

Post UPS failure recovery of MODS

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Problem:

If the power is lost to the MODS computer rack (e.g., mods1, mods1data, et al.), but power is not lost on the instrument proper, the Control network serial port server units can hang, refusing new connections when the MODS instrument mechanism control programs are restarted.

This document describes how to reboot the Control units and then restart MODS after such a failure.

Recovery:

All of these steps are performed while logged into the mods1data machine as user “mods”. You can login via VNC link to mods1data, provided it is up and running after power is restored to the MODS computer rack.

Step 0: Make sure that the **mods1data** and **mods1** computers are on and running.

Once they are running (they may automatically reboot after power is restored, but sometimes they do not), login to mods1data as user mods, either on the KVM console in person or via a VNC link from a remote site. You need to be on the MODS instrument subnet (192.168.139.xxx) to access the Control units. The Firefox browser on mods1data is setup with bookmarks to the Control units (if not, meaning someone has monkeyed with the browser settings, see the table at the end of this document for the IP addresses).

Step 1: Stop MODS services

```
mods1 stop imcs
mods1 stop agw
mods1 stop ie
```

This makes sure all services that attempt to use the Control units are not running. All of these services must be restarted **after** rebooting the Control units, so it makes sense to stop them now.

Step 2: Reboot the Control Units

Be logged into the X11 console (in-person on the KVM console or via an x11vnc session)

Start the Firefox browser.

From the Bookmarks, select “MODS1 Red IEB Control 1”. This will connect to the Control unit’s internal admin server, and display the unit’s “Server Configuration” screen.

Scroll to the bottom of the screen

Press the “**Reboot**” button.

Press the confirmation “**Yes: Reboot**” button

After 10-15 seconds, you should see the Server Configuration screen again, showing all the ports reset.

Repeat this step for the following Control Units in the browser’s Bookmarks

MODS1 Red IEB Control 2

MODS1 Red HEB Control

MODS1 Blue IEB Control 1

MODS1 Blue IEB Control 2

MODS1 Blue HEB Control

NOTE: the IEB Control units are 8-port servers, the HEB units are 2-port servers. When the unit reboots, the ports’ TCP Connection Status will display all zeros in the entries.

Step 3: Start MODS services

```
modsl start isis  
modsl start ie  
modsl start agw  
modsl start env  
...
```

And so forth to do a full MODS restart following the usual procedures.

A less “hand operated” way to reboot stuck Control units is being developed.

Appendix: IP Assignments of the MODS1 Control Units

Control Unit	IP Address
MODS1 Red IEB Control 1	192.168.139.101
MODS1 Red IEB Control 2	192.168.139.102
MODS1 Red HEB Control	192.168.139.103
MODS1 Blue IEB Control 1	192.168.139.111
MODS1 Blue IEB Control 2	192.168.139.112
MODS1 Blue HEB Control	192.168.139.113