CN/DPG/93/MIN/7

THE CN DIVISIONAL PLANNING GROUP

Minutes of the Meeting held on 15th. November 1993

PRESENT: R.Brun, J.J.Bunn(Secretary), C.Eck, D.Jacobs, C.M.S.Jones, J.–C.Juvet, C.Letertre, E.McIntosh, M.Metcalf, A.Osborne, H.Renshall, J.Richards, J.Shiers, A.Silverman, D.J.Underhill, T.Whibley, D.O.Williams(Chairman).

- *MINUTES OF LAST MEETING (CN/DPG/93/MIN/6), AND MATTERS ARISING*

The Minutes were accepted as written.

- *CHAIRMAN'S REPORT*

— The HEPCCC had met to discuss external networking; it had been agreed to make an extended trial of EuropaNet in 1994. This is a 512 kbits/second network funded by CERN and Belgian and British physicists.
— A proposal for a multi–year project to install structured networking on the CERN site would be submitted to the DG.
— There had been some meetings with IBM to discuss their SPx machines. This had been in the context of finding suitable platforms for inclusion in PARC; the LHC designers required more computing capacity. However, the prices were still too high.

- *VXCERN "RIGHTSIZING"*

(Note from secretary – this part of the Minutes is derived from notes taken by H.Renshall during my presentation, whom I thank most warmly.)

J.J.Bunn presented the plans for replacing the VXCERN Cluster with a system of Alpha and VAX workstations, and described the work that had already been completed in this area. He referred to the paper describing details of the plan which had been recently circulated to the DPG. Copies of his transparencies are attached. He reminded the DPG that the Division had committed to supporting a VMS service at least until the end of the LEP data taking. D.O.Williams added that this would probably be one year after the stop of LEP.

In reply to questions, JJB clarified the following points:

— Each machine in the "rightsized" cluster would initially be equipped with 128 MBytes of memory.
— There had been a suggestion that the Cluster be connected to two GIGAswitches wired in parallel (for failover), and this was the configuration shown on the transparencies.
— Ethernet connections were retained on each machine for the purposes of failover from FDDI, X.25 connections, and so on. There was nothing to be gained by removing the Ethernet connections.
— The VXCERN cluster alias would be made to point to the three Alpha nodes; users would normally log on to the least loaded machine of this trio. Otherwise, if it was required to log in to the VAX node for whatever reason, then the explicit machine name (VSCRNA) would have to be typed.
— There remained some applications that were still only available on the VAX. These included some system software modules.
— F.Hemmer noted that the VMS port of the SHIFT software that allowed remote staging of tapes to VXCERN was still very preliminary. It was slow because the data transfer took place over Ethernet, which meant that a 200 MByte tape would take 15 minutes to transfer.

There were some worries about the extra load on the SHIFT tape servers that would ensue from VXCERN making exclusive use of the new software for tape access. However, to opti–mise stage data transfer times, an extra FDDI adapter would be configured on the main clus–ter machine (AXCRNC) for attachment to the CORE FDDI network.

— The majority of the equipment that remained to be installed would arrive just before Christ–mas 1993, which made the swap of the RA series disks to their SCSI counterparts a job for January. The hardware and software maintenance contracts for the VAX 9000 had been can–celled from the end of January 1994.

— J.Shiers and C.M.S.Jones both expressed misgivings about the wisdom of serving all the disks on the one node in the Cluster. JJB replied that it was indeed not at all clear whether the machine could handle the traffic, and that it was something that required careful measure–ment. Measurements of the existing traffic in the VXCERN Cluster, however, had shown that the I/O request sizes were rather small, and occured at a rate which, when scaled according to the CPU speed on the new machines, indicated that there should be no problem. In any case, in the event of I/O bottlenecks, the disks could be spread around the other nodes in the Cluster

There followed some discussion on the possibility of similarly rightsizing the VXENG Cluster in the future. Some felt that a more suitable plan would be to integrate the remaining VXENG users into the VXCERN Cluster on their own dedicated cluster nodes.

- *ANY OTHER BUSINESS*

There was none.

- *NEXT MEETING*

The next meeting will be on February 7th. at 10:00 in Conference Room 1, Building 600.

Table 1: Action Items

This list is intended to show the items which are currently awaiting presentation at the DPG. The Entry date is the date of the meeting at which the action item arose, and the Target date is the date by which the action item should have been dealt with.

Name	Entry Date	Target Date	Task
F.Fluckiger	Nov 1991	1993	Give Computer Colloquium on Multimedia
M.Marquina	Nov 1992	Dec 1992	64 bit CERNLIB
J.Altaber	Nov 1992	1993	Use of VSAT for poor countries