Ensure System Performance

Tivoli-Rational integrations to detect and resolve problems earlier in the development lifecycle

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Rational. software

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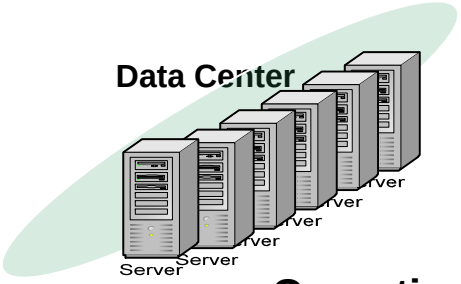
Agenda ed Obiettivi

- **Agenda**
  - Test Performance & monitoring
  - Definite Software Library
  - Simplify, Automate, and Tame Your WebSphere Environments (RAFW)

Detect and resolve problems earlier in the lifecycle

- Use real monitoring data from operations in application performance assessment, to understand resource capacity and optimize productivity
  - Re-using test scripts and monitoring data to validate applications for production
  - Minimizing risk by understanding performance characteristics prior to deployment

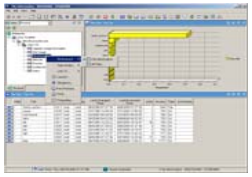


Development

Operations

Rational Quality Manager

Rational Performance Tester and Rational Service Tester for SOA Quality



IBM Tivoli Monitoring (ITM)

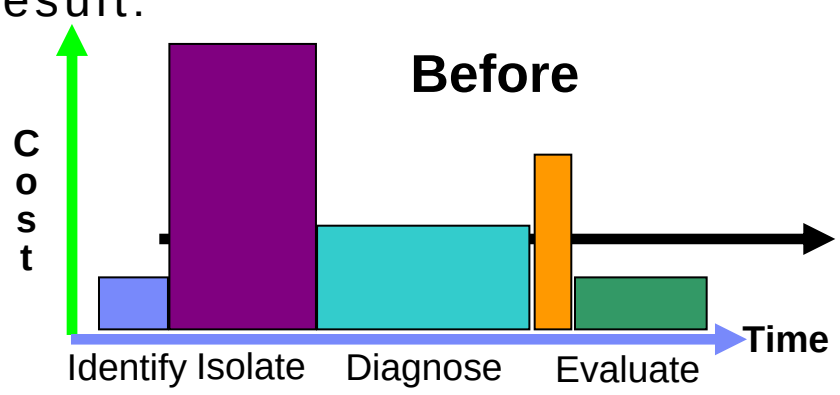
IBM Tivoli Composite Application Manager (ITCAM)

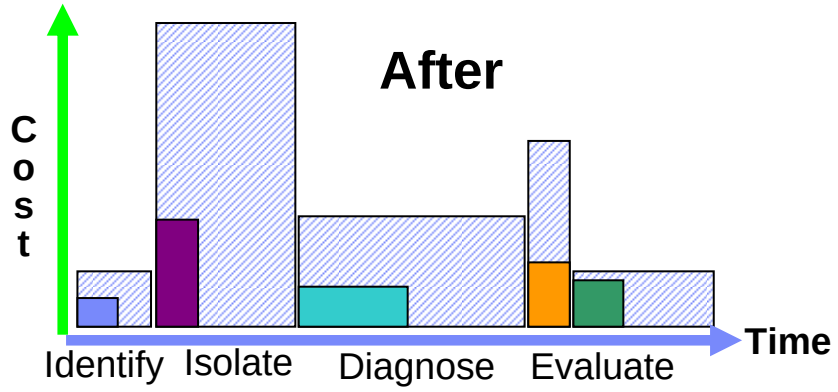
Enable Faster Fixes and Reduce risk of additional problems

Web Application Slowdown Identification to Resolution Time		Resolution Time With IBM's Problem Determination Solution	
Identification	½ day	Identification	½ hour
Isolation	3 days	Isolation	0 days
Diagnosis	1 day	Diagnosis	30 minutes
Resolution	1 day	Resolution	4 hours
Total	5½ days	Total	½ day

At cost of $1000/minute (repair & rev losses) = $7.2M savings

Result:

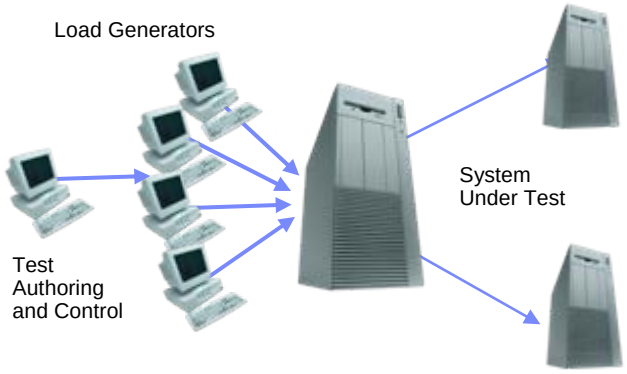




Validate Performance with Rational Performance Tester

Is your application ready for production deployment?

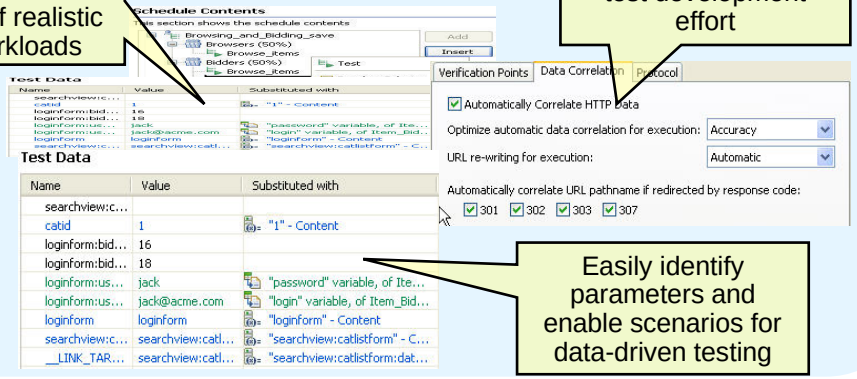
1. Create realistic user scenarios that exercise key business transactions



2. Identify the root cause of problems

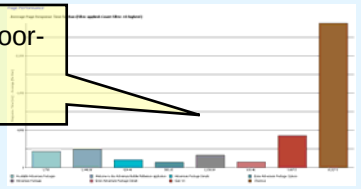
Powerful workload scheduler simplifies the creation of realistic user workloads

Advanced Data Correlation features significantly reduce test development effort

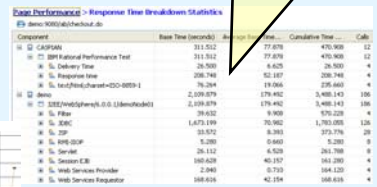


Easily identify parameters and enable scenarios for data-driven testing

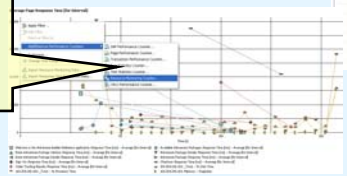
Quickly identify poor-performing transactions



Breakdown response times across application tiers and drill down to source

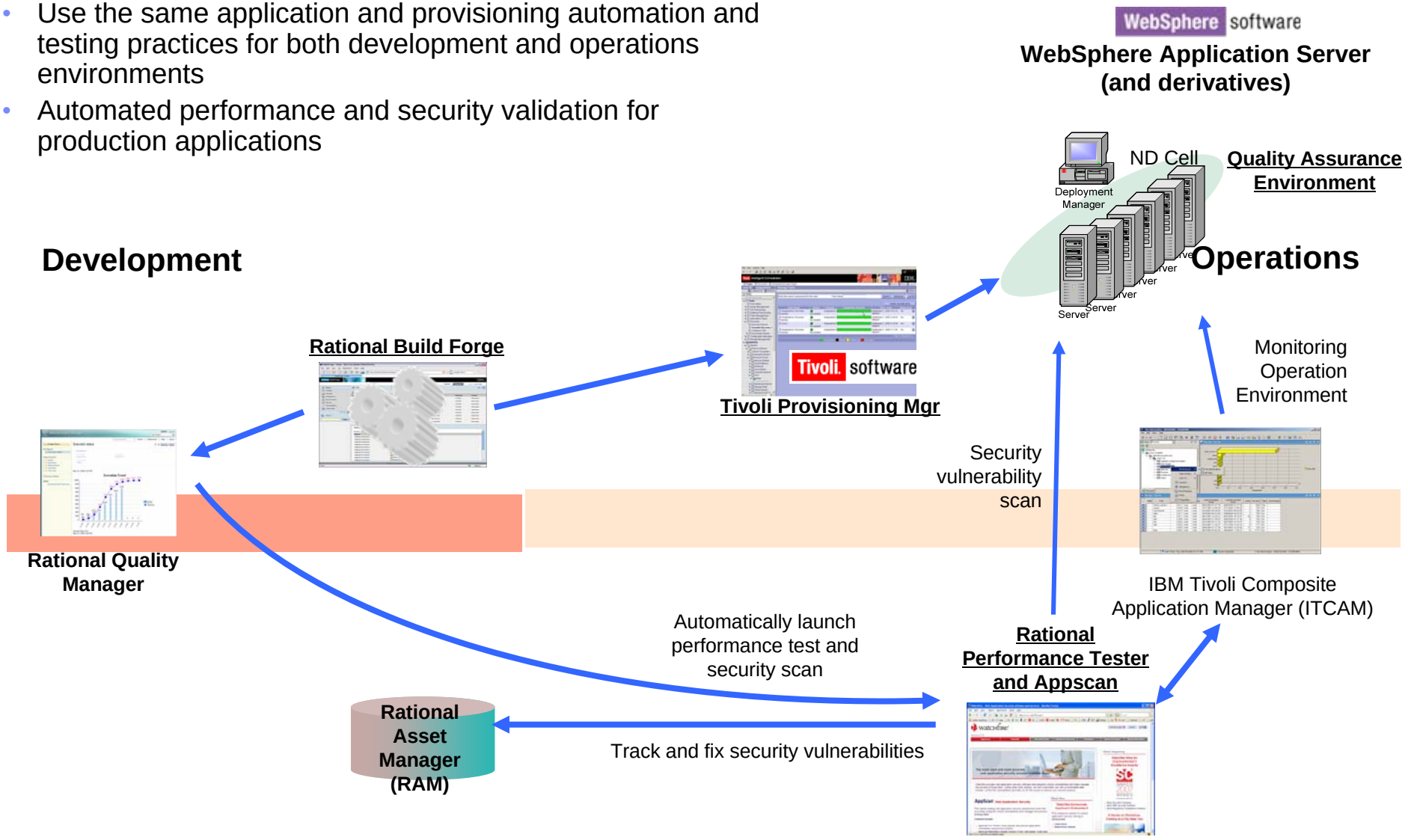


Correlate response times with system resource measurements



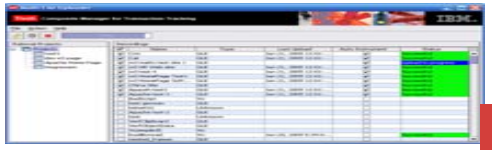
Automate lifecycle process and testing

- Use the same application and provisioning automation and testing practices for both development and operations environments
- Automated performance and security validation for production applications

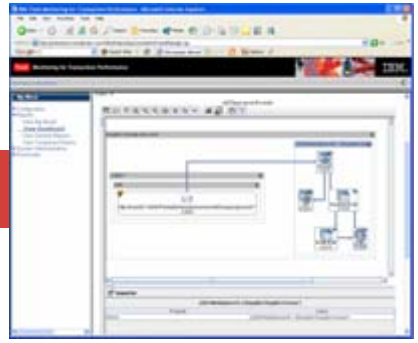


Rational Performance Tester integration with ITM and ITCAM for enhanced application quality

- *Bridge application development and operations*
- *Enhance governance and lifecycle integration*
- *Ensure critical applications are performing*
- *Improve team productivity through collaboration*
- *Increase efficiency with reuse of assets*
- *Faster deployment through effective problem diagnosis*



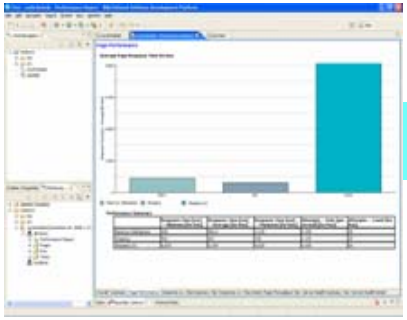
Tivoli



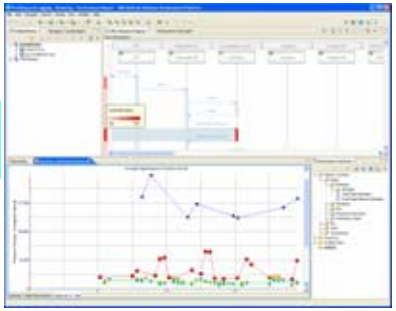
IBM Tivoli Monitoring (ITM)
IBM Tivoli Composite Application Manager (ITCAM)

Re-use test scripts and monitoring data to validate applications for production

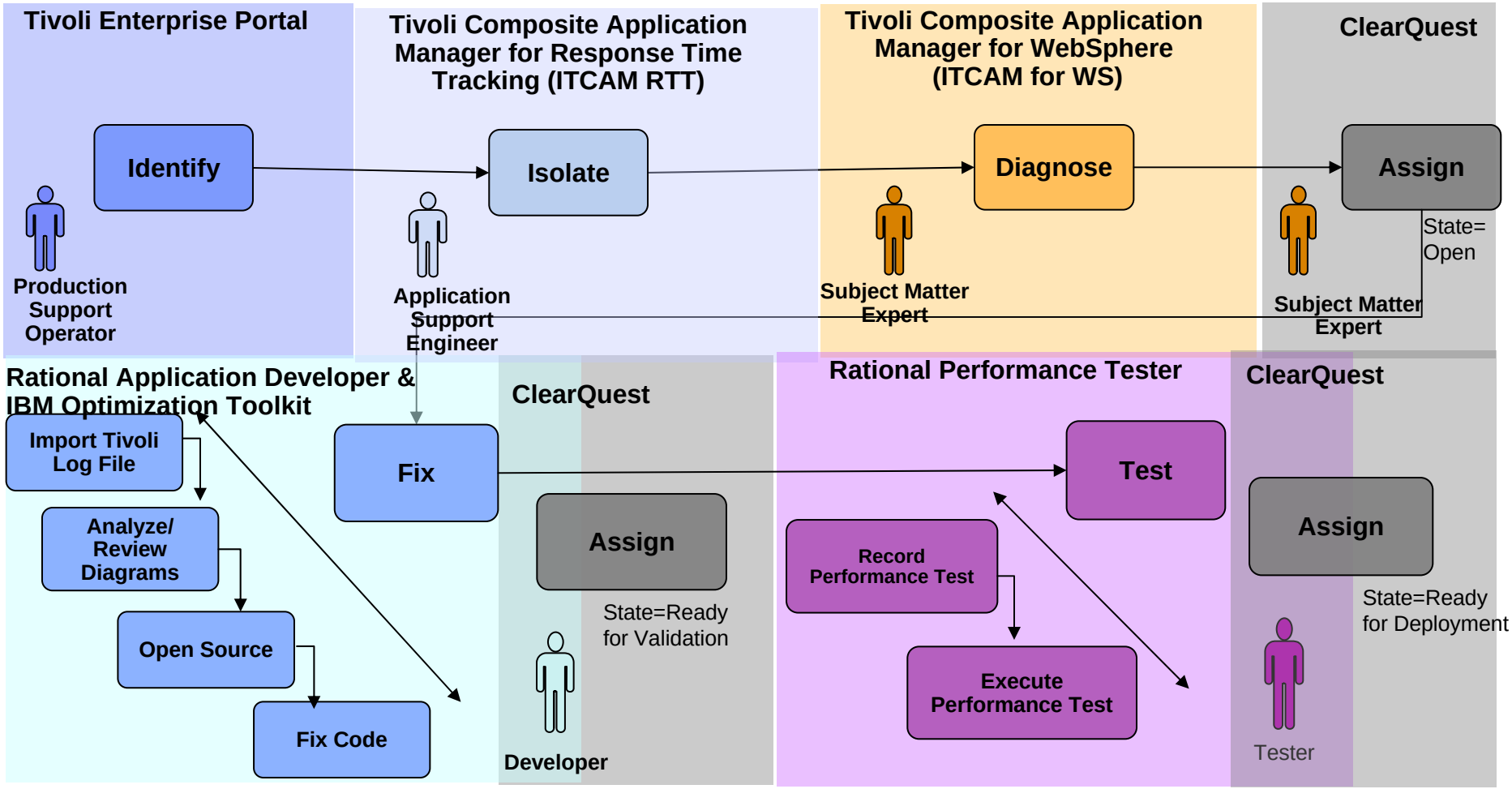
Rational Performance Tester (RPT)



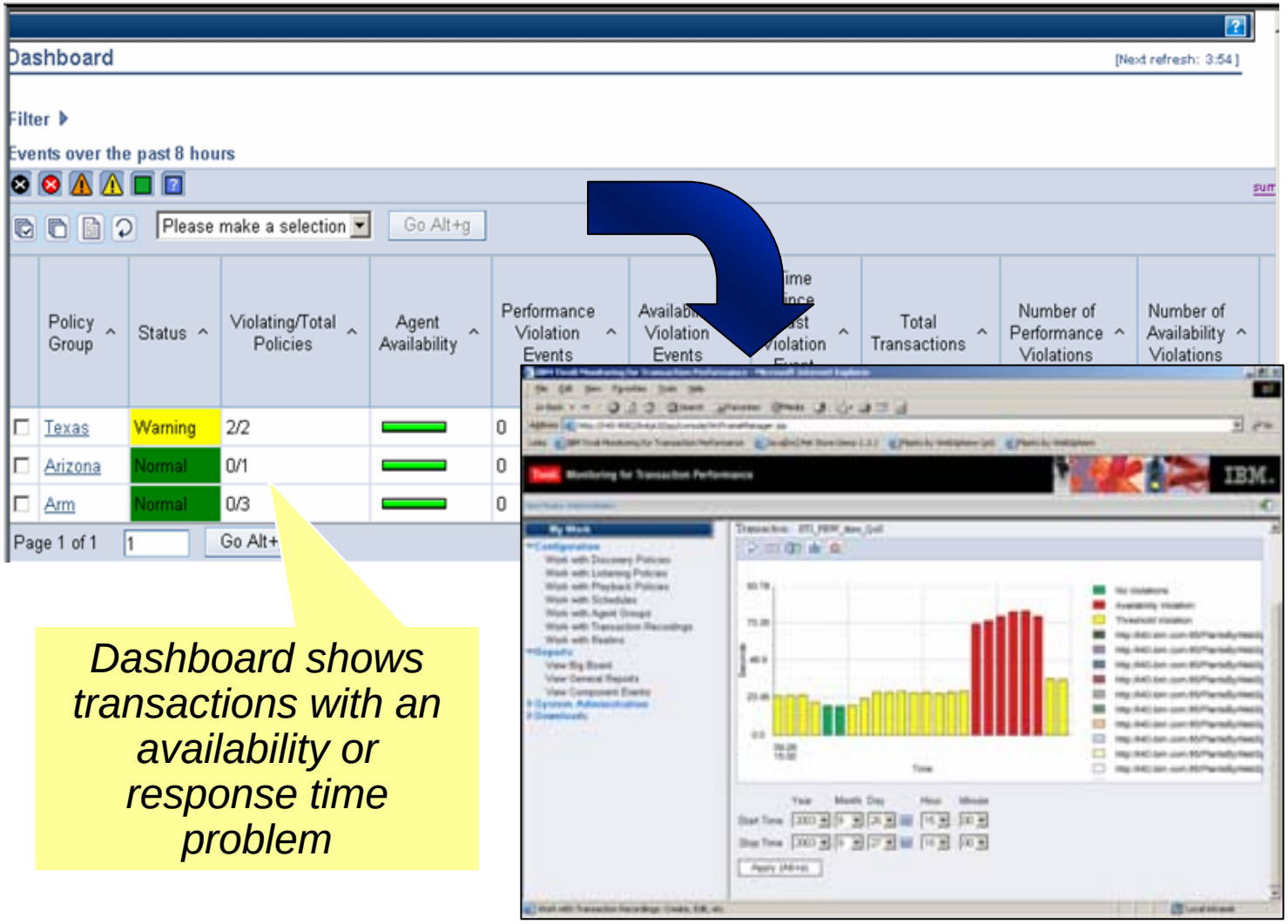
Rational



Problem Identification and Resolution



ITM and ITCAM for RTT Identifies the Problems



Dashboard shows transactions with an availability or response time problem

Identify

Isolate

Diagnose

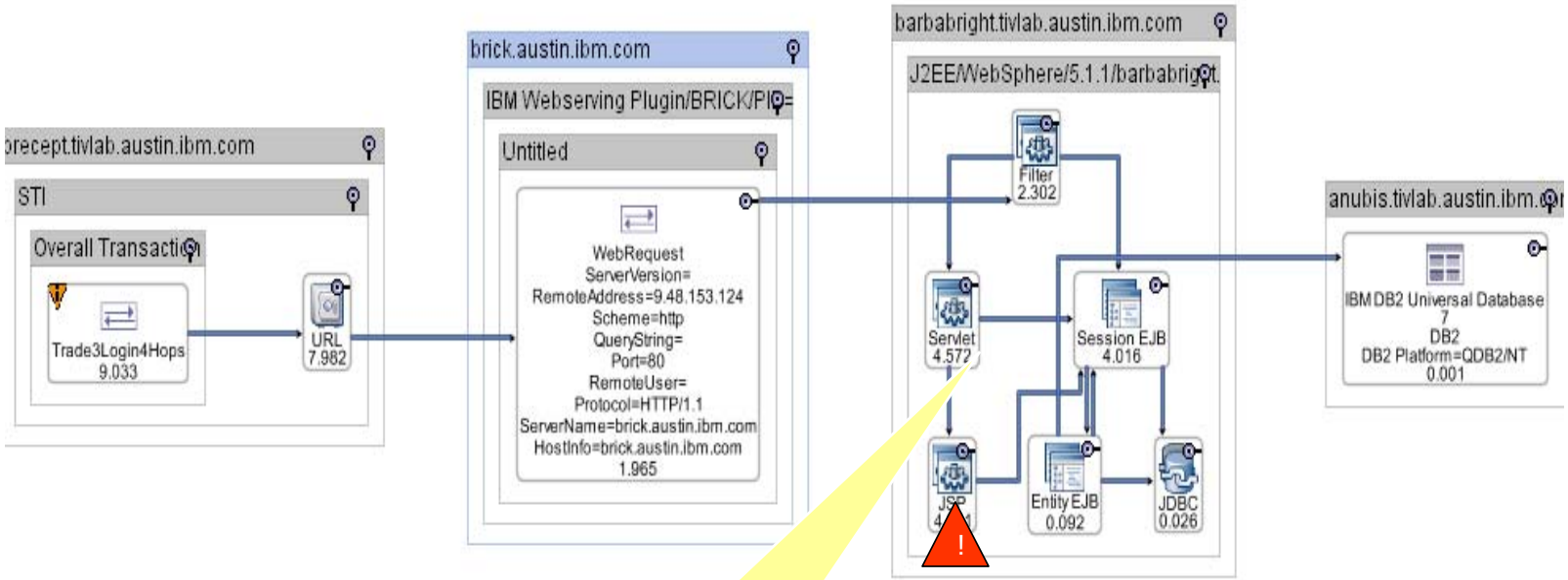
Assign

Fix

Test

ITCAM for RTT Isolates the Problem

- Identify
- **Isolate**
- Diagnose
- Assign
- Fix
- Test



Topology shows problem system so that it is assigned to correct SME

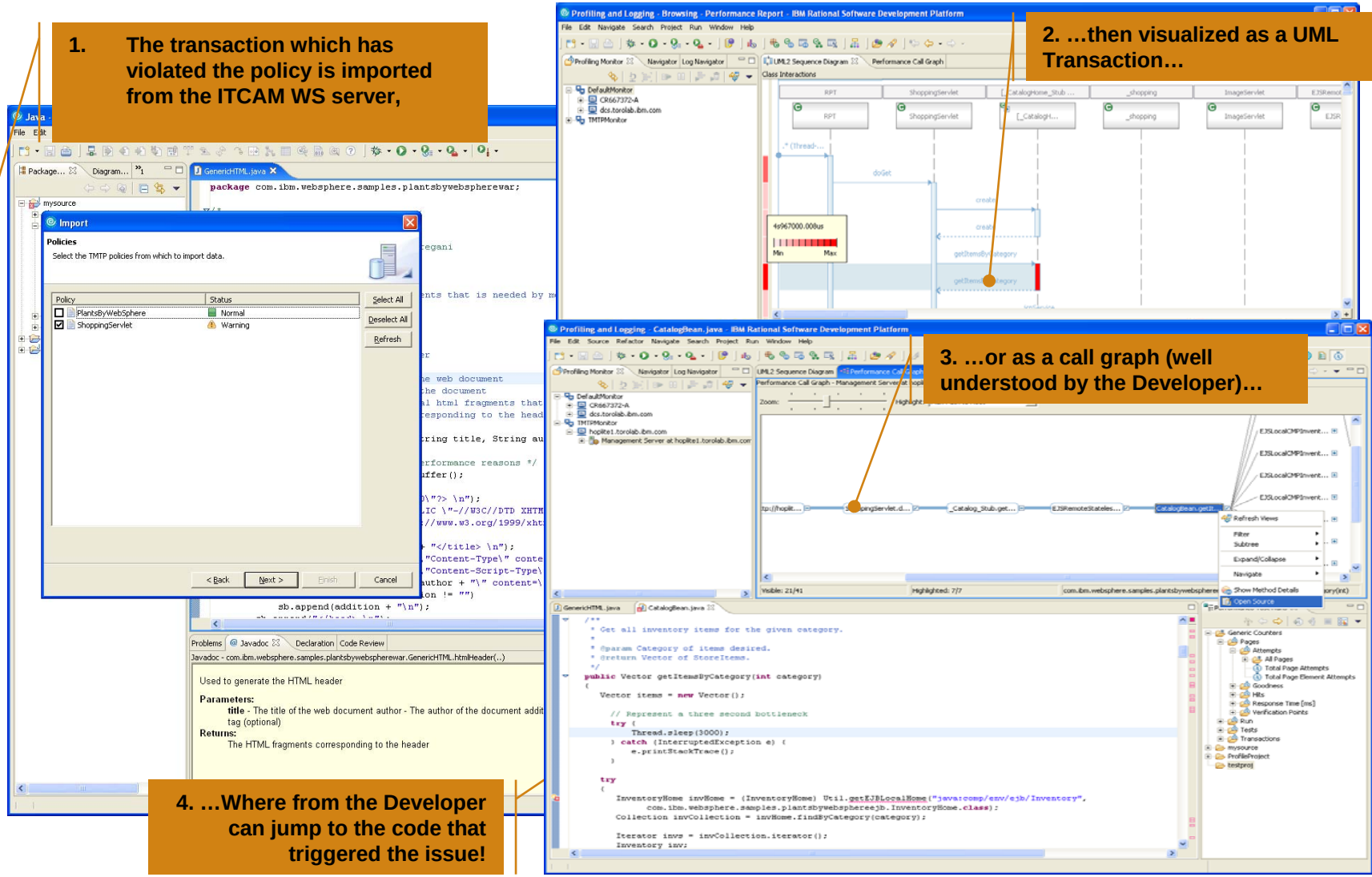
ITCAM for WebSphere Diagnoses Problems

- Identify
- Isolate
- **Diagnose**
- Assign
- Fix
- Test

- Are memory heap sizes indicating a leak?
- Is performance trending towards a failure?
- Can I easily identify if the problem is with WAS or elsewhere?

Rational Application Developer Fixes the Problem

- Identify
- Isolate
- Diagnose
- Assign
- **Fix**
- Test

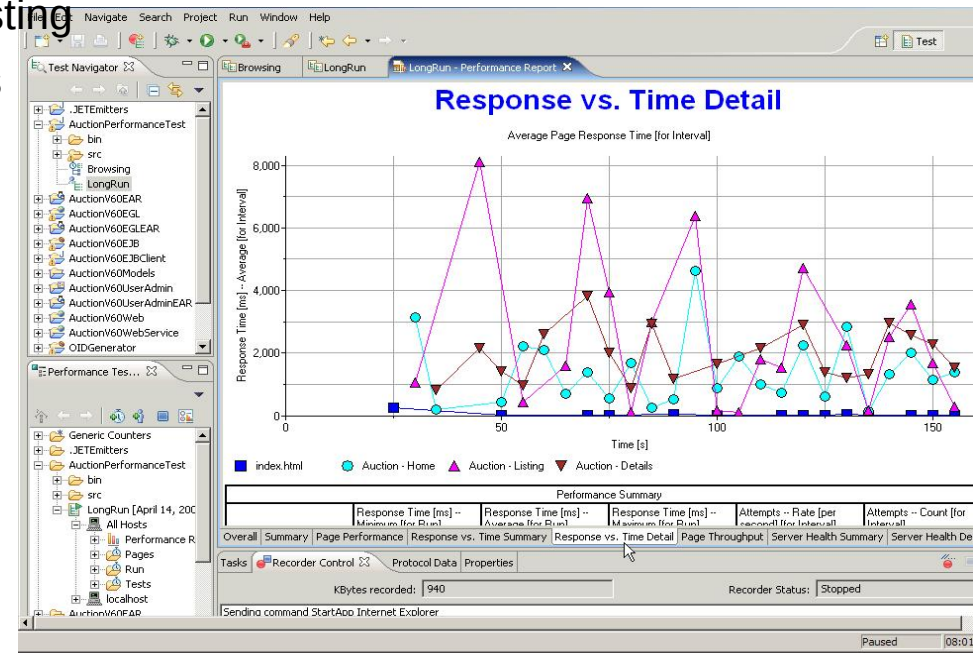


Rational Performance Tester – Tests the Fix

Key Benefits

- Identify
- Isolate
- Diagnose
- Assign
- Fix
- **Test**

- Built for Day 1 Productivity
  - Mask complexity to get the job done
- Advanced Data Access & Manipulation
  - Automated data variation and synchronization
- Lower Cost of Performance Testing
  - Low resource requirements
  - Desktop IDE integration



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