Non-Production Environment Management

It’s the (Test) Environment, Stupid!

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IT’S THE (TEST) ENVIRONMENT, STUPID

- Requirements Mgmt
- Test Mgmt
- Test Automation
- Defect Mgmt
- Version Mgmt
- Deployment Mgmt
- Deployment Automation
- Release Mgmt

- HP/Mercury
- IBM/Rational
- Compuware

- Accenture
- Cap Gemini
- SQS

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THE ENVIRONMENT IS LESS GLAMOROUS – YET MORE COMPLEX

System A

Server A1
- Linux RH
- Apache 1
- Apache 2
- Tibco

Server A2
- AIX
- WAS
- Oracle

System B

Server B1
- Linux RH
- JVM
- App 1
- App 2

Server B2
- Windows
- IIS
- .NET
- App 3

- Configuration files
- Environment variables
- Registry keys
- Database schema
- Reference data

- Patches
- Files
- Users
- Groups

DEV

TESTING

PRODUCTION

SYSTEM INTEGRATION ACCEPTANCE

STAGING LIVE
THE ENVIRONMENT INTRODUCES HIGH IMPACT CHALLENGES

- PRODUCTION OUTAGES – "50% of our Production Outages occur within 24 hours of a release"
- PRODUCTIVITY IMPACT – “40% of our defects turn out to be Environment Defects”
- TIME / QUALITY IMPACT – “Resolving Environment Defects takes a lot of valuable time, and inconsistencies between environments effects systems’ stability and quality.”
“Few database tables were re-indexed as part of overnight maintenance. In the morning regression tests failed due to the application timeouts”

“Only yesterday this environment worked perfectly fine, and suddenly…”

“A JAR file moved from development to production without reconfiguration to production setup…guess what happened…”

“Everything looks exactly the same – where the **** is the problem?”

“Software installation missed a certain component on one of the deployed servers…the result: issues when users connected through load balancer”

“<Sigh>…if I could only have access to that working configuration…”
WHY START TO CARE NOW?

• Growing environment complexity
  • Interdependencies
  • Amount of moving parts
  • Flexible configuration

• Segregation of environments through application lifecycle
  • Development/Testing
  • UAT/OAT
  • Training/Staging/Production

• Proliferation of configurations with virtualization
• Evolution and maturity of development and testing tools and practices
WHAT IS REQUIRED TO MANAGE ENVIRONMENTS EFFICIENTLY

1. COMPREHENSIVE MANAGEMENT of non-production environments
2. VALIDATION of TRANSITIONS’ ACCURACY between environments
3. LEVERAGE of GAINED ENVIRONMENT KNOWLEDGE
MANAGE ENVIRONMENTS COMPREHENSIVELY

Manage the ENTIRE LIFECYCLE from design to transition into production in full DEPTH & BREADTH
EXISTING PRACTICES GAP AND BEST PRACTICES

Procedures and Policies

Extensible Environment Architecture

- Cost Mgmt and Optimization
- Environment Scheduling
- Environment Asset Mgmt
- Configuration and Change Mgmt
- Rapid Application Deployment
ROI OF ENVIRONMENT MANAGEMENT

• Cost of production outages
• Environment operations costs
  • Setup and tier down
  • Incident resolution
  • Release stabilization
• Environment infrastructure costs
• Cost of idle test team
• Time-to-market impact
WHERE TO START?

Survey among 54 infrastructure and operations managers (Aug-Sep 2009)

- **35%** - Within 24 hrs after release
- **40%** - After 1 week from release
- **25%** - Within day 2 to day 7 after release

**WHEN DO ENVIRONMENT INCIDENTS TYPICALLY OCCUR?**
WHERE TO START?

Survey among 54 infrastructure and operations managers (Aug-Sep 2009)

WHAT PERCENT OF TOTAL INCIDENT HANDLING TIME SPENT ON SEPARATING ENVIRONMENT ISSUES FROM APPLICATION DEFECTS?

- 75% - Around 25%-35%
- 15% - Over 35%
- 10% - Less than 15%
EVOLVEN STARTED WITH THE MOST IMMEDIATE CHALLENGES

- An Environment Comparison solution that helps to obtain and maintain environment stability

- Identify and analyze changes and differences that put environment stability at risk, by:
  - Comparing different environments
  - Comparing current environment with its historical working snapshot or golden baseline

- Key capabilities:
  - Compares the entire environment (applications and underlying infrastructure)
  - Compares environment configuration and content in-depth
  - Analyzes changes and differences with focus on criticality and impact
Thank you!