PRODUCT NAME: DN64, Version 1, DECSYSTEM-20 2780/3780 Emulator/Terminator SPD 23.1.1

DESCRIPTION:
The DN64 emulates and/or terminates Model 76 DATA 100 units, or equivalent with the 2780/3780 features described below. It enables a DECSYSTEM-20 equipped with a DN20 communications front-end to:
- submit 2780/3780 remote entry jobs to an IBM 360/370
- process jobs submitted from 2780/3780 terminals

Emulation Mode:
In emulation mode, the DN64 connects a DECSYSTEM-20 to an IBM 360 or 370. The DECSYSTEM-20 appears to the IBM system to be a DATA 100 emulating an IBM 2780 or 3780 remote job entry station. The IBM 360 or 370 systems must be running one of the following:
- OS/VS2 (SVS) HASP II Version 4
- OS/VS2 (MVS) with JES2
- OS/MVT HASP II Version 3.1
- OS/MVT ASP Version 3.1
- OS/VS2 (SVS) ASP 3.2

A DECSYSTEM-20 user can submit a disk file containing IBM JCL and ASCII data to the IBM system as a batch job. The DN64 translates the data to EBCDIC before transmitting the job to the IBM system. Any output data returned to the DECSYSTEM-20 is translated into ASCII and printed. In emulation mode, the DN64 does not handle special forms.

When connected to an OS/VS2 (SVS) HASP II Version 4 or OS/VS2 (MVS) with JES2 system, the DN64 allows the DECSYSTEM-20 user to route output from the IBM system to a given disk area on the DECSYSTEM-20.

Termination Mode:
In termination mode, the DN64 connects a DECSYSTEM-20 to a DATA 100 unit with 2780/3780 (or equivalent) terminals. (It is the user's responsibility to demonstrate 2780/3780 equivalency.) The 2780/3780 remote station user submits a DECSYSTEM-20 batch control file from the remote station's card reader. The DN64 returns any job output to the remote station for printing on its printer.

The DN64 supports a maximum aggregate termination rate of 40K baud from up to 6 synchronous communication lines. The lines can range in speed from a minimum of 2.4K baud to a maximum of 19.2K baud. The lines can interface to:
- Bell System 301C modems at 2.4K baud
- Bell System 208A or 208B modems at 4.8K baud
- Bell System 209A modems at 9.6K baud
- ICC COMLINK II modems at 19.2K baud

Equivalent modems can also be used. It is the user's responsibility to demonstrate equivalency.

MINIMUM HARDWARE REQUIRED:
Any valid DECSYSTEM-20 configuration running TOPS-20 and GALAXY batch and spooling system that includes a DN20 front end with at least one synchronous line interface.

OPTIONAL HARDWARE:
Up to a system total of 6 synchronous line interfaces.

PREREQUISITE SOFTWARE:
TOPS-20, Version 3 or later, with the GALAXY batch and spooling system.

OPTIONAL SOFTWARE:
None

TRAINING CREDITS:
None

SUPPORT CATEGORY:
B — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:
Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer without additional charge (includes no installation). After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

ORDERING INFORMATION:
All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL...
proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources Agreement between Purchaser and DIGITAL.

The following key (M) represents the distribution media for the product and must be specified at the end of the order number, e.g., QT042-XM = sources on 1600 bpi 9-track magnetic tape.

M = 1600 bpi 9-track Magnetic Tape

**Standard Options**

QT042 -X— Single-use license, source license, sources, documentation, support services (media: M)

QT042 -U— Armed services procurement regulation license, sources, documentation, support services (media: M)

**ADDITIONAL SERVICES:**

QTK01 -K— Maintenance Service (media: M)

**ADDENDUM**

**SOFTWARE SUPPORT CATEGORIES**

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

**CATEGORY A**

1. Upon notification by customer to the nearest DIGITAL office that the computer system, including all required prerequisite hardware and software, is ready for the installation of the SOFTWARE, DIGITAL will install such SOFTWARE in any location within the contiguous forty-eight (48) United States, the District of Columbia, or a country in which DIGITAL or a subsidiary of DIGITAL has a software service facility. The notification must be received by DIGITAL and the system must be ready for installation within thirty (30) days after the delivery of the SOFTWARE to customer or DIGITAL will have no obligation to install. Installation will consist of: (1) verification that all components of the SOFTWARE have been received by customer, (2) loading the SOFTWARE, and (3) executing a DIGITAL sample procedure.

2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.

3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

**CATEGORY B**

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

**CATEGORY C**

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.