

Second Stage of the Preliminary Network for SPring-8

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The SPring-8's Storage-ring (SR), Linac (Li) and Synchrotron (Sy) buildings are constructed in the end of this fiscal year (1994). New groups; building utility group and Sy group; were moved to the Harima site and started to use of computer network in the newly constructed SR building (A- and D-zone). The first stage of the preliminary network system[1] was upgraded for those new people of the SPring-8 machine group, and a next plan for the Li- and Sy- buildings are made.

Twenty workstations, fifty personal computers and several VME[2] computers are connected as the first step to the SPring-8 Local Area Network (LAN) using Ethernet TCP/IP protocol.

From August 1993, this LAN was connected to the TISN[3] via Kyoto University (Uji) using NTT's SD-64K line[1]. From January 31st. 1995, this line was up-graded to an SD-512K for the WWW SPring-8 Information service.

The management office building is linked to the SPring-8 network's Router by an ISDN line: Ins-64k (NTT).

Four sets of 8-port 10Base-T HUB and a Fast-Path-5 and a Phone-net star controller were newly equipped for the SR A-zone network as shown in Figure 1. The

Macintosh Phone-net system is also required for the A-zone. A PDS[4] patch panel system was also introduced. Three RJ-45 jacks were mounted in one consent panel. Each SR exp. room has two wall jack consents. Two sets of 4-pairs of UTP cables are installed in one wall consents for the future plan of FDDI and ATM system[5].

This SR A-zone 10Base-T network is linked to the D-zone using 768 kbps Bridge (RAD: MBE-8). This link will be up-graded to 10Mbps optical fiber's Ethernet repeater at the end of March 1995. The Li and Sy-zone are also linked in optical fiber. These fibers are equipped by using an Air Blown Fiber System (ABS).

References

- [1] H.Takebe et. al. : RIKEN Accel. Prog. Rep. 27, 149 (1993).
- [2] T.Masuda et. al. : RIKEN Accel. Prog. Rep. 26, 174 (1992).
- [3] Tokyo University International Science Network.
- [4] Premises Distribution System (Sanki Co. and AT&T).
- [5] Fiber Distribution Data Interface and Asynchronous Transfer Mode.

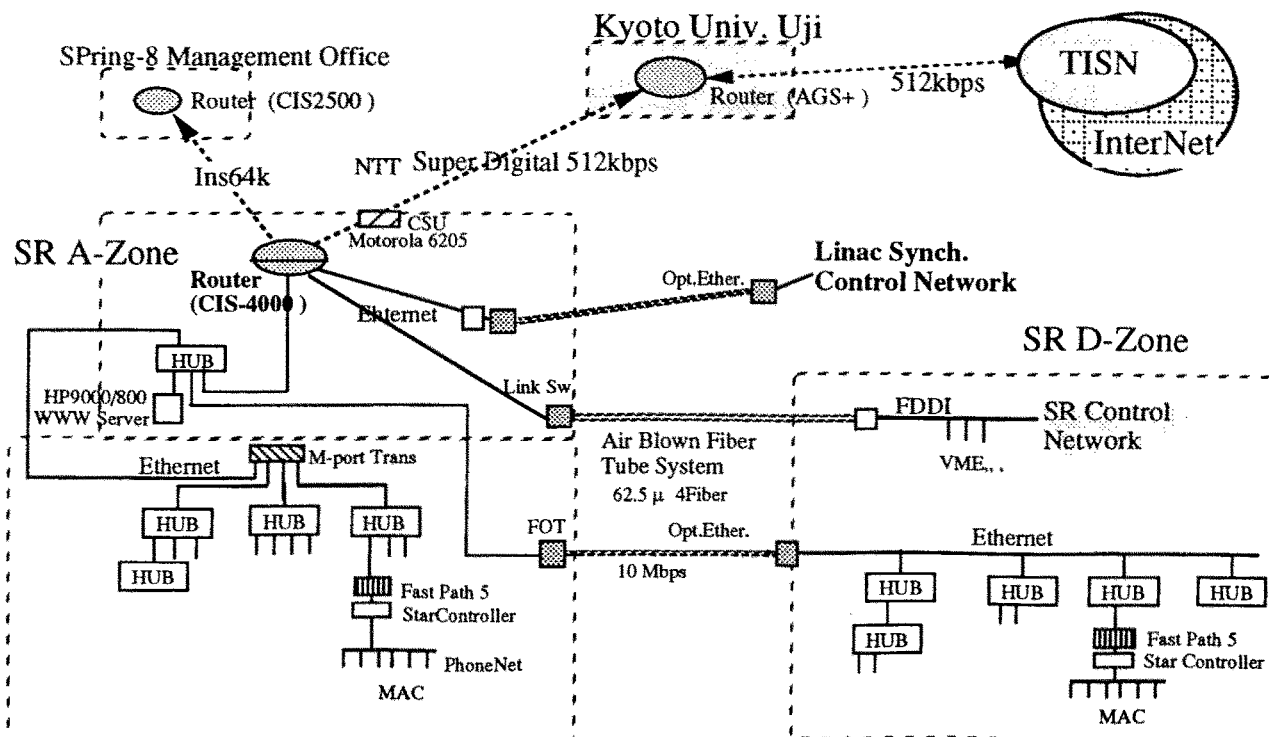


Fig. 1. Computer network of the SPring-8 site (2nd stage).