



# WebSphere

| The Fastest Way to e-business |



The IBM logo is displayed in its classic eight-stripe font, positioned in the top left corner of the slide. The background of the top banner features a blue-toned image of an astronaut's gloved hand reaching out towards a bright light source, possibly a planet or star.

**WebSphere**

| the fastest way to dynamic e-business |

# IBM WebSphere Everyplace Access

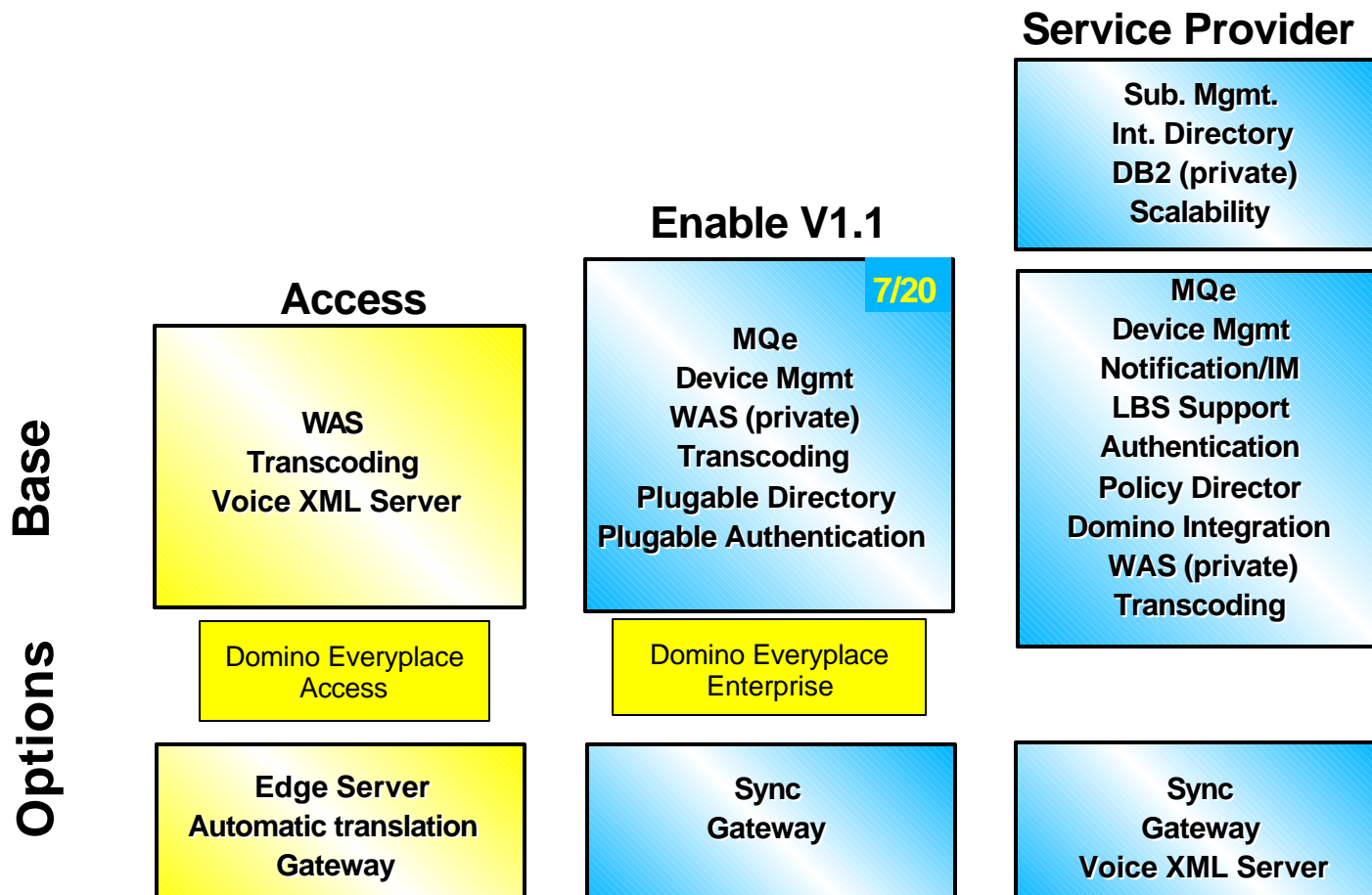
Anu Mannar

[amannar@us.ibm.com](mailto:amannar@us.ibm.com)

# WebSphere Everyplace Access

- Why Everyplace Access
- What is Everyplace Access
- How to sell Everyplace Access
- Additional resources
- Additional -- Technical Scenarios

## Everyplace family





# Changing Environment

**Wireless technology, the explosion in new devices and advances in speech technology are pushing e-business to new frontiers ...**

- ▶ **By 2002, only 65% of Internet access will be via PC**
- ▶ **By the end of 2002, the world will have more wireless users capable of Internet access than it will have wired users**
- ▶ **1.4 billion people will access the Internet through wireless phones by 2004**
- ▶ **Consumers will spend more than \$200 billion in mobile commerce by 2005**
- ▶ **By 2003, 30% of the U.S. work force will use voice recognition on a daily basis.**



Source: International Data Corp., Ovum

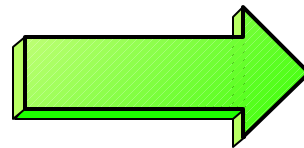
# Challenges

- Demand for anytime, anywhere access to your e-business
- Desire to protect existing Web investments and infrastructures
- Complexity of dealing with new technology

## Extending your e-business for voice and wireless interaction



Existing  
e-business for  
users on PC's



Enabling wireless  
and voice  
interaction for  
users on the go

*I don't have mobile access to the site*  
*I don't have voice interaction*

## WebSphere Everyplace Access The Solution

- Easy access to your e-business from any contact point
- Lower development costs and decreased time to market
- Consistent e-business experience through multiple channels
- Scalable, integrated, standards-based solution





# Requirements for extending access



Customers and employees need:

- ✓ access to information and services
- ✓ from device of choice
- ✓ a user-friendly experience

Translate content to user's language

Ability to create and manage applications

Extend to new devices  
Manage complexity  
Customize content  
Avoid expense of reauthoring

Enable access through natural voice interface  
Leverage existing Web application framework

Host your e-business applications on a scalable, standards-based platform

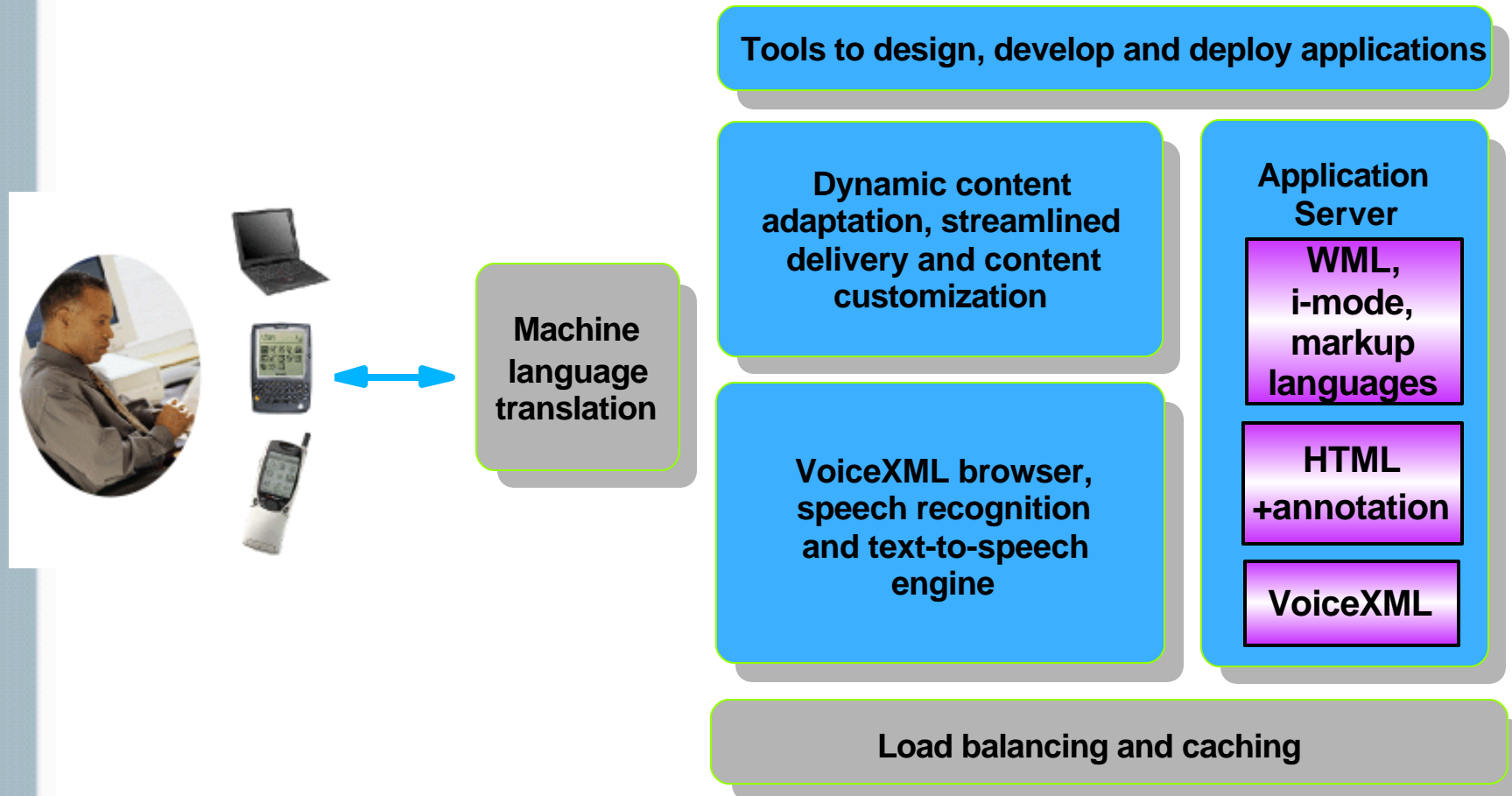
**Enterprise applications**



High performance and availability



## How it all comes together



*... extending your e-business for wireless and voice*

## Offering Details

### Offering Components

- ✓ *WebSphere Transcoding Publisher Version 3.5*
- ✓ *WebSphere Voice Server Version 1.5*
- ✓ *WebSphere Application Server, Advanced Edition, Version 3.5*
- ✓ *WebSphere Studio, Advanced Edition, Version 3.5*
- ✓ *VisualAge for Java, Enterprise Edition, Version 3.5*

### Availability

- ✓ 5/31/01

### Pricing

- ✓ \$49,500 per processor

### Configuration

- ✓ One processor license of WTP, WVS and WAS, with one developer license of Studio and VAJ



### Language

- ✓ English, French, Spanish, Italian, German, Japanese, Chinese (Simp and Trad), Korean, Brazilian Portuguese

\*Voice Server speech technology supports only U.S. and U.K English, French and German

### Platforms

- ✓ AIX
- ✓ NT/Windows 2000
- ✓ Solaris
- ✓ Linux

\*Voice Server supports NT and AIX but runs on a separate machine

### Optional

- ✓ *WebSphere Edge Server*
- ✓ *WebSphere Translation Server*
- ✓ *1 Year SupportLine*



# Everyplace Positioning

	Everyplace Access	Everyplace Server Enable Offering	Everyplace Server, Service Provider Offering
<b>Target Customers</b>	Enterprises, ISPs, ASPs, NetGens, LOBs	Enterprises, ISVs, GSIs, LOBs	Telcos, ISPs, ASPs, Large Enterprises
<b>Business Need</b>	Extend e-business content and applications for wireless and voice interaction	Extend business processes to the mobile work force, while preserving any existing e-business infrastructure	Generate new sources of revenue by building and deploying new value-added services to the mobile marketplace
<b>Price</b>	Processor-based \$49,500	Processor-based \$75,000	Subscriber-based pricing
<b>Challenge</b>	How to allow voice interaction and reach wireless devices?	How to extend e-business to wireless while taking advantage of existing IT services?	How to rapidly create new revenue-generating services leveraging existing and new data sources (contextual notification)
<b>Key Strengths</b>	<ul style="list-style-type: none"> <li>• Extends existing content</li> <li>• Speeds time to market</li> <li>• Includes and integrates with WebSphere Application Server for security and scalability</li> </ul>	<ul style="list-style-type: none"> <li>• Preserves and expands existing infrastructure by taking advantage of existing user management and authentication</li> <li>• Future-proof (adapts to rapidly changing networks, devices and application requirements)</li> </ul>	<ul style="list-style-type: none"> <li>• Supports any application, any device and any network</li> <li>• Future-proof, adapts to rapidly changing networks, devices and application requirements</li> <li>• Fully integrated</li> </ul>
<b>Platforms</b>	<ul style="list-style-type: none"> <li>• AIX, Solaris, Linux, NT and Windows 2000*</li> </ul> <p>*Voice technology supported on NT and AIX</p>	<ul style="list-style-type: none"> <li>• Windows 2000, AIX, Solaris</li> </ul>	<ul style="list-style-type: none"> <li>• AIX, Solaris</li> </ul>
<b>Optional and Complementary Products</b>	<ul style="list-style-type: none"> <li>• Everyplace Wireless Gateway</li> <li>• WebSphere Edge Server</li> <li>• WebSphere Translation Server</li> </ul>	<ul style="list-style-type: none"> <li>• Everyplace Wireless Gateway</li> <li>• IBM Mobile Connect</li> <li>• Lotus Domino Everyplace</li> </ul>	<ul style="list-style-type: none"> <li>• WebSphere Voice Server</li> <li>• Lotus Sametime</li> </ul>

# IBM Services



## Solution Assessment

- ✓ Help the customer understand how these technologies can be leveraged to meet their individual needs based on their unique environment
- ✓ Establishing a structure to implement solution best practices.

## Installation and Configuration

- ✓ Work with the customer to ensure first step is successful and products are optimally installed and configured.

## Prototyping and POC

- ✓ Build hands-on skills in IBM and customer teams while demonstrating solution and technologies.

## Skills Transfer and Mentoring

- ✓ Tailor a program that provides hands-on mentoring and skills transfer directly to customer/BP/other services provider in their environment

## Customized Services

- ✓ Working with the customer in the implementation of the appropriate services tailored to meet their specific needs in a production environment.
- ✓ Customization of content to be delivered to devices
- ✓ Extension of infrastructure to deliver voice applications



# Foundation and Tools

## ***WebSphere Application Server***

### **Benefits**

- Proven, reliable, scalable foundation of WebSphere platform
- Provides performance and scalability

## ***WebSphere Studio and VisualAge for Java***

### **Benefits**

- Easy-to-use Web development tools
- Reduces effort and cost to build, deploy and maintain Java applications

# Extend content to wireless

## *WebSphere Transcoding Publisher*

### **Benefits**

- Extend content without reauthoring
- Streamline delivery across network
- Customize content

### **Features**

- Dynamic content adaptation without reauthoring
  - HTML to WML, to i-mode, to HDML, to PalmOS HTML
  - XML to XML variants with XSL stylesheets
  - HTML to VoiceXML
  - Image conversion
- Content selection techniques
  - Annotation
  - Device profiles



## Transcoding at work...



## Content selection

- Annotation enables quick and easy:
  - ▶ content selection
  - ▶ image and form replacement
  - ▶ form and table reduction and reformatting
- ▶ Can be contained externally or within the content source
  - ▶ External annotation files-- use an XML-compliant language
  - ▶ Internal -- can be easily created in WebSphere Studio, with a visual tool
- ▶ Sample external file

```
<?xml version='1.0' ?>
<annot version="1.0">
<description target="//FORM[1]"
take-effect="after">
    <remove tag="all" />
</description>

    <description target="//TABLE[1]/1"
take-effect="before">
    <keep tag="IMG" />
</description>
```



## Annotation example: table reduction

ShopIBM - E Series - Microsoft Internet Explorer

United States | ShopIBM | Support

Home | Products | Consulting | Industries | News | About IBM | Call 1-888-SHOP-IBM

### E Series Comparison

[View rebates and promotions](#)  
[Take a product tour](#)  
[Looking for a Different Product?](#)  
 Call 1-888-SHOP-IBM ext.7000 to order by phone

Call me now →

Sort this chart by:  Price  Processor  Availability

Compare more models:  S Series

Model name	IBM Web Price / Finance	availability as of 07/17/2000	Processor / Speed (MHz)	Memory (std/max/type) (MB)	Hard disk size (GB)	CD-ROM speed
<a href="#">Aptiva E Series 219888U</a> <b>New!</b>	\$2,249.00* As low as \$62.00/mo. for 48 mos. <a href="#">Consumer Financing Through MBNA**</a>	within 4 weeks	Pentium III / 933	128/512 SDRAM	45GB (Ultra ATA/66)	16X-8X
<a href="#">Aptiva E Series 219882U</a> <b>New!</b>	\$1,459.00* As low as \$44.00/mo.	within 4 weeks	Pentium III / 800	128/512 SDRAM	30GB (Ultra ATA/66)	48xmax-20xmin

Nokia 6150

07/17/2000  
 Aptiva E Series  
 219888U  
 within 4 weeks  
 Options Back

not actual product



# Enable voice interaction

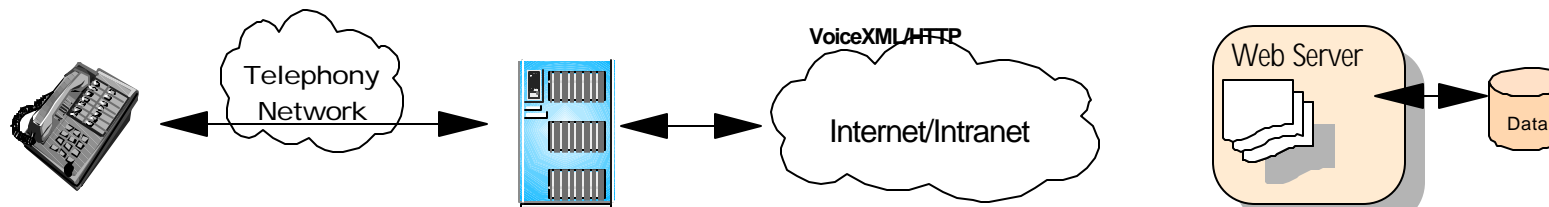
## *WebSphere Voice Server*

### Benefits

- Enable voice interaction
- Improve customer service with user-friendly interface

### Features

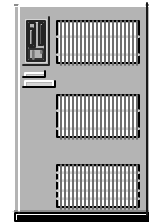
- VoiceXML browser
  - Supports VoiceXML standard
- Converts text to speech so that dynamically generated data can be read back to the end user
- Recognizes speech and sends as text to an application



IBM WebSphere Voice Server

# WebSphere Voice Server V1.5

→ Voice Server sends url request:  
`http://www.stock.com/ibm`



→ Application responds with information in VoiceXML:  
"IBM closed a \$108, up \$2."

**WebSphere  
Voice  
Server**

- User makes call
- Voice Server says: "What stock symbol?"
- Caller says: "IBM"



→ Voice Server renders VoiceXML [as speech] by saying: "IBM closed at 108 dollars, up 2 dollars"

# Extend the experience globally

## *WebSphere Translation Server*

### **Benefits**

- Reach more users
- Save expense

### **Features**

- Real-time "on the fly" machine translation (200-500 words/second)
  - English > < French
  - English > < Italian
  - English > < German
  - English > < Spanish
  - English > Japanese
  - English > Korean
  - English > Chinese (Traditional and Simplified)
- Works with WebSphere Transcoding Publisher



# Key design-time integration points

VoiceXML applications can be created in Studio. The Voice Server toolset has been designed to work with Studio.

HTML pages containing internal annotation can be created in Studio and recognized by WTP.

WTP can transcode HTML to VoiceXML, which is rendered with Voice Server.

WebSphere Studio and VisualAge for Java

WebSphere Transcoding Publisher

WebSphere Voice Server

WebSphere Application Server

WML, markup languages

HTML +annotation

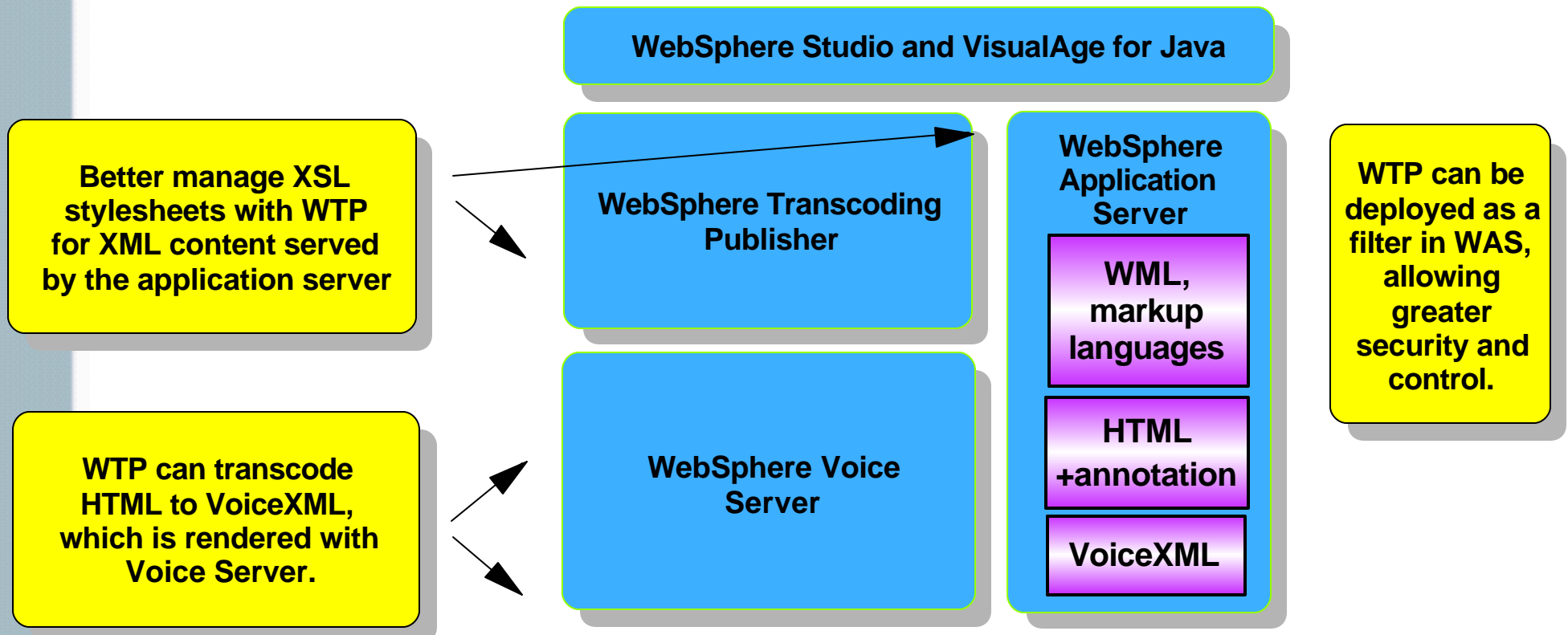
VoiceXML

Use WTP tool with Studio to accelerate the creation of device-specific content.

Use VAJ to write custom transcoding plug-ins.



## Key run-time integration points



## Key Messages

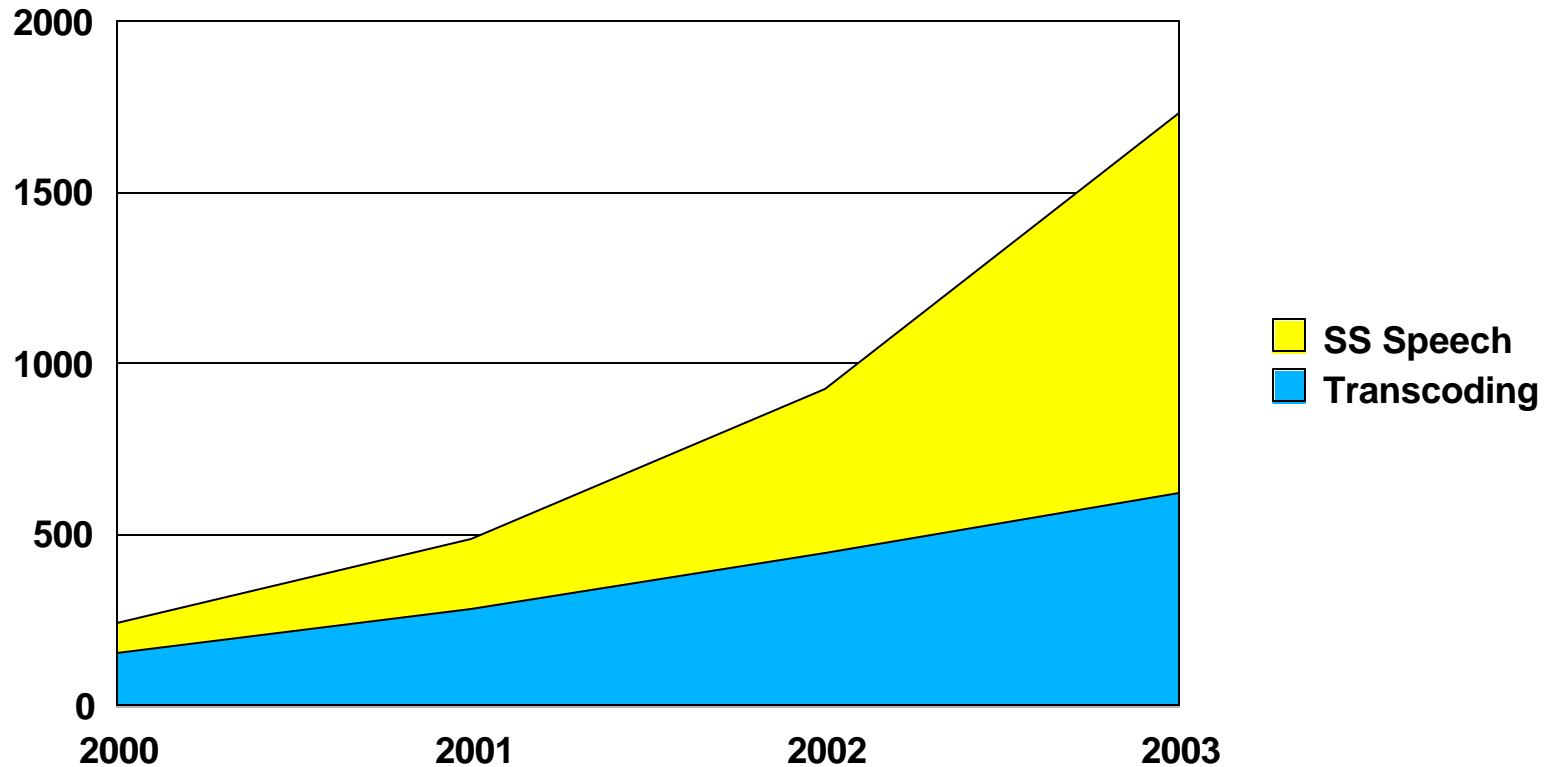
- Provide **easy access** to your e-business from any contact point
  - ▶ Support new devices
  - ▶ Enable natural voice interface
- Ensure consistent experience through **multiple channels**
  - ▶ Tailor content for delivery with annotation
  - ▶ Treat wireless and voice as an integrated solution
- **Lower development costs** and time to market
  - ▶ Extend existing HTML and XML content
  - ▶ Easily deploy new transcoders
- Builds on and benefits from the **WebSphere platform**



# Targeted Segments

- Segments that need to differentiate themselves with value-added services
  - ▶ BF&S, Retail, Wholesale/Distribution, Travel
  - ▶ Confirmed customer appeal via conjoint study on Foundation Extensions
- Audience
  - ▶ LOB Manager (Sales director)
  - ▶ CTO/CIO
  - ▶ Web Master

# Market Opportunity



	2000	2001	2002	2003	CAGR
Transcoding	\$157	\$283	\$449	\$624	25%
SS Speech	\$88	\$205	\$475	\$1110	132%
<b>Total</b>	<b>\$245</b>	<b>\$488</b>	<b>\$924</b>	<b>\$1734</b>	

**Self-service Speech** = the collection of core speech processing technologies including speech recognition that utilizes speaker ID/ verification, audio indexing/ information retrieval, speech synthesis technologies.

# Pains by audience

## LOB Manager (marketing)

- ✓ Customers expect anytime, anyplace access to information and services
- ✓ Customers are increasingly using mobile devices to access Internet and may flock to competitors who have wireless capability

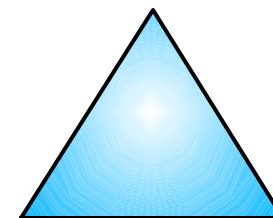
## CTO/CIO

- ✓ Need to protect investment in existing Web infrastructure
- ✓ Don't have the resources and money to deal with the onslaught of new technology

## Web Master

- ✓ The expectations of who can access the site and how they access it are changing
- ✓ Requests to support new formats are taxing the staff

LOB Manager (Marketing)



Web Master

CTO / CIO





# Value propositions

## LOB Manager (marketing)

- ✓ Extend e-business to wireless devices and voice interaction
- ✓ Reach customers and employees on any device, in any place

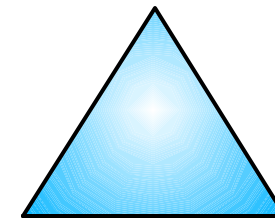
## CTO/CIO

- ✓ Build on existing e-business investment and content
- ✓ Minimize development costs with an integrated, flexible, standards-based solution

## Web Master

- ✓ Extend site access to wireless devices and telephone without reauthoring content
- ✓ Gain flexibility to easily adapt to new formats and devices

LOB Manager (Marketing)



Web Master

CTO / CIO



# Results

## ★ Tom.com

- Content provider of China-related information and entertainment
- Delivered
  - Time to market - first voice portal in mainland China
  - Extended reach - Users can get information on weather, travel, news, entertainment, finance using voice interaction
  - "This voice portal platform enabled us to deploy a speech system with high accuracy which our users enjoy using and which we can easily scale as its popularity grows." Lei Lei Wang, General Manager, TOM Voice

## ★ Banesto

- Spanish bank needed to reach and retain users for its Internet banking offerings
- Delivered
  - Extended reach - Customers on mobile phones are supported

## ★ Kaifeng Securities

- WAPHead! is helping Kaifeng Securities bring mobile stock trading to China, with WebSphere technology
- "We are confident that within five years, we will generate an estimated annual profit of RMB 18 million (US\$2.25 million) through Net transactions, compared to RMB 16 million (US\$2 million) from direct sales." Mr. Hu Yanru, general manager, Kaifeng Securities.

## Competitive Highlights

- Fragmented market
- Challenges will come from Tier 1 -- competitors with bundled solutions
- Some challenge from Tier 2 companies with specific voice or transcoding solutions
- IBM has focused offering that integrates voice and wireless
  - ▶ Award-winning voice and transcoding
  - ▶ Tested solution from single vendor
  - ▶ Builds on e-business platform



## Resources

- Flash Demo targeted at LOB
  - ▶ <http://websphere.dfw.ibm.com/offerings/>
  - ▶ Two BP demos in progress and expected soon
- IBM Sales Kit
  - ▶ [w3.ibm.com/software/sales/aim](http://w3.ibm.com/software/sales/aim) and select "online sales kits"
  - ▶ includes spec sheet, presentation, descriptions, detailed demo instructions and more
- Business Partner sales kit: [ibm.com/websphere/partners](http://ibm.com/websphere/partners)
- Executive Assessment available to BPs (tool to be used with customer) [ibm.com/partnerworld/software](http://ibm.com/partnerworld/software)
- "Seminar in a box" available to BPs on co-marketing site
- Web site:
  - ▶ [ibm.com/pvc](http://ibm.com/pvc)
  - ▶ [ibm.com/websphere/access](http://ibm.com/websphere/access)

## Resources

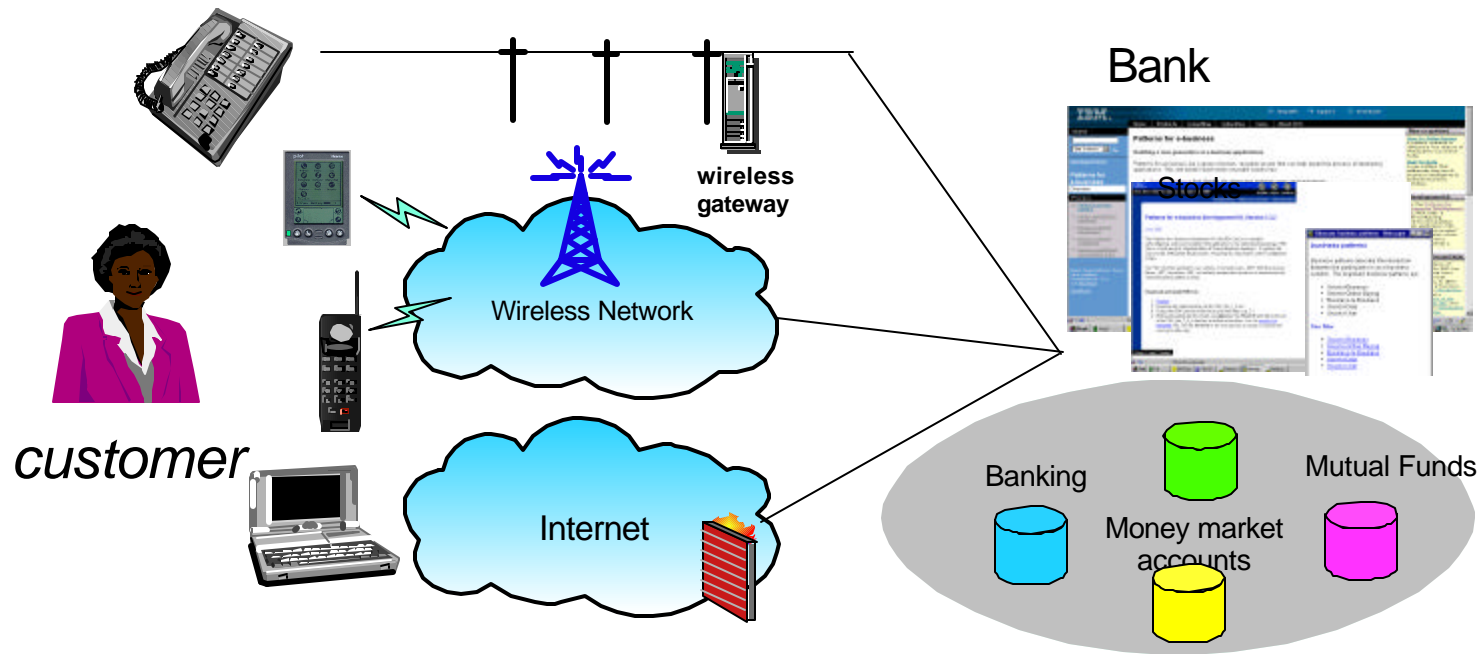
- Redpiece to be online in 1-2 weeks
- Distance learning overview class ready in August
- Existing point product classes
- Redpiece to be online in 1-2 weeks
- 
- Voice Sales
  - ▶ NA Contact: William Kimbell Jr/Middletown/IBM@IBMUS
  - ▶ EMEA Contact: Duncan D Ross/UK/IBM@IBMGB
  - ▶ AP Contact: Takahiro Tomatsu/Japan/IBM@IBMJP

## Additional Information

- Technical Scenarios for WebSphere Everyplace Access



# WebSphere Everyplace Access

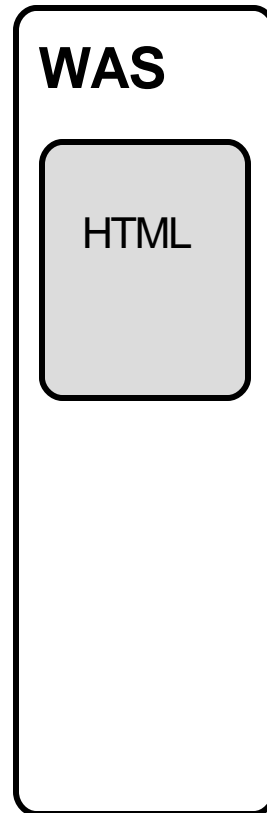
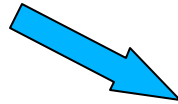


- ★ **Customer:** On Thursday morning, customer connects to Bank from home PC to check on stock portfolio and related stock news. Has been tracking BCG stock closely to determine right time to buy.
- ★ **Customer:** While in meetings during the day, customer uses Web phone to frequently request stock quotes and related graphs from Bank regarding BCG and other stocks.
- ★ **Customer:** While driving to the vacation home on Friday morning, customer uses Bank's voice recognition system to verbally request information about BCG price. Bank's Text to Speech support indicates the stock has jumped 5%. Customer buys 1000 shares and receives confirmation of purchase.
- ★ **Benefit to Bank:** Better customer service and customer retention by offering multi-channel access

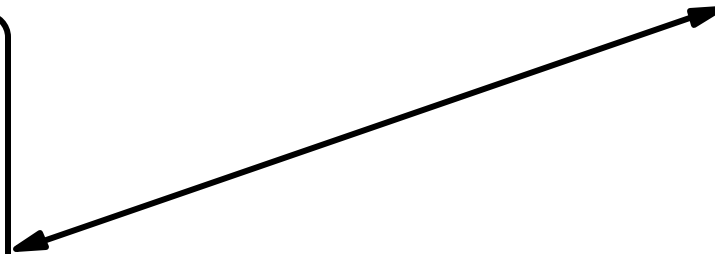
## Scenario



1. WebSphere Studio and VA Java users have built HTML pages and logic



Desktop

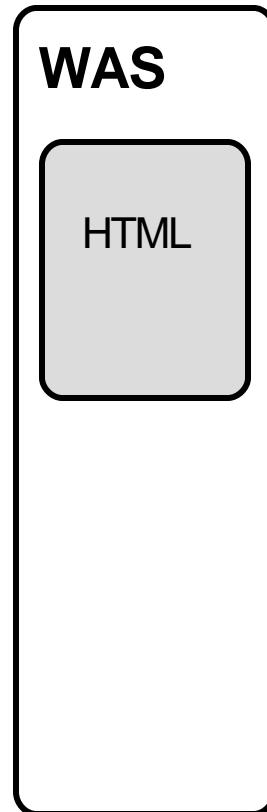


## Scenario



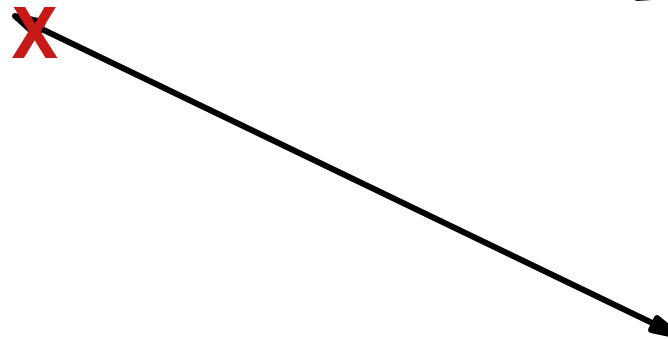
1. WebSphere Studio and VA Java users have built HTML pages and logic

2. Business managers decide to address mobile access



X

X





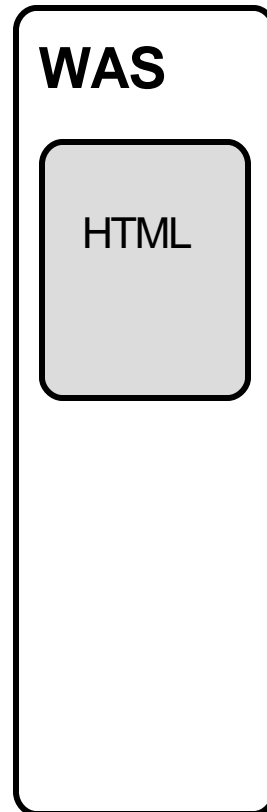


## Scenario

1. WebSphere Studio and VA Java users have built HTML pages and logic

2. Business managers decide to address mobile access

3. IT deploys and configures Mobile Access in test environment



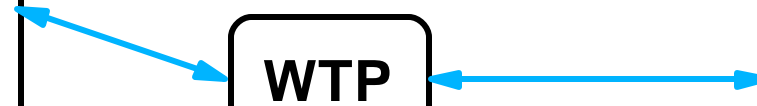
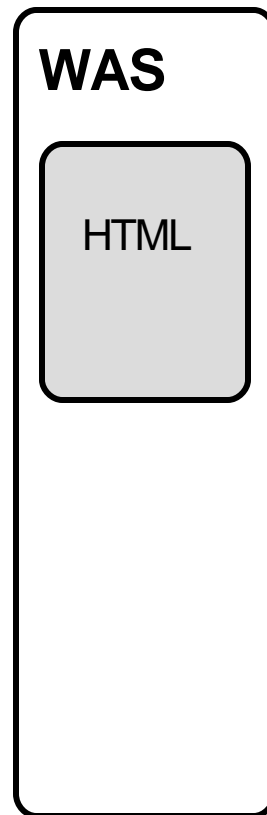
## Scenario



1. WebSphere Studio and VA Java users have built HTML pages and logic
4. Marketing team evaluates initial results with "automatic" transcoding: **data**

2. Business managers decide to address mobile access

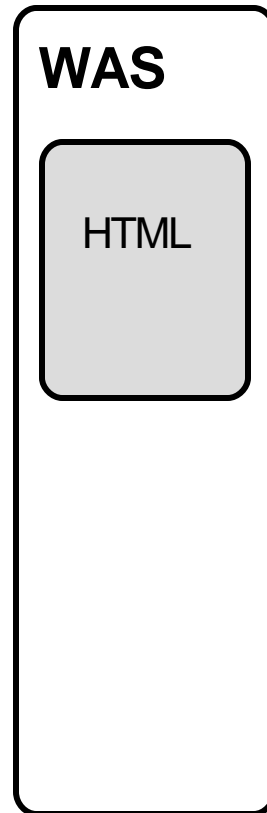
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## Scenario



1. WebSphere Studio and VA Java users have built HTML pages and logic
2. Business managers decide to address mobile access
3. IT deploys and configures Mobile Access in test environment
4. Marketing team evaluates initial results with "automatic" transcoding: data and **voice**



2. Business managers decide to address mobile access

3. IT deploys and configures Mobile Access in test environment





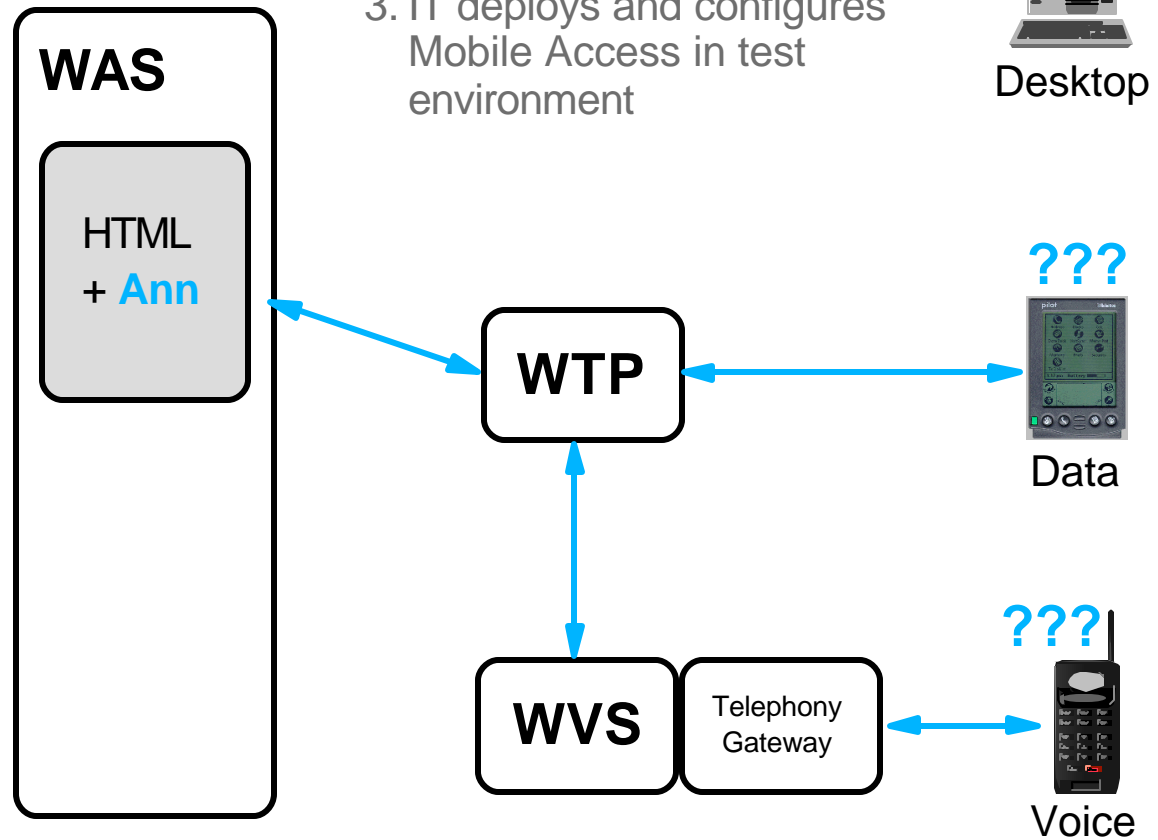
## Scenario



1. WebSphere Studio and VA Java users have built HTML pages and logic
4. Marketing team evaluates initial results with "automatic" transcoding: data and voice
5. WSS users annotate content where necessary

2. Business managers decide to address mobile access

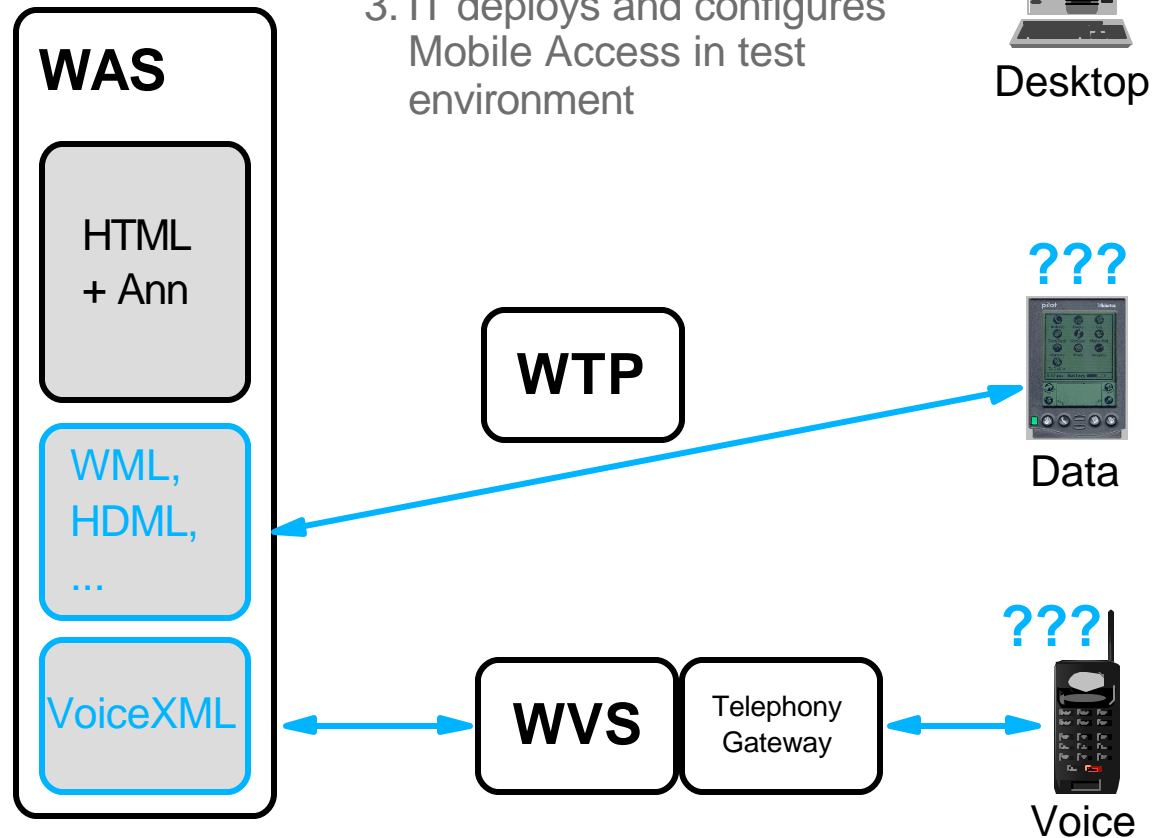
3. IT deploys and configures Mobile Access in test environment



## Scenario



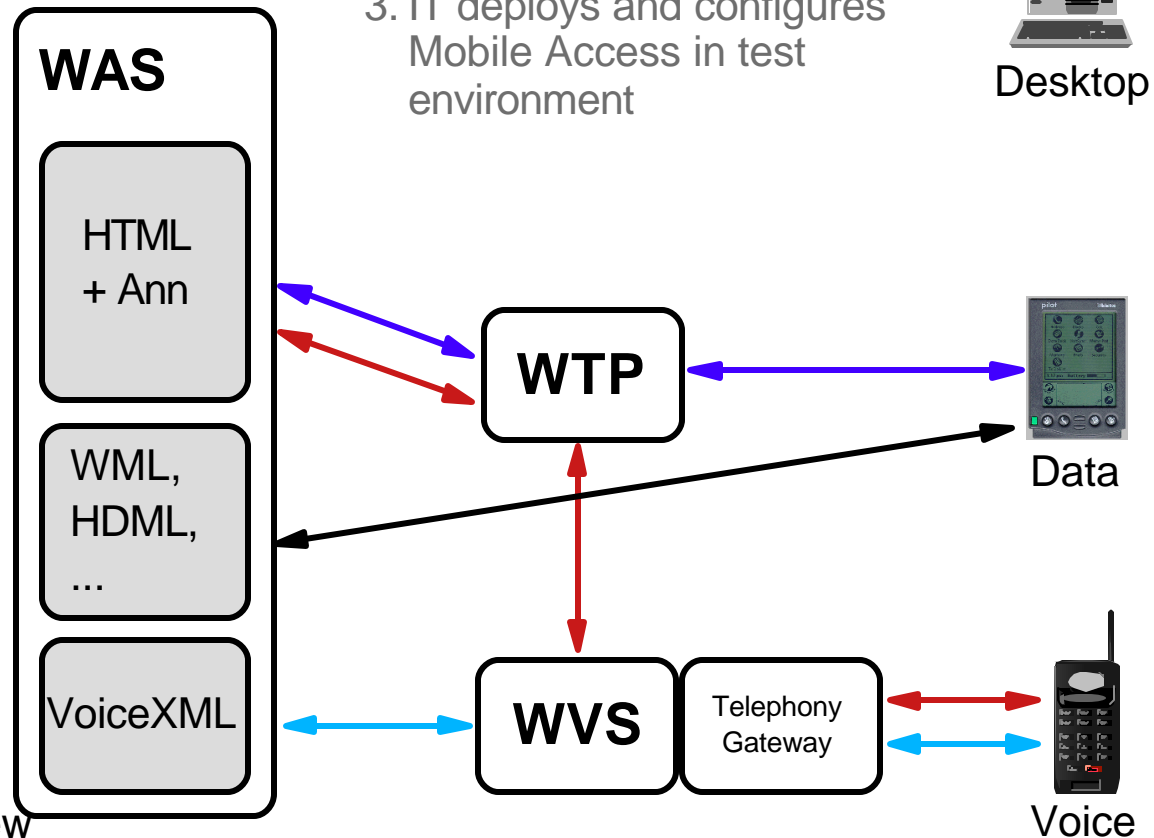
1. WebSphere Studio and VA Java users have built HTML pages and logic
2. Business managers decide to address mobile access
3. IT deploys and configures Mobile Access in test environment
4. Marketing team evaluates initial results with "automatic" transcoding: data and voice
5. WSS users annotate content where necessary
6. WSS users develop device-specific pages from existing HTML where necessary (design-time transcoding)



## Scenario



1. WebSphere Studio and VA Java users have built HTML pages and logic
2. Business managers decide to address mobile access
3. IT deploys and configures Mobile Access in test environment
4. Marketing team evaluates initial results with "automatic" transcoding: data and voice
5. WSS users annotate content where necessary
6. WSS users develop device-specific pages from existing HTML where necessary (design-time transcoding)
7. WSS and VAJ users create new applications, leveraging wizards and transcoding tools







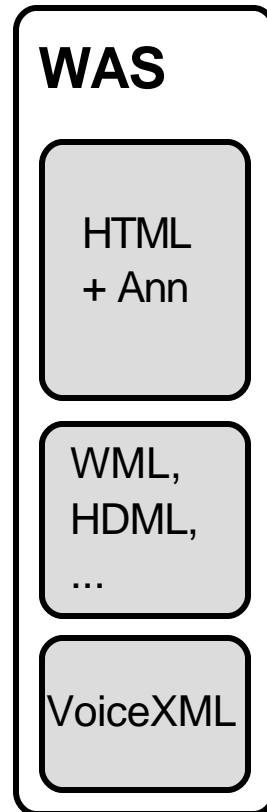
## Scenario

1. WebSphere Studio and VA Java users have built HTML pages and logic
4. Marketing team evaluates initial results with "automatic" transcoding: data and voice
5. WSS users annotate content where necessary
6. WSS users develop device-specific pages from existing HTML where necessary (design-time transcoding)
7. WSS and VAJ users create new applications, leveraging wizards and transcoding tools

2. Business managers decide to address mobile access

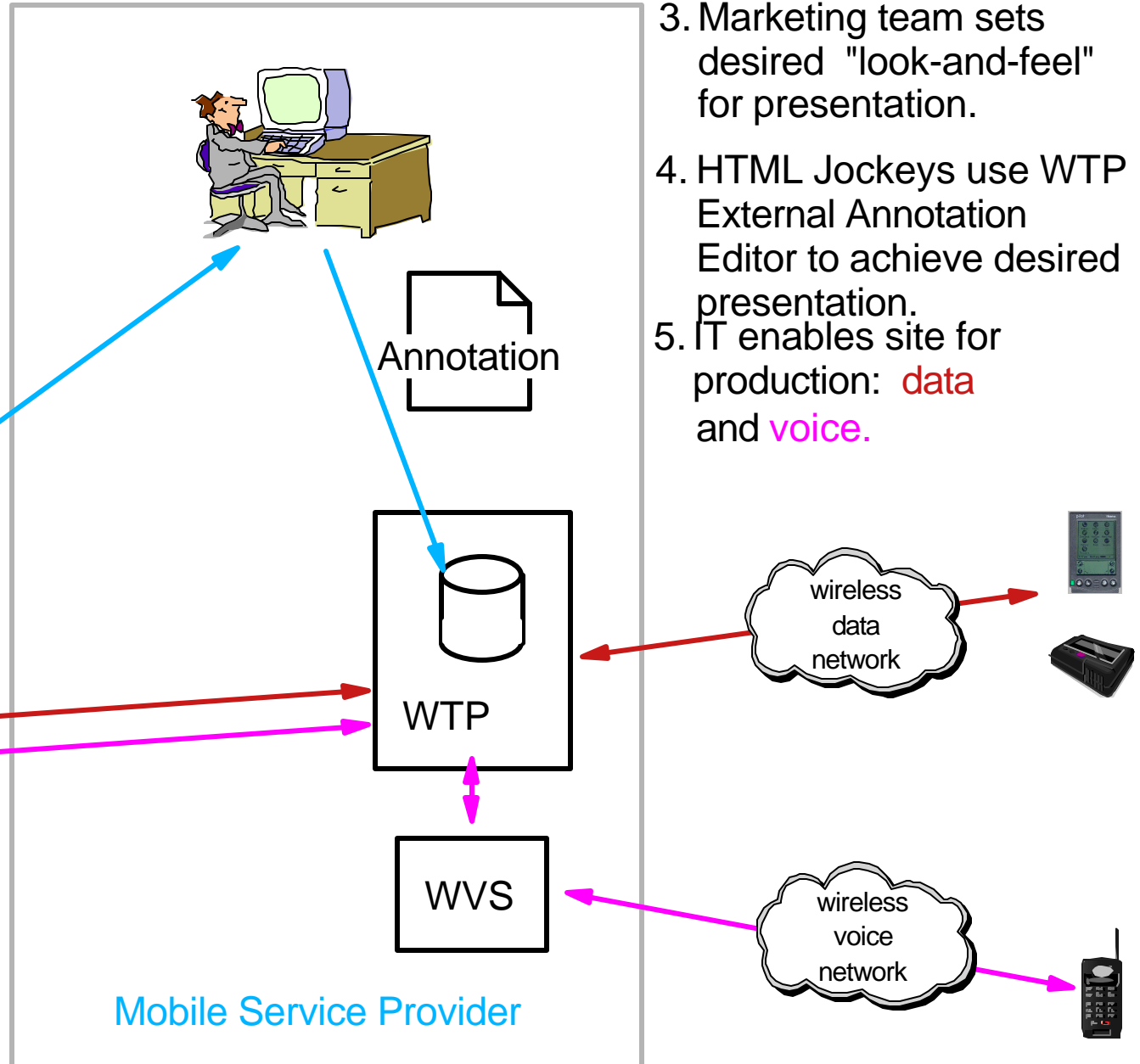
3. IT deploys and configures Mobile Access in test environment

8. IT deploys and configures Mobile Access for production environment



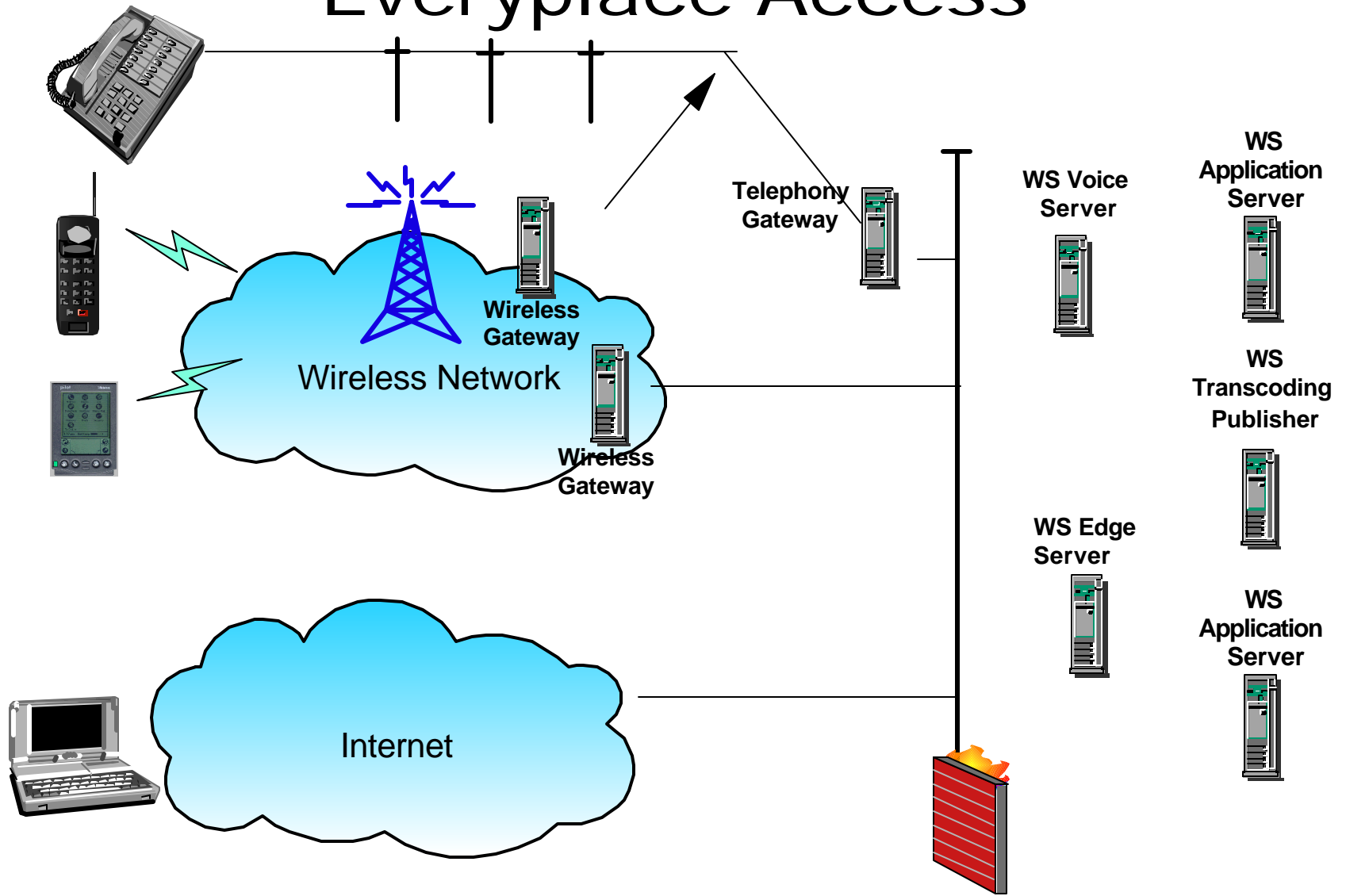
## Mobile SP Scenario

1. Business managers decide to provide access to information and services; discuss with content providers.
2. IT deploys WEA solution in test environment.



3. Marketing team sets desired "look-and-feel" for presentation.
4. HTML Jockeys use WTP External Annotation Editor to achieve desired presentation.
5. IT enables site for production: **data** and **voice**.

## Everyplace Access



Leverage and extend your current web content to wireless and wired pervasive devices