Host Integration: Learn IBM Web to Host Srengths

- Personal introduction of the speaker
- Thank the audience for attending

Agenda

Tthe agenda for today will include:

- Seminar Objectives
- A market overview and segmentation
- Strategies and vision for the host integration solution
- Review host integration scenarios and the integration with Websphere
- Competitive Advantages
- Host Integration Demo

Seminar Objectives

- Will cover with you today IBM Connected e-business which includes our Host Integration Solution and integration with WebSphere Transcoding Publisher
- While the prospect of becoming an e-business may seem overwhelming, what I'll share with you today is how our Host Integration product portfolio offers you the quickest, most cost-effective, flexible and secure way to turn your business into an e-business. And, with WebSphere Transcoding Publisher, convert and reformat your existing host data for access by any device, anytime, anywhere
- We will also cover Transformation and Integration, give you a market overview, review some Host Integration scenarios and how Websphere integrates, and review Host Integration competitive advantages
- Show you a Host Integration Demo from the WEB

<u>Transformation and Integration:an Explosive Growth Area for IBM and Business Partners</u>

• You may be familiar more with the Application and Integration Middleware Division (AIM) Division of IBM. AIM has now evolved into Transformation & Integration. Let's talk about Transformation and Integration and how this is an explosive growth area for IBM and our business partners

Business Transformation and Integration

- Business transformation & integration is happening every day -- with increasing frequency throughout the world.
- IBM is working with many of these market leading businesses to help them become successful e-businesses

What is Transformation and Integration?

- Driven by the need to change at will in this e-business age, business are requiring that companies be fast, flexible, and fearless
- Transformation and Integration (T&I) describes IBM offerings of tools, WEB application servers and middleware that help our customers and partners create the kind of fast, fearless and flexible e-business applications to succeed in the new economy.

How Big is Transformation and Integration?

- Transformation & Integration is big ... total software opportunity of \$59B in the US in 1999 and expected to grow to approximately \$83B by 2002
- Every dollar spent in software is expected to yield ten in services
- Key Growth Area: Distributed Solutions at 19% CGR

What to sell: Web to Host

• The customer is looking for and need simple WEB access to the host systems. Within Transformation and Integration, the host integration solution is the offering that can fill the customers need

Market Overview - Our Business Mission

- To think about positioning the WebSphere and Host Integration product, we first must raise the view of the marketplace that we're serving.
- The first step is to create a vision of a combined mission.
- We need to think past product, the how problems are solved, and think about what the broader 'what' we're trying to help customer do.
- This statement attempts to define a mission that the combined WebSphere and Host Integration teams can undertake.

Host Integration: Market Segmentation within Business Transformation & Integration

Title Page ... No text needed

Market Overview: Market Segmentation and Buyers

- The Business Connect segmentation and buyer descriptions provide a convienent format for describing a combined market place.
- While not a perfect fit for the WebSphere products, it is easy to see how the WebSphere products fit into this type of market description.
- This is a significant area of opportunity with over \$3.2 B in customer spending, according to the IBM GMV.
- Each cell of the segmentation can be described in terms of buyer objectives, size, industry, channel, and influencers

Business Connect to Business Transformation Sweet Spot

- When you look at the combined Connect and Transform products you see a broad spectrum of potential solutions.
- The needs of each buyer type can be solved using various product offerings.
- The chart tries to illustrate how our offerings map into this market view.
- In fact, there is a continuum from simple host data access, to complete business process transformation, to new business creation based on our solution capabilities.
- The strength of our combined offerings really comes to play in the New Frontier segments where
 customers are doing advanvced web integration and business transformation based on web
 technology.

Solution Strategy - Product to Segment Map

- It would be easy say that each of our products could be used to satisfy the needs of any of these buying situations.
- In this chart we've tried to show those offerings that we believe make the optimal package for each buyer type.
- We do not want to imply that this is a step by step solution process. Some customers will start and stay as Efficiency Conscious buyers. Others will progress and evolve over time. It is easy to see a product to product upgrade path as they move from traditional to e-line buying needs.
- The ability to allow customers to move and migrate their investment across the continum is a key benefit. The ability to seed solutions early in the continum is a key advantage for us.
- We will talk more about this more later in the presentation.

Solution Strategy - Point Product Offerings

- We may not all be familiar with the complete set of individual products.
- This chart is simply to let everyone see both the Connect and Transform point products.
- We will talk more about them later.

Solution Strategy - Host Integration Solution Offerings

- On the Connect side, we have two current solution offerings, or bundles, the Host Integration Solution and the Host Access Solution. Each can be ordered under its own part number.
- It is our intent to also produce a solution targeted toward the needs small and medium size customers who want to provide a new interface and access capability to their AS/400 applications. This should be announced later this year.
- The Host Integration Solution is the fastest, most cost effective way to e-business, allowing your customers to extend their existing host applications to the Web.
- The Host Integration solution allows companies to reach to new users without requiring any changes to existing applications. Customers can simply Web enable their applications so people can view information online with a browser. They can also take multiple applications and integrate them so they work together, without any scripting or coding. Employees, business partners, and customers can order online, update their billing information, check the status of inventory, even if the applications live in alternate systems and on different platforms. The Host Integration's extensible infrastructure enables customers to connect to

many back end data sources and supports multiple delivery options to meet the needs of users on any platform in any network environment. It provides a powerful cross platform application development environment that enables rapid integration of existing applications for new functions and users. The Host Integration Solution also offers security features to ensure your e-business environment is safe.

When your customer

• No script needed, just follow words on the charts

Scenario 1: Web Access to existing applications

• No script needed...read only scenario 1 on the screen

Step 1: Enable Web access for existing users

- When building an e-business, we have found the fastest, most cost effective path is to extend a customer's existing applications, the applications you have been using to run your business for years.
- Host On-Demand with Screen Customizer solution extends your reach to new users without requiring any changes to existing applications!
- You can simply web enable your applications so people can view information online with a browser (e.g. employee benefits).
- The Host On-Demand extensible infrastructure enables you to connect to all major server platforms.
- Screen Customizer now supports both PCOMM and HOD. Any investment made in Screen Customizer can still be preserved/leverage as you move to Web-enable your network.

IBM Host on Demand V4.0

- But what about mobile employees and business partners? How do you give them access? Clearly, it's difficult to gain access to their systems so you can install software. And, can you count on their system having the right operating system level?
- This is where "Professional Emulation On Demand" comes into play.
- Our solution is Host On-Demand, a Java-based 3270/5250/VT emulator. Being Java-based means you install it on a web server and it's downloaded "on-demand" as users need it. It also allows for caching so it really only needs to be downloaded the very first time!
- The business value is tremendous:
- Extend application reach: More easily reach a new class of users that previously would have been very difficult to serve.
- Provide fastest access to applications: Provides a direct 3270/5250/VT pipe to critical applications
 with the quickest response time. Users are not willing to accept "web response times" for critical
 business applications.
- Reduce IT expense: Say good-bye to the costly and time consuming software rollouts. Simply install on a server and users can point-and-click!
- HOD Client Platforms include: Win32, AIX, OS/2, Solaris, HP-UX, Linux

IBM Screen Customizer V1

- Typical applications include high turnover positions, departmental autonomy, and working with business partners.
- One of the things we've found out is that the "green screen" just isn't for everybody.
- Take a business partner, for example. While you may have an inventory application that you'd like them to use, what's the chances that they can successfully navigate it with little or no help?
- The same can be said of new employees. If you have positions in your company that experience a lot of employee turnover, you're probably either spending a lot of time & money on training or there's a long period of time when these new employees are not as productive as they could be. Our experience working with companies shows that longterm employees may also prefer a GUI over the green screen interface and can increase both their productivity and satisfaction.
- The bottom line: many traditional host applications are difficult to use. How do we overcome this?
- IBM's answer is the new IBM Screen Customizer which can be used in conjunction with BOTH Host On-Demand and Personal Communications (SNA and TCP/IP), depending on your users needs. Screen Customizer provides the capability to completely rejuvenate the way a host application looks, without having to change the application itself! The customized screens can be shared across by both Host On-Demand and PCOMM clients.
- With Screen Customizer, you can suppress information, add buttons that will automatically execute tasks you define (e.g., enter "123" in a given field and hit the enter key), create pull-downs and radio buttons, and more. It will change the user interface of a host application into a PC type graphical user interface, something that most people are comfortable using. You can also combine screens from multiple hosts into a single GUI.
- The payback is outstanding:
- Simplify application use: All users take advantage of an easier way to use applications. They'll be more productive than an experienced "green screener" using the same application. Also allows different departments to create their own interface for a given application, again because the application itself remains unchanged.
- Extend application life: Makes legacy applications look 21st century. How risky is it to modify the application itself??
- Reduce training expense: Easier to use application means less time is required to get new users productive.
- Note to Speaker: If customers ask about ResQ!Net for Host On-Demand, explain that IBM Screen
 Customizer is the replacement for ResQ!Net, beginning with Host On-Demand V4 and PCOMM 4.3.
 ResQ!Net will not work with Host On-Demand V4. However, if customers previously purchased
 ResQ!Net and developed customized screens, the screens will work unmodified with Screen
 Customizer.

Turn this ...

• With IBM Screen Customizer, turn this green screen into a Browser look and feel (see next chart).

Into this With Screen Customizer..

• Relates to previous chart

Host on Demand: Security

- Host Integration has state of the art web security.
- HOD has state of the art web security, especially when used together with our Comm servers which have client authentication support.

Host on Demand V4 Features

- AS/400 enhancement: Round out full functionality with AS/400 users achieve full productivity with print capability, ability to connect to resources identified with traditional device id approach
- With improved file transfer, functions are more intuitive, leading to fewer helpdesk calls. Interface is similar to PCOMM
- SLP: To make most of infrastructure assets, HOD will negotiate with least loaded TN server
- Client Auth: Gives increased security plus benefit of identifying each client with ability to check for revoked privileges
- Installations can use LDAP stores for HOD administration information, allowing control over very large number of users with minimal effort. With CSD2, support added for LDAP on S/390.
- ODS provides both user and policy based personalization as well as better access control.
- CSD2 contains some performance improvements for faster start-up of the client.

Host on Demand V4 Features

- Administrators save time by allowing users to import their host connection information. Tied with User Assigned ID, and HOD configuration can be entirely user directed.
- Extends HOD V3.01 License Count capability by integrating with IBM License Use Management to give customers greater control of their HOD licenses

Screen Customizer Features

Scenario 2: A New Way of Using Existing Applications

• Now's let move to Scenario 2: Transforming host applications into new composite Web applications for employees, business partners and customers (intranet, extranet and Internet)

IBM Host Publisher

• With IBM Host Publisher, turn multiple green screens into a single consolidated web page for the end user. The multiple screens could be from the same application or from multiple different applications. No changes to the existing application are necessary to deliver web-like look and feel for the end user.

The Components

- Host Publisher Studio
 - Collection of task-oriented, easy to use graphical user interfaces which:
 - Manage the process of creating web to host integration objects
 - Record host and database interactions
 - Build Java beans (host integration objects) encapsulating the interactions and data retrieval
 - Generate fully customizable Web pages
 - Supports Win95, Win98, and WinNT users
- Host Publisher Server
 - Consists of IBM WebSphere application server and Host Publisher run time components. Provides all the necessary run time infrastructure for supporting the output generated by the Studio for either a Java application or web to host environment.
 - Session management, license monitoring, run-time administration, and log and trace management
 - Adds the ability to integrate with other IBM Connectors such as MQSeries
 - Initially supports S/390, AIX, Windows NT, and Sun Solaris operating system environments, AS/400 to follow later in the year
- Provides enterprise-class scalability, security, and availability

How Host Publisher and Websphere work together

- Summary Host Publisher chart.
- Host Publisher Studio to the side, used to create Host Publisher Java objects that capture the existing
 application interaction. Studio Integration Objects are then executed on the Host Publisher server to
 extend the applications to Internet users.
- IBM Network Dispatcher is included within Host Publisher to provide load balancing and fail-over support across a cluster of Host Publisher servers. Thus delivering the scalability and high availability needed for the unpredictable world of the Internet.
- Host Publisher does not provide a Firewall but the customer would obviously want to deploy one between Host Publisher and the Internet.
- Host Publisher does allow customers to leverage all of their existing security mechanisms, web security mechanisms like SSL on the Internet side and host application security mechanisms like RACF on the host side.
- Investment Protection bullets cite:
- Power of Host Publisher's industry standards support, ability to use any Java IDE to add business logic to Host Publisher, for example VisualAge for Java, Cafe, or JBuilder.
- Ability to use any industry standard HTML/JSP editor to embellish Host Publisher web pages, for example WebSphere Studio, NetObjects Fusion, Front Page.
- Ability to integrate other IBM Connector implementations within a Host Publisher deployment, for example MQSeries.

- Ability to reuse Host Publisher objects within new WebSphere applications. These Integration
 Objects created by Host Publisher are Java Beans that can be reused for VA for Java and WebSphere
 to write your own servlet.
- User can use JSP scripting to add WebSphere object to a Host Publisher JSP page.
- WebSphere Studio TopPage tool to add links to creatively improve pages.

E-business Application Support

- IBM VisualAge for Java and WebSphere application server makes it easy to build e-business applications. The IBM Host Integration reusable JavaBeans including the connector beans makes it easy to integrate web with legacy IT systems such as CICS, MQSeries, DB2. Note that WebSphere Studio is positioned as the development tool to use to build a powerful (e.g. multimedia) website where as VisualAge for Java is positioned as the tool to use to build full blown e-business application. The performance pack differentiates WebSphere from its competitors making WebSphere a reliable and highly available application server.
- Use and reuse of Host On-Demand and Host Publisher objects delivers maximum flexibility in solutioning customer e-business requirements and ensures that they'll be able to leverage their Host On-Demand and Host Publisher investments within new applications being created with VisualAge for Java and WebSphere.

Scenario 3: Taking Web Applications to New Devices

• Now let's move to Scenario 3: Delivering business applications to any type of computing device from Web browsers to cell phones

Extend Access to Pervasive Devices - Websphere Transcoding Publisher

- In scenarios 2, an enterprise may need to make Web content accessible to new pervasive devices
- Must ensure that delivered content is appropriate to device, network, user, and application
- Given that over 70 percent of the data on a Web page is graphical (which requires significant bandwidth to send over wireless networks, and not all devices are even capable of handling graphics) cost saving solutions are needed for those users that do not need high quality graphics
- A technology called transcoding can alter the content format and representation, size, detail and fidelity

The Technology to do this: Transcoding

- Why is it important? Transcoding is technology which promises to allow any type of data to be accessed by any user through any device, fully enabling the power of e-business
- Transcoding enables re-purposing of data without re-authoring of data
- The value of Transcoding extends beyond pervasive devices
- The existence of data, regardless of its form or location, is only valuable to the extent that it can be accessed and used.
- "IBM is a Transcoding leader, with vision" Gartner Group, December 1999

Take an existing green screen application

• In scenario 2, an enterprise can take green screen applications to the web with Host Publisher. They can take a sequence of green screens which would appear to the end user like this..

...to a Web page with Host Publisher

• ...to a single, easier to understand web page, which might look like this

...and then to the Palm with IBM Websphere Transcoding Publisher

- And then, by using IBM Websphere Transcoding that same web page can be accessible to a handheld device like the Palm Pilot.
- Of course, Websphere Transcoding can deal with all kinds of web pages, not just those of Host Publisher. The data from any web page can be modified to fit the device, whether the source page is a static web page, one generated by any Websphere application, etc

Complete Personalization

- The information on the original page will be rendered according to the device being used. In the top section, the device is a laptop capable of handling the color graphics, while in the middle section, the pictures have not only been reduced in size but modified to a gray scale to match the capabilities of the handheld computer. In the bottom section, the content has been furthermodified to eliminate the picture, on the WorkPad.
- The information presented to the user can also be personalized. The information in the third column looks different because the role of the user has changed from executive to regular employee.

Websphere Transcoding Publisher for e-business

- The capability to transcode, or transform, information from Host Publisher, WebSphere, or other web-based applications
- The information can be rendered on a wide range of devices without any requirement to modify the original content
- Cell Phones
- Palm Pilots and Workpads with Hand Web browsers
- WinCE Devices with Pocket Internet Explorer
- Wireless Access Protocol devices

How to do we fair against the competition?

• We will now talk about competitive advantages

Host Integration Market Position

- Industry leading points
- Sparklers: customers who have bought more than \$1M
- Average amount salesperson made in revenue \$1.5 M

Host Integration Offering - Competitive Advantages

- The Host Integration Solution competitive advantages are:
 - that it Includes traditional and Web-to-host connectivity for single price/user,
 - it Supports broadest range of platforms
 - it Provides the broadest programming support in the industry
 - it Includes integration of Java, JDBC and ActiveX resources with no programming,
 - It Provides application rejuvenation for Web and traditional clients, and
 - it is Based on open industry standards

Personal Communications - Competitive Advantages

- Personal Communications competitive advantages include:
- Extensive protocol support including APPN, APPC, SNA, TCP/IP, and ISDN
- the same look and feel across multiple operating systems
- it's Based on open systems architecture for industry standard solutions
- it's the most comprehensive set of programming APIs including EHLLAPI, SNA, HACL, Java Beans, ActiveX, and ODBC / DRDA, and
- it smoothly integrates with Host Integration products, including Screen Customizer and Communications Serve

Host On-Demand Competitive Advantages

- Host On-Demand's competitive strengths include:
- the Broadest range of platform support in the industry
- the Broadest programming support
- TN3270, TN5250, and VT support
- Host On-Demand is Based on open industry standards
- It Provides a default graphical user interface and the ability to create a custom interface, without programming, using Screen Customizer
- It Provides the ability to run custom and default graphical user interface's in the same application using Screen Customizer
- It Requires no middle tier runtime server
- It includes Directory enablement and load balancing

Screen Customizer Competitive Advantages

Host Publisher Competitive Advantages

- The Host Publisher competitive advantages include:
- Support for largest number of platforms and Web servers
- Speed and Ease of development without a prerequisite IDE
- Standards-based Java including Host Integration objects and Database Integration objects
- Does not require dedicated host session per user
- WebSphere integration common technological foundation with other IBM Web-to-host products
- it Works with industry standard HTML editors or industry standard Java IDEs, and
- Load balancing with NetWork Dispatcher

Communications Server Competitive Advantages

Leave it to IBM to

- To deliver a Business Transform and Integration solution that converges Host Integration with WebSphere to create a continuous platform for e-business
- And to offer the best e-business solutions and tools simultaneously with the most innovative strategic initiatives

Host Integration Demo

• I want to take a few minutes to show you a great Host Integration Demo on the WEB...

Please find instructions below on how to access the Host Integration demo. The demo takes a look at a typical business environment where we have mission critical applications running day-to-day business operations, on S/390s, AS/400s, UNIX or databases. The website will provide you with a script and complete instructions.

Show Your Customers the Fastest, Most Cost Effective Way to e-Business!

To access the host integration demo, screen cams, screen captures and script, please go to the following URL: http://swaydemo.dfw.ibm.com/connected/ for complete instructions.

Learn how IBM Connected e-business products can take your customers' host applications to the Web, without any changes! Whether migrating a database to the Web or putting a new face on a legacy application, the IBM Host Integration Solution offers a comprehensive, secure, scaleable way to extend host data to intranet, extranet, and Internet environments. And with WebSphere Transcoding Publisher, deliver application data to pervasive devices, whether it be a phone or a palm device. Understand how security is maintained as we extend systems from closed networks to the open Internet.

Learn about the drag-and-drop technology of IBM Screen Customizer. It eliminates the need for programming, making it a cost-effective, quick solution that allows customers to leverage investments in legacy applications and get them to the Web quickly. Screen Customizer automatically converts host screens into graphical presentations, which are easily customizable without programming. Available for both Host On-Demand (Java emulator) and Personal Communications (traditional emulator), it is based on innovative screen recognition technology, requiring no access to source code. Users can simultaneously access multiple sessions, and optionally customize the presentation by adding new fonts, macros, images, check boxes and more. After users install Screen Customizer, they never have to see a green screen again.

Need to deliver host application data via HTML to the Internet? IBM Host Publisher enables your customers to extend the reach of existing mission-critical data to new users across the Internet and extranet with no need to modify the existing applications. It supports any standard HTML browser and does not require Java-enabled browsers. Host Publisher also allows you to integrate multiple sources of host data into a single Web page, so you can create composite

applications that appear to the end user as a single new application. Host Publisher supports applications written for 3270, 5250, Virtual Terminal (VT), Java, and databases that provide a Java Database Connectivity (JDBC) interface. Also, see how we can extend your reach beyond the browser to a new class of pervasive computing devices by coupling Host Publisher with cutting- edge transcoding technology, IBM WebSphere Transcoding Publisher.

Summary

- In summary, you can see that the Host Integration Solution continues to deliver on its vision:
 - Robust AS/400 and S/390 Host support
 - Enterprise class services and security
 - Flexible application development and deployment
 - The platform and network environments of choice
 - Has multiple delivery options for one price point
 - Open-standards based products
 - Integration with WebSphere and;
 - Integration of Host Publisher with Websphere Transcoding Publisher