



Software Product Description

PRODUCT NAME: CICS for Digital UNIX, Version 2.1B

SPD 54.64.04

DESCRIPTION

CICS for Digital UNIX is an on-line transaction processing (OLTP) monitor. It is a port of IBM's CICS for AIX product and provides all the key features of the IBM Customer Information Control System (CICS) family of products. CICS for Digital UNIX provides a highly functional, scalable, available, mission-critical platform suitable for worldwide deployment in customer production environments.

Compatibility with the other CICS family products is provided through support for the CICS command-level application programming interface (API), and interoperability is supported through use of the CICS InterSystem Communication (ISC) capability.

CICS for Digital UNIX supports a client-server architecture, using the distributed services of the Open Software Foundation (OSF) Distributed Computing Environment (DCE) and incorporating a number of transactional core services provided through Encina, developed by the Transarc Corporation. The Encina services are incorporated into the CICS product; use of Encina and DCE is transparent to the application programmer. CICS supports queue management and VSAM file control on Encina Structured File Server (SFS). CICS optionally uses the DCE Cell Directory Server to provide name services, and the DCE Security Server for security. In simple configurations the use of the DCE CDS and Security Server may be omitted.

The CICS for Digital UNIX capability is provided in three separately orderable products, designed to simplify the ordering, configuration and management process. The product set consists of the Cell Server, Server and Client. The Cell Server and Server each provide all the CICS capability; the Cell Server also includes the

Encina Structured File Server (SFS). A CICS configuration (single system or local network) must contain at least one Cell Server with SFS to be used for file and queue management. The use of a Cell Server on every system is recommended. The Client provides the terminal support and the APIs for user written client applications. Both the Cell Server and the Server include the Client.

Features

Application Development

CICS for Digital UNIX provides features and tools to support the development of applications, their migration from (or to) other CICS family platforms, and interoperability with CICS on other platforms.

The CICS family API is supported for both COBOL and C programming languages. The commands provide the CICS functions

- File Control
- Temporary storage
- Transient data
- Terminal control
- Basic mapping support
- Program control
- Interval control
- Storage control
- Condition and abend handling
- Task control
- Journal control
- Trace control

- Dump control
- Environment services

Development tools include

- a CICS command translator which validates the syntax of EXEC CICS commands and converts them into C or COBOL statements
- a translator to prepare standard CICS family format BMS map definitions for use by CICS for Digital UNIX applications
- a Motif-based Screen Design Aid to create or modify BMS maps interactively
- an Execution Diagnostic Facility (CEDF) to enable programmers to monitor the execution of EXEC CICS statements. The Animator facility of Micro Focus COBOL provides source level debugging of COBOL Programs. Digital UNIX also supports source level debugging of both C and COBOL programs.

Interoperability

CICS supports the distribution of applications and data by providing interoperability with existing mainframe and distributed CICS family members through the InterSystem Communication (ISC) services:

- Function Shipping, enabling a program to transparently access remote data with integrity
- Transaction Routing, enabling users to connect to remote transactions on any CICS system in the network
- Distributed Program Link (DPL), enabling a transaction on one system to call a program on another (as in a client/server model)
- Asynchronous Transaction Processing, enabling a transaction on one system to start a program on another
- Distributed Transaction Processing, enabling method of controlling communications using a peer-to-peer model.

ISC support is provided over TCP/IP (provided with Digital UNIX) or SNA (requires optional SNA products).

Data Management

CICS provides access, with full integrity, to the following resources:

- File control (RRDS, ESDS, KSDS)
- Temporary storage queues (Auxiliary)
- Transient data queues (Intrapartition)

- Relational database managers

CICS ISC function shipping provides distributed support for file control, temporary storage and transient data such that the location of the data is transparent to both the user and the application.

CICS uses the SFS for VSAM and other data files.

CICS supports access to relational databases via SQL calls or commands in the CICS application. Full integrity of access for transactions which include both CICS and SQL calls is provided for databases that support the X/Open XA interface.

Syncpoint Management

CICS for Digital UNIX supports full data integrity, including dynamic transaction rollback and coordination of local and remote syncpoints for the distributed environment. SyncLevel 2 (for 2 phase commit) is supported between CICS for Digital UNIX and other CICS for Open Systems family members over TCP/IP. Direct connections between CICS for Digital UNIX and other CICS family members over SNA supports SyncLevel 0 and 1.

System Management

System management facilities provide the following:

- the dynamic equivalent of Resource Definition Online (RDO) and assistance with problem determination
- the use of system-generated data for monitoring system performance
- remote operator interface capability via the CICS Master Terminal (CEMT)
- security facilities to permit controlled access to CICS resources (e.g. RSL and TSL, EXEC CICS SIGNON, user/workstation authentication, access control to SFS files)

Client Support

The CICS for Digital UNIX Client enables the connection of different types of terminal and user written applications to access the CICS Server. Terminal Support is provided for:

- Video Terminals (VTs) and VT emulators (including X-terminals and PC VT or X-windows emulators). This terminal interface supports color and multibyte character sets.
- Telnet 3270 protocol from any TCP/IP device or system

- 3270 terminals (connected through the SNA Domain Gateway)

Two Application Programming Interfaces enable user written applications to access CICS by emulating either 3270 terminals (External Presentation Interface) or CICS servers (External Call Interface).

Using the External Presentation Interface (EPI), applications may start transactions and send and receive 3270 data streams to and from them. This facility enables graphical interfaces to be written for existing CICS applications on, for example, AlphaStations or PCs.

The External Call Interface (ECI) enables user written applications to call CICS programs synchronously or asynchronously. The ECI supports the development of new client-server applications.

CICS for Digital UNIX also supports access from IBM CICS Clients for DOS, Windows, OS/2, Macintosh and Windows NT, and from the CICS Java Gateway.

CICS for Digital UNIX also contains a demonstration program provided to give examples of different ways of creating client interfaces for CICS.

CONFORMANCE TO STANDARDS

The CICS for Digital UNIX product conforms to the following industry specifications:

- Year 2000 conformance
- X/Open XA interface
- Open Software Foundation (OSF) Distributed Computing Environment (DCE)

INSTALLATION

Digital recommends that installation and configuration services for CICS for Digital UNIX and related products be purchased from Digital or its system integration partners.

HARDWARE REQUIREMENTS

Processors Supported

All AlphaServers and AlphaStations supported by Digital UNIX.

Processors Not Supported

None.

Disk Space Requirements:

Disk space required for installation: /usr 184 Mb

Disk space required for use (permanent): /usr 184 Mb
/var 28 Mb

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

Memory Requirements:

The minimum memory supported for the Server and Cell Server is 128 Megabytes. The use of this software in conjunction with increased memory improves performance.

SOFTWARE REQUIREMENTS

Software required on all CICS for Digital UNIX Cell Server, Server and Client systems:

- * Digital UNIX V4.0A or V4.0B (includes TCP/IP)
- * Digital DCE Runtime Services for Digital UNIX V2.0A ECO#1

OPTIONAL SOFTWARE

- * DCE Cell Directory and Security Services (provided on at least one system in the DCE Cell). These services may be omitted in simple configurations.
 - * Digital DCE Cell Directory Service for Digital UNIX V2.0A ECO#1
 - * Digital DCE Security Server for Digital UNIX V2.0A ECO#1
- * Micro Focus COBOL V4.0
- * DEC SNA Peer Server V1.4
- * DEC SNA Domain Gateway V2.0 ECO#2
- * DEC SNA 3270 Application Services V1.2
- * LU6.2 Server V3.0 ECO#7 (licensed in CICS product)
- * ORACLE V7.3.2
- * Informix V7.2

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the requirements for the current version.

DISTRIBUTION MEDIA

Software and documentation for this product is distributed on the Digital CD-ROM Software Library for Digital UNIX (QA-054AA-H8).

ORDERING INFORMATION

Software Licenses:	QL-3KVA*-** Cell Server
	QL-3KUA9-** Client
	QL-3KTA*-** Server
Software Documentation:	QA-3KTA*-GZ
Software Product Services:	QT-3KVA*-** Cell Server
	QT-3KUA9-** Client
	QT-3KTA*-** Server

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For more information on the License Management Facility, refer to the Digital UNIX Operating System Software Product Description (SPD 41.61.xx) or the Digital UNIX Operating System documentation.

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