iTKO Overview

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iTKO
Jan. 13, 2009

iTKO: Our Customer Mission

Enabling SOA Agility & Quality

in today's complex technology environments

KAISER PERMANENTE. Bank of America Allstate. SunTrust SWISS POST TD Banknorth HARRIS

AA TIME WARNER CABLE Kroger citi ebY HMRI Swiss Re DISA CSC

i2 Mentor Graphics ORACLE GM TD AMERITRADE KB Roche Raytheon FEDERAL AVIATION ADMINISTRATION

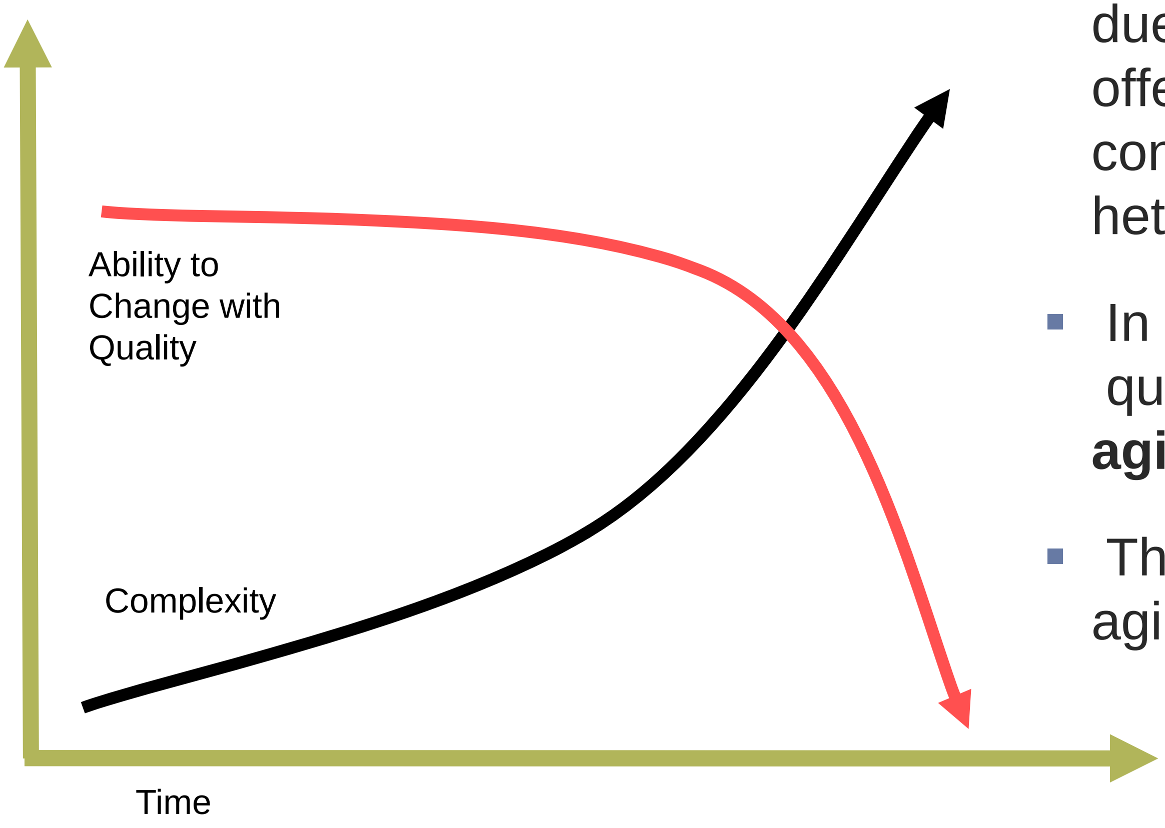
Teradata a division of NCR Level(3) COMMUNICATIONS Safeco UBS Washington Mutual norfolkline FIRST CHOICE IN TRANSPORTATION SAIC From Science to Solutions BAE SYSTEMS

Sun microsystems TIBCO The Power of Now handango digitalHARBOUR commonwealth technology port DANONE JERICHO SYSTEMS LOCKHEED MARTIN

lenovo intel DELL AMERICAN FAMILY INSURANCE NATIONAL BANK OF CANADA U.S. ARMY GENERAL DYNAMICS Strength On Your Side

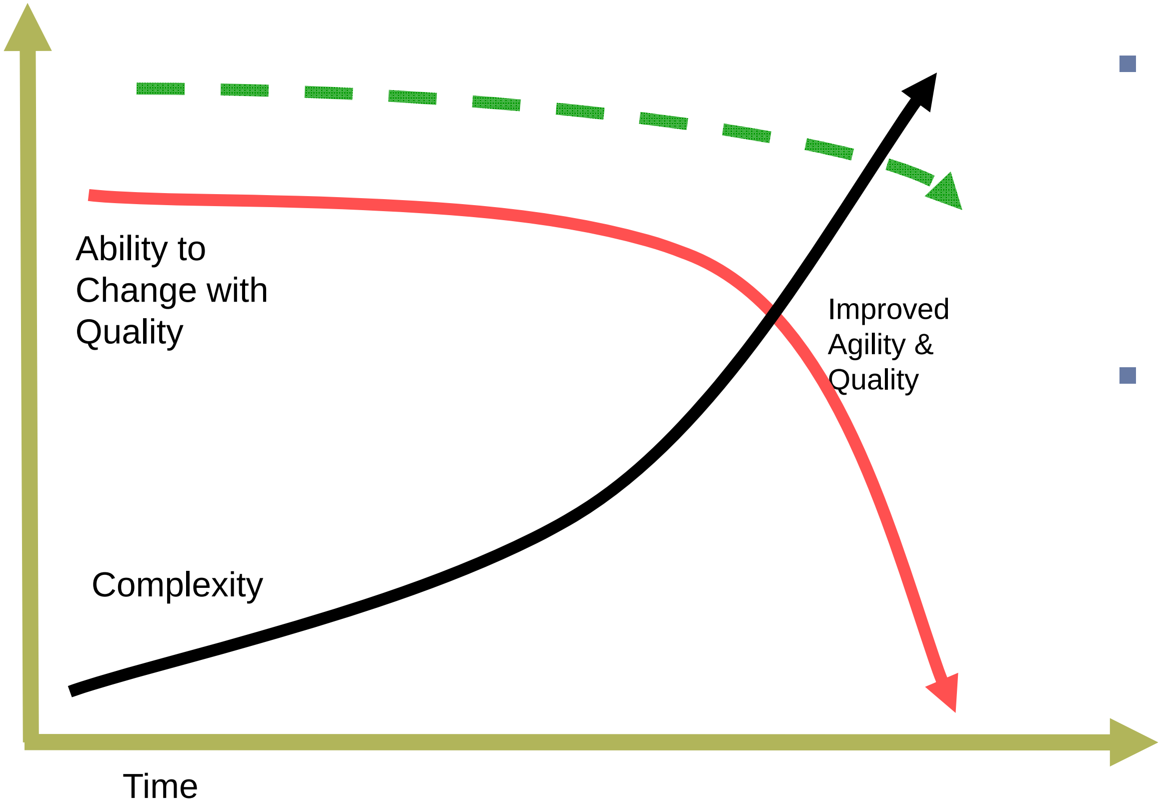
EMC² where information lives CardinalHealth ONCOR westernpower kpn sluit je aan U.S. AIR FORCE NORTHROP GRUMMAN DEFINING THE FUTURE

Challenge: Increased Complexity



- **Complexity is increasing** due to new business offerings, compliance, consolidation, & support of heterogeneous technologies
- In order to maintain quality and avoid risk - **agility gets reduced**
- This limits your company’s agility and competitiveness

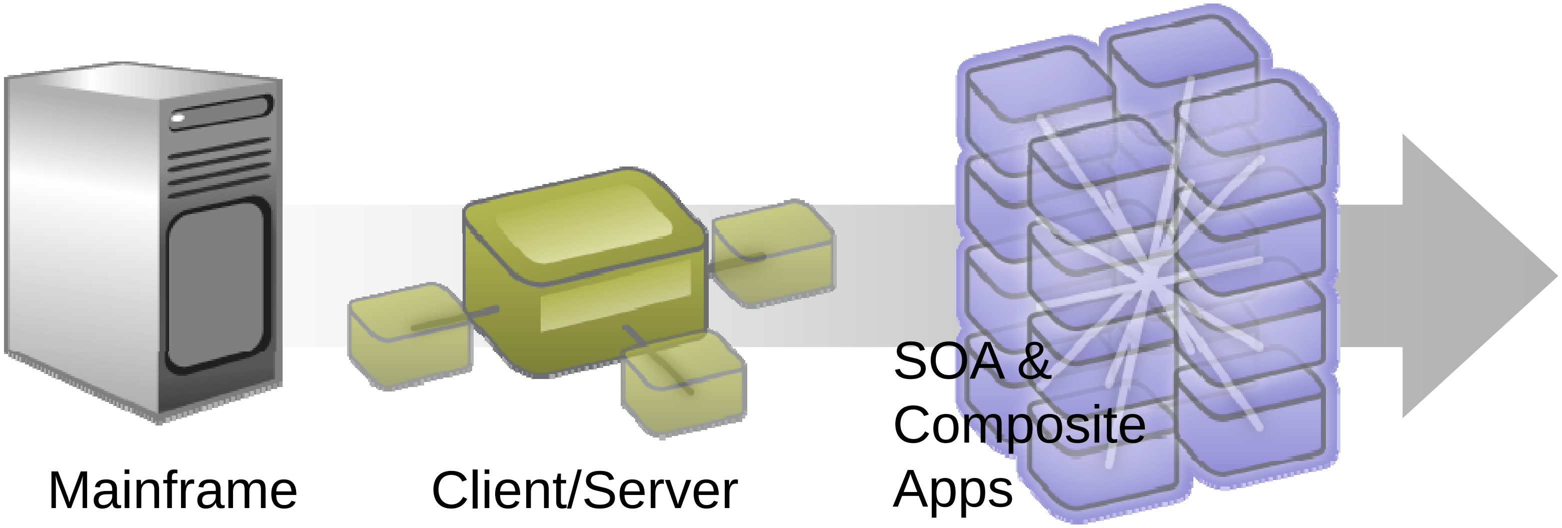
The Goal: Enable Agility & Quality


Ability to
Change with
Quality
Improved
Agility &
Quality
Complexity
Time

- Increased Revenue due to faster time-to-market and reduced customer failures
- Reduced costs and increased efficiency of development and testing

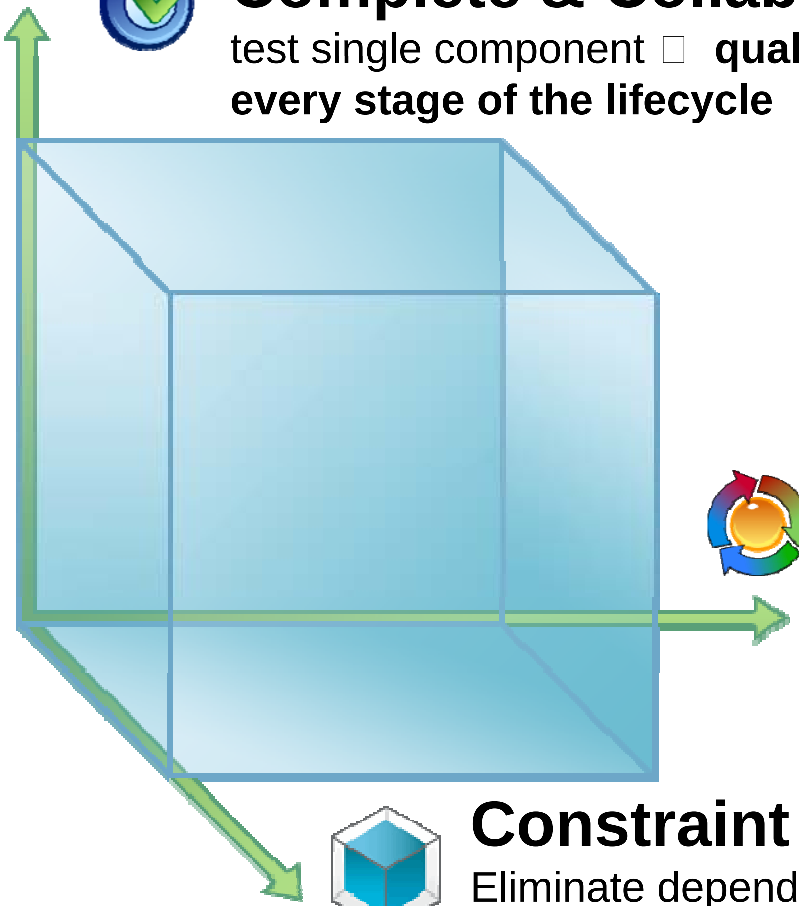
Specific Issues to Resolve

- **Inadequate Testing:** Traditional testing techniques cannot automate testing against component and middleware-based workflows
- **Unintended Consequences:** Individual components and technologies are changing at their own pace and can create severe issues within business processes
- **Dependency on Constrained Systems:** Access and capacity constraints on key systems greatly reduces agility



Strategy: The 4C’s

Quality & Agility for Complex Environments



Complete & Collaborative Testing

test single component □ **quality for all technologies, every stage of the lifecycle**

Continuous Validation

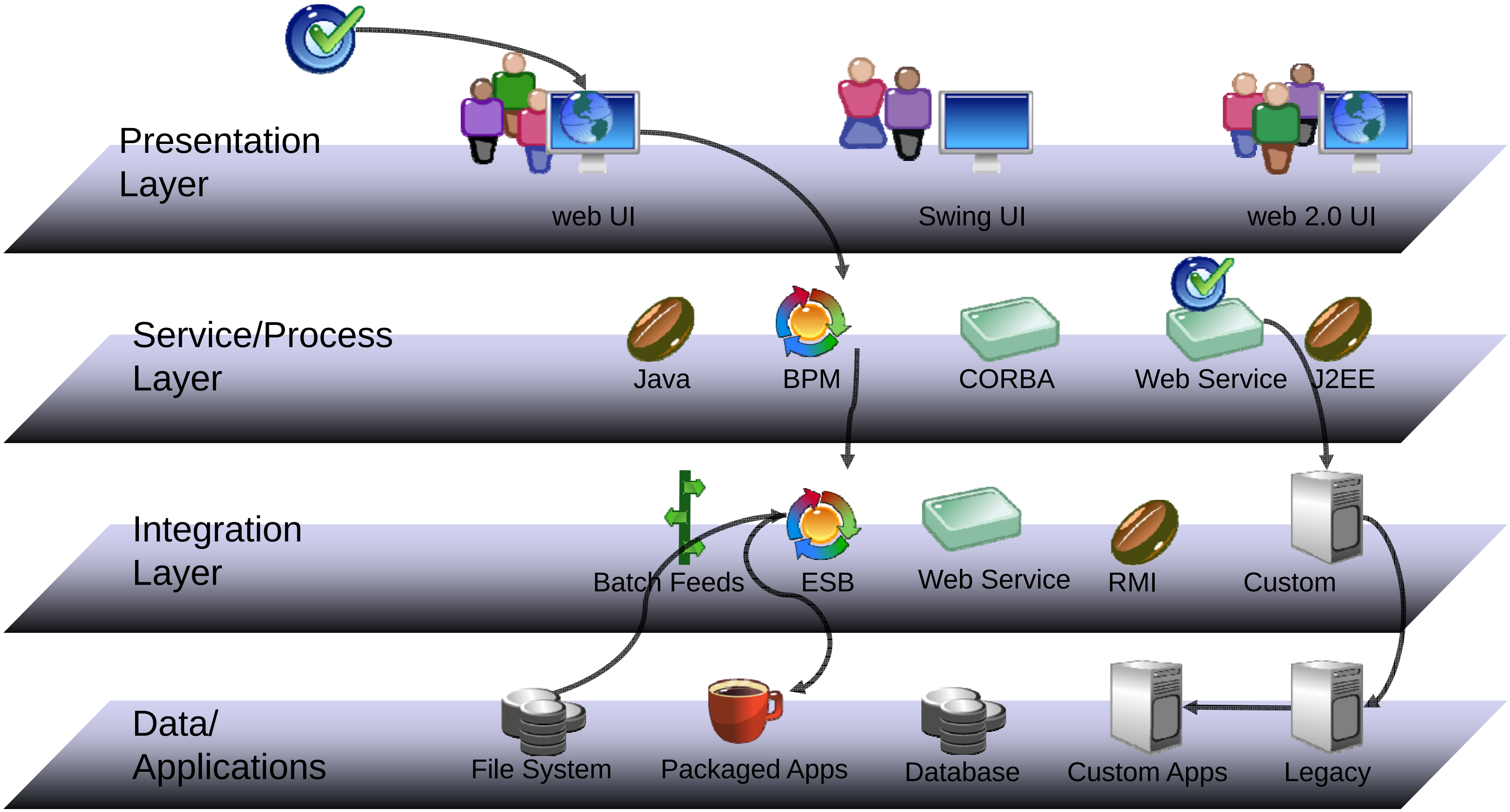
Phased tests □ **constant validation of business processes and services**

Constraint Virtualization

Eliminate dependencies □ **parallel development, shared resources, and data**

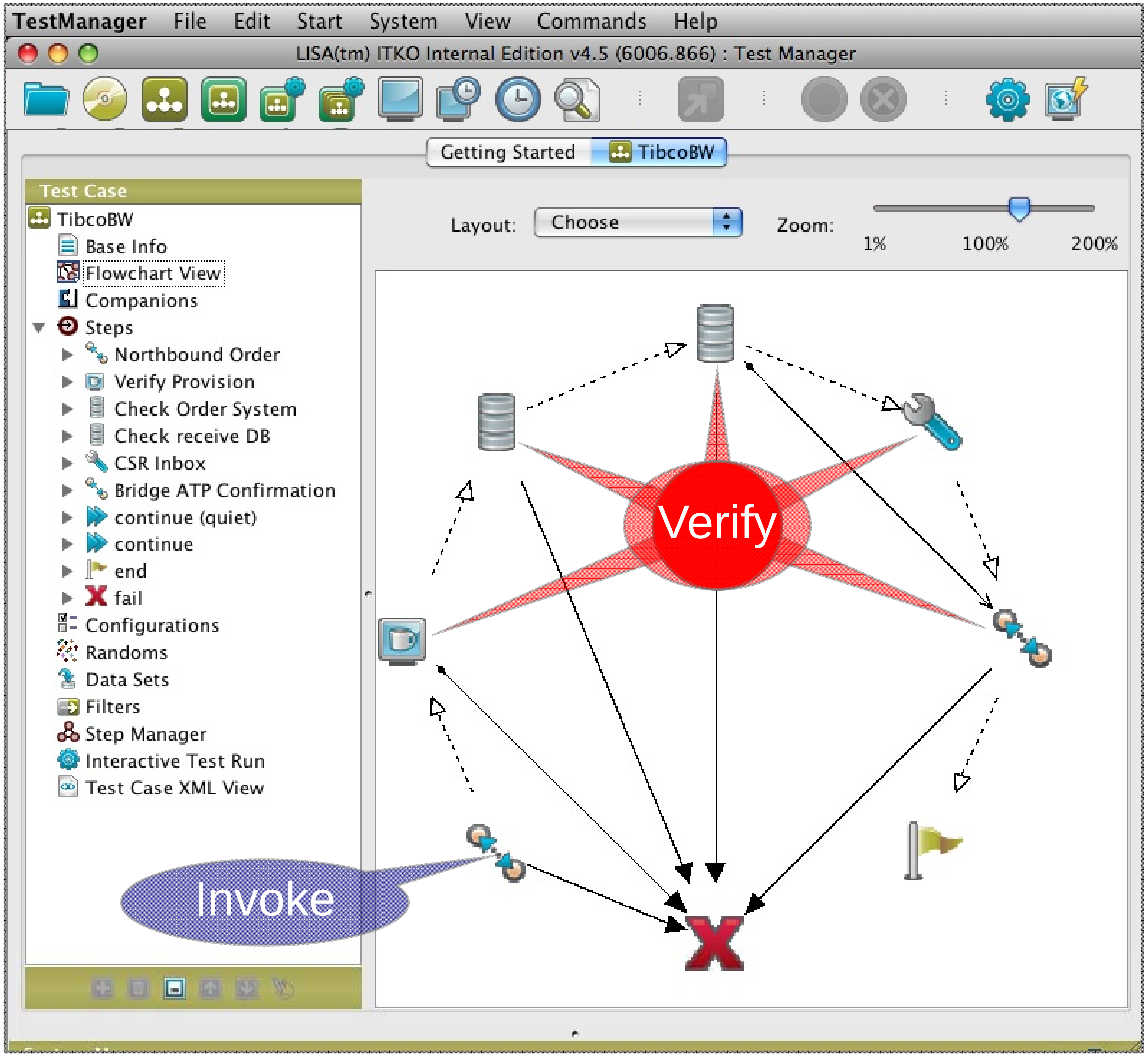
Complete & Collaborative Testing

Technology Coverage at Every Tier


Presentation Layer
web UI
Swing UI
web 2.0 UI
Service/Process Layer
Java
BPM
CORBA
Web Service
J2EE
Integration Layer
Batch Feeds
ESB
Web Service
RMI
Custom
Data/ Applications
File System
Packaged Apps
Database
Custom Apps
Legacy

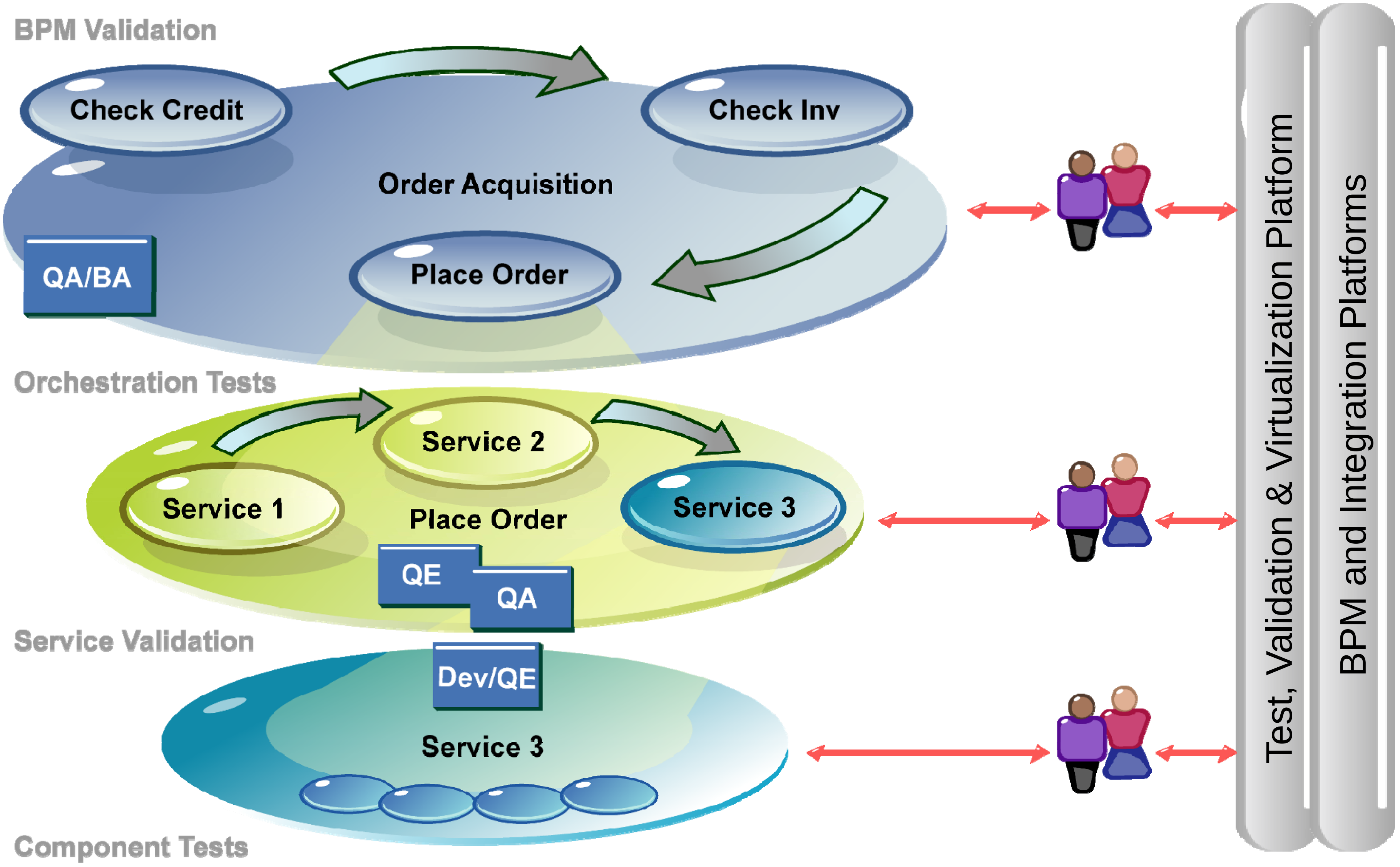
Complete & Collaborative Testing

Invoke BP Model, Verify Outcomes


TestManager File Edit Start System View Commands Help
LISA(tm) ITKO Internal Edition v4.5 (6006.866) : Test Manager
Getting Started
TibcoBW
Test Case
TibcoBW
Base Info
Flowchart View
Companions
Steps
Northbound Order
Verify Provision
Check Order System
Check receive DB
CSR Inbox
Bridge ATP Confirmation
continue (quiet)
continue
end
fail
Configurations
Randoms
Data Sets
Filters
Step Manager
Interactive Test Run
Test Case XML View
Layout:
Choose
Zoom:
1%
100%
200%
Verify
Invoke

Complete & Collaborative Testing

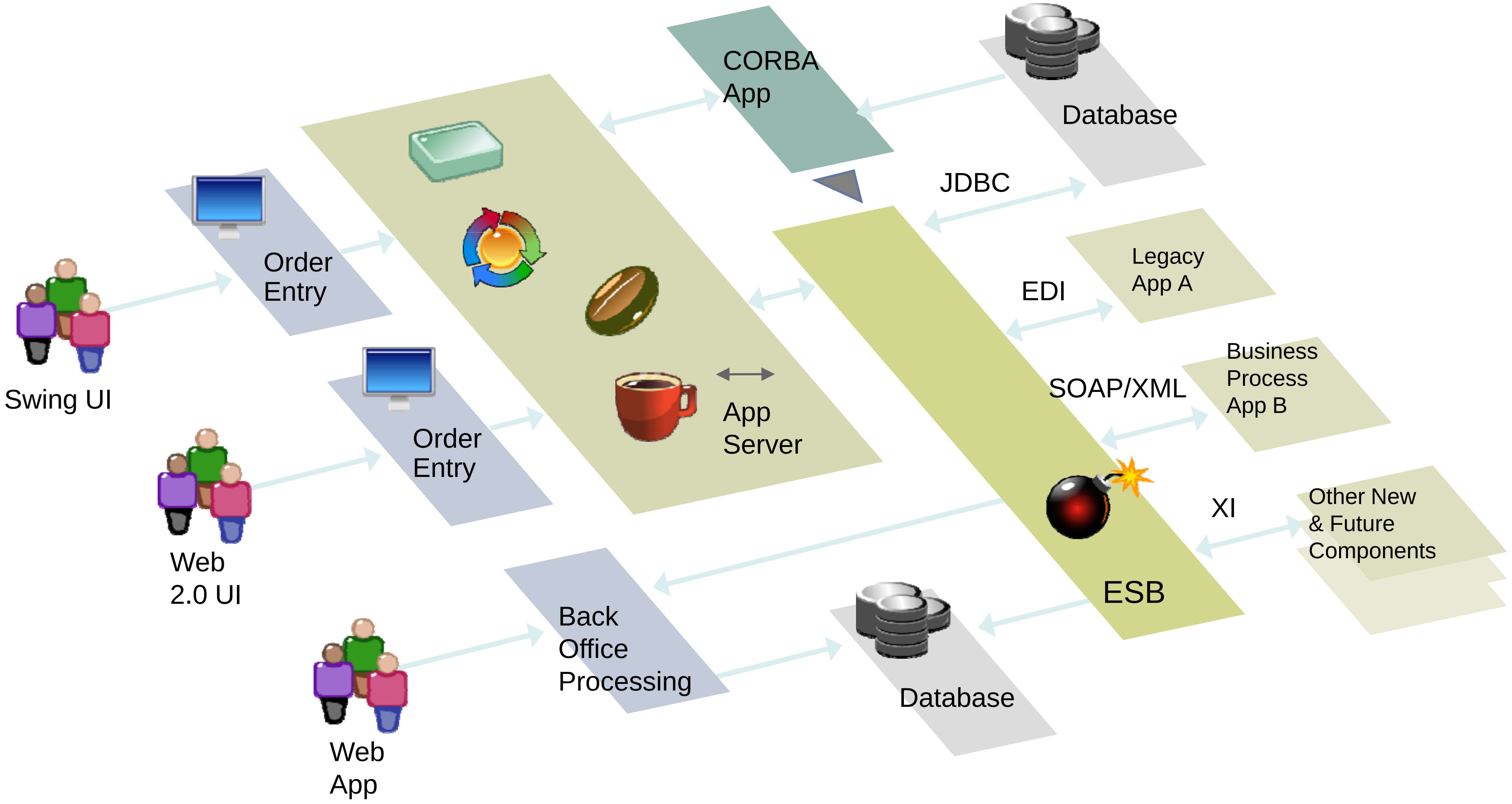
Collaboration at Every Workflow Level



BPM Validation
Check Credit
Check Inv
Order Acquisition
Place Order
QA/BA
Orchestration Tests
Service 2
Service 1
Place Order
Service 3
QE
QA
Service Validation
Dev/QE
Service 3
Component Tests
Test, Validation & Virtualization Platform
BPM and Integration Platforms

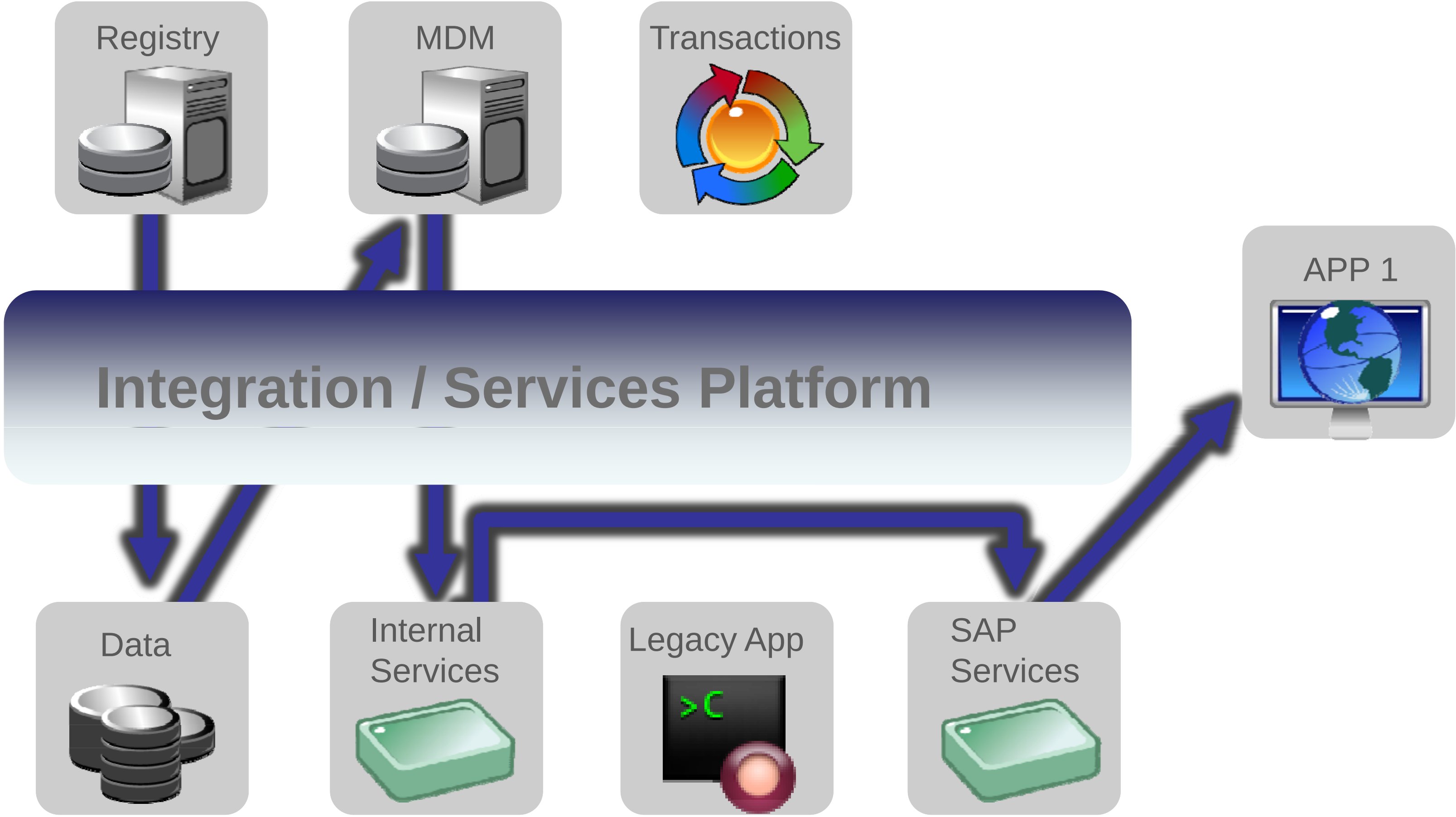
Complete & Collaborative Testing

Customer Example: Financial


CORBA App
Database
JDBC
Order Entry
Legacy App A
EDI
Swing UI
Order Entry
Business Process App B
SOAP/XML
App Server
XI
Other New & Future Components
Web 2.0 UI
ESB
Back Office Processing
Database
Web App

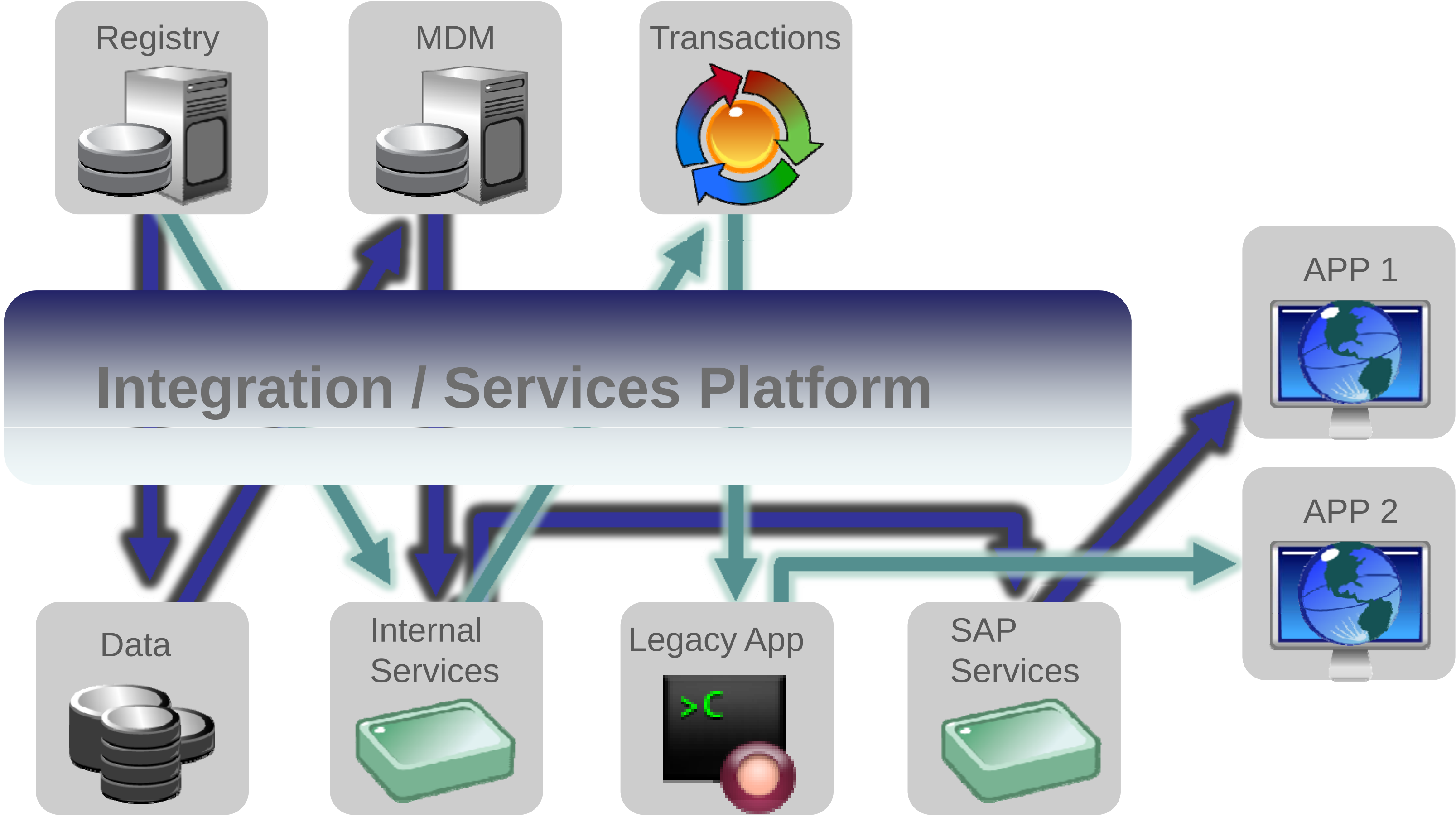
Continuous Validation:

Solve Unintended Consequences


Registry
MDM
Transactions
APP 1
Integration / Services Platform
Data
Internal Services
Legacy App
>C
SAP Services

Continuous Validation:

Solve Unintended Consequences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Continuous Validation:

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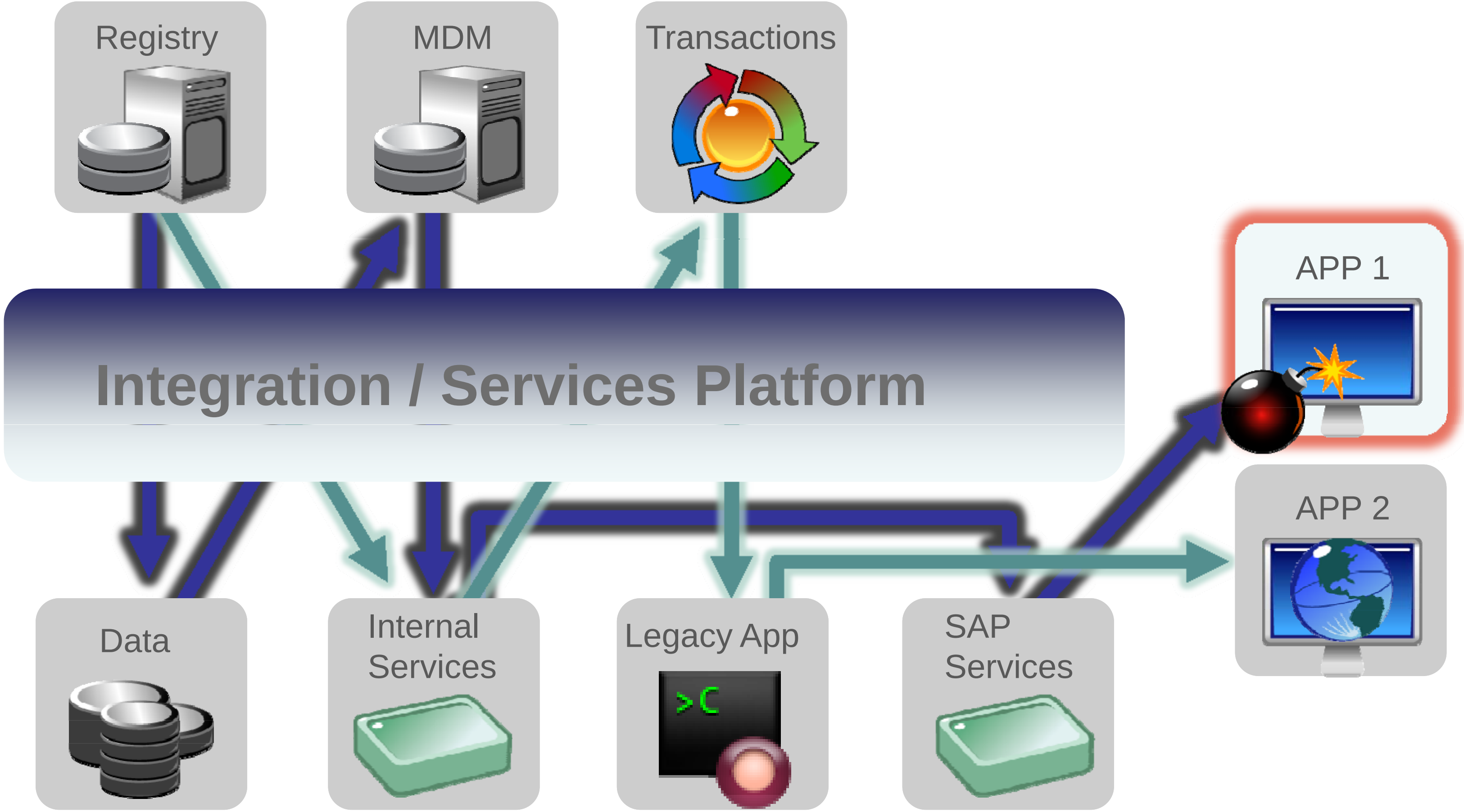
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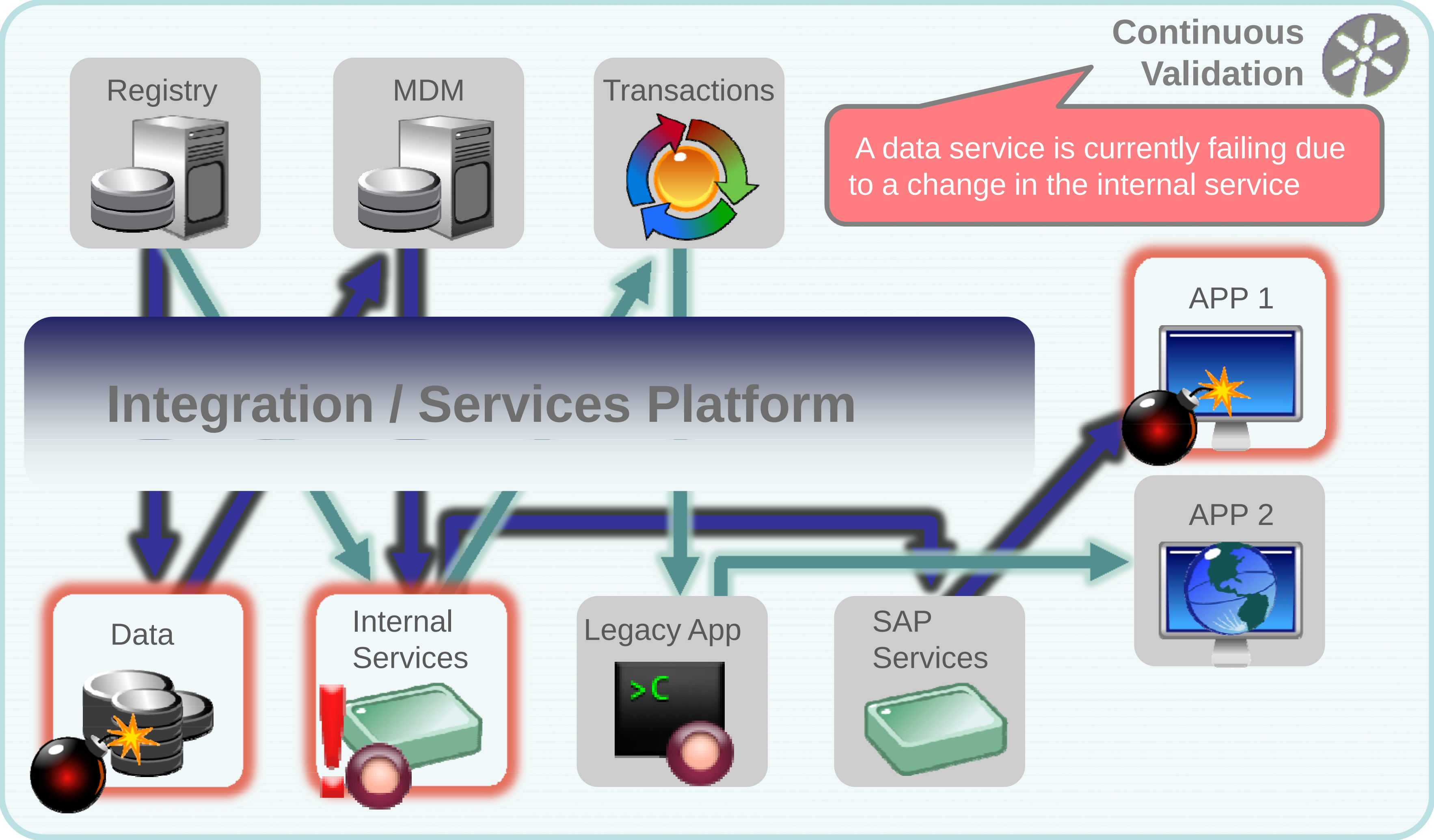
SAP Services

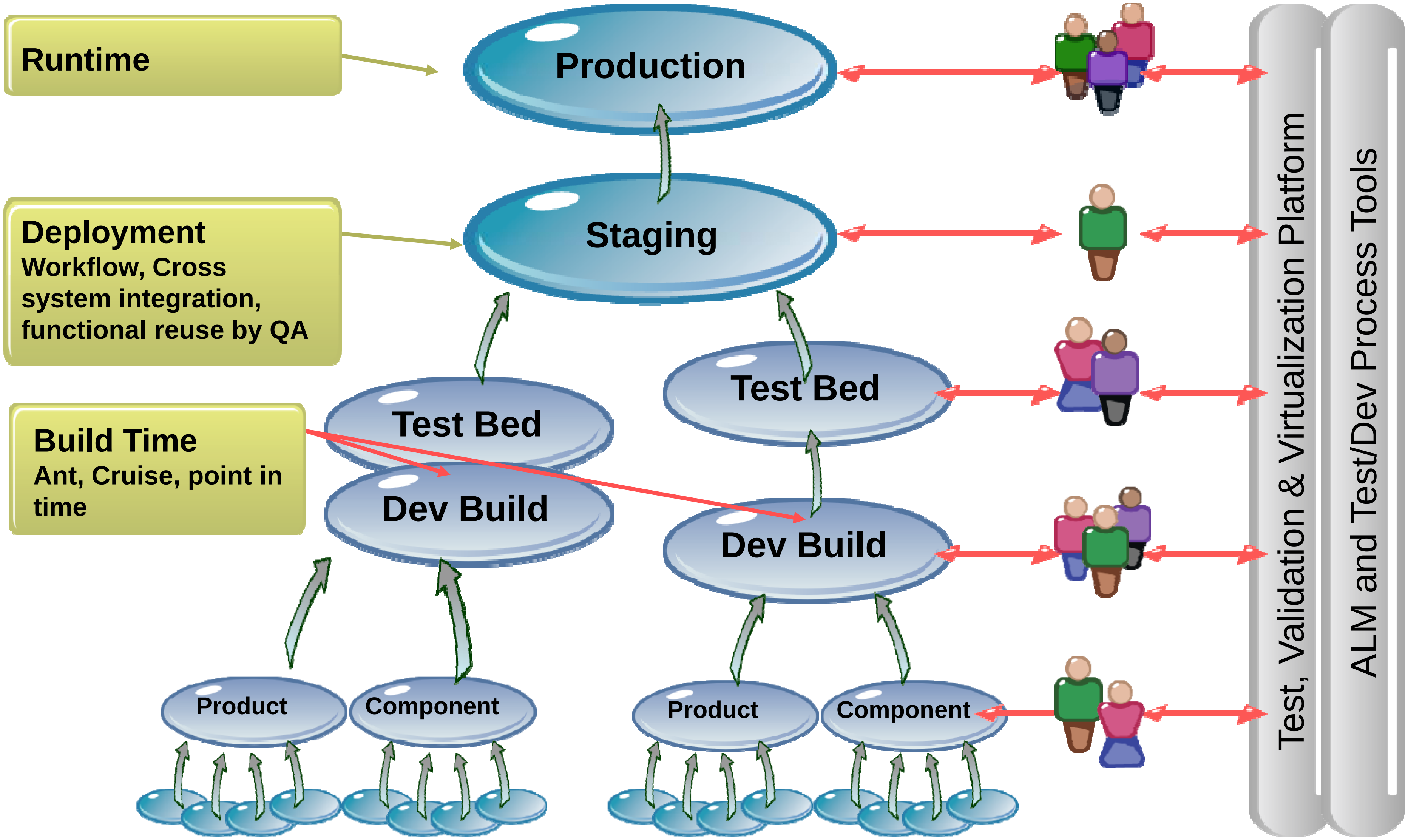
Continuous Validation:

Solve Unintended Consequences


Continuous Validation
Registry
MDM
Transactions
Integration / Services Platform
APP 1
APP 2
Data
Internal Services
Legacy App
SAP Services

A data service is currently failing due to a change in the internal service

Continuous Validation



Runtime

Deployment
Workflow, Cross system integration, functional reuse by QA

Build Time
Ant, Cruise, point in time

Production

Staging

Test Bed

Test Bed

Dev Build

Dev Build

Product

Component

Product

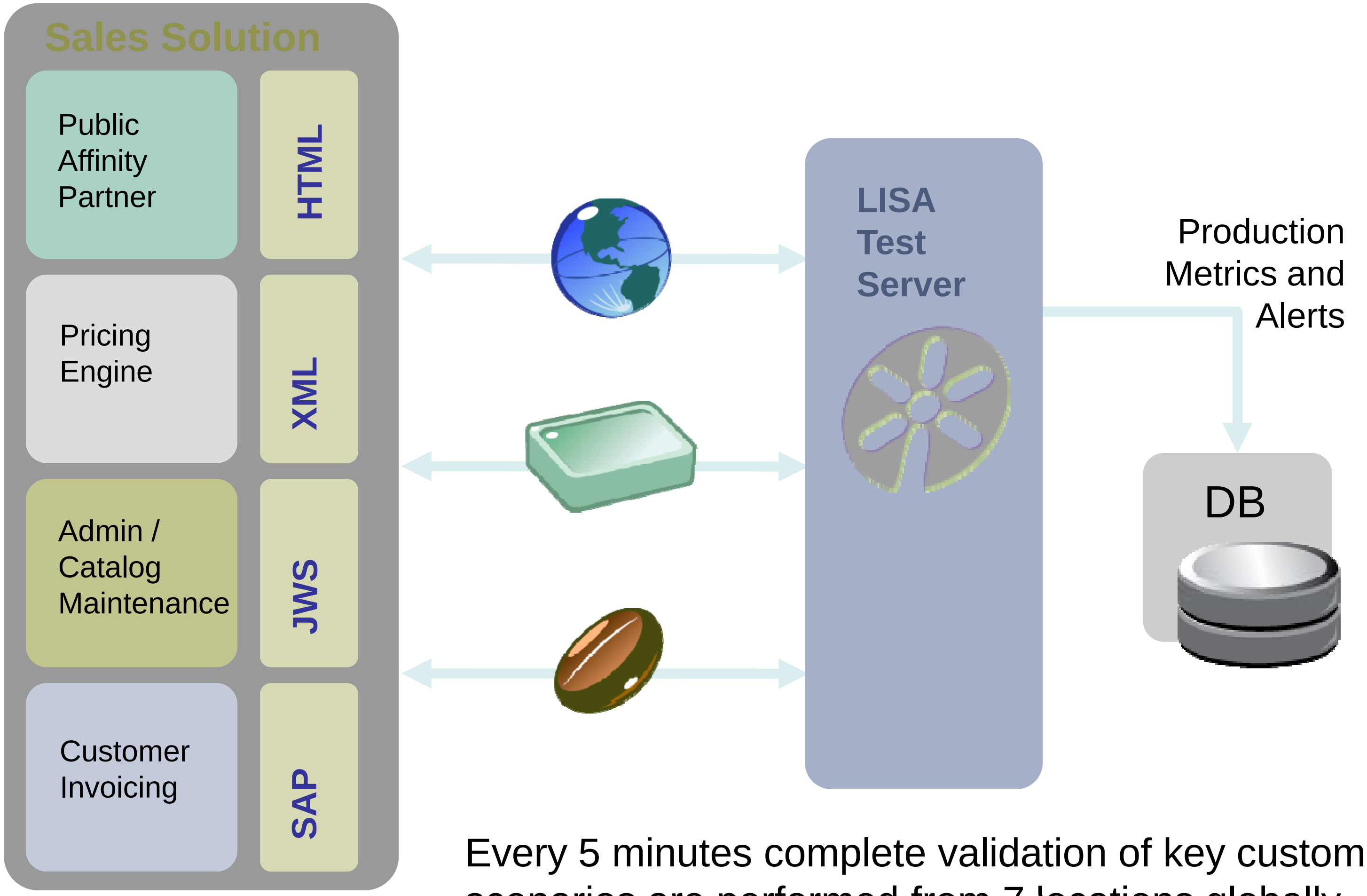
Component

Test, Validation & Virtualization Platform

ALM and Test/Dev Process Tools

Continuous Validation

Customer Example: High-Tech Manufacturer



Sales Solution

Public Affinity Partner — **HTML**

Pricing Engine — **XML**

Admin / Catalog Maintenance — **JWS**

Customer Invoicing — **SAP**

LISA Test Server

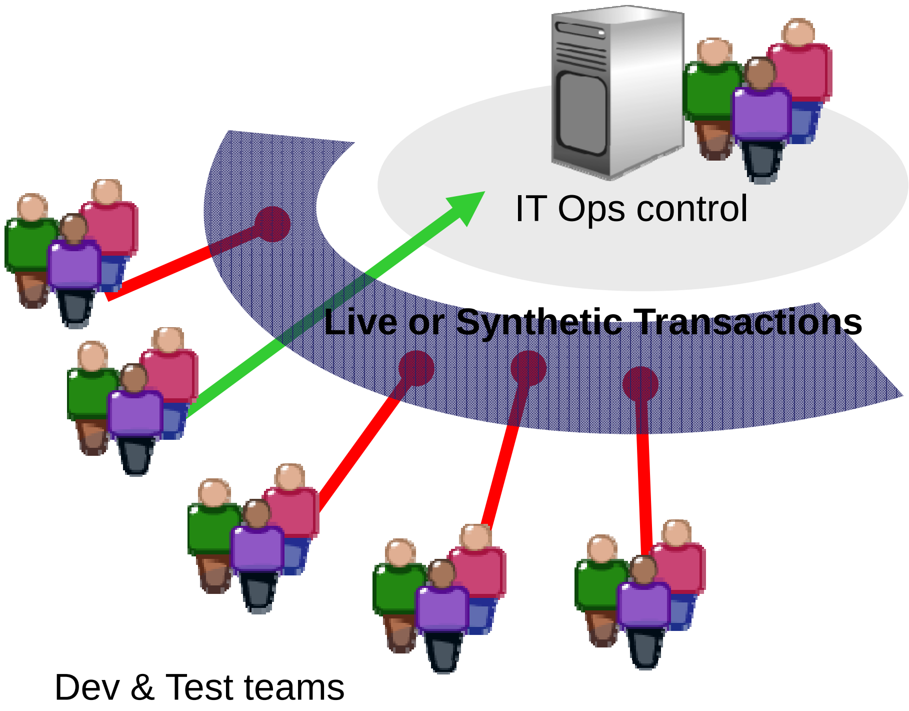
Production Metrics and Alerts

DB

Every 5 minutes complete validation of key customer scenarios are performed from 7 locations globally. Even sub-component interactions are confirmed, like order queuing to customer service and order placement

Constraint Virtualization

Removing dependencies in the SOA lifecycle

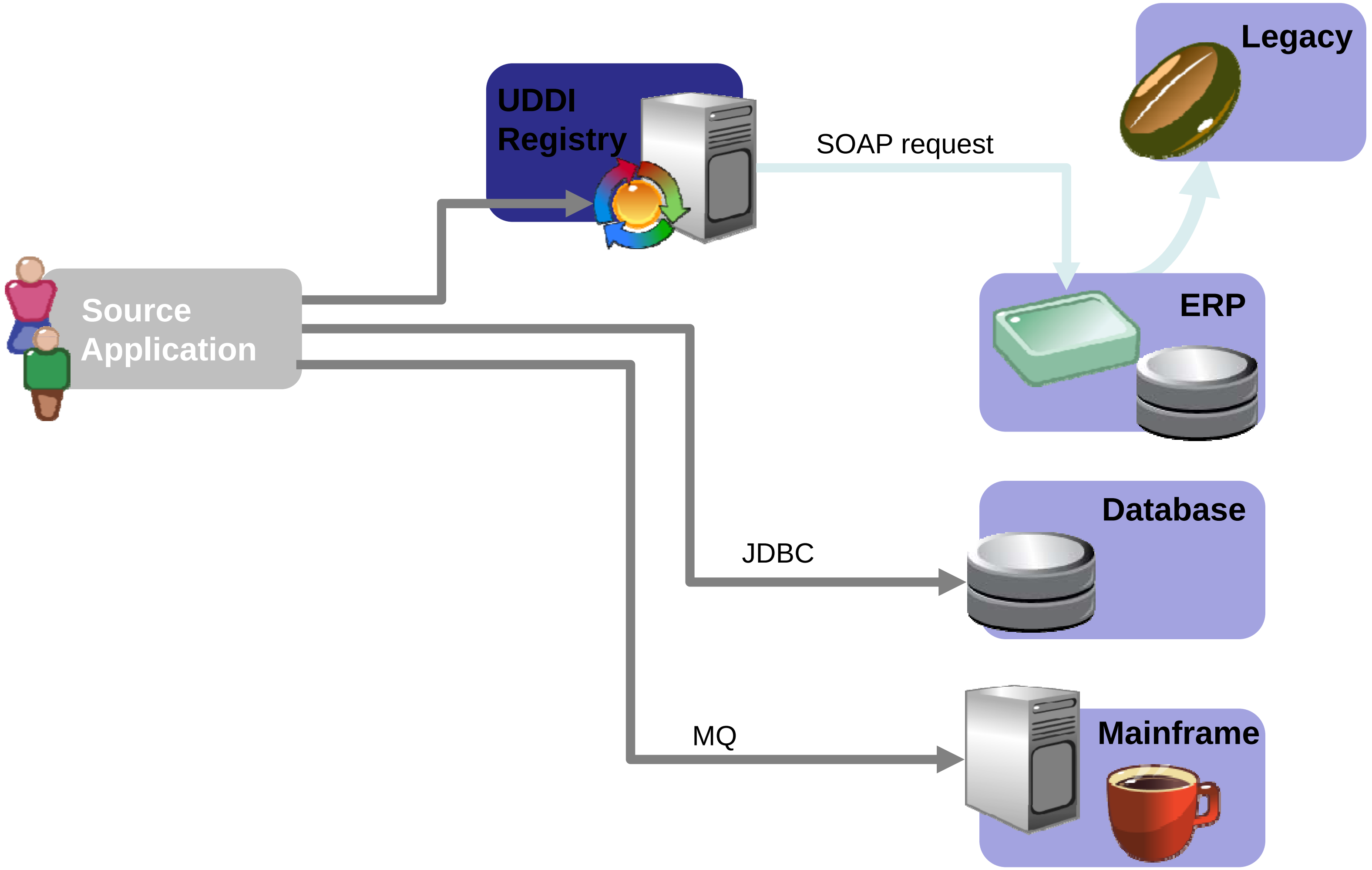

IT Ops control
Live or Synthetic Transactions
Dev & Test teams

Teams need loose coupling too!

- Dependencies in the deployed system manifest as significant team-to-team constraint issues.
- Teams compete for shared platforms and unavailable, incomplete components, blocking agile and parallel development.
- Data volatility and inconsistency constrains development, quality, and performance validation.

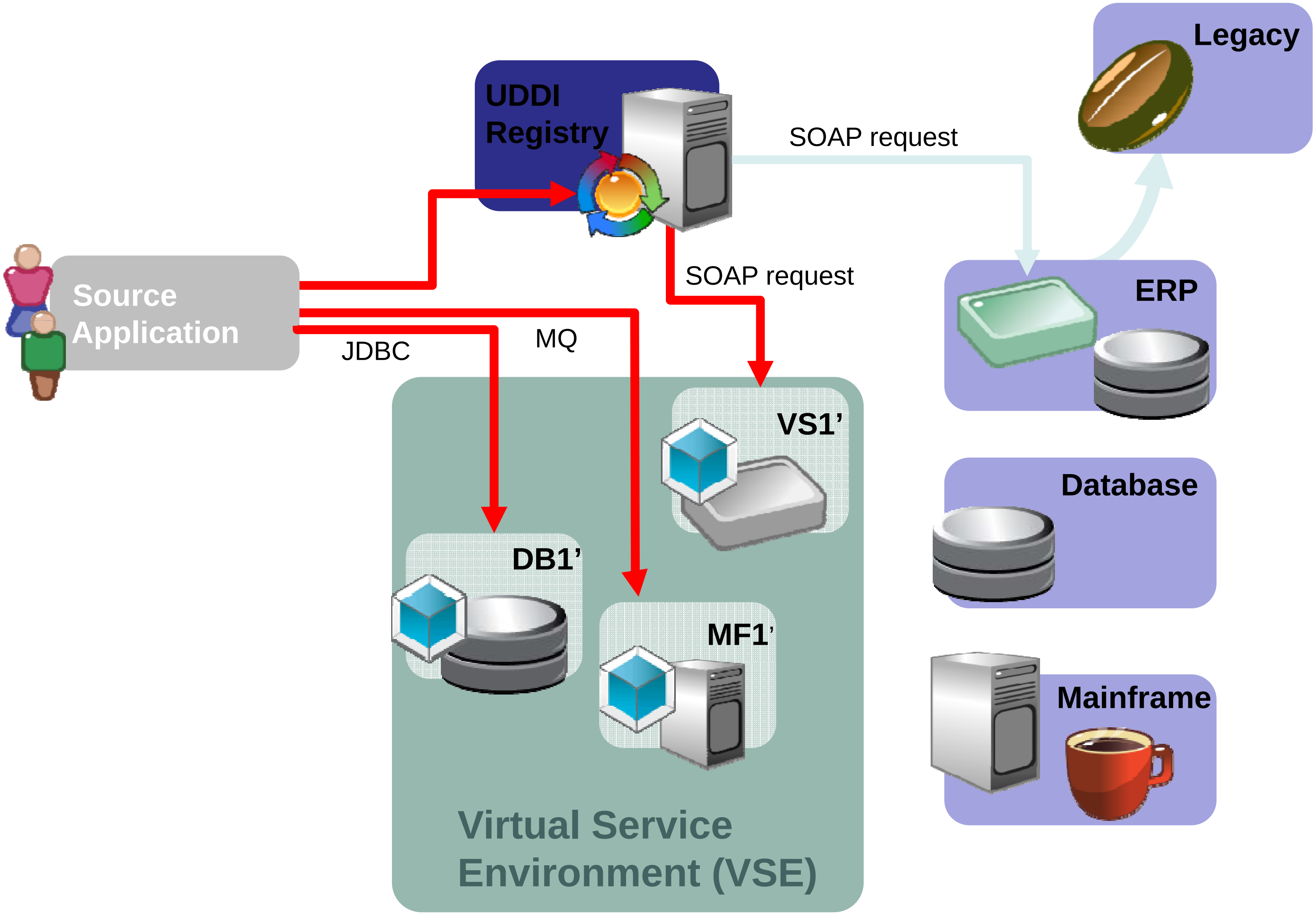
Constraint Virtualization:

Current Environment


Legacy
UDDI Registry
SOAP request
Source Application
ERP
Database
JDBC
MQ
Mainframe

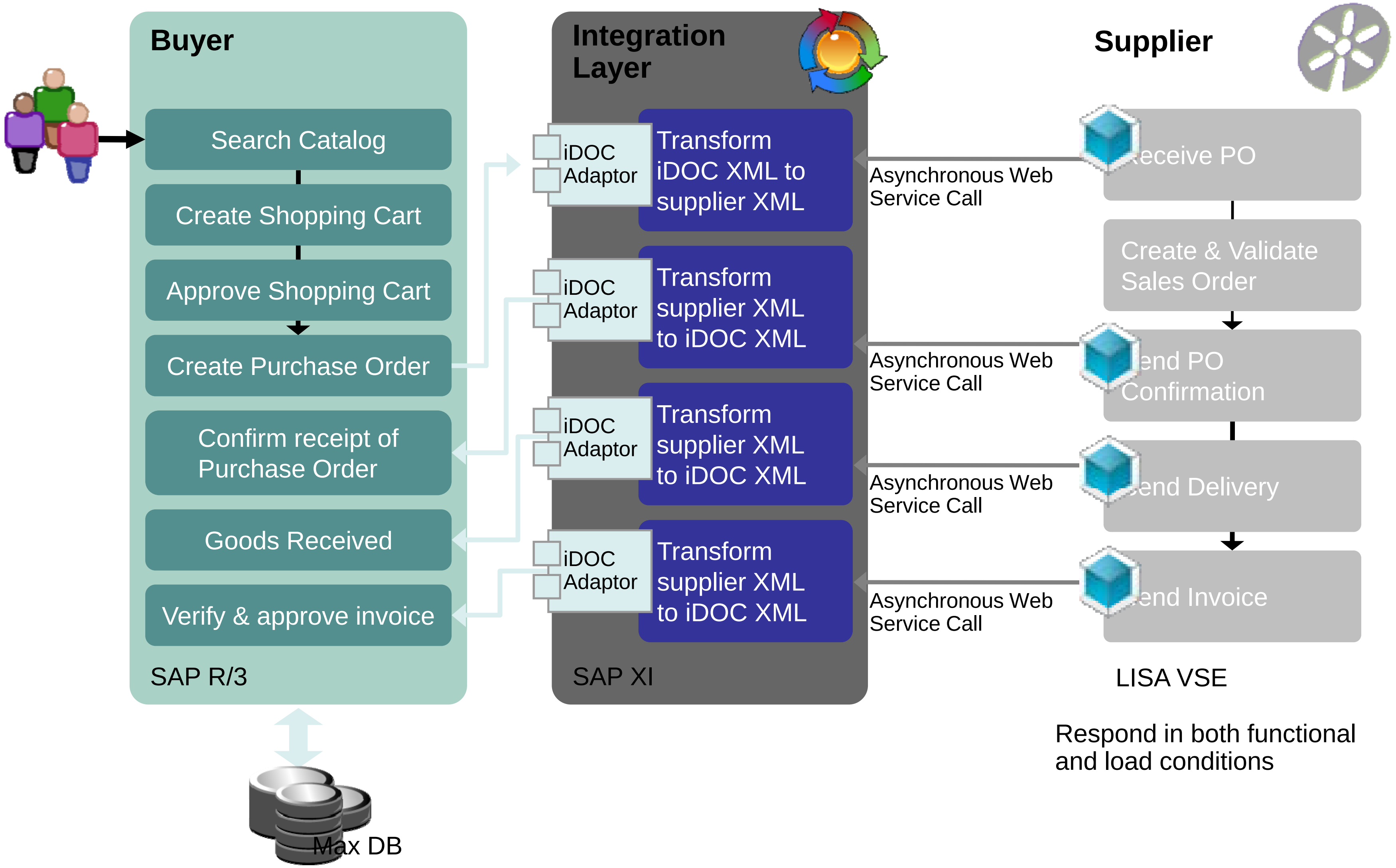
Constraint Virtualization:

Dependent Systems Virtualized


Legacy
UDDI Registry
SOAP request
SOAP request
ERP
Source Application
JDBC
MQ
VS1'
Database
DB1'
MF1'
Mainframe
Virtual Service Environment (VSE)

Constraint Virtualization:

Procure to Pay (P2P) Process: Simulating Supplier



Buyer

- Search Catalog
- Create Shopping Cart
- Approve Shopping Cart
- Create Purchase Order
- Confirm receipt of Purchase Order
- Goods Received
- Verify & approve invoice

SAP R/3

Max DB

Integration Layer

iDOC Adaptor	Transform iDOC XML to supplier XML
iDOC Adaptor	Transform supplier XML to iDOC XML
iDOC Adaptor	Transform supplier XML to iDOC XML
iDOC Adaptor	Transform supplier XML to iDOC XML

SAP XI

Asynchronous Web Service Call

Asynchronous Web Service Call

Asynchronous Web Service Call

Asynchronous Web Service Call

Supplier

- eceive PO
- Create & Validate Sales Order
- end PO Confirmation
- end Delivery
- end Invoice

LISA VSE

Respond in both functional and load conditions

Our Solution: iTKO LISA

Increasing Agility & Quality for Complex, Changing IT Environments

LISA Test

- Functional Testing
- Agile Regression Testing
- Load & Performance Testing

LISA Extensibility Kit

LISA Validate

- Workflow Pathfinder
- Continuous Monitoring
- SOA Policy Validation
- IT Operations Metrics

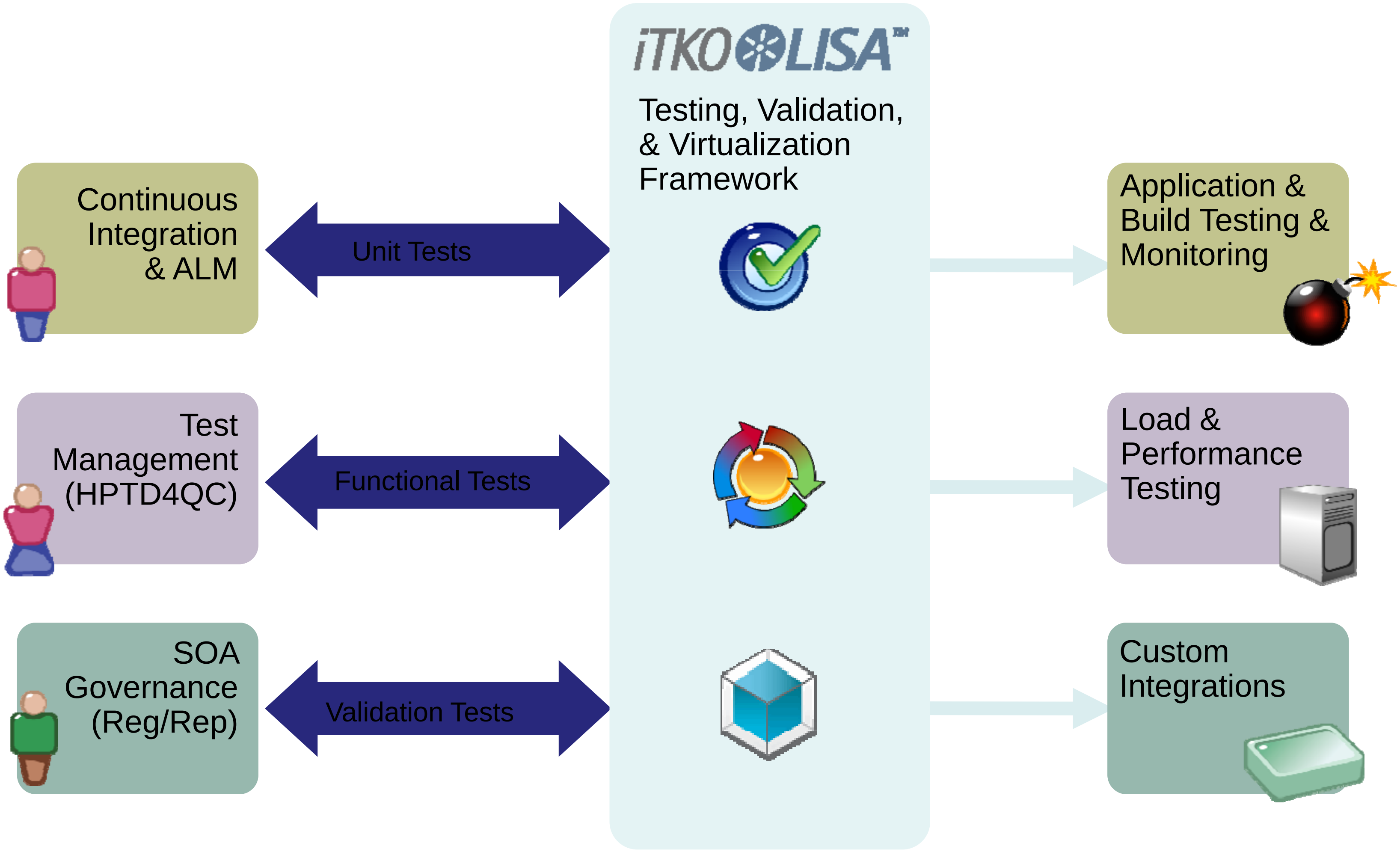
LISA Virtualize

- Service Simulation
- Behavioral Modeling
- Performance Environment
- Virtual Service Management

LISA Foundation

Integration with your Environment

Reuse Testing, Development & Process Solutions



Testing, Validation, & Virtualization Framework

Continuous Integration & ALM

Unit Tests

Test Management (HPTD4QC)

Functional Tests

SOA Governance (Reg/Rep)

Validation Tests

Application & Build Testing & Monitoring

Load & Performance Testing

Custom Integrations

iTKO LISA: Our Ecosystem

Technology Partners

- SAP
- Sun microsystems
- software webMethods
- TIBCO
- bea
- ORACLE
- hp invent
- i2
- vmware
- SOA software
- MKS
- RALLY SOFTWARE
- dynaTrace software
- ca wily technology
- Skytap

Delivery Partners

- CSC
- accenture
- Perficient
- [ipt]
- Cognizant
- patni
- Infosys
- Satyam
- TATA
- WIPRO Applying Thought
- Adea
- Khaga
- MindTree
- LOGIMETHODS
- pureIntegration
- INTELLIGROUP Creating The Intelligent Enterprise
- sgt Global Excellence Inside

Channel Partners

- Astute IT I.T. FIT FOR BUSINESS
- ArchitectGroup Quality & Enterprise Engineering Company
- ionidea
- I E I INTELLIGENT ENTERPRISE INTEGRATION
- Penta·T Nutzen durch Technologie
- POINTSOFT Adaptive Enterprise Solutions
- Systemation Automated Enterprise Systems

Summary

- **Inadequate Testing:** iTKO LISA provides out of the box solution for business process validation and heterogeneous SOA applications
- **Unintended Consequences:** Validation across the SDLC from development to integration, through production, with one tool integrated into existing infrastructure.
- **Dependency on Constrained Systems:** Removal of team constraints on key systems, increasing agility of SOA & integration processes.

JAVA Developer's Journal Editor's Choice 2003

Gartner cool vendor 2006

software development 15th annual productivity award

Rated Very Good InfoWorld

Tech Titans Pure Genius.

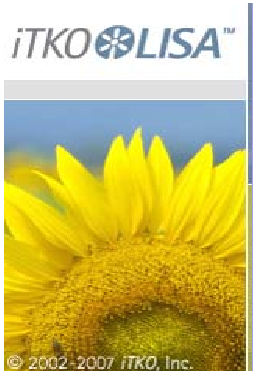
SD Times 2005 100

SD Times 2006 100

SD Times 2007 100

SD Times 2008 100

Products of the Year Gold SearchSOA.com



For more info on LISA's SOA Testing, Validation & Virtualization capabilities and metholodogy:

- URL: http://www.itko.com
- Request an evaluation: sales@itko.com
- iTKO Blog: http://blog.itko.com
- Email: info@itko.com