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
G S F C 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 (COMPELED) CONTRACT 7/85
* SOFTWARE REQUIREMENTS REVIEW 9/85
* PRELIMINARY DESIGN REVIEW 1/86
* CRITICAL DESIGN REVIEW 7/86
* DELIVERY OF PROTOTYPE NOS 12/86