

## APPENDIX D

### MP SWITCH PROCEDURE

**CAUTION:** Normally the VIP will return to operational status after the switch is performed. This can be verified by checking the VIP icon on the CRS Status window and the status on the VIP main menu. However, if the switch takes long enough, the VIP server application will stop and the GUI interface will shut down. In this case, the operator must restart the VIP application from the VIP by clicking on the VIP icon to start the VIP GUI interface. Once the GUI interface has started and the main menu is displayed, the operator must start the VIP server application by clicking “start” on the main VIP menu.

The VIP will application will stop if it is unable to establish a sftp connection to the Master MP. It will try for four minutes before terminating. Normally during the planned MP switches described below (D-1 and D-3), the four minute timeout will not occur, and the VIP will be operational following the completion of the switch. However, during a Master MP failure (D-2 described below), if the operator does not recognize the failure immediately and take immediate action, the VIP application could easily go four minutes without establishing a Master MP connection and consequently terminate. In this case, the operator would need to re-start the VIP application as described above.

**CAUTION:** Normally following a successful MP switch, the CRS application will come back up very quickly (less than a minute). However, in some cases the database verification will initially fail if an incoming VIP message is being processed at exactly the wrong time. This will be indicated by the “bouncing” effect of the CRS status indicator. That is, the arrow will alternate between flashing green up and flashing red down. Also a high priority Alert Monitor message will appear indicating that DB\_VV has terminated. Eventually, i.e. after about 5 minutes, CRS will come up successfully and the database problem will be resolved. However, if the “bouncing” continues to occur, it should be assumed that the database is corrupt and steps should be taken to restore it.

For a planned (both MPs remain up and running) Master switch, the operator will use the **Main Processor Switch** sub-menu available from the **Maintenance** menu in the main CRS menu. This will allow the user to switch MPs. If the 0MP fails and the operator needs to quickly switch to 5MP as the Master. All that is required is to login to 5MP as **switchmp**. Please follow the specific instructions described below for implementing MP switch.

#### D-1 Planned MP Switch

1. To switch 0MP to Shadow and 5MP to Master, click on **Maintenance** and then click on **Main Processor Switch** when the **Maintenance** pull-down menu appears. The **Main Processor Switch** menu is displayed.

**NOTE:** The **Main Processor Switch** window will display the opposite of the current situation. That is, the software assumes the operator wants the 5MP to become the Master, while retaining the Shadowing feature. The operator may selectively modify the display to effect the desired changes, i.e., select the **No** radio button to eliminate Shadowing.

2. Verify that the **5mp** and **Yes** radio buttons are selected (see parenthetical notes described above) and then click on the **Save** hotkey (diskette icon). The **Wait For Autoswitch** dialogue and **Message Monitor** window are displayed. Once the **Autoswitch in 15 seconds** timer expires, the switch is executed, the screens on both MPs momentarily go blank, and then **Status** messages appear on both MPs. The **CRS Login** screens eventually appear on both terminals (signaling that the switch has been completed), and both screens display **5mp** as the new Master.

3. Log into CRS from both operator terminals and verify via the **Status** window that **5mp** is now the Master and **OMP** is the Shadow. Also verify the *CRS* is operational, that **Shadowing** is **enabled**, that *ACP1* and *ACP2* are **operational**, and that assigned transmitters are active (i.e., no diagonal slash). The CRS interface is presented on both operator terminals, and the **Status** window on **5mp** displays **Master Console** and the **Status** window on **OMP** displays **Shadow Console**.

## D-2 OMP Failure

1. To switch **5mp** to Master, the **gray** screen on **5MP** must be made to disappear by pressing **<Alt> <Sys Req>**, and then type an **n**. The screen on **5mp** momentarily goes *blank*, and then the **Console Login** screen appears. (If it does not appear, repeatedly press the **<Enter>** key until it does.)
2. Type in the username **switchmp** at the prompt and type the **password** when prompted. The switch is executed, causing **5mp** to become the Master. When the switch has completed, the **CRS Login** screen appears on **5mp** (the new Master).
3. Log into CRS from **5mp** and verify via the **Status** window that **5mp** is now the Master. Also verify that *CRS* is *operational*, that *Shadowing* is *disabled*, that *ACP1* is *operational*, that *ACP2* is *non-operational*, and that assigned *transmitters* are *active* (i.e., no diagonal slash). The **Status** window on **5mp** displays **Master Console**.

## D-3 Returning Master To OMP After Failure Recovery

1. Assuming the problem with **OMP** has been fixed, reboot **OMP** by pressing **<Enter>**. **OMP** will reboot and the **CRS Login** screen appears when it finishes.
2. The first step to returning **OMP** to the CRS is to enable Shadowing so that its database is updated. Make sure that **OMP** has finished rebooting before enabling **Shadowing**. To enable Shadowing, click on **Maintenance** and then click on **Main Processor Switch** when the **Maintenance** pull-down menu appears. The **Main Processor Switch** menu is displayed.
3. Click the **5mp** radio button to sustain **5MP** as the Master and make sure that the **Yes** radio button in the **Shadow** field has already been selected. Click the **Save** hotkey (diskette icon). The **Shadow Synchronization Warning** is displayed in the form of a **Question** dialogue.

**NOTE:** When switching in an MP that previously was disabled, you must make it the Shadow before you can make it the Master; hence the reason for sustaining the current Master. Once the it's database is synchronized with the Master's database, it can safely be returned to Master.

4. Click the **OK** button in the *Question* dialogue. The **Wait for Autoswitch** dialogue and **Message Monitor** window are displayed. Once the **Autoswitch in 15 seconds** timer expires, the switch is executed, the screens on *both MPs* momentarily go **blank**, and then **Status messages** appear on both MPs. The **CRS Login** screens eventually appear on both terminals (signaling that the switch has completed.)
5. **Log** into CRS and verify via the **Status** window that *CRS* is *operational*, that **Shadowing** is **enabled**, that *ACP1* and *ACP2* are **operational**, and that assigned **transmitters** are **active** (i.e., no diagonal slash).
6. To return **OMP** to Master, follow the instructions in the “Planned MP Switch” described above, being careful to exchange **OMP** for **5MP** and vice versa.