Reference Guide

IBM Host Access Client Package

WebSphere® software

IBM Host Access Client Package

IBM Host Access Client Package lets you efficiently manage migration of Web-to-host technologies at your own pace. With one package, you can support a diverse user community, avoid working with multiple vendors and provide access to legacy applications for all types of users — regardless of their needs.

With tools that are available today, you can start to build your e-business applications of the future. You can take your applications beyond screen customization, and rapidly create host-access e-business applications based on your legacy systems. These tools enable you to achieve a competitive advantage in your marketplace, help reduce expenses and leverage your existing investments.

Host Access Client Package can help you reach your e-business goals by:

- *Providing market-leading host connectivity and emulation*

- *Capitalizing on existing investments and extending enterprise applications to Web-based technologies*

- *Extending the reach of your enterprise's host applications with Java™ technology-based host access*

- *Providing multiple security options for access across the Internet*

- *Transforming IBM @server zSeries™ and IBM @server iSeries™ host screens into graphical user interfaces (GUIs)*

Packaging

IBM Host Access Client Package for Multiplatforms provides access to applications and data residing on iSeries (5250), zSeries (3270) and DEC/UNIX (VT) hosts for traditional and Web users in SNA and intranet environments. For those customers who require only iSeries server access, the IBM Host Access Client Package for iSeries is a more appropriate solution.

Both packages include IBM Personal Communications for traditional emulation, IBM WebSphere® Host On-Demand for browser-based emulation and IBM Screen Customizer to give host applications a simple GUI using drag-and-drop technology. Also, you can create custom e-business applications with the comprehensive set of APIs included in each package.

Host Access Client Package provides the solution for your host connection needs. The package includes:
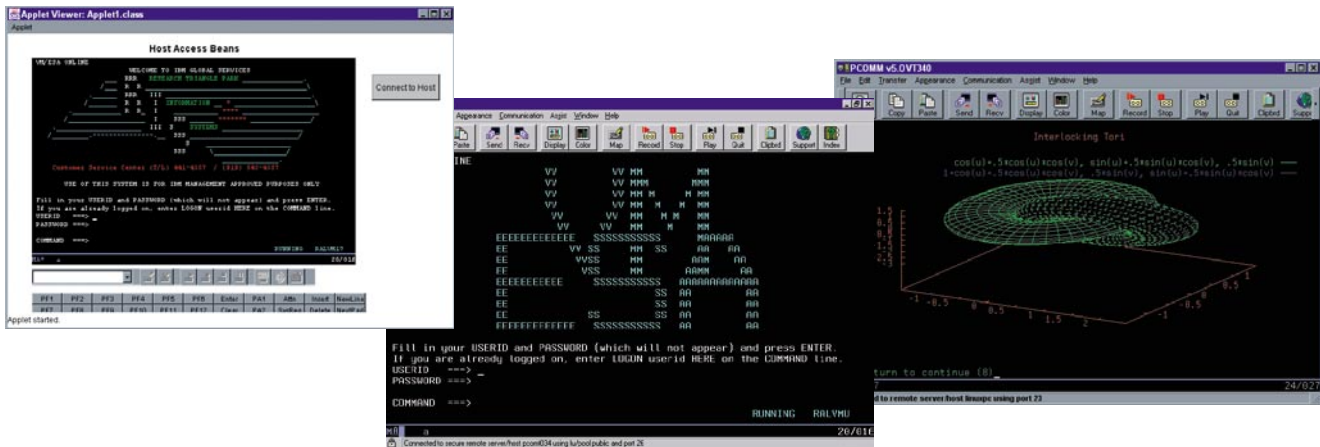
- *IBM Personal Communications*
  This product enables access to applications and data residing on mid-range and host systems. This market-leading emulator contains state-of-the-art, comprehensive tools that simplify connectivity and access to host data. It offers features like multiprotocol environments, consistent look and feel, easy licensing options and open system architecture. Personal Communications offers Host Access Beans for Java and a Java interface for Host Access Class Library (HACL) — technologies that help reduce rework. These technologies also enable your applications to remain fully functional as your business evolves.

- *IBM WebSphere Host On-Demand*
  This product secure Web-to-host access and e-business application programming support with one interface to your TN3270E, TN5250, VT52, VT100, VT220, VT320 and VT420 and IBM CICS® applications, consistently across platforms. Maximize your productivity with standard desktop utilities, file transfer and host print. Using Deployment Wizard, administrators can create custom HTML files which contain different configuration information for host sessions. Create custom e-business applications using Host Access Beans for Java and HACL. Web server installation means users always access the latest version. WebSphere Host On-Demand requires no middle-tier server, and it supports your choice of client and server platforms.

- *The drag-and-drop technology of IBM Screen Customizer*
  This product eliminates the need for programming, making it a cost-effective, quick solution that helps you leverage investments in legacy applications. Available for use with WebSphere Host On-Demand, Screen Customizer is based on innovative screen recognition technology, requiring no access to source code. Users can simultaneously access multiple hosts and multiple sessions. You can optionally customize presentations by adding new fonts, macros, images and check boxes. After users install Screen Customizer, they never have to see a green screen again.

Multiple Personal Communications sessions illustrate SSL support, VT340 graphics and a custom application using Host Access Beans for Java.

IBM Personal Communications

IBM Personal Communications is a host communication and terminal emulation package that features 3270, 5250 and VT emulation; SNA application support; integration; and SNA and TCP/IP connectivity. Personal Communications — a key component of Host Access Client Package and IBM WebSphere Host Integration Solution — helps enable security-rich access to mission-critical business systems for virtually every user. Personal Communications can bring the power of personal networking to the workstation and can exploit existing networking capabilities. These capabilities include SNA applications and technologies, such as advanced program-to-program communication (APPC) and High-Performance Routing (HPR). It also provides TCP/IP support and an extensive application programming interface (API) set, offering HACL and Emulator High-Level Language Applications Programming Interface (EHLLAPI) through programming languages like C++ and VBScript, and Java technology.

Personal Communications can help you reach your e-business goals by:

- *Providing market-leading host connectivity and emulation*

- *Including tools to easily combine host and desktop applications*

- *Helping to capitalize on existing investments and extend applications to Internet Protocol (IP)-network technologies*

- *Enabling users to have access to mission-critical business systems*

Personal Communications enhancements include:

- *The Microsoft® certification: Compatible with Microsoft Windows® XP*

- *Detect and repair capabilities*

- *Improved security features*

- *An enhanced macro conversion utility*

- *The ability to map a key sequence to bring up the printer dialog*

Industry-leading emulation

Personal Communications continues to set the standard for terminal access to business-critical applications and data on different host systems, taking advantage of 3270, 5250, TN3270E, TN5250, VT52, VT100, VT220 and VT340 emulation. The Personal Communications industry-standard APIs include 32-bit EHLLAPI APIs, as well as Windows HLLAPI (WinHLLAPI) APIs.

Improved development capabilities

Personal Communications supports Host Access Beans for Java (based on the JavaBeans specification), Visual Basic automation objects and VBScript. Building on Personal Communications leadership in object-oriented programming, the HACL API provides a Java programming interface that enables you to create applications for both Personal Communications and WebSphere Host On-Demand, allowing flexibility while preserving your investments for the future.

Security when you need it most

With Personal Communications, you can be confident that you have a security-rich environment when you need it most. Personal Communications supports Secure Sockets Layer (SSL), Version 3.0. When combined with support for load balancing Service Location Protocol (SLP) — found in products such as IBM Communications Server — Personal Communications can be configured to connect to only SSL-enabled servers, helping to enable more network security.

Benefits

Personal Communications helps ensure that you are ready to make the transition to e-business with tools you can use today that provide:

- *Network integration*
  Personal Communications can handle a wide variety of protocols — including Integrated Services Digital Network (ISDN), HPR, SNA and IP — to help you connect users to the data they need.

- *Connectivity*
  Personal Communications offers a fast, network-efficient connection to employees, customers, suppliers and trading partners. Replace outdated, disparate communication tools with one solution for access to mission-critical business systems.

- *e-business tools*
  Personal Communications Java Interface for HACL helps you make the change to a Web-to-host environment easier and more efficiently. Using this tool can help you preserve your application development investment as you move to other WebSphere Host Integration Solution products.

- *Open system architecture*
  From EHLLAPI to TCP/IP to SNA, Personal Communications provides industry-standard solutions to help extend your investments into the future.

- *Extensive language support*
  Personal Communications is multilingual. Available in 22 languages, it includes double-byte character set (DBCS) languages. It supports the euro sign and includes extensive keyboard and code-page support.

- *The Microsoft certification*

  Compatible with Microsoft Windows XP. This certification confirms that Personal Communications executes on Microsoft Windows XP and does not interfere with operating system or application stability.

- *SNA over IP backbone*

  Through the use of Enterprise Extender (EE) in Personal Communications, you are able to maintain the integrity of SNA LU6.2/CPIC/APPC and LU0 applications over IP. EE technology in Personal Communications transports native SNA applications over an IP network, allowing these applications to run unchanged even as the network changes. In addition, the IP network infrastructure does not need to change to handle these applications. Everything is done at the endpoints, and the routers just forward the IP packets as if they were native IP applications.

IBM Personal Communications features and functions

Windows platforms, Version 5.6	3270	5250	VT
Installation and customization			
IEEE 802.2		x	x
3174 Peer Communication (LAN over coaxial); not supported on Windows 2000	x	x	x
IPX/SPX	x	x	
Communications Server API client			
• Advanced program-to-program communication (APPC)	x	x	
• LUA	x		
TCP/IP	x	x	x
SNA Distributed Function Terminal (DFT)	x		
Non-SNA DFT	x		
Twinaxial		x	
IBM @server iSeries and S/3x Console (asynchronous and twinaxial)		x	
Synchronous Data Link Control (including auto-dial capability)	x	x	
Wide Area Connector (WAC)	x	x	x
SNA over asynchronous	x	x	
Asynchronous	x		
Asynchronous for IBM Global Network® (IGN)	x		
Home3270	x		
Hayes Autosync	x	x	
Hayes Autosync II (Windows 95 and Windows 98 only)	x	x	
Microsoft SNA Server			
• FMI	x	x	
• Windows APPC	x		
• Windows LUA	x		
APPC3270 (LU2 over APPC)	x		
IBM AnyNet® (SNA over TCP/IP)	x	x	
3270 pass-through by iSeries	x		
ISDN, X.25	x	x	
PCI MPA	x	x	
Enterprise Extender	x	x	
3270 pass-through over twinaxial	x		
Original equipment manufacturer (OEM) adapter support	x	x	x
Application-initiated detect and repair	x	x	x
Silent installation	x	x	x
Microsoft Systems Management Server (SMS) support	x	x	x
Installation and configuration from LAN server	x	x	x
Simultaneous sessions with different code pages and keyboard languages	x	x	x

IBM Personal Communications features and functions (continued)

Windows platforms, Version 5.6 (continued)	3270	5250	VT
Installation and customization			
Automatic logon		x	
26 display and printer emulation sessions	x	x	x
Selectable display sizes	x	x	x
VT52/VT100/VT220/VT340 emulation			x
Toolbar customization	x	x	x
Text configuration files	x	x	x
Configuration update files	x	x	
Initial configuration definitions	x	x	
Communications Manager/2 migration	x	x	
Tivoli® certified	x	x	
System policy	x	x	x
Microsoft Windows Installer	x	x	x
Print support			
Host print	x	x	x
• 3812 printer emulation		x	
• Host print transform		x	
• ASCII transparent	x	x	x
• Printer definition table (PDT)	x	x	
Screen print	x	x	x
Associated printer support	x		
ZIPPRINT	x		
Networking function			
SNA data compression (emulator sessions)	x	x	
SNA data compression (LU 6.2 sessions)	x	x	
VPD/EVPD, Alert	x		
Response time monitor (RTM)	x		
Command start/stop/query SNA node	x	x	
Load balancing, hot standby, SLP	x	x	
SSL, Version 3.0	x	x	x
Client certification authentication for SSL	x	x	x
HPR routing over IP for nondisruptive backup	x	x	
Automatic link reactivation	x	x	
IBM APPN® end node	x	x	
APPN LEN node	x	x	
HPR	x	x	
Dependent LU requester (DLUR)	x	x	
Express logon function	x	x	x
Smart Card support	x	x	x

IBM Personal Communications features and functions (continued)

Windows platforms, Version 5.6 (continued)	3270	5250	VT
Utilities			
Administration tools	x	x	x
Information bundler for problem determination	x	x	x
Internet service	x	x	x
Enhanced log or trace viewer	x	x	x
Microsoft Windows 2000 certified	x	x	x
Macro conversion tool for Host On-Demand	x	x	x
Product update tool	x	x	x
User interface			
Graphical, customizable toolbar feature	x	x	x
Rule line	x	x	x
Menu-bar customization	x	x	x
Pop-up keypad and hot keys	x	x	x
3-D hot spots	x	x	x
Macro record and play	x	x	x
Graphical keyboard remapping	x	x	x
• National language support (NLS) key-caps support	x	x	x
• DBCS unique keyboard support	x	x	
Customizable mouse	x	x	x
Drag-and-drop color remapping	x	x	x
Crisp fonts, automatic sizing, fixed font size	x	x	x
Display setup, view setup, window setup	x	x	x
Internet hot spots	x	x	x
OLE/ActiveX objects	x	x	x
APL support	x		
Automation and scripting utility (CMMOUSE)	x	x	x
Accessibility for handicapped users	x	x	x
Status bar	x	x	x
Euro sign	x	x	
Intelligent spreadsheet support	x	x	x
Blink attribute support	x	x	x
VT history	x	x	x
Multilanguage support	x	x	x
iSeries application support			
PC organizer and text assist		x	
Enhanced nonprogrammable terminal user interface (ENPTUI)		x	

IBM Personal Communications features and functions (continued)

Windows platforms, Version 5.6 (continued)	3270	5250	VT
Programming interfaces			
DOS EHLLAPI	x	x	x
EHLLAPI, DDE, PCSAPI	x	x	x
REXX EHLLAPI support	x	x	x
Visual Basic scripting	x	x	x
SRPI	x		
REXX PSCAPI support	x	x	x
HACL	x	x	x
TCP62	x	x	
Request Unit Interface (RUI)	x		
Session Level Interface (SLI)	x		
WinHLLAPI support	x	x	x
32-bit HLLAPI	x	x	x
Convert macro to VBScript or XML	x	x	x
Host Access Beans for Java	x	x	x
Microsoft Open Database Connectivity (ODBC) 3.0 for SNA, using IBM DB2® Connect™	x	x	
CPIC and APPC APIs supporting both dependent and independent LU6.2	x	x	x
Node operator facility (NOF)	x	x	
File transfer			
File transfer through emulator session	x	x	x
Command line invocation	x	x	
Lists	x	x	x
Templates	x	x	x
Import/export	x		
Data transfer by SNA (SQL file transfer)		x	
ASCII — host file transfer • Xmodem • XModem1K • Ymodem • YModemG			x x x x
Data transfer by IP		x	
Host graphics			
Graphics Data Display Manager (GDDM) and Graphic Objects Content Architecture (GOCA)	x		
Programmed symbol set	x		
Vector	x		
Copy graphics images	x		
VT340 ReGIS and Sixel support			x

IBM Personal Communications for Windows, Version 5.6 at a glance

Hardware requirements

Minimum 24MB RAM recommended for Windows 95 and Windows 98, 32MB RAM for Windows NT®, 64MB RAM for Windows 2000 Professional and Windows Me and 256MB RAM for Windows 2000 servers

- 486 or higher system processor
- 40MB fixed disk space minimum—additional space may be required depending on installation options

Software requirements

Supported by the following desktop platforms:

- Windows 95 OS Release 2
- Windows 98 or Windows 98SE
- Windows Millennium Edition (Windows Me)
- Windows NT 4.0
- Windows 2000 (Professional Edition, Server Edition and Advanced Server Edition)
- Windows XP Professional Edition and Home Edition
- Microsoft SNA Server client (optional)
- IBM Communications Server for Windows NT (CS/NT) client (optional)
- Microsoft Terminal Server and Microsoft Terminal Services
- Citrix Metaframe 1.8 for Windows Terminal Server 4.0 and 1.8 for Windows 2000
- Citrix Metaframe XP (Version s, Version a and Version e) for Windows

Communication with the following types of servers or gateways:

- IBM Communications Server for Windows NT and Windows 2000
- IBM Communications Server for AIX®
- Microsoft SNA Server
- Microsoft Terminal Server and Microsoft Terminal Services
- Direct connection to the host
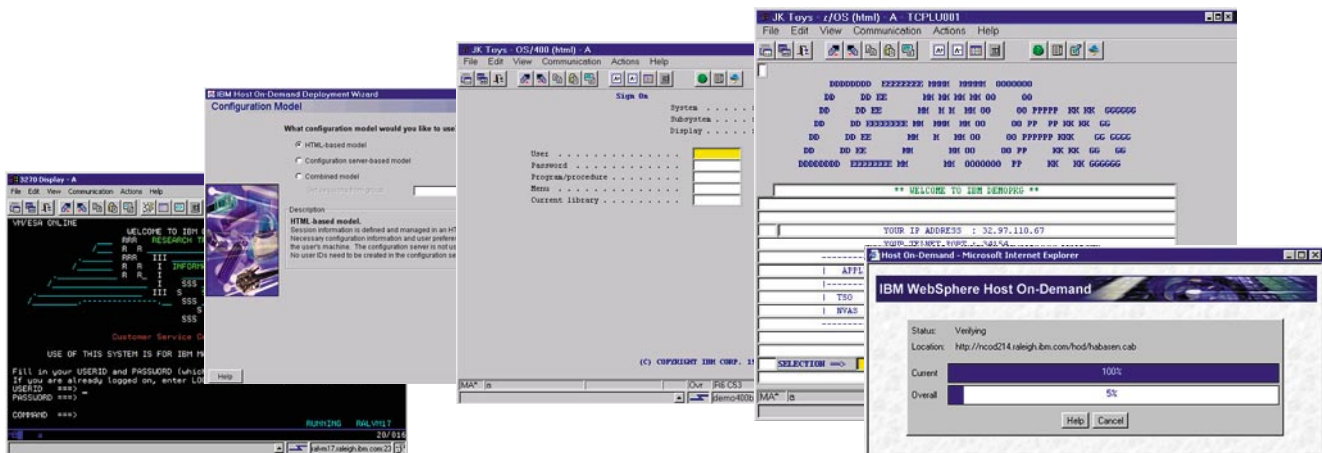
With IBM WebSphere Host On-Demand, you can easily access and manage your 3270, 5250 or VT host applications.

IBM WebSphere Host On-Demand

Quick, easy access to critical host data

The Web browser-based access of IBM WebSphere Host On-Demand gives your users a simple way to reach critical host data — without requiring any software to be installed on the client. WebSphere Host On-Demand uses the power of Java technology to help open the doors to your host data directly from your browser. Just click a hyperlink to launch the WebSphere Host On-Demand Java applet. This Web-to-host connectivity solution helps provide secure Web-browser access to host applications, so you can take existing host applications to the Web without programming.

With support for TN3270E, TN5250, VT52, VT100, VT220, VT320, VT420 and CICS Transaction Gateway access, users can have a single interface to their key host data. Because WebSphere Host On-Demand is Java technology-based, its interface has the same look and feel across various types of operating environments. It also provides a default GUI to help simplify the experience for users unfamiliar with traditional green screens.

WebSphere Host On-Demand can help you attain your e-business goals by:

- *Extending the reach of your enterprise's host applications with Java technology-based host access*

- *Supporting TN3270E, TN5250, VT52, VT100, VT220, VT320, VT420 and IBM CICS Transaction Gateway access*

- *Letting you quickly create new e-business applications using Host Access Beans for Java, Host On-Demand Connector, JavaScript API and reusable components*

- *Providing multiple security options for access across the Internet*

- *Allowing installation on a Web server for centralized management and deployment*

- *Providing a default GUI for users unfamiliar with traditional host screens*

- *Supporting host access to IBM @server iSeries and IBM @server zSeries servers*

- *Providing FTP and VT access to all FTP- and VT-supported server types*

A cost-effective approach

You can save money in product deployment and maintenance by using WebSphere Host On-Demand, eliminating the need to deploy the software to individual user desktops. Users can connect directly to a host system, such as an IBM @server iSeries system or an IBM @server zSeries system, without the need for extra hardware and software between the client and the Telnet server. You can install WebSphere Host On-Demand on nearly any server platform, accommodating various-size organizations and branch offices.

As software updates occur, the latest version of WebSphere Host On-Demand is downloaded each time a user accesses the software, helping eliminate the need to install code on client workstations. With the cached client feature, users download only once. Subsequent uses then originate from user hard drives, while code updates are handled in the background through the cached client. Users can be productive and have the newest version of code, with low distribution costs for your business.

Connect directly to any Telnet server

With WebSphere Host On-Demand, the client applet contains the emulation functionality. This eliminates the need for a middle-tier server — a performance issue. Once the applet is served to the client, it's easy to connect directly to any standard Telnet server that provides the best access to the required data. You can change the Telnet connection as often as user requirements for new data change. You can access many host sessions concurrently.

Create new e-business applications

A rich Java tool set — including Host Access Beans for Java, HACL API, Host On-Demand Connector and JavaScript API — lets you rapidly create custom e-business applications to achieve competitive advantage. Because WebSphere Host On-Demand is part of the WebSphere product family, applications developed using the tool set can be incorporated as part of other WebSphere software projects, helping you preserve your WebSphere Host On-Demand investment and providing a jump-start to moving to the Web and e-business.

The HACL API provides access to 3270, 5250 and VT data streams. This class library allows you to use mission-critical information in new ways, including integrating data from one application with another.

Host Access Beans for Java provides host connectivity and emulator functions through simple, component-based development tools, like IBM WebSphere Studio Application Developer. Use Host Access Beans for Java or Host on-Demand Connector to rapidly create custom applications to deliver the specific functions you want to include in your e-business applications. Using the JavaScript API, you can integrate a Host On-Demand session within your company's Web page.

Security-enhanced access across the Internet

Using the Transport Layer Security (TLS) Protocol or SSL, Version 3.0, WebSphere Host On-Demand extends host data access across intranets, extranets and the Internet with added security. Mobile workers can establish security-enhanced communication with an enterprise host. With client and server certificate support, WebSphere Host On-Demand can present a digital certificate (X.509, Version 3) to the Telnet server — such as IBM Communications Server for OS/390® — for authentication. Certificates can be kept in the client's browser, a dedicated security device — like a Smart Card, or in a local or network-accessed file in PKCS12 or PFX format, which is protected by a password.

Deployment options

WebSphere Host On-Demand provides access to host applications from a Web browser. The browser downloads the WebSphere Host On-Demand Java applet from the Web server and then connects to most standard Telnet servers to access host applications. The WebSphere Host On-Demand applet needs configuration information to determine which host to connect to and to identify other host session properties. This configuration information can be provided to the WebSphere Host On-Demand applet from an HTML file or by using the WebSphere Host On-Demand configuration server.

Flexible configuration models support your unique needs

If you don't want to manage WebSphere Host On-Demand, administrators can use Deployment Wizard to create HTML files that contain configuration information for host sessions. That means you are not required to use the WebSphere Host On-Demand configuration server to specify sessions. If you allow users to save changes to host-session configuration information, the changes are stored on the local file system where the browser is running.

If you need to manage WebSphere Host On-Demand users, host-session information is maintained on the configuration server using the administration utility. Preferences are defined using a user and group structure. The configuration server normally stores its data locally on the WebSphere Host On-Demand server, though it can be configured to use Lightweight Directory Access Protocol (LDAP) instead. Users access their configurations using either custom HTML files created in Deployment Wizard or by using one of several HTML files that are provided as part of WebSphere Host On-Demand. If administrators allow users to save changes, WebSphere Host On-Demand stores user preferences based on user ID in the configuration server.

Simple host access from IBM WebSphere Portal

Access 3270, 5250 or VT applications from WebSphere Portal without any programming. By combining WebSphere Host On-Demand and WebSphere Portal, you can create custom Host On-Demand portlets for simple host application access. Users can also create custom portlets using Host On-Demand Deployment Wizard, or using one of four sample portlets available on the IBM Service Key site.
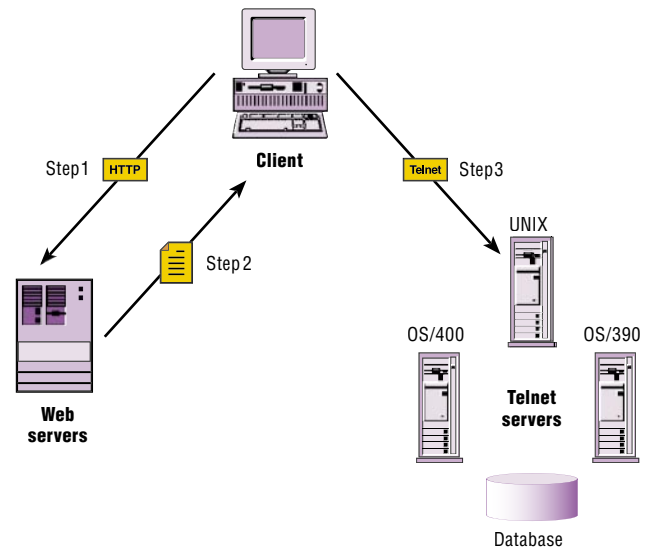
*IBM WebSphere Host On-Demand is a two-tier solution which eliminates the need for a middle-tier server. **Step 1**. The user opens a browser and clicks a hyperlink. **Step 2**. IBM WebSphere Host On-Demand applet downloads to the client workstation. **Step 3**. When the applet is downloaded, IBM WebSphere Host On-Demand connects directly to any Telnet server to access host applications.*

IBM WebSphere Host On-Demand, Version 7.0 at a glance

Hardware requirements

Disk space must be available on the server to support applet files, the WebSphere Host On-Demand redirector function and WebSphere Host On-Demand service manager. These requirements are based on a typical installation and are only estimates. Sizes can vary by operating system and the languages installed.

Server space per additional user:
- For Windows NT and Windows 2000, 375MB of disk space for one user interface language, plus an additional 8MB of disk space for each additional user interface language
- For AIX, 325B of disk space (includes English as a user interface language and additional security files), plus an additional 8MB of disk space for each additional user interface language
- For Sun Solaris operating environment, Linux®, HP-UX and UNIXware, 320MB of disk space (includes English as a user interface language), plus an additional 8MB of disk space for each additional user interface language
- All other operating systems, 475MB (all languages installed)

Software requirements

Can be installed on the following servers, which must have Java Virtual Machine (JVM) 1.1.8 or JVM 1.3 installed:

- Windows NT 4.0 with Service Pack 5 or higher
- Windows 2000 (Professional Edition, Server Edition and Advanced Server Edition)
- Windows XP Professional (32-bit) Note: Do not use for a large-scale production server.
- AIX, Version 4.3.3, Version 4.3.4 and Version 5.1
- IBM OS/2 WARP® Server, Version 4 and IBM OS/2 Warp Server for e-business, Version 4.5
- Novell NetWare, Version 4.2, Version 5.1 and Version 6
- Sun Solaris operating environment, Release 2.6, Release 7 and Release 8
- IBM OS/400®, Version 4 Release 5, Version 5 Release 1 and Version 5 Release 2
- IBM OS/390, Version 2 Release 9 and Version 2 Release 10
- IBM z/OS, Version 1 Release 1, Version 1 Release 2, Version 1 Release 3 and Version 1 Release 4
- HP-UX 10.20, 11.00 and 11i
- Red Hat Linux 6.2, 7.0, 7.1, 7.2 and 7.3
- SuSE Linux 6.4, 7.0 and 7.1, 7.2, 7.3 and 8.0
- Caldera Open Linux, Version 2.3 and Version 3.1
- TurboLinux, Version 6.0, Version 6.5 and Version 7.0
- Linux on zSeries

Supported on the following desktop operating environments when downloaded from a server:

- Windows 95 (local client option)
- Windows 98 (local client option)
- Windows Millennium Edition (Windows Me) (local client option)
- Windows NT 4.0 with Service Pack 5 (local client option)
- Windows 2000 Professional Edition (local client option)
- Windows XP Professional Edition and Home Edition (32-bit) (local client option)
- AIX, Version 4.3.3, Version 4.3.4 and Version 5.1
- OS/2 WARP, Version 4
- Sun Solaris operating environment, Release 2.6, Release 7 and Release 8
- HP-UX 10.20, 11.00 and 11i
- Red Hat Linux, 6.2, 7.0, 7.1, 7.2 and 7.3

IBM WebSphere Host On-Demand, Version 7.0 at a glance (continued)

Software requirements

Supported on the following desktop operating environments when downloaded from a server:	• SuSE Linux 6.4, 7.0, 7.1, 7.2, 7.3 and 8.0 • Caldera Open Linux, Version 2.3 and Version 3.1 • TurboLinux, Version 6.0, Version 6.5 and Version 7.0 • Windows Terminal Server, Version 4 • Windows Terminal Services for 2000 • IBM NetStation, Version 2 Release 1 Modification 0 • Citrix Metaframe 1.8 for Windows Terminal Server 4.0 and Windows 2000 Server • Citrix Metaframe XP, Version s, Version a and Version e for Windows

Supported browsers

The following browsers are supported for download of the WebSphere Host On-Demand clients from a remote WebSphere Host On-Demand server, or to run WebSphere Host On-Demand on a locally installed client:	• Netscape Navigator 4.6, 4.7, 6.1 and 6.2 (Windows 95, Windows 98, Windows NT, UNIX®) • Netscape Navigator 4.6.1 (IBM OS/2®) and IBM Mozilla Web Browser, Version 1.2 for OS/2 • Microsoft Internet Explorer 4.01 with IBM Service Pack 1, 5.0, 5.1, 5.5 and 6.0 • Other browsers that support the Java Runtime Environment (JRE) 1.3, 1.3.1 and 1.4 (Sun and IBM) plug-ins Browsers are dynamic. For the most up-to-date information, visit **ibm.com**/software/webservers/hostondemand.

Supported Web servers

	• IBM WebSphere Application Server, Version 3.5 and Version 4.0 • Lotus® Domino™, Release 5 and Release 6 • Netscape iPlanet (JRun), Version 4.1 • iPlanet Web Server Enterprise Edition, Version 6.0 • iPlanet Application Server, Version 6.0 • IBM HTTP Server, Version 1.3.6.2, Version 1.3.6.4, Version 1.3.12.6, Version 1.3.19.2 and Version 2.0

Supported development environments

	• IBM VisualAge® for Java, Version 3.5 and Version 4 • WebSphere Studio Application Developer, Version 4.0 • WebSphere Studio Application Developer Integrated Edition, Version 4.1 • WebSphere Studio Site Developer Advanced, Version 4.0 • WebGain VisualCafe Professional Development Edition, Version 4.0 and Version 4.1 • WebGain VisualCafe, Version 4.5.1 (Standard Edition, Expert Edition and Enterprise Edition) • WebGain VisualCafe Enterprise Suite, Version 4.5.2 • Borland/Inprise JBuilder, Version 3.5, Version 4.0, Version 5.0 and Version 6.0

Supported LDAP servers

|	
	• IBM LDAP Directory Server, Version 2.1, Version 3.1.1, Version 3.2.1 and Version 3.2.2 • Netscape Directory Server, Version 3.1 and Version 4.0 (both on Windows NT and AIX) • IBM LDAP Server running on OS/390, Version 2 Release 9 and Version 2 Release 10 • IBM LDAP Server running on z/OS, Version 1 Release 1, Version 1 Release 2, Version 1 Release 3 and Version 1 Release 4

Miscellaneous supported software

	• License Use Management, Version 4.5 • IBM WebSphere Portal Family, Version 2.1 • IBM WebSphere Portal for Multiplatforms, Version 4.1 • Acrobat Reader (or Acrobat), Version 4.0 or higher; Acrobat Reader or Acrobat, Version 5.0 or higher is required for DBCS PDF support.

IBM WebSphere Host On-Demand, Version 7.0 features at a glance

Feature	Function
Host access	• 3270 emulation 3279, 3278 modifications 2, 3, 4 and 5; and TN3270E • 5250 emulation • VT52, VT100, VT220, VT320, VT420 and NVT transport • Connects directly to any 3270, 5250 or VT Telnet server, including any IBM Communications Server • SOCKets Secure (SOCKS), Version 5 and proxy support
File transfer and print functions	• 3287 Type LU1 and LU3 printing (transparent print support) • 5250 host (HPT) printing • Native Windows print support • Adobe PDF printing • Screen print • FTP: IND$File file transfer, IFS file transfer (iSeries), iSeries file upload
Security	• TLS 1.0 and SSL 3.0 support (X5.09 certificate): 40-bit, 56-bit, 128-bit and 168-bit data encryption (RC/2, RC/4, DES and Triple DES) • Client/server authentication • Smart Card support • Express logon
Ease of use	• Color remapping • Full keyboard remapping, including mapping host keys to PC keyboards • Copy, cut and paste • Default GUI • Light pen support • 3270 vector graphics • Express logon • Customizable toolbar • Macro support: create user variables, copy fields to variables, conditional processing, macro chaining
Management	• Host On-Demand custom portlet creation with WebSphere Portal • Support for HTML properties to override session configurations • Deployment Wizard • Client caching • User and group management • Policy management and feature disablement • User ID population tool • zSeries System Modification Program Extended (SMP/E) installation from tape • iSeries RSTLICPGM installation • Management security: native authentication, configuration servlet, Windows Domain Single Sign-On
Application development	• HACL API for Java • Host Access Beans for Java, including terminal, session, file transfer, macro and other beans • Host On-Demand Connector • JavaScript API
Java 2 platform	• Autodefect Java version • Access to Java plug-in • Improved accessibility (Section 508, U.S. Government) • Auto IME/On-the-spot conversion support
International language support	• Available in 22 languages • Double-byte character set (DBCS) languages • Support for the euro* • Keyboard and code-page support for many more languages
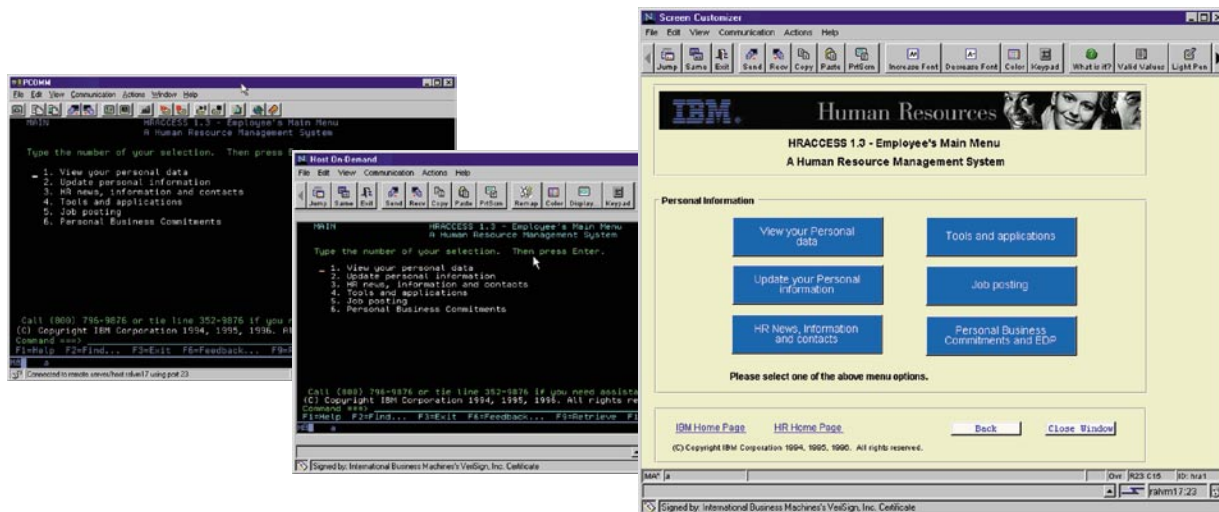
With IBM Screen Customizer, you can easily customize 3270 and 5250 applications to display user-friendly GUIs.

IBM Screen Customizer

IBM Screen Customizer consists of three components:

- *Administrator, which captures host screens from an active host session and saves them as maps*

- *Customization studio, which customizes host screens that were captured in the administrator*

- *Client runtime, which allows end users to view screens customized in the customization studio*

Screen Customizer converts 3270 and 5250 host screens into graphical presentations, which are easy to customize — without programming. Available for IBM WebSphere Host On-Demand, Screen Customizer is based on innovative screen-recognition technology, requiring no access to source code. Users can simultaneously access multiple hosts with multiple sessions, without causing degradation in host response time. After installing Screen Customizer, users may never have to see a green screen again.

Screen Customizer can help you reach your e-business goals by:

- *Transforming IBM @server zSeries and IBM @server iSeries host screens into GUIs*

- *Supporting multiple customizations of the same screen*

- *Allowing you to hide navigational screens to create a more targeted workflow*

- *Allowing you to apply custom templates to all screens*

- *Enabling drag-and-drop customization of user-selected host screens*

- *Requiring no programming for basic customization*

- *Letting you add business logic with user-defined applets, global variables, the IBM Screen Customizer bean and API*

- *Working with IBM WebSphere Host On-Demand*

Easy-to-customize GUI screens without programming

The Screen Customizer default GUI presents each host screen at the client, featuring menu buttons, defined input fields and hot spots. With the Screen Customizer customization studio component, you can create host screens captured within the administrator component. You can add new objects, change fonts and colors, apply templates, hide host fields, reorder workflow and combine data to improve screens. Or you can navigate the user through screens. The drag-and-drop technology of customization studio eliminates the need for pro-gramming, making it a cost-effective, quick solution that helps you leverage investments in legacy applications.

Seamless integration with connectivity software

The Screen Customizer client runtime component was devel-oped to integrate smoothly with Host On-Demand connectivity software to form a complete Web-to-host integration solution. Host On-Demand (a browser-based emulator) manages 3270 and 5250 connectivity, while client runtime delivers a graphical presentation of host application screens.

IBM Screen Customizer is for you if you have invested in legacy applications and want to graphically enable these applica-tions for e-business, without rewriting business logic. Screen Customizer is a Java technology-based solution that runs locally on the client machine and is particularly well-suited for both intranet and extranet environments. It excels in solutions where users have sustained connections and ongoing interaction with the host application.

IBM WebSphere Screen Customizer, Version 2.0.70 at a glance

Hardware requirements

The Screen Customizer server hardware requirements include a PC workstation computer with sufficient processor speed, memory and disk space to accommodate the following:	• For Windows NT and Windows 2000, 45MB for one user interface language, plus an additional 7MB per additional user interface language. • For Sun Solaris, Linux, HP-UX, UNIXware, IBM MVS® and AIX operating environments, 130MB (includes English as a user interface language), plus an additional 4MB per additional user interface language. • For all other operating systems, 120MB (all languages installed)

Software requirements

Supported by the following desktop platforms:	• Windows 95 • Windows 98 or Windows 98SE • Windows Me • Windows NT 4.0 • Windows NT XP To install IBM Screen Customizer, Version 2.0.70, you must have already installed IBM WebSphere Host On-Demand, Version 7.0.
Supported operating systems to install IBM Screen Customizer runtime client on an IBM WebSphere Host On-Demand, Version 7.0 server include:	• Windows NT 4.0 or higher with Service Pack 5 (SP5) or higher • Windows 2000 (Professional Edition, Server Edition and Advanced Server Edition) • Windows XP Professional (32-bit); not to be used for a large-scale production server • AIX, Version 4.3.3 and Version 5L 5.1 • OS/2 WARP Server, Version 4 and OS/2 Warp Server for e-business, Version 4.5 • Novell NetWare, Version 4.2, Version 5.1 and Version 6 • Sun Solaris operating environment, Release 2.6, Release 7 and Release 8 • IBM OS/400, Version 4 Release 5, Version 5, Release 1 and Version 5 Release 2 • IBM OS/390, Version 2 Release 9 and Version 2, Release 10 • IBM z/OS, Version 1 Release 1, Version 1 Release 2, Version 1 Release 3 and Version 1 Release 4 • HP-UX 10.20, 11.00 and 11i • Red Hat Linux 6.2, 7.0, 7.1, 7.2 and 7.3 • SuSE Linux 6.4, 7.0, 7.1, 7.2, 7.3 and 8.0 • Caldera Open Linux, Version 2.3 and 3.1 • TurboLinux, Version 6.0, Version 6.5 and Version 7.0 • SCO UnixWare, Version 7 • Linux — The version for support on IBM S/390® is the same as the preceding listed for RedHat, SUSE, Caldera and TurboLinux
Supported operating systems for IBM Screen Customizer client runtime for IBM WebSphere	• Windows 95 and Windows 98 • Windows Me

IBM WebSphere Screen Customizer, Version 2.0.70 at a glance (continued)

Software requirements

Host On-Demand, Version 7.0 client include: (local client option)	• Windows NT, Version 4.0 with Service Pack 5 • Windows 2000 (Professional Edition) • Windows XP Professional Edition and Windows XP Home Edition • AIX, Version 4.3.3 and Version 5L 5.1 (32-bit) • OS/2 WARP, Version 4 • Sun Solaris operating environment, Release 2.6, Release 7 and Release 8 • HP-UX 10.20, 11.0 and 11i • Red Hat Linux 6.2, 7.0, 7.1, 7.2 and 7.3 • SuSE Linux 6.4, 7.0, 7.1, 7.2, 7.3 and 8.0 • Caldera Open Linux, Version 2.3 and 3.1 • TurboLinux, Version 6.0, Version 6.5 and Version 7.0 • Windows Terminal Server, Version 4 and Windows Terminal Services for 2000 • Citrix Metaframe 1.8 for Window Terminal Server 4.0 and Windows Terminal Services for 2000 • Citrix Metaframe XP, Version s, Version a and Version e for Windows • NetStation Version 2 Release 1, Modification 0

Administrator and customization studio components

Supported operating systems to install Screen Administrator on an IBM WebSphere Host On-Demand server or IBM WebSphere Host On-Demand client include:	• Windows 95 OS Release 2 • Windows 98 and Windows 98SE • Windows Me • Windows NT, Version 4.0 • Windows 2000 (Professional Edition, Server Edition and Advanced Server Edition) • Windows XP Professional Edition (32-bit); not to be used for a large-scale production server
Supported operating systems to install customization studio client include:	• Windows 95 OS Release 2 • Windows 98 and Windows 98SE • Windows Me • Windows NT, Version 4.0 • Windows 2000 (Professional Edition, Server Edition and Advanced Server Edition) • Windows XP Professional Edition (32-bit)

Supported browsers

Browsers used to run the IBM Screen Customizer client runtime component with IBM WebSphere Host On-Demand include:	• Netscape Navigator, 4.6, 4.7, 6.1 and 6.2 (Windows 95, Windows 98, Windows NT, Windows 2000, Windows Me and UNIX) • Netscape Navigator, 4.6.1 (OS/2) and IBM Web Browser for OS/2, Version 1.2 • Microsoft Internet Explorer 4.01 with Service Pack 1, 5.0, 5.1, 5.5 and 6.0 • Java Plug-in 1.3, 1.3.1 and 1.4 (Sun and IBM)
Additional information	IBM WebSphere Host On-Demand keyboard remap is not supported while running customization studio. Keyboard remap is supported while using both the administrator and client runtime components.

IBM WebSphere Screen Customizer, Version 2.0.70 features at a glance

Feature	Function
GUI for 3270 and 5250 host applications Support for IBM WebSphere Host On-Demand, including host screens that can convert to a GUI with:	• Defined input fields • Selectable menu buttons • Selectable hot spots • An iSeries subfile display
Quick customization For selected screens with additional capabilities, including:	• Fields that can be moved to reorder the host workflow • Ability to add Web links, radio buttons, check lists and more • Light pen support • Custom templates that can be applied to all screens, customized or not

Ease of use
Ability to show and hide the status bar and keypad; create context-sensitive help for host screens; install as native OS/400, OS/390 and AIX; page up and page down scrolling and right mouse-click for help

File transfer
Availability for both 3270 and 5250 sessions with IBM WebSphere Host On-Demand; provides menu options and toolbar buttons; offers macro buttons that can be launched from a customized screen

Application development New business logic can be added through:	• User-defined applets at startup or from a button. • Global variables that allow data to be transferred between different applications and sessions. • An API that allows graphical components and data to be modified at runtime. • A screen customizer bean that allows IBM Screen Customizer to be embedded directly into a Web page. The bean allows rapid application development with full capabilities to display customized screens.

From traditional emulation to browser emulation at your own pace
IBM Host Access Client Package offers a migration path from traditional emulation to the Web — at your own pace, and puts a simple GUI on a host application. With one package, you can provide host access to virtually anyone, anywhere.

For more information

To learn more about IBM Host Access Client Package,

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