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IBM eNetwork Host On-Demand Version 2 for S/390 Delivers One-Click Access to Enterprise Data Across Large Networks of Diverse Workstations

Overview

IBM eNetwork Host On-Demand Version 2 for S/390® gives you one-click access to your enterprise data using the power of Java™. One click opens the door to the intranet's key asset, the enterprise data needed for daily business operation.

With the S/390 as a powerful, scalable server for Host On-Demand, large networks of workstations with Java-enabled browsers can be economically supported, without the necessity of an additional third-tier server.

Host On-Demand will support end-to-end Secure Sockets Layer (SSL) encryption using the SSL support within the TN3270E server of OS/390™ Version 2 Release 6. Refer to the **Reference Information** section for details and availability.

Host On-Demand delivers TN3270, TN5250, VT52, VT100, and VT220 emulation and CICS® Internet Gateway for Java access in a single package. It can run in any Java-enabled environment including S/390 with OS/390. Host On-Demand gives you simple and consistent access to your enterprise data, and eliminates the need for user installation, user configuration, and costly software upgrade administration.

Host On-Demand is Java-based, so users in different operating environments ─ whether they are using network computers, traditional personal computers, or advanced workstations ─ get the same look and feel. This consistency reduces retraining costs when users change operating environments and reduces service costs because each user of a server is on the same version of the code.

The eNetwork Host On-Demand Version 2 family provides many features that enable you to customize the interface and to transfer data to other desktop applications. File transfer, cut and paste, and print screen are included to increase user productivity. A Java-based programming API for application development is available to customize desktops. National language support is available, including support for double-byte character sets.

For multinational use, all national language support is simultaneously available. Every user can be served with Host On-Demand client function in the user's preferred language. Refer to the **Product Positioning** section for the list of languages supported.

Additional information can be found on the eNetwork Host On-Demand Home Page at URL:

http://www.software.ibm.com/ enetwork/ondemand/

Intended Customers

Customers who are planning to implement solutions supporting large numbers of network computers, or large numbers of concurrent workstation users, should consider eNetwork Host On-Demand Version 2 for S/390. Many network computers require Java-based applications. Host On-Demand is the best choice available for host access and terminal emulation.

Key Prerequisites

OS/390 with a Web server, a Telnet server, a Java Virtual Machine, TCP/IP, and a workstation with a Java-enabled browser.

Description

eNetwork Host On-Demand Version 2 for S/390 delivers one-click Java access to mission-critical data, which is essential to the operation of any business. Host On-Demand reflects the combination of IBM's long-term experience in providing host access products with IBM's understanding of today's requirements for Java-based applications. Java-based applications can be used across a wide range of operating environments.

With the Host On-Demand Version 2 family, every user in an enterprise can get the same level of access to enterprise databases. This is whether they are using a locally attached network computer, an advanced workstation at a key supplier's warehouse, or a laptop in a customer's office. This consistency across diverse networks and platforms embodies IBM's eNetwork software vision — to provide enterprise-class universal connectivity and information access for cost effective network computing.

Power of S/390 Environment Brought to On-Demand Computing

With Host On-Demand Version 2 for the S/390, the benefits of your investment in your S/390 environment are extended. Host On-Demand enables the number of concurrent users offered host access to be scaled to new levels. Installation of Host On-Demand uses the familiar SMPE processes, assuring control over your operating environment without requiring any additional training of your system administrators.

A two-tier solution is now available — the client workstation and the host system. There is no need for an intervening server. For customers who want to protect the flow of data using Host On-Demand's Secure Sockets Layer encryption technology, an end-to-end solution between the Host On-Demand client and the S/390 will be available with OS/390 Version 2 Release 6. For an interim step, a Windows NT™ server running Host On-Demand can be used. Refer to Software Announcement 298-049, dated February 24, 1998, for details and availability of OS/390 Version 2 Release 6.

On-Demand Access to an Intranet's Key Asset — Enterprise Data

Host On-Demand uses the power of Java to open the doors to mission-critical enterprise data whenever it is needed, from wherever it is needed, with a click on a web page hyperlink. This single click launches a Java applet that delivers access to the majority of the data in any intranet. Host On-Demand delivers TN3270, TN5250, VT52, VT100, and VT220 emulation as well as CICS Internet Gateway for Java access, all in a single package. Other features delivered with Host On-Demand include 3270 file transfer, cut and paste, print screen, and keyboard remapping.

The newly-developed IBM eNetwork Host On-Demand Host Access Class Library Application Program Interface (Host Access API) for Java allows other programs to utilize the emulator data stream and then present a customized user interface that meets your business needs. Host On-Demand is compatible with the CICS-defined Java-EPI, which allows the Host Access API, and other new Host On-Demand functionality, to be utilized by CICS users.

The Host Access API is available in a Java format in Host On-Demand. Enterprises can develop customized applications that manipulate and present host data in desired formats in either a procedural or a Java environment, and then easily adapt that application to the other environment.

Simplest Way to Reach Enterprise Data

eNetwork Host On-Demand is the simplest way ever for users to reach all the intranet data that they need, since the user is not required to load or configure any software. Users just click on a web page hyperlink to launch a session with the host.

Multiple sessions can be launched with multiple hosts, so users can operate at maximum efficiency. Unlike many competitive offerings for web-enabled access to host data, Host On-Demand launches in its own window, leaving the browser free for concurrent access to other web-based data.

Consistent User Interface for Every Operating Environment

Host On-Demand significantly improves productivity and greatly diminishes user training costs because the Java-based user interface is the same in every operating environment, including the new network computers. Users can define a set of host access preferences that are stored on the server and returned with the Java applet each time the user clicks for access. National language versions are also available, including versions for double-byte character sets and file transfers.

Cost-Effective Distribution of Software Updates with Java

Host On-Demand also reduces software maintenance costs for most customers, since a new copy of the applet can be downloaded each time a user clicks for access. This can result in reduced system administrator load for scheduled maintenance upgrades for user workstations. Furthermore, the consistency of user interfaces across operating environments, and the expectation that every user has the latest version of the applet, greatly simplifies the process of problem determination. With today's rapid pace of change in workstation software, this simplified administration process greatly increases the value of Host On-Demand for many customers.

Additional Product Information

Host On-Demand communicates across industry-standard TN3270, TN5250, and VT52/100/220 socket connections. Many product functions can be invoked in a Java Virtual Machine (JVM) 1.02 environment, but a JVM 1.1 environment (with Abstract Windowing Tool (AWT) support) is needed to fully utilize the functionality, or for National Language Support.

Summary of Key Features

IBM eNetwork Host On-Demand Version 2 expands on the functionality provided with IBM's original Host On-Demand release in the following ways:

- Improved TN3270 emulation
- TN5250 emulation
- VT52/100/VT220 emulation
- CICS Internet Gateway for Java access
- Host Access Class Library API
- Persistent user configuration
- Error logging and tracing
- 3270 file transfer, cut and paste, print screen
- Telnet redirection
- Keyboard remapping
- National language support
- Cached client

Year 2000

This product is Year 2000 ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided all other products (for example, software, hardware, and firmware) used with the product properly exchange accurate date data with it.

Product Positioning

The Internet, or World Wide Web (WWW), reaches more and more users every day. In addition to the Internet, intranets are emerging as valuable internal assets for companies. IBM eNetwork Host On-Demand is an Internet-to-host interconnectivity solution that provides host application access through the WWW. Web users needing host applications, such as public catalogs, databases, and other resources, can use eNetwork Host On-Demand from inside their Java-enabled Web browsers to access central computer data.

Host On-Demand delivers network computing to the WWW by enabling Web-browser users to seamlessly access non-Internet-based 3270, 5250, ASCII, and CICS Internet Gateway for Java applications, content and services.

Additional information can be found on the IBM eNetwork Host On-Demand Home Page at URL:

http://www.software.ibm.com/enetwork/ondemand/

Host On-Demand is recommended for intranet/Internet users requiring ordinary emulation function. IBM eNetwork Personal Communications is recommended for full-function emulation, more extensive APIs, and a wider range of protocols or connectivities. More information on eNetwork Personal Communications can be found at URL:

http://www.software.ibm.com/enetwork/pcomm/

For users requiring strong TCP/IP application support, or access to Lotus Notes® mail systems, and the full-function host access (via emulation) provided by Personal Communications, the IBM eNetwork Communications Suite provides a cost-effective alternative to the purchase of multiple single-function products. Additional information on eNetwork Communications Suite can be found on its Home Page at URL:

http://www.software.ibm.com/enetwork/commsuite/

Menus, messages, and publications are translated for the following languages and are included with the basic program: English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Russian, Spanish, Swedish, Turkish, Brazilian-Portuguese, Japanese, Korean, Simplified Chinese, and Traditional Chinese.

Reference Information

- Software Announcement 297-349, dated September 9, 1997 (eNetwork Personal Communications Emulators Version 4.2)

- Software Announcement 297-350, dated September 9, 1997 (eNetwork Host On-Demand Version 2.0)

- Software Announcement 298-018, dated January 27, 1998 (eNetwork Communications Suite for Windows® Version 1.1)

- Software Announcement 298-049, dated February 24, 1998 (OS/390 Version 2 Release 5 Availability and Release 6)

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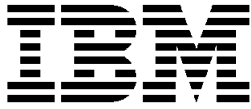
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Technical Information

Specified Operating Environment

Hardware Requirements: Any IBM system configuration that supports the operating systems specified in the **Software Requirements** section.

Software Requirements

- Operating System:

  − OS/390™ Release 1 (5645-001), or later

- Web Server:

  − IBM Internet Connection Server Version 1.1, or later (for SBCS languages)

    or

  − IBM Internet Connection Secure Server Version 2.1, or later (for DBCS languages)

    or

  − Domino™ Go Web Server Version 4.6, or later

- Java™ for OS/390 (5655-A46)

- TCP/IP V3R2 for MVS® (5655-HAL), or later

Host On-Demand Version 2 for S/390® supports any Java-enabled platform with an industry-standard Java Virtual Machine level of 1.02, or later. The following web browsers work satisfactorily:

- Windows® 95
  − Netscape Navigator 3.02, or later
  − Microsoft® Internet Explorer 3.0, or later
- Windows NT™ 4.0
  − Netscape Navigator 3.02, or later
  − Microsoft Internet Explorer 3.0, or later
- AIX® 4.1.4
  − Netscape Navigator 4.04, or later
- OS/2® Warp
  − Netscape Navigator for OS/2 2.02

Since Java is a rapidly evolving technology, and individual browsers do not yet support all the functions provided by Host On-Demand, you are responsible to determine whether the desired Host On-Demand functions are supported by your browser of choice. IBM periodically posts information identifying which functions are supported by various browsers on its Host On-Demand Home Page at URL:

http://www.software.ibm.com/enetwork/ondemand/

Performance Considerations: Response time depends upon a variety of processor and data-communications load factors including line speeds, the number, type, organization of terminals, and the amount of application processing. Response time in multiple-system and cross-network environments depends upon these factors and various network-load factors, including the number of nodes traversed.

Host On-Demand is a Java applet. Performance is a function of the speed of the network, the processing power of the workstation, and the characteristics of the browser being used.

The number of concurrent user sessions supported on a client workstation is a function of the client processor power and capacity.

Statement of Direction Satisfied: The eNetwork Host On-Demand Version 2 for S/390® satisfies the Statement of Direction in Software Announcement 297-350, dated September 9, 1997, that "An OS/390-compatible version of Host On-Demand Version 2 will be delivered in the future."

Customer Responsibilities: Host On-Demand Version 2 for S/390 is installed on the S/390 as a server for downloading individual client devices. It can also optionally work with clients that have the workstation version of Host On-Demand installed locally. You determine which type of installation best fits your requirements.

eNetwork Host On-Demand Version 2 for S/390 is available in exportable and non-exportable versions. You are responsible for compliance with export regulations which may apply, as well to code downloaded from the server. Refer to the **Security, Auditability, and Control** section for additional considerations.

The S/390 server must also have a Web server installed.

For optimum client functionality, each client platform should have a browser that supports JVM 1.1 and includes AWT.

Security, Auditability, and Control

eNetwork Host On-Demand Version 2 uses the security and auditability features of the host operating system and other functions included with the product to enhance data security and privacy.

Host On-Demand provides SSL V3.0 encryption support using non-exportable 128-bit (designated U.S. and Canada use only) and exportable 40-bit encryption algorithms (for international use).

In customer configurations where Host On-Demand might be downloaded across national boundaries, the customer is responsible for ensuring that any non-exportable Host On-Demand applet is not made available outside the United States and Canada. The non-exportable and exportable Host On-Demand versions can be used in combination to allow the appropriate Host On-Demand applet to be downloaded based on different URLs.

The customer is responsible for any firewall support to meet security requirements.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering Information

The publication, *The eNetwork Host On-Demand Administrator's Guide* (SC31-8627), is available now. To order, contact your IBM representative.

New Licensees

Orders for new licenses will be accepted now.

Shipment will begin on February 27, 1997.

New users of IBM eNetwork Host On-Demand Version 2 for S/390 should specify:

Type	Model
5655	A81

Basic License: To order a basic license, specify the program number and feature number 9001 for asset registration. Specify one or more use authorization feature numbers from the table below for a one-time charge or for a monthly license charge, and the desired quantity (maximum of 250 per feature number per order). Quantity and feature selection is based on the number of use authorizations desired and the class of use.

Specify the Registered User feature number for users within the enterprise who will use the Host On-Demand client function. Users covered by the Registered User feature may use the Host On-Demand client on any workstation. Authorized use by regular employees and contractors must be obtained by specifying this feature number.

Specify the Concurrent Use feature number to extend use authorization to users outside the enterprise, in any number up to the level of concurrent use determined by the number of Concurrent Use features obtained. Such usage is typical of clients and customers outside the enterprise who are granted access to particular host applications over the Internet. Concurrent use refers to the number of such users concurrently in session with any enterprise host application while using the Host On-Demand client function. Such enterprise host applications include those on hosts in the enterprise other than the Host On-Demand server.

If both types of use are to be supported by the Host On-Demand server, then both features must be specified.

Description	OTC[1] Feature Number	MLC[2] Feature Number
Registered User within Enterprise	4083	4085
Concurrent Use outside Enterprise	4084	4086

[1] One-Time Charge
[2] Monthly License Charge

Each use authorization feature provides authorization for up to 500 users or uses. For example, to acquire authorization for up to 1500 employees within the enterprise, specify the Registered User feature in a quantity of 3. For authorization to allow Host On-Demand supported client sessions with up to 1000 customers concurrently, specify the Concurrent Use feature in a quantity of 2.

Specify the feature number of the desired distribution medium shown below.

Version-to-Version Upgrade Credit: To upgrade from a prior program acquired for a one-time charge to a replacement program using a version-to-version upgrade credit, the customer must notify and identify to IBM the applicable prior program and replacement program participating in the upgrade credit.

Basic Machine-Readable Material: To order, select the feature number of the desired distribution medium:

Environment	Feature Number	Distribution Medium
Host On-Demand Version 2 U.S./Canada Use Only	5801	9/6250 magnetic tape
	5802	3480 tape cartridge
	6001	4mm tape
Host On-Demand Version 2 International Use	5811	9/6250 magnetic tape
	5812	3480 tape cartridge
	6002	4mm tape

Customization Options: Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

Example: If publications are not desired for the initial order, specify feature number 3470 to ship media only. For future updates, specify feature number 3480 to ship media updates only. If, in the future, publication updates are required, order an MES to remove feature number 3480; then, the publications will ship with the next release of the program.

Description	Feature Number
Initial Shipments	
Serial Number Only (suppresses shipment of media and documentation)	3444
Ship Media Only (suppresses initial shipment of documentation)	3470
Ship Documentation Only (suppresses initial shipment of media)	3471
Update Shipments	
Ship Media Updates Only (suppresses update shipment of documentation)	3480
Ship Documentation Only (suppresses update shipment of media)	3481
Suppress Updates (suppresses update shipment of media and documentation)	3482

Description	Feature Number
Expedite Shipments	
Local IBM Office Expedite (for IBM use only)	3445
Customer Expedite Process Charge ($30 charge for each product)	3446

Expedite shipments will be processed to receive 72-hour delivery from the time IBM receives the order. IBM will then ship the order via overnight air transportation.

Unlicensed Documentation: A program directory is supplied with the basic machine-readable material.

Terms and Conditions

Licensing: IBM Customer Agreement

Variable Charges Apply: No.

Parallel Sysplex™ License Charge (PSLC) Applies: No

Indexed Monthly License Charge (IMLC) Applies: No

Installation License or Location License Applies: No

Usage Restriction Applies: Yes, to the maximum number of registered users within the enterprise, or concurrent uses by those outside the enterprise, according to the type and quantity of use authorization features acquired.

Additional licenses or features, as appropriate, must be obtained to exceed usage limits.

Entry End User/390 Attachment (ESL) Applies: No

Educational Allowance: Yes, to qualified education customers.

Volume Discount: Not applicable

Version-To-Version Upgrade Credits Apply: Yes

Replaced Program		Replacement Program		
Program Number	Program Name	Program Number	Program Name	Single Version Charging Applies
5655–A81	Host On–Demand	To a follow–on, if any		not applicable

Warranted: Yes

Licensed Program Materials Availability:

- Restricted Materials of IBM: None
- Non-Restricted Source Materials: All
- Object Code Only (OCO): None

Testing Period: Two Months

Program Services

- Support Center applies: Yes. Access is available through the IBM Support Center

- Available until discontinued: 12 months written notice.

Support Line: Personal Systems

Call Now to Order

To order, contact the IBM North America Sales Centers, your local IBM representative, or your IBM Business Partner™.

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Phone: 800-IBM-CALL
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Mail: IBM North America Sales Centers
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To identify your local IBM Business Partner or IBM representative, call 800-IBM-4YOU.

Note: Shipments will begin after the planned availability date.

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