



Actioning real time business events

CICS and WebSphere

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Agenda

- Events
- CICS and Events
- WebSphere Business Events
- WebSphere Process Server
- Demo

Events

- Most applications written to perform some business function
 - Many written long ago
- Each day these applications implicitly make business decisions
 - e.g. transfer cash to an account
 - These actions considered to be “events”
 - i.e. something that has happened
- Potentially a lot of business value
 - e.g. detect stock item running low, order new stock
- Business want to be able collect and analyse these “events”
 - They would like to add functionality to existing applications to generate “events”
- The catch?
 - Expensive to add new code to existing applications so that “events” are produced
 - Takes a long time

CICS and Events

- Many customers worldwide
 - Running business applications in CICS
- CICS TS V4.1 provides event technology
 - In two ways...
- Non-intrusive
 - You can define specifications which CICS uses to detect some occurrence and then generate an event
 - No changes to applications required !
 - Allows you to get started straight away
- Programmatically
 - Option does exist to modify application code
 - To add CICS API call to generate Events

System z capital waiting to be integrated and leveraged

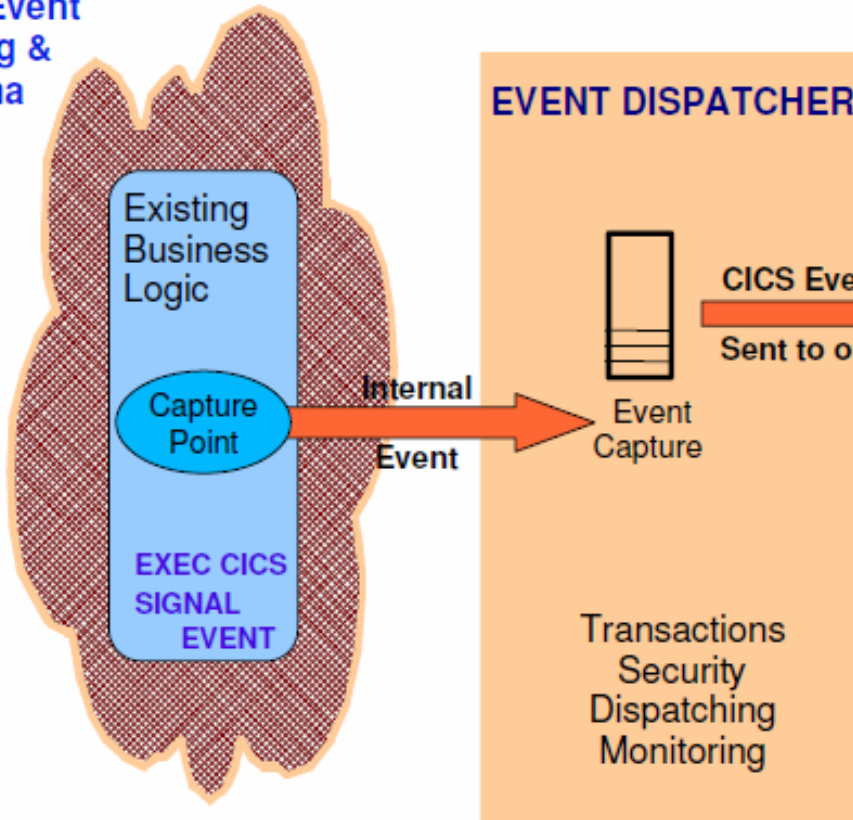
Re-use with End-to-End Process Automation and Management

- **70% ⁽¹⁾ of corporate data is stored on the mainframes**
- **CICS handles more than 30 billion transactions/day ⁽³⁾ valued at over \$1 trillion/week ⁽³⁾**
- **DB2 has delivered 100% availability of customer information for 10 consecutive years, including migrations ⁽⁵⁾**
- **Scalable & high performing connectivity with WebSphere MQ for z/OS processing over 213M messages per day on z/OS in the banking industry alone**
- **Over 15 Million GBs of Production data managed by IMS with over 50 Billion Trans/day and over 200 Million Users/day**
- **\$5T of core System z applications with estimated replacement costs of \$20T ⁽³⁾**
- **System z has been estimated to contain \$3 Trillion ⁽²⁾ (USD) in core assets**
- **Mainframe can handle sustained peak workload utilization of 100% without service level degradation**
- **Mainframe can handle 9,000 transactions per second operating on more than more than 380 million accounts ⁽⁴⁾**

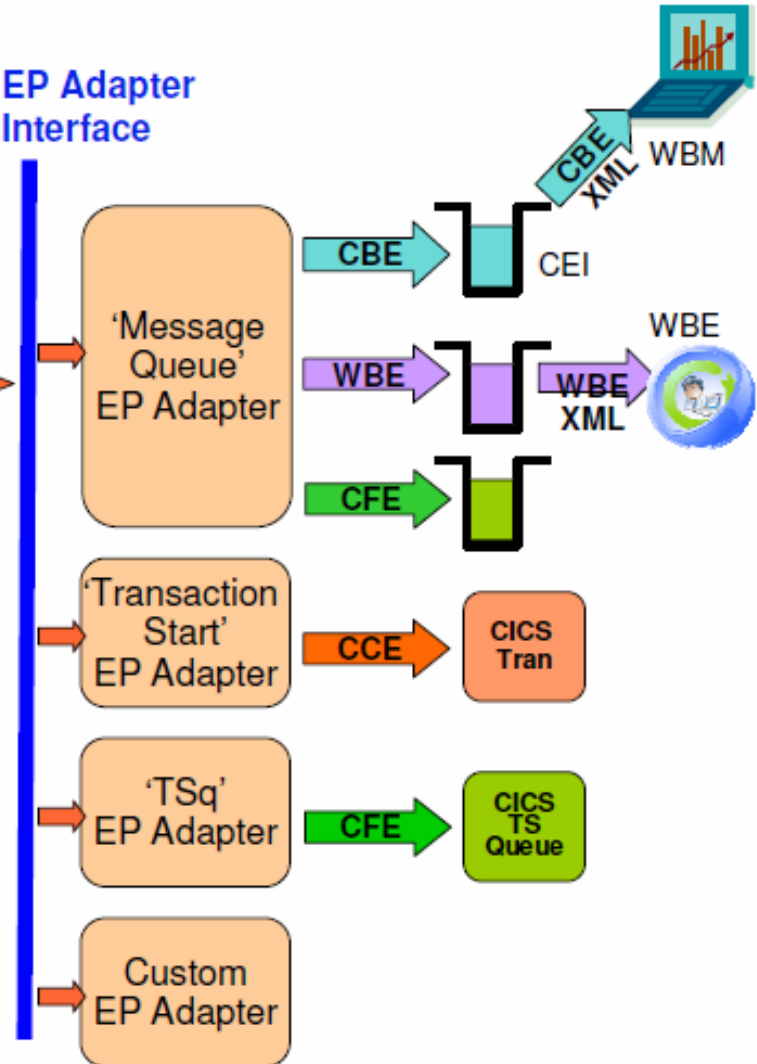


The Big picture

CICS Event Tooling & Schema



EP Adapter Interface



CICS Explorer

- “The” tool for CICS administration
 - Eclipse based
 - Used to:
 - Define definitions required to generate events
 - Deploy and manage

The screenshot displays the IBM CICS Explorer application window. The main interface is divided into several panes:

- Left Pane:** A tree view showing the CICSplex structure. Under the 'EPRED (7/10)' folder, several event definitions are listed, including EPRED1 through EPRED9. EPRED2 (EPRED2) is currently selected and highlighted.
- Top Center Pane:** Shows the context for the selected event: 'CNX0211I Context: EPRED2. Resource: EVCSPEC. 2 records colle'. Below this is a 'Capture Specification' field with a play button and a close button.
- Center Table:** A table listing capture specifications for the selected event.

Region	Capture Specification	Event Binding
EPRED2	InsufficientStock	InsufficientStock
EPRED2	OrderSuccess	SuccessfulOrder
- Right Pane:** Displays the 'Attributes' for the selected capture specification. It shows a table of properties and their values.

Property	Value
Basic	
Capture Point	LINK_PROGRAM
Capture Specification	InsufficientStock
Capture Type	POSTCOMMAND
CICS Release	E660
Event Binding	InsufficientStock
Event Name	Event_FailedOrder
Events Captured	0
Region	EPRED2

A plethora of events

- The good news?
 - Able to easily have CICS TS V4.1 generate useful business related events
- The bad news?
 - Could have lots of these events generated
 - How to perform complex analysis of events to detect something significant?
 - Could write your own...
- Could your code handle this business requirement:
 - Customer get three quotes for different types of insurance
 - But they only purchase one
 - Detect this and send letter offering deal if they buy all three

- But of course IBM has just the product...

WebSphere Business Events

Complex Event Processing

Causality

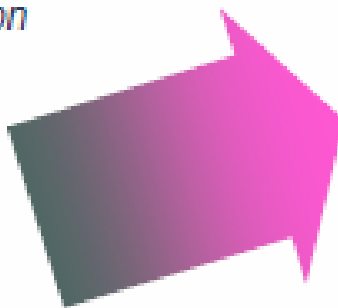
Aggregation

Complex Queries



*Event emitters
and sources*

*Event pattern detection
Correlation analysis*

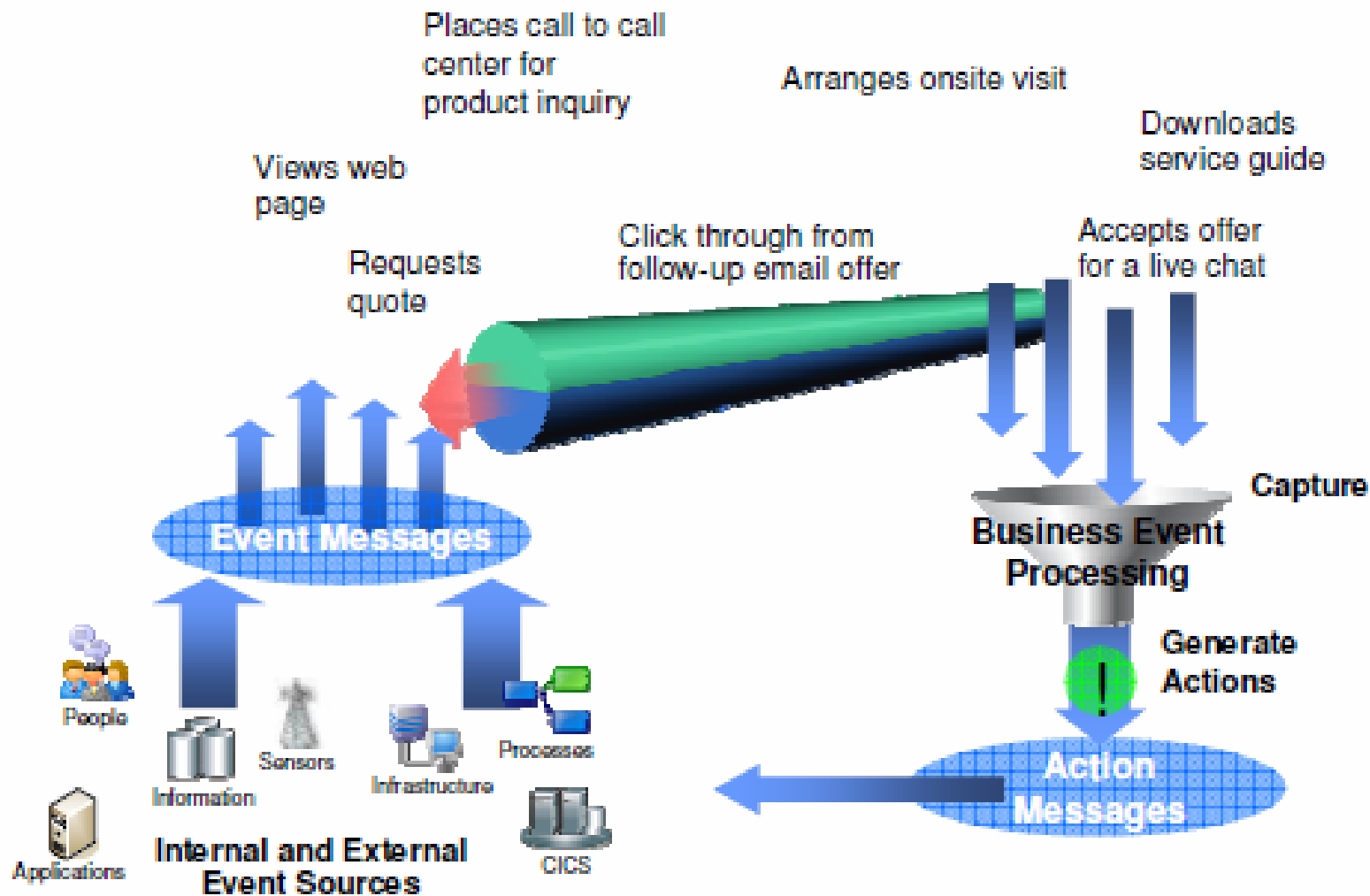


Actionable Business Context



*Providing Real-time
Visibility and
Speed-to-insight*

WBE – correlate and analyse events from any source



GUI environment to develop event handling flows

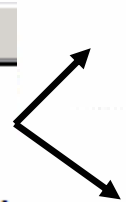
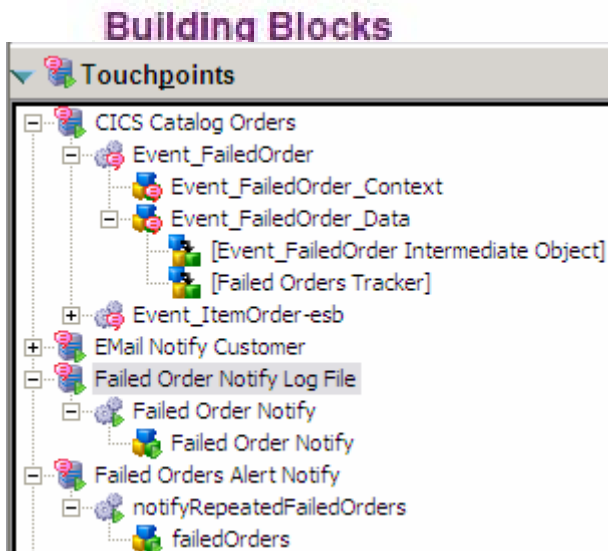
Event processing logic using drop-down, point & click



Business User



Business Analyst



Condition UI

Filter: Failed Orders Filter

Filter

(All Occurrences Of This Event) Is Greater Than

Event Pattern

Interaction UI (Business Space)

Event
Conditions
Actions

Interaction Set: Failed Related by Event_FailedOrder Intermediate Object
In response to: Event_FailedOrder (CICS Catalog Orders)

Immediately
If: Failed Orders Filter
Then: Immediately notifyRepeatedFailedOrders (Failed Orders Alert Notify)
Else: no action

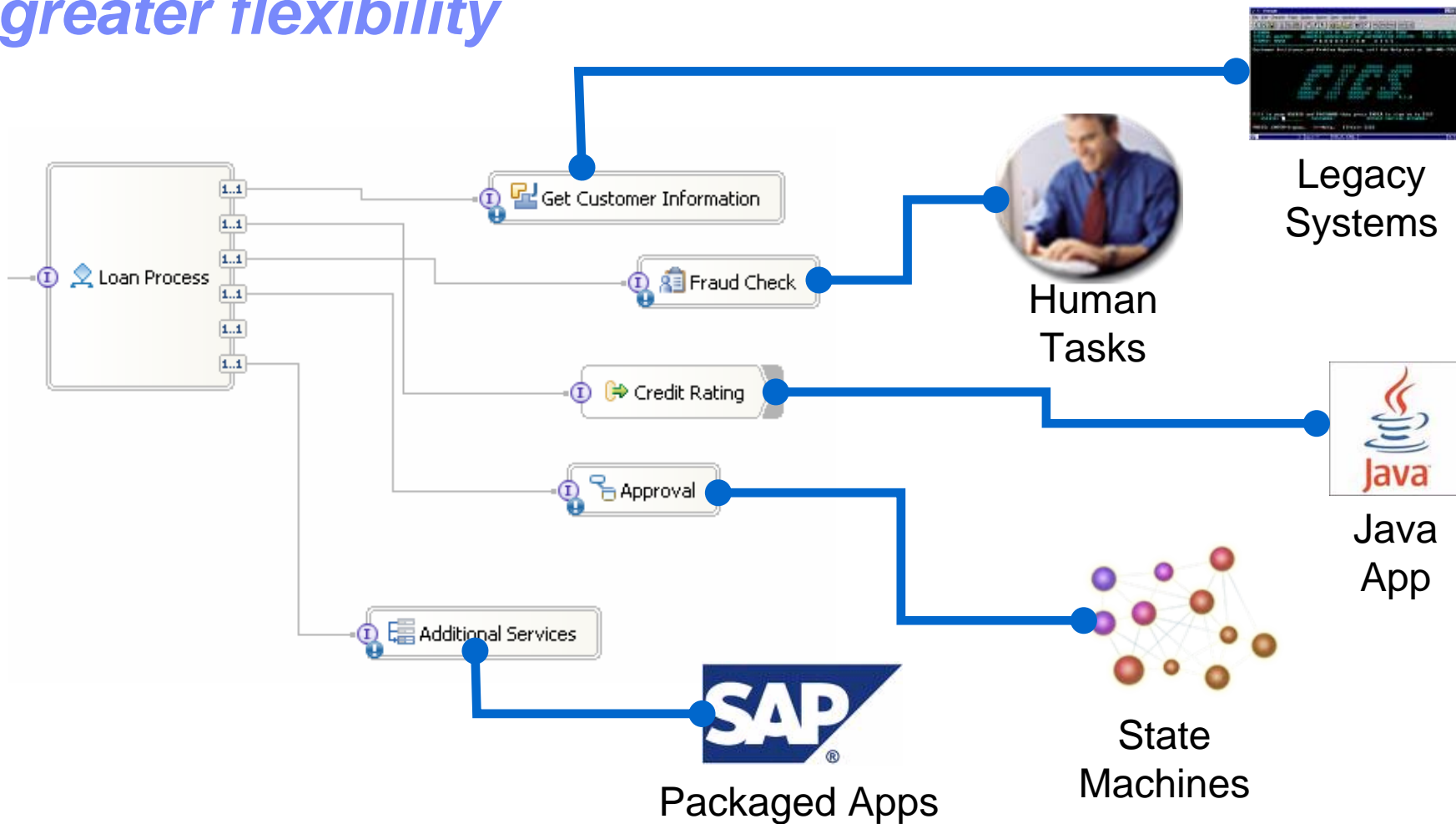
With building blocks defined, Business takes over

WebSphere Process Server

- Key part of the Business Process Management IBM product range
- Provides an environment able to execute, manage and control business processes
 - e.g. the process a company uses to give a customer a new credit card
- Used to implement Service-Oriented Architecture (SOA)

Execute with speed and efficiency

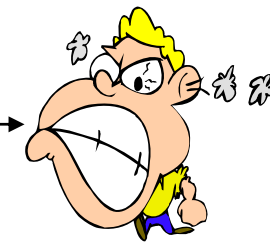
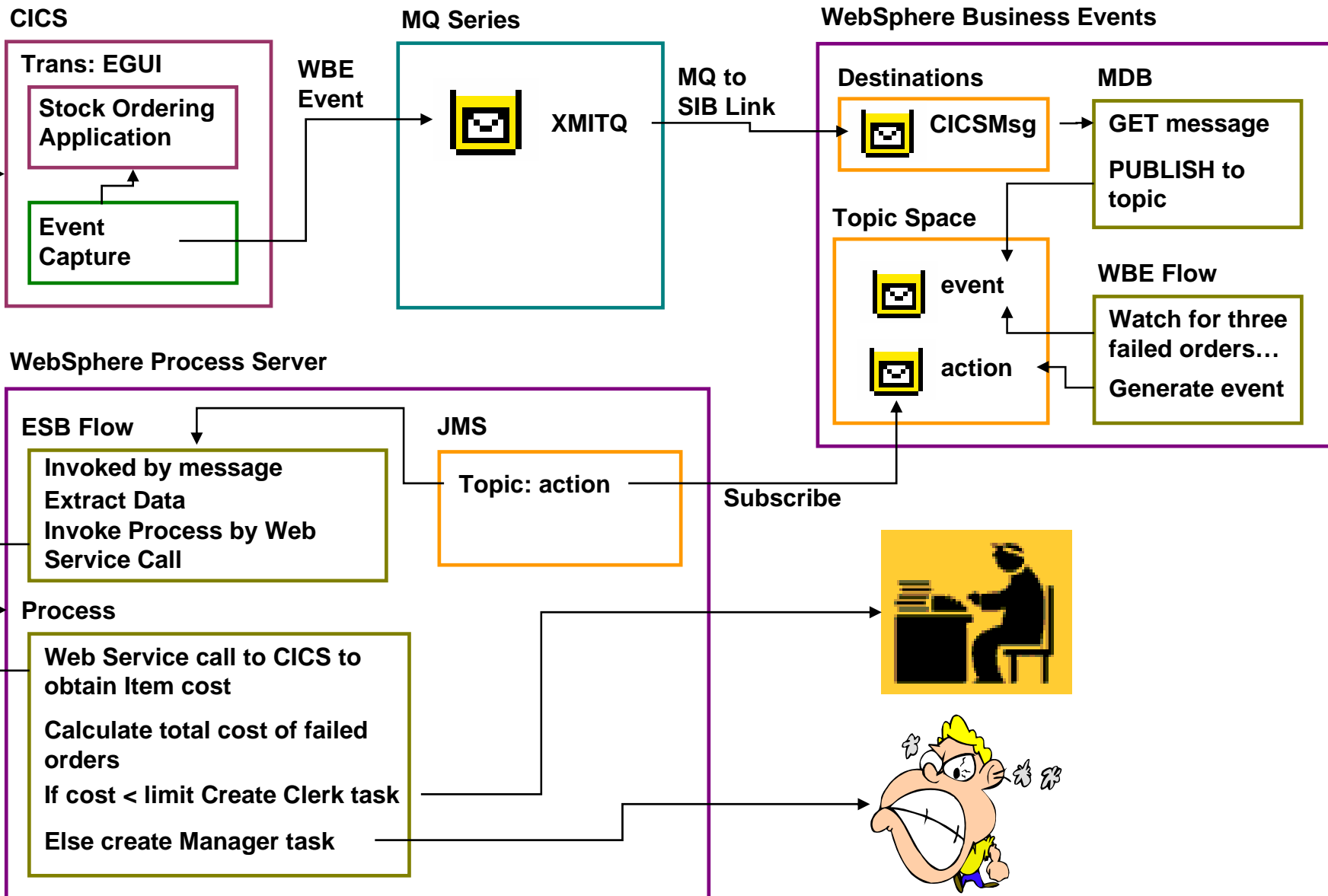
With SOA, leverage existing assets and achieve greater flexibility



Aim of demo

- Demo to show integration of the products we've been describing
 - To prove that it can be done 😊
- But the bigger picture is:
 - If your role in your site is:
 - CICS Systems Programmer
 - Developer for applications running in CICS
 - Are you considering the role CICS plays in your site?
 - Are there discussions in your site to replace CICS applications?
 - With “new” technology?
 - Is CICS considered “relevant” by senior management?
 - Are you promoting the capability of CICS within your organisation?
- Message to take home with you:
 - CICS Event technology allows you – “The CICS person” – to provide a new source of information to your business
 - Which can be used to improve how your company works
 - Could help your company to increase revenue

A simple demo ;-)



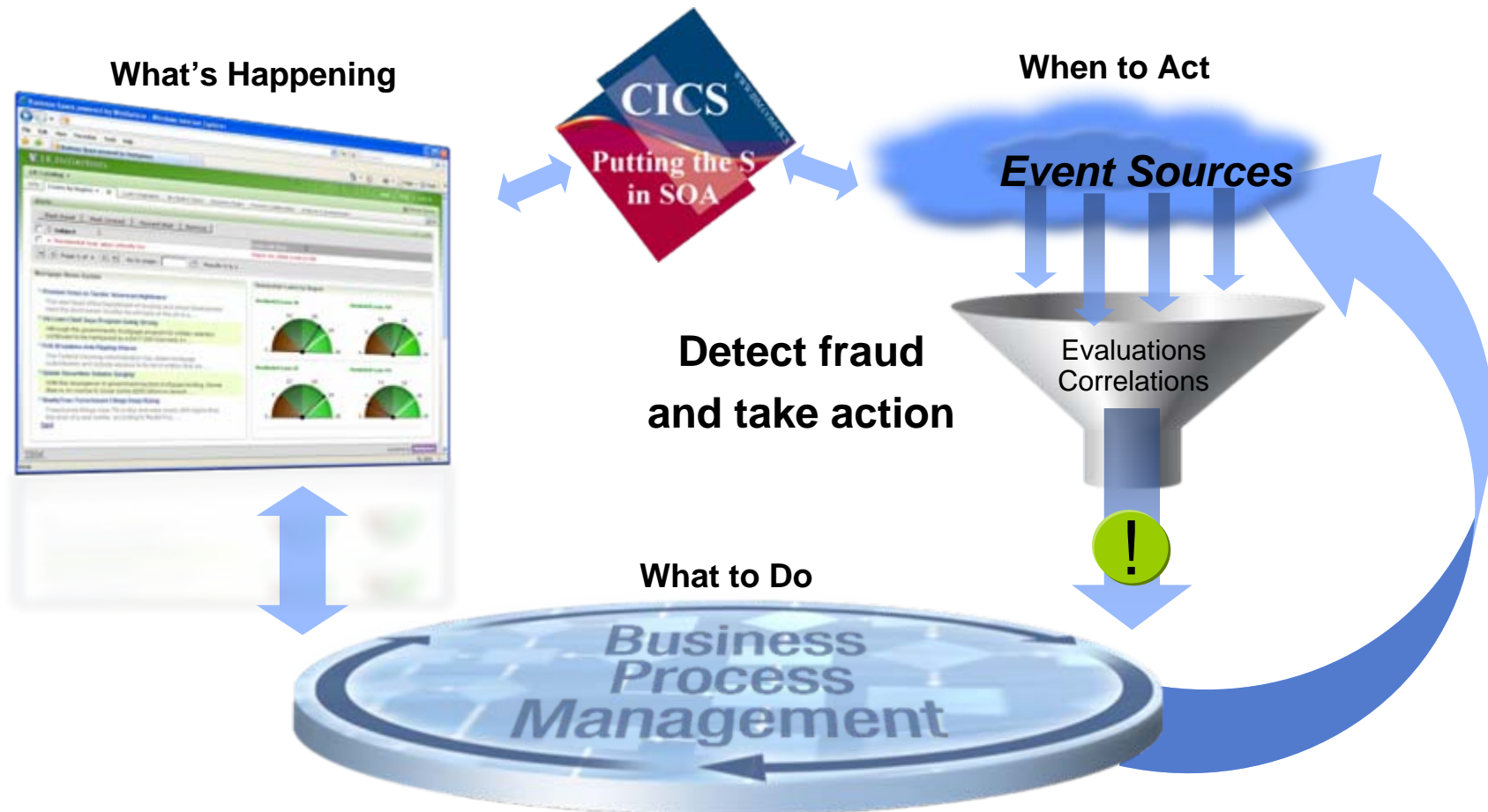
z/OS – still going strong

- CICS
 - If your already a CICS customer
 - You know about z/OS reliability
- IBM 100% committed to z/OS
 - WBE and WPS available on z/OS
 - Same product code base as used on distributed
- If you are already operating a z/OS environment
 - Then adding WBE and WPS to that environment makes good sense
 - The more you use z/OS for...
 - The better the IBM deal
- Many Asia/Pacific countries
 - Have z/OS
 - But not running parallel sysplex
- Why Parallel Sysplex?
 - Take advantage of the high availability this provides for your business
 - WebSphere co-located with the business applications and data provides best performance

Actionable Real-time Insights from critical business events

Capture mainframe event sources for business event processing, and take action!

CICS Event Sources



Know What's Happening, When to Act, and What to Do

Summary

- CICS
 - IBM continuing to enhance products capability
 - To meet customers requirements
 - Event technology
 - Allows customers to “mine” their applications in real time
 - Without having to change any code
- WebSphere Business Events
 - Able to intelligently perform simple to complex analysis of events
- WebSphere Process Server
 - Used to manage long running business processes
 - Can be integrated with WBE and CICS

- New Redbook
 - **Leveraging CICS Events with an ESB**
 - <http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247863.html?Open>

Questions