Stephen Mwangi
Director
eManageAfrica LTD

Objectives

- to gain an appreciation for real-world challenges
- to understand how management techniques can be leveraged throughout the software development lifecycle
- to learn about products that provide top to bottom management and monitoring

The evolution of application development

- 1965 - 1980: Custom Applications
- 1980 - 1995: Custom Applications
- 1995 - 2000: Custom Applications
- 2000 - future: Custom Applications

Management challenges

Web service development = a new set of challenges!

- Global distribution
- Global load
- Unpredictable transaction paths
- Expectations of "web speed" development
- Application brown-outs
- Integration with remote callers
- Service level agreements covering QoS

A top to bottom look

- End-user "top-down" - Customer experience management
- Service level management
- Transaction "bridging the gap" - Rapid problem resolution
- Infrastructure "bottoms-up" - Event management, resource management

Your customer or end-user

Your back-end infrastructure
the real world

- “Developers create technology that help their company succeed - but what happens when the application fails or breaks….middle of the night emergency calls to the developer become non-existent when the right management infrastructure (like Openview) is in place. In addition, connection to application management tools and virtualisation systems become essential as web services transactions becomes more prevalent, and tracking and tracing becomes a critical part of the transactions integrity”

– Paul Nerger, CEO Market Magic Consulting

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close the loop at every step of the lifecycle

make use of all available sources of feedback and create the means to exercise control effectively

building intelligent feedback & control

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what’s old and what’s new?

- measurement, analysis & optimization tools provide quick and reliable feedback to all phases
- business performance analysis becomes a critical part of the transactions integrity

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customer needs

- customer experience and sla management
- rapid problem resolution
- infrastructure monitoring and optimization

SLA defined

a Service Level Agreement (SLA) is a formal contract between the provider and customer guaranteeing certain levels of performance or quality of service
- web services makes SLAs more challenging because of the complexities in a distributed environment
- SLAs will become more important as customers begin paying for access to the web services

internet services & web transaction observer

- set and measure SLA’s for availability and performance
- measure, monitor and report against service level objectives
- monitor standard protocols via simulated transactions or real transactions providing last-mile details
- monitor custom applications through custom probe kit or recorder/playback

transaction analyzer

pinpoint bottlenecks in J2EE and DNA applications
- analyze transactions from the client, over the network, and throughout the web application environment
- transactions understood at the most “atomic” level (EJB, COM objects)
- automated transaction discovery dramatically reduces configuration
- non-intrusive transaction analysis eliminates app instrumentation
- response time decomposition and baselining quickly pinpoint the bottleneck

reducing time to recovery

activity | time spent
---|---
is there a problem? | 
where is it? | 
whose problem is it? | 
what is it? | 
help me fix |
monitor and optimize

detect problems before they affect users

- smart plug-ins for BEA WebLogic Server, IBM WebSphere, Microsoft DNA
- immediate notification of critical failures, messages and events
- early warnings of bottlenecks with annotation reports
- add your own performance metrics
- service maps provide impact analysis
- easy performance graphing and hourly, daily, weekly reports

building block flexibility

- internet services
- web transaction observer
- transaction analyzer
- problem diagnosis
- glance plus and ovpm
- reporter
- performance manager
- BEA WLS
- IBM WebSphere
- Microsoft .NET
- operations
- IS SPs SPI

getting to root cause

key points to remember

- web services make a complex world even more complex
- design in your business performance goals at the beginning
- problems can often be resolved proactively with tools that identify and even fix management problems at any phase of the lifecycle
- look at the bigger picture!

- Service Management means top to bottom management – from customer experience through infrastructure monitoring

Thank You

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• Electronic Remote Data Backup (eRDB)
• Data Protection & Disaster Recovery
• Records Management
• Integrated Documents Management Solutions
• Secure Destruction Services
• Consultancy