



BI4.2 Administration and Maintenance

Agenda

- **Introduction**
 - Out of the box system administration tools in 3.x, 4.1 and 4.2
- **BI Resources**
 - SAP BI Platform Support tool
 - Analyze a sample report
 - Flexible Log Readers
- **System Configuration Wizard**
 - Instructions to run this tool
 - Command line interface
- **Server Alerts**
 - Alerts set up on different server states
- **Monitoring**
- **Introscope**
- **Recommendations & Conclusion**

Introduction: Administration tools and their relevance

3.1

- Auditing
- Tracing
- Query Builder

4.1

- Monitoring
- E2E Tracing
- System Configuration Wizard
- Kill user sessions! Yea!

4.2

- 4.1 Features
- Administrator Cockpit
- Recycle bin
- User Notification

Most of the features referred in this deck are related to 4.1 & 4.2 (SP2 +)

Let's get started!

SAP BI Platform Support Tool

SAP provides a utility that allows you to comprehensively document your environment, track landscape changes and enable End 2 End traces in a distributed implementation.

1

Landscape Analysis Report

- Server Comparison
- Schedule Analysis
- Content Analysis
- License Analysis
- Alert Summary

3

E2E Trace Wizard

- Perform Root cause analysis
- Persist Landscape Settings
- Automate

2

Change Analysis

- Compare historical landscape Data
- Understand what settings changed
- Differences in server metrics.

- Install BIPST from Market Place
- Built on API and a combination of Infostore Queries
- Generates output in HTML so you can distribute to your system engineers
- Answers Business Questions
- Supports 4.1-4.2 (64 bit only)
- Requires 4GB RAM

What does that mean? Landscape Report

Review sample report from a large 3000 users infrastructure. Summary analysis provides high level overview of critical system metrics.

1

Longest Query Response Time Since Startup (msec) > **10,000 ms**

- Issues with CMS Database performance. Review DB stats
- Evaluate CPU utilization
- Network sniffer's

2

Trace Log

- Determine trace log settings without connecting to every server in the cluster.
- Use this information to set appropriate trace levels
- Differences in server metrics.

3

APS settings

- Review APS memory settings
- Monitor Garbage Collection metrics

+

Content Analysis
Schedule Analysis
License Analysis

System Configuration Wizard

How do I size my Adaptive processing server? What servers should I group together for maximum performance? About 24 discreet services in APS and making a choice is always involved trail and error.

Server.
1. Adaptive Connectivity Service
2. Analysis Application Service (optional Design Studio server component)
3. BEx Web Applications Service
4. Client Auditing Proxy Service
5. Custom Data Access Service
6. Data Federation Service
7. Document Recovery Service
8. DSL Bridge Service
9. Excel Data Access Service
10. Insight to Action Service (BI 4.0 FP3 and higher)
11. Lifecycle Management ClearCase Service
12. Lifecycle Management Service
13. Monitoring Service
14. Multi Dimensional Analysis Service (MDAS)
15. Platform Search Service
16. Publishing Post Processing Service
17. Publishing Service
18. Rebean Service
19. Security Token Service
20. Translation Service
21. Visual Difference Service
22. Visualization Service
23. Web Intelligence Monitoring Service

The System Configuration Wizard is a tool that you can use to configure your BI platform deployment simply and quickly.

- Which servers you want to start automatically with BI platform
- Whether you want to optimize your deployment for maximum performance, or for limited hardware resources
- the locations of system folders

Monitoring

The Monitoring application allows you to capture the runtime and historical metrics of BI platform servers, for reporting and notification. The monitoring application helps system administrators to identify if an application is functioning normally and if the response times are as expected.

- » Inbuilt with 4.x Installation
- » Graphical view of BI Landscape
- » Default database is Derby DB
- » Monitoring is based on JMX Technology. We can integrate monitoring to the Enterprise applications like IBM Tivoli, HP Openview
- » We can switch Derby DB to Audit database for live reporting functionality

Best Practices

- » Use separate Audit DB instead of default Derby (Derby has limitations on size and live reporting is not possible)
- » Create Dedicated APS Monitor server for Monitoring
- » Set Alert reminders to "0" days to avoid duplicate alerts

Universe/DB

- » "Monitoring TrendData Universe" will be part of the installation
- » Tables used for Monitoring
MOT_MES_DETAILS, MOT_MES_METRICS, MOT_TREND_DATA, MOT_TREND_DETAILS

Monitoring

Monitoring Welcome: [User] | Preferences | Help | Log Off

Dashboard

Danger

RECENT ALERTS (3) | Filtered in last 1 days. [View All](#)

1	Web Intelligence Services Watch Caution Event	May 11, 2014 5:25 PM	Not Cleared
2	Web Intelligence Services Watch Caution Event	May 11, 2014 5:25 PM	Not Cleared
3	W0BBOED003.WebIntelligenceProcessingServer Watch Caution Event	May 11, 2014 5:25 PM	Not Cleared

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W0BBOE
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Select KPI

Deployment Level Metrics

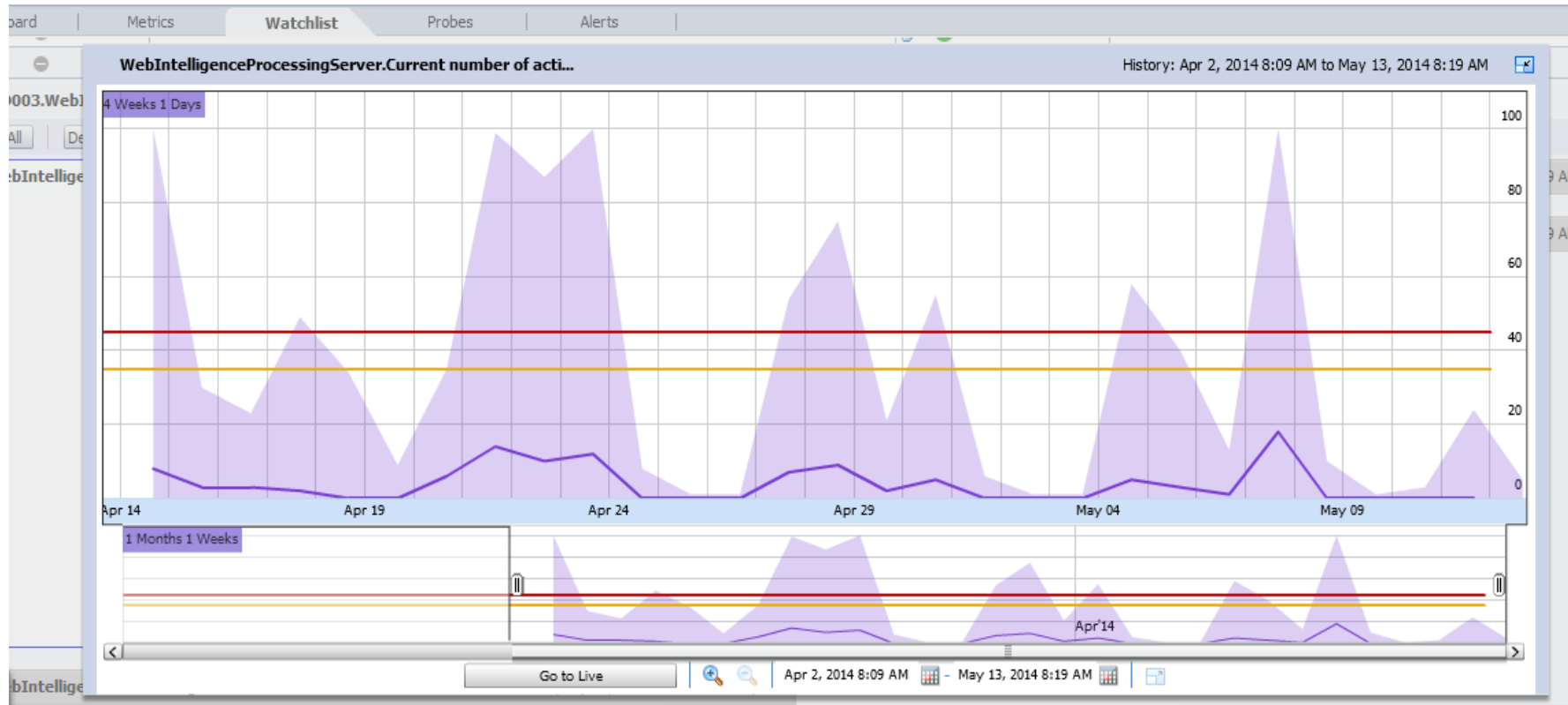
Running Jobs	0
Users	4
Pending Jobs	8

Graphical View of BI Landscape Updated on: May 13, 2014 8:16:03 AM

Show Service Categories with State All Display only selected [Mini View](#)

100% Zoom Levels [+](#) [-](#)

Monitoring



Current number of active sessions. Thresholds are defined by system administrators.
Capture usage based on time sliders

Administrator Cockpit

The BI Administrators' Cockpit is a new application added in the CMC. It enables an administrator to collect basic data about the BI environment. This essentially means deriving business intelligence from within the data in your business intelligence environment. With BI Administrators' Cockpit, you can obtain information about Servers, Scheduled Jobs, Content Usage, and Applications .

» Inbuilt with 4.2 Installation

» It will help Administrators to monitor below applications

- Servers
- Jobs
- Content Usage
- Applications

» Servers – Check servers , Number of server running , failed, stopped. Check failure reasons directly from cockpit

» Jobs – No need to goto Instance manager, Gives us the Total number of Jobs, Running Jobs, Failed Jobs.

» Content Usage – No need for query builder to write complex queries to find which reports are use and not. From Cockpit You can find the content that are not used and statistics of content.

» Applications – Find out top applications used by users. Webi, Crystal, Universe, Dashboard, Design Studio.

Recycle Bin

When ever user deletes any content it will be moved to Recycle Bin. This gives opportunity to recover accidentally deleted reports and folders. Restore the deleted objects.

- » Inbuilt with 4.2 Installation
- » Configure how many days you want to keep items in Recycle Bin
- » Supported objects – Crystal, Webi, Dashboards and Folders. Universes are not supported with current version .
- » Restore – Restore will maintain same CUID after restore. If same CUID already exist it will create copy of the resorted object.

User Notification

Broadcast (administrative) information to Group or entire audience about system changes , upcoming downtimes or any changes.

- » Inbuilt with 4.2 Installation
- » Configure timeline for notification
- » Notifications will show up after logging into the BI Launchpad
- » Send notifications to all Email IDs in the system

CA APM Introscope 9

Introscope is an application management solution created to manage Java application performance. Unlike development tools, Introscope is designed to scale with minimal performance impact. This allows you to monitor and manage your application performance in live production environments.

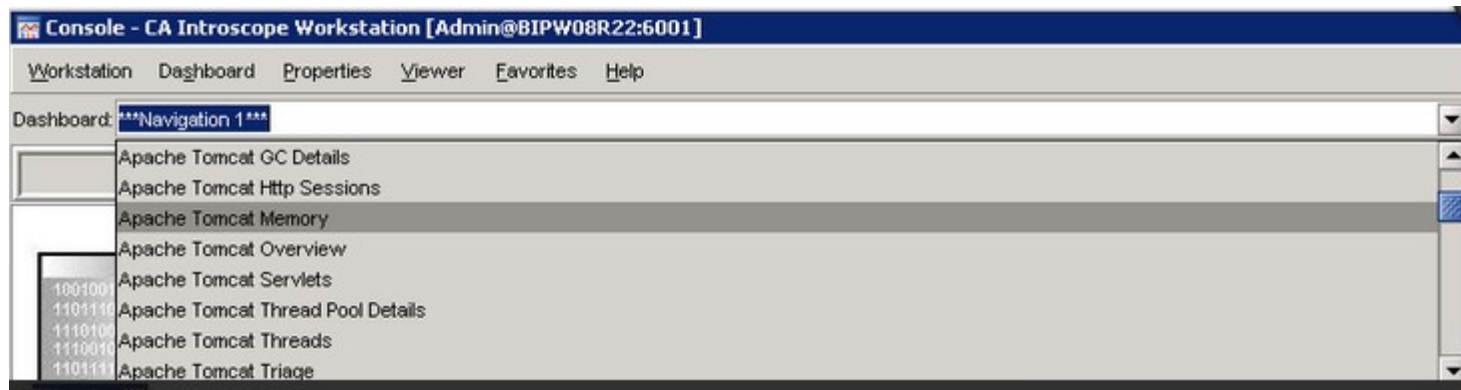
Setup

- » SAP providing Right to View version of CA introscope. Which is read-only form.
- » Install CA Introscope manger on dedicated environment (supports Windows, Unix)
- » Install and configure SMD Agent on each BI Node

Features

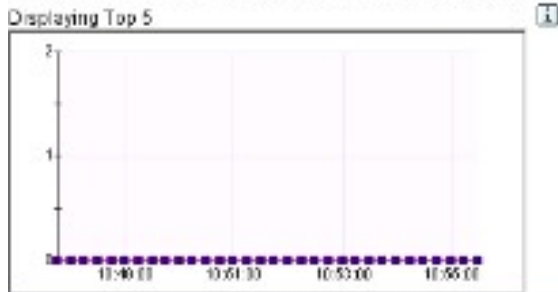
- » Analyze performance of Tomcat Server: CPU utilization, overall memory usage.
- » Find performance bottlenecks of APS Servers: Find history of server performance and drill down into specific server. Ex: DSL Bridge server.
- » Capture E2E Traces and generate Earlywatch alerts
- » Rich GUI graphical and dashboards to analyze problems
- » Live Error viewer

CA APM Introscope : Review Server & Tomcat Performance

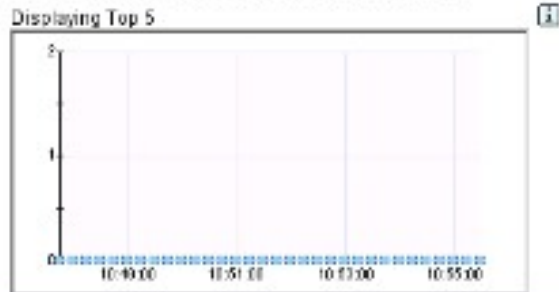


CA APM Introscope 9

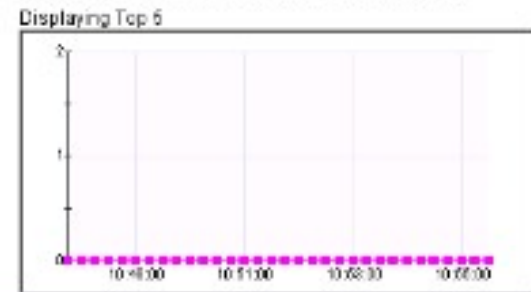
Web Applications Average Response Time (ms)



Web Applications Responses Per Interval



Web Applications Concurrent Invocations



Advanced Analysis - WebApp Average Response Time (ms)



Interactive Analysis - WebApp Average Response Time (ms)



Crystal Reports - WebApp Average Response Time (ms)



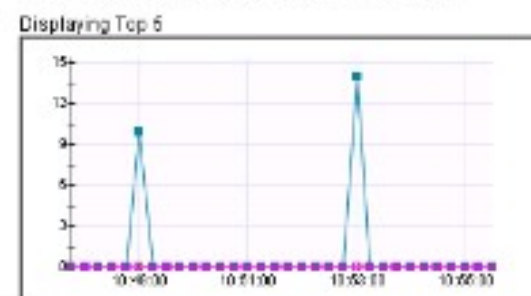
Java Virtual Machine (Bytes in use)



CPU utilization



Backend Average Response Time (ms)



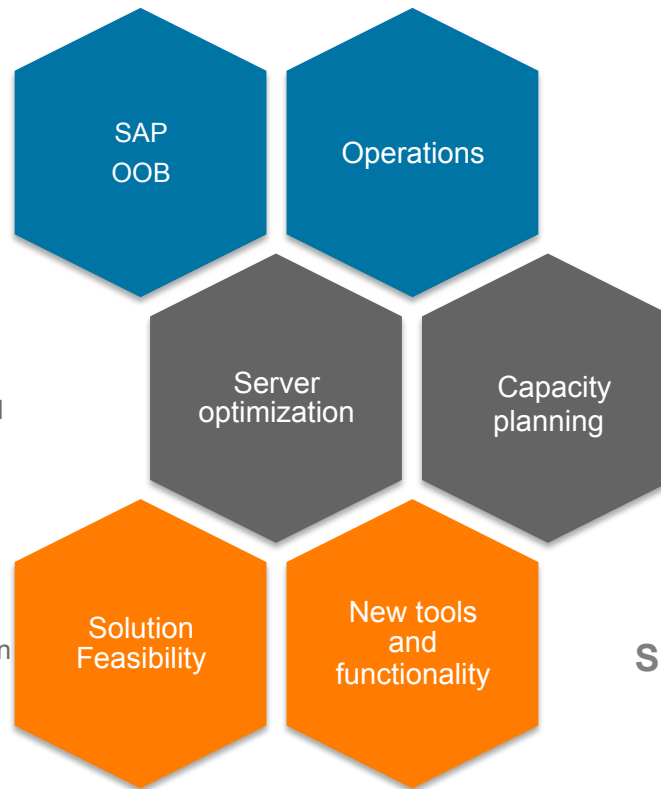
RAS recommends:

Platform Administration

Addition of, deletion of, changes to user and group privileges. Authentication and Authorization role management in the reporting application

Planning and implementing growth and change to the BI server infrastructure. Precise tracking of current and future states. Installation of new server components such as Mobile Server or an additional Intelligence Server node

Tracking of application usage and performance measurement histories. Analysis, diagnosis, and resolution of performance issues



Daily Operations

Proactively monitor services/servers for normal operating thresholds. If thresholds are breached, issues will be logged, analyzed and resolved as per pre-defined SLAs

Analysis, isolation diagnosis and resolution of reported technical platform or configuration issues with application vendor technical support

Monitoring unexpected server restarts and trouble shooting

Orphan session cleanups

Servers and VM restarts if required

Acting as L1 & L2 Support for the end users and troubleshooting

In case of product issues opening case with SAP and working closely with SAP

Promoting the reports between environments

Support & Maintenance

Monitoring and Maintenance of database applications (CMS, AUDIT, MONITOR etc.)

Provide support outside normal US business hours (7 AM - 6 PM EST) by on-call status for any Severity 1 PROD outage. Coverage hours will be from 1 AM - 7 AM EST (Monday through Friday primarily for EU support)

Provide recommendations around industry best practices and sound development methodologies

RAS Access Dashboard: The Canary



Game Changer

Consolidate data from multiple data sources such as:
Auditor,
Monitoring,
Query Builder,
SDK/API,
Introscope * etc. in to a single unified interface.

Provides a holistic view of the health of the system while alerting critical failures.

Dashboard with real time updates of the environment

Conclusion

SAP provides you a series of tools and resources that you should add to your tool kit as you administer your BusinessObjects environment. Following are some of the resources that I have referred to in this deck:

- Analyzing Log Files – GLF viewer and E2E Trace (Solmon and Non-Solman/Passport)
 - <http://scn.sap.com/docs/DOC-47976>
 - <http://scn.sap.com/community/bi-platform/remote-supportability/blog/2012/11/06/how-to-generate-and-consume-an-e2e-trace-with-bi4x-for-non-solman-landscapes>
- BI System Configuration Wizard
 - <http://scn.sap.com/docs/DOC-41681>
- BI Platform Support tool
 - <http://wiki.scn.sap.com/wiki/display/BOBJ/SAP+BI+Platform+Support+Tool>
- Platform Monitoring
 - <http://scn.sap.com/community/bi-platform/blog/2014/01/31/a-complete-guide-to-setup-ca-apm-introscope-9-for-monitoring-sap-bi-platform-41-on-windows>
- Flexible Log reader
 - <https://wiki.scn.sap.com/wiki/display/BOBJ/Flexible+Log+Reader>

Contact info@rightanglesol.com for specific resource tips and custom monitoring dashboard tools



Raj Juttukonda
516.902.9910
rjuttukonda@rightanglesol.com