Host Transformation Options

3 Integrate and Leverage
Host Applications

Enterprise Application Integration or EAI includes all technologies and methods used to connect front-end and back-end applications in a non-invasive manner. Non-invasive EAI approaches include **data integration / warehousing** (#3a), **business process redesign** (#3b), and **presentation access** solutions (#3c).

3a Data Integration

Data integration methods collect and consolidate data from host systems into more user-friendly formats. While providing greater accessibility to a wider number of users and applications, they do not leverage or address the business logic of the host application. In addition, the data may not be provided in real time. Data synchronization, replication, and redundancy also need to be resolved.

3b Business Process Redesign

Business process redesign (BPR) examines the business logic in host applications, so critical business processes can be identified, redesigned, and integrated into new systems. By reducing the number of steps a user has to take within an application or the number of applications needed to accomplish a business objective, BPR enables enterprises to be more agile. However, host application business logic can be difficult to identify because of: 1) host application redundancy; 2) intertwining of data, business, and presentation logic; and 3) years of modifications made by different programmers. **Presentation access servers** (#3c) often enable certain host business processes to be redesigned that would not ordinarily be possible. **Business process redesign** and **presentation access** solutions can be highly complementary.

2 Migrate
Host Applications to New Software Architectures

During migration projects, complex applications are typically rewritten using new software architectures. These efforts usually start from scratch using modern programming tools and frameworks, such as Java™ 2 Enterprise Edition (J2EE) or .NET. The replacement and reinvention of proven host applications - given their scalability, security, and mission-critical nature - requires solid cost-benefit justification. Host applications that fail migration cost justification, however, may be candidates for consolidation (#1) or **presentation access** (EAI) solutions (#3c) when the host code cannot be migrated or rewritten.

IBM® S/390®
MVS™ OS/390®
zSeries®
z/OS®

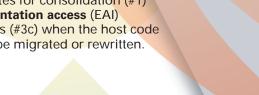## 3c Presentation Access Solutions

Presentation access solutions can make multiple host programs available directly to customers, vendors, partners, and clients without the intervention of human intermediaries. Presentation access solutions, like the **NetManage® Host Access Platform**, enable new business functionality to be created quickly for delivery by either Windows or UNIX servers. These types of solutions are structurally similar to **application servers** in that they have three common elements: data streams, business logic, and presentation services. Presentation access solutions **extend host applications** to new Web and wireless clients. They also **rejuvenate host applications** by allowing the addition of new business logic without rewriting or migrating code and at minimal cost using real-time data.

Data Warehouse
- DB2®
- Sybase®
- SQL Sever
- Oracle®

HP3000/MPE/iX®

AS/400®/iSeries™

VAX™/VMS™

Legacy UNIX

HOST APPLICATIONS
- Custom
- HR
- Finance
- Manufacturing

- COBOL
- FOCUS
- PL/1
- VSAM
- IMS™
- CICS®

Microsoft® Windows® Server™

Virtual Person

Billing Record
Call Center Procedures
Order Entry
Health Record
Logistics

UNIX®

Microsoft® Windows® Server™ .NET® framework

UNIX® J2EE® framework

1 Consolidate
Host Applications

Implementing **enterprise resource planning** (ERP) packages can reduce the number of host applications and their maintenance costs. However, not all host applications are replaced by packaged applications. The remaining host applications can be migrated to new software architectures (#2) or integrated and leveraged (#3). When "re-writing" host code is impractical, **presentation access** (EAI) solutions (#3c) can be used, particularly when cost, time to market, access to real-time data, or ease of implementation are important.

Enterprise LAN

Host Access Platform

Delivering the right host data to the right user, using the right interface and device - all at the right time.
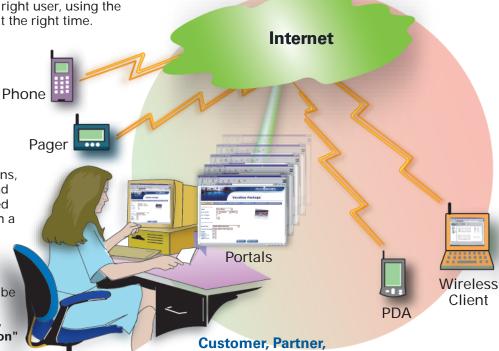
Internet

Phone
Pager

Customer Service Representative (CSR)

NetManage desktop and browser-based clients provide powerful, proven, reliable, and secure terminal emulation products for end users accessing host applications using **"green screen"** terminals, such as **IBM** 3270, 5250, and Digital VTXXX.

Desktop Clients, Wireless Clients and Portals

With NetManage Host Access Platform solutions, customers, partners, and suppliers no longer need to interface directly with a customer service representative (CSR). Transactions and applications otherwise evoked by the CSR can be exposed, captured, and encapsulated - in effect, creating a **"virtual person"** or virtual CSR. The "objects" created by NetManage solutions enable host transactions to be re-purposed and consumed by modern Web applications using Web services, J2EE and .Net frameworks. Host application functionality can then be accessed by all types of clients - desktops, browsers, portals, and wireless devices.

Portals

PDA

Wireless Client

Customer, Partner, Vendor, Employee

NETMANAGE®
Experts in Host Access and Integration Solutions