



W. W. Hansen Experimental Physics Laboratory
STANFORD UNIVERSITY
STANFORD, CALIFORNIA 94305-4085

Gravity Probe B Relativity Mission

MISSION OPERATIONS CENTER
MOC Replace Network Hardware
With Spares

P0902 Rev B
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Prepared By:

Date: _____
Jeff R. Wade
Systems and Network
Security Manager

Checked By:

Date: _____
Raymond A. Pressburg
Quality Assurance

Approvals:

Date: _____
Ron Sharbaugh
Software Manager

Date: _____
Marcie Smith
Mission Operations Center Manager

REVISION RECORD

REVISION	ECO	PAGES	DATE
A	1373	Removed requirement to troubleshoot router. Added requirement to troubleshoot firewall	7/2/2002
B	1376	Reworked steps associated with Troubleshooting the Network Switch	8/13/02

SCOPE

In the event of a Mission Operations Center (MOC) system hardware failure during mission operations, it is imperative that the System Administrator/Designee be contacted immediately.

The purpose of this document is to provide instructions for MOC personnel to follow in the event of a network hardware failure.

Applicability:

This procedure applies to all personnel involved MOC operations. The requirements outlined in this document are mandatory.

Quality Assurance

Quality Engineering is to be notified prior to performance of any hardware troubleshooting/replacement and will witness all actions. If Quality Engineering is not available they may delegate the Quality tasks to the MOC Mission Director. All actions taken will be documented in the MOC Test Anomaly Report.

Responsibilities:

System Administrator/Designee: Name _____ Date _____

- Troubleshooting the Network Switch: CHECK
- Verify power is on the switch. Ensure green lights on front panel are ON. _____
- If the switch is powered on perform a connectivity test between two local devices. _____
(If connectivity is obtained contact system

administrator).

- If other local devices do not pass the connectivity test, replace the switch per the following instructions:
 - Verify mode switch is set at stat. _____
 - Replace colored ethernet cables (one for one) from one network switch to the other network switch. _____
 - Verify mode switch remains at stat. _____
 - Reboot PODs D and E. _____
- Troubleshooting the Firewall CHECK
- Verify power is on. _____
- If power is on, verify there is connectivity with the other sub-nets. _____

NOTE

THE PRE-CONFIGURED FIREWALL HAS ALL SOFTWARE CONFIGURATIONS PROGRAMED

- If there is no connectivity between the other sub-net devices replace the existing network firewall with the back-up pre-configured firewall. _____
 - A. Test moc-server switch for connectivity
 - login to moc-server _____
 - Ping moc-crunch _____
 - Ping POD D1 and POD E1 _____
 - If all fail – replace switch with backup switch, otherwise continue with B
 - B. Test science switch for connectivity
 - login to science _____

- ping science crunch _____
- ping sciencelp _____
- If both fail replace switch using steps 1, 2 & 3.
 - 1. Verify switch is at stat _____
 - 2. Replace colored ethernet cables one for one. _____
 - 3. Reboot PODs D and E _____

C. Test firewall for connectivity

- login to moc-server _____
- ping science _____
- if ping succeeds go to step D
- if ping fails replace firewall with steps 1 – 3
 - 1. Verify power is on firewall _____
 - 2. Move cables from one fire wall to the to the other firewall (one for one). _____
 - 3. login to moc-server and ping science _____

D. No hardware needs replacement, elevate issue to Flight Director