Powering the Enterprise with .NET Web Services
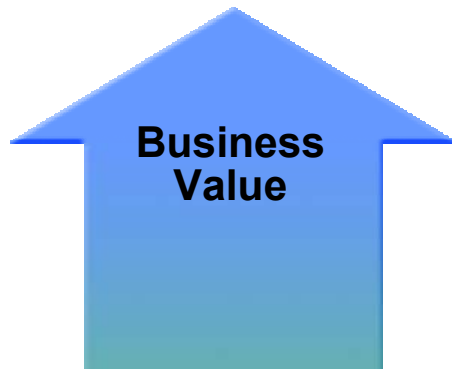
Microsoft .net

David Stubbs

Program Manager

Enterprise Microsoft Services

Hewlett-Packard Company

HP WORLD 2002
Conference & Expo

Agenda

- The Evolution of Web Services

- What is .NET?

- How Enterprises are using .NET today

- Case study

- How HP & Microsoft are working together

- Call to action

IT Challenges Today

Business Value

Increase Business Value

- Connect with Customers (Revenue)
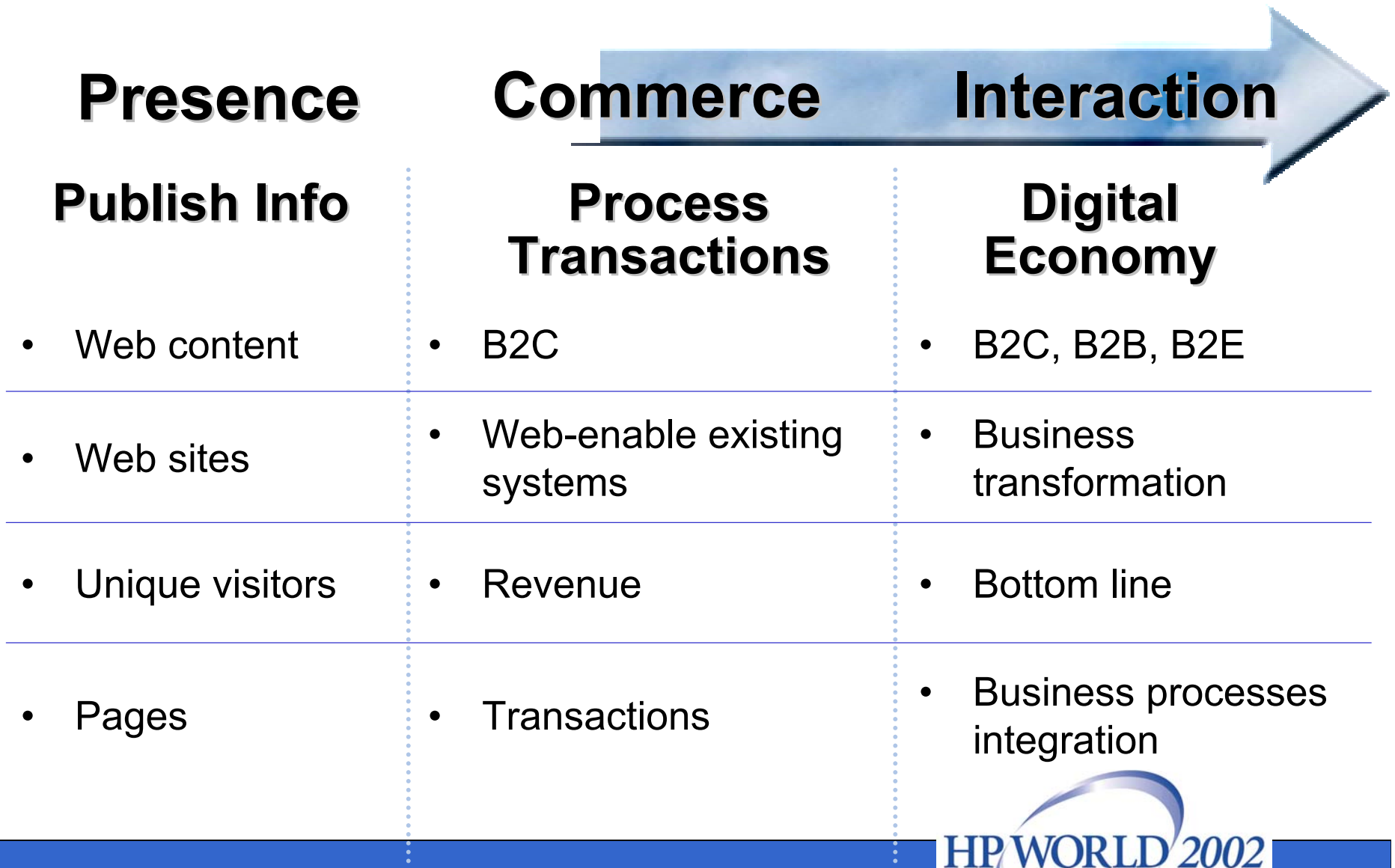- Integrate with Partners (Profitability)
- Empower Employees (Productivity)

Total Cost of Ownership

- Leverage existing assets
- Hardware is getting LESS expensive
- Downtime is MORE expensive

Total Costs

Business Agility

HP WORLD 2002
Conference & Expo

Web Services Evolution

Presence	Commerce	Interaction
Publish Info	**Process Transactions**	**Digital Economy**
• Web content	• B2C	• B2C, B2B, B2E
• Web sites	• Web-enable existing systems	• Business transformation
• Unique visitors	• Revenue	• Bottom line
• Pages	• Transactions	• Business processes integration

XML Web Services Overview

- XML = the universal language of Internet data exchange

  - Universal data format → systems can actually talk
  - Basis for system interaction standards:
    - SOAP (interaction), WSDL (description), UDDI (directory)

- XML Web services allow applications to share data across platforms & operating systems

  - Works with any operating system, programming language, network
  - Spans systems, applications, sites, devices

- XML Web services are discrete units of code that handle specific tasks

  - Example: Microsoft MapPoint .NET, an XML Web service that allows you to integrate maps, directions & other location intelligence into your applications, Web sites, etc.

Microsoft
MapPoint .net

HP WORLD 2002
Conference & Expo

Building Web Services

Microsoft - .NET

Visual Studio .NET

Web services
(XML, SOAP, UDDI)

.NET Servers

Windows

IBM - WebSphere

Visual Age for Java

Web services
(XML, SOAP, UDDI)

WebSphere

AIX, os/390, Win

BEA - WebLogic

WebGain Studio

Web services
(XML, SOAP, UDDI)

WebLogic, Tuxedo

Unix, Solaris, Win

Sun - Sun ONE

Forte'

Web services
(XML, SOAP, UDDI)

iPlanet

Sun / Solaris

What is .NET?

Microsoft .NET is software that connects information, people, systems and devices. It spans clients, servers & developer tools and consists of:

- The .NET Framework programming model used to build Web-based applications

- Developer tools such as Microsoft Visual Studio .NET

- A set of servers that integrate, run & manage XML services & apps

  - Windows 2000, Microsoft SQL Server, Microsoft BizTalk Server, etc.

- Client software that helps developers provide a positive user experience across a variety devices

What Is J2EE™?

- Java 2 Enterprise Edition
  - Sun Microsystems' server-side specification for enterprise systems architecture

- J2EE Promises
  - Openness
  - To integrate disparate computing platforms
    - Write once, run anywhere
  - A single, manageable architecture
  - Reduced risk
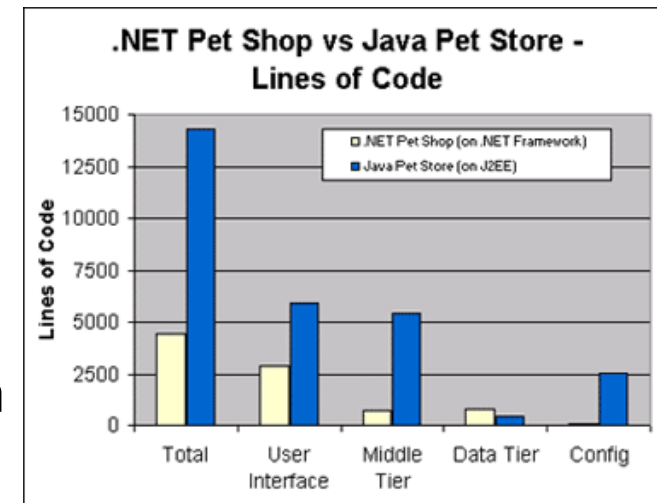 - Maturity

J2EE & .NET Will Be Used Side-By-Side

Through 2006, two architectures — J2EE and Microsoft's .NET — will remain dominant in the enterprise application server market

(0.8 probability)

Gartner Group: "The Enterprise Application Server Magic Quadrant", 10 June 2002, Yefim Natis and Massimo Pezzini, Note Number: M-16-7393

.NET Advantages

- **Business Benefits**

  – Accelerated time to market, higher ROI

  – .NET is less expensive ($\approx$ 30%)

  – Improved developer productivity, less coding required

- **.NET Momentum – a growing ecosystem**

  – 2 million installations of the .NET Framework

- **Standards-based Integration (SOAP, XML, etc.)**

  – Integrates with what you have

  – XML Web services play crucial role

- **Full suite of off-the-shelf enterprise servers available today to provide business value**

.NET Pet Shop vs Java Pet Store - Lines of Code

Creating Business Value With .NET

- **Employee Productivity**
  - Corporate Intranets
  - Collaboration Portals
  - Business Intelligence (BI)
  - Connecting Knowledge Workers to LOB data 'anytime, anywhere, any device'

- **Connecting with Partners & Customers**
  - Internet Business / Corporate Internet Presence
  - Trading Partner Integration
  - Enterprise Application Integration (EAI)

- **Industry-Specific / Customized solutions**

Case Study: .NET Retail Solution

Customer:

- General Mills - global manufacturer and marketer of consumer food products

Situation:

- General Mills uses team of 500+ Field Retail Representatives to collect product visibility/stocking data in grocery stores
- Data is used to adjust sales & marketing strategies to:
  – address competitive threats
  – better serve customer needs
  – identify new business opportunities

Business Problem:

- Process takes too long
  – By the time the information is available to decision makers, it is often too late to act on it
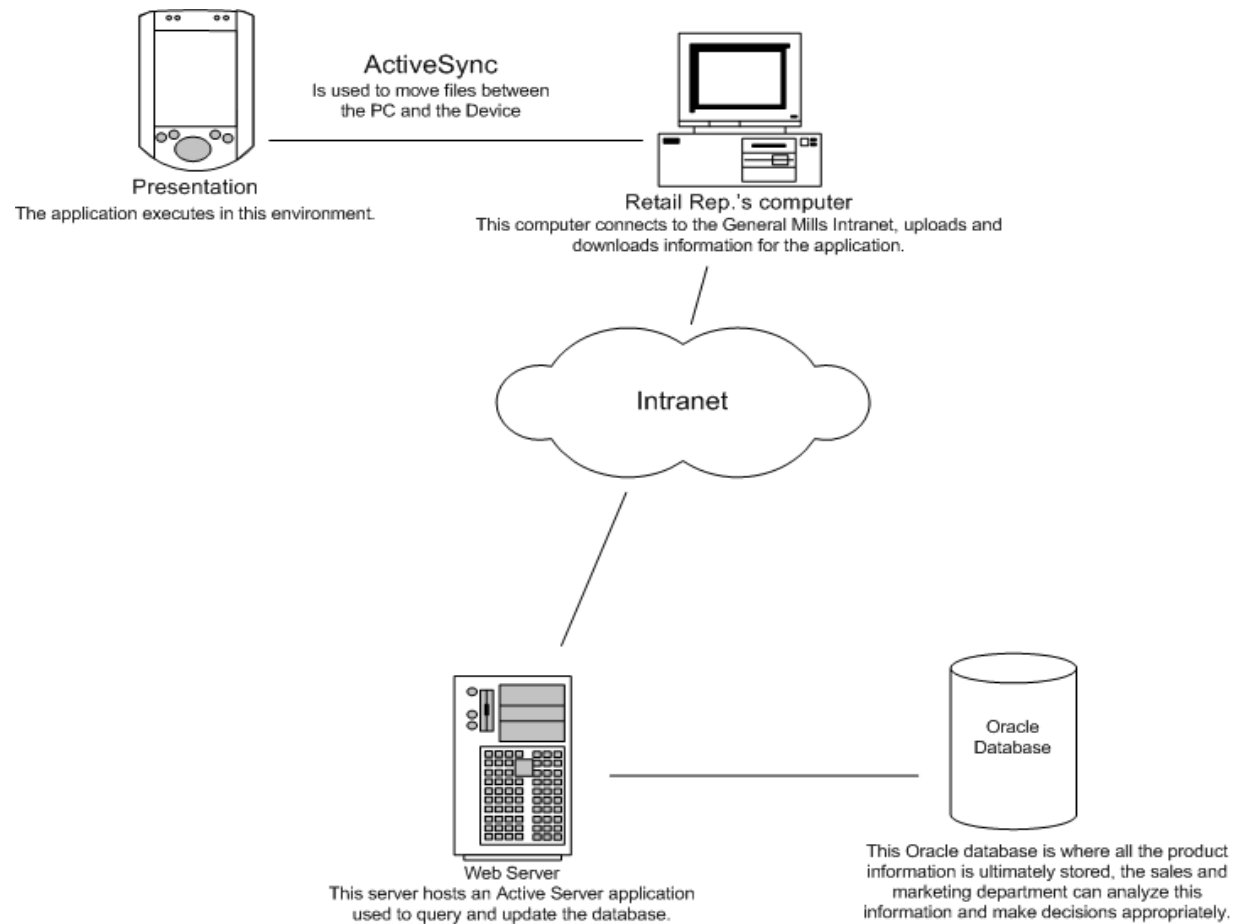- Process is heavily paper based and inefficient.

Case Study: .NET Retail Solution – (Cont'd)

.NET Solution:

- Developed PDA applications for Field Retail Reps to collect information easily and in such a way that data could be rapidly processed by back-end servers

- Real time information is automatically uploaded to corporate Web servers when Reps synchronize data between their PC and PDAs

- Applications also download new data from corporate Web servers to PDAs as needed

Case Study: .NET Retail Solution –
Solution Topology

ActiveSync
Is used to move files between
the PC and the Device

Presentation
The application executes in this environment.

Retail Rep.'s computer
This computer connects to the General Mills Intranet, uploads and
downloads information for the application.

Intranet

Oracle
Database

Web Server
This server hosts an Active Server application
used to query and update the database.

This Oracle database is where all the product
information is ultimately stored, the sales and
marketing department can analyze this
information and make decisions appropriately.

Case Study: .NET Retail Solution – (Cont'd)

Benefits:

- More timely information to support business decisions

  - Decision makers in the sales and marketing department now receive product stocking information almost on a real-time basis

- Improved employee productivity

  - Field Retail Reps are now armed with a sophisticated tool that dramatically improves the quality and efficiency of their information gathering process

  - The new process reduces the time it takes to gather this type of information by 80%

Because of the success of this project, a new line of .NET applications are now being considered.

How HP & Microsoft are working together on .NET

- Strategic initiative of HP & Microsoft

- Designed to enable the rapid design & deployment of .NET solutions for enterprises worldwide

- HP & Microsoft will deliver, high value cross-industry solutions as well as solutions targeted to specific vertical industries

- HP will significantly expand the .NET skills of its sales & services professionals

HP & Microsoft .NET Initiative
Program Scope

- Focus on re-usable, high value, solutions for specific industry and cross-industry segments

- Target vertical industry segments include:

  - Financial Services, Healthcare, e-Government, Manufacturing & Retail

- Initial focus for cross-industry horizontal solutions include:

  - Intranet and Portals
  - Business Intelligence (BI)
  - Enterprise application integration (EAI)
  - Trading partner integration
  - Corporate Web Presence

- Key program elements:

  - 3,000 dedicated HP .NET consultants
  - 100 HP .NET solution architects
  - 120 HP .NET solutions sales professionals

Summary / Call to Action

- .NET is real. Enterprises are using .NET <u>today</u> to create innovative Web Services solutions that deliver new levels of business agility & competitive advantage

- HP & Microsoft are teaming closely to accelerate the design & implementation of .NET solutions for enterprises worldwide

- If you have a specific project in mind or what like to discuss how .NET technology can benefit your business, please contact your HP representative or e-mail me at david_stubbs@hp.com