Release Notes

Product Name: RealAnalytics

Track/Build Number: UMG 7.0

Project Type: Minor Enhancements

|  |  |  |
| --- | --- | --- |
| **Document Classification** | Internal Use Only | |
| **Department Name** | Consumer Analytics | |
| **Document Number** | **Version** | **Document Owner** |
| UMG- Release Notes 7.0 | 7.0 | Udaya Kiran SS |
| **Reviewed on** | **Review Frequency** | **Effective Date** |
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| **Prepared by** | **Reviewed by** | **Approved by** |
| Anil Kamath | Udaya Kiran SS |  |

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**Note: All the sections and fields in this document should be updated**

# Summary

This release note is being prepared to move RA 6.0 into INT-UAT environment.

# Description of the change

Please provide following details.

Business features for release 6.0

|  |  |
| --- | --- |
| User Story | Feature |
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* Release Requester name: Product Management
* Urgency: High
* Release Risk Analysis: Medium.
  1. No major analytics releases clashing with the release
  2. Changes limited to admin capabilities
* Affected Users: **Analytics Team.**
* Unaffected User: **None**

# Release Management Approvals

Please provide Release Management Team approvals

|  |  |
| --- | --- |
| Expected Release Date |  |
| Release # |  |
| Product |  |
| Environment: | INT-UAT |
| Project Manager to confirm if final package is uploaded to SVN |  |
| Is Release communication sent to BU |  |
| Is BU Approval procured and attached? |  |
| IS IT head Approval procured and attached? |  |
| Is DMC approval procured and attached? |  |
| Any additional approvals |  |

# Environment Information

Please provide Production environment specific details so that Release can be installed.

|  |  |
| --- | --- |
| Expected Release Date |  |
| Release # |  |
| Product |  |
| Environment: | Production |
| Release Implementation Duration |  |
| Production Server Names/ IPs |  |
| Impact |  |
| Is the Change replicated in disaster recovery Environment to sync production and disaster recovery? |  |

# Data Fix Information (Tenant On boarding)

|  |  |
| --- | --- |
| Is Data fix involved |  |
| Is Data fix a SQL Statement/SQL script |  |
| QA sign off for above Data Fix(prod Data) |  |
| Does Data fix disable any triggers |  |
| Does Data fix disable any audit trails |  |
| List the fields and tables the data fix updates |  |
| Code reviewed by (Developer Name) |  |
| Code review approved by (Dev Manager) |  |
| Approved by Development Sr. Manager (Name) |  |
| Code reviewed by (QE Engineer Name) |  |
| Code review approved by (QE Manager) |  |
| Data Fix signed off by BU head |  |

# Syndicate Data Information

|  |  |
| --- | --- |
| Is Syndicate data update involved? |  |
| QA sign off for Syndicate data update (prod Data) |  |
| Pre-prod sign off for Syndicate data update (prod Data) |  |
| Approved by Analytics team Manager |  |
| Syndicate data in UAT/Preprod reviewed by (Analytics Team member name) |  |

# Model Fix Information

|  |  |
| --- | --- |
| Is Model fix involved |  |
| Is Model fix a SQL Statement/SQL script |  |
| QA sign off for above Model Fix(prod Data) |  |
| Code reviewed by (Developer Name) |  |
| Code review approved by (Dev Manager) |  |
| Approved by Development Sr. Manager (Name) |  |
| Code reviewed by (QE Engineer Name) |  |
| Code review approved by (QE Manager) |  |
| Model Fix signed off by BU head |  |

# Implementation

# Pre-Implementation

Please follow the below steps

* **Back Up the existing WAR of all the components.**
  1. umg-admin.war
  2. umg-runtime.war
  3. modelet.one-jar.jar
  4. umg-scheduler.one-jar.jar
* ***Back Up below existing schema of MySQL DB***
  1. *umg\_admin*
  2. *Ocwen*

# Implementation

Follow the below steps during deployment process

**Shutdown all servers**

Shutdown all UMG modules in UAT, before starting deploying any Module

*If any component doesn’t shuts down normally, Please use Kill -9 to kill the process.*

**Clean up of Tomcat Servers**

Removing wars, extracted folders and work folders from Tomcat servers (Admin, Runtime).

War Extracted Location: /opt/tomcat/webapp

War Location: /opt/tomcat/webapps

Work Folder Location: /opt/tomcat/work/Catalina/localhost

**DB Backup of following tables:**

* Backup of TENANT table from umg\_admin schema
* Backup USERS, USER\_ROLES, USERS\_LOGIN\_AUDIT with table structure
* Backup hazelcast configuration files (hazelcast-config.xml) of all modules.

**Hazelcast configuration changes:**

* Runtime and scheduler hazelcast-config.xml changes
  + Change port-count from 100 to 10.

After change it should look as below

<port auto-increment="true" port-count="10">5901</port>

* + Expose hazelcast contenet as MBean

<properties>

<property name="hazelcast.jmx">true</property>

</properties>

* + To reuse the same port add following property to network tag.

<network>

<reuse-address>true</reuse-address>

………………….

</network>

* + Remove all modelet and umg-admin server ip addresses from the config file.
  + Remove partition-group tag and its content.
* Umg-admin and modelet hazelcast-config.xml changes
  + Replace the content of existing hazelcast-config.xml with attached configuration file.



* + Replace runtime host and ports in all address tags.
  + Change name and password inside group tag in the new hazelcast-config file as in runtime.

**DB Scripts execution**

Obtain the scripts zip file from the following link and extract the files.

<http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-db/develop-SNAPSHOT-916/umg-db-develop-SNAPSHOT-916.zip>

**REFER to Appendix for GIT Repository Details**

Run DB scripts in the following order

* + - Common-DB-Scripts\UMG-7.0-admin\_schema-ddl\_common.sql
    - Common-DB-Scripts\UMG-7.0-ocwen\_schema-ddl\_common.sql
    - Common-DB-Scripts\UMG-7.0-admin\_schema-dml\_common.sql
    - ExtUAT/UMG-7.0-admin-schema-dml\_ext\_uat\_.sql

**Update RA version:**

* Update “umg-ver” parameter to 7.0 in externalized umg.properties file.

**MySQL Configuration Changes:**

Please update the following config in mysql server’s  my.cnf :

Put this under [mysqld] tag :

                 group\_concat\_max\_len = 4294967295

**Security Configuration Changes:**

* Add the line after the last http tag in applicationContextSecurity.xml in admin server :

       <global-method-security pre-post-annotations="enabled">

      </global-method-security>

* comment the below line in applicationContextSecurity.xml as below :

<!-- <sec:intercept-url pattern="/\*\*" access="${spring.security.role}" /> -->

**Update applicationContextSecurity.properties file:**

* Update the value of **spring.security.role** value as follows.

**spring.security.role= ROLE\_SUPER\_ADMIN,** **ROLE\_ADMIN,** **ROLE\_MODELER,** **ROLE\_TENANT\_USER**

**Tomcat and modelet start up script changes:**

Add following gc parameters in setenv.sh file of umg-admin,umg-runtime tomcat servers and all modelet startup script.

-XX:+UseConcMarkSweepGC -XX:+UseParNewGC -XX:CMSInitiatingOccupancyFraction=70 -XX:+UseCMSInitiatingOccupancyOnly

**Runtime log4j2.xml changes**:

Replace the existing pattern tag with the below line between the console tag in modelet log4j2.xml

<Pattern>%d %p %c{1.} [%t] [%X{TENANT\_CODE}] [%X{modelName}] [%X{umgTransactionId}] [%X{MDC\_MODELET\_KEY}] %m%n</Pattern>

**Modelet LOG4j changes**:

Replace the existing pattern tag with the below line between the console tag in modelet log4j2.xml

<Pattern>%d %p %c{1.} [%t] [%X{TENANT\_CODE}] [%X{umgTransactionId}] [%X{modelName}][%X{version}] %m%n</Pattern>

**Password Encryption:**

Passwords to connect MySQL and Mongo are encrypted, we need to provide encrypted passwords in db.properties.

Please follow below instructions for generating encrypted passwords.

1. As we are going to use encrypted passwords in db.properties, need to replace passwords with the encrypted passwords in Admin, Runtime modules.
2. If Mysql or Mongo Db password is getting changed, we need to put encrypted password into db.properties file in admin and runtime applications.
3. Get jar from the artifactory :

http://atlas.altidev.net/artifactory/realanalytics/com/ca/ca-framework/develop-SNAPSHOT-682/[ca-framework-develop-SNAPSHOT-682.jar](http://atlas.altidev.net/artifactory/realanalytics/com/ca/ca-framework/develop-SNAPSHOT-682/ca-framework-develop-SNAPSHOT-682.jar)

OR

http://atlas.altidev.net/artifactory/realanalytics/com/ca/ca-framework/develop-SNAPSHOT-${LatestBuildNo}/[ca-framework-develop-SNAPSHOT--${LatestBuildNo}.jar](http://atlas.altidev.net/artifactory/realanalytics/com/ca/ca-framework/develop-SNAPSHOT-682/ca-framework-develop-SNAPSHOT-682.jar)

1. Move this jar to any server which contains Java 1.7 as JAVA\_HOME
2. **Encrypt**

Go to the path where jar file placed and run the below command

java -cp ca-framework-develop-SNAPSHOT-682.jar com.ca.framework.security.PasswordDecryptionUtil encrypt <<Value which needs to be encrypted>>

OR

java -cp ca-framework-develop-SNAPSHOT-{${LatestBuildNo}}.jar com.ca.framework.security.PasswordDecryptionUtil encrypt <<Value which needs to be encrypted>>

1. **Decrypt**

Go to the path where jar file placed and run the below command

java -cp ca-framework-develop-SNAPSHOT-682.jar com.ca.framework.security.PasswordDecryptionUtil decrypt <<Value which needs to be decrypted>>

OR

java -cp ca-framework-develop-SNAPSHOT-{${LatestBuildNo}}.jar com.ca.framework.security.PasswordDecryptionUtil decrypt <<Value which needs to be decrypted>>

**WAR and JAR Locations**

**TODO Build numbers will be updated later on**

Runtime:

[http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-runtime/develop-SNAPSHOT-923/umg-runtime-develop-SNAPSHOT-923.war](http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-runtime/develop-SNAPSHOT-921/umg-runtime-develop-SNAPSHOT-921.war)

Modelet:

[http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/modelet/develop-SNAPSHOT-923/modelet-develop-SNAPSHOT-923-onejar.jar](http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/modelet/develop-SNAPSHOT-921/modelet-develop-SNAPSHOT-921-onejar.jar)

Admin:

[http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/web-ui/develop-SNAPSHOT-923/web-ui-develop-SNAPSHOT-923.war](http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/web-ui/develop-SNAPSHOT-921/web-ui-develop-SNAPSHOT-921.war)

Scheduler :

[http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-scheduler/develop-SNAPSHOT-923/umg-scheduler-develop-SNAPSHOT-923-onejar.jar](http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-scheduler/develop-SNAPSHOT-921/umg-scheduler-develop-SNAPSHOT-921-onejar.jar)

**Restart all the components**

* 1. Start deploying modules in this order
* Runtime
* Modelet Processes
* Admin
* UMG Scheduler
  1. Please don’t start all Modules together.
  2. Start one module and wait until that process completely up.
  3. There should be 10-15 seconds sleep time between each Modelet process.

Note: Please refer to **Modelet Restart Steps** section in this document)

Update following System Parameters from UMG Admin

* Update SMTP Server for SMTP\_SERVER system parameter
* Update SMTP Server for NOTIFICATION\_TEMPLATE\_DIR system parameter
* Update admin URL for UMG\_ADMIN\_URL system parameter
* Update from address for FROM\_ADDRESS system parameter
* Update the UMG\_ADMIN\_URL value in system parameter to ext-uat admin url

# Post-Implementation

* Ensure that all Modelets are registered in Hazelcast before starting the sanity
  1. Use the below API to get dump of Pool data in Hazelcast

**http://<Runtime-IP>/umg-runtime/modelExecEngine/getAllModeletInfo**

(Load Balancer URL of ME2)

* 1. Logs will be present in one of the ME2 logs
  2. Log into UMG Admin and go to Modelet Pooling tab for checking Modelet and pool Mappings
* Perform the sanity test suite for the build.
* Once the sanity test results are verified without any issues, send a mail to all stake holders on success of the release.

# Rollback

If the system is not working as intended,

Please follow the below steps for Rollback.

**Shutdown all servers**

Please shut down all UMG modules, before starting deploying any Module

*If any component doesn’t shuts down normally, Please use Kill -9 to kill the process.*

**Clean up of Tomcat Servers**

Removing wars, extracted folders and work folders from Tomcat servers (Admin, Runtime and ME2).

War Extracted Location: /opt/tomcat/webapps

War Location: /opt/tomcat/webapps

Work Folder Location: /opt/tomcat/work/Catalina/localhost

**Revert hazelcast configuration changes**

**DB Scripts execution**

Obtain the scripts from the Real Analytics GIT Repository: **REFER to Appendix for**

**GIT Repository Details and**

Run DB scripts in the following order

* Common-DB-Scripts\UMG-7.0-admin\_schema-dml\_common-rollback
* Common-DB-Scripts\UMG-7.0-ocwen\_schema-ddl\_common-rollback.sql
* Common-DB-Scripts\UMG-7.0-admin\_schema-ddl\_common-rollback.sql

**Update RA version:**

Update “umg-ver” parameter to 6.1 in externalized umg.properties file.

**MySQL Configuration Changes:**

Please update the following config in mysql server’s  my.cnf :

Remove group\_concat\_max\_len parameter under mysqld

Password Encryption:

Put passwords for MySQL and Mongo in decrypted format. we need to provide decrypted passwords in db.properties.

**WAR and JAR Locations**

Copy the backed up WARs to the appropriate <TOMCAT-WEBAPPS> of all the components respectively.

**Restart all the components**

* 1. Start deploying modules in this order

Runtime

Modelet Process

Admin

Scheduler

* 1. Please don’t start all Modules together.
  2. Start one module and wait until that process completely up.
  3. There should be 1 min sleep time between each Modelet process.

Note: Please refer to **Modelet Restart Steps(Rollback)** section in this document)

# Known Issues

# Release Implementation Team

Details of the Implementation team members who will be participating in the Release. This includes Dev, QE, UAT, Product Management and Support teams.

# Appendix

GIT References

GIT URL for RA : ssh://git@inf-hub.altidev.net:7999/ra/umg.git

Please referrer to below WIKI page for setting up GIT repository in local system.

<http://wiki.altisource.com/display/CA/Local+GIT+Set+Up+and+Help+Commands>

# Modelet Restart Steps

Please follow below order for starting R and Matlab Modelets.

Below steps are specific to Production, change appropriately based on the environment.



# Modelet Restart Steps (Rollback)

Below steps are specific to Production, change appropriately based on the environment.

Please find attached file which has actual startup order of Modelets



# Notification

Release notification List.

|  |  |  |
| --- | --- | --- |
| S No. | Team Notification details | |
| 1 | Name | Dev Team |
| Email | Dev Team DL |
| 2 | Name | QE Team |
| Email | QE Team DL |
| 3 | Name | Support Team |
| Email | Support Team DL |
| 4 | Name | Product Management |
| Email | Product Management DL |
| 5 | Name | Client |
| Email | Client DL |