Release Notes

Product Name: RealAnalytics

Track/Build Number: UMG 6.0

Project Type: Minor Enhancements

|  |  |  |
| --- | --- | --- |
| **Document Classification** | Internal Use Only | |
| **Department Name** | Consumer Analytics | |
| **Document Number** | **Version** | **Document Owner** |
| UMG- Release Notes 6.0 | 6.0 | Udaya Kiran SS |
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| **Prepared by** | **Reviewed by** | **Approved by** |
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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 |
| UMG-4941 | Modelet Pooling - Add new modelet pools |
| UMG-4942 | Modelet Pooling - View and Update pool configuration |
| UMG-4943 | Modelet Pooling - Delete pool |
| [UMG-5016](http://jira.altisource.com/browse/UMG-5016) | Capture Transformation failures - Syntactic Validation |
| [UMG-5015](http://jira.altisource.com/browse/UMG-5015) | Capture model logs |
| [UMG-5152](http://jira.altisource.com/browse/UMG-5152) | Viewing bulk IO transactions on dashboard |
| [UMG-5172](http://jira.altisource.com/browse/UMG-5172) | Batch Transaction Dashboard - Upload bulk |
| [UMG-5149](http://jira.altisource.com/browse/UMG-5149) | Bulk IO definition |
| [UMG-5161](http://jira.altisource.com/browse/UMG-5161) | Publishing Process - New dropdown to indicate that bulk inputs should be accepted. |
| [UMG-5151](http://jira.altisource.com/browse/UMG-5151) | RA bulk IO processing |
| [UMG-5163](http://jira.altisource.com/browse/UMG-5163) | Download appropriate IO template |
| UMG-5228 | Error scenario for bulk processing |
| UMG-5227 | Show bulk transaction on transaction dashboard |
| UMG-5234 | Define transaction wait time by pool |
| [UMG-5178](http://jira.altisource.com/browse/UMG-5178) | Validation - RA bulk IO processing |
| [UMG-5166](http://jira.altisource.com/browse/UMG-5166) | Performance expectations & testing |
| [UMG-5164](http://jira.altisource.com/browse/UMG-5164) | Pool configuration |

* 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: | PROD |
| 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. me2.war
  4. modelet.one-jar.jar
* ***Back Up below existing schema of MySQL DB***
  1. *umg\_admin*
  2. *Ocwen*

* ***Backup hazelcast-config.xml file from the externalized properties location for following modules****.*
  1. *Umg-admin1*
  2. *Umg-admin2*
  3. *Umg-runtime1*
  4. *Umg-runtime2*
  5. *Modelet 1*
  6. *Modelet 2*
  7. *Modelet 3*
  8. *Modelet 4*
  9. *Modelet 5*

# 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 and ME2).

War Extracted Location: /opt/tomcat/webapp

War Location: /opt/tomcat/webapps

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

**DB Scripts execution**

Obtain the scripts from the Real Analytics GIT Repository:

**REFER to Appendix for GIT Repository Details**

Run DB scripts in the following order

* Release-6.0/Common-DB-Scripts/UMG-6.0-admin\_schema-ddl.sql
* Release-6.0/Common-DB-Scripts/UMG-6.0-Ocwen\_schema-ddl.sql
* Release-6.0/Common-DB-Scripts/UMG-6.0-admin\_schema-dml.sql
* Release-notes/Release-6.0/PROD/Rent-Range-tenant-onboarding.sql
* Release-notes/Release-6.0/PROD/UMG-6.0-admin\_schema-dml-prod.sql

Run mongo db scripts:

* Release-notes/Release-6.0/Common-DB-Scripts/UMG-6.0-mongo.txt
* Release-notes/Release-6.0/Common-DB-Scripts/tenant-on-boarding/rent-range-onboarding-script-mongo.txt

Execute below commands in /sanpath to create directories:

* Login any of the umg server
* cd /sanpath
* mkdir rentrange
* cd rentrange
* mkdir bulk
* cd bulk
* mkdir input
* mkdir output
* mkdir inprogress
* mkdir archive

**Setup ssh identity file to restart modelet automatically**

* Make sure modelet servers are accessible from runtime servers.
* Copy ssh identity file “/root/.ssh/id\_rsa” from me2 server to runtime server in directory “/root/.ssh/id\_rsa”. (Create .ssh directory in root if it doesn’t exists)

**Modify hazelcast configurations:**

Replace hazelcast confogurations with the latest from the repository for following umg-modules respectively.

* Umg-admin 1
* Umg-admin 2
* Umg-runtime 1
* Umg-runtime 2
* Modelet 1
* Modelet 2
* Modelet 3
* Modelet 4
* Modelet 5

Git Repository: Release-6.0/hazelcast-configuration/PROD

**Configure new modelet server 5:**

While setting new modelet server5, copy all the externalized properties file to one of old modelet servers to new modelet server 5.

**Update RA version:**

* Update “umg-ver” parameter to 6.0 in externalized umg.properties file.

**Update db.properties in UMG Admin and Runtime Modules:**

Add this new property in db.properties file

* db.minPoolSize=3
* db.maxPoolSize=20

**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-527/umg-runtime-develop-SNAPSHOT-527.war>

Modelet:

<http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/modelet/develop-SNAPSHOT-527/modelet-develop-SNAPSHOT-527-onejar.jar>

Admin:

<http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/web-ui/develop-SNAPSHOT-527/web-ui-develop-SNAPSHOT-527.war>

Scheduler :

<http://atlas.altidev.net/artifactory/realanalytics/com/ca/umg/umg-scheduler/develop-SNAPSHOT-527/umg-scheduler-develop-SNAPSHOT-527-onejar.jar>

**Set up umg-scheduler module:**

**Pre-requiesite**

* Java 7 should be setup in the server (Install java version same as other RA component).
* /sanpath should be mounted on the server.

**Steps to setup umg-scheduler:**

* Create a configuration folder “/opt/conf/umg-scheduler” for umg-scheduler module.
* Copy following configuration/properties files to the newly created “/opt/conf/umg-scheduler” folder.

a. application.properties

b. hazelcast-config.xml

c. httpConnectionPooling.properties

d. log4j2.xml

* Update hazelcast configurations in hazelcast-config.xml, umg-scheduler should be part of umg cluster, hence the ip address must be included in ipconfig tag
* Create directory “/opt/umg/umg-scheduler”.
* Create directory “/usr/local/umg-logs”
* Copy “umg-scheduler.one-jar.jar” to /opt/umg/umg-scheduler folder.
* Create a shell script file “umg-scheduler.sh” to start umg-scheduler

nohup java -Xms512m -Xmx1024m -Dlog4j.configurationFile="file:/opt/conf/umg-scheduler/log4j2.xml" -Dhazelcast.config="/opt/conf/umg-scheduler/hazelcast-config.xml" -DhttpConnectionPooling.properties="file:/opt/conf/umg-scheduler/httpConnectionPooling.properties" -Dapplication.properties="file:/opt/conf/umg-scheduler/application.properties" -jar /opt/umg/umg-scheduler/umg-scheduler.one-jar.jar >> scheduler.out &

**Restart all the components**

* 1. Start deploying modules in this order

Admin

Runtime

Modelet Processes

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 1 min sleep time between each Modelet process.

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

# Post-Implementation

* Update following property in System Parameter screen in umg-admin application.

JMX\_MODELET\_PORT\_MAPPING = 7900-9010|7901-9011|7902-9012|7903-9013|7904-9014|7905-9015|7906-9016|7907-9017|7908-9018|7909-9019

* 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
* 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

**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

* Release-6.0/Common-DB-Scripts/Rollback/UMG-6.0-admin\_schema-ddl-rollback.sql
* Release-6.0/Common-DB-Scripts/Rollback/UMG-6.0-Ocwen\_schema-ddl-rollback.sql
* Release-6.0/Common-DB-Scripts/Rollback/UMG-6.0-admin\_schema-dml-rollback.sql
* Release-notes/Release-6.0/Common-DB-Scripts/tenant-on-boarding/Rollback/Rent-Range-tenant-onboarding-rollback.sql

Run rollback scripts for mongo db:

* Release-notes/Release-6.0/Common-DB-Scripts/tenant-on-boarding/Rollback/rent-range-onboarding-script-mongo-rollback.txt
* Release-notes/Release-6.0/Common-DB-Scripts/Rollback/UMG-6.0-mongo-rollback.txt

Execute below commands in /sanpath to remove newly created directories:

* Login any of the umg server
* cd /sanpath
* rm –rf rentrange

**Update RA version:**

Update “umg-ver” parameter to 5.0 in externalized umg.properties file.

**Remove applicationContext-security.xml in UMG Admin Module Only:**

**Update db.propertoes in UMG Admin and Runtime Modules:**

Please remove this new property from db.properties file

* db.minPoolSize=3
* db.maxPoolSize=20

**WAR and JAR Locations**

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

**Rollback hazelcast-config.xml**

Copy the backed up hazelcast-config.xml to the appropriate externalized configuration location.

**Restart all the components**

* 1. Start deploying modules in this order

Admin

Runtime

ME2

Modelet Process

* 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 |