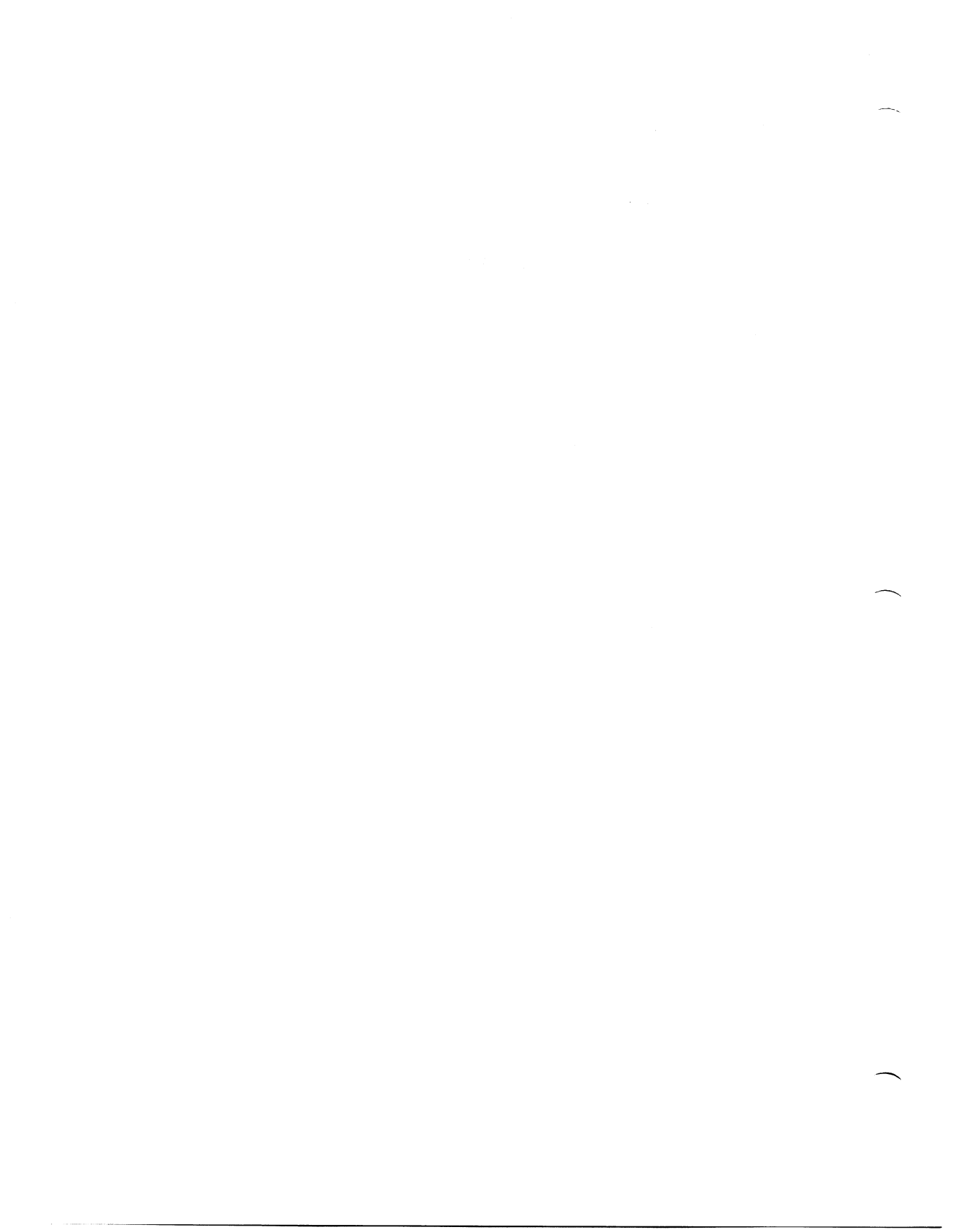


MicroVAX

digital



MicroVAX Customer Services

Order Number EK-238AA-MS-001

**digital equipment corporation
maynard, massachusetts**

July 1988

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Contents

Preface

vii

Chapter 1 Maintenance and Support Services

1.1	Integrated Hardware/Software Service Agreements for MicroVAX Customers	1-1
1.1.1	System Support Plus	1-2
1.1.2	DIGITAL System Support	1-2
1.1.3	Basic System Support	1-3
1.1.4	DECservice Node Service	1-3
1.1.5	Basic Node Service	1-3
1.2	Hardware Service Agreements for MicroVAX Customers	1-3
1.2.1	DECservice (Hardware Only)	1-4
1.2.2	Basic Service (Hardware Only)	1-4
1.3	Software Service Agreements for MicroVAX Customers	1-4
1.3.1	Software Startup Packages	1-5
1.3.2	Software Service Agreements	1-6
1.3.2.1	DECsupport Service (Software Only)	1-6
1.3.2.2	Basic Service (Software Only)	1-6
1.3.2.3	Self-Maintenance Service for Software	1-6
1.3.3	Service Agreement Components	1-7
1.3.3.1	Installation of Updates	1-7
1.3.3.2	Critical On-site Remedial Service	1-7
1.3.3.3	Telephone Support	1-8
1.3.3.4	DIGITAL's Software Information Network (DSIN)	1-8
1.3.3.5	Software Media and Documentation Updates	1-8
1.3.3.6	Technical Newsletters	1-8
1.3.4	A-La-Carte Options for Single and Multiple Systems	1-8
1.3.4.1	Installation Service	1-8
1.3.4.2	DECstart Service	1-8

iii

1.3.4.3	Software Product Updates	1-9
1.3.5	Supplemental Software Product Services	1-9
1.3.5.1	Layered Software Product Support	1-9
1.3.5.2	Media and Documentation Distribution Service	1-9
1.3.5.3	Software Update Installation Service	1-9
1.4	Network Services	1-9
1.4.1	NETplan Service	1-9
1.4.2	NETstart Service	1-10
1.4.3	NETsupport Service	1-10
1.5	Other Field Services	1-11
1.5.1	Recover-all	1-11
1.5.2	Media Maintenance Services	1-11
1.5.3	Data Protection Service	1-11
1.5.4	DECcompatible Service	1-11

Chapter 2 Professional and Consulting Services

2.1	Professional Services	2-1
2.1.1	Planning and Design Services	2-1
2.1.2	Custom Applications Consulting and Projects	2-2
2.1.3	DECstart Consulting Services	2-2
2.1.4	Office Application Support Services	2-2
2.1.5	Performance and Capacity Planning	2-2
2.1.6	Migration and Conversion Services	2-3

Chapter 3 Educational Services

3.1	Technical and Management Seminars	3-1
3.2	Instructor-Led Courses	3-1
3.3	Self-Paced Instruction (SPI)	3-1
3.4	Computer-Based Instruction (CBI)	3-2
3.5	Interactive Video Information System (IVIS)	3-2
3.6	Digital Press	3-2
3.7	On-Site Training	3-2

Chapter 4 Self-Maintenance and Support Services

4.1	Maintenance Product Recommendation Service (MPRS)	4-1
4.2	Part Number Assistance	4-1
4.3	Maintenance Documentation Service (MDS)	4-2
4.4	DEC-O-LOG	4-2
4.5	Service Diagnostics for the MicroVAX	4-2
4.6	Diagnostic Update Service	4-3
4.7	Unlisted Parts Service	4-3
4.8	Spares Emergency Order Service	4-3
4.9	DECmailer and Emergency Dispatch Service (Available U.S. Only)	4-3
4.10	Factory Repair Service (Available U.S. Only)	4-3
4.11	Self-Maintenance Information Line (Available U.S. Only)	4-3
4.12	Environmental Products	4-4
4.12.1	Standby Uninterruptible Power Supply (SUPS)	4-4
4.12.2	Constant Voltage Conditioner (CVC)	4-4
4.12.3	Transient Voltage Surge Suppressor (TVSS)	4-4
4.13	Self-Maintenance Training Service	4-4

Index

Tables

1-1	Software Service Options	1-7
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Preface

This guide describes the hardware, software, consulting, educational, and self-maintenance services provided by DIGITAL for MicroVAX systems. To find out more about these services, contact your sales representative, or dial DECdirect in the U.S. at 1-800-DIGITAL.

This guide contains four chapters. Depending on the type of service you are interested in, refer to that chapter for more information.

- Chapter 1 describes hardware/software support services and contracts.
- Chapter 2 describes professional and consulting services.
- Chapter 3 describes educational services.
- Chapter 4 describes self-maintenance services.

Chapter 1

Maintenance and Support Services

DIGITAL's Field Service organization supports customers in over 550 locations worldwide. Each Field Service location has the resources to provide materials and technical support whenever needed. These resources include parts inventories, a computerized logistics network, and a team of support specialists at district, area, and headquarters levels.

Field Service offers a wide variety of services, supporting hardware and software through both contract and noncontract arrangements. Three types of maintenance and support service agreements are available:

- Integrated hardware/software
- Hardware
- Software

In addition, DIGITAL's Field Service organization offers network services. Depending on where your interests lie, DIGITAL has the right service for you.

1.1 Integrated Hardware/Software Service Agreements for MicroVAX Customers

DIGITAL offers three agreements that combine hardware and software service components:

- System Support Plus
- DIGITAL System Support
- Basic System Support

Any one of the above integrated system agreements is recommended when the MicroVAX product is used in a standalone application, as a boot node in a Local Area VAX cluster (LAVc), or as a fileserver in an ULTRIX environment.

1.1.1 System Support Plus

System Support Plus offers the most comprehensive integrated service for MicroVAX products.

The features of System Support Plus are:

- DECservice hardware on-site service, 24 hours a day, 7 days a week. See Section 1.2.1 for more information about the DECservice hardware agreement.
- Telephone support from the Customer Support Center, including coverage of hardware, operating system, DECnet and LAVc software — 24 hours a day, 7 days a week.
- An assigned account specialist at the Customer Support Center.
- Access to the problem/solution data base, DSIN (DIGITAL Software Information Network).
- Right to use/copy software updates — this service enables you to use operating system software updates on additional systems without purchasing multiple media updates and documentation services.
- Critical on-site remedial service.
- Performance reporting — periodic discussion and status review of system performance by a System Management Service specialist.

1.1.2 DIGITAL System Support

DIGITAL System Support provides ideal integrated service for MicroVAX products: full on-site hardware service and advisory software support.

The features of DIGITAL System Support are:

- DECservice hardware on-site service, 16 hours a day, Monday through Friday. See Section 1.2.1 for more information about the DECservice hardware agreement.
- Telephone support from the Customer Support Center, including coverage of hardware, operating system, DECnet and LAVc software — 24 hours a day, 7 days a week.
- Access to the problem/solution database, DSIN (DIGITAL Software Information Network).

- Right to use/copy software updates — this service enables you to use operating system software updates on additional systems without purchasing multiple media updates and documentation services.
- Critical on-site remedial service.

1.1.3 Basic System Support

An integrated basic service, Basic System Support, is also available for MicroVAX products. Basic System Support is the same as DIGITAL System Support except that it features Basic Service hardware service. See Section 1.2.2 for more information about the Basic Service hardware agreement.

1.1.4 DECservice Node Service

DECservice Node Service, an integrated service agreement, is appropriate when MicroVAX products are used as satellite nodes in a LAVc or as a client node in an ULTRIX/NFS environment. If you have DECservice Node Service, you must have one of the preceding system services (System Support Plus, DIGITAL System Support, or Basic System Support) on your boot node or fileserver.

DECservice Node Service consists of:

- DECservice hardware on-site agreement from 8 to 24 hours a day, and up to 7 days a week. See Section 1.2.1 for more details.
- Right to use/copy software updates, described under the section on DECservice System Service.

1.1.5 Basic Node Service

Basic Node Service, an integrated basic service, is also available for MicroVAX products. Basic Node Service offers the same services as DECservice Node Service, except that it features the Basic Service hardware agreement. See Section 1.2.2 for more details.

1.2 Hardware Service Agreements for MicroVAX Customers

For MicroVAX customers, DIGITAL offers two hardware on-site agreements:

- DECservice
- Basic Service

1.2.1 DECservice (Hardware Only)

On-site service agreements are available with coverage from 8 to 24 hours a day, and up to 7 days a week. DIGITAL's most comprehensive on-site hardware service includes a written commitment to respond to your call for service within a specified time, within 4 hours if your site is within 100 miles of a DIGITAL Field Service office. Once a service representative is on-site, repairs are made quickly and remedial work continues until your system is operational again. Automatic "problem escalation" is also a part of the DECservice Agreement, drawing upon additional backup support as required to achieve timely repairs.

Parts, labor, and tools are provided under the DECservice agreement. Under this agreement, DIGITAL installs the latest engineering modifications to keep equipment up-to-date. In addition, an assigned Field Service representative is responsible for your system's maintenance and remedial service.

1.2.2 Basic Service (Hardware Only)

If you do not require a fixed response time and continuous remedial efforts, Field Service offers a Basic Service agreement. Basic Service provides next-day response and repair effort during coverage hours (8:00 A.M. through 5:00 P.M., Monday through Friday). Basic Service also provides problem escalation, labor, materials, installation of engineering modifications, and assigned service representatives.

1.3 Software Service Agreements for MicroVAX Customers

DIGITAL's Software Product Services (SPS) organization provides advisory, preventive maintenance, and remedial service to help you before, during, and after software installation.

SPS offers several levels of support. For customers purchasing new systems, software startup packages include ongoing support that offers the opportunity to keep software up-to-date and running smoothly, while making the most productive use of your technical staff.

For customers purchasing additional systems, Software Product Services offers contracts and add-on services. SPS also has special services for multiple systems, products sold through OEMs and distributors, and small business applications.

1.3.1 Software Startup Packages

Software startup packages provide customers with the support necessary to successfully install, operate, and maintain software during the first year. DIGITAL offers three comprehensive startup packages. These packages are priced at the system level; that is, they cover all eligible DIGITAL licensed software operating on a particular system at no additional charge.

Startup Package III

Startup Package III provides technical assistance and training to get system users off to quick and productive starts. It contains a comprehensive full year of service support for operating systems and their dependent software.

Package III includes the following:

- Software Product Services DECsupport Service Agreement.¹ See Section 1.3.2.1 for more information about the DECsupport software service agreement.
- Initial media and documentation for operating system and dependent software.¹
- Training.
- DECstart. See Section 1.3.4.2 for more information about DECstart.
- Installation of operating system and designated dependent software.

Startup Package II

Startup Package II is appropriate for a technical staff that has the resources to support the new system, after DIGITAL has installed the product and trained the staff.

Package II includes the following:

- Software Product Services Basic Service agreement.¹ See Section 1.3.2.2 for more information about the Basic software service agreement.
- Initial media and documentation for operating system and dependent software.¹
- Training.
- DECstart. See Section 1.3.4.2 for more information about DECstart.
- Installation of operating system and designated dependent software.

¹ This covers eligible products only.

Startup Package I

Startup Package I is appropriate for a technical staff that requires minimal training and has the resources and skill to install and support the new system. DIGITAL provides telephone advisory support and media updates to maintain the software at its most current level.

Package I includes the following:

- Software Product Services Basic Service Agreement.¹ See Section 1.3.2.2 for more information about the Basic software service agreement.
- Initial media and documentation for operating system and dependent software.¹
- Training.

1.3.2 Software Service Agreements

DIGITAL offers three types of software service agreements that provide ongoing support:

- DECsupport
- Basic
- Self-Maintenance

Table 1-1 lists the services provided by the three options.

1.3.2.1 DECsupport Service (Software Only)

DECsupport Service offers the most complete software service. DECsupport includes routine software maintenance, installation of updates, and on-site assistance when required.

1.3.2.2 Basic Service (Software Only)

Basic Service offers responsive answers to questions or problems your technical staff may have when maintaining your systems.

1.3.2.3 Self-Maintenance Service for Software

Self-Maintenance Service offers software and documentation updates, as well as technical bulletins.

¹ This covers eligible products only.

Table 1–1: Software Service Options

DECsupport	Basic	Self-Maintenance
Installation of updates		
Preventive maintenance		
Critical on-site remedial support		
Telephone support	Telephone support	
DIGITAL's Software Information Network	DIGITAL's Software Information Network	
Software media and documentation updates	Software media and documentation updates	Software media and documentation updates
Technical newsletter	Technical newsletter	Technical newsletter

1.3.3 Service Agreement Components

The following sections offer more information about DECsupport, Basic, and Self-Maintenance service agreements.

1.3.3.1 Installation of Updates

This service includes installation by a DIGITAL service representative of new software releases and interim updates for all operating systems and dependent products under contract. Software may be installed over a network by a Customer Support Center specialist or it may be installed on-site by a local specialist.

Installation over the network includes fast installation, pretested to your unique system configuration, and held at a time convenient to you. This type of installation is available on applicable products and scheduling is subject to the approval of the Customer Support Center (CSC). On-site installations are arranged at your request.

1.3.3.2 Critical On-site Remedial Service

Remedial support includes remote diagnostics, fault isolation, and correction of problems by installing solutions or workarounds. On-site remedial support is available during contracted hours of coverage for problems that cannot be resolved by telephone, and that, by mutual agreement, are critical.

1.3.3.3 Telephone Support

Advisory and remedial assistance is provided by DIGITAL's Customer Support Centers, 24 hours a day, 7 days a week, for most DIGITAL operating systems.

1.3.3.4 DIGITAL's Software Information Network (DSIN)

You may access this easy-to-use service database for software information. Flash messages alert you to any serious software problems and their solutions.

1.3.3.5 Software Media and Documentation Updates

You automatically receive new software releases and interim updates with corresponding documentation for any operating system and dependent software under contract.

1.3.3.6 Technical Newsletters

Technical newsletters and dispatches contain information about new software developments and enhancements, programming notes, and documentation updates.

1.3.4 A-La-Carte Options for Single and Multiple Systems

The following supplementary options may be ordered separately. The availability of these options varies by country. Contact the nearest DIGITAL sales or service office for information on availability.

1.3.4.1 Installation Service

The purchase of installation as a separate service is appropriate when there is no need to purchase a Startup Package, or there is a need to have add-on software installed. Installation Service ensures that customers receive all of the proper materials and that the system generation process for the operating system and/or dependent software is completed.

1.3.4.2 DECstart Service

DECstart Service assures an efficient startup of a new software application. With DECstart, a DIGITAL professional provides the following assistance:

- Installs the software
- Familiarizes staff with the software
- Explains the software's features, functionality, operation, and ongoing management

For maximum productivity and cost-effectiveness, DECstart should be part of a Startup Package. However, it is available as a standalone service.

1.3.4.3 Software Product Updates

A Software Product Update (H kit) provides the most current release of a software product, including documentation, for those who do not have SPS service or standalone update service.

1.3.5 Supplemental Software Product Services

DIGITAL offers the following supplemental services to customers with System Support Plus, DIGITAL System Support, or Basic System Support agreements. (See Section 1.1.)

1.3.5.1 Layered Software Product Support

Layered Software Product Support extends the features of system support to layered products.

1.3.5.2 Media and Documentation Distribution Service

For customers with Layered Software Product Support (or under a one-year integrated warranty), this service provides distribution of media and documentation.

1.3.5.3 Software Update Installation Service

Software Update Installation Service is for customers who want DIGITAL to install software updates. With this service, DIGITAL also provides update impact planning and analysis.

1.4 Network Services

DIGITAL offers three network-related services: NETplan, NETstart, and NETsupport.

1.4.1 NETplan Service

NETplan Service helps you plan and design a network through the following features:

- NETplan Requirements Analysis analyzes your business needs and application requirements and translates them into network design criteria.
- NETplan/Design Analysis helps you select a network design based on analysis of predicted performance, communications facilities and their cost, and the limitations of the network design.

- NETplan/Application Design helps you specify and design an application that uses your own network resources.
- NETplan Protocol Design helps you specify and design network applications for communication with other vendors' hardware and software.
- NETplan/Physical Design helps you plan and design a local area network tailored to suit your facility.
- NETplan/Planning Seminars help you determine the appropriate networking strategy for your specific needs.

1.4.2 NETstart Service

NETstart Service assists you in all network-related implementation and startup activities. NETstart offers the following features:

- NETstart/Installation Management provides you with a comprehensive installation plan. This service is for customers who require professional management of their data or voice communication network.
- NETstart/Certification ensures that your broadband cable facility is maintainable by DIGITAL Field Service and that it qualifies for a remedial maintenance contract.
- NETstart/Startup Assistance provides you with startup assistance to familiarize users and network support personnel with the use and operation of the network.
- NETstart/Application Development helps you develop and implement a distributed application.
- NETstart/Protocol Development helps you develop and implement protocol interfaces between DIGITAL and other vendors' hardware and software.
- NETstart/Startup Training offers courses that help you design and develop distributed applications, and use the network.

1.4.3 NETsupport Service

NETsupport Service provides network operations assistance and helps you maintain your network in a multivendor environment. NETsupport also

helps you use DIGITAL's network management products and trains you to manage, maintain, and troubleshoot your own network. NETsupport provides the following features:

- NETsupport/Maintenance Management provides you with a single contact from DIGITAL to resolve all network maintenance issues for DIGITAL and multivendor networks.
- NETsupport/Management Tools Assistance helps you implement DIGITAL's family of network management products and teaches you how to use and operate them in your network.
- NETsupport/Operations Training offers courses that help you operate and manage your data communication network.

1.5 Other Field Services

DIGITAL Field Service offers several miscellaneous services.

1.5.1 Recover-all

This service is an optional enhancement to DIGITAL's system services. Recover-all extends a system service agreement to provide immediate recovery from loss due to emergency situations, such as fire, flood, and vandalism. This service offers the most comprehensive system insurance, up to and including replacement of the entire system.

1.5.2 Media Maintenance Services

This service provides regularly scheduled, twice yearly inspection and cleaning of disk media.

1.5.3 Data Protection Service

This service allows you to store data (tapes, disks, microfiche, or paper) in a DIGITAL owned and operated, high-security, fire-rated facility. Data Protection Service includes both pick-up and delivery of media.

1.5.4 DECcompatible Service

This service is an optional enhancement to a system support agreement. DECcompatible Service provides coverage to selected non-DIGITAL products connected to DIGITAL systems or networks.



Chapter 2

Professional and Consulting Services

DIGITAL offers a wide range of services that support system analysis, software development, and software implementation. These services start with the personal attention of a DIGITAL software consultant and continue for as long as you own the system.

2.1 Professional Services

DIGITAL's Professional Services organization offers a full range of consulting services to help you analyze, develop, implement, and productively use your DIGITAL computer system. These services provide benefits at all stages of a system's lifecycle: from planning and design, to the development and delivery of solutions, through a successful system startup and user implementation. In addition, Professional Services offers performance monitoring, capacity planning, and migration and conversion services.

Professional Services' consultants have extensive practical experience in manufacturing, office automation, information systems, artificial intelligence, and networks. The following sections describe DIGITAL's Professional Services offerings.

2.1.1 Planning and Design Services

By analyzing structure, systems, environment, and cost, Planning and Design Services helps you select the optimal computing solution. Areas of concentration include: long-range growth planning, networks, office systems, and specific applications.

Planning and Design Services offers the following programs:

- Network Planning and Design Services helps you construct a new network, or reconstruct an existing one, to meet information flow requirements based on business needs, organization structure, and operational procedures.

- Office Analysis and Design Services provides critical management analysis and planning tasks that must precede implementing an office automation system. A DIGITAL consultant studies how each department in the organization works, and determines the technology and applications that will service these departments most effectively.
- Artificial Intelligence Planning and Design Services provides critical data to help select AI applications that meet business objectives with the highest potential payoff and the lowest potential risks.

2.1.2 Custom Applications Consulting and Projects

By working with you to understand and analyze your unique computing needs and applications, Professional Services provides solutions designed for specific applications. A large scale project could result in an entire turnkey solution; a smaller scale project could mean the building of a new application or the expansion of an existing one.

2.1.3 DECstart Consulting Services

DECstart Consulting Services offers a structured set of automated system management tools that can help you use and manage a system more effectively. DECstart Consulting Services is available for all major DIGITAL operating systems and networks.

2.1.4 Office Application Support Services

Office Application Support Services provides customized support and individualized on-site consulting for office staff. This includes orientation in the use of office products, support for the transition to an automated office, office procedures consulting, and training on customized applications installed on your systems.

2.1.5 Performance and Capacity Planning

Performance and Capacity Planning helps you monitor your systems, evaluate performance, resolve problems, and make recommendations on how to get the most usage from your system's capabilities. Specific areas of focus are system performance monitoring and capacity planning, and network management control and DECnet monitoring.

2.1.6 Migration and Conversion Services

RPG Migration Assistance Services assists in the organization, planning, and implementation of the conversion of RPG source programs, data files, and command procedures from IBM System/3, System/34, or System/36 environments to the DIGITAL VAX environment.

Conversion services enable you to move from one operating system to another, or from other vendors' software to DIGITAL's software.

Chapter 3

Educational Services

DIGITAL's Educational Services organization offers a wide range of high-quality instructional programs and courses, enabling you to make the most effective use of training funds before, during, and after your systems are installed. Comprehensive educational curricula are available in a selection of course formats: seminars, instructor-led training, audiovisual courses, on-site training, self-paced instruction (SPI), and computer-based instruction (CBI). You may select the format, program, or delivery mechanism that best matches your training needs.

3.1 Technical and Management Seminars

Technical and management seminars are designed for data processing professionals and managers, as well as for nontechnical personnel. Seminars that enable students to understand data processing and that focus on the newest technologies can be delivered at your site, at a local DIGITAL Training Center, or in a hotel conference facility.

3.2 Instructor-Led Courses

Instructor-led courses provide classroom lectures combined with hands-on experience in system or application software at one of DIGITAL's Training Centers or on-site at your facility. Students benefit from the expertise and personal attention of an expert instructor, as well as from classroom interaction with other course participants.

3.3 Self-Paced Instruction (SPI)

Self-paced instruction provides self-contained modular instructional units, exercises, and texts, enabling students to select specific topics necessary for their job requirements. SPI course content is often comparable to the content of DIGITAL's instructor-led courses. With SPI, however, you can learn at your own site, at your own pace.

3.4 Computer-Based Instruction (CBI)

Computer-based instruction provides a series of “packaged courses” that allow training to be presented on-line, combining study from text or workbook and interactive dialog with the student’s computer. Students can learn at their own pace, scheduling CBI instruction around work needs, and can conveniently access these courses, which are provided on magnetic tape or on diskette.

3.5 Interactive Video Information System (IVIS)

Interactive Video Information System (IVIS) is a powerful, integrated hardware and software training tool. DIGITAL’s IVIS combines the computing power of the Professional 300-Series computer with high-resolution video, dual-channel audio, sophisticated graphics, and text, resulting in a versatile, dynamic learning workstation.

3.6 Digital Press

Digital Press publishes books for the computer community, including engineers, computer professionals, and first-time computer users. Written by authorities and practitioners in the computer field, these publications address the interests of computer designers, system managers and users, as well as the academic needs of students and instructors. Digital Press develops books in computer technology, computer management and business applications, general applications, the history of computing, subjects for first-time computer users, and books with specific reference to DIGITAL products.

3.7 On-Site Training

Seminars and instructor-led courses can be delivered at customer sites, particularly for customers with large scale and multiuser training needs. On-site instruction provides the added benefit of allowing users to learn one subject or more, together with their colleagues, on their own system.

Chapter 4

Self-Maintenance and Support Services

For those MicroVAX customers who choose to maintain their own system, Self-Maintenance Services provides the following comprehensive menu of spare parts and services.

4.1 Maintenance Product Recommendation Service (MPRS)

Deciding which products are needed to service equipment can be a complex and confusing task. DIGITAL's Maintenance Products Recommendation Service recommends the self-maintenance products needed to service each unique configuration.

Your customized response from MPRS will include a list of:

- Spare parts (Field Replaceable Units (FRUs)) needed for on-site repair
- Tools and test equipment necessary to maintain your equipment
- Preventive maintenance parts (parts that require routine replacement on a scheduled basis)
- Hardware documentation for individual options and complete systems
- Diagnostics to isolate and identify faults with a MicroVAX

4.2 Part Number Assistance

Part Number Assistance can supply part numbers over the telephone for spare parts, hardware documentation, diagnostics, and customer repair service.

4.3 Maintenance Documentation Service (MDS)

Maintenance Documentation Service (MDS) ensures that your maintenance documentation is current by providing timely microfiche updates. The MDS library provides complete, current information on the entire family of MicroVAX systems and includes the following:

- Hardware manuals
- Illustrated parts breakdowns
- Revision matrix
- Preventive maintenance manuals
- Diagnostic listings
- DEC-O-LOG (FCO synopsis)
- Field Change Orders (FCOs)

4.4 DEC-O-LOG

DEC-O-LOG, an MDS component, is a field change order (FCO) notification service. DEC-O-LOG provides a synopsis of changes to hardware products that have already been manufactured. Field change order synopses also contain information on topics such as problem symptoms, FCO quick check, and hardware compatibility.

4.5 Service Diagnostics for the MicroVAX

Self-Maintenance Services licenses the use of MicroVAX diagnostics and the MicroVAX Diagnostic Monitor (MDM).

The MicroVAX Diagnostic Monitor is a standalone operating system with diagnostic programs. MDM verifies that the MicroVAX system is operating correctly and tests the system's devices. The objective of diagnostic testing is to isolate a problem to a field-replaceable unit (FRU) that can be easily removed and repaired. Service mode diagnostics check a device more completely than the verify mode tests (MDM) that are shipped with the system.

4.6 Diagnostic Update Service

MicroVAX diagnostic kits can be kept up-to-date with an annual Diagnostic Update Service. Subscribers to this service are automatically sent new or revised diagnostics upon release from Diagnostic Engineering.

4.7 Unlisted Parts Service

Unlisted Parts Service checks the availability and price of an unlisted spare part.

4.8 Spares Emergency Order Service

Spares Emergency Order Service allows you to order a spare part 24 hours a day, 7 days a week.

4.9 DECmailer and Emergency Dispatch Service (Available U.S. Only)

DECmailer is DIGITAL's fast, reliable, and economical mail-in parts replacement service. When you have a faulty part, mail the part in, and DECmailer Service will send you a replacement part within five days of receiving the faulty part.

If you require faster service, DECmailer Emergency Dispatch Service (EDS) will ship replacement parts within 24 hours of your phone call.

4.10 Factory Repair Service (Available U.S. Only)

Factory Repair (and Same Board Repair) Service provides the same quality repair service as DECmailer, but with an extended turnaround time and a lower cost. This program is available for all DIGITAL customers who maintain their equipment to the module or subassembly level.

4.11 Self-Maintenance Information Line (Available U.S. Only)

The Self-Maintenance Information Line is staffed with knowledgeable personnel who can help plan and implement a maintenance program. The Self-Maintenance Information Line provides the following:

- Suggestions for planning a maintenance strategy

- Literature references
- Information about any of DIGITAL's self-maintenance programs and customer support services

4.12 Environmental Products

Self-Maintenance Services offers environmental products that provide solutions to power-related problems.

The following environmental products are available from DIGITAL.

4.12.1 Standby Uninterruptible Power Supply (SUPS)

Standby Uninterruptible Power Supply (SUPS) enables a system to continue functioning in a blackout for a minimum of twelve minutes at full load. SUPS provides transient suppression and power distribution for all MicroVAX components.

4.12.2 Constant Voltage Conditioner (CVC)

Constant Voltage Conditioner (CVC) protects equipment from unwanted power disturbances. Constant Voltage Conditioner can correct fluctuations in the power line such as sags, surges, and incoming noise spikes by providing continuous operating voltage to a system.

4.12.3 Transient Voltage Surge Suppressor (TVSS)

Transient Voltage Surge Suppressor (TVSS) protects against high energy transient or sudden electrical impulses. TVSS is available in power line, data line, and combination power/data line. This product is compatible with all DIGITAL systems.

4.13 Self-Maintenance Training Service

Educational Services offers up-to-date hardware maintenance training on all MicroVAX systems.

For more information, refer to Chapter 3 of this guide.

Index

B

- Basic Node Service, 1-3
- Basic Service
 - hardware, 1-4
 - software, 1-6
- Basic System Support, 1-3

C

- Consulting services
 - Custom Applications, 2-2
 - DECstart, 2-2
 - Planning and Design, 2-1
- Custom Applications Consulting and Projects, 2-2

D

- DECmailer and Emergency Dispatch Service, 4-3
- DEC-O-LOG, 4-2
- DECservice
 - hardware, 1-4
- DECservice Node Service, 1-3
- DECsupport Service
 - software, 1-6
- Diagnostic Update Service, 4-3
- Digital Press, 3-2
- DIGITAL System Support, 1-2

E

- Educational Services, 3-1
- Environmental products, 4-4

F

- Factory Repair Service, 4-3

H

- Hardware services
 - Basic Service, 1-4
 - DECservice, 1-4
 - educational, 3-1
 - integrated with software, 1-1
 - self-maintenance, 4-1

I

- Integrated hardware/software services
 - Basic System Support, 1-3
 - DECservice Node Service, 1-3
 - DIGITAL System Support, 1-2
 - System Support Plus, 1-2

M

- Maintenance Documentation Service, 4-2
- Maintenance Product Recommendation Service, 4-1

N

- Network service
 - NETplan Service, 1-9
 - NETstart Service, 1-10
 - NETsupport Service, 1-10
- Network services, 1-9

P

- Part Number Assistance, 4-1
- Planning and Design Services, 2-1

S

Self-Maintenance Information Line,
4-3

Service Diagnostics, 4-2

Software services

components of, 1-7

consulting, 2-1

educational, 3-1

integrated with hardware, 1-1

ongoing support packages, 1-6

startup packages, 1-5

supplemental, 1-9

Software Startup Packages, 1-5

Startup Package I, 1-6

Startup Package II, 1-5

Startup Package III, 1-5

Spares Emergency Order Service, 4-3

System Support Plus, 1-2

U

Unlisted Parts Service, 4-3

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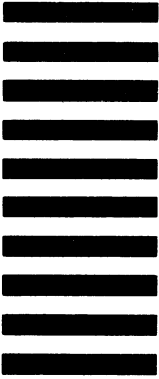


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