

CA Application Performance Management

Release Notes

Release 9.5.3



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CA Technologies Product References

This document references the following CA Technologies products and features:

- CA Application Performance Management (CA APM)
- CA Application Performance Management ChangeDetector (CA APM ChangeDetector)
- CA Application Performance Management ErrorDetector (CA APM ErrorDetector)
- CA Application Performance Management for CA Database Performance (CA APM for CA Database Performance)
- CA Application Performance Management for CA SiteMinder® (CA APM for CA SiteMinder®)
- CA Application Performance Management for CA SiteMinder® Application Server Agents (CA APM for CA SiteMinder® ASA)
- CA Application Performance Management for IBM CICS Transaction Gateway (CA APM for IBM CICS Transaction Gateway)
- CA Application Performance Management for IBM WebSphere Application Server for z/OS (CA APM for IBM WebSphere Application Server for z/OS)
- CA Application Performance Management for IBM WebSphere for Distributed Environments (CA APM for IBM WebSphere for Distributed Environments)
- CA Application Performance Management for IBM WebSphere MQ (CA APM for IBM WebSphere MQ)
- CA Application Performance Management for IBM WebSphere Portal (CA APM for IBM WebSphere Portal)
- CA Application Performance Management for IBM WebSphere Process Server (CA APM for IBM WebSphere Process Server)
- CA Application Performance Management for IBM z/OS® (CA APM for IBM z/OS®)
- CA Application Performance Management for Microsoft SharePoint (CA APM for Microsoft SharePoint)
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- CA Application Performance Management for Oracle WebLogic Portal (CA APM for Oracle WebLogic Portal)
- CA Application Performance Management for Oracle WebLogic Server (CA APM for Oracle WebLogic Server)
- CA Application Performance Management for SOA (CA APM for SOA)

- CA Application Performance Management for TIBCO BusinessWorks (CA APM for TIBCO BusinessWorks)
- CA Application Performance Management for TIBCO Enterprise Message Service (CA APM for TIBCO Enterprise Message Service)
- CA Application Performance Management for Web Servers (CA APM for Web Servers)
- CA Application Performance Management for webMethods Broker (CA APM for webMethods Broker)
- CA Application Performance Management for webMethods Integration Server (CA APM for webMethods Integration Server)
- CA Application Performance Management Integration for CA CMDB (CA APM Integration for CA CMDB)
- CA Application Performance Management Integration for CA NSM (CA APM Integration for CA NSM)
- CA Application Performance Management LeakHunter (CA APM LeakHunter)
- CA Application Performance Management Transaction Generator ([assign the value for wtg in your book])
- CA Cross-Enterprise Application Performance Management
- CA Customer Experience Manager (CA CEM)
- CA Embedded Entitlements Manager (CA EEM)
- CA eHealth® Performance Manager (CA eHealth)
- CA Insight™ Database Performance Monitor for DB2 for z/OS®
- CA Introscope®
- CA SiteMinder®
- CA Spectrum®
- CA NetQoS® Performance Center
- CA Performance Center

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Contents

Chapter 1: What's New in 9.5.3 11

Enhancements	11
International Support	11
Platform Support	12
SharePoint 2013	12
Domain support for JBOSS EAP 6.1.1 with JVM 1.6	13
Fixed Issues in 9.5.3	13
Fixed Issues in 9.5.2	20
Fixed Issues in 9.5.1	21

Chapter 2: APM Application Behavior Analytics 27

Requirements	27
How Analytics Are Collected	28
How to Install and Configure APM Application Behavior Analytics	29
Install the CA Analysis Server	30
Configure Analytics Settings	30
Validate Functionality	31
(Optional) Create Additional Regular Expressions	32
Quick Tour: Analytics in the User Interface	33
Analytics on the Home Page	33
The Analysis Workbench Tab	34
CA Analysis Server Management Tools	37
Troubleshooting	40

Chapter 3: Known Issues 41

APM Database Known Issues	41
Migrating Data From Different Time Zones is Not Supported - 76238	41
Introscope Known Issues	41
WebView Issue with Upgrade - 85272	43
Performance issue with aggressive metric aging of a high volume of metrics over a period of time - 85261	44
Increase in CPU utilization with agent 9.1.1 and higher on Oracle RAC - 84418	44
introscope.agent.transactiontrace.componentCountClamp does not get updated without agent restart - 83982	44
StackOverflowError in Enterprise Manager - 83214	45
Error on Postgres DB installation on Linux/Solaris - 82595	45

Installing or upgrading CA APM in a 32-bit AIX environment requires APAR - 79590	46
Various dashboard widgets not supported - 78714	46
Error in the Threads in Use metric - 76994	47
ResourceMetricMap.properties file not retained after upgrade - 76598	47
CA APM for IBM CICS Transaction Gateway data does not Display Properly on Application Triage Map - 75808	47
CA APM for SOA Performance Management Agent Not Available for Agent Installation - 75307	48
Selecting Browse All Customer Experience Metrics Option from the CE Node Context Menu is Broken - 75115	49
Issue with connecting Enterprise Manager and agent on HP-UX using IPv6 - 74118	49
Applying dashboard lens may incur data lag in dashboard editing - 74115	49
Backend traces not automatically included - 66146	50
Alert states not properly retained - 65847, 66676	50
Older JREs may cause problem with web start - 65351, 65522	50
Transaction Events database (traces.db) requires additional memory for optimization tasks - 64726, 64908	51
Problem with LDAP Default Query for Groups - 64181	51
Using WatchDog on failover EMs - 62878	51
Tree persistence in Map tab - 61213	52
First error sometimes not reported or displayed - 59422	52
Domain definition issues in clustered environment - 59231	52
Using alternate versions of agent .jar files with WebSphere 6.1 - 59086	53
Switching between 32-bit and 64-bit JVMs on OS/400 (IBMi) may cause issues - 57774	54
Using alerts to trigger shell actions - 52556, 60188	54
Misleading data in SOA dependency map in some cases - 49422	55
ws70x.pbd lacks trace directives for some WebSphere 7 specific classes - 49146	55
Increase memory to use extra instrumentation with WebSphere 7 - 48885, 49328, 58653	55
Extensible Counter List utility required for Windows platform monitoring - 48697	56
Issue importing saved transaction traces - 46688	56
View Metric Count chart only in live mode - 46035	56
Labeling issue on time series bar charts - 42368	57
Accuracy in 'Partial Metrics with Data' metric - 41856	57
Toggling ManagedSocketTracing during runtime may result in error - 39884	57
Configuring sockets to reuse address permits quicker restart - 39716	58
Frequent class redefinition under Dynamic Instrumentation may result in OOM condition - 38867, 38868, 63857	58
Poorly written calculators may result in misleading display - 38636	58
Agent Known Issues	59
Java Agent Known Issues	59
.NET Agent Known Issues	63
Customer Experience Manager Known Issues	66
Issue with CEM Service Initialization - 257380	67

Issue with CEM Stability when the Standalone Environment is Changed to Cluster - 86791	67
Potential Security Risk with CA Directory - 73910	67
Oracle 10g 2r: Internal Application Errors with some CEM reports - 66484, 66485.....	69
Original recorded values and patterns appear in the wrong characters - 65193	70
Some report displays do not match PDF versions - 60056	70
Extensions and Integrations Known Issues	70
Deviation metrics not reported for the CA APM Extensions - 85465	71
Servlets node is not shown in Workstation on AIX with WAS 6.1 - 84456.....	71
Performance Issue on WebSphere Application Server - 84238	71
Handle Leak in CA LISA Process when Platform Monitor is Enabled - 82910, 76289	72
IBM WAS 7 on z/OS throws PMI instrumentation error - 81500	72
Worker pool count metric is missing for CTG 7.2.0.0 - 78486	73
SharePoint 2010 OSS Secure Store Tickets metrics may not be accurate - 67375	73
Third-Party Known Issues	73
Issue with IIS 7.5 default installation - 85324	75
Issue with queue.filter.includeonly.regex expression for MQ extension - 85045	75
Segmentation Error on WebSphere Application Server 7 - 84988.....	76
No warning or shutdown if 64-bit Linux EM system clock time moved backward - 83106	76
Error when installing Postgres SQL - 82840	76
Introscope Custom Service fails to start after upgrading WebSphere Application Server 7 - 82689	77
MQ Monitor / WebSphere MQ agent does not monitor queue managers by default - 78313	77
APAR R044532 needed for SYSVIEW R13.5 for CTG Channel Tracing - 76104.....	77
CA APM Database Related Logs Contain Junk Characters - 73579	78
Missing thread pool metrics on Tomcat 6.x - 72879.....	78
Negative Values for PMI Metrics on WebSphere 7 - 72467.....	78
OOM error requires update to IBM JDK SR10 - 71618.....	79
Erroneous Message Broker Status in z/OS Environments-70242	79
Issue with starting Introscope Workstation on Vista and later OS - 66629	80
Errors on reimporting exported transactions on Japanese HP-UX system - 65101	80
Initial view of CEM UI pages may cause crash - 63644	80
OOM error requires update to JVM 1.6u25 - 63210.....	81
OOM error on Sun JVM 1.6.0_16 may require JVM upgrade - 62360	81
Certain JVM-platform combinations may experience startup problems - 61585.....	81
Issues starting agent on WebSphere-Linux platform - 59363.....	82
Dynamic instrumentation with JBoss or Tomcat app servers using Java 5 not supported - 58986.....	82
Using Java agent with IBM JDK 1.6 requires JDK upgrade - 53425	82
Classic JVM no longer supported for Agent on OS/400 (IBMi) - 52642, 58070	82
Running Introscope with WebLogic Server and JRockit - 52469.....	83
Agent on IBM JDK 1.5 requires JDK upgrade - 47067, 47451, 55622.....	83
Java exception during dynamic instrumentation with WebSphere MQ - 45915.....	83
JBoss issue on 64-bit SuSe 9 system - 45889	83
Stalled stateless plugins may not stop properly - 27489, 27492	84

Localization Known Issues	84
Screen Captures not Localized - 254284	84
Column Menu in WebView not Localized in Japanese and Korean - 251682	85
Graph in CEM console contains garbled characters - 82709.....	85
Dashboards for Cloud Monitor not Localized - 76051	85
CA APM 9.1.1 Features, Enhancements, and Bug Fixes Not Localized - 75810	85
Legend strings are not localized in APM reports - 75638	86
CSV Generated from Localized Enterprise Managers Contain Garbled Text - 72920	86
Localized PDFs may Contain Garbled Text - 72360	86
Some Management Modules may appear in English despite non-English locale - 66173	87
Documentation Known Issues	87
Documentation missing information about Postgres Uninstall - 86048.....	88
Documentation missing information about an EMS metric - 85963	88
Documentation contains incorrect reference to PowerpackForWebSphere_Agent.jar - 84902.....	89
Documentation inaccurately refers to Enterprise Manager Supporting z/OS or OS/400 - 84667	89

Appendix A: Acknowledgments

91

Chapter 1: What's New in 9.5.3

The Release Notes contain known and fixed issues and is the only documentation that is provided for this Service Pack.

To find software and documentation for all releases, go to the CA APM product page on the [CA Support](#) website.

For information about platform support for prior releases, see the *CA APM Compatibility Guide*.

Enhancements

- **APM Application Behavior Analytics (ABA):**
 - If you have 9.5 or 9.5.1, then you can upgrade to 9.5.2 or 9.5.3 for ABA.
 - If you have ABA 9.5.2, upgrade to 9.5.3.

For more information on installing ABA, see the section [Application Behavior Analytics](#) (see page 27).

- **Support for 2048-bit SSL certificate compatibility:**

Support added for 2048 key size of SSL certificate compatibility for secure connectivity between APM components.

International Support

CA APM is fully internationalized and supports over 100+ regional settings for date, time, and number formatting, and is available in the following languages:

- English
- Japanese
- Korean
- Simplified Chinese
- Traditional Chinese (user interfaces only)

Platform Support

The following platforms are supported:

- SharePoint 2013
- Domain Support for Jboss EAP 6.1.1
- Support for MB9

SharePoint 2013

In this release, SharePoint 2013 is supported for the SharePoint Farm Environment and the Inprocess Agent.

Sharepoint Farm Environment

In a Farm Environment, SPMonitor Agent requires local administrator account during installation and SPMonitor Windows service must run with SharePoint Domain User.

SharePoint In-Process Agent

Symptom:

When the SharePoint Inprocess agent is run in IIS websites such as Sharepoint 2013 with windows 2012 and other Windows operating systems, the SharePoint 2013 fails to start.

Solution:

Change the "trust" setting in the web.config file located at <Physical location of sharepoint website in IIS>\web.config as follows:

```
<trust level="Full" originUrl="" legacyCasModel="false" />
```

The agent and the powerpack for sharepoint in process agent start successfully.

Domain support for JBOSS EAP 6.1.1 with JVM 1.6

To configure an agent with JBOSS EAP in domain mode at a server or server group level:

Follow these steps:

1. Log in to the JBOSS Management Console. For example, `http://<Hostname>:9990`.
2. Select the Hosts tab and click Server Group or Server Configurations to select a server group or an individual server.
3. Add Agent.jar in the JVM Options field under the JVM configurations tab.
4. Click the System properties tab.
5. Click Add and add the name and value of the system property in the Create System Property dialog, and select the Boot-Time check box.

The following name and value of the system properties must be included:

- `com.wily.introscope.agentProfile: <Wily Home>/core/config/IntroscopeAgent.profile`
 - `jboss.modules.system.pkgs: com.wily, com.wily.*`
6. Select the Runtime tab, click Manage Deployments, add the WebAppSupport.jar, and assign it to the server group to enable Agent Auto Naming.
 7. Restart the domain.sh/bat file to view the configuration changes.

Fixed Issues in 9.5.3

The following issues are fixed:

Defect ID	Defect Description
269759	Limited support for regular expressions in IncludeOnly filter for MQMonitor Agent The regular expression support for IncludeOnly filter that is used for filtering queues and channels is limited to few special characters. You can now specify any Java supported regular expression to filter the queues and channels for monitoring.
269764	APM agent is not able to retrieve WebSphere Message Broker archive statistics When archive monitoring is enabled at the Broker end, the APM agent is not able to retrieve archive statistics. The value of the new parameter, <code>statistics.broker.recordType</code> in the <code>MB_7Monitor.properties</code> file must be set to Archive, to view Message flow statistics.
250240	URLs missing after the agents are upgraded to 9.1.6 Upgrading agents from 9.1.1 to 9.1.6 is causing issues with Frontend Data reporting wherein most URLs are not visible.

Defect ID	Defect Description
250545	Errors during the Instrumentation process blocking Application threads Agent tracers are unable to run due to a Null Pointer Exception and are logging stacktrace for the exception in the stderr for the Appserver. Since logging occurs in a serial manner, it blocks the application thread which uses the same output channel for logging.
250623	Agent disconnection from EM Agent disconnects from EM due to the AssertionFailureException issue related to metric clamp being hit.
270741	EM crashes due to socket leak Due a known bug in Jetty 6.1.26, EM crashes due to socket leak.
250344	Unable to copy a Management Module with active Downtime Scheduler When a Management Module with active alert downtime scheduler is copied, a copy of management module is created with no elements and the following error message is displayed: The command cannot be completed because the Element does not exist
250741	MQ Extension modifies a queue of another application The MQ Extension modifies the dynamic queue that belongs to another application.
250576	Delay in response from the CA APM environment to the web service calls In the APM-CA Performance Center integration, no data is shown on the dashboard and errors are logged in the log files.
254181	Issue with MTP environment when wildcards are used in parameter name When wildcards are used in the parameter name, the transactions are mismatched in the MTP environment.
250599	Error in Fault Tracer repeatedly logged in Webmethods SPM deployment The Agent logs in Fault Tracer displays the following warning message repeatedly: 9/03/13 03:47:27 PM EDT [WARN] [IntroscopeAgent.Agent] Error in Fault Tracer.
251715	Negative values reported in the Investigator due to wrong instrumentation The Introscope agent's tomcat pbd incorrectly instruments the following method and reports negative DBCP (Database Conn Pool) values in the Investigator: TraceOneMethodIfFlagged: DBCPTracing evict MethodTraceDecrementor "Tomcat DBCP Connection Pool:Connections In Use
250721	Issue with Collector load balancing When three collectors in a cluster are connected to an agent and the socket connection is stopped, the agent is redirected to the collector that has the highest number of metrics due to an error in load balancing.

Defect ID	Defect Description
270740	Search results in the Workstation are truncated to 500 items After applying 9.1.4.0 Hotfix # 7 and performing a search using the Search tab, search results in the Introscope workstation are truncated to 500 items.
263054	Unable to launch Introscope through Webstart workstation After upgrading to Java 7 Update 45, users are not able to launch Introscope through WebStart workstation. This occurs for multiple versions of Windows (e.g. 2003, 7, and so on).
250422	Exception thrown while upgrading the agent The method that collects metrics related to socket address causes an exception while upgrading the agent from 9.0.8 to 9.1.6.
255262	Circular reference among alerts causing exception Circular reference among summary alerts that caused an exception is fixed by the enhanced handling of summary alerts. Rlogin into Workstation to view the de-activated summary alerts in the Management Module.
250313	Load Balancer rebalancing erratically when the Collector weight is changed Load Balancer calculates the Average Weight and Weighted Metric load incorrectly when Collector weights are modified causing agent disconnections, decrease in EM performance, and missing data points.
250537	OOM/GC problem in Websphere application Issue with SOA dependency map edges is causing the OOM/GC problem in Websphere application.
250841	The agent connected to HTTP tunneling and proxy is blocking the workstation The workstation does not respond when an agent connected to HTTP tunneling and proxy is stopped. After the fix, when the agent is stopped, the workstation is blocked only for about 10 seconds.
250454	Webview displays the wrong Investigator URL in the browser When Webview is launched with URL: <code>http://host:port/webview/#console;db=***Navigation+1***;mm=SAP+Navigation;tr=0</code> to display a pre-selected dashboard, the dashboard is launched but the URL in the browser displays the wrong Investigator URL, <code>http://host:port/webview/#investigator;tab-in=mb;tr=0</code> .
250338	Reason code 2033 MQRC_NO_MSG_AVAILABLE occurs when querying the Queue Manager If the error 2033 is encountered while sending the Programmable Command Format (PCF) query from the MQ monitor, then the wait interval is set to 200 seconds and the query is resent.
250383	APM causing the dead letter message When APM deletes a dynamic queue from the MQ monitor; message in the dead letter queue is reported.

Defect ID	Defect Description
274967	Out of Memory issue reported for Java agent Due to excessive usage of CPU and memory, Out of Memory (OOM) issue has been reported for the Java agent.
271427	Issues with SiteMinder Dashboard When the SiteMinder dashboard is accessed from the Workstation, the links within the dashboard cause issues.
250440	Requests per Interval metric aggregating incorrectly Requests per Interval metric is aggregating incorrectly in the historical mode for the Webserver monitor.
274850	Issue in viewing the JMX metrics Synchronized JMX metrics are not visible in the investigator.
271204	Issue with Webview links when alert and dashboard belong to different domains When alert and dashboard belong to different domains, the Webview link created to view the alert from the dashboard is broken.
279864	Issue with MOM, Workstation client, and EP agent As the SocketChannel.read method does not stop in 30 seconds, access to the Workstation client is denied, the EP agent gets disconnected and the MOM hangs repeatedly.
271182	Reports do not display due to issue with hourly aggregation Due to an issue with purging of tables related to hourly statistics; reports do not display properly.
254394	Spawned process in TIBCO Business Works application causing issues When TIBCO Business Works application and the Agent are upgraded to the versions 5.9.3 and 9.1.6 respectively, TIBCO process metrics do not display in the Investigator due to an issue in the TIBCO spawned process. Also, null pointer exceptions are logged in the log files as follows: 12/31/13 09:59:56 AM IST [ERROR] [IntroscopeAgent.TibcoBW] Error in finding map name 12/31/13 09:59:56 AM IST [ERROR] [IntroscopeAgent.TibcoBW] Exception in getProcessContextMap :java.lang.NullPointerException
277928	Proxy dialog displays while accessing workstation Proxy dialog displays when workstation (standalone/webclient) is connected through LAN.
250541	OOM exception is reported by the Agent in the log files The 9.1.6 agent used to monitor Oracle Access Manager (OAM) from the Oracle Fusion 11g and run on the Weblogic 10.6 stack is causing OutOfMemory (OOM) exception and stopping the JVM.

Defect ID	Defect Description
276451	<p>Issue while copying a management module through the UI</p> <p>While copying a management module through the UI, the following error is displayed:</p> <p>Copy Management Module <NAME> Failed: The command could not be complete because the Element Does not exist.</p>
257380	<p>Issue with CEM Service initialization</p> <p>When the port number entered is greater than 32767, service initialization fails due to null pointer exceptions. However, it works properly when the port number is between 0 and 65535.</p>
277742	<p>Issue with alert activation</p> <p>When there is a huge number of alerts; deactivation of alerts does not work through command line workstation.</p>
261668	<p>Spawned process in TIBCO application causing issues</p> <p>Spawned process in TIBCO application displays the following error:</p> <p>10/10/13 04:10:02 PM SGT [ERROR] [IntroscopeAgent.TibcoBW]</p> <p>SpawnedProcessCorrelationTracer::Error in getProcessContextMap</p> <p>:java.lang.NoSuchFieldException: processInstanceVars at</p> <p>java.lang.Class.getDeclaredField(Class.java:1882) at</p> <p>com.wily.soaextension.tibcobw.TibcoReflectionCache.getF_Job_M(TibcoReflectionCa</p> <p>che.java:38)</p> <p>Due to the above error, no data displays for the TIBCO metrics in the investigator.</p>
276783	<p>Disconnecting agents from the EM are causing issues</p> <p>When the agents are disconnected and connected to the EM simultaneously, the following error is displayed:</p> <p>[TimerBean] [Manager] caught unexpected exception while sending timer notification, java.util.concurrent.RejectedExecutionException, cancelling timer</p> <p>11/19/13 02:30:43.024 AM EST [VERBOSE] [TimerBean] [Manager]</p> <p>java.util.concurrent.RejectedExecutionException at</p> <p>java.util.concurrent.ThreadPoolExecutor\$AbortPolicy.rejectedExecution(Unknown Source)</p>
257365	<p>Webview not accurately displaying the dashboard at runtime</p> <p>Positioning of items or controls particularly when placing items such as alerts inside rectangles is not displaying properly in Webview during runtime.</p>
281311	<p>Dashboard alerts and data do not display in graphs</p> <p>Due to a deadlock in Collector that is triggered by the Collector reporting a clamp hit event to MOM and disconnecting with MOM at the same time, dashboard alerts and data do not display in graphs.</p>
250579	<p>SAP Passport not propagating to the correct trace</p> <p>When there are multiple traces, the correct SAP Passport does not propagate to the corresponding trace.</p>

Defect ID	Defect Description
269635	Issue with TIM collection service Tim Collection Service does not start when EM is stopped during initialization of TIM service.
274965	Restarting the agent does not activate the danger threshold The Danger threshold for a metric is not activated for the subsequent interval when the agent is restarted.
268835	Issue with the CEM tab The CEM tab in the CEM console displays the following error: Internal Application Error:
271418	Transaction Trace component clamp causing issues in the Agent log When Transaction Trace sampling is disabled and no manual Transaction Trace session is started, the following warning about Transaction Trace component clamp displays in the agent log: [WARN] [IntroscopeAgent.WilyTransactionStructure] Transaction trace component limit of 5000 reached, recording of any new components will cease for this transaction Now the warning only displays for 50 times in the Agent log.
276477	Bar chart in Dashboard showing incorrect status Incorrect status displays when the Less than (<) comparison sign is used to view the Agent Status metrics in the Bar chart of the dashboard.
262788	Issue in the agent causing an error in the thread count metric Due to an issue with the 916 agent, the active thread count metric is not accurate in the investigator.
271912	URLs not properly URL-encoded in CEM When multiple instances of the same agent are connected to an EM with autonaming enabled and the agent names containing % signs are used in URLs with href tags in CEM, then the % signs are not properly encoded in the URLs.
281881	Agent is causing the memory overhead issue Due to significant number of web service calls in a particular time period, an issue occurs with the TransactionCache which results in agent causing the memory overhead issue.

Defect ID	Defect Description
283370	<p>Message Broker restarts when statistics are not available</p> <p>Due to the delay time set to 15 seconds, Message Broker connection is lost frequently and is not able to collect statistics in archive mode.</p> <p>The following errors are displayed in log:</p> <p>1/15/14 01:53:17 PM EST [ERROR] [com.wily.powerpack.websphereMQ.agent.MQMonitor.MBMonitor.ExecutionGroupTracer] Statistics for all Execution groups are missing. MB Agent probably lost connection.</p> <p>1/15/14 01:53:17 PM EST [INFO] [com.wily.powerpack.websphereMQ.agent.MQMonitor.MBMonitor.ExecutionGroupTracer] MB Agent restart will be performed now.</p> <p>1/15/14 01:53:32 PM EST [INFO] [com.wily.powerpack.websphereMQ.agent.MQMonitor.MBMonitor.ExecutionGroupTracer] ExecutionGroupTracer thread ended.</p>
250384	<p>MQ extension causing application outages</p> <p>The MQ extension is accessing a new channel for each queue and is not performing any message activity. This causes application outages since the queue manager is not able to access active channels.</p>
277725	<p>CTG extended transactions having multiple programs are causing issues in the front end CTG transaction trace</p> <p>When CTG extended transactions having multiple programs in a unit of work are run in a single transaction on CICS, several correlation IDs (GUID) for the entire Unit of Work are generated in the front end CTG transaction trace. Also, the front end transaction lists ECI_COMMIT as a program name.</p>
277681	<p>The CTG SYSVIEW Tracer does not have the Communication Method property</p> <p>The property "Communication Method" for the method JavaGateway.flow() is missing in the CTG Sysview Frontend trace. Also, the value of the "Communication Method" property does not match in the correlated backend trace.</p>
277679	<p>The IBM CTG API must not display a user program name</p> <p>The IBM CTG API "ECI_COMMIT" displays as a program name, with property and the component name. Also, there is no property to indicate the usage of extend mode.</p>
272136	<p>Traces are not displayed on the Traces tab</p> <p>If the Process name has a backslash in its name then the traces are not displayed in the Traces tab.</p>
277720	<p>The STDENV jcl file does not have information for setting the timezone</p> <p>There is no information in STDENV JCL file to set the Timezone for CEM. Hence, the TZ variable could not be added along with the export command during installation.</p> <p>The time zone (TZ) environment variable is added to STDENV JCL for customizing time logging.</p>

Defect ID	Defect Description
271605	The SYSVIEWPATH in STDENV.JCL and wilyzos.sh have the "NM" transposed as "MN" A missing directory is created while deploying the HFS file structure for APM. The directory of SYSVIEWPATH in STDENV JCL and wilyzos.sh files had "NM" transposed as "MN".
282193	Webview login crashes MOM While preparing query data for Webview due to an unsynchronized hashmap, Webview login fails and crashes MOM.
277722	Support for CTG XA requests for CTG Tracer must be added CTG Tracer is enhanced to handle all possible subclasses (CicsCpRequest, ECIRRequest, EPIRequest, ESIRRequest, and XARequest) under parent class Gateway Request. XA request is an extended transaction request which supports two phase commit.
276506	Thread leaks causing OOM exception When there is a MOM-cluster setup and a connection between MOM and Collector is created, the thread leaks cause the OOM exception.
256275	Checkpoints failing in TIBCO application due to serialization of process correlation data TIBCO applications designed with checkpoints to save process data contain errors and checkpoints that fail because of serialization of process correlation data. The new parameter, com.wily.soaextension.tibcobw.correlationserialization.enabled provides an option to enable or disable serializing correlation data. Set the parameter to FALSE to disable the serialization of correlation data.
282389	Abnormal network conditions causing OOM exception Abnormal network conditions in the production environment are causing OOM exceptions in the agents. As a result, the agent is unable to send data to the Enterprise Manager.
279386	APM causing CPU and memory issues Due to significant Sql queries run on the application server, APM is causing CPU and memory overhead issues on the production server.

Fixed Issues in 9.5.2

The following issues were fixed in 9.5.2:

Defect ID	Defect Description
278777	Cannot Sort Users by Login Name Sorting users by their login names in the CEM UI does not work.
278269	Webstart Workstation issue in a J7u45 and J6u65 Environment You run into an issue while launching the Webstart Workstation in a Java 7 update 45 and Java 6 update 65 environment.

Defect ID	Defect Description
277926	Issue with Proxy Credentials Dialog in 9.5.1 Workstation When you access CA APM 9.5.1, you are frequently asked for your proxy credentials in both the local and the WebStart Workstation.

Fixed Issues in 9.5.1

The following issues were fixed in 9.5.1:

Defect ID	Defect Description
86779	Issue with 9.1.6 Collector during Load Test When the 9.1.6 APM database was shut down in a cluster environment during load test, one of the collectors could not connect to the APM database even when the collector process was up.
86718	Scheduling Report caused restart of JVM On clicking Performance Reports, Business Service, and then "Save or Schedule Report", depending upon the number of CEM users MOM went into an excessive GC cycle and became unresponsive. This issue was fixed.
86616	Issue with Oracle 10g Schema Upgrade When you upgrade the database to 9.5, you may see the following error: <i>[ERROR] [main] [com.wily.apm.dbutil.SqlExecutor] Sql error in file: dbupgrade-apm-oracle-9.1.4.1.sql java.sql.SQLIntegrityConstraintViolationException: ORA-00001: unique constraint violated</i>
86324	OOM Exception because of 9.1.5 Agent Memory Leak High number of host-port connections occurring frequently caused an aggressive consumption of CPU and Memory.
86280	Incorrect CEM Export Data displayed for a Business Transaction The CSV data was the same whether you selected a single business transaction or all business transactions for a non-aggregated business service. To fix this issue, the Business Transaction dropdown menu has been removed when "Non Aggregated Business Service" or "Aggregated Business Service" report is selected.
86226	Agent-EM Disconnection Issue in a virtual IP environment Upgrading from 8.x to 9.1.1.1 in a virtual environment caused multiple Enterprise Managers to bind to the same port. With the fix only one Enterprise Manager can bind to a port on the same server.

Defect ID	Defect Description
86077	Issue with SOA Dependency Map property in Out-Of-the-Box Configuration Data becomes corrupted when both 8.x and 9.x agents are running in your environment. To fix this issue, the SOA dependency map property <code>com.wily.introscope.soa.dependencymap.normalizeallname.enable</code> has been set to true by default.
86035	Dropped TIM packets in some environments Some functionalities that are not needed caused some TIM packets to be dropped. You can now disable the XMLParser if you do not need it.
86010	Password Restriction issue for APM Database User The APM database user password containing a non-alphanumeric character, caused the CEM access issues after the database installation. Non-alphanumeric characters are now permitted.
85918	Performance Issue with Permgen size in the WebView lax file Even when the number of browser instances is low, you notice a performance issue in the WebView monitor. You can now set the maximum and minimum values of Permgen according to your JVM requirements.
85872	Insufficient Enterprise Manager Logs When the Management Module had an invalid reference to a non-existing Enterprise Manager domain, the error messages were logged in DEBUG mode. Now you can see the error messages in WARN mode in the logs.
85783	Last X Minutes/Last N Defects Data not Generated On entering a search string in the Content Error text field and selecting Last X Minutes or Last N Defects in the time range, the CSV file is not generated and a no data found message is displayed. With the fix, the entered string is verified even for pattern matching and the correct data is exported to CSV. Note: Pattern matching uses “_” for single character match and “*” for multiple character match.
85468	ProcessName for each Introscope Domain in 9.5 WebView The 9.5 WebView created a ProcessName for each Introscope Domain that is defined in the domains.xml file. With the fix, the process name and the agent name are displayed correctly in the WebView.
85456	INFO messages filling up logs on WAS portal Logs are filled with INFO messages. You see the following message in the logs: <i>[INFO] [IntroscopeAgent.Agent] Configuration property (introscope.agent.crossprocess.sequenceid.maxlimit) set to default value of "32"</i>

Defect ID	Defect Description
85428	Issue with 9.1.0.2 Database configuration import Configuration import failed because no path is found between the source 9.1.0.0 and target 9.1.0.2. Because of this missing path, the database schema was not brought to 9.1.0.2 and the corresponding data from the 9.1.0.2 configuration file was not imported. With the fix, the configuration import is successful.
85377	OOM Issue with Postgres You see an OOM memory exception with Postgres because of the high number of user session partitions in the database. With the fix, the Enterprise Manager purges the user session partitions older than 60 days.
85337	Metrics reported incorrectly under Frontends node of the agent During aggregation in the live mode, the metrics were reported incorrectly. For instance, the Responses per Interval count in the Frontend Overview Summary reported only the value of one URL even when there were multiple URLs in the environment. With the fix, the Responses per Interval Count is the total of all the URL responses, as expected.
85309	.NET Perfmon Collector metrics reported under the wrong branch Perfmon metric data does not get reported under the correct application pool or process instances. With the fix, even when the application pool is recycled or the process ID is changed, the metrics are reported correctly thereby avoiding the growth of historic metrics.
85229	Errors in Standalone EM log If there are many SiteMinder web agents reporting a huge number of metrics to a standalone Enterprise Manager, then the investigator might become slow. You see the following error in the Enterprise manager log: <i>[ERROR] [Harvest Engine Pooled Worker] [Manager] Unable to process data for Time: 1374251430000, Frequency: 15s, Count: 29287 java.lang.ArrayIndexOutOfBoundsException: 30705</i>
85165	Issue during a Business Transaction import When the client IP is blank, the Business Transaction import failed.
84889	Workstation failed to start Sometimes too many dashboards on the MOM can cause the Workstation to not start. The Workstation gets disconnected from the Enterprise Manager and you see the following error message: <i>CDT [WARN] [Dispatcher 1] [Manager] Outgoing message queue is not moving. Terminating connection: Node=Workstation_124643, Address=30.201.22.244/30.201.22.244:62452, Type=socket</i>

Defect ID	Defect Description
84737	<p>PMI Errors in WAS logs</p> <p>Even though there is no loss of PMI functionality in the agent, you might notice the following type of error message appearing frequently in the WAS logs:</p> <p><i>PMIv6: Could not poll WebSpherePMI</i></p> <p>With the fix, the error messages are suppressed.</p>
84676	<p>.NET agent DLL mismatch issue</p> <p>Because of a .NET agent DLL mismatch, you were unable to launch the application and the metrics were not reported in WorkStation. The agent logs were also not getting created.</p>
84566	<p>Daily statistics data downloaded from TIM after a delay missing</p> <p>Statistics data which was downloaded from TIM after a delay (usually after more than 24 hours) was not saved and processed correctly. For example, the delay could occur during an issue with TIM connection.</p>
84531	<p>Issue with Correlation with Apache CXF JaxWS 2.5</p> <p>The Apache CXF JaxWS transaction trace did not correlate properly if a webservicess.pbd was specified in the agent directives without also including the spm-correlation.pbd.</p>
84385	<p>User defined time range not reflected in the ExtendedLiveQuery for Workstation</p> <p>The Workstation became inconsistent when any value was specified in the time range field. Any subsequent changes to the Range or Resolution dropdown were not reflected correctly.</p>
84336	<p>ConfigImport not successful with non-root user on Linux for Postgres</p> <p>Importing a 9.1.1 Postgres database when using ConfigImport fails on Linux for a non-root user. You see the following error message:</p> <p><i>com.timestock.common.exceptions.TsException: createlang: language "plpgsql" is already installed in database "cemdb"</i></p>
84214	<p>Unable to email 'Last X Minutes' and 'Last N Defects' reports</p> <p>If you select 'Last X Minutes' or 'Last N Defects' in the Range field, the defects data report was not sent by email.</p>
84128	<p>INFO messages appeared repeatedly in CA APM SiteMinder logs</p> <p>INFO messages appeared repeatedly in the log during metric deletion when the web agent was brought down.</p>
84193	<p>Null Pointer Exception during security scan on WebStart Workstation</p> <p>An issue with security vulnerabilities on WebStart Workstation was fixed. However, the reported exception did not reveal any sensitive information.</p>
84191	<p>Unable to access the aged out incidents that have zero defects</p> <p>When accessing aged out incidents that have zero defects, you might see an internal application error in the CEM User Interface. A Null Pointer Exception is reported in the logs.</p>

Defect ID	Defect Description
84036	SNMP collector for SiteMinder caused increased thread usage When the SNMP collector for SiteMinder is enabled, the thread usage keeps increasing until the server runs out of native memory. You see the following warning: <i>[WARN] [SNMPCollector-collectionWorker] No data found for table Connected Web Agents</i>
84010	Database Upgrade issue with Silent Installer An issue occurred during the database upgrade in the silent installation mode and when the validateDatabase property was set to true.
83999	TIM Collection Services failed to start Enterprise Manager does not pick up the recording files from TIM and TIM Collection Services does not start up. The Enterprise Manager log has the following error message: <i>[ERROR] [ServicesCheck.Thread1] [Manager.com.timestock.tess.services.service.TimCollectionService] Unexpected exception starting service TIM.Collection.Svc java.lang.NumberFormatException: null</i>
83774	Performance issue because of .NET agent tracer peak Due to potential leaks in database connection you might have noticed a performance issue. The issue occurred because of ConnectionCountingTracer in .NET SQLAgent being used extensively.
83285	Error in WebSphere agent log When you enable JMX, you see the following error in the WebSphere agent log: <i>Failed to activate JMX data collection</i>
81731	No Such Field exception fixed WAS61WSOutboundHTTPCorrelationTracer throws NoSuchFieldException in some scenarios. For example, you might see the exception on an IBM WAS – Network Deployment (7.0.0.17) on Linux in z/OS environment.

Chapter 2: APM Application Behavior Analytics

This section describes how to install and configure APM Application Behavior Analytics.

Note: If you are upgrading your previous APM Application Behavior Analytics environment to 9.5.3, the manually specified values of the Analytics.properties file are replaced with the default values. To ensure that your previous values are retained, back up the properties before upgrading.

This section contains the following topics:

[Requirements](#) (see page 27)

[How Analytics Are Collected](#) (see page 28)

[How to Install and Configure APM Application Behavior Analytics](#) (see page 29)

[\(Optional\) Create Additional Regular Expressions](#) (see page 32)

[Quick Tour: Analytics in the User Interface](#) (see page 33)

[CA Analysis Server Management Tools](#) (see page 37)

[Troubleshooting](#) (see page 40)

Requirements

Component	Supported
CA Analysis Server (anomaly detection engine)	<p>Version 3.10.2</p> <p>A dedicated physical or virtual server with:</p> <p>Platforms:</p> <ul style="list-style-type: none">■ RedHat/CentOS 6.x (x86_64)■ Microsoft Windows Server, 2008 R2 (x86_64) <p>Disk: 100 GB minimum</p> <p>RAM: 24 GB is recommended for a typical cluster, and is required to support full metric data export of 100K metrics. 8 GB absolute minimum is allowed only for very small test instances.</p> <p>CPU: Quad-core is recommended for a typical cluster.</p>

Note: APM Application Behavior Analytics is not supported with 9.5.x SAP Enterprise Manager.

How Analytics Are Collected

APM Application Behavior Analytics analyzes performance and recognizes normal and abnormal transaction patterns. The steps to collect metrics are:

1. Agents gather and send data to their Enterprise Manager.
2. The MOM Enterprise Manager consolidates the APM Application Behavior Analytics data that matches the regular expressions that are found in the Analytics.properties file.
3. The MOM Enterprise Manager formats the raw data and sends metrics to the CA Analysis Server based on default regular expressions. (You can edit default expressions and you can define new ones.)
4. The CA Analysis Server compares recent performance with historical performance.
5. The CA Analysis Server sends metadata about anomalies to the MOM Enterprise Manager.
6. The WebView home page displays notifications for active anomalies.
7. The WebView Analysis Workbench acts as an anomaly search engine when given a timeframe and application context. The Workbench displays a list of matching anomalies and details of any selected anomaly.

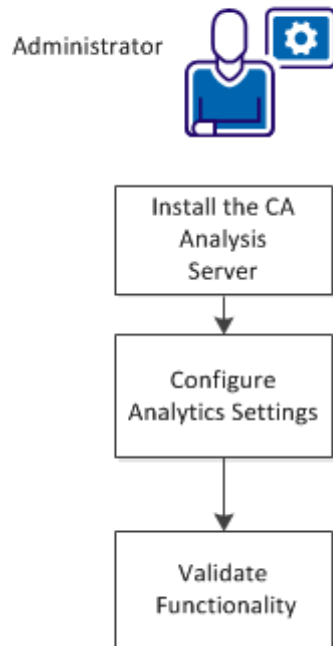
Note: CA Analysis Server runs only on standalone EM or MOM but not with Collector or CDV.

How to Install and Configure APM Application Behavior Analytics

To install and configure this component, Administrators require the following expertise:

- Managing a CA APM 9.5.x implementation, including WebView
- Using java.util.regex if you are creating custom regular expressions

How to Install and Configure APM Application Behavior Analytics



1. [Install the CA Analysis Server](#) (see page 30)
2. [Configure Analytics Settings](#) (see page 30)
3. [Validate Functionality](#) (see page 31)

Install the CA Analysis Server

Install the CA Analysis Server on a dedicated server.

Note: The CA Analysis Server is sometimes called "prelert" in files and logs.

Follow these steps:

1. Synchronize the date, time, and timezone on the CA Analysis Server that is hosting APM Application Behavior Analysis, with the single Enterprise Manager or the MOM in a cluster. Use NTP or Windows time service.
2. Create a user for managing the CA Analysis Server.

For Linux, create a nonroot user:

```
$ useradd -m caas
```

```
$ passwd caas
```

```
$ su - caas
```

For Windows: A user with Administrator privileges is required.

3. Download and uncompress the CA Analysis Server archive. For example:
CAAnalysisServer<version>_<os>_<platform>.tar/zip
4. Start the CA Analysis Server installer and respond to the prompts.
5. Verify the firewall for the Tomcat port (8080), for Linux.

Note: For Windows, the firewall is automatically updated.

6. Start the CA Analysis Server, for Linux.

```
<Analysis_server_home>: ctl/admin/prelert_startup.sh
```

Note: The CA Analysis Server automatically starts on Windows.

Configure Analytics Settings

Configure the Analytics property file with the CA Analysis Server information, and optionally configure metric settings for WebView.

Follow these steps:

1. Open the file, <EM_Home>/config/Analytics.properties.
2. Specify the location of the CA Analysis Server in:

```
analytics.server.uri =
```

```
http://<analysis-server-host-or-IP>:<port>/prelertApi/prelert.svc/
```

3. (Optional) Configure other settings as your site requires.

The defaults for Threshold Settings and Metric Feed Settings are appropriate for most implementations. Note the following behaviors about the default regular expressions:

- Metrics must match three parts of the metric path: domain, process, and metric.
- Expression groups are combined together to form a logical 'or'ing or union set.

4. Restart the MOM Enterprise Manager.

Important! APM Application Behavior Analysis supports the analysis of 100 K of metrics per CA APM cluster with one CA Analysis Server per APM cluster. The CA APM cluster throttles the delivery of metrics to the CA Analysis Server down to a maximum of 100 K per 15-second interval. The effectiveness of APM Application Behavior Analysis depends on adherence to this limit. To avoid exceeding the 100 K limit for exported metrics, view the "Metrics Sent" metric, and adjust the regular expressions in Analytics.properties. For Metrics Sent, see the section: CA Analysis Server Management Tools, CA Analysis Server Metric Behavior, table.

Validate Functionality

Validate the CA Analysis Server Connection

Follow these steps:

1. Log in to WebView and go to Investigator, Analysis Workbench.
2. In the Time Window drop-down list, select a time range.
3. If the following conditions are not displayed, the CA Analysis Server is working.

Issue	Probable Cause
Analysis Workbench tab is not displayed.	APM Application Behavior Analytics is not installed, or is improperly installed.
"Application Behavior Analytics not configured."	The URL for the CA Analysis Server is incorrect or is missing in the file, Analytics.properties.
"The CA Analysis Server is currently unreachable."	There is a problem communicating with the CA Analysis Server. Check the URL in the file, Analytics.properties.

Validate Metric Feed and Anomalies

Follow these steps:

1. In WebView, go to: Metric Browser, Custom Metric Agent, Enterprise Manager, Analysis Server, Metrics Sent.

Data in the graph confirms that the metrics are being sent to the CA Analysis Server.

2. To verify anomalies, wait for the CA Analysis Server to create the baseline (*learnonlytime* property in the file, `engine.xml` on the CA Analysis Server). Then, go to the Analysis Workbench tab to view the graph.

Note: The default *learnonlytime* is 120 minutes. Anomalies typically start high and slow down after the first two days as the CA Analysis Server learns to distinguish between normal and abnormal patterns. If you have a static environment, anomalies might not appear for a long time.

(Optional) Create Additional Regular Expressions

You can add custom regular expressions to `Analytics.properties` to extend metrics in APM Application Behavior Analytics.

Follow these steps:

1. In the Metric Browser tab, select a node that contains metrics that you want visible using APM Application Behavior Analytics.
2. Create a regular expression that corresponds to those metrics.

Note: Do not include the agent identifier in the expression. If you want to send metrics from more than one agent, create a separate regular expression to define the set of agents.

Important! As described in the file, remember to increase the expression number in the name `"analytics.metricfeed.expr.<expression-number>"` for each expression that you add, or metrics are not displayed.

3. Test the regular expression using the Metric Browser, "Search for:" option, or by creating a metric grouping.

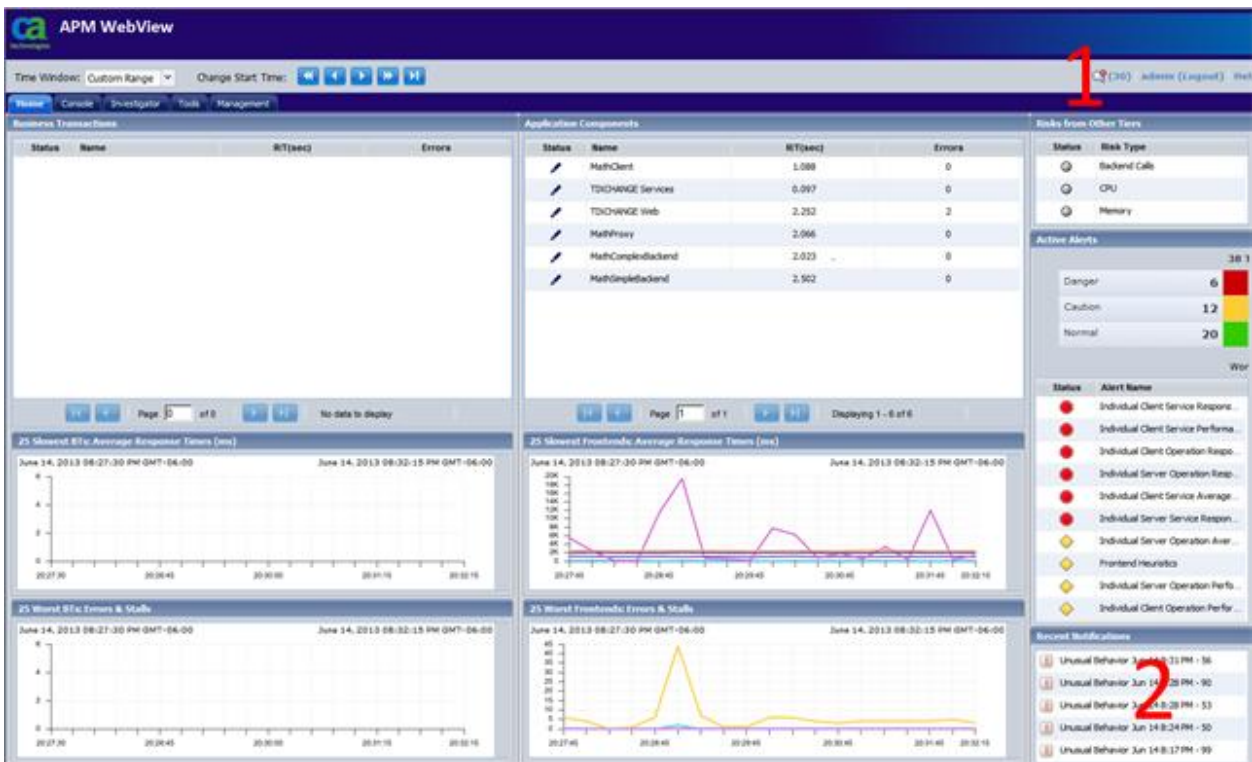
For more information about regular expressions and metric groupings, see the *CA APM Java Agent Implementation Guide*.

4. Add the regular expression to the file, `Analytics.properties` using instructions in the file.
5. Restart the MOM Enterprise Manager.
6. In the Metric Browser tab, confirm that the metric count increases as expected.

Quick Tour: Analytics in the User Interface

Analytics on the Home Page

This section describes Analytics on the WebView home page.



Annotation	Description and Behaviors
1	<p>Alert Notifications icon</p> <p>The number of anomalies detected since the most recent of these actions:</p> <ul style="list-style-type: none"> Logging in Clicking the Empty button in the dropdown pane. Browser refresh <p>Note: The list is updated after new anomalies are detected. Notifications are not saved after you log out from WebView.</p>
2	<p>Recent Notifications</p> <ul style="list-style-type: none"> Unusual Behavior links go to the Analysis Workbench. Time Window selections have no affect on the list.

- Logging in
- Clicking the Empty button in the dropdown pane.
- Browser refresh

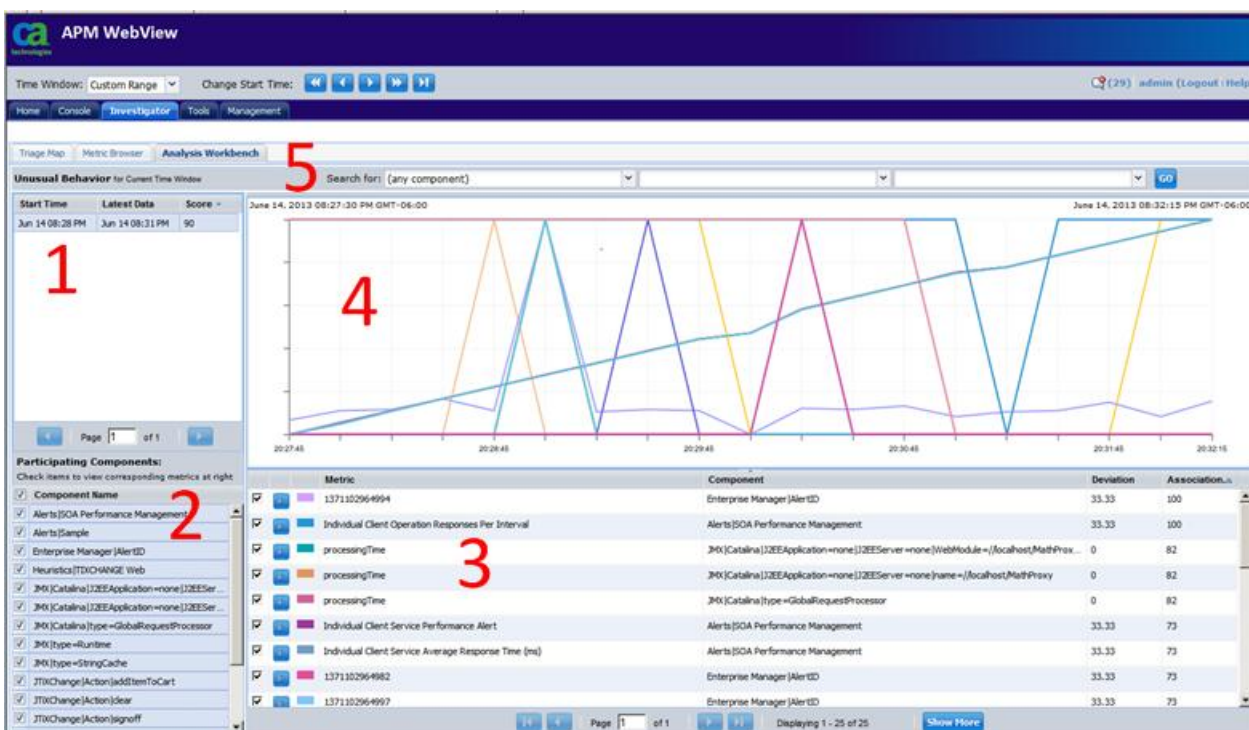
Note: The list is updated after new anomalies are detected. Notifications are not saved after you log out from WebView.

- Unusual Behavior links go to the Analysis Workbench.
- Time Window selections have no affect on the list.

The Analysis Workbench Tab

This section describes the features on the Analysis Workbench tab.

Note: By Default, the Analysis Workbench tab is visible (the value of the property, `introscope.webview.analysisworkbench.enable` is set to `True` in Webview properties file). To hide the tab in Webview, change the value of the property to `False`.



Annotation	Description and Behaviors
1	<p data-bbox="659 365 854 386">Unusual Behavior</p> <p data-bbox="659 407 1442 491">Unusual Behaviors are anomalies that 1) overlap the current time window and 2) include metrics corresponding to the selected component or metric expression. The default is "any component."</p> <ul data-bbox="659 512 1442 638" style="list-style-type: none"> <li data-bbox="659 512 1442 554">■ Start Time is the first piece of data added to the Unusual Behavior. <li data-bbox="659 564 1442 638">■ Latest Data is the last piece of data added to the Unusual Behavior. If a new piece of data is added, the timestamp changes. <p data-bbox="659 638 1442 764">Note: If the CA Analysis Server determines that two Unusual Behaviors are part of the same anomaly, they are automatically combined. The Start Time reflects the earliest of the merged behaviors, and Latest Data reflects the latest time for the merged behaviors.</p> <ul data-bbox="659 785 1442 905" style="list-style-type: none"> <li data-bbox="659 785 1442 905">■ Score is a value set by the CA Analysis Server reflecting the deviation of the observed pattern from the closest historical pattern. The Threshold setting in Analytics.properties sets the lowest anomaly score for notification.
2	<p data-bbox="659 926 946 947">Participating Components</p> <p data-bbox="659 968 1287 989">Application components involved in the Unusual Behavior.</p> <ul data-bbox="659 1010 1442 1073" style="list-style-type: none"> <li data-bbox="659 1010 1442 1073">■ To control which component metrics appear in the table and graph, use the checkboxes.
3	<p data-bbox="659 1094 1049 1115">Evidence metrics from components</p> <p data-bbox="659 1136 1442 1188">Shows metrics that are part of the Unusual Behavior, and whose components are selected in the Participating Components list.</p> <ul data-bbox="659 1209 1442 1701" style="list-style-type: none"> <li data-bbox="659 1209 1442 1304">■ To control which metrics appear in the graph, use the checkboxes or hover over a row to highlight the corresponding metric in the graph. <li data-bbox="659 1325 1442 1377">■ Click the blue button (column two) to drill down to the Metric Browser and explore the root causes. <li data-bbox="659 1398 1442 1493">■ Deviation is the degree that a metric deviates from its own historical baseline during the time of the anomaly. This value is based on a scale of 1-100. <li data-bbox="659 1514 1442 1701">■ Association is the degree that the deviation of a metric aligns with the anomaly. If a metric becomes abnormal when the anomaly starts, and returns to normal behavior when the anomaly ends, the Association of the metric to the anomaly is high. The metric is statistically associated with the anomaly. This is not an assertion about the cause, merely association.

Annotation	Description and Behaviors
4	<p>Multi-Metric Graph</p> <p>Visualizes the pattern and its deviation from recent behavior. Most anomalies stand out visually on a graph.</p> <ul style="list-style-type: none">■ Shows metric values from the components that are identified in the Unusual Behavior.■ Does not include units of measure on the y-axis because it plots many types of metrics together. To understand actual measurements rather than overall patterns, drill down a metric and view its graph in the Metric Browser.■ To view the metric paths, hover over a graph line.■ The graph is affected by clamping as with other CA APM displays.
5	<p>Search for:</p> <p>Specify a Frontend, Backend Call, or Business Transaction to filter your search for Unusual Behaviors. By selecting more components from the drop-down lists, you can further filter results to return behaviors containing metrics only from the selected component.</p> <p>If you select "(any component)," all Unusual Behaviors overlapping the time window and exceeding the minimum anomaly score are returned.</p> <p>Note: Only active components appear in the Search for: drop-down lists.</p> <p>How to use the "Matching Metric" selection</p> <p>Use Matching Metric when you want to search for a custom component in the metric feed that is not listed in the Search for: drop-down lists. Or, use it as a general search mechanism to filter metric paths (for example, CPU).</p> <ul style="list-style-type: none">■ Search terms are case-sensitive.■ Wildcard characters are not supported.■ Use the metric path (hover over a line on the graph) for valid search terms. Do not use extraneous words like "Calls to," "from" or "location" listed in the component description or the search fails.■ Unusual Behaviors appear only if the metrics are sent to the CA Analysis Server.

CA Analysis Server Management Tools

CA Analysis Server Commands

How to...	Commands
Verify that the CA Analysis Server is running	<p>Linux:</p> <p>As the CA Analysis Server user, go to <code><Analysis_server_home></code>:</p> <ul style="list-style-type: none"> ■ <code>\$ bin/prelert_ctl.sh status</code> ■ <code>\$ cots/pgsql/bin/pg_ctl status</code> ■ <code>\$ cots/pgsql/bin/psql -l</code> <p>Windows: Administrative Tools, Services</p>
Start and stop the CA Analysis Server	<p>Linux:</p> <p>As the CA Analysis Server user, go to <code><Analysis_server_home></code>:</p> <ul style="list-style-type: none"> ■ <code>ctl/admin/prelert_shutdown.sh</code> ■ <code>ctl/admin/prelert_startup.sh</code> <p>Windows: Administrative Tools, Services</p>
Check API connectivity	<ul style="list-style-type: none"> ■ <code>http://<host>:<port>/prelertApi/prelert.svc/\$metadata</code> ■ <code>http://<host>:<port>/prelertApi/prelert.svc/Activities()/</code> <code>\$count</code> ■ <code>http://<host>:<port>/prelertApi/prelert.svc/Activities()?Stop=2&\$expand=ActivityMetrics</code>
Configure the CA Analysis Server to run at boot time	<p>Linux:</p> <p><code>sudo /opt/prelert/3.10.2/ctl/admin/install_startup_script.sh</code></p>

How to...	Commands
Uninstall the CA Analysis Server	<p>Linux:</p> <p>If the CA Analysis Server is configured to run at startup, disable it. As the CA Analysis Server user:</p> <pre>\$ su \$ <Analysis_server_home>/ctl/admin/remove_startup_script.sh \$ exit \$ cd <Analysis_server_home> \$./profile \$PRELERT_HOME/ctl/admin/prelert_shutdown.sh \$ rm -rf \$PRELERT_HOME</pre> <p>If you installed the database in another directory, remove it.</p> <p>Note: Only CA Analysis Server files must be in \$PRELERT_HOME</p> <p>Windows: Control panel, Uninstall a program, APM Analysis Server</p>

CA Analysis Server Metric Behavior

The following metrics are found in: Metric Browser, Custom Metric Agent, Enterprise Manager, Analysis Server.

Metric	Definition
Connection Allocation Time (ms)	Time to connect to the CA Analysis Server.
Expanded Activity Count	Number of times the user selects an Unusual Behavior in Analysis Workbench, Unusual Behavior panel. The query returns the Unusual Behavior and the evidence (metric paths).
Metric Feed Time (ms)	Time to send metrics from Enterprise Manager to the CA Analysis Server. A duration longer than 15 seconds, indicates a problem with the CA Analysis Server.
Metric Format Time (ms)	Time to format the metric feed payload.
Metric Send Errors	Number of errors that are encountered in sending metrics to the CA Analysis Server. Should be zero in a working system.

Metric	Definition
Metric Uploads Processed	Number of metric uploads processed. Note: 1 is a valid value. Less than one means that regex is matching more than CA APM is configured to send in a single cycle to the CA Analysis Server.
Metrics Received	Number of matching metrics from the MOM Enterprise Manager.
Metrics Sent	Number of metrics sent to the CA Analysis Server. Note: Metrics Received and Metrics Sent must match. Exceptions are when the CA Analysis Server is down, or if metrics exceed the limit of 100000. Note: Metrics are displayed in the Metric Browser (Business Transactions and Frontend/Backend Calls) only if agents are reporting.
Polled Activity Update Count	Number of updated Unusual Behaviors.
Query Result Count	Number of Unusual Behaviors returned for date/time queries from the Analysis Workbench. This does not include participating metric paths.
Query Time (ms)	Time to query the CA Analysis Server.
Thread Wait Time (ms)	Time waiting for a thread to query or feed metrics to the CA Analysis Server.

Using the *learnonlytime* Property to Establish Performance Data

The *learnonlytime* property defines the time to establish a baseline of application performance data after you start the CA Analysis Server. During this time, the CA Analysis Server does not return notifications or unusual behaviors. The default is 7200 seconds. If you change the default during testing to get anomalies more quickly, reset the value to the default (or higher) for your production environment.

Follow these steps:

1. Open the file, <Analysis_server_home>/config/engine.xml, and edit the property: *learnonlytime*.
2. Restart the CA Analysis Server.

Troubleshooting

CA Analysis Server Logs

Review CA Analysis Server logs for WARN and ERROR messages.

For this Log...	Check This...
<Analysis_server_home>logs/api/prelertApi.log	Should be logging anomaly requests and metrics for analysis.
<Analysis_server_home>logs/ts_feature_detector/ts_feature_detector.log	Should be logging every 10K points received.
<Analysis_server_home>logs/tomcat/catalina.out	n/a
<Analysis_server_home>logs/evidence_gatherer/evidence_gatherer.log	Should be logging every 1K features identified.
<Analysis_server_home>logs/rate_monitor/rate_monitor.log	n/a
<Analysis_server_home>logs/engine/engine.log	Should be logging about every 5 seconds, regardless of any evidence.
<Analysis_server_home>logs/activity_mgr/activity_mgr.log	n/a

Troubleshooting the CA Analysis Server

For This Information...	Use This Query
Metadata	http://<host>:<port>/prelertApi/prelert.svc/\$metadata
Count of all anomalies	http://<host>:<port>/prelertApi/prelert.svc/Activities()/\$count
Evidence that anomalies are working	http://<host>:<port>/prelertApi/prelert.svc/Activities()?Stop=2&expand=ActivityMetrics
Anomalies with a component metric with Average in the name	http://<host>:<port>/prelertApi/prelert.svc/Activities()/\$count?\$filter=(MPQuery+eq+%27%25Average%25%27)
Anomalies within a time window	http://<host>:<port>/prelertApi/prelert.svc/Activities()/\$count?\$filter=(LastEvidenceTime+ge+datetime%272013-05-05T00:00:00%27+and+FirstEvidenceTime+le+datetime%272013-05-12T00:00:00%27)

Chapter 3: Known Issues

This section of the Release Notes contains known issues for this release.

This section contains the following topics:

[APM Database Known Issues](#) (see page 41)

[Introscope Known Issues](#) (see page 41)

[Agent Known Issues](#) (see page 59)

[Customer Experience Manager Known Issues](#) (see page 66)

[Extensions and Integrations Known Issues](#) (see page 70)

[Third-Party Known Issues](#) (see page 73)

[Localization Known Issues](#) (see page 84)

[Documentation Known Issues](#) (see page 87)

APM Database Known Issues

This section contains the following topics:

[Migrating Data From Different Time Zones is Not Supported - 76238](#) (see page 41)

Migrating Data From Different Time Zones is Not Supported - 76238

Symptom:

CA APM does not currently support data migration or restoration from Postgres to Oracle across different time zones. Attempting to do so causes an incomplete migration or restoration and errors to be reported.

Solution:

This issue does not have a workaround.

Introscope Known Issues

This section contains the following topics:

[WebView Issue with Upgrade - 85272](#) (see page 43)
[Performance issue with aggressive metric aging of a high volume of metrics over a period of time - 85261](#) (see page 44)
[Increase in CPU utilization with agent 9.1.1 and higher on Oracle RAC - 84418](#) (see page 44)
[introscope.agent.transactiontrace.componentCountClamp does not get updated without agent restart - 83982](#) (see page 44)
[StackOverflowError in Enterprise Manager - 83214](#) (see page 45)
[Error on Postgres DB installation on Linux/Solaris - 82595](#) (see page 45)
[Installing or upgrading CA APM in a 32-bit AIX environment requires APAR - 79590](#) (see page 46)
[Various dashboard widgets not supported - 78714](#) (see page 46)
[Error in the Threads in Use metric - 76994](#) (see page 47)
[ResourceMetricMap.properties file not retained after upgrade - 76598](#) (see page 47)
[CA APM for IBM CICS Transaction Gateway data does not Display Properly on Application Triage Map - 75808](#) (see page 47)
[CA APM for SOA Performance Management Agent Not Available for Agent Installation - 75307](#) (see page 48)
[Selecting Browse All Customer Experience Metrics Option from the CE Node Context Menu is Broken - 75115](#) (see page 49)
[Issue with connecting Enterprise Manager and agent on HP-UX using IPv6 - 74118](#) (see page 49)
[Applying dashboard lens may incur data lag in dashboard editing - 74115](#) (see page 49)
[Backend traces not automatically included - 66146](#) (see page 50)
[Alert states not properly retained - 65847, 66676](#) (see page 50)
[Older JREs may cause problem with web start - 65351, 65522](#) (see page 50)
[Transaction Events database \(traces.db\) requires additional memory for optimization tasks - 64726, 64908](#) (see page 51)
[Problem with LDAP Default Query for Groups - 64181](#) (see page 51)
[Using WatchDog on failover EMs - 62878](#) (see page 51)
[Tree persistence in Map tab - 61213](#) (see page 52)
[First error sometimes not reported or displayed - 59422](#) (see page 52)
[Domain definition issues in clustered environment - 59231](#) (see page 52)
[Using alternate versions of agent .jar files with WebSphere 6.1 - 59086](#) (see page 53)
[Switching between 32-bit and 64-bit JVMs on OS/400 \(IBMi\) may cause issues - 57774](#) (see page 54)
[Using alerts to trigger shell actions - 52556, 60188](#) (see page 54)
[Misleading data in SOA dependency map in some cases - 49422](#) (see page 55)
[ws70x.pbd lacks trace directives for some WebSphere 7 specific classes - 49146](#) (see page 55)
[Increase memory to use extra instrumentation with WebSphere 7 - 48885, 49328, 58653](#) (see page 55)
[Extensible Counter List utility required for Windows platform monitoring - 48697](#) (see page 56)
[Issue importing saved transaction traces - 46688](#) (see page 56)
[View Metric Count chart only in live mode - 46035](#) (see page 56)
[Labeling issue on time series bar charts - 42368](#) (see page 57)

[Accuracy in 'Partial Metrics with Data' metric - 41856](#) (see page 57)

[Toggling ManagedSocketTracing during runtime may result in error - 39884](#) (see page 57)

[Configuring sockets to reuse address permits quicker restart - 39716](#) (see page 58)

[Frequent class redefinition under Dynamic Instrumentation may result in OOM condition - 38867, 38868, 63857](#) (see page 58)

[Poorly written calculators may result in misleading display - 38636](#) (see page 58)

WebView Issue with Upgrade - 85272

Symptom:

If you are upgrading to 9.5, the new WebView “Home Page” displays several charts and alert statuses that were defined in the management module *Triage Map Configurations* of the previous APM releases. The older module file, `TriageMapConfigurationsManagementModule.jar`, is not overwritten during the upgrade process.

Solution:

To show the charts and alerts for the WebView “Home Page”, deploy the following new metric groups and alerts that are defined in the 9.5 jar file:

- New metric groupings:
 - APM BT Average Response Time (ms)
 - APM BT Errors and Stalls
 - APM Frontends Average Response Time (ms)
 - APM Frontend Errors and Stalls
- The new alert added is Triage Map Backend Calls Status.

The new version of the `TriageMapConfigurationsManagementModule.jar` file is in the `modules-upgrade` directory. If you have defined Triage Map Alerts from the previous release, deploy the new version of `TriageMapConfigurationsManagementModule.jar` and recreate the alerts. You can also copy the new Home Page-related metric groupings and alerts into the saved copy of the file.

Performance issue with aggressive metric aging of a high volume of metrics over a period of time - 85261

Symptom:

Aggressive metric aging with the following two properties set to low values results in memory growth over a long period:

introscope.agent.metricAging.heartbeatInterval

Specifies the polling interval. This value is the interval at which the agent checks for metrics that have aged.

Default:1800 seconds

introscope.agent.metricAging.numberTimeslices

Specifies the metric age and is the time since a metric was last reported. This value determines when the metric is eligible to be aged out.

Default: 3000 timeslices.

Solution:

Do not configure the agent to age out metrics frequently. Use the default values or higher for the polling interval and metric age properties in the IntroscopeAgent.profile.

Increase in CPU utilization with agent 9.1.1 and higher on Oracle RAC - 84418

Symptom:

For agent 9.1.1 and higher, you see separate nodes for each instance of Oracle RAC cluster which may result in a higher CPU utilization.

Solution:

Adding the following property in the agent profile may help reduce the CPU utilization:

```
introscope.agent.sqlagent.cacheConnectionsURLs=true
```

introscope.agent.transactiontrace.componentCountClamp does not get updated without agent restart - 83982

Symptom:

The property introscope.agent.transactiontrace.componentCountClamp does not get updated when the property is initialized to a value lower than 5000.

Solution:

Restart the agent after specifying the new value.

StackOverflowError in Enterprise Manager - 83214

Symptom:

The Enterprise Manager may encounter a StackOverflowError when users attempt a Transaction Trace with more than 1000 components. The following error message appears:

ERROR] [CLW.MessageServiceClient] Exception: java.lang.StackOverflowError calling method: com.wily.isengard.messageprimitives.service.MessageServiceCallMessage:

Solution:

Limit the number of components that are allowed in a Transaction Trace to 1000.

Error on Postgres DB installation on Linux/Solaris - 82595

Symptom:

As an Administrator you may encounter a problem when running the installer to create a schema on an existing Postgres installation on a Linux or Solaris environment. In this situation, the installer fails with no warning, and logs indicate failure to find certain libraries.

Solution:

Perform *one* of the following tasks:

- Set the target installation directory to the original installation directory.
- Set the LD_LIBRARY_PATH environment variable.
 - For Linux, the path is:
`<DB_Home>/lib`
 - For Solaris, the paths are:
`<DB_Home>/postgres/8.4-community/lib`
and
`<DB_Home>/postgres/8.4-community/lib/64`

Installing or upgrading CA APM in a 32-bit AIX environment requires APAR - 79590

Symptom:

After installing or upgrading CA APM in a 32-bit AIX environment, to determine whether the APAR is already installed, run the following command:

```
instfix -ivk IV16489
```

You may get the following result:

There was no data for IV16489 in the fix database.

Solution:

Install IBM AIX APAR IV16489 on the system where the Enterprise Manager is installed. Get the APAR package from the IBM DeveloperWorks website.

Various dashboard widgets not supported - 78714

Symptom:

In WebView, various dashboard widgets are not supported in the Console dashboards.

Solution:

Not all dashboard widgets included in the Introscope Workstation are supported in WebView.

Follow these steps:

1. In WebView, click the Console tab.
2. Select a dashboard from the drop-down list.
3. View the charts and graphs.

In some cases, you cannot view various widgets. For example, a gauge, a line with arrows, or an equalizer widget.

Error in the Threads in Use metric - 76994

Symptom:

Under some circumstances, one of the collector Enterprise Managers in a cluster throws an error which shows up in the logs as an error in the "Agent Stats|Resources:Threads in Use" metric.

Solution:

Comment out the line in the ResourceMetricMap.properties file which enables the metric.

ResourceMetricMap.properties file not retained after upgrade - 76598

Symptom:

The installer fails to retain the ResourceMetricMap.properties file after an upgrade from APM version 9.1.0 or later to 9.1.1.x.

Solution:

Restore the file from the backup folder.

CA APM for IBM CICS Transaction Gateway data does not Display Properly on Application Triage Map - 75808

Symptom:

CA APM for IBM CICS Transaction Gateway data does not display properly on the application triage map if IBM CICS Transaction Gateway Server is running on a host different from the IBM CICS Transaction Gateway Client.

Solution:

This issue does not have a workaround.

CA APM for SOA Performance Management Agent Not Available for Agent Installation - 75307

Symptom:

The CA APM for SOA Performance Management option is not available in the Standalone agent installers. For example, the CA APM for SOA Performance Management option is not available for Apache CXF Web Services on a Sun ONE application server in the Standalone agent installer. The `webservicesagent.jar` is not present in the installation directory by installing *IntroscopeAgentFiles-NoInstaller<version>.unix.tar* and *IntroscopeAgentInstaller<version>.tar* for the Sun ONE application server.

Solution:

1. Download the *IntroscopeAgentFiles-NoInstaller<version>allappserver.<platform>* file from the CA APM software download area on CA Support.
2. Extract the files from the `windows.zip` or `unix.tar` file from the software download to any directory that does not contain other agent distributions.
3. Navigate to the extracted directory structure to the `\config` directory.
`\IntroscopeAgentFiles-NoInstaller<Version_Number>allappserver.<platform>\wily\core\config`
4. Select the files that correspond to the application server you want to use for CA APM for SOA Performance Management, for example, for Sun One:
 - `sunoneas7x.pbd`
 - `sunoneas-full.pbl`
 - `sunoneas-typical.pbl`
5. Copy these files to the `<Agent_Home>/core/ext` directory.
Note: The `webservicesagent.jar` is present in the installation directory by default.
6. Restart the application server.

The application server restarts the agent and instruments the applications to enable CA APM for SOA Performance Management monitoring.

Selecting Browse All Customer Experience Metrics Option from the CE Node Context Menu is Broken - 75115

Symptom:

In some CA APM environments, right-clicking a Customer Experience node in the Workstation Triage Map and selecting Browse All Customer Experience Metrics does not direct you to the CEM metrics in the Metric Browser tree. If you look in the log files, you see an error stating that the node is not found.

Solution:

To view the CEM metrics, go directly to the Investigator tab and navigate to the individual node.

Issue with connecting Enterprise Manager and agent on HP-UX using IPv6 - 74118

Symptom:

Some customers on HP-UX report difficulty connecting agent with Enterprise Manager using IPv6.

Solution:

To set connectivity for CA Introscope components on HP-UX with IPv6 security, disable IPv4 support using the property *java.net.preferIPv4Stack=false*.

For the Enterprise Manager, update the following line in the Enterprise Manager.lax file:

```
lax.nl.java.option.additional=-Xms512m -Xmx512m -Djava.awt.headless=true  
-Djava.net.preferIPv4Stack=false
```

For the Agent, add the property *-Djava.net.preferIPv4Stack=false* to the JVM command line

```
-javaagent:<PathToAgentJar>
```

Applying dashboard lens may incur data lag in dashboard editing - 74115

Symptom:

When editing a dashboard to add a new simple alert, be aware that when a lens is applied to the dashboard some time may elapse before the new alert displays any status data.

When you navigate to a dashboard without a lens that is applied, the alerts display status almost immediately, but those are existing alerts.

Solution:

This issue does not have a workaround.

Backend traces not automatically included - 66146

Symptom:

When you do an automatic Transaction Trace from CEM and a transaction matches the filter on the front end, CEM does not automatically include the backend trace information. This issue occurs because of a performance enhancement that prevents too many traces from overloading the Enterprise Manager.

Solution:

If you want to include backend trace data (for example, from the SYSVIEW extension) with Transaction Traces, enable them by setting the `introscope.agent.transactiontracer.tailfilterPropagate.enable=true` for every agent. Or, if you are running Transaction Traces from Introscope, you can do a second trace on the backend agent.

If you have installed the SYSVIEW extension, you can also launch a new backend trace from an existing frontend trace and pre-populate the Transaction Trace dialog with the pertinent trace details. For more information, see "Launch a New Back-End Transaction Trace Session from an Existing One" in the *CA Cross-Enterprise Application Performance Management Guide*.

If there are too many traces or too many run continuously, they can potentially flood the Enterprise Manager and cause it to stop working.

Alert states not properly retained - 65847, 66676

Symptom:

Alert states are sometimes not retained when changing from one state to another, so that the value for Alert Prev State is sometimes inaccurate.

Solution:

This issue does not have a workaround.

Older JREs may cause problem with web start - 65351, 65522

Symptom:

Users who use the web start method of starting the Workstation may see an application error with the message "Unable to launch the application;". When you click "See Details" you get a File Not Found message which is erroneous.

Solution:

Install JRE 6 update 21. It may be necessary to uninstall other JRE 6 updates to ensure that your browser uses the correct version.

Transaction Events database (traces.db) requires additional memory for optimization tasks - 64726, 64908

Symptom:

In addition to the CPU requirement, the Transaction Event database (traces.db) periodically requires more free disk space to perform optimization tasks. Failure to provide adequate free disk space can result in poor traces database performance or Transaction Trace data corruption.

Solution:

The additional disk usage is temporary, and requires approximately twice the current size of the traces.db file.

Problem with LDAP Default Query for Groups - 64181

Symptom:

If you configure IntroScope to authenticate users via LDAP and no value is explicitly assigned to the groupMemberQuery attribute or it is undefined, then by default IntroScope uses the following value while authenticating an LDAP user:

```
groupMemberQuery=(&(objectClass=groupOfUniqueNames)(uniquemember={0}))
```

Depending on the LDAP server that is being used, "uniquemember" may not be indexed and could initiate a complete scan on the LDAP server. This scan can lead to performance issues on both the Enterprise Manager and LDAP side.

Solution:

Change the default value appropriately, based on your server configuration.

Using WatchDog on failover EMs - 62878

Symptom:

In an Enterprise Manager cluster that has been configured for failover, some WatchDog commands may not work as expected.

Solution:

Mount the NFS share drive at least one level above the Enterprise Manager home directory.

Tree persistence in Map tab - 61213

Symptom:

Users of the Triage Map tab may see nodes in the By Frontends tree and the Business Services tree persist even when the agents that supplied metrics to these applications/business services are stopped.

Solution:

Restart the Enterprise Manager and then the nodes disappear from their respective tree hierarchies.

First error sometimes not reported or displayed - 59422

Symptom:

After an agent starts up, if the first transaction monitored throws an error, the Enterprise Manager does not report the error. The Investigator does not display the error. Subsequent errors after the first error are reported and displayed.

Solution:

This issue does not have a workaround.

Domain definition issues in clustered environment - 59231

Symptom:

When you are in a clustered environment and have used the CEM console to set up agent filters to limit the agents participating in a Business Service definition, you may see problems if domain definitions in the MOM Enterprise Manager do not match the domain definitions in the Collector Enterprise Manager. Hence, business definitions may not get sent to the desired agents.

Solution:

Create domain definitions in the domains.xml file on the MOM Enterprise Manager and copy this file to each Collector Enterprise Manager in the cluster, then restart each EM. But before doing this, see the section "Defining and mapping agents to a domain" in the *CA APM Security Guide*.

Using alternate versions of agent .jar files with WebSphere 6.1 - 59086

If you are running the Java Agent on WebSphere 6.1 using an IBM JVM 1.5, use the alternate versions of the Java Agent .jar file and Java Agent profile. These files, named *AgentNoRedef.jar* and *IntroscopeAgent.NoRedef.profile*, are located in the `<Agent_Home>/wily` directory.

Note: If you are using the AllAppServer agent distribution, the alternate profile is named *IntroscopeAgent.websphere.NoRedef.profile*.

If you are running the Java Agent on WebSphere 7.0 on z/OS using an IBM JVM 1.6, use the `-Xbootclasspath` and `-javaagent` commands. For example:

```
-Xbootclasspath/a:<Agent_Home>/Agent.jar -javaagent:<Agent_Home>/Agent.jar
-Dcom.wily.introscope.agentProfile=<Agent_Home>/IntroscopeAgent.profile
```

WAS Version 7:

OS	JVM Version	Which argument to use	Which .jar files to use	Example of full argument
unix windows OS/400 (IBMi)	IBM 1.6	-javaagent	Agent.jar	See example A below
unix windows	SUN 1.6	-javaagent	Agent.jar	See example A below
unix windows	HP 1.6	-javaagent	Agent.jar	See example A below
z/OS	IBM 1.6	-Xbootclasspath and -javaagent	Agent.jar	See example B below

WAS Version 6.1:

OS	JVM Version	Which argument to use	Which .jar files to use	Example of full argument
unix windows z/OS OS/400 (IBMi)	IBM 1.5	-javaagent	AgentNoRedef.jar	See example C below
unix windows	SUN 1.5	-javaagent	Agent.jar	See example A below
unix windows	HP 1.5	-javaagent	Agent.jar	See example A below

Example A:

```
"-javaagent:<wilyhome>/Agent.jar  
-Dcom.wily.introscope.agentProfile=<wilyhome>/IntroscopeAgent.p  
rofile"
```

Example B:

```
"-Xbootclasspath/a:<wilyhome>/Agent.jar  
-javaagent:<wilyhome>/Agent.jar  
-Dcom.wily.introscope.agentProfile=<wilyhome>/IntroscopeAgent.p  
rofile"
```

Example C:

```
"-javaagent:<wilyhome>/AgentNoRedef.jar  
-Dcom.wily.introscope.agentProfile=<wilyhome>/IntroscopeAgent.N  
oRedef.profile"
```

Switching between 32-bit and 64-bit JVMs on OS/400 (IBMi) may cause issues - 57774

Symptom:

Introscope Agent users may encounter problems with recording and/or Dynamic Instrumentation when switching between 32-bit and 64-bit JVMs on OS/400 platform.

Solution:

Restart the Enterprise Manager.

Using alerts to trigger shell actions - 52556, 60188

Symptom:

If you create a shell action that calls a particular batch file and then have frequent alerts that trigger it, you may an error such as follows:

"Action 'Test' failed to execute shell command 'C:\Introscope9.0\test.bat' with bad process exit value '1'"

Solution:

Edit the *IntroscopeEnterpriseManager.properties* file and change the value of *introscope.enterprisemanager.maxConcurrentActions* from the default of 5, which allows too many processes to compete for the shell command, to 1:

```
introscope.enterprisemanager.maxConcurrentActions=1
```

Because there are some potential downsides to this solution, implement this workaround only when you encounter the problem.

Misleading data in SOA dependency map in some cases - 49422

Symptom:

Customers using the SOA Dependency Map may encounter a map with misleading data for some Investigator nodes after switching from live mode to historical mode. Even if there were no discovered dependencies during the selected historical time period, a map may still display.

This situation applies to selection of any of these Investigator nodes: Agent, Virtual agent, WebServices, WebServices|Client, WebServices|Server, or individual services or operations under the WebServices|Client, WebServices|Server nodes.

Solution:

This issue does not have a workaround.

ws70x.pbd lacks trace directives for some WebSphere 7 specific classes - 49146

Symptom:

For WebSphere 7 Installations, the ws70x.pbd does not contain trace directives for WebSphere 7 specific classes that implement J2EE classes/interfaces.

Solution:

This issue does not have a workaround.

Increase memory to use extra instrumentation with WebSphere 7 - 48885, 49328, 58653

Symptom:

You may see an OOM error when you turn on extra instrumentation such as exception tracing or LeakHunter with WebSphere 7.

Solution:

Increase the memory available to the JVM. Increase maximum JVM heap size setting on the WebSphere application server to at least 1 GB.

Extensible Counter List utility required for Windows platform monitoring - 48697

Symptom:

You may notice that Windows platform monitoring does not work even after the system objects are enabled in perfmon utility.

Solution:

Windows platform monitors require the Extensible Counter List utility available from : http://download.microsoft.com/download/win2000platform/exctrlst/1.00.0.1/nt5/en-us/exctrlst_setup.exe.

After downloading the utility:

1. Run exctrlst_setup.exe
2. Enable performance counters PerfProc for processor and PerfOs for process performance object.

Issue importing saved transaction traces - 46688

Symptom:

You may encounter problems when importing saved Transaction Traces.

Solution:

The workaround is documented in Knowledge Base article no. 1714 on <http://support.ca.com>.

View Metric Count chart only in live mode - 46035

Symptom:

Because data for string-based metrics is not stored in SmartStor, the Metric Count pie chart and accompanying table does not report correct metric counts in historical mode.

Solution:

View the Metric Count pie chart only in live mode.

Labeling issue on time series bar charts - 42368

Symptom:

In reports, time series bar charts can contain misleading data labels when the item label is not a unique name for identifying a series in a metric group.

Solution:

Avoid using \$agentname as a key for identifying a series. Use the fully qualified agent name.

Accuracy in 'Partial Metrics with Data' metric - 41856

Symptom:

Due to the way the Enterprise Manager tracks internal metrics about its own performance, the Partial Metrics with Data metric -- which appears as part of the supportability metrics under the path CustomMetricAgent|EM|Connection|DataStor|MetaData:"Partial Metrics with Data" -- must be taken as an approximate figure only.

Solution:

This issue does not have a workaround.

Toggling ManagedSocketTracing during runtime may result in error - 39884

Symptom:

Dynamic Instrumentation does not support changes in Class Substitution which is used by the ManagedSocketTracing group. So attempting to toggle ManagedSocketTracing during runtime evokes an error message such as follows:

Unsupported change to active AutoProbe configuration. Using existing configuration.

Solution:

Restart the JVM after modifying the .pbd file.

Configuring sockets to reuse address permits quicker restart - 39716

Symptom:

Restarting the Enterprise Manager too quickly may fail on some operating systems, particularly Linux. If the Enterprise Manager is shut down and restarted too quickly, startup may fail with misleading error messages because the OS has not released the Enterprise Manager's server port (5001).

Solution:

Set the property *introscope.enterprisemanager.serversockets.reuseaddr* to true. This allows the socket to be bound even though a previous connection is in a timeout state. However, this should be used with caution, as it removes the protection against two Enterprise Managers using the same port.

If you choose not to enable the *introscope.enterprisemanager.serversockets.reuseaddr*, you wait for the socket to exit the TIME_WAIT. It enters this state after the socket has been closed. The socket remains in TIME_WAIT state for a system-dependent time, generally 120 seconds.

Frequent class redefinition under Dynamic Instrumentation may result in OOM condition - 38867, 38868, 63857

Symptom:

When using dynamic instrumentation, and many classes are re defined, under certain JVMs including Sun HotSpot, you get OutOfMemory errors and the application crashes. This error is a result of the way PermGen is handled in the specific JVM.

Solution:

Increase the amount of memory that is allocated to Perm Gen, or alternatively, to turn off dynamic instrumentation. The amount of increased memory depends on your JVM and on the size of your application.

If you continue to encounter these errors, contact CA Support.

Poorly written calculators may result in misleading display - 38636

Symptom:

Metrics that are created by poorly written JavaScript calculators persist in the Investigator tree and show up as active (not dimmed) even if they are reporting no data.

Solution:

Create well written calculators.

Agent Known Issues

This section contains the following topics:

[Java Agent Known Issues](#) (see page 59)

[.NET Agent Known Issues](#) (see page 63)

Java Agent Known Issues

This section contains the following topics:

[Issue with SQLAgent - 260223](#) (see page 59)

[Agent Does Not Start in JBoss 7 - 84396, 76212](#) (see page 60)

[Java Agent reports incorrect Connection Count metrics - 81200](#) (see page 60)

[boot.log not Created in JBoss 6 - 76007](#) (see page 61)

[Oracle backend metrics appear under unexpected node \(Type 2 and 4 JDBC drivers\) - 75900](#) (see page 61)

[Error instrumenting JBoss 7 applications - 75783](#) (see page 62)

[BCI failing for some EJB applications - 75733](#) (see page 62)

[Node name for JDBC URL with no Optional Keyword "Port" is Incorrect - 75328](#) (see page 62)

[Performance Improvement Clarifications for CA APM - 73540](#) (see page 63)

Issue with SQLAgent - 260223

Symptom:

CA APM 9.5 and 9.5.1 Java Agents have a vulnerability in SQL monitoring that can cause application threads to hang.

Solution:

Upgrade to CA APM 9.5.5 when it is available. For immediate assistance, contact [CA support](#) for a hotfix.

Agent Does Not Start in JBoss 7 - 84396, 76212

Symptom:

When you use ORACLE/SUN JDK 1.6 Update 15 and later versions, the Agent is not started. This issue is a logger problem in JBoss 7 and is common for any agent that performs logging.

Solution:

Use *one* of the following workarounds to resolve the issue:

- Use ORACLE/SUN JDK 1.6 Update 14 or previous versions.
- Turn off the logging of WILY agent in the agent profile and start the server. Enable the logging after the server boots up.
- Open the JBoss startup script in a text editor, and update with:
set JAVA_OPTS= %JAVA_OPTS%
-Djboss.modules.system.pkgs=org.jboss.logmanager,com.wily,com.wily.*
-Djava.util.logging.manager=org.jboss.logmanager.LogManager
-javaagent:%JBOSS_HOME%\wily\Agent.jar
-Dcom.wily.introscope.agentProfile=%JBOSS_HOME%\wily\core\config\IntroscopeAgent.profile
-Xbootclasspath/p:%JBOSS_HOME%\modules\org\jboss\logmanager\main\jboss-logmanager-1.2.2.GA.jar;%JBOSS_HOME%\modules\org\jboss\logmanager\log4j\main\jboss-logmanager-log4j-1.0.0.GA.jar;%JBOSS_HOME%\modules\org\apache\log4j\main\log4j-1.2.16.jar

Java Agent reports incorrect Connection Count metrics - 81200

Symptom:

The current definition for the Connection Count metric says that the metric must report only the count of live connection objects in memory. However, the metric reports the number of connections that are in memory (open or closed).

Solution:

This issue does not have a workaround. CA Technologies is researching a fix for this issue.

boot.log not Created in JBoss 6 - 76007

Symptom:

When you use JDK 1.6 update 15 and higher versions, the boot.log is not created in the JBoss application server. This issue is common for any agent that performs logging.

Solution:

Use *one* of the following workarounds to resolve the issue:

- Use JDK 1.6 Update 14 or previous versions.
- Turn off the logging of WILY agent in the agent profile and start the server.
- Enable the logging after the server boots up.

Oracle backend metrics appear under unexpected node (Type 2 and 4 JDBC drivers) - 75900

Symptom:

Metrics under the Backends node are displayed under a single node irrespective of the node of the backend RAC Database that is connected by the application. This information is relevant to both Type 2 and Type 4 JDBC drivers.

For example:

```
jdbc:oracle:thin:@<hostname>:port:<SID>
```

Note: SID can be replaced with either SID or service name.

Solution:

The RAC connect string or the URL must be given in the standard RAC URL format. For example:

```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<hostnamea>)(PORT=port1))(ADDRESS=(PROTOCOL=TCP)(HOST=<hostnameb>)(PORT=port2))(ADDRESS=(PROTOCOL=TCP)(HOST=<hostnamec>)(PORT=port3))(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<serviceNameAAA>)))
```

Error instrumenting JBoss 7 applications - 75783

Symptom:

Users with agents instrumenting JBoss 7 applications may see an error in agent logs such as follows:

3/29/12 02:34:11 PM IST [ERROR] [IntroscopeAgent.Agent] A problem occurred while attempting to Introscope-enable com/test/SingletonSBean\$\$\$view2: com.wily.diagnos.personality.java.classfile.constants.DGClassConstant cannot be cast to com.wily.diagnos.personality.java.classfile.constants.DGUtf8Constant

Solution:

This issue does not have a workaround. You can ignore this message as there is no loss of functionality.

BCI failing for some EJB applications - 75733

Symptom:

You may see CLASSCASTEXCEPTION when instrumenting dynamic proxy classes that are generated by EJB container.

Solution:

Skip the classes to avoid the exceptions in the log files. There will not be any functionality loss.

For example,

Create a PBD file or edit *jboss4x.pbd* file and add the skip directives of the classes for which you are seeing the errors:

```
SkipClass: org.jboss.as.quickstarts.singleton.Counter$$$view13  
SkipClass: com.test.SingletonSBean$$$view3
```

Node name for JDBC URL with no Optional Keyword "Port" is Incorrect - 75328

Symptom:

When accessing Backends node, you may see node names with the following format:

<SID>-<HostName>-<port> (Oracle DB)

This format is translated to the following format if the port number is not mentioned in the URL:

<SID>-<HostName>- (Oracle DB)

Solution:

The Oracle database URL or connect string must include the port number.

Performance Improvement Clarifications for CA APM - 73540

Symptom:

If you are instrumenting the Sun JVM RHEL with the CA APM Java agent, and your JVM is executing a heavily multi-threaded application, where the threads are constantly performing tasks (not waiting on other threads or blocked), then you may not experience some of the memory improvements being delivered in other CA APM environments. However, you will still experience improved throughput/response times.

Solution:

This issue does not have a workaround.

.NET Agent Known Issues

This section contains the following topics:

[Issue with LeakHunter on Windows 2003 Server - 86792](#) (see page 63)

[Dynamic Instrumentation not Supported when LeakHunter is Running - 85251](#) (see page 64)

[Client socket metrics do not appear for client and server in two different processes for .NET agent - 85108](#) (see page 64)

[Collector and Cluster Instability after .NET Agents Restarted - 84704](#) (see page 64)

[Change Detector folder is not deleted when the .NET agent is restarted - 81478](#) (see page 65)

[.NET Agent reports incorrect Connection Count metrics - 81326, 80317](#) (see page 65)

[Upgrade to .NET 2.0 SP2 when using NativeProfiler - 56313](#) (see page 65)

[Disconnected agent display may persist - 52637](#) (see page 66)

Issue with LeakHunter on Windows 2003 Server - 86792

Symptom:

When you enable LeakHunter on Windows Server 2003 in a .NET environment, the application does not start and you see the following error message:

Failed to execute request because the App-Domain could not be created.

Solution:

To work around the issue perform *one* of the following steps:

- Disable LeakHunter on Windows Server 2003.
- Use Windows Server 2008.

Dynamic Instrumentation not Supported when LeakHunter is Running - 85251

Symptom:

When you enable Dynamic Instrumentation on a .NET application with the LeakHunter running, the application becomes unstable.

Solution:

Disable Leakhunter by setting *introscope.agent.leakhunter.enable=false* in the IntroscopeAgent.profile when you enable Dynamic Instrumentation on a .NET application.

Client socket metrics do not appear for client and server in two different processes for .NET agent - 85108

Symptom:

When the client and server socket requests are made within the same worker process, both the client and socket metrics appear under the same server socket node. You do not see client socket metrics under the client socket node and instead they appear in the Investigator tree under the server socket node.

When the client and server socket applications are both running on the same host but different worker processes, the client socket metrics appear in the Investigator tree under the server socket node of the client process.

Solution:

This issue does not have a workaround.

Collector and Cluster Instability after .NET Agents Restarted - 84704

Symptom:

When .NET agents connected to a Collector using HTTP(s) communication are restarted in quick succession, the Collector can become unstable. When the agents have restarted, the Enterprise Manager CPU can spike during a longer than typical harvest period. The longer harvest period can cause a period of cluster instability.

Solution:

Wait at least 5 minutes between each restart when restarting multiple .NET agents in succession.

Change Detector folder is not deleted when the .NET agent is restarted - 81478

Symptom:

When you restart a .NET agent that is configured with the Change Detector, you may encounter a stack error message. This error occurs because the earlier change_detector folder was not deleted. Change Detector will not be able to update the changes after the restart.

Solution:

Remove the change_detector folder before restarting the .NET agent.

.NET Agent reports incorrect Connection Count metrics - 81326, 80317

Symptom:

The current definition for the Connection Count metric says that the metric must report the number of backend connections made to the database. However, the metric reports the number of connections that are in memory (open or closed).

Solution:

This issue does not have a workaround. CA Technologies is researching a fix for this issue.

Upgrade to .NET 2.0 SP2 when using NativeProfiler - 56313

Symptom:

Using NativeProfiler on .NET frameworks 1.1, 2.0 or 2.0 SP1 may produce instability in your application when the LeakHunter extension is enabled.

Solution:

Upgrade to .NET framework 2.0 SP2. If you are using .NET framework 3.5, upgrade to the .NET framework 3.5 SP1 that comes with .NET framework 2.0 SP2.

Disconnected agent display may persist - 52637

Symptom:

When an agent disconnects from the Enterprise Manager, its icon in the Workstation agent tree turns gray. Normally, this happens within 4 to 5 seconds. However, depending on the topology of your network, amount of traffic on your network, TCP/IP configuration on your OS, overall load on the agent hardware, and socket settings of the application that the agent is monitoring (notably Microsoft IIS), it may take the Enterprise Manager up to 30 to 45 seconds to be informed of the disconnect. During that time, no new data will appear in the Workstation, even though the agent still appears to be connected.

Solution:

This issue does not have a workaround.

Customer Experience Manager Known Issues

This section contains the following topics:

[Issue with CEM Service Initialization - 257380](#) (see page 67)

[Issue with CEM Stability when the Standalone Environment is Changed to Cluster - 86791](#) (see page 67)

[Potential Security Risk with CA Directory - 73910](#) (see page 67)

[Oracle 10g 2r: Internal Application Errors with some CEM reports - 66484, 66485](#) (see page 69)

[Original recorded values and patterns appear in the wrong characters - 65193](#) (see page 70)

[Some report displays do not match PDF versions - 60056](#) (see page 70)

Issue with CEM Service Initialization - 257380

Symptom:

If the Enterprise Manager port is greater than 32767 for PostgreSQL, then the CEM service initialization does not take place and you see the following error message in the logs:

[INFO] [InitializationPool.Thread1] [Manager.com.timestock.tess.util.DbUtils] Retrying failed insert for com.timestock.tess.data.objects.Entity

**[ERROR] [InitializationPool.Thread1]
[Manager.com.timestock.tess.services.service.ServicesManager] Service initialization failed java.lang.NullPointerException**

Solution:

To work around this issue, ensure that the Enterprise Manager port number is lower than 32767 for PostgreSQL.

Issue with CEM Stability when the Standalone Environment is Changed to Cluster - 86791

Symptom:

When you change the environment from standalone to a cluster and then direct a collector to the MOM, CEM becomes unusable.

Solution:

Delete the ts_entity table contents and restart the EM.

Potential Security Risk with CA Directory - 73910

Symptom:

There is a potential risk with CA Directory. A vulnerability exists that can allow a remote attacker to cause a denial of service condition. Remediation is available to address the vulnerability.

The vulnerability, CVE-2011-3849, occurs due to insufficient bounds checking. A remote attacker can send an SNMP packet that can cause a crash.

The following products are affected:

- CA Directory r12 SP1-SP7
- CA Directory 8.1
- CA products that bundle CA Directory with the installation media:

- CA Identity Manager
- CA SiteMinder
- CA Single Sign-On
- CA DLP
- CA Clarity PPM
- CA Embedded Entitlements Manager 8.4.409 (8.4 SP4 CR09) and prior

Note: CA Embedded Entitlements Manager is distributed with the following products:

- CA Aion
- CA APM
- CA Asset Portfolio Management
- CA Audit
- CA Automation Suite for Data Centers
- CA Client Automation
- CA Configuration Automation
- CA Directory
- CA eHealth
- CA Infrastructure Management
- CA Introscope
- CA IT Asset Manager
- CA Process Automation
- CA Service Catalog
- CA Service Desk Manager
- CA Service Metric Analysis
- CA Service Operations Insight
- CA Software Compliance Manager
- CA User Activity Reporting Module
- CA Virtual Automation
- CA Virtual Automation for IM
- CA Workflow
- CA Workload Automation
- CA Workload Control Center

Depending on how the individual product is implemented, CA Directory may or may not be used by default when CA Embedded Entitlements Manager is installed. If you have installed one of the products in this list, refer to the product's installation or implementation guide for specific details concerning CA Directory.

The following CA products are not affected:

- CA Directory r12 SP7 CR1 and higher
- CA Embedded Entitlements Manager r12

To determine if the installation is affected, verify the version of dxserver by running the command "dxserver version" on the command line. All versions prior to version 6279 are affected.

Solution:

For CA Directory, upgrade to SP7 CR1 (build 6279). CA Directory solutions and patches are available here:

<https://support.ca.com/irj/portal/anonymous/phpsupcontent?contentID=%7bED89688A-C7A2-4FE9-85D9-1272D345A658%7d>

For products that include CA Embedded Entitlements Manager 8.4.409 (8.4 SP4 CR09) and prior, steps to secure EEM servers with directory SNMP vulnerability are available here:

<https://support.ca.com/irj/portal/anonymous/phpsupcontent?contentID=%7b0C234958-A014-4435-9EA9-3A39F2866D48%7d>

The vulnerability is related to CA Directory parsing of SNMP packets. To mitigate the risk, the SNMP port can be disabled by removing the "set snmp-port" line from the DSA's knowledge configuration section. For CA APM customers using CA Embedded Entitlements Manager for user management, adopt the approach of disabling the SNMP port.

Oracle 10g 2r: Internal Application Errors with some CEM reports - 66484, 66485

Symptom:

When the APM database is running on the Oracle 10g r2 platform, some links in some CEM reports may produce Internal Application Errors.

For example, this error has been found for the Login Name link on the User Trend and User SLA reports and for the User Group name on the User Trend report.

Solution:

Apply the latest patch to Oracle 10g 2r (10.2.0.5 or higher).

Original recorded values and patterns appear in the wrong characters - 65193

Symptom:

If cookies are encoded in Unicode and the business application uses another character encoding, then the original recorded values and the patterns do not appear correctly on the Components page. (Business Services, Business Transactions, Transactions, Components)

For example,

If cookie values are encoded in Unicode and the business application uses EUC-KR character encoding, then, on the Components page, the recorded values for the cookies appear in their Unicode representation.

Solution:

This issue does not have a workaround.

Some report displays do not match PDF versions - 60056

Symptom:

The CEM reports in the UI do not match the PDF reports in all cases. For example, in the CEM > Performance report, some columns appear on the UI but do not appear on the PDF report. In the CEM > Service Level Management > Business Value report, large numerical values that appear in the UI are truncated or missing on the PDF report.

Solution:

Use the CEM console UI report instead of the PDF report.

Extensions and Integrations Known Issues

This section contains the following topics:

[Deviation metrics not reported for the CA APM Extensions - 85465](#) (see page 71)
[Servlets node is not shown in Workstation on AIX with WAS 6.1 - 84456](#) (see page 71)
[Performance Issue on WebSphere Application Server - 84238](#) (see page 71)
[Handle Leak in CA LISA Process when Platform Monitor is Enabled - 82910, 76289](#) (see page 72)
[IBM WAS 7 on z/OS throws PMI instrumentation error - 81500](#) (see page 72)
[Worker pool count metric is missing for CTG 7.2.0.0 - 78486](#) (see page 73)
[SharePoint 2010 OSS Secure Store Tickets metrics may not be accurate - 67375](#) (see page 73)

Deviation metrics not reported for the CA APM Extensions - 85465

Symptom:

SOA deviation metrics are not reported because out-of-the-box SOA Deviation Calculator has been disabled.

Note: Out-of-the-box SOA Deviation Calculators has been disabled because it can cause high harvest duration spikes on Collectors and can trigger email alert multiple times.

Solution:

Enable the deviation calculators by setting the following property in the IntroscopeEnterpriseManager.properties file:

```
com.wily.introscope.soa.deviation.enable=true
```

Servlets node is not shown in Workstation on AIX with WAS 6.1 - 84456

Symptom:

When you configure agent on AIX with WAS 6.1 using the -Xbootclasspath option, the servlets node is not seen.

Solution:

Configure the agent using the -javaagent option.

Performance Issue on WebSphere Application Server - 84238

Symptom:

You may see a performance issue when using WebSphere Application Server.

Solution:

Install AgentNoRedef.jar to see a performance improvement. If you still do not see a significant improvement, install *one* of the following jars:

- AgentNoRetrans.jar
- AgentNoRedefNoRetrans.jar

Important! If you use any of the jars, ensure that you configure the agent with IntroscopeAgent.NoRedef.profile instead of IntroscopeAgent.profile.

Handle Leak in CA LISA Process when Platform Monitor is Enabled - 82910, 76289

Symptom:

On Windows platforms, there is a known issue that causes a 'handle' leak in CA LISA processes instrumented with an Introscope agent configuration that includes platform monitors. There appears not to be an associated memory leak. This means CA Technologies expects that the time the CA LISA process must remain running before handles are exhausted is long enough to not pose a significant problem.

Solution:

If the lack of handles becomes a problem, stop all instrumented CA LISA processes and remove the following four files from the <AGENT_HOME>\core\ext directory, then restart the CA LISA processes.

- introscopeWindowsIntelAmd32Stats.jar
- introscopeWindowsIntelAmd32Stats.dll
- introscopeWindowsIntelAmd64Stats.jar
- introscopeWindowsIntelAmd64Stats.dll

Note: Removing platform monitors prevents CPU usage metrics from being reported for CA LISA processes. Therefore, the CPU usage based graphs and alerts in the CA LISA Overview dashboard and CA LISA Report are empty. Tracing of LISA test related metrics is unaffected by this workaround.

CA Technologies is researching a solution for this issue.

IBM WAS 7 on z/OS throws PMI instrumentation error - 81500

Symptom:

When both Introscope custom service (com.wily.introscope.agent.pmi.PMIDataPoller from WebAppSupport.jar) and IBM WAS extension custom service (com.wily.powerpack.websphere.agent.pmi.PPPMIDataPoller from PowerpackForWebSphere_Agent.jar) are installed and enabled to run simultaneously, both the services report Performance Monitoring Infrastructure (PMI) metrics with the same names but different types. This scenario results in conflict errors when processing or accessing the PMI metric data.

Solution:

Do not run both the custom services simultaneously.

Worker pool count metric is missing for CTG 7.2.0.0 - 78486

Symptom:

The Worker pool count metric does not show up for CTG 7.2.0.0.

Solution:

Upgrade to CTG 7.2.0.3.

SharePoint 2010 OSS Secure Store Tickets metrics may not be accurate - 67375

Symptom:

In the SharePoint Portal extension, the following SharePoint 2010 OSS Secure Store Tickets metrics may display inaccurate data:

- Tickets issued per second
- Tickets redeemed per second

Solution:

This issue does not have a workaround.

Third-Party Known Issues

This section contains the following topics:

[Issue with IIS 7.5 default installation - 85324](#) (see page 75)
[Issue with queue.filter.includeonly.regex expression for MQ extension - 85045](#) (see page 75)
[Segmentation Error on WebSphere Application Server 7 - 84988](#) (see page 76)
[No warning or shutdown if 64-bit Linux EM system clock time moved backward - 83106](#) (see page 76)
[Error when installing Postgres SQL - 82840](#) (see page 76)
[Introscope Custom Service fails to start after upgrading WebSphere Application Server 7 - 82689](#) (see page 77)
[MQ Monitor / WebSphere MQ agent does not monitor queue managers by default - 78313](#) (see page 77)
[APAR R044532 needed for SYSVIEW R13.5 for CTG Channel Tracing - 76104](#) (see page 77)
[CA APM Database Related Logs Contain Junk Characters - 73579](#) (see page 78)
[Missing thread pool metrics on Tomcat 6.x - 72879](#) (see page 78)
[Negative Values for PMI Metrics on WebSphere 7 - 72467](#) (see page 78)
[OOM error requires update to IBM JDK SR10 - 71618](#) (see page 79)
[Erroneous Message Broker Status in z/OS Environments-70242](#) (see page 79)
[Issue with starting Introscope Workstation on Vista and later OS - 66629](#) (see page 80)
[Errors on reimporting exported transactions on Japanese HP-UX system - 65101](#) (see page 80)
[Initial view of CEM UI pages may cause crash - 63644](#) (see page 80)
[OOM error requires update to JVM 1.6u25 - 63210](#) (see page 81)
[OOM error on Sun JVM 1.6.0_16 may require JVM upgrade - 62360](#) (see page 81)
[Certain JVM-platform combinations may experience startup problems - 61585](#) (see page 81)
[Issues starting agent on WebSphere-Linux platform - 59363](#) (see page 82)
[Dynamic instrumentation with JBoss or Tomcat app servers using Java 5 not supported - 58986](#) (see page 82)
[Using Java agent with IBM JDK 1.6 requires JDK upgrade - 53425](#) (see page 82)
[Classic JVM no longer supported for Agent on OS/400 \(IBMi\) - 52642, 58070](#) (see page 82)
[Running Introscope with WebLogic Server and JRockit - 52469](#) (see page 83)
[Agent on IBM JDK 1.5 requires JDK upgrade - 47067, 47451, 55622](#) (see page 83)
[Java exception during dynamic instrumentation with WebSphere MQ - 45915](#) (see page 83)
[JBoss issue on 64-bit SuSe 9 system - 45889](#) (see page 83)
[Stalled stateless plugins may not stop properly - 27489, 27492](#) (see page 84)

Issue with IIS 7.5 default installation - 85324

Symptom:

The installation of IIS7.5 Server Manager on Windows 2008 R2 Enterprise Edition is unsuccessful because the WMI class is missing.

Solution:

Select IIS7.5 to work in the IIS6 Management Compatibility role during the installation of IIS7.5.

Follow these steps:

1. Launch Server Manager.
2. Select Roles, Web Server(IIS), and Add Role Services.
3. Install the following IIS6 Management Compatibility roles:
 - IIS6 Metabase Compatibility
 - IIS6 WMI Compatibility
 - IIS6 Scripting tools
 - IIS6 Management Console

Issue with `queue.filter.includeonly.regex` expression for MQ extension - 85045

Symptom:

Due to a third-party issue, the `queue.filter.includeonly.regex` expression that is used in the MQMonitor.properties for the MQ extension can accept only * and | special characters.

For example,

```
QM1@hostname.queue.filter.includeonly.regex=TEST*|ABC*|WILY*
```

Solution:

This issue does not have a workaround.

Segmentation Error on WebSphere Application Server 7 - 84988

Symptom:

If you install the APM Agent on WAS 7.0 Fix Pack 21 Java 6 SR9 (WAS 7.0.0.21), application crashes can occur occasionally. IBM has documented APAR IV07414 for this issue where a particular race condition occurs between the completion of class verification and subsequent hot code replace of the same class by the instrumented agent.

Solution:

Upgrade from Java 6 SR9 to Java 6 SR11 or higher for WAS 7.0 Fix Pack 21.

No warning or shutdown if 64-bit Linux EM system clock time moved backward - 83106

Symptom:

On 64-bit Linux Enterprise Managers, if the system clock time is moved backward, the Enterprise Manager does not issue a warning or shut down. A Java JVM bug causes this behavior. See http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6900441. This issue does not apply to 32-bit or non-Linux operating systems.

Solution:

Do not change the system time after an Enterprise Manager has started. Stop the Enterprise Manager before resetting the system time.

Error when installing Postgres SQL - 82840

Symptom:

When installing PostgreSQL DB as the APM database, administrators may see an error similar to the following message:

Execute ANT Script: Status: ERROR

**Additional Notes: ERROR - C:\Program Files\CA
APM\Introscope<Version_Number>\install\db.installer.exec.xml:22: Timeout: killed
the sub-process**

Solution:

The message can be ignored because it has no functional impact.

Introscope Custom Service fails to start after upgrading WebSphere Application Server 7 - 82689

Symptom:

After upgrading WebSphere Application Server 7, you may see a `java.security.AccessControlException` thrown when starting Introscope Custom Service.

Solution:

Perform *one* of the following tasks:

- Modify `<WAS_Home>/properties/server.policy` to allow Java Security permissions.
- Clear the *Use Java 2 security to restrict application access to local resources* option in the WebSphere Admin console.

MQ Monitor / WebSphere MQ agent does not monitor queue managers by default - 78313

Symptom:

By default, WebSphere MQ agent does not monitor the queue managers on WMQ 7.1 because the client channel authentication is enabled.

Solution:

To monitor the queue manager, follow the configuration steps in IBM technote 1577137, "IBM WMQ 7.1 / 7.5 queue manager - RC 2035 MQRC_NOT_AUTHORIZED when using client connection as an MQ Administrator", found as of this writing at the following URL:

<http://www-01.ibm.com/support/docview.wss?uid=swg21577137>

Note: You can disable the client channel authentication with the following command:
`ALTER QMGR CHLAUTH(DISABLED)`

APAR R044532 needed for SYSVIEW R13.5 for CTG Channel Tracing - 76104

Symptom:

CA APM for IBM CICS Transaction Gateway (CTG) Channel Tracing when working with SYSVIEW R13.5 does not generate or collect traces in the workstation.

Solution:

Apply APAR R044532 on SYSVIEW R13.5 to view CTG Channel Traces appropriately.

CA APM Database Related Logs Contain Junk Characters - 73579

Symptom:

Because of the behavior of the Postgres installer in CJK (Asian) language environments, CA APM database logs (in non-English locales) that are created during the installation may contain junk characters.

Solution:

The log files with this issue are only copies of PostgreSQL temporary files, and do not indicate a problem, so users can safely ignore these files. A ticket for this issue has been raised with Install Anywhere and a fix will be available in a future release.

Missing thread pool metrics on Tomcat 6.x - 72879

Symptom:

Due to a third-party issue, users of the Tomcat application server version 6.0.24 and higher on Windows (32-bit or 64-bit) may experience missing data for some thread pool metrics, and some resource metrics from the TomcatMonitoring.jar, GCMonitor.jar, and PlatformMonitor.dll extensions.

Solution:

Remove the Tomcat native libraries, contained in the file tcnative-1.dll, from the Tomcat installation.

Negative Values for PMI Metrics on WebSphere 7 - 72467

Symptom:

Users running IBM WebSphere 7 may see negative values for the PMI metrics.

Solution:

Consult IBM bug <http://www-01.ibm.com/support/docview.wss?uid=swg1PM18755> and upgrade to IBM WebSphere Application Server 7.0.0.15 or upgrade to Fix Pack 15.

OOM error requires update to IBM JDK SR10 - 71618

Symptom:

Due to a third-party issue, if you are using the CA APM agent to monitor applications that run IBM's Java 1.6 and are using the preferred `-javaagent` switch, you will experience severe memory overhead. This is due to a native memory leak in the JDK. The applications eventually run out of memory. The memory leak occurs irrespective of the max heap size (`-Xmx`) setting. This issue also occurs when Autoprobe instrumentation is disabled (`introscope.autoprobe.enable=false`) while still using `-javaagent`.

The issue is specific to object finalization in the IBM JVM. Details of this issue are available from IBM's website at <http://www-01.ibm.com/support/docview.wss?uid=swg1I299243>.

Solution:

Use the AutoProbe Connector for IBM and deploy it in the bootstrap classpath using the `-Xbootclasspath` switch. Note that this is a temporary workaround only and it is recommended that you obtain IBM's official patch that resolves this issue.

Erroneous Message Broker Status in z/OS Environments-70242

Symptom:

Due to a third-party issue, the message broker property returns with a status of running after a broker is stopped in a z/OS environment.

Solution:

CA Technologies is working with the third-party to resolve the issue.

Issue with starting Introscope Workstation on Vista and later OS - 66629

Symptom:

Due to a change implemented by Microsoft in Windows Vista and later releases, you cannot launch Introscope Workstation that is installed in the Program Files folder even if your userid is part of the Administrators group.

Solution:

Follow these steps:

1. Right click Workstation.exe.
2. Select Run as Administrator.

If you are not part of Administrators Group, then Workstation must be installed outside the Program Files folder.

Errors on reimporting exported transactions on Japanese HP-UX system - 65101

Symptom:

Due to a third-party issue, as a CA APM user on the HP-UX 11i Japanese platform using LANG=ja_JP.SJIS and JRE 1.6, you see errors when attempting to reimport exported business transactions.

Solution:

This issue does not have a workaround.

Initial view of CEM UI pages may cause crash - 63644

Symptom:

You may encounter problems when launching the CEM user interface and attempting to view CEM UI pages for the first time. Due to a third-party bug, under some circumstances the JVM generates an error log file in <EM_Home>, and the Enterprise Manager crashes.

Solution:

This issue does not have a workaround. For more information, follow the Sun issue at http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6508889. Once Sun creates a fix for this issue, upgrade to the version of Java that contains the fix.

OOM error requires update to JVM 1.6u25 - 63210

Symptom:

Due to a third-party issue, users may encounter an error as follows:

java.lang.OutOfMemoryError: unable to create new native thread

Solution:

Update your JVM to 1.6u25 or higher. For more information, see http://bugs.sun.com/view_bug.do?bug_id=6478317

OOM error on Sun JVM 1.6.0_16 may require JVM upgrade - 62360

Symptom:

Due to a third-party bug, as a CA APM user on Sun JVM 1.6.0_16 or lower you may encounter an OOM error.

Solution:

Upgrade to a Sun JVM that contains a fix (see Sun bug http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6423256). Users must also consider upgrading to either:

- a Linux JVM that supports a heap size more than 1.3 GB.
- a 64-bit JVM if already encountering limitations on your 32-bit JVM.

Certain JVM-platform combinations may experience startup problems - 61585

Symptom:

With IBM J9 versions on the AIX platform, as an Enterprise Manager user, you may occasionally encounter startup problems.

The following error is displayed:

com.ibm.xtq.xslt.jaxp.HandledRuntimeException: [ERR 0614]

Solution:

Restart the Enterprise Manager.

Issues starting agent on WebSphere-Linux platform - 59363

Symptom:

Due to a third-party issue, if you are running IBM WebSphere Application Server 6.1 on 32-bit or 64-bit Red Hat Linux you may experience a problem with the Introscope agent starting on their application server.

Solution:

Apply WebSphere Application Server Java SDK 1.5 SR12, if available. If not yet available, apply WSAS APAR PM05658. Both SR12 and WSAS APAR PM05658 can be downloaded from IBM Fix Central web site. SR10 works on all other platforms.

Dynamic instrumentation with JBoss or Tomcat app servers using Java 5 not supported - 58986

Symptom:

CA APM does not support Dynamic Instrumentation with JBoss or Tomcat application servers using Java 5 (1.5.x).

If the startup class (WebAppSupport.jar) is configured, Dynamic Instrumentation is automatically disabled on these application servers, even if the *introscope.agent.remoteagentdynamicinstrumentation.enabled* property is set to true.

If Dynamic Instrumentation is not disabled and the WebAppSupport.jar is not configured, erratic behavior can result while using Tomcat or Jboss with Java 5.

Solution:

Dynamic instrumentation works on JBoss or Tomcat with Java 6.

Using Java agent with IBM JDK 1.6 requires JDK upgrade - 53425

Due to a third-party bug, customers using Introscope Java Agent with IBM JDK 1.6 must install SR6 update or higher. Customers using Introscope Java Agent with WebSphere Application Server 7.0 must install WebSphere 7.0 fixpack 7 and WebSphere SDK fixpack 7 (which contains SR6).

Classic JVM no longer supported for Agent on OS/400 (IBMi) - 52642, 58070

Due to third-party issues with Classic JVM 1.5 and 1.6 on OS/400 (IBMi), CA APM has stopped supporting Classic JVM for Introscope Agent on OS/400. To continue using 64-bit JVM for WebSphere Application server 7.0, switch to using J9 64-bit JVM.

Running Introscope with WebLogic Server and JRockit - 52469

Users running Introscope with WebLogic Server 9.0 under JRockit should upgrade JRockit from 1.5.0-03 to 1.5.0-04 (or higher), or switch from JRockit 1.5.0-03 to Sun 1.5.0-03.

Agent on IBM JDK 1.5 requires JDK upgrade - 47067, 47451, 55622

Due to a third-party bug, customers using Introscope Java Agent with IBM JDK 1.5 must install SR10 update or higher. Customers using Introscope Java Agent with WebSphere Application Server 6.1 must install WebSphere 6.1 fixpack 27 and WebSphere SDK fixpack 27 (which contains SR10).

Java exception during dynamic instrumentation with WebSphere MQ - 45915

Symptom:

An issue with IBM WebSphere MQ produces a Java exception after Introscope redefines certain Java classes during the process of dynamic instrumentation. To date, this behavior has been observed only in IBM WebSphere MQ.

Solution:

Avoid redefinition of offending classes, which can be identified from the Java stack trace. CA Technologies has filed an issue with IBM and is continuing to monitor this issue.

JBoss issue on 64-bit SuSe 9 system - 45889

Symptom:

Due to a bug in JBoss, running JBoss 4.0.5 on a 64-bit SuSe 9 environment and making run-time changes to the j2E.pbd file may see null pointer exceptions in JBoss server logs or Introscope agent logs.

Solution:

Restart your JBoss server after making the changes.

Stalled stateless plugins may not stop properly - 27489, 27492

Symptom:

Due to a JRE issue, stalled stateless plugins are not properly killed on some platforms, and they continue to consume resources even after the EPAgent has been stopped.

Solution:

These orphan processes must be stopped manually.

Localization Known Issues

This section contains the following topics:

[Screen Captures not Localized - 254284](#) (see page 84)

[Column Menu in WebView not Localized in Japanese and Korean - 251682](#) (see page 85)

[Graph in CEM console contains garbled characters - 82709](#) (see page 85)

[Dashboards for Cloud Monitor not Localized - 76051](#) (see page 85)

[CA APM 9.1.1 Features, Enhancements, and Bug Fixes Not Localized - 75810](#) (see page 85)

[Legend strings are not localized in APM reports - 75638](#) (see page 86)

[CSV Generated from Localized Enterprise Managers Contain Garbled Text - 72920](#) (see page 86)

[Localized PDFs may Contain Garbled Text - 72360](#) (see page 86)

[Some Management Modules may appear in English despite non-English locale - 66173](#) (see page 87)

Screen Captures not Localized - 254284

Symptom:

Graphics in *CA APM for CA SiteMinder Application Server Agents Guide* are not localized.

Solution:

This issue does not have a workaround.

Column Menu in WebView not Localized in Japanese and Korean - 251682

Symptom:

Due to an issue with a third-party software, the column header sorting context menu in WebView is not localized in Japanese and Korean.

Solution:

This issue does not have a workaround.

Graph in CEM console contains garbled characters - 82709

Symptom:

On a Linux system running the Workstation, users may see illegible or garbage characters in some displays.

Solution:

Install a font on the computer for the locale.

Dashboards for Cloud Monitor not Localized - 76051

Symptom:

The dashboards for [assign the value for wclm in your book] is not localized.

Solution:

CA Technologies is working on this issue and will provide the full translation when it is available.

CA APM 9.1.1 Features, Enhancements, and Bug Fixes Not Localized - 75810

Symptom:

Some menu items in the SAP version of WebView do not display localized text labels in a non-English locale. This problem is confined to the dropdown menu options you use when starting a new Transaction Trace through WebView.

Solution:

This issue does not have a workaround.

Legend strings are not localized in APM reports - 75638

Symptom:

If you have the CA APM and Infrastructure Management integration where CA APM reports are displayed on CA Performance Center, then the legends for the status bars are not translated in the local language. This information remains in English.

Solution:

This issue does not have a workaround.

CSV Generated from Localized Enterprise Managers Contain Garbled Text - 72920

Symptom:

When you export CSV files that are generated on Japanese, Korean, Traditional Chinese, or Simplified Chinese Enterprise Manager systems, these CSV files contain garbled text.

Solution:

This issue does not have a workaround. CA Technologies is researching a fix for this issue.

Localized PDFs may Contain Garbled Text - 72360

Symptom:

You may see that the text in some Japanese, Korean, Traditional Chinese, or Simplified Chinese PDFs are garbled. For example, if you are using CEM on the Internet Explorer, right-click the PDF link, and then select Open in New Window, you see some garbled text in the PDF.

Solution:

Use Mozilla Firefox.

Some Management Modules may appear in English despite non-English locale - 66173

Symptom:

Management Modules that are defined with both English and Japanese, including some sample dashboards included with Introscope, may appear in English even on a Japanese language client, if you use a Command Line Workstation command from a Japanese client to an English Enterprise Manager to administer them.

Solution:

This issue does not have a workaround.

Documentation Known Issues

This section contains the following topics:

[Documentation missing information about Postgres Uninstall - 86048](#) (see page 88)

[Documentation missing information about an EMS metric - 85963](#) (see page 88)

[Documentation contains incorrect reference to PowerpackForWebSphere_Agent.jar - 84902](#) (see page 89)

[Documentation inaccurately refers to Enterprise Manager Supporting z/OS or OS/400 - 84667](#) (see page 89)

Documentation missing information about Postgres Uninstall - 86048

Symptom:

The *CA APM Installation and Upgrade Guide* is missing information about Postgres uninstall as a non-root Linux user.

When you install Postgres as a non-root Linux user, *uninstall-postgres* is not created at:

<path>\opt\database\

Solution:

To uninstall Postgres, follow these steps:

1. At the console, execute the following command:

```
<non_root_user_directory_absolute_path>/opt/database/bin/pg_ctl -D  
<non_root_user_directory_absolute_path>/opt/database/data stop
```

2. At <non_root_user_directory_absolute_path>/opt/database/, execute the following command:

```
rm -rf bin doc installer pgAdmin3 scripts stackbuilder include lib  
postgresql-8.4.5 share
```

Postgres has been uninstalled on Linux.

Documentation missing information about an EMS metric - 85963

Symptom:

The *CA APM for SOA Implementation Guide* is missing information about how to configure the metric *Percentage Connections Used*.

Solution:

To enable the metric *Percentage Connections Used*, follow these steps:

1. Set the *Max_connections* property in the *tibemsd.conf* file that is available on the EMS Server.

For example,

```
Max_connections = 10
```

2. Restart the EMS Server.
3. Start the EMSMonitor agent to monitor the server.

Percentage Connections Used metric has been enabled.

Documentation contains incorrect reference to PowerpackForWebSphere_Agent.jar - 84902

Symptom:

The *CA APM Java Agent Implementation Guide* and *CA APM IBM for WebSphere Application Servers Distributed Environments Guide* have references to PowerpackForWebSphere_Agent.jar

Solution:

Ignore the PowerpackForWebSphere_Agent.jar file and use webappsupport.jar only during configuration.

Documentation inaccurately refers to Enterprise Manager Supporting z/OS or OS/400 - 84667

Symptom:

CA APM 9.5 documentation may reference Enterprise Manager for z/OS and OS/400.

Solution:

Enterprise Manager no longer supports z/OS and OS/400 platforms. Ignore such documentation references.

Appendix A: Acknowledgments

The license information for third-party utilities and software used by CA APM 9.5.3 is available as a text file "CA APM 9.5.3 Third-Party License File" on [CA Support](#).