if they are one of the early models. Disable the CP module and remove it from the chassis. The early models, both internal and external, have the QC label printed in black text on a white label and the part number ends with *M2PU*. Replace this CF card with the newer CF card. See the following figure for an example of an early model CF card.



Figure 1. Suspect internal CF card (needs to be replaced)

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The newer CF cards, without the errata, use a part number that ends with *M2TU* and have a QC label printed in black text on a white label. CF cards that use a part number that ends with *M2PU* but have a QC label printed in white text on a green label are also acceptable. See the following figure for examples of a new internal CF card.



Figure 2. Front and rear view of good internal CF cards (without microcode errata)

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See the following figure for an example of the external CF card.



Figure 3. Front view of external CF card

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Replacing the CF cards

The following figure shows the contents of the CF replacement kit. The kit includes an internal CF card, an external CF card, and a 4 GB USB flash device.

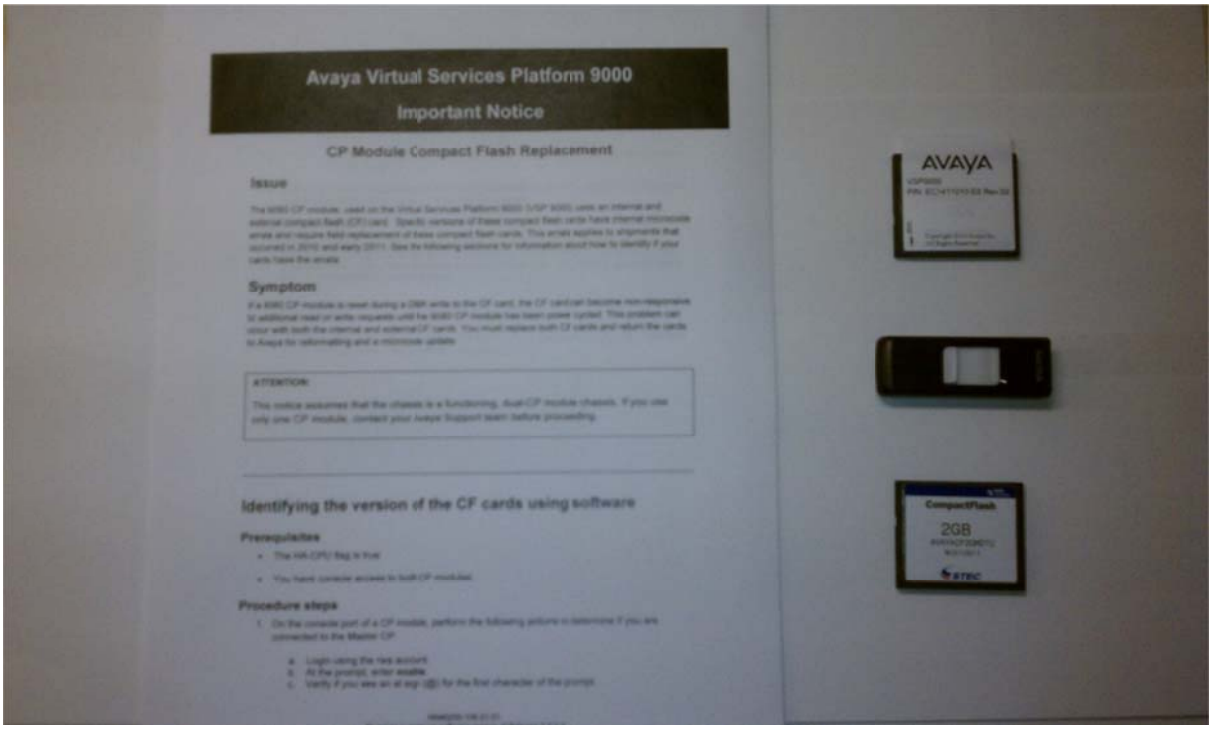


Figure 4. CF replacement kit contents

Prerequisites

- You must have one empty 4 GB USB Flash drive.
- You must have the correct number of new compact flash devices.
- You must upgrade to Release 3.0.2.0 or later to use the backup and restore commands.

Procedure steps

1. Insert the USB drive into the Backup CP module.
2. On the Backup CP console connection, perform the following actions:
    a. Login using the rwa account.
    b. At the prompt, enter **enable**.
3. Format the USB drive:

    dos-format /usb

    Enter **y** after the system prompts if you are sure you want to format.

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4. Copy all files from the Backup CP module internal flash to the USB drive at /usb/intflash:

   backup intflash

   This command causes the system to verify that an empty 4 GB USB flash device is in the Backup CP module. If the internal flash is used for logging, the system automatically enables logging to the external flash, if one exists, or disables logging.

```
Warning: Internal flash is being used for logging right now.
       Backup/Restore intflash is not allowed. Please use the
       following CLI command in the global configuration mode
       to disable the logging to intflash, then try again.

 Case 1: If extflash is not present, disable the global logging.
       Command: no boot config flags logging

 Case 2: If extflash is present, enable logging to extflash.
       Command: logging logToExtFlash

 Execute Command: logging logToExtFlash

 LoggingToPcmcia 1 LoggingToIntflash 0
```

5. Enter **y** at the following prompt:

```
Warning: Command will backup all data from /intflash to /usb/intflash.
         It will take a few minutes and may cause high CPU utilization.

          Are you sure you want to continue? (y/n) ? y
```

   The copy action can take up to 10 minutes.

6. After the backup is complete, a prompt appears to stop the USB. Enter **n**:

```
   Do you want to stop the usb? (y/n) ? n

Logging to Intflash stopped

Logging to Extflash started
```

7. Copy the external flash on the Backup CP module to the USB drive at /usb/extflash:

   backup extflash

   If the external flash is used for logging, the system automatically disables logging to the external flash.

```
Warning: External flash is being used for logging right now.
       Backup/Restore extflash is not allowed. Please use the
       following CLI command in the global configuration mode
       to disable the logging to extflash, then try again.

       Command: no logging logToExtFlash

 Execute Command: no logging logToExtFlash

 LoggingToPcmcia 0 LoggingToIntflash 1
```


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8. Enter **y** at the following prompt:

```
Warning: Command will backup all data from /extflash to /usb/extflash.
         It will take a few minutes and may cause high CPU utilization.

         Are you sure you want to continue? (y/n) ? y
```

9. After the backup is complete, a prompt appears to stop the USB. Enter **y**:

```
      Do you want to stop the usb? (y/n) ? y
/bin/umount /usb >& /dev/console

It is now safe to remove the USB device.

Logging to Extflash stopped

Logging to Intflash started
```

10. Remove the Backup CP module from the chassis.

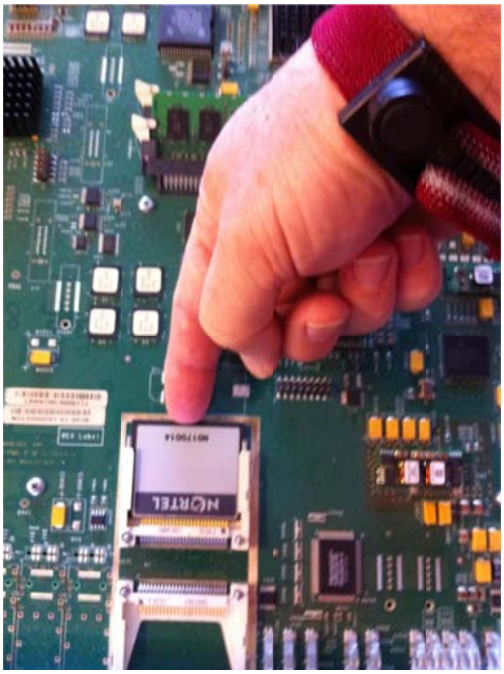
11. Replace both the internal and external flash cards on the removed module. To replace the internal flash card:

    a. Place a piece of magic or scotch tape on top of the internal flash card to form a pull tab. Pull away from the front of the card.



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b. Insert the new flash card in the empty socket.



12. Reinstall the Backup CP module.

13. Reconnect the console cable to the Backup CP module. The module will start and stop at the Lifecycle recovery menu. This menu will vary depending on the software release you are running. Some earlier releases will display a menu with 2 steps and later releases will display up to 4 steps that you will need to select from. The details below provide a sample of a 4 step view.

14. Enter **2**.

```
Lifecycle recovery menu

 1 - Save all config files in /intflash but not subdirectories;
      Save primary and secondary software releases;
      Reformat /intflash; Reboot
 2 - Reformat /intflash; Reboot
 3 - Select software release;  Reboot
 4 - Reboot with factory default configurations

 q - Quit

 Please make your selection: 2
```

15. At the prompt for the backup data storage location, enter **1**.

```
Select media for temporary storage

   1 - /dev/shm
   2 - /extflash
   3 - /usb

 Please make your selection: 1
```


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Note: If the Backup CP module does not respond to keystrokes in the Lifecycle recovery menu, it may have been powered down by the Master CP module. In this case, enter the following command in Global Configuration mode on the Master CP module console:

sys power slot <backup CP slot number>

For example, if the Master CP module is in slot 1, enter the following command:
sys power slot 2

The Master CP module will synchronize the current running release.

16. Restore the data on the USB drive to the internal flash:

    restore intflash

17. Format the external flash:

    dos-format /extflash

18. Restore the data on the USB drive to the external flash:

    restore extflash

19. On the Master CP module, enter the following command to force a switch-over between the Master and Backup CP modules:

    sys action cpu-switch-over

    The Master and Backup CP modules reverse roles.

20. Repeat steps 1–19 for the new Backup module.

21. Use the provided envelope to return the suspect CF cards to Avaya.

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