Enterprise Monitoring – How to Merge Disparate Systems to a “Single Pane of Glass”

November 18, 2014
Hosted by

Sandy Schubert
Vivit BSM SIG Leader
Today’s Speaker

Clay Roach
CEO
J9 Technologies
Housekeeping

• This “LIVE” session is being recorded
  Recordings are available to all Vivit members

• Session Q&A:
  Please type questions in the Questions Pane
Webinar Control Panel

Toggle View Window between Full screen/window mode.

Questions
How to merge disparate systems to a "Single Pane of Glass"
What is a Single Pane of Glass?

Definition:
“Personalized (data-collector independent and context-relative) views of service health” - Clay Roach

Goals:
• Fix S*** quicker! Reduce MTTR
• Break down tools/people silos
• Communicate proactively about service status
Arrrrggggghhhh! Where is the issue?
HP Operations Bridge—the bridge across apps, complexity, datacenter, clouds
SPOG Levels

Events-only (OM/OMi)
- Relatively simple - SNMP, opc, SiteScope, BSM->BSM
- Since 1990!

End-to-end integration (BSM + BSM Connector)
- Events, metrics, topology, log/unstructured data
- Application model/reconciliation challenge
- Which metrics are important? What events?

Personalized Dashboards (JDash, Executive Scorecard)
- User and domain-specific dashboards
- Mash-up with multiple datasources (BSM, SiteScope, ServiceNow, NNMi, others...)

Integration and Dashboarding Steps

Discovery - Establish start and end point
- “I want a dashboard” (but not sure exactly what)
- Begin with an example (or whiteboard) and establish end goal

Discuss KPI’s relevant to end user
- If operations dashboard, then only actionable events/KPI’s
- If app owner or LOB dashboard, then SLA’s and stop lights
- Executive dashboard (All green + 30 minute delay 😊)

Define metrics/events from source domain manager
- Most difficult step (need domain/element manager expertise)
- Keep it simple/bare minimum “actionable” events/metrics
- Use BSM Connector to pull data, create policies and CI mapping rules

Map relationships between elements
- Use CMDB models as a starting point
- Don’t get lost in the weeds - keep it simple
- Create BSM RTSM and OMI content packs to define model

Validate data flow between elements
- Domain/Element manager->BSMC (or J9 Accelerator)->BSM
- Request our troubleshooting guide

Iterative dashboard development

Implementation Approaches

1. Build 1->1 integrations between tools
   • Difficult to maintain
     • Every time a tool rev’s, it may break the integration
   • Learn RTSM, CMDB, SiteScope EMS, OM Policies, DMs to integrate to
     • Develop RTSM and OMi content packs

2. Hire a services company or HP to do it
   • Variation of #2 - just outsourced

Alternatively…
J9 Accelerators

Effectively monitor the performance of all your business applications across the entire enterprise with J9 Technologies’ Accelerators.
Rapid Time to Value
Be up and running in hours, not months!

If you were to build it (w/ consulting services or on your own) vs Accelerator
Effort-free Integration

- 2-click integration
- Simple Install
- Packaged Dashboards
- Instant Value
Combined BSM Dashboard

Dashboard showing Events, Metrics and Topology from Aternity meshed with HP Components like BPM, RUM, SiteScope and Diagnostics
Topology in RTSM

The topology from the Aternity Accelerator in BSM for the Activities
## SLM Integration

### SLM CI Summary

<table>
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<tr>
<th>CI</th>
<th>Application</th>
<th>Name</th>
<th>Percent Complete</th>
<th># Applications</th>
<th># Total Applications</th>
<th># Total Applications (Error)</th>
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SHA Integration
J9 Accelerator Demo
HP BSM as Manager of Managers

- Not enough today to have just events
- Metrics and relationships 1st class citizens
  - Needed for predictive analytics
  - Topology relevant to impact of high metrics on a component/CI
- Develop a Service-centric POV
BSM Runtime Topology

Event and Perf. metrics
Run-Time Service Model

Services
Software
Infrastructure
HP Operations Bridge

New style of IT with HP IT Operations Management

Aggregate Control Team

Action for service impact

Transform
HP Automation and Orchestration

Assure
HP Business Service Management

Connected Intelligence = 100% information

Deliver
HP Service and Portfolio Management
Ops Bridge Upstream Integrations

• Predictive Analytics
  • HP Service Health Analyzer
  • VMWare VCOOperations Manager
  • Netuitive

• Service Health/Reporting
  • HP Service Level Manager
  • Service Health Reporter
  • J9’s JDash Dashboards
  • Tableau

• Orchestration
  • HP Operations Orchestration
  • Automate incident remediation
  • Auto-ticket in ITSM tools (ServiceNow, HP SM)

• Operations Analytics
  • Rewind/replay events sequences
  • Log file search and analytics
Service Health Analyzer

1. Anticipate problems **before** the business is impacted and prevent downtime

2. Automatically correlate information from multiple domains

3. Reduce cost of handling events by proactively investigating anomalies

4. Self-learning algorithms
   - Leverages RTSM
   - any time series data
   - Learns normal behavior

Based on multiple HP patents
SHA Example 1:

Anomaly detected: Sudden drop

Planned outage
HP Operations Analytics

Guided Troubleshooting

Phrase Query Language (PQL)

Visual Analytics

Analytics Query Language (AQL)

IT Search

Analytics Query Language (AQL)
HP OO: Automate Remediation

- Advance remediation flows for all OpsBridge users
- Launch in context of events and management element
- Automatic and user triggered
- Reduced operational cost with automation of common tasks and processes
- Out-of-box content across multiple IT domains such as virtualization, Cloud, SAP orchestration, etc
Example J9 Customer Success:

**DIRECTV**

**Industry**
- World's leading provider of digital television entertainment services
- +37 Million Subscribers Across the Americas

**IT Operations US**
- Servers - ~8,000 with project growth to 12,000
- Applications –
  - Siebel (Customer Care), SAP, VMS (Billing), Oracle Fusion API, DB’s,
  - Tools – HP BSM, Microsoft SCOM, Aternity, AppDynamics, VCenter Ops
  - Tealeaf, Splunk, HP Automation Suite, Firescope Unified, Oracle OEM
- Different teams - ~15 supporting above apps and others

**HP Experience**
- HP Software Customer for 10+ years
- Deep expertise in HP OM/OMi, NNMi, and BSM
- Journey from BAC 8 to BSM 9.24 in October 2013
  - Rolling out BSM 9.24 to NOC and Ops teams
  - Achieving success with event, metric consolidation and incident automation
DIRECTV challenges

• Cultural challenge: NOC and Operations team using email inbox as an event console

• No tools visibility: Shadow ops groups setting up their own alerts and cron/remediation jobs

• No visibility into call center impacts

• Inefficiencies in processing/tracking issues and incidents

• Alert storms cause confusion and loss of impact

Today’s IT = complex IT

Point tool proliferation Software-defined datacenter

Uncorrelated

Slow triage

Composite apps

Inaccurate reports
DIRECTV success results

Automation using OMi->HP Ops Orchestration
- Keep operations from having to answer pages all night = more productivity!

Incident/ticketing integration with ITSM tools
- Ticket only actionable events
- Reduce tickets to core and improve ticket quality with monitoring data

Providing reference platform for other ops teams
- Latin America and Broadcast to adopt some standards

Empower NOC to check status of Production Applications
- Manually execute monitoring checks without having to wait for “next run”
- “Mimic” administrators thought process by checking a list of tasks and taking a specific action based on the result
Bringing it All Together - JDash

Nightly Batch Processing

Started: 12:05 am
Estimated Finish Time: 4:58 pm

94%

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<td><strong>48 /min</strong></td>
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Yesterday (finished at 11:32 am) 65 /min 11,128 1.6 %
JDash Demo
Take full control now!
Let’s get started.
Q & A
Don’t Miss – Register Today

• Look No Hands – How Automation Benefits IT Operations  Webinar
  – Wednesday, November 19
  – 8:00 - 9:00 AM PST (Los Angeles), 11:00 - 12:00 PM EST (New York), 17:00 - 18:00 CET (Frankfurt)
  – Register at:  https://www3.gotomeeting.com/register/127409526

• HP Discover 2014 Barcelona
  – December 2 – 4, 2014, The Fira Barcelona, Gran Via
Thank you

• Complete the short survey and opt-in for more information from J9 Technologies.

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