SIPMON APPLICATION PERFORMANCE MONITORING

Install SIPMON java agent (ORACLE WEBLOGIC)

Prerequisite.

1. Download SIPMON java agent (2.3.0) from below URL

   http:// 10.18.50.125/apm-agents/sipmon-agent.tar.gz

2. Extract agent libraries to desired location

   ```
   tar -xzf sipmon-agent.tar.gz -C /opt/
   ```

3. Check the user which your WEBLOGIC running and give the same access to agent directory since itis required to write logs.

4. Run "networktest.sh" under SIPMON agent script and verify the connectivity to the APM collector. It is required to open below ports based on selected Transport Mode **GRPC** or **THRIFT**.

GRPC (default)	THRIFT	Protocol	Direction	
9991	9994	TCP/UDP	From application server to SIPMon server	Agent Keepalive and application metadata collect
9992	9995	TCP/UDP	From application server to SIPMon server	Application statistic collect
9993	9996	TCP/UDP	From application server to SIPMon server	Application spans collect

5. Bind SIPMon java agent with application

   You must pass below JAVA OPTIONS to enable the agent

   - **AGENT PATH**: complete path to point sipmon-bootstrap-2.3.0.jar file
     -javaagent:/opt/sipmon-agent/sipmon-bootstrap-2.3.0.jar
   - **APPLICATION ID**: unique ID to identify application. Length is less than 24
     -Dpinpoint.agentId=1234
   - **APPLICATION NAME**: Application name. Length is less than 24
     -Dpinpoint.applicationName=MY-WEBLOGIC-001

In Windows, you should find the file: 'startWeblogic.cmd'. Then, add the agent parameter after 'set SAVE_JAVA_OPTIONS=%JAVA_OPTIONS%' as following:
set SAVE_JAVA_OPTIONS=%JAVA_OPTIONS% --javaagent:/opt/sipmon-agent/sipmon-bootstrap-2.3.0.jar -Dpinpoint.agentId=1234 -Dpinpoint.applicationName= MY-WEBLOGIC-001
In LINUX/UNIX, you should find the file: 'startWeblogic.sh. Then, add the agent parameter after 'set SAVE_JAVA_OPTIONS=%JAVA_OPTIONS%' as following:
set SAVE_JAVA_OPTIONS=%JAVA_OPTIONS% --javaagent:/opt/sipmon-agent/sipmon-bootstrap-2.3.0.jar -Dpinpoint.agentId=1234 -Dpinpoint.applicationName= MY-WEBLOGIC-001

Install java agent – Docker container

SIPMon java agent is packed required libraries to bind the application and trigger the spans and send classes loading and utilization information to the SIPMON collector through GRPC or THREFT protocols.

When you attach the java agent with your application, following java standard environment variables (JAVA_OPTS) need to pass to your application JVM properly.

STEP-01 – Passing JAVA-OPTS

Variable	JAVA-OPTS	Description
Agent location (mandatory)	`-javaagent:/sipmon-agent/ sipmon-agent.jar`	Agent executable jar location on POD
Agent ID (optional)	`-Dpinpoint.agentId=<<AGENT ID>>`	Unique identifier for application. It will take POD UUID if you ignore this and later you can change/override it by using POD's bash shell
Agent Name (optional)	`-Dpinpoint.applicationName=<<NAME>>`	Identifier for application name. It will take POD UUID if you ignore this and later you can change/override it by using POD's bash shell
Profile (mandatory)	`-Dpinpoint.profiler.profiles.active=release`	Agent's spring profile. Once it enabled , all configurations will be loaded from *"/sipmon-agent/profile/release"*

There are many ways to pass above JAVA_OPTS to your POD.

1. Using entry point

Dockerfile
`ENTRYPOINT ["run", /opt/tomcat/bin/catalina.sh"]`

With Application information
-javaagent:/sipmon-agent/sipmon-agent.jar -Dpinpoint.agentId=**app-in-docker** -Dpinpoint.applicationName=**quickapp** -Dspring.profiles.active=release
Without Application information
javaagent:/sipmon-agent/sipmon-agent.jar -Dspring.profiles.active=release

2. Using entry point with startup script

Startup file (startup.sh)
`ENTRYPOINT ["run", /opt/tomcat/bin/ startup.sh"]`

With Application information
`JAVA_OPTS="$JAVA_OPTS "`-javaagent:/sipmon-agent/sipmon-agent.jar -Dpinpoint.agentId=**app-in-docker** -Dpinpoint.applicationName=**quickapp** -Dspring.profiles.active=release"
Without Application information

STEP-02 – Copy SIPMON agent files

It is required to download and copy SIPMON agent files under / of your POD.

Updated SIPMON agent binary file in tar format is available under http://sipmon-ip/sipmon_agent.tar

You can manually download and extract on your POD or you can automate it using below shell script

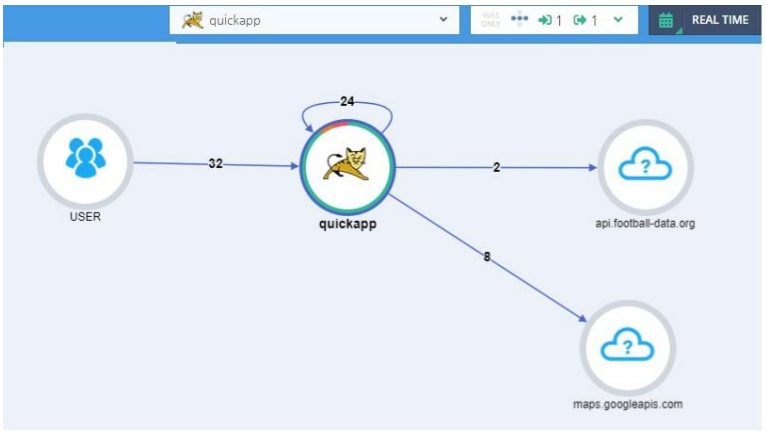
```
FROM alpine:3.7

LABEL maintainer="build@synergysis.com>"

ARG INSTALL_URL=http://sipmon-ip/sipmon-agent.tar.gz

RUN apk add --update curl bash \
  && mkdir -p /sipmon-agent \
  && chmod -R o+x /sipmon-agent \
  && curl -SL ${INSTALL_URL} -o sipmon-agent.tar.gz \
  && tar -xzf sipmon-agent.tar.gz --strip 1 -C /sipmon-agent \
  && rm simpon-agent.tar.gz
```

Once you configured properly, you are able to see agent is registered in APM.



Information			
Application Name	quickapp	Agent Version	2.2.0
Agent Id	app-in-docker	PID	1
Hostname	7e378e2a803c	JVM (GC Type)	1.8.0_171 (PARALLEL)
IP	172.18.0.12	Start Time	2021.01.29 12:24:25 +05:30
Service Type	TOMCAT (Apache Tomcat/8.5.31) Detail	End Status	Running (last checked : 2021.01.29 14:08:40 +05:30)