Extending Application Performance Visibility through Integration with CA Solutions

Scott Williamson & Anjali Arora
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Session Abstract

> Learn in this comprehensive session how CA Wily solutions gain even greater visibility into the applications and connected systems of today’s complex enterprise IT environments through integration with the extended family of CA solutions, including Spectrum, eHealth, Unicenter NSM and others. Gain a deeper understanding of CA Wily APM’s enormous possibilities of integration with CA Catalyst platform. Learn how this will provide a foundation for new integrations by building on existing investments to create a 360 degree view of business service.
Agenda

> CA-Wily APM Solution
> Integrated and Siloed IT Management
> Current Integrations
> CA Catalyst – the Future Way to Integrate
> Q&A
CA Wily APM Solution Architecture

- **End-User Experience Monitor**
  - Zero Overhead, Passive

- **Management Server**
  - Clustered, Scalable, H-A

- **Agents for Java and .Net Servers**
  - Visibility into DBs, Web Servers, Security Servers, Mainframes, etc.
  - Monitor Applications from the Inside

- **Management Console**
  - Web or Thick Client
Transactions Delivered as Complex Services
When There's a Problem, IT Needs to Know Where's the Transaction Failing?

- Are customers affected?
- Are transactions failing?
- Do we have a network fault?
- What changed on the app server?
- Are 3rd-parties meeting SLA’s?
- Are databases slow?
- Web services down?
How are Problems Addressed?

Transaction components requires distinct domain experts

Triage, root cause identification, problem resolution workflow alternates responsibilities

IT uses different domain tools that don’t have visibility of the entire transaction
A Comprehensive IT Strategy and Portfolio

Tying in APM with Infrastructure Management provides a complete, accurate, real-time and proactive view of IT status and its impact on service...

...based on analysis of user experience, application transactions, and underlying infrastructure.
APM Integration with CA Spectrum and eHealth
Introscope and Spectrum Integration

> Automatically **discovers** Introscope Agents and related applications and **populates** within SPECTRUM data store
  - Automatically creates **SPECTRUM models** for agent/application pair
  - Can be utilised within SPECTRUM **service models**

> Automatic Introscope agent **status synchronisation**

> Automatic Introscope alert **forwarding** and **association** with related agent object within OneClick

> Introscope Agent **dashboards** viewable within SPECTRUM
  - Links are automatically included within alerts

> Functionality provided out-of-the-box
Introscope and Spectrum Integration

> Benefits

- Monitors mission critical web applications within **SPECTRUM OneClick** effectively and triages across the entire infrastructure
- Enhances **collaboration** by displaying Introscope-collected application performance alerts in the same familiar consoles
- Provides application performance alerts directly to **SPECTRUM OneClick** to **correlate** with related network infrastructure and reduce **time-to-resolution**
Introscope/Spectrum Data Transfer

Wily Agents deployed at the following servers:

- E-Commerce server
- Web server
- Application Server
- Enterprise Manager
- OneClick server
- SpectroSERVER(1)
- SpectroSERVER(2)

Diagram showing connections:
- SNMP trap
- Console launch
Agent Models in Spectrum One-Click

Introscope

SPECTRUM

ISCP agents modeled in Spectrum

Alert state and information for selected agent
CEM to Spectrum Integration

> Provides the NOC with the actual end user’s overall application experience (and therefore network experience)

> Consolidates network, systems and applications knowledge to a central point for faster problem resolution and trouble shooting

> Available as a field integration pack
CEM to Spectrum Data Flow

**Integration Points**

- One Click
- Visualization
- SNMP Trap
- Introscope Enterprise Manager
- Application Servers
- Web Server
- Database Server
- eCommerce Server
- SpectroSERVER

**Customer’s Traffic Flow**

- Internet

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CEM Business Processes in Spectrum

Business processes modeled in Service Manager

Detailed view of service health
eHealth to Introscope Integration

> Continuously polls for systems/network data from eHealth DB

> Availability of metrics and dashboards from within application management console

> Provides application support high-level understanding of underlying infrastructure
  - e.g. bandwidth utilisation of router in front of web servers

> Available as a field integration pack
eHealth to Introscope Architecture

- **eHealth Poller**
  - Collects performance stats from Health Oracle Database
  - Java process (can run on Iscope EM)
  - Uses Wily DataAPI to send data to Introscope Enterprise Manager
  - Data can then be rendered in Introscope Dashboards

Introscope Workstation

MDIV Overview

- Performance
- Network
- Status

Introscope EM

eHealth DB
Example Dashboard

MDIV Overview

Performance

Client Response Time

Network Response Time

Server Response Time

Network

Round Trip Time (ms)

Round Trips Per Transaction

Network Failures

Status

Poll Attempts

Success Rate (%)

Transaction Time Outs
Example Dashboard

Front-end bandwidth data correlated to customer experience
APM Integration with CA Insight DPM
CA Insight DPM-CA Wily Introscope Integration Architecture

Network

CA Wily Introscope User

Browser User Interface

CA Wily Introscope Workstation

> Database Metrics
> Database Dashboards

CA Wily Introscope Metrics and Dashboards

UI Server

> UMP
> MDB
> CA DCC
> CA Insight DPM
> Knowledge Agents

Database Servers

> Knowledge Agents
> Flat File** (optional)

> Integration Component
  ▪ Insight Bridge for CA Wily Introscope

Windows Portal Server & Components*

Databases monitored
Via local or remote
Knowledge Agents

Database Servers

Multiple RDBMS on Same Server

Clustered

Virtualized

Mainframe

*These components can be installed together or on separate systems

**Flat file can be used in large environments for scalability

- CA Wily Introscope
- CA Insight DPM
CA Insight DPM In-Context Integration
CA Wily Introscope Dashboard

At-a-glance view of the performance of all your databases
CA Insight DPM In-Context Integration
CA Wily Introscope Dashboard

Drill down dashboards for more details on the problem
CA Insight DPM In-Context Integration
Benefits to CA Wily Introscope Staff

> Prevent database problems before they occur

- Triage performance problems related to the database
- Fix database performance problems using a centralised interface
APM Integration with CA Spectrum Data Center Automation Manager
Spectrum Automation Manager Integration Overview

> Spectrum Automation Manager integrates with Introscope to collect and monitor performance metrics from application servers such as WebLogic and WebSphere.

> Introscope plug-in is part of the Collection Engine framework and interacts with the Introscope Enterprise Manager through its web service interface.

> Spectrum Automation Manager’s policy engine allows users to set lower and upper thresholds of its metrics, and associated rule actions with it when the metrics threshold exceeds the expected values.
Metrics types collected from Introscope

> CPU: Utilisation % (aggregate), Utilisation % (process)
> Backends: Average Response Time, Errors Per Interval, Responses Per Interval, Stall Count.
> Frontends: Average Response Time, Errors Per Interval, Responses Per Interval, Stall Count.
> JSP: Average Response Time, Errors Per Interval, Responses Per Interval, Stall Count
> Servlets: ...
> Others, configurable via a filter...
Data Collection from Introscope Enterprise Manager
Associate Metrics with DCAM Rule Actions
Integration Benefits

> Visibility of comprehensive performance and utilisation metrics
> Associate performance metrics with robust action and rule logic for creation of business policies
> Optimised resource allocation and control
> Improved service quality
CA Catalyst and APM
What is CA Catalyst?

Catalyst is CA’s platform for

- Building new products
- Incrementally transforming and improving existing products
- Building solutions that integrate
  - CA products
  - Non-CA products
  - Customer systems
- Realising the vision of EITM
CA Catalyst: The EITM Integration and Automation Platform

- Foundation architecture for integration, new products, and solutions
- Built on open SOA standards
- Includes tools to build and customise solutions

- Builds on existing investments in GA products for next generation solutions
- Accelerates deployment for faster time to value
- Integrates CA and third party solutions
CA Catalyst Benefits

> For customers
  - Reduce costs
  - More agility
  - Automate best practices
  - Improve intelligence
CA Catalyst: Components

- **Unified Service Model**
- **Role-Specific Tools**
- **Programming Model**
- **Metadata Registry and Repository**
- **Logic, Process and Policy Engine**
- **Runtime Foundation**
- **Connector Content and Toolkit**
- **Integration Fabric**
CA Catalyst and Products

> Will not (immediately) replace existing products’ UIs, workflows, MDRs, etc, which protects investments
  ▪ The things are already installed
  ▪ Customers have invested skills, customisation, ...
  ▪ 3rd party products have UIs, workflows, etc.

> The focus will be on
  ▪ Enabling integration
  ▪ Embeddable system for incremental transformation
  ▪ Eventual rewrite and refactoring

> Catalyst focuses on solving new problems and scenarios

> Integration inevitably drives transformation

> Catalyst will increasingly be the platform for CA products
Evolve: Incremental to Systematic Integration

Too many connections. What do I connect where? What happens if I change something?

Integrate a new system requires understanding multiple formats and there are no tools.

Simple, intuitive, widely used tools.

Third party systems easily integrate through standards.

USM: common model shared by all products.

Single place for business activity monitoring.

No single place that knows what has done what.
Catalyst Goals for APM

> Long Term
  - Enhance CA-Wily product line through correlation with physical entities managed by other CA products
  - Enhance CA’s overall NGSM product line by providing Transactional understanding and Behavioral organisation

> Short Term
  - Improve key point-to-point integrations
  - Standardise integration approach
Logical to Physical Mapping

Logical

Behavioral

Structural

Physical

Applications
Web Servers
Routers
Databases
Load Balancers
Firewall
Switches
Networks
Future Use Cases

> Dynamic service modeling
  ▪ Correlate infrastructure dependencies to business services based on transaction flow

> Extended, vertical triage
  ▪ Overlay infrastructure performance data over transactions to rule in/out infrastructure layer from performance issues

> Streamlined orchestration of problem detection, triage, and root case diagnosis workflow across silos
  ▪ Coordinate information and activity handoff
  ▪ Automate problem resolution activities
Any Questions?