CNS/EECS

Memorandum of Understanding

To:
   Cliff Frost -- Director, CNS
   Ken Lindahl
   Mike Sawyer

From:
   David Culler -- Vice Chair, Computing Needs and Resources, EECS
   Hua-Pei Chen
   Fred Archibald

Date:
   July 16th, 1999.

Subject:

The EECS network plant, its computing infrastructure, and its technical staffing have changed dramatically since the basic division of responsibilities between the department and CNS was last discussed as part of bringing Soda Hall on line. CNS has changed as well. We are in the process of planning further internal technical advances, the migration to campus tier 2 services, and internal responsibilities of technical staff. The goal of this memo is to present a coherent and scalable transition plan and to outline both sides’ action plans, responsibilities, and jurisdiction during and after the transition.

1. Technical staff from CNS and EECS had discussed and jointly proposed the following networking architectural plan (see attachment #1):

   • In stead of the existing dual accesses from both Soda and Cory to the CNS’ 128.32.120.0 FDDI ring, there will be one gigabit (1000BaseSX) link (currently at 100BaseFX) from Cory’s BCN router to CNS’ INR-110 router. INR-110 will then have dual 100BaseT links to campus tier 2 routers, with load sharing enabled for both links. It is decided within EECS that support for appletalk/ethertalk will no longer be necessary, thus a third proposed 10BaseX link from INR-110 to a campus tier 1 router will not be necessary.
   • Another link (100BaseFX) will connect the Soda BCN to a campus tier 1 router (INR-107 or equivalent), running OSPF, serving as a backup link only.
   • CNS will initiate a Project Initiation Request (PIR) for the following hardware compounds:
     a. One Cisco 100Base-FX interface for INR-110.
     b. One Cisco 100Base-FX interface for INR-110.
        This will initially be installed as one of the two load-sharing links between INR-110 and campus tier-2 router. Once CNS and EECS finished the transition of various subnets cur-
Currently residing in Soda INR-181 and INR-180, two 100base-FX will be freed up, at that time, one can be deployed as a second link of the INR-110-to-tier2, with the other be used as the backup link.

- A newly installed gigabit link will connect the Soda BCN to the Cory BCN, giving high bandwidth within EECS. This will at EECS’ own cost.
- The two CNS INR-180 and INR-181 routers in Soda will be phased out. All subnets currently being supported by these two routers will be migrated to the Soda BCN router.
- The transition will start July 1st and has a target completion date of September 30, 1999.

2. Requirement from EECS during the transition:

- Multicast traffic through CNS’ tier 2 access should continue be supported.
- Continue participation of the CNS network related planning and deployment.
- Continue participation of the UC Berkeley’s site maintenance program with Nortel.
- A transfer of an up-to-date ANS/Conrad database. All wiring and DNS requests submitted prior to July 1st should be honored. All new requests sent after July 1st to CNS can be returned or forwarded directly to EECS.
- Complete transfer of the CS.Berkeley.EDU DNS data.
- Ownership of the Soda production subnets. These include:
  - CNS should bring all the 5000 NMM agent images up to current revisions. This will be part of a campus wide Y2K compliancy project, since EECS has one of the oldest equipments, CNS will give higher priority to this upgrade.
  - CNS should make sure that all those 5000 chassis hubs are Y2K compliant.
  - CNS should continue to provide the necessary spare parts necessary to repair these production hubs.
  - EECS will speed up the effort to migrate existing production subnets off from CNS’ INR-180 and INR-181 and onto the Soda BCN routers.
  - After all the migration, INR-180 and INR-181 will be returned to CNS, if needed.

3. Requirement from CNS during the transition:

- CNS will continue to maintain and update DNS information on EECS behalf while paperwork is being processed.

4. After transition:

- CNS’s responsibilities:
  - Management of INR-110.
  - Shared responsibility of the gigabit pipe between Cory BCN and INR-110.
  - Ensure that the dual 100BaseFX links between INR-110 and tier 2 routers works (this includes load sharing, multicast, etc.). Traffic analysis and monitoring should be provided when requested.
  - Backup 100BaseFX link should be tested and functional when needed.
  - Additional support in subnet assignments, if necessary.
  - CNS will continue to forward reports of security issues until a more appropriate designated organization has been assigned.
• CNS will handle any calls to the IS&T’s Trouble Desk regarding problems in EECS’ jurisdiction in the following manner: a trouble ticket will be opened in IS&T’s trouble ticket database. The ticket will then be referred to CNS network engineers in the usual manner, according to the severity and urgency of the problem. If it is determined that this ticket falls within the EECS’ jurisdiction, it will be reported to the EECS contact (networks@eecs) and CNS can close the ticket. If it is of a shared nature, the ticket will remain open until both CNS and EECS has completed the task.

• EECS will report any network problems that are in CNS’ jurisdiction by calling the IS&T Trouble Desk @ 642-4920, and opening a trouble ticket.

• EECS (IDSG)’s responsibilities:

  • Primary DNS management (forward and reverse lookups) for all subnets and domains that is entirely based in the communication rooms of Soda and Cory, with the exception of INR-110 and all subnets and domains directly attached to it. This includes all currently delegated subnets and domains in EECS.Berkeley.EDU (Cory Hall) and all CS.Berkeley.EDU subnets:

    SOA for subnets in Soda:
    128.32.32.0 to 128.32.48.0
    128.32.112.0
    128.32.130.0
    128.32.131.0
    128.32.247.0
    169.229.60.0
    169.229.62.0
    169.229.63.0

    Note that this excludes BMRC.Berkeley.EDU and Millenniumm.Berkeley.EDU.

    The tasks would include IP/hostname assignment and changes, DHCP deployment, local subnet requests should be accommodated as much as possible within EECS/CS domains. CNS should provide secondary DNS backups, all IP/hostname assignments for those subnets/domains should be forwarded to hostmaster@eecs and should not be honored unless they are from the hostmaster@eecs. CNS will continue to coordinate any kind of security issues. EECS will be responsible for any kind of security filtering within those subnets it deems necessary.

    • EECS will return the part of the 169.229.1.0/24 subnet currently allocated to EECS back to CNS.
    • EECS (IDSG) will be responsible for all the building wiring within Soda and Cory Halls.
    • EECS (IDSG) will be responsible for all its internal router management.