DRAFT

Title: Primary OPS Suite Operations with Full Redundancy / Switchover Capability

Objectives:

Operations

- Startup / shutdown Primary OPS Suite nodes, ANCC nodes, and T&T nodes.
- Configure LAN connectivity.
- Demonstrate Backup node capability to receive and act upon database updates performed on the Prime node.
- Monitor NCCDS activity:
  - ⇒ Monitor NCCDS nodes' resource utilization.
  - ⇒ Monitor NCCDS traffic patterns and loads.
  - ⇒ Respond to anomalies reported by any NCCDS component.
- Manage NCCDS Hardware, Software, and Network configuration:
  - ⇒ Define hardware configuration (Prime / Backup).
  - ⇒ Define software allocation to hardware.
  - ⇒ Manage connectivity with external sites.
  - ⇒ Review NCCDS configuration database.
- Generate reports from NSM workstation.

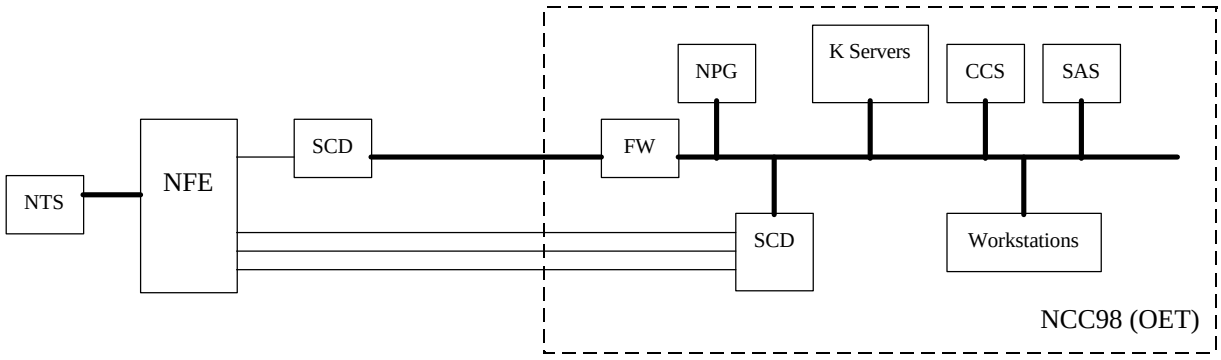
Switchover (Contingent upon equipment availability)

- Single Component.
  - ⇒ Prime to Backup
  - ⇒ Restoration of Backup
- Complete String (Primary OPS Suite strings).

General

- Validation of NCC98 Documentation.
- Training / Skills Catalog check-off / Complete TERs.

Configuration:



This scenario requires the systems listed above. No external connections required.

Prerequisites:

- Copy of current Static and Dynamic databases resident on NCC98 systems.
- Current OPS and Test passwords resident in system.
- Prime and Redundant nodes available for all systems.

Data Source:

- NTS

Ops Scenario: (Italicized steps are performed by NSIA, all others are performed by the operator.)

STARTUP

1. Define Software allocation to Hardware
2. Start-up Primary OPS Suite nodes.
3. Start-up ANCC nodes.
4. Start-up T&T nodes.

SINGLE NODE SWITCHOVER

5. Select systems to Switchover to Backup Nodes.
6. Perform Switchover and verify Switchover completes normally.
7. *Verify external connects remain functional.*

COMPLETE STRING SWITCHOVER (perform to encompass all strings)

8. *Perform database / event changes.*
9. OE performs Switchover off all systems from Prime to Backup nodes.
10. *Verify all changes performed are resident on current nodes.*
11. OE assigns available nodes as Backup.
12. *Verify external connects remain functional*

SIMULATE SWITCH FAILURE

13. Chose switch to fail.
14. Fail switch and witness transition to nodes on other switch.

OPERATIONS MONITORING / LAN LOAD

15. *Start performing workstation functions to generate LAN traffic (transmitting SARs, receiving SARs, Transmitting SHOs, receiving OPM 51 s, GCMRs, ODMs / UPD, etc.). Traffic generation should begin at a moderate level, then ramp up to a high level, ramp back down to a moderate level.*
16. Monitor traffic patterns, resource utilization.
17. Generate reports from the NSM workstation.

NODE SWITCHOVER DURING TRANSMISSIONS TO MOC - FIREWALL

21. Commence a bulk SAR transmission to MOCs.
22. Perform Switchover on Firewall.
23. *Confirm receipt of all POCC SARs via NTS.*

NODE SWITCHOVER DURING TRANSMISSIONS TO MOC - NPG

24. *NSIA commences a bulk SAR transmission to Legacy MOCs.*
25. Perform Switchover on NPG.
26. *Confirm receipt of all POCC SARs via NTS.*

NODE SWITCHOVER DURING TRANSMISSIONS TO MOC / GTs - CCS

27. *NSIA commences a bulk SAR transmission to Legacy MOCs and both Ground Terminals.*
28. Perform Switchover on CCS.
29. *Confirm receipt of all POCC SARs, and GT SHOs via NTS.*

NODE SWITCHOVER DURING TRANSMISSIONS TO GT & MOCs (Legacy and TCP/IP) - SPSR (Perform to encompass all K-Class Servers, 3 node to 2 node, 2 node to 1 node, and 1 node to different K-Class server).

30. *NSIA commences a bulk SAR transmission to Legacy MOCs, TCP/IP MOCs, and both Ground Terminals.*
31. Perform Switchover on SPSR.
32. *Confirm receipt of all POCC SARs, and GT SHOs via NTS.*

EXTERNAL CONNECTION FAILURE - Legacy Customer

33. *Cause external Legacy User TCP/IP (PMData) connection to fail.*
34. Identify failed TCP/IP connection and re-establishes the external connection.

EXTERNAL CONNECTION FAILURE - TCP/IP Customer

44. *Cause external TCP/IP User (PMData) connection to fail.*
45. Identify failed TCP/IP connection and perform fault isolation.
46. *Re-establish the external TCP/IP connection.*

Simulate Raid Failure

47. Induce RAID failure in SPSR impacting 1 set of disks.
48. Verify operations have switched to 1 set of disks.
49. Transition to another K-Class server.
50. Restore Second set of disks to RAID server. Verify RAID incorporates disks and begins updating information.
51. Transition back to original K-Class server.

Roles and Responsibilities:

- OPS Engineer
  - ⇒ Monitor NCC98 activity.
  - ⇒ Execute Scenario.
  - ⇒ Generate reports from NSM Workstation.
  - ⇒ Complete Training Event Reports (TERs) as applicable.
  - ⇒ Checkout redlined versions of the following documents:
    - * TBD TBD

- NSIA Engineer
  - ⇒ 5 NSIA Engineers required.
  - ⇒ Observe and assist when required.

- Documentation
  - ⇒ Checkout redlined versions of the following documents:
    - ∗ 532-HB-NCC/OE OE Handbook
    - ∗ 532-SOP-NCC Vol 1 & 2 NCC Standard Operations Procedures
    - ∗ TBD NSM Users Guide

Estimated Run Time: 4 hours.

Written By: Winslow H. Joy, Jr.