WebSphere Enterprise Edition V4.0

Delivering IBM **Enterprise**-Class Solutions

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Agenda

- How to Sell Enterprise Edition V4.0
  - ▶ What is Enterprise Edition?
  - ▶ Where does it fit in the family?
  - ▶ How is it priced?
  - ▶ Which Selling Strategies apply?

What is Enterprise Edition?

- EE has four principle elements
  - ‣ WebSphere Applicaiton Server Advanced Edition
  - ‣ WebSphere enterprise services that plug into AE
  - ‣ TXSeries
  - ‣ MQSeries
- Targeted at sophisticated Java developers whose needs go beyond current standards

What is Enterprise Edition?

- Delivering business agility
- Increasing programmer productivity
  - ▸ speed application development
  - ▸ increase application flexibility
- Extending your existing systems
- Delivering tomorrow's standards today
  - ▸ recently submitted enterprise functionality (work area, internationalization)

Let's review some of these in more detail...

Delivering business agility

- Business Polices - any codified practice
  - ▶ customer discount calculation, credit classification
  - ▶ mortgage qualification, time sensitive practices

- Programmer developed - business analyst managed
- ▶ Policy can be introduced in production - at runtime
- ▶ Ability to introduce change at selected time periods
- ▶ Requires "and enables" practices to be codified

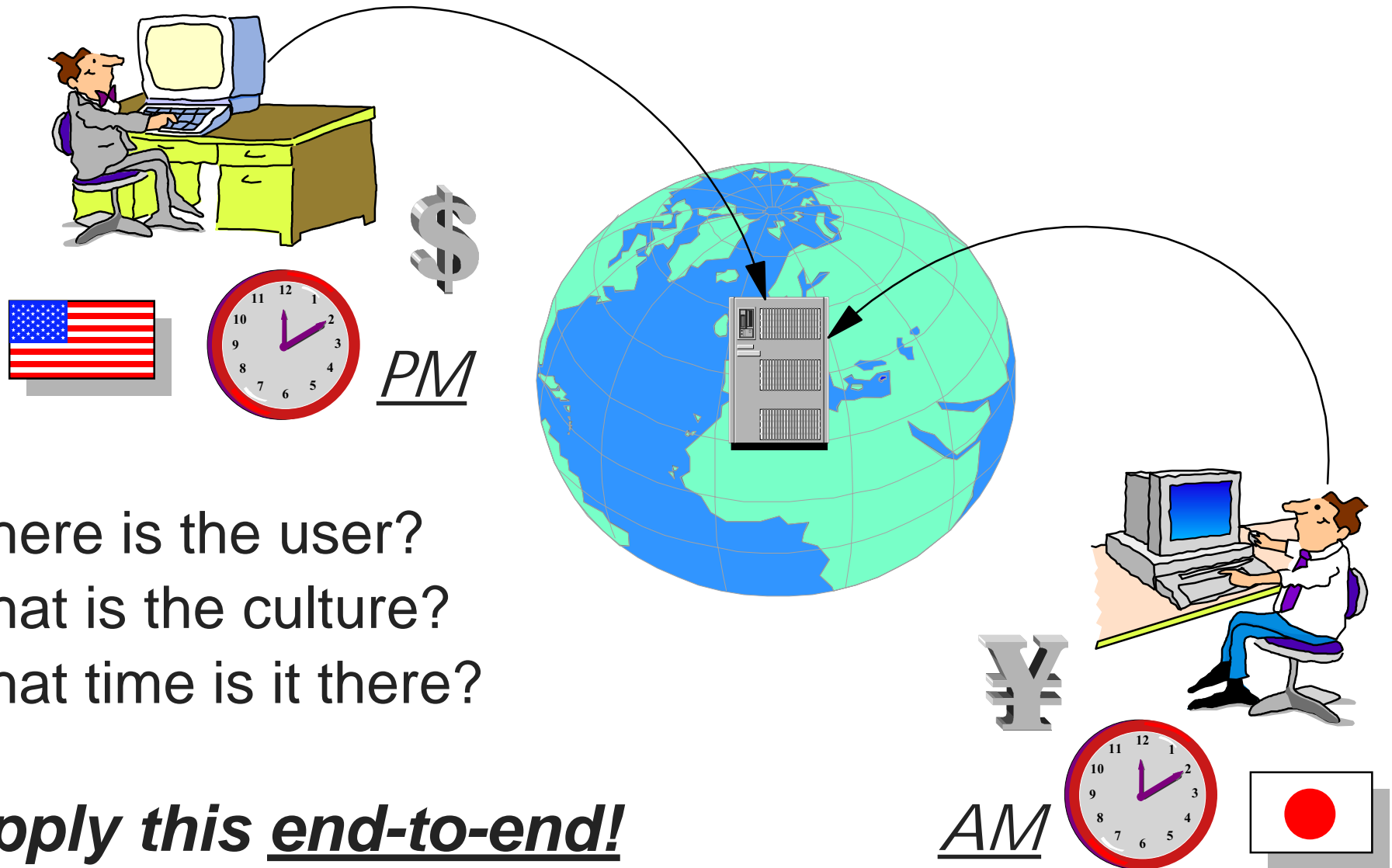# An Example

☞ If inventory below 1000, order 5000.

☞ If business volume exceeds one million units, apply 5% discount.

- Such things can change often.
- So let's *externalize* them.
- What are the advantages?

Change your business policies *at will*.

Delivering Programmer productivity with Internationalization

Where is the user?
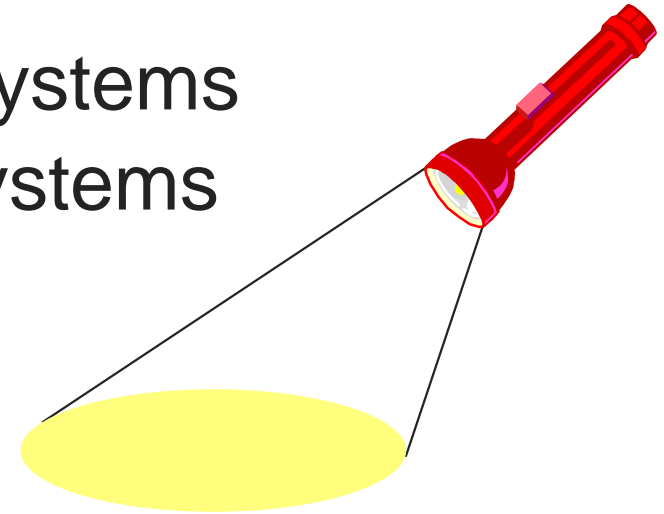
What is the culture?

What time is it there?

Apply this _end-to-end!_

PM

AM

... and more Programmer Productivity

Two architectures in one server

- ► Object oriented transactional systems
- ► Popular messaging oriented systems

What's the big deal about Message Beans?

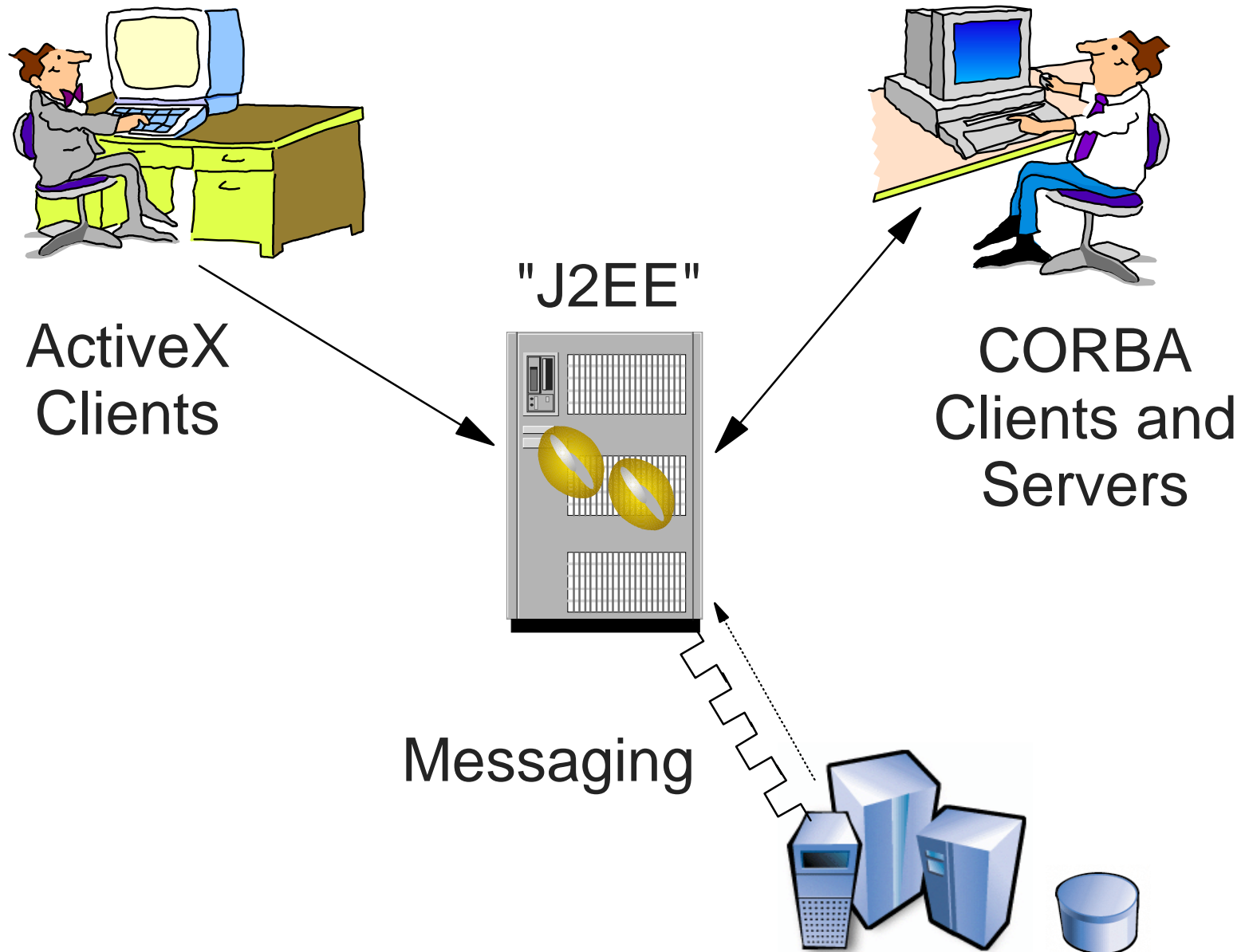| Programming Evolution	J2EE + Messaging Evolution	Skilled required	Available Skill
assembler code	JMS interface	Knowledge Guru	few
COBOL	Message beans	Professional Java programer	more
Scripted Wizards	Container managed messaging *	Proficient Java programer	many

... additional Programmer Productivity

Work Areas

- Information may be shared across an application
- **Work areas** are like *virtual scratch pads*

Shared space

1. Time sensitive
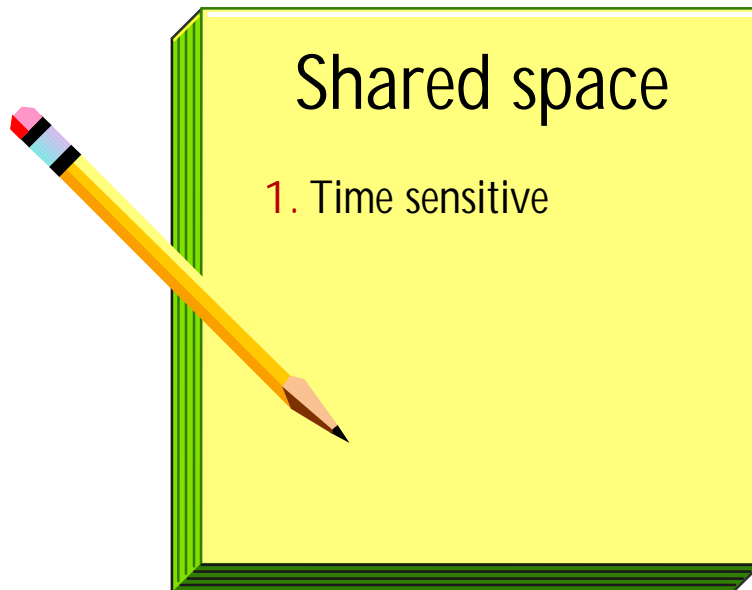
Extend your existing systems

ActiveX
Clients

"J2EE"

CORBA
Clients and
Servers

Messaging

Quiz

Q: How many of the preceding requirements are addressed by J2EE 1.2 (the current spec)?

A: << This section intentionally left blank >>

Current J2EE standards are not enough!

The Message

What is Enterprise Edition?

- Delivering business agility
  - ▶ Business Rule Beans (BRB)
- Increasing programmer productivity
  - ▶ Internationalization
  - ▶ Work Areas
  - ▶ Message Beans
- Extending your existing systems
  - ▶ Message Beans
  - ▶ Corba Interoperability
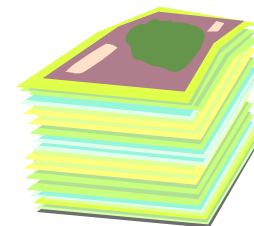 - ▶ Active X Integration

Early quotes from the EE beta

- "The features of EE are just too good not to use."

- "The JMS Listener, Business Rule Beans, and ActiveX Client are all great features."

- "IBM definitely hit all the right hot spots and did their homework on what business wants and needs."
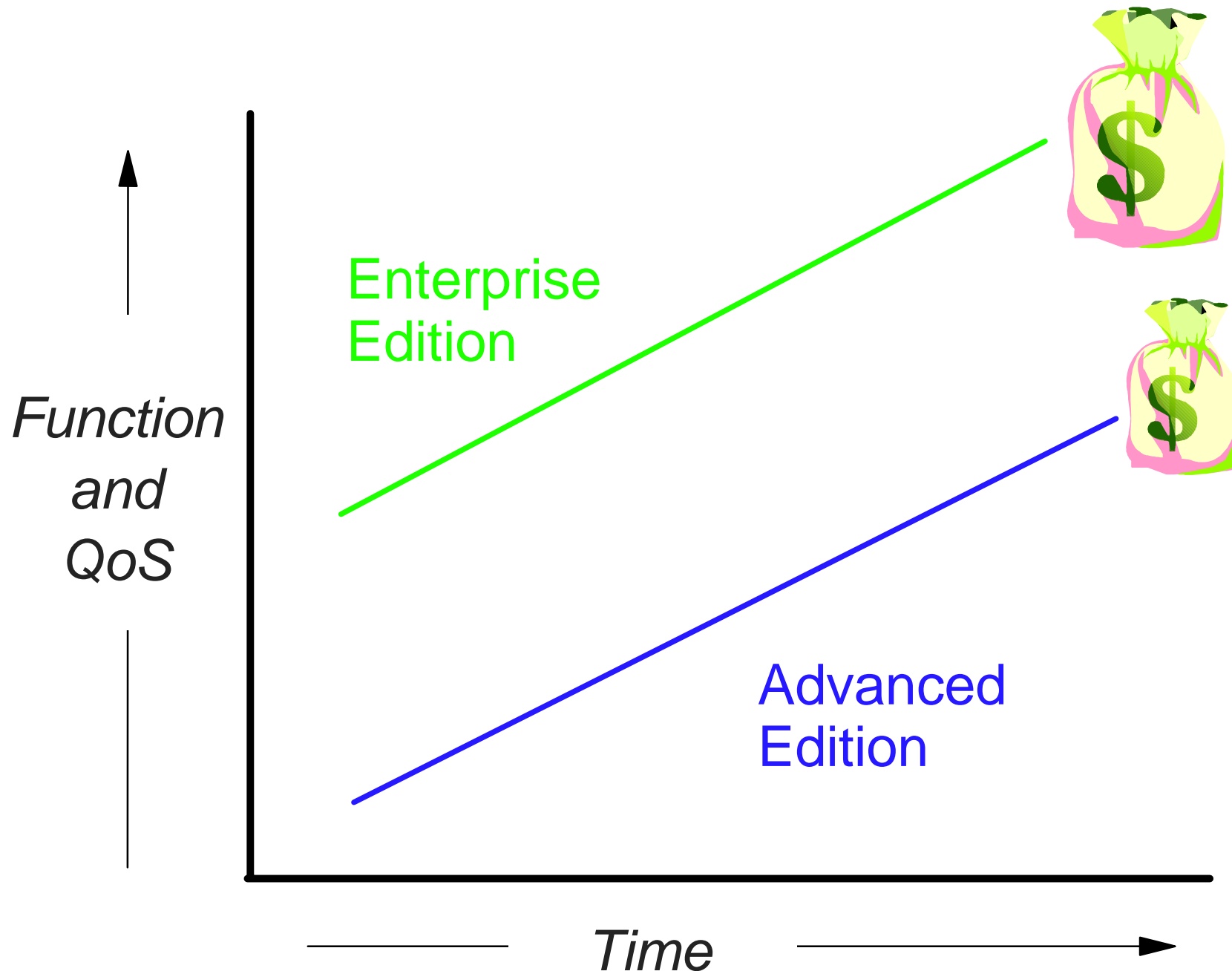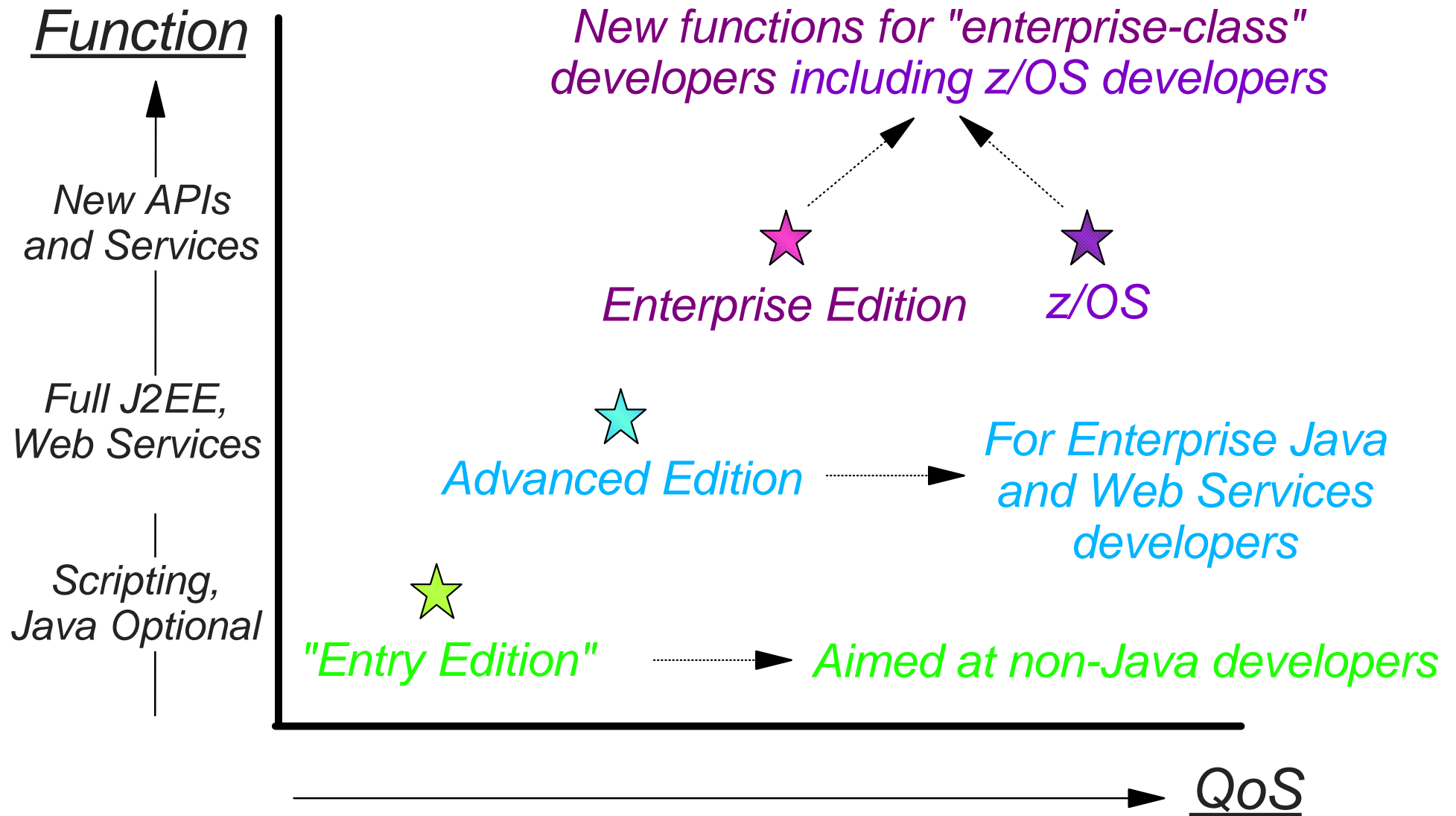
Why Should You Care?

Commodity

Standards-Based
Application Server

Differentiate with WebSphere Enterprise Edition!

WebSphere Enterprise Edition

WebSphere Foundation Options

Function

New APIs
and Services

Full J2EE,
Web Services

Scripting,
Java Optional

New functions for "enterprise-class"
developers including z/OS developers

Enterprise Edition   z/OS

Advanced Edition ⟶ For Enterprise Java
and Web Services
developers

"Entry Edition" ⟶ Aimed at non-Java developers

QoS

Also look for updates to Technology for Developers

WebSphere Application Server V4.0, Enterprise Edition Packaging

Package Contents

    Advanced Edition

    Enterprise Services
- **Business Rule Beans**
- **Message Beans and JMS Listener**
- **Internationalization Service**
- **Shared Work Areas**
- **Bidirectional CORBA Connectivity**
- **C++ CORBA SDK**
- **ActiveX Bridge**
- **Business Process Beans Tech Preview**

    TXSeries
- **TXSeries V4.3**
- **CICS Transaction Gateway**
- **CICS and Encina Clients**
- **DCE**

    MQSeries V5.2

Licensing
- Production Runtime
- Development Runtime

GA
- 9/14/01 English Only
- 10/12/01 NLV
- 10/12/01 Development Runtime

Pricing
- **$35,000/CPU for Production**
- **$2,999/CPU for Development**

Platforms
- **Windows (NT and 2000)**
- **Solaris**
- **AIX**

Web Services Enabled

Selling Strategies

- Always lead with WS EE in our Fortune 2000 - it's the default.
  - Do you want a J2EE compliant runtime?
  - Do you want to build your applications quickly?
  - Do you want the greatest flexibility?
  - Do you want the best total cost of ownership now and in the future?
- Lead with WS EE in our more sophisticated customers
- Special bid availalbe for competitive situations regarding Message Beans, Corba interoperability, active x integration

A Closer Look at TXSeries

- TXSeries (TX) offers two different runtime environments: *Distributed CICS* and *Encina*
  - ▸ Reduced investments, but still vibrant
  - ▸ Sell mainly to existing TX customers
  - ▸ Sell to markets not ready for J2EE (e.g., China)

☞ ***First choice is J2EE !!!***

  - ▸ Sell Advanced Edition and/or Enterprise Services
  - ▸ Recommend Edge Server for higher scale
  - ▸ Weigh EJB performance / flexibility issues
  - ▸ Review the potential for WAS V4.0 on z/OS and the potential for CICS/390
  - ▸ Use TXSeries in combination with J2EE
 - ▸ Design TXSeries apps with J2EE in mind

Use WW team!

WebSphere EE Summary

- Delivering tomorrow's standards today
- Solving the hardest class of problems
- Differentiating the application server
  - Integration
  - Adaptability
  - Unmatched qualities of service
- Disarming the competition

For more information:

www.ibm.com/software/webservers/appserv/whitepapers.html
harmony.austin.ibm.com/wbsphere/wb40/waseex/index.html
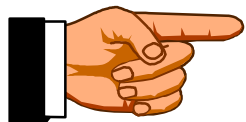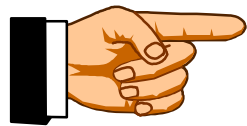
Also look for new redbooks!
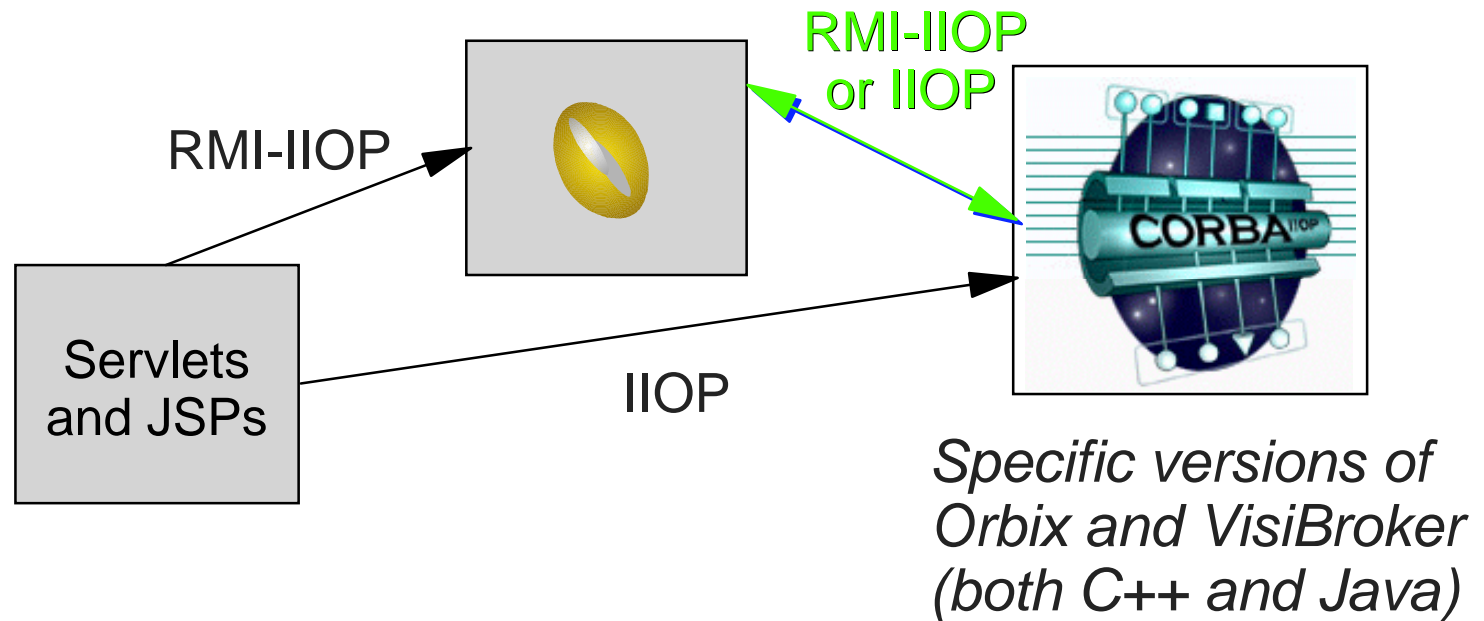
Hungry for More?

Appendix

<< Note that this portion is scripted. >>

Scenario Requirement #1

- [Access to server-side Java from](#) both [CORBA clients](#) and ActiveX clients
- Integration of C and C++ programming assets into an Enterprise Java application
- Accounting for the diverse geographical and cultural aspects of global clients
- Efficient sharing of information needed throughout a distributed application
- Systematic encapsulation of variable business practices as general purpose, externally maintainable policies
- Support for advanced paradigms such as deferred, batch, and parallel processing; compensation logic; and event triggers
- Support for blending messaging with objects

CORBA Integration

RMI-IIOP or IIOP

RMI-IIOP

Servlets and JSPs

IIOP

CORBA IIOP

*Specific versions of Orbix and VisiBroker (both C++ and Java)*

Enabling customers with existing CORBA investments to access new business value on the J2EE model while continuing to leverage existing systems

- Outbound from WebSphere, customers can either use IBM's embedded ORB or the vendor-supplied ORB.
- Sample code is provided for the supported environments.
- Documentation is shipped (which includes restrictions).
- A value type library is included to ease development.

Scenario Requirement #2

- **Access to server-side Java from** both CORBA clients and **ActiveX clients**
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ActiveX Integration

Bridging to EJBs

VB

MTS
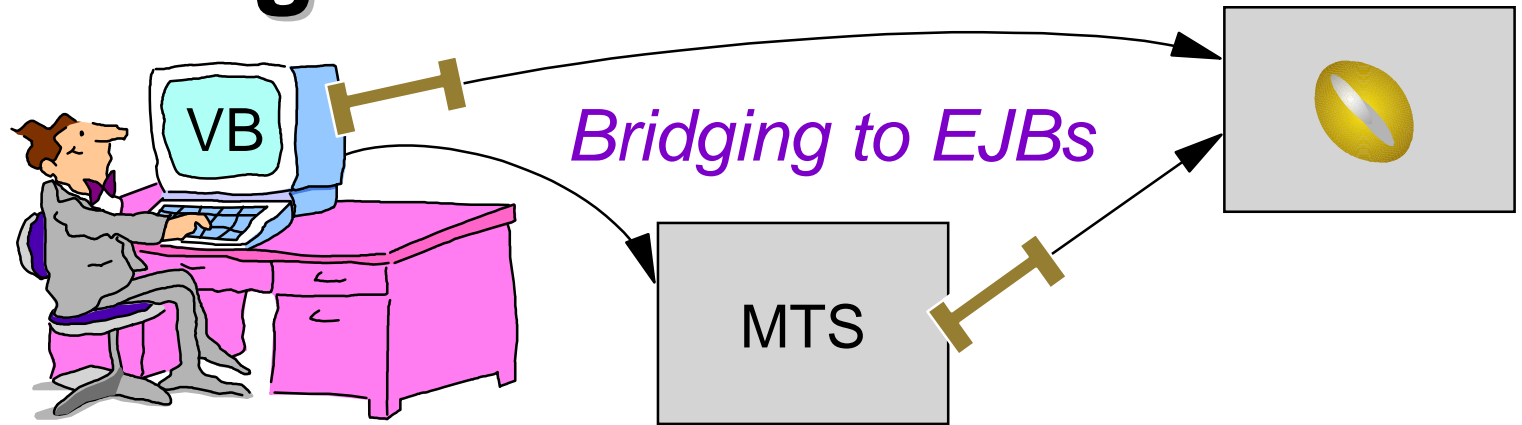
- *ActiveX technology is common on desktops (e.g., Visual Basic) and servers (e.g., ASP and MTS)*
- *The ActiveX bridge connects ActiveX to EJBs:*
  - ▸ *On both Windows 2000 and Windows NT*
  - ▸ *In one direction only (as shown)*
  - ▸ *From ActiveX clients as well as ActiveX servers*
  - ▸ *With support for APIs like JNDI, JDBC, JMS, JavaMail...*
  - ▸ *With support for workload management and security*
  - ▸ *Having higher qualities of service than SOAP (yet allowing a possible future SOAP implementation)*
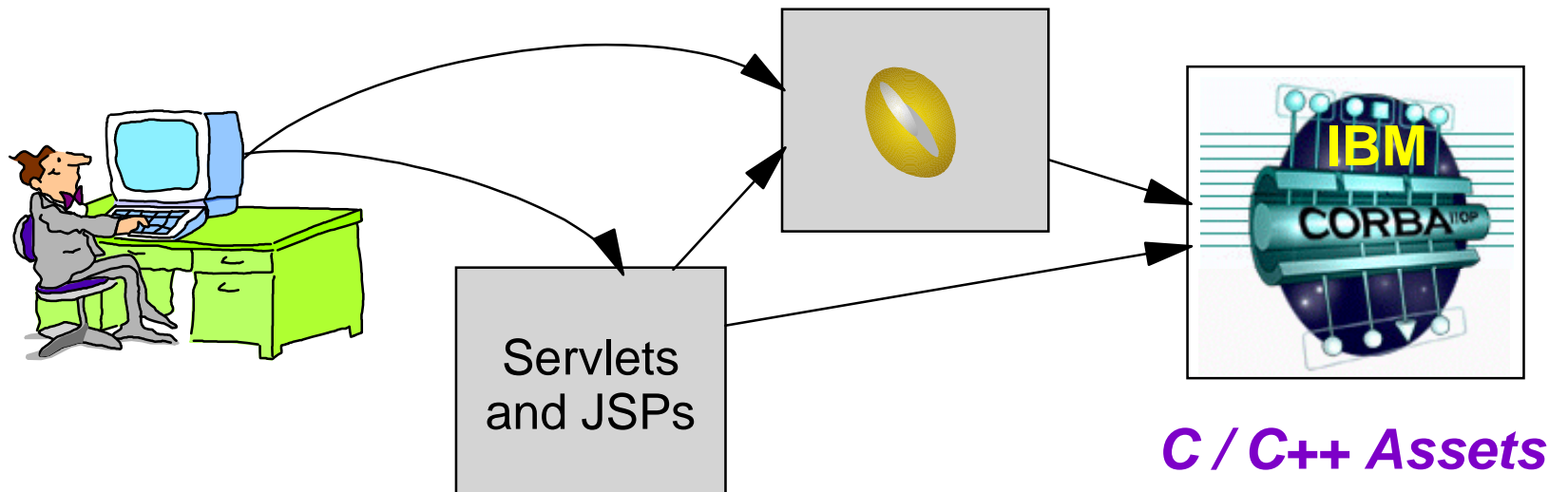
Today   **JNI**
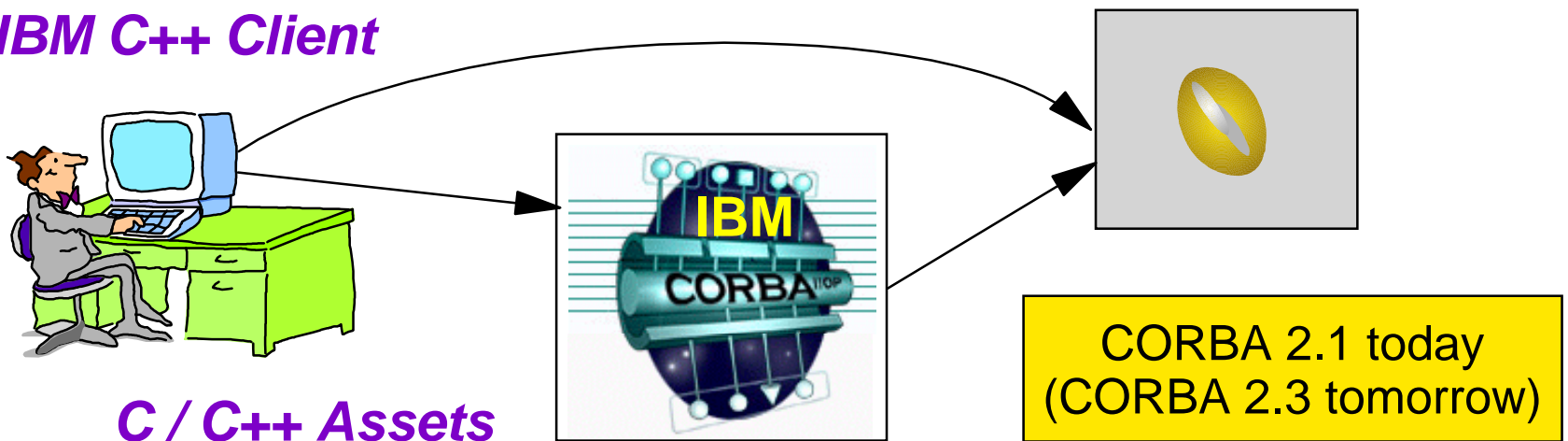
Tomorrow?   **SOAP or JNI**

Scenario Requirement #3

- Access to server-side Java from both CORBA clients and ActiveX clients
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Native Code Integration

Servlets and JSPs

IBM

C / C++ Assets

IBM C++ Client

IBM

*C / C++ Assets*

CORBA 2.1 today
(CORBA 2.3 tomorrow)

Leverage, transform, concentrate, adapt existing C / C++ assets
Might replace existing C++ ORB with basic C++ ORB from IBM

Scenario Requirement #4

- Access to server-side Java from both CORBA clients and ActiveX clients
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Globalization
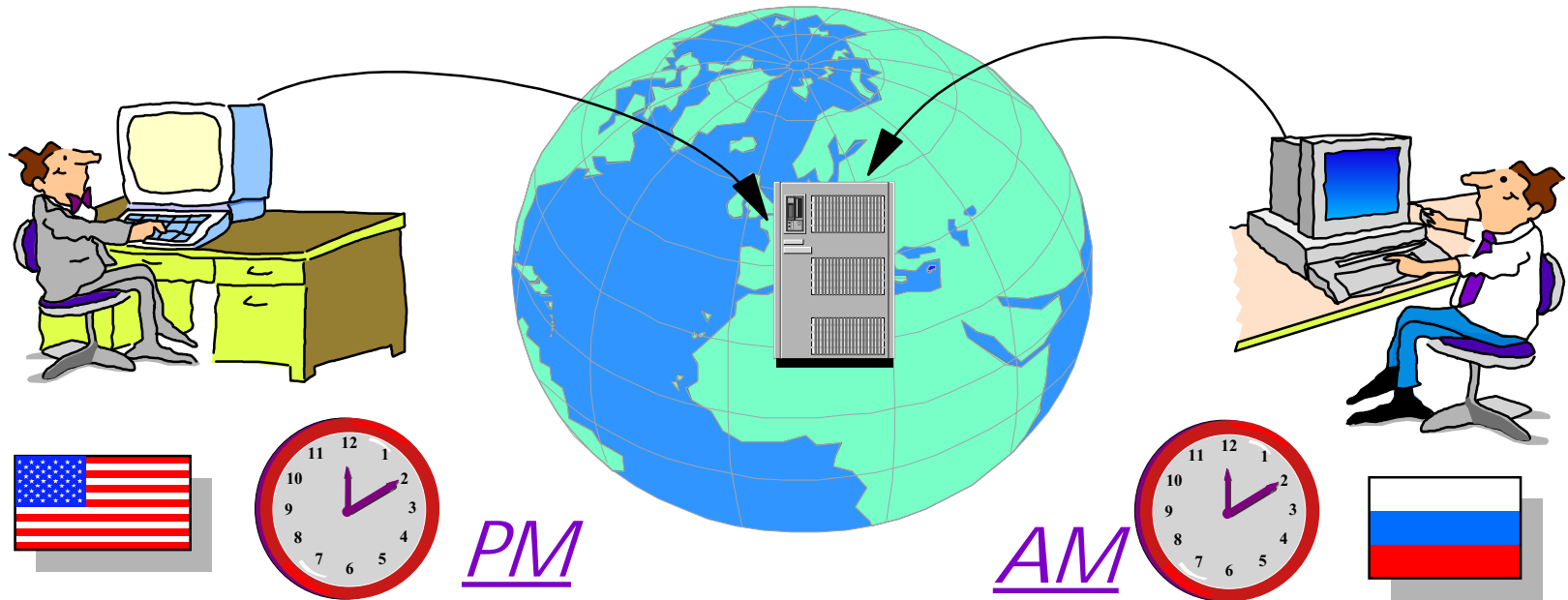
**How "internationalized" is your server?**

- Does it handle date, time, currency, language, and sorting rules to accommodate global differences among clients?
- Does it extend internationalization support to "tier-3" resource managers? ◄ Delivered in future release
- Can it do these things without forcing changes to existing interfaces?
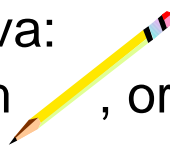
IBM leadership: Look for this item in a future release of J2EE!

Scenario Requirement #5

- Access to server-side Java from both CORBA clients and ActiveX clients
- Integration of C and C++ programming assets into an Enterprise Java application
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- <u>Efficient sharing of information needed throughout a distributed application</u>
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Efficient Information Sharing

Servlets
and JSPs

EJBs
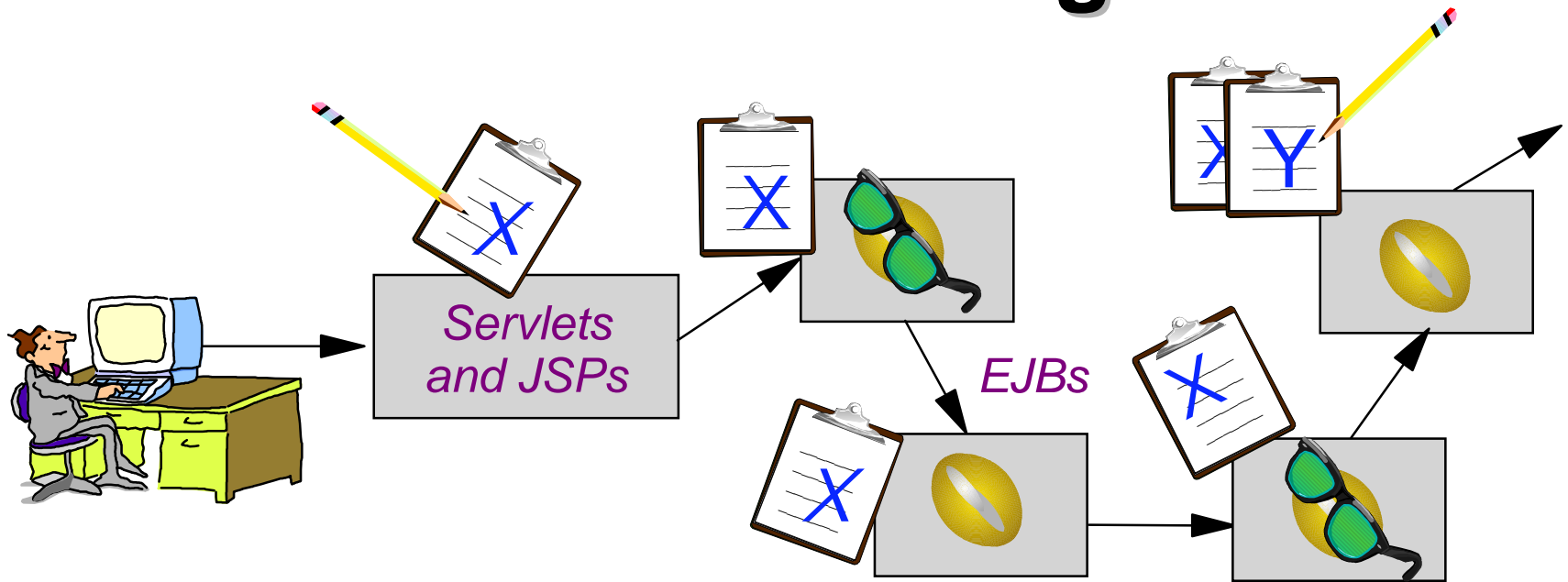
- Information may need to be shared across a distributed application
- **Work areas** are like *virtual scratch pads* that let you efficiently flow this information "on the wire" (no database access, no bottlenecks)
- Work areas are accessible through Java:
  - ► You can ignore them, override them   , or read from them
- Work areas help you:
  - ► Attach things like identities and profiles to requests
  - ► Reduce remote calls for pervasive properties
  - ► Remove pervasive parameters and define cleaner interfaces

IBM leadership: Look for work areas in a future release of J2EE!

Scenario Requirement #6

- Access to server-side Java from both CORBA clients and ActiveX clients
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Business Policy Support

- **B**usiness **R**ule **B**eans (BRBeans) lets you:
  - ▸ Externalize and parameterize variable business practices
  - ▸ Maintain rules administratively
  - ▸ Change business behavior without opening code
- BRBeans is more general than personalization (which primarily focuses on matching users with content)
- BRBeans is also different from the Versata System:

Versata System	*Business Rule Beans*
"Opportunistic" development	"Systematic" development
Requires less skilled developers	Requires more skilled developers
Largely substitutes for coding	Supplements normal coding
Rapid application development	Traditional OO development
Rules could be parameterized	Rules normally parameterized
Rule language generates Java	Rules written in Java
Represent application logic	Enhance application logic
Take effect when installed	Explicitly scheduled

Scenario Requirement #7

- Access to server-side Java from both CORBA clients and ActiveX clients
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- Support for blending messaging with objects

Advanced Processing Paradigms

Things that J2EE developers dream about...
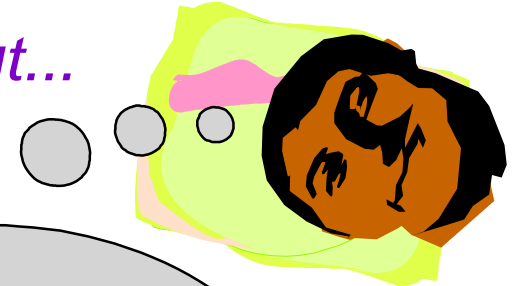
Processing that is concurrent, deferred, or "batch"
Extended transactional control that provides compensation
Parallel processing inside the scope of a single, atomic transaction
Asynchronous processing between components (<u>without</u> JMS)
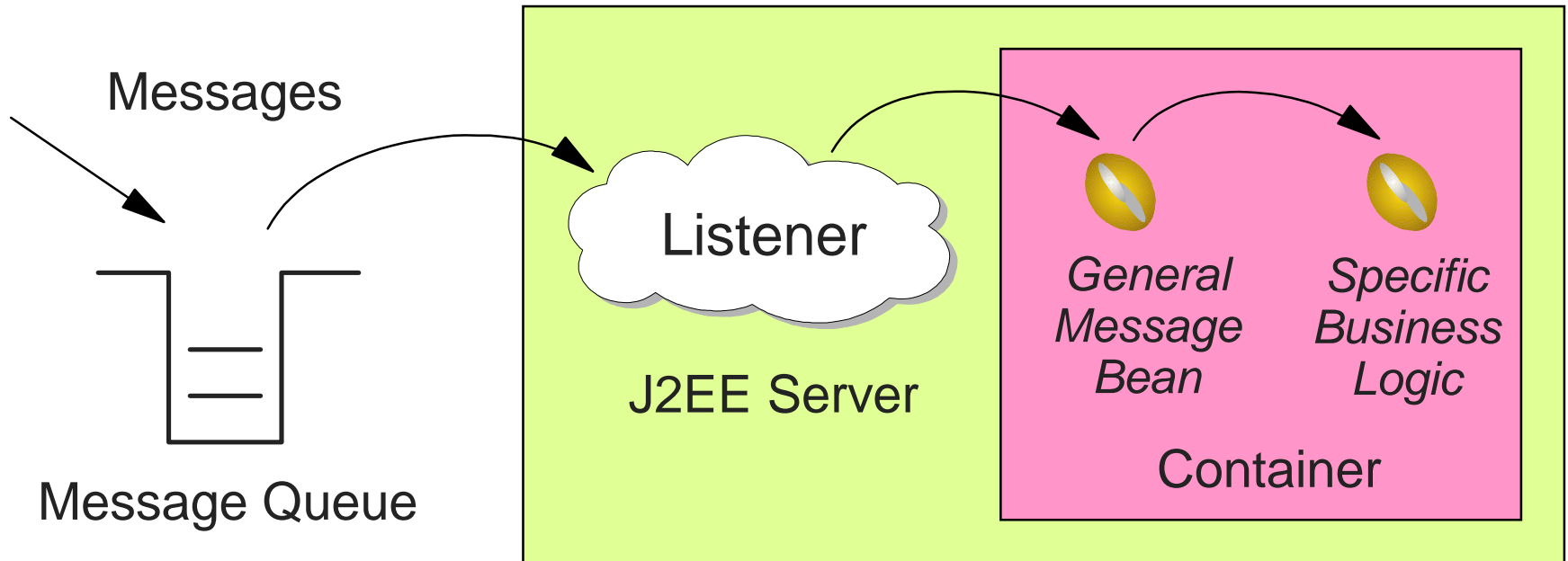***COMBINED WITH THE ABILITY TO...***
Visually construct <u>Java</u>-based business process flows
Combine fine-grained flows into larger process hierarchies
Marry all of this to messaging and course-grained workflow engines
Do all of this in an integrated, standards-based way

- We call this technology "Business Process Beans" or "<u>BPBeans</u>".
- Use it for task-oriented applications that change often, that need compensation, that are event-driven, or that require time outs.
- BPBeans consists of a programming model; runtime facilities; tooling for building, testing, and monitoring; samples; and docs.

Scenario Requirement #8

- Access to server-side Java from both CORBA clients and ActiveX clients
- Integration of C and C++ programming assets into an Enterprise Java application
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Object and Messaging Integration

Messages

Message Queue

Listener

J2EE Server

General Message Bean

Specific Business Logic

Container

- *"Middleware integration" of "integration middleware"*
- *Transactionally supporting inbound messaging*
- *Foundation for J2EE 1.3 and EJB 2.0 message-driven beans*
- *Outbound messaging still requires JMS programming*
- *Additional component / messaging integration planned for the second release of Extensions:*
  - ‣ *Transparency for outbound messaging*
  - ‣ *Code generation and tooling support*
  - ‣ *Message / component mapping*

Another Quiz: Find the Services

Agile Enterprise is an international corporation that plans to build a globally accessible Web-based order fulfillment system. The best end-to-end service will be given to the best customers. Requests will be accepted from browsers as well as call centers that batch requests asynchronously. Shipment dates will be determined through dynamic scheduling algorithms that reflect both regional policies and time zones. As part of the fulfillment process, a number of heterogeneous systems must be queried and updated with integrity (although some of these systems will not be subject to normal transactional coordination). In a few cases, libraries of C and C++ code must also be linked into the solution. And finally, an existing set of "front-end" applications will need to interface with the fulfillment system (most of these applications have been written using Microsoft technologies).

- *Does "Agile Enterprise" need "Enterprise Services"?*
- *If so, what are some of the candidate services?*

? ? ?