NETWORK OPERATING SYSTEM

SHORT TERM OBJECTIVE

IS TO DEVELOP A PROTOTYPE NETWORK OPERATING SYSTEM FOR A 100 MEGABIT / SECOND FIBER OPTIC DATA BUS.

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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