Enterprise Monitoring and Management

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There is two ways of monitoring Restcomm Sip Servlets :

- Through JMX
- Through the industry standard Simple Network Management Protocol - SNMP
- Through the Restcomm Sip Servlets Management Console.

JMX Monitoring

The default mechanism for monitoring Restcomm Sip Servlets is using the Java Management Extensions (JMX) technology. The Oracle website includes the list of options and how to configure JMX Remote on Java 7 http://docs.oracle.com/javase/7/docs/technotes/guides/management/agent.html

Please find below, the list of SIP Specific metrics that can be monitored through JMX

SIP Stack Monitoring Metrics

JMX Name `Domain=org.mobicents.jain.sip,name=Mobicents-SIP-Servlets,type=sip-stack` provides the following metrics :

- `NumberOfClientTransactions` : Active number of SIP Client Transactions.
- `NumberOfServerTransactions` : Active number of SIP Server Transactions.
- `NumberOfDialogTransactions` : Active number of SIP Dialogs.
- `LocalMode` : whether the stack is using replication or not.

Container SIP Core Router (SipApplicationDispatcher) Monitoring Metrics

JMX Name `Domain=<server_name>,type=SipApplicationDispatcher` provides the following metrics :

- `RequestsProcessedByMethod` : Number of incoming SIP requests that have been processed by SIP Method name (INVITE, BYE, INFO, ...).
- `ResponsesProcessedByStatusCode` : Number of incoming SIP responses that have been processed by status code (1xx, 2xx, 3xx, ...).
- `RequestsSentByMethod` : Number of outgoing SIP requests that have been sent by SIP Method name (INVITE, BYE, INFO, ...).
- `ResponsesSentByStatusCode` : Number of outgoing SIP responses that have been sent by status code (1xx, 2xx, 3xx, ...).

Application Level Monitoring Metrics

JMX Name `Domain=<server_name>,path=<application_context_name>,type=SipManager,host=<host_name>` provides the following metrics :

- `expiredSipSessions` : Number of SIP sessions that have expired
- `expiredSipApplicationSessions` : Number of SIP Application sessions that have expired
- `sipSessionAverageAliveTime` : the average time (in seconds) that expired SIP sessions had been alive.
- `sipApplicationSessionAverageAliveTime` : the average time (in seconds) that expired SIP Application sessions had been alive.
- `sipSessionCounter` : Number of SIP Sessions created.
- `sipApplicationSessionCounter` : Number of SIP Application Sessions created.
- `activeSipSessions` : Number of currently active SIP Sessions.
- `activeSipApplicationSessions` : Number of currently active SIP Application Sessions.
- `rejectedSipSessions` : Number of SIP session creations that failed due to maxActiveSipSessions.
- `rejectedSipApplicationSessions` : Number of SIP Application session creations that failed due to maxActiveSipApplicationSessions.
- `numberOfSipSessionCreationPerSecond` : Number of SIP sessions per second that have been created.
- `numberOfSipApplicationSessionCreationPerSecond` : Number of SIP Application sessions per second that have been created.

JMX Monitoring for Restcomm for JBoss AS7/EAP6

Follow the link To Connect JConsole to JMX on AS7/EAP6.

SNMP Monitoring for Restcomm for JBoss AS7

The SNMP feature is not yet implemented in Restcomm for JBoss AS7. This guide will be updated when SNMP monitoring feature become available. In the meantime, see the chapter below for information about the CLI.

Getting Started with Restcomm SIP Servlets for AS7 CLI

JMX Monitoring for Restcomm for Tomcat 7

Follow the link To Connect JConsole to JMX on Tomcat 7.

SNMP Monitoring for Restcomm for Tomcat 7

The SNMP feature is not yet implemented in Restcomm for Tomcat 7. This guide will be updated when SNMP monitoring feature become available.