NETWORK OPERATING SYSTEM

SHORT TERM OBJECTIVE

IS TO DEVELOP A PROTOTYPE NETWORK OPERATING SYSTEM FOR A 100 MEGABIT SECOND FIBER OPTIC DATA BUS.
IMPORTANT TO SPACE STATION BECAUSE

CUSTOMER INTERFACE SOFTWARE NEEDS TO BE DEVELOPED TO SUPPORT A LARGE NUMBER OF INDEPENDENTLY OPERATED INSTRUMENTS AND PAYLOADS
LONG TERM OBJECTIVE

IS TO ESTABLISH GUIDELINES FOR WRITING A DETAILED SPECIFICATION FOR A SPACE STATION NETWORK OPERATING SYSTEM.

TO BE STUDIED:

- IMPLEMENTATION OF ISO / OSI STANDARD
- BUS ARBITRATION EFFICIENCY
- REMOTE DIAGNOSTICS
- RELIABILITY
- NOISE SENSITIVITY
- ERROR DETECTION AND HANDLING
GSFC APPROACH TO DEVELOPING AN NOS:

- AN NOS STATE-OF-THE-ART STUDY

- AN RFP FOR A PROTOTYPE NOS
COMMERCIALY AVAILABLE SYSTEMS

UNIX BASED

UNIVERSE_NET   BY   CHARLES RIVER DATA SYSTEMS
NFS            BY   SUN MICROSYSTEMS

IBM-PC BASED

NET/ONE        BY   UNGERMANN-BASS
NETWARE        BY   NOVELL, INC.
MAJOR MILESTONES

* STATE OF THE ART STUDY REPORT  5/85
* AWARD OF PROTOTYPE NOS (COMPETED) CONTRACT  7/85
* SOFTWARE REQUIREMENTS REVIEW  9/85
* PRELIMINARY DESIGN REVIEW  1/86
* CRITICAL DESIGN REVIEW  7/86
* DELIVERY OF PROTOTYPE NOS  12/86