**Contents**

[**Enterprise Console**](#Enterprise_Console)

* Installation
* Startup / Shutdown

[**App IQ Platform**](#AppIQ)

* Installation (Also installs Controller + Events Service)

[**Controller**](#Controller)

* Startup / Shutdown
* Accessing Controller Admin Page (admin.jsp)
* Changing Controller Port
* Securing Controller / Platform
* Agent / Controller Compatibility
* Controller Sizing
* Agent to Controller Connections (Account, access keys, securing & verifying connection)
* Controller Log Locations

[**Events Service**](#Events_Service)

* Startup / Shutdown
* Health-check Port (In pre 4.3??)

[**App Server Agent**](#Appserver_Agent)

* Install
* App, Tier & Node parameters

[**Database Agent**](#DB_Agent)

* Installation
* Adding Database Collector
* Setting up DB agent to start as a Service (and automatically upon reboot)
* Enable SSH for DB hardware monitoring

**[Machine Agent](#machine_agent)**

* Installation
* Starting Machine Agent
* Setup machine agent to run as a Service

**Analytics Agent**

* Setup

[**EUM Server**](#EUM_server)

* Silent Install (without parameter file)
* Post-Install Steps for Silent Install (without parameter file)
* Silent Install (with parameter file)
* Starting & Stopping EUM server
* Testing connection to EUM server

[**Controller Database**](#Controller_DB)

* How to connect to Controller Database

[**Asynchronous Transactions**](#Async)

* How to define exit-points for async transactions (demarcators)

Docker Setup

* Links

Miscellaneous

* Calculating Analytics Events Volume
* EUM – APM Correlation
* What properties require JVM recycling (restart)
* Increasing BT limit
* Extensions workbench

**Enterprise Console**

**Installation**

1. Download Console software from download.appdynamics.com
2. Install Enterprise Console Software:

chmod +x platform-setup-x64-linux-4.4.1.5193.sh

./platform-setup-x64-linux-4.4.1.5193.sh

1. Specify Database root user password (ex: welcome1)
2. Specify Database Port: default 3377
3. Specify Enterprise Console Database Password (ex: welcome1)
4. Specify Console Host name
5. Specify Console Port (9191)
6. Specify Enterprise Console Root User Password for user “admin” (ex: welcome1)

**Sample Install Output:**

Where should AppDynamics Enterprise Console be installed?

[/opt/appdynamics/platform]

Validating user inputs...

Verifying if the libaio package is installed. /opt/appdynamics/platform/installer/checkLibaio.sh

Verifying if the libnuma package is installed. /opt/appdynamics/platform/installer/checkLibnuma.sh

Verifying if curl is installed. /opt/appdynamics/platform/installer/detect\_os\_packages.sh

Enter the AppDynamics Controller database information

AppDynamics Enterprise Console Database Information

This information will be used to connect to the database to set up the

AppDynamics Enterprise Console user account and database.

Database Root User Password

Confirm Database Root User Password

Database Port

[3377]

A new database user account will be created during this installation if it

doesn't already exist. Enter the password for the AppDynamics Enterprise

Console database user.

Enter the password for the AppDynamics Enterprise Console database user.

Enterprise Console Database Password

Enterprise Console Confirm Database Password

AppDynamics Enterprise Console host information

Note: If you are installing on Amazon EC2 instance, enter the Public DNS

hostname.

Enterprise Console Host Name

[se43rccontroller]

Enterprise Console Port

[9191]

Enterprise Console Root User Name admin

Enterprise Console Root User Password

Confirm Platform Admin Root User Password

Validating host and port connection information...

Extracting files ...

archives/mysql/5.7.20/mysql-advanced-5.7.20-linux-glibc2.12-x86\_64.tar.gz

Installing Enterprise Console Database. Please wait as this may take a few minutes...

Installing Enterprise Console Database...

Installing Enterprise Console Application. Please wait...

Installing Enterprise Console Application...

Creating Enterprise Console Application login...

Creating Enterprise Console Application login...

Setup has finished installing AppDynamics Enterprise Console on your computer.

To install and manage your AppDynamics Platform, use the Enterprise Console

CLI from /opt/appdynamics/platform/platform-admin/bin directory.

Finishing installation ...

**Enterprise Console: Startup / Shutdown**

root@se43rccontroller:/opt/appdynamics/platform/platform-admin/bin# ./platform-admin.sh start-platform-admin

Starting Enterprise Console Database

......

\*\*\*\*\* Enterprise Console Database started \*\*\*\*\*

Starting Enterprise Console application

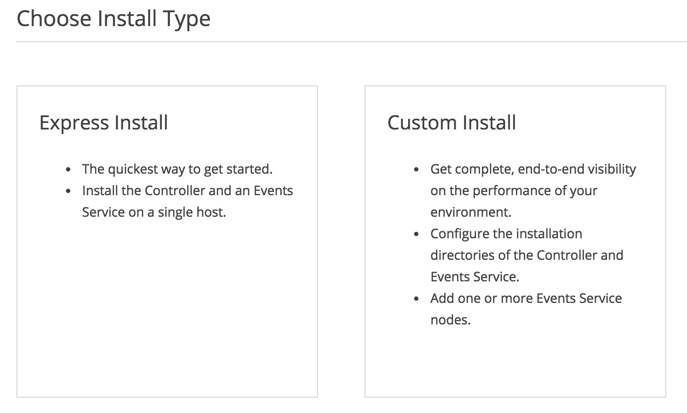
Waiting for the Enterprise Console application to start.............

\*\*\*\*\* Enterprise Console application started on port 9191 \*\*\*\*\*

**App iQ platform**

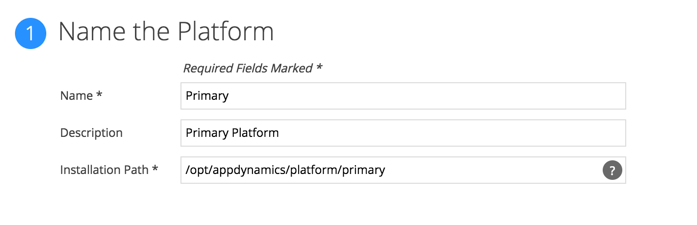
**Install**

Pick Express Install

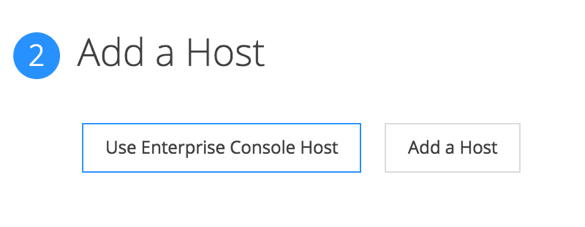


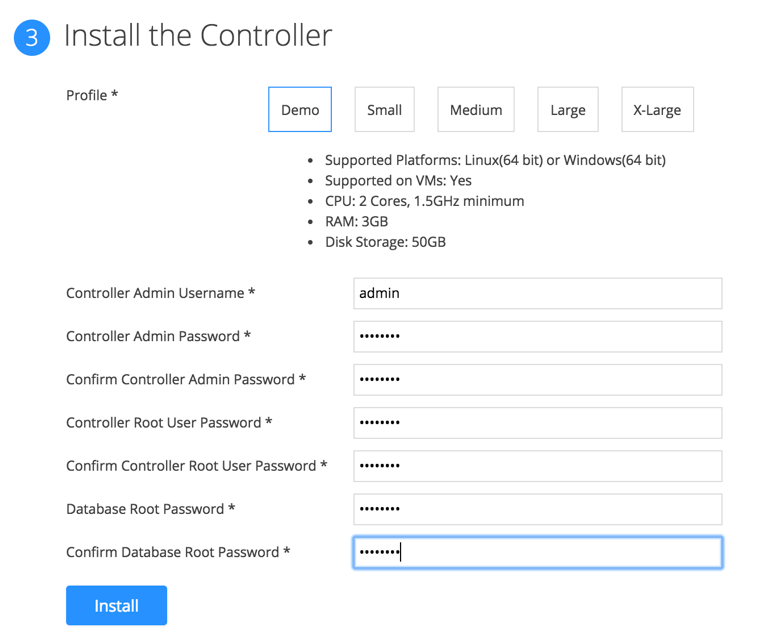
Express Install Steps:

Specify Name & location:



Pick Host:





**Controller**

**Controller Startup / Shutdown**

1. Login to Enterprise Console:

./platform-admin.sh login --user-name=admin

1. Start Controller:

./platform-admin.sh start-controller-appserver --with-db

Stopping Controller:

./platform-admin.sh stop-controller-appserver --with-db

**Older Versions (Pre 4.4)**

./controller.sh start-events-service

./controller.sh stop-events-service

**Accessing Controller Admin Page**

http://<controller\_host>:<port>/controller/admin.jsp

Use password for controller **root** user.

**Changing Controller Port settings**

/opt/appdynamics/platform/demo/controller/appserver/glassfish/domains/domain1/config/domain.xml

**Securing platform:**

<https://docs.appdynamics.com/display/PRO43/Secure+the+Platform>

**Agent / Controller Compatibility:**

<https://docs.appdynamics.com/display/PRO44/Agent+and+Controller+Compatibility>

**Controller Sizing:**

<https://docs.appdynamics.com/display/PRO44/Controller+System+Requirements>

**Agent to Controller Connections:**

<https://docs.appdynamics.com/display/PRO44/Agent-to-Controller+Connections>

**Controller Log Locations:**

Controller-home/logs

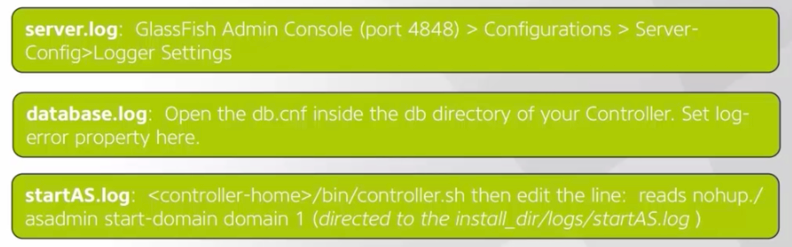
- server.log [controller startup log]

- database.log [MySQL error log, Use MySQL-log-rotate.sh to rotate logs]

- startAS.log [Glassfish startup log]

Controller-home/db/data

- slow.log [slow database requests]



**Events Service**

**Startup / Shutdown**

Login:

./platform-admin.sh login --user-name=admin

Start Events Service

./platform-admin.sh start-events-service

Restart Events Service

./platform-admin.sh restart-events-service

Restarting Events Service cluster. This operation may take some time.

( 1/ 6) Load Events Service cluster configuration: SUCCESS

( 2/ 6) Load all ES cluster hosts into execution context.: SUCCESS

( 3/ 6) Disable transient allocations on masters: Disable transient allocation in the api store node

( 3/ 6) Disable transient allocations on masters: SUCCESS

( 4/ 6) Restart all nodes: Stop the Events Service api store node

( 4/ 6) Restart all nodes: Starting the Events Service api store node

( 4/ 6) Restart all nodes: SUCCESS

( 5/ 6) Enable transient allocations on masters: Enable transient allocation in the api store node

( 5/ 6) Enable transient allocations on masters: SUCCESS

( 6/ 6) es\_cluster\_health\_stage: SUCCESS

Events Service restart completed successfully.

Job duration: 1 minutes 2 seconds

**Stopping events service**

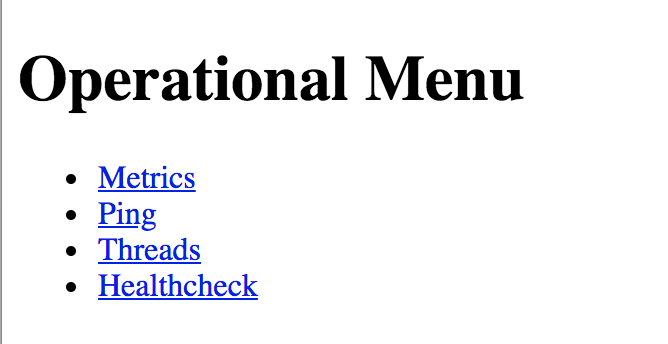
./platform-admin.sh stop-events-service

**Health Check**

Events Service Health Check should show a menu like the below:

<http://events_service_hostname:9081/>

curl http://localhost:9081/healthcheck?pretty=true



**App Server agent**

**Install**

1. Download agent binaries from the controller.
2. Unzip the binaries.
3. Edit the controller-info.xml to point it to the controller host & port. Add the app, tier and node name as needed. Or include the same via startup args.
4. Add the agent jar as part of App server startup

-javaagent:<java\_agent\_unzip\_path>/appagent/javaagent.jar

Agent Install doc: Refer the following doc for AS specific instructions.

<https://docs.appdynamics.com/display/PRO44/Agent+Installation+by+Java+Framework>

**Specifying App, Tier & Node Parameters in startup args:**

**Database Agent**

**Install**

java -jar <db\_agent\_home>/db-agent.jar

**Enable SSH for DB hardware monitoring:** <https://docs.appdynamics.com/display/PRO44/Enable+SSL+and+SSH+for+Database+Agent+Communications>

**Start DB agent as service:**

<https://docs.appdynamics.com/display/PRO42/Start+the+Database+Agent+Automatically+on+Linux>

**Step 1:** Create a script, preferably inside /etc/init.d. Create a file called “**db-agent**” inside /etc/init.d.

**vi /etc/init.d/db-agent**

**Edit the sections highlighted in Yellow.**

#!/bin/bash

#

# Init file for AppDynamics Database Agent

#

# chkconfig: 2345 60 25

# description: database agent for AppDynamics

#CHANGE ME: Set to the Java install directory

JAVA="/usr/bin/java"

#CHANGE ME: Set to the agent's install directory

AGENT\_HOME="/home/ubuntu/artifacts/agents/db"

AGENT="$AGENT\_HOME/db-agent.jar"

#CHANGE ME: Set to a name that is unique to the Controller - required when a machine agent is

#also running on the same hardware

AGENT\_OPTIONS="appdynamics.agent.uniqueHostId='MS Lab Host'"

# Agent Options

AGENT\_OPTIONS=""

#AGENT\_OPTIONS="$AGENT\_OPTIONS -Dappdynamics.agent.logging.dir="

#AGENT\_OPTIONS="$AGENT\_OPTIONS -Dmetric.http.listener=true | false

#AGENT\_OPTIONS="$AGENT\_OPTIONS -Dmetric.http.listener.port=<port>"

#AGENT\_OPTIONS="$AGENT\_OPTIONS -Dserver.name=<hostname>"

start()

{

nohup $JAVA $AGENT\_OPTIONS -Xmx1536m -jar $AGENT > /dev/null 2>&1 &

}

stop()

{

ps -opid,cmd |egrep "[0-9]+ $JAVA.\*db-agent" | awk '{print $1}' | xargs --no-run-if-empty kill -9

}

case "$1" in

start)

start

;;

stop)

stop

;;

restart)

stop

start

;;

\*)

echo "Usage: $0 start|stop|restart"

esac

**Step 2:** Setup permissions for this script:

chmod 775 db-agent

**Step 3:** Add the script as a service:

On linux,

chkconfig --add db-agent

chkconfig --level 2345 db-agent on

On Ubuntu,

update-rc.d -f db-agent start 99 2 3 4 5 .

**Step 4:** Start the service

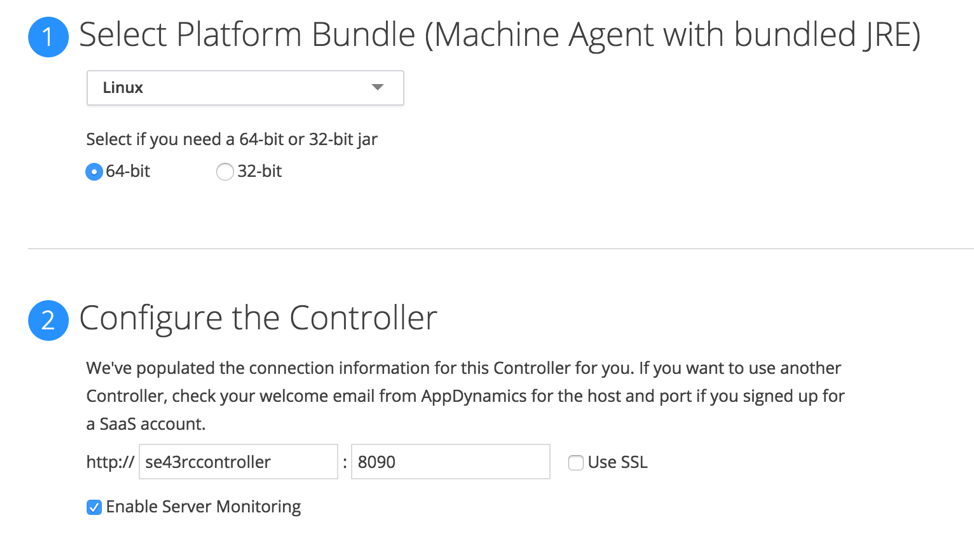
service db-agent start

**Bootcamp MySQL creds:** root / l3tm31n

**Machine Agent**

**Install**

Ensure “Enable Server Monitoring” checkbox is selected.



**Starting Machine Agent using agent specified Java (JRE Bundle).**

**cd *<machine\_agent\_home>***

**./bin/machine-agent**

cd <AGENT\_HOME>/jre/bin

java -jar ../../machineagent.jar

**Setting up Agent to run as a service**

To start machine agent as a service: <https://docs.appdynamics.com/display/PRO42/Linux+Install+Using+ZIP+with+Bundled+JRE>

**Step 1: Create a link to /etc/sysconfig**

ln -s <machine-agent-home>/etc/sysconfig/appdynamics-machine-agent /etc/sysconfig/appdynamics-machine-agent

For example,

ln -s /home/ubuntu/artifacts/agents/server/etc/sysconfig/appdynamics-machine-agent /etc/sysconfig/appdynamics-machine-agent

**Step 2: Add the machine agent to /etc/init.d, for example:**

ln -s /home/ubuntu/artifacts/agents/server/etc/init.d/appdynamics-machine-agent /etc/init.d/appdynamics-machine-agent

**Step 3:** Finally to add the agent as service, run

On Ubuntu,

update-rc.d appdynamics-machine-agent defaults

On other linux:

Chkconfig --add appdynamics-machine-agent

Start agent service on other linux:

Service appdynamics-machine-agent start

Permission for non-root user: <https://docs.appdynamics.com/display/PRO42/Permissions+for+Non-Root+User+to+Run+the+Machine+Agent>

**Analytics Agent**

1. In <machine-agent-home>/monitors/analytics-agent/monitor.xml set enabled = true
2. In <machine-agent-home>/monitors/ analytics-agent/conf/analytics-agent.properties set http.event.endpoint = [https://analytics.api.appdynamics.com:443](https://analytics.api.appdynamics.com/)
3. In <machine-agent-home>/monitors/ analytics-agent/conf/analytics-agent.properties set http.event.accountName = GLOBAL\_ACCOUNT\_NAME (Global Account Name NOT Account Name) AND http.event.accessKey = ACCESS\_KEY
   * The global account name and access key can be found by clicking the gear icon on the controller, selecting license then choose accounts.

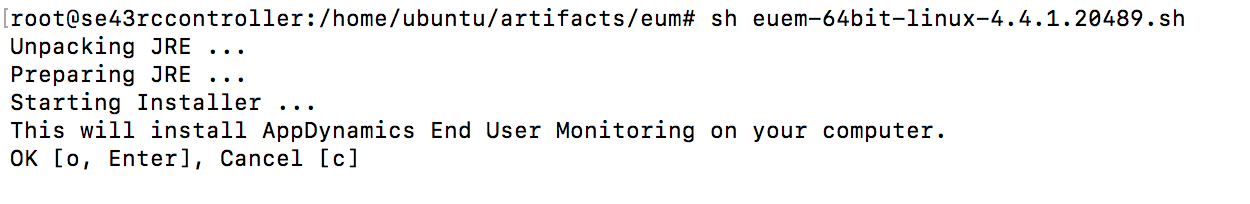
**Remote Analytics Agent**

-Dappdynamics.analytics.agent.url=http://<analytics-agent-ip>:9090/v2/sinks/bt

**EUM Server**

**Silent Install (Without parameter file)**

1. Download shell script from download.appdynamics.com
2. Execute the shell script



I accept the agreement

Yes [1], No [2]

1

Where should AppDynamics End User Monitoring be installed?

[/opt/AppDynamics/EUM]

Select Installation Type

Demo [1, Enter], Product [2]

1

Use this type if AppDynamics End User Monitoring is installed on the same

host where AppDynamics Controller is installed. In this type, AppDynamics

End User Monitoring will create a separate schema on the MySQL instance used

by AppDynamics Controller.

Enter details about the database used by AppDynamics End User Monitoring

Database Information

This information will be used to connect to the AppDynamics Controller

database to set up the AppDynamics End User Monitoring user account and

database.

Database Port

[3388]

Root User Password

A new database user account ‘eum\_user’ will be created during this

installation if it does not exist already. Enter the password for ‘eum\_user’

user.

eum\_user Password

Confirm eum\_user Password

Validating if database user has the required privileges...

Wed Feb 14 21:14:20 UTC 2018 WARN: Establishing SSL connection without server's identity verification is not recommended. According to MySQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance with existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.

Enter details about the Java server process used by AppDynamics End User Monitoring.

AppDynamics End User Monitoring Server uses a self-signed certificate to

accept HTTPS traffic. The self-signed certificate can only be used for the

Demo installation.

HTTP Port

[7001]

HTTPS Port

[7002]

AppDynamics End User Monitoring stores all passwords in an encrypted key

store on disk. Please enter the password used for key store.

Key Store Password

Confirm Key Store Password

Stopping EUM server...

Extracting files ...

eum-processor/bin/Geo

Setting the configuration properties...

Please wait as this operation may take some time...

Wed Feb 14 21:15:36 UTC 2018 WARN: Establishing SSL connection without server's identity verification is not recommended. According to MySQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance with existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.

Starting EUM server. Please wait as this may take a few minutes...

Setup has finished installing AppDynamics End User Monitoring on your computer.

**To finish** setting up AppDynamics End User Monitoring Server, you must

complete these post installation tasks:

\* Provision the EUM license.

\* Configure the Events Service properties and other properties in the file

EUM\_HOME/bin/eum.properties, then restart AppDynamics End User Monitoring

Server

\* Connect the AppDynamics End User Monitoring Server with AppDynamics

Controller through the Controller Administration Console.

For more information, see EUM Server Deployment.

Finishing installation ...

**Post-Install Steps for Silent Install (without parameter file)**

**Step 1:** Provision EUM license:

root@se43rccontroller:/opt/appdynamics/eum/eum-processor# bin/provision-license /tmp/license.lic

**Sample Output**

Reading the license file at /tmp/license.lic

Successfully read the license file

Provisioning from license file /tmp/license.lic

Register the account ...

AccountRegistrationResult:

isValid:true, isAlreadyRegistered:false, description:Successfully completed account registration, Account{accountName='test-eum-account-krishnadesikan-1518626741767', globalAccountName='bogus global account name', key='[FILTERED]', timestamp=1518670284048, lastPassingMin=1518670260000, accountStatus='Y', activityStatus='Y', lastActivityTimestamp=1518670284048, activityVersion='0', controllerEumApiVersion='0', controllerVersion='unknown', crMapFilesGeneration='-1', analyticAccountCreated='N', licenseTermsUpdateSourcePrecedence='0', deleted=false, deletedTime='1970-01-01T00:00:00.000Z}

EUM Account [test-eum-account-krishnadesikan-1518626741767] with key [71fc79b9-3467-40f5-bb57-46cdd234c6d2] registered and license terms provisioned in the EUM PROCESSOR

**Step 2**: Modify following parameters:

In controller/admin.jsp, point the following parameters as follows:

[**eum.beacon.host**](http://eum.beacon.host/)**=http://eum-host:7001**

[**eum.beacon.https.host**](http://eum.beacon.https.host/)**=https://eum-host:7002**

[**eum.cloud.host**](http://eum.cloud.host/)**=http://eum-host:7001 Or https://eum-host:7002 (if secure)**

**eum.es.host=http://events-service-host:9080**

In <EUM\_HOME>/eum-processor/bin, verify values for the following parameters in eum.properties:

Ex: /opt/appdynamics/eum/eum-processor/bin/eum.properties

Check the following:

**onprem.dbHost**=controller-hostname  
**onprem.dbPort**=3388  
and values for onprem.dbSchema, onprem.dbUser and onprem.dbPassword are correct

For events service, make the following changes in eum.properties:

**analytics.enabled**=true  
**analytics.serverScheme**=http  
**analytics.serverHost**=events-service-host-name [replace with actual hostname]  
analytics.port=9080

analytics.accountAccessKey=same as **appdynamics.es.eum.key [from admin.jsp]**

**Starting & Stopping EUM:**

On Linux

Cd /opt/AppDynamics/EUM/eum-processor

bin/eum.sh start

root@se43rccontroller:/opt/appdynamics/eum/eum-processor# bin/eum.sh start

Using EUM\_HOME: /opt/appdynamics/eum/eum-processor

Using EUM\_PID: pid.txt

EUM Processor started (PID=11744).

root@se43rccontroller:/opt/appdynamics/eum/eum-processor# INFO [2018-02-15 05:45:07,455] org.eclipse.jetty.util.log: Logging initialized @2199ms

**Stop EUM server**

bin/eum.sh stop

On Windows:

bin\eum-processor.bat start

**Testing Connection to EUM server**

<http://host:7001/eumcollector/get-version>

<https://host:7002/eumcollector/get-version>

<http://host:7001/eumcollector/whoami>

<http://host:7001/eumaggregator/info?cmd=getAllAccountInfo>

<http://host:7001/eumaggregator/info?cmd=getAllApplicationInfo>

**EUM Install Using Parameter file (not tested successfully)**

./euem-64bit-linux.sh -q -varfile response.varfile

More descriptive doc with parameter explanations: <https://docs.appdynamics.com/display/PRO41/Install+and+Configure+the+On-Premise+EUM+Server>

<https://docs.appdynamics.com/display/PRO43/Install+a+Single+Host+%28Demo%29+EUM+Server>

Error retrieving EUM license info: <https://community.appdynamics.com/t5/Knowledge-Base/EUM-License-usage-retrieval-error/ta-p/19540>

**EUM Issues**

API value in response file comes from events service folders:

/opt/appdynamics/platform/demo/events-service/processor/conf/events-service-api-store.properties

Look for variable: ad.accountmanager.key.eum

**Example:**

ad.accountmanager.key.eum=42a70af5-31c5-4cb4-a486-72dac1a650ea

[#|2018-02-15T04:07:58.747+0000|WARNING|glassfish 4.1|com.singularity.ee.controller.beans.eumcloud.EUMCloudManagerBean|\_ThreadID=48;\_ThreadName=http-listener-1(4);\_TimeMillis=1518667678747;\_LevelValue=900;|Unable to fetch/update information for EUM account with name: test-eum-account-krishnadesikan-1518626741767 com.appdynamics.eum.rest.client.exception.UserErrorClientException: ApiError: requestId=null httpStatus=401 apiErrorCode=UNAUTHORIZED userMessage='Credentials required for this resource' additionalInfo=[null]|#]

**BRUM JavaScript Injection**

<https://docs.appdynamics.com/display/PRO44/Configure+the+JavaScript+Agent#ConfiguretheJavaScriptAgent-js-agent-hosting-optionsJavaScriptAgentHostingOptions>

**Controller Database**

**Connecting to Database**

<controller-folder>/bin  
./controller.sh login-db  
  
use eum\_db  
select \* from accounts\G;  
exit

**Asynchronous Transactions**

**How to define exit-points for async transactions (demarcators)**

<https://docs.appdynamics.com/display/PRO44/Asynchronous+Transaction+Demarcators>

**Docker Setup**

Monitoring Docker: <https://docs.appdynamics.com/display/CLOUD/Monitoring+Docker+Containers>

Monitoring Applications: <https://docs.appdynamics.com/display/CLOUD/Monitoring+Applications+in+Docker+Containers>

Composing Docker Containers:

<https://blog.appdynamics.com/product/the-appd-approach-composing-docker-containers-for-monitoring/>

Agent Setup on Docker:

<https://docs.appdynamics.com/display/CLOUD/Agent+Setup>

**Miscellaneous**

Calculating Analytics Events Volume: <https://community.appdynamics.com/t5/Knowledge-Base/How-many-business-transaction-analytic-events-are-published-by/ta-p/26989>

EUM – APM Correlation: <https://singularity.jira.com/wiki/spaces/SALESENG/pages/112690000/Demystifying+Web+EUM+JavaScript+Agent+Injection+and+Correlation>

What properties require JVM recycling (restart)

The properties which need the class re-transformation needs the restart of the agent as in IBM retransformation is by default disabled.  
  
We have seen few cases where applying node property will not reflect the change if the agent scans the classes before reading the node property from the controller.   
  
In such scenarios, we recommend adding the node property to the app-agent-config.xml. In that case, we need the agent restart to pick up the property from the app-agent-config.xml.  
  
Below are detailed about the node property and whether they need a restart or reset.  
  
1. **error-safety-rule-error-threshold**  
  
**Description:** "error-safety-rule-error-threshold" is to set the threshold to -1, so that the interceptors (instrumentation) will never get disabled.  
This property needs the agent **RESET**  
  
2. **ignore-exit-call-on-reentry**  
  
**Description:**If there is entry point detects in the stack of exit call, then by default, agent ignores those exit calls, we are explicitly telling agent not to ignore the exit calls if the agent comes across such scenario.  
  
This property needs the agent **RESET**  
  
3. **transform-in-background-thread**  
  
**Description:**applying this property, we will transform those classes inline and hence no backlog leading to memory blockage. The first time the class is loaded, there will be a few milliseconds processing time difference which won't be noticeable.  
  
This property needs the agent **RESET**  
4. **coalesced-cg-generation**​  
  
**Description:** This property is used to coalesce all the requests of CallStackSampling for different threads/contexts under a single request to capture thread dumps of multiple threads. It is mainly is a strategy used for generating call graphs for snapshots and if we turn it off then we use alternate strategy.   
  
This property needs the agent **RESET**  
5. exclude-interceptors  
  
**Description:**This node property is used to exclude the specific interceptors.   
  
This property needs the agent **RESTART.**

**Delete Windows Installation**

Here is instruction:

1. Stop Reporting Service
2. Stop Events Service
3. Stop Controller Service
4. Stop Database Service
5. Delete existing services (check exact names via Windows ServiceManager):
   * sc delete "AppDynamics Controller Application Server"
   * sc delete "AppDynamics Database"
   * sc delete "AppDynamics Events Service Api Store XXXXX"
   * sc delete "appdynamicsreportingservice.exe"
6. Delete completely folder <controller-dir>

**Increasing BT limit**

[**https://community.appdynamics.com/t5/Controller-SaaS-On-Premise/Node-BT-Limit-Explanation/td-p/33087**](https://community.appdynamics.com/t5/Controller-SaaS-On-Premise/Node-BT-Limit-Explanation/td-p/33087)

Increase the following agent node level property  
Node Property **max-business-transactions**  
default value is 50

**Extensions Workbench**

<https://community.appdynamics.com/t5/Knowledge-Base/How-to-use-the-Extensions-WorkBench/ta-p/30130>

**HBase in case of Ambari**

1. export HBASE\_MASTER\_OPTS="$HBASE\_MASTER\_OPTS -Dcom.sun.management.jmxremote.local.only=true -Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.port=20015"
2. export HBASE\_REGIONSERVER\_OPTS="$HBASE\_REGIONSERVER\_OPTS -Dcom.sun.management.jmxremote.local.only=true -Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.port=20016"

**Troubleshoot custom metrics**

<https://community.appdynamics.com/t5/Knowledge-Base/How-do-I-troubleshoot-missing-custom-metrics-or-extensions/ta-p/28695#step8>

**Identifying TIER\_ID**

<https://docs.appdynamics.com/display/PRO42/Build+a+Monitoring+Extension+Using+Java>