IBM Licensed Program   Specifications

IBM System/370 VM Open Systems Message Exchange
Program Number 5684-061

Open Systems Message Exchange is a Program Offering that runs on an IBM System/370 VM system and provides Message Handling Services (MHS) for a multivendor environment.

This Program Offering is based on CCITT X.400 (1984) recommendations and Comite Europeen de Normalisation/Comite Europeen de Electrotechnique (CEN/CENELEC) A/3211 and Commission of Europeen Post and Telecommunications (CEPT) A/311 profiles.

IBM Open Systems Message Exchange communicates with:

- Other message transfer agents (MTAs) in the X.400 message transfer system:

  - In the OSI environment via an X.25 packet-switched data network

- User Agents (UAs) running in the same VM/GCS virtual machine through the local programming interface (for example, the IBM X.400 PROFS Connection Program Offering (5785-GCG).

Open Systems Message Exchange provides:

- Support for multiple concurrent user agents (UAs).

- Communication with UAs and other X.400 MTAs through:

  - Support of the P1 protocol (MTA-to-MTA)
  - Support of the P2 protocol (interpersonal messaging) as content type of P1 protocol data units
  - Support of all the basic and optional message transfer service elements according to the CCITT Recommendation X.401, with the following exceptions:
    - Explicit and implicit conversion are not performed
    - Hold for delivery is not supported.

- Message dispatcher for routing/relaying according to CCITT X.411.

- Management of associations (refer to CCITT X.411):

  - Maximum number of associations
  - One-way-only (OWO) or two-way-alternate (TWA)
  - Responsibility for establishment
  - Permanent or established/released as required
  - Sending with different priorities.

- Message recovery through the message store facility

- Activity recovery (refer to CCITT X.410):

  - Resume a complete activity
  - Resume an activity from last confirmed minor synchronization point
  - Resume an activity from any confirmed minor synchronization point.

- Directory services to UAs through a directory containing information on attached UAs and other MTAs.

- Support of all the address types defined by the CEN/CENELEC A/3211 and CEPT A/311 profiles.

- Session Basic Activity Support (BAS) and Two Way Simultaneous (TWS) Protocols, which are a subset of the ISO/IS 8327, Basic Connection Oriented Session Protocol Specification, First Edition 1986.

- Transport classes 0 and 2 protocols, which are a subset of the ISO/IS 8073, Connection Oriented Transport Protocol Specification, July 1986.

- Support for OSI over X.25 Wide Area Networks according to the CCITT X.25 (1980) recommendations.

- A programming interface that allows UA programs to run in the same GCS virtual machine. The programming interface consists of a set of System/370 assembler-language macros to be coded in the UA programs. It implements the message transfer layer service primitives as

described in the CCITT Recommendation X.411.

SPECIFIED OPERATING ENVIRONMENT

Machine Requirements

Open Systems Message Exchange requires the following hardware:

* Any IBM System/370, 308x, 3090, ES/3090 S, 43xx, or 9370 processor supported by VM/SP/HPO, and VTAM

* One of the following Communication Controllers for access to an X.25 network:

  - IBM 3705-II, 3705-80, 3725, 3720, or 3745 (3745 support available May 1989)

* A tape unit for installation

* A disk device to contain the code libraries and all the start parameters.

Programming Requirements

Open Systems Message Exchange requires the following software:

* VM/SP Version 1, Release 4 (5664-167) or VM/SP -- HPO Version 1, Release 4.2 (5664-173) or

* VM/SP Version 1, Release 5, (5664-167) or VM/SP -- HPO Version 1, Release 5 (5664-173)

* ACF/VTAM Version 3 (5664-280)

* ACF/VTAM Version 3 for VM/9370 (5684-052)

* VSE/VSAM Version 1, Release 3 (5746-AM2)

* X.25 NCP Packet Switching Interface (NPSI):

  - For a 3705 Communication Controller, Version 1, Release 3.2 (5668-981)

  - For a 3720 Communication Controller, Version 1, Release 4.3 (5668-981)

  - For a 3725 Communication Controller:

    - Version 1, Release 4.1 or Release 4.3 (5668-981)
    - Version 2, Release 1 (5668-719)

  - For a 3745 Communication Controller, Version 3, Release 2 (5688-035)

* The appropriate version and release of NCP for the NPSI version the user is running.

Licensed Program Materials Availability

Restricted materials - No. This licensed program is available without source licensed program materials. It is available in object code only.

Supplemental Terms

Testing Period

* Basic License: One time charge.
* DSLO License: None.

Installation/Location License

Not applicable. A separate license is required for each designated machine on which the licensed program materials will be used except as otherwise provided by IBM.

Usage License

Not applicable.

Type/Duration of Program Services

Central Service, including a Support Center, will be available until December 30, 1990. The Open Systems Message Exchange program is supported by the OSI Support Group. Access to the OSI Support Group will be provided through the IBM Support Center.

Warranty

Open Systems Message Exchange will conform, when shipped to the Customer, to its Licensed Program Specifications which are in effect for it at that time, provided it is properly used in a Specified Operating Environment. If the Customer believes there is a defect in the program such that it does not meet its Licensed Program Specifications, the Customer must notify IBM while Program Services are available for the program. IBM does not warrant that the functions contained in the program will meet the Customer's requirements or will operate in the combinations which may be selected for use by the Customer, or that the operation of the program will be uninterrupted or error free or that all program defects will be corrected.

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