

**Oracle Utilities SGG V2.0.0 and MDM
V2.0.1 Integrations**

Utility Reference Model

5.3.3.1a SGG-MDM. Upload Device Events (L+G)

May 2013

Oracle Utilities SGG V2.0.0 to MDM V2.0.1 Integration Utility Reference Model 5.3.3.1a

Copyright © 2012, 2013, Oracle and/or its affiliates. All rights reserved.

This document is provided for information purposes only and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark licensed through X/Open Company, Ltd. 0611

Contents

Contents

Chapter 1

Overview..... 1-1
 Brief Description 1-2

Chapter 2

Detailed Business Process Model Description 2-1
 Business Process Diagrams..... 2-2
 Upload Device Events (L+G) Page 1..... 2-2
 Upload Device Events (L+G) Page 2..... 2-3
 Upload Device Events (L+G) Page 3..... 2-4
 Upload Device Events (L+G) Page 4..... 2-5
 SGG-MDM. Upload Device Events (L+G) Description..... 2-6
 1.0 Create Payload and Place Into Directory..... 2-7
 1.1 Poll File Location Based on Configured Frequency 2-7
 1.2 Parse, Analyze File and Identify Records 2-8
 1.3 Transform Event Record to 'Plain' XML..... 2-8
 1.4 Process Message Through Generator Notifications 2-8
 1.5 Create and Send Statistical Notification..... 2-8
 1.6 Route Notification Through JMS Queue to OUAF..... 2-9
 1.7 Create and Publish Additional Notification(s)..... 2-9
 1.8 Perform Custom Pre-Processing..... 2-9
 1.9 Validate Event..... 2-9
 2.0 Transform "Plane" XML Device event Record to SGG Event Standard Format 2-10
 2.1 Create and Send Error Notification 2-10
 2.2 Perform Custom Post-Processing..... 2-10
 2.3 Send Event Record..... 2-10
 2.4 Route Event Record Through JMS Queue to OUAF..... 2-11
 2.5 Determine Service Provider..... 2-11
 2.6 Determine Device..... 2-11
 2.7 Shift Date/Time to Standard..... 2-12
 2.8 Identify Device Event Type and Processing Method..... 2-12
 2.9 Create Event in Error State and Log Errors 2-12
 3.0 Create To Do 2-13
 3.1 Gather Device Event Requirements..... 2-13
 3.2 Submit Request 2-13
 3.3 Preprocess Activity..... 2-13
 3.4 Create Pending Payload Statistics Activity..... 2-14
 3.5 Validate Notification Data (Service Provider, File Name)..... 2-14
 3.6 Transition Activity to Validation Error State and Log Error 2-14
 3.7 Transition To Active State 2-15
 3.8 Monitor Statistic Aggregation..... 2-15
 3.9 Transition Activity to Inactive..... 2-15
 4.0 Accumulate File Statistics for Events and IMDs 2-16

4.1 Review Active Payload Statistic Records	2-16
4.2 Request Accumulate Statistics	2-16
4.3 Request Inactivate Payload Statistics	2-16
4.4 Request Delete Payload Statistics.....	2-17
4.5 Delete Payload Statistics	2-17
4.6 Preprocess Activity.....	2-17
4.7 Create Pending Payload Error Notification Activity	2-17
4.8 Find Payload Statistics for Processed Payload and Transition to Validate State.....	2-18
4.9 Update Payload Statistics with Error Information and Transition to Completed State.....	2-18
5.0 Preprocess Activity.....	2-18
5.1 Create Pending Payload Summary Activity	2-19
5.2 Update Payload Statistics with Payload Summary and Transition to Complete State.....	2-19
5.3 Analyze Error and Work To Do.....	2-19
5.4 Request to Discard	2-20
5.5 Complete To Dos.....	2-20
5.6 Update Event to Discard State.....	2-20
5.7 Request to Reprocess	2-20
5.8 Update Event status to Reprocessed and Initialize Reprocessing	2-21
5.9 Identify Event Record in Error State	2-21
6.0 Request to Reprocess	2-21
6.1 Transition Activity Status to Validate and Initialize Reprocessing	2-21
6.2 Identify Activity in Validation Error State.....	2-22
6.3 Evaluate Criteria to Run Automated Retry Process.....	2-22
6.4 Contact Vendor	2-22
6.5 Review Error	2-22
6.6 Resolve Error	2-22
Business Objects Life Cycle.....	2-24
Event Seeder.....	2-24
Event Types Example.....	2-25

Chapter 1

Overview

This chapter provides a brief description of the SGG-MDM. Upload Device Events (L+G) business process and associated process diagrams. This includes:

- **Brief Description**

Brief Description

Business Process: 5.3.3.1a SGG-MDM.Upload Device Events

Process Type: Sub-Process

Parent Process: 5.3.3 SGG-MDM Manage Events

Sibling Processes: 5.3.3.2 SGG. Manage Device Events

This process takes place when information about device events is collected in Landis and Gyr Command Center (L+G Head End System) and requires further processing. Command Center extracts event information and sends it to SGG. SGG receives events from the Landis + Gyr Head End System, transforms and upload them. Authorized Users can review and analyze payload statistics. SGG pre-processes the Events and validates them in preparation to be processed and sent to subscribers.

Chapter 2

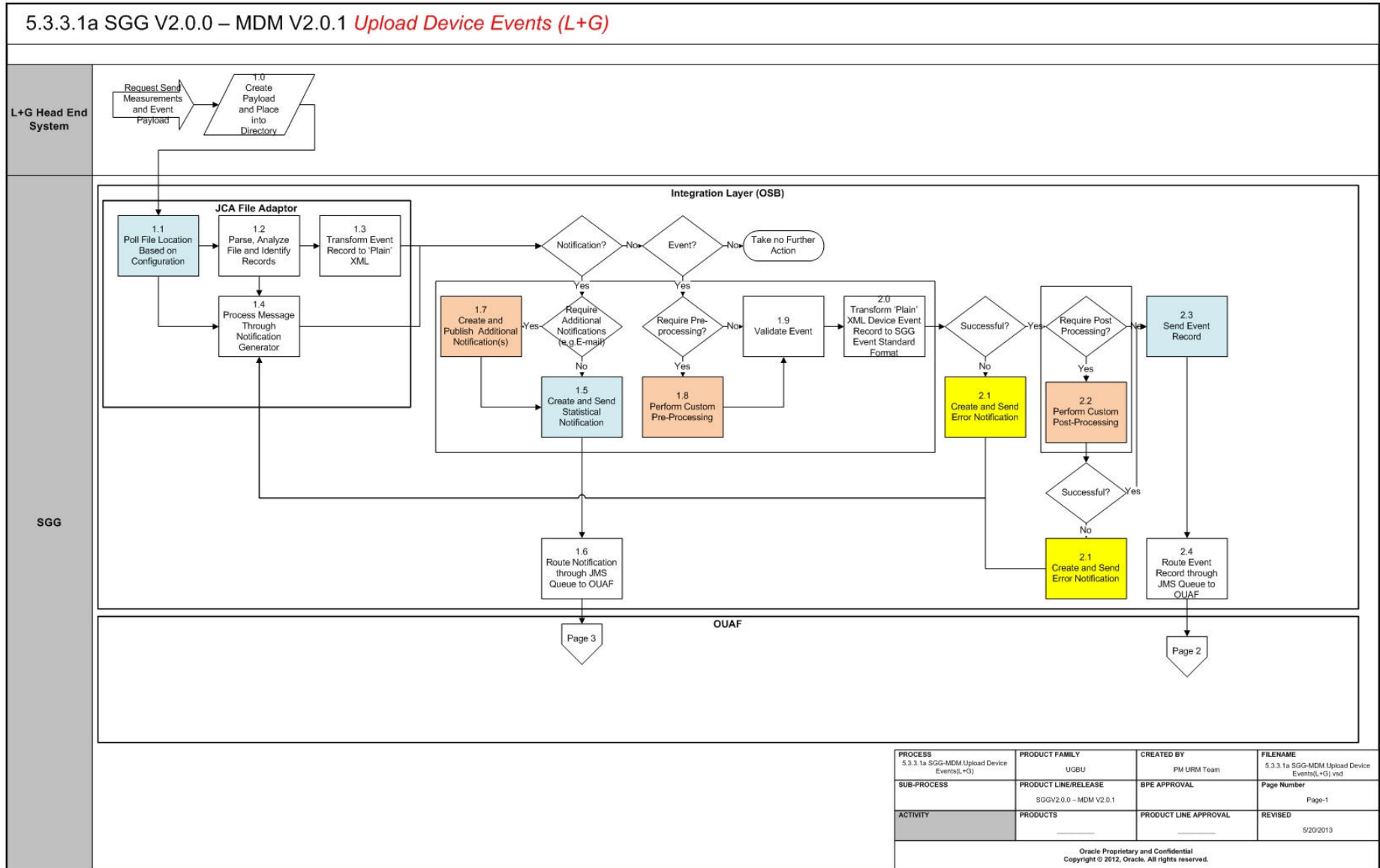
Detailed Business Process Model Description

This chapter provides a detailed description of the SGG-MDM. Upload Device Events (L+G) business process. This includes:

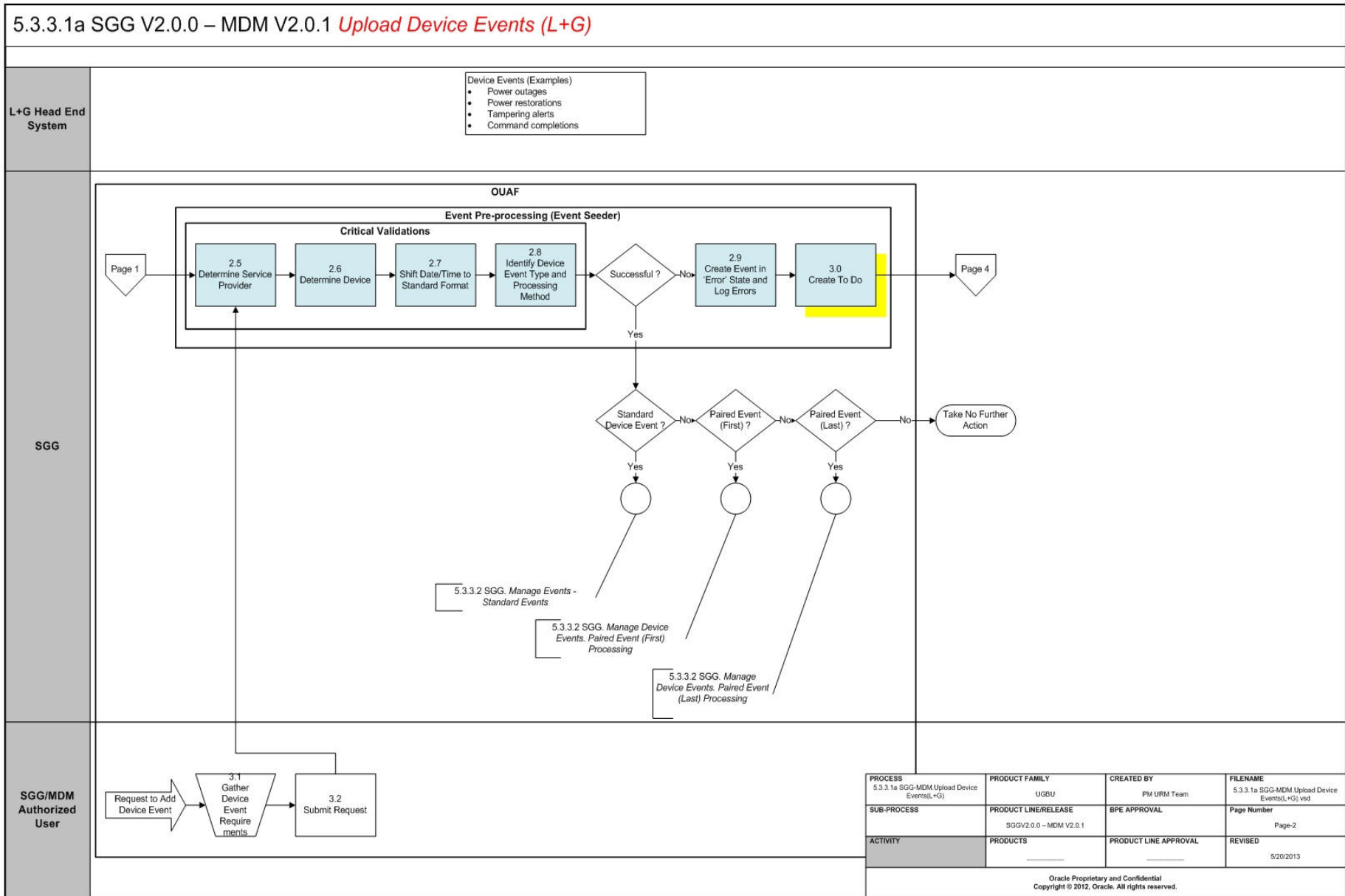
- **Business Process Diagrams**
 - Upload Device Events (L+G) Page 1
 - Upload Device Events (L+G) Page 2
 - Upload Device Events (L+G) Page 3
 - Upload Device Events (L+G) Page 4
- **SGG-MDM. Upload Device Events (L+G) Description**
- **Business Objects Life Cycle**
 - Event Seeder
- **Event Types Example**

Business Process Diagrams

Upload Device Events (L+G) Page 1

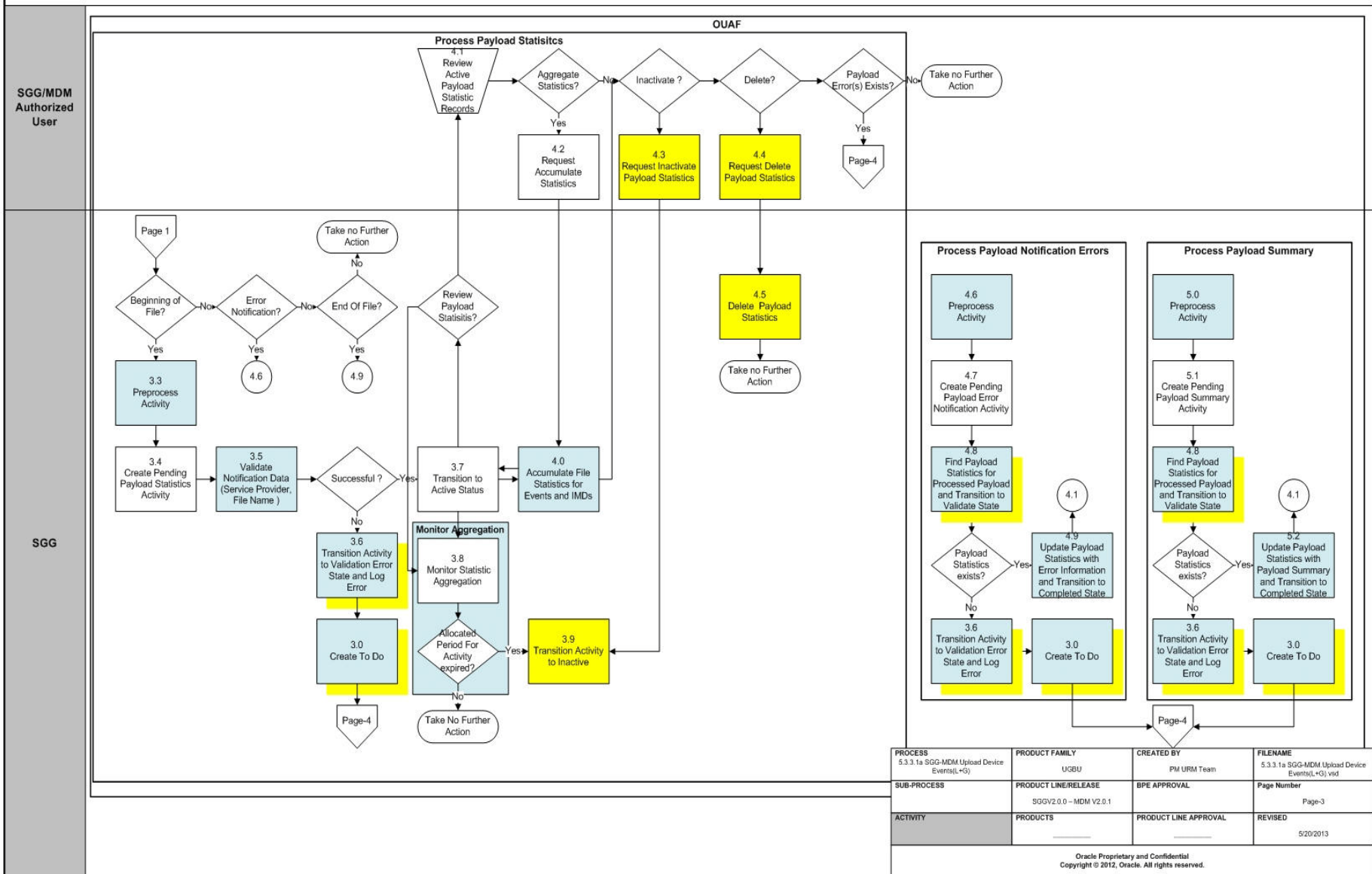


Upload Device Events (L+G) Page 2

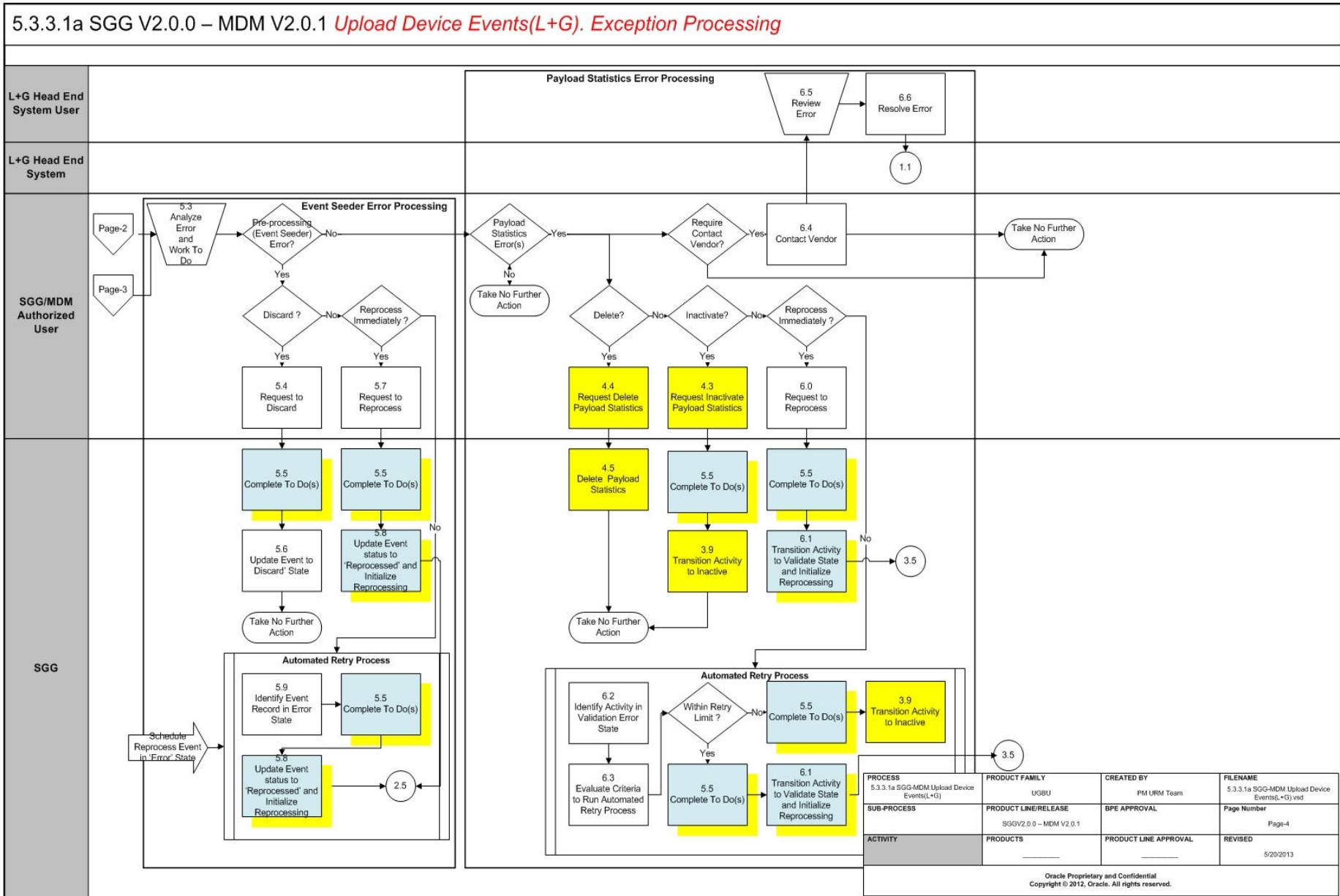


Upload Device Events (L+G) Page 3

5.3.3.1a SGG V2.0.0 – MDM V2.0.1 *Upload Device Events(L+G). Process Payload Statistics*



Upload Device Events (L+G) Page 4



SGG-MDM. Upload Device Events (L+G) Description

This section includes detailed descriptions of the steps involved in the SGG-MDM. Upload Device Events (L+G) business process, including:

- **1.0 Create Payload and Place Into Directory**
- **1.1 Poll File Location Based on Configured Frequency**
- **1.2 Parse, Analyze File and Identify Records**
- **1.3 Transform Event Record to 'Plain' XML**
- **1.4 Process Message Through Generator Notifications**
- **1.5 Create and Send Statistical Notification**
- **1.6 Route Notification Through JMS Queue to OUAF**
- **1.7 Create and Publish Additional Notification(s)**
- **1.8 Perform Custom Pre-Processing**
- **1.9 Validate Event**
- **2.0 Transform "Plane" XML Device event Record to SGG Event Standard Format**
- **2.1 Create and Send Error Notification**
- **2.2 Perform Custom Post-Processing**
- **2.3 Send Event Record**
- **2.4 Route Event Record Through JMS Queue to OUAF**
- **2.5 Determine Service Provider**
- **2.6 Determine Device**
- **2.7 Shift Date/Time to Standard**
- **2.8 Identify Device Event Type and Processing Method**
- **2.9 Create Event in Error State and Log Errors**
- **3.0 Create To Do**
- **3.1 Gather Device Event Requirements**
- **3.2 Submit Request**
- **3.3 Preprocess Activity**
- **3.4 Create Pending Payload Statistics Activity**
- **3.5 Validate Notification Data (Service Provider, File Name)**
- **3.6 Transition Activity to Validation Error State and Log Error**
- **3.7 Transition To Active State**
- **3.8 Monitor Statistic Aggregation**
- **3.9 Transition Activity to Inactive**
- **4.0 Accumulate File Statistics for Events and IMDs**
- **4.1 Review Active Payload Statistic Records**
- **4.2 Request Accumulate Statistics**
- **4.3 Request Inactivate Payload Statistics**
- **4.4 Request Delete Payload Statistics**

- 4.5 Delete Payload Statistics
- 4.6 Preprocess Activity
- 4.7 Create Pending Payload Error Notification Activity
- 4.8 Find Payload Statistics for Processed Payload and Transition to Validate State
- 4.9 Update Payload Statistics with Error Information and Transition to Completed State
- 5.0 Preprocess Activity
- 5.1 Create Pending Payload Summary Activity
- 5.2 Update Payload Statistics with Payload Summary and Transition to Complete State
- 5.3 Analyze Error and Work To Do
- 5.4 Request to Discard
- 5.5 Complete To Dos
- 5.6 Update Event to Discard State
- 5.7 Request to Reprocess
- 5.8 Update Event status to Reprocessed and Initialize Reprocessing
- 5.9 Identify Event Record in Error State
- 6.0 Request to Reprocess
- 6.1 Transition Activity Status to Validate and Initialize Reprocessing
- 6.2 Identify Activity in Validation Error State
- 6.3 Evaluate Criteria to Run Automated Retry Process
- 6.4 Contact Vendor
- 6.5 Review Error
- 6.6 Resolve Error

1.0 Create Payload and Place Into Directory

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: L+G Head End System

Description: The Landis+Gyr Command Center extracts device event information and creates file(s) on a daily basis. Extract is typically scheduled to occur immediately after all the data from the Data Collectors or Take Out Points have been uploaded into Command Center.

The files are created in a Landis+Gyr specific directory.

1.1 Poll File Location Based on Configured Frequency

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Group: JCA File Adapter

Actor/Role: SGG

Description: The JCA File Adapter service polls the designated directory based on the configured path and frequency.

Entities to Configure

Payload File Path

Polling Frequency

1.2 Parse, Analyze File and Identify Records

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Group: JCA File Adapter

Actor/Role: SGG

Description: JCA File Adapter parses the file and identifies records and determines types of records.

1.3 Transform Event Record to 'Plain' XML

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Group: JCA File Adapter

Actor/Role: SGG

Description: JCA File Adapter transforms records from the L+G format to the 'Plain' XML structure.

1.4 Process Message Through Generator Notifications

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: SGG

Description: JSA file adapter identifies type of messages being processed (beginning of file, end of file, errors) and initiates Notification processing.

1.5 Create and Send Statistical Notification

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: OSB creates and sends Statistical Notification when OSB starts and finishes processing payload.

Customizable Service

NotificationBusinessService

1.6 Route Notification Through JMS Queue to OUAF

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: Notification message is sent through JMS Queue to OUAF.

1.7 Create and Publish Additional Notification(s)

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: If business requires create additional notification, OSB creates and publish this notification.

Note: This is a custom process that allows implement additional functionality such as generating and sending e-mails to recipients etc

Customizable Service

NotificationProxyService

1.8 Perform Custom Pre-Processing

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: This task is being executed if additional preprocessing is required.

Customizable Service

PreProcessingProxyService

1.9 Validate Event

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: Processing Proxy Service validates the event record.

2.0 Transform “Plane” XML Device event Record to SGG Event Standard Format

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: Processing Proxy Service transforms "Plain " XML event record to SGG device event format.

2.1 Create and Send Error Notification

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: If error(s) occur during preprocessing, validation or transformation steps, OSB generates and route error notification. OSB also generates and routes error notification if error takes place during post-processing.

Customizable Service

NotificationBusinessService

2.2 Perform Custom Post-Processing

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: This task is being executed if additional post-processing is required.

Customizable Service

PostProcessingProxyService

2.3 Send Event Record

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: OSB creates and sends Event result message to JMS Queue.

Customizable Service

DestinationBusinessService

2.4 Route Event Record Through JMS Queue to OUAF

See **Upload Device Events (L+G) Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Integration Layer (OSB)

Actor/Role: SGG

Description: JMS Queue routes record to OUAF.

2.5 Determine Service Provider

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Group: Critical Validations

Actor/Role: SGG

Description: SGG initiates pre-processing of the Event received from Head-End System or created manually by MDM Authorized User. The primary goal of preprocessing raw data is to perform number of critical validations. This task is the first critical validation Preprocessing.

SGG validates the Service Provider (Head-End System) based on the supplied elements.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-SPRID

2.6 Determine Device

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Group: Critical Validations

Actor/Role: SGG

Description: SGG validates Device information.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-DEVICEID

2.7 Shift Date/Time to Standard

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Group: Critical Validations

Actor/Role: SGG

Description: SGG adjusts the Start Date/Time and End Date/Time, taking into consideration the Daylight Savings Time (DST).

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-SHEVTD'TTM

2.8 Identify Device Event Type and Processing Method

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Group: Critical Validations

Actor/Role: SGG

Description: Application identifies the Device Event Type and determines processing method associated with identified event type.

Note: Examples of Event Types could be found in the list of Example Event Types located in the Attachments Section of current document.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-DETBOID

2.9 Create Event in Error State and Log Errors

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Actor/Role: SGG

Description: If any of the critical validations fail the application creates event in error state and adds record in the log.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-SETERRFLG

3.0 Create To Do

See **Upload Device Events (L+G) Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Event Pre-Processing (Event Seeder)

Group: Process Payload Statistics

Group: Process Payload Notification Errors

Group: Process Payload Summary

Actor/Role: SGG

Description: Application creates a To Do entry for the Authorized User to analyze error.

Entities to Configure

To Do Type

To Do Role

Business Objects

D1-DeviceEventSeeder

Available Algorithms

D1-CREATTODO

3.1 Gather Device Event Requirements

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User gathers the Device Event information that required manual upload.

3.2 Submit Request

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User populates required event data and submits request to create Device Event using the Device Event Seeder screen.

3.3 Preprocess Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: SGG preprocesses payload statistic that contains information from the file's header record.

Business Objects	Available Algorithms
D1-PayloadStatistics	D1-PLSTCRBO (Set Payload Statistics BO name) D1-DEFACTTYP (Determine Activity Type)

3.4 Create Pending Payload Statistics Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: Application creates Payload Statistics Activity in Pending status.

Business Objects
D1-PayloadStatistics

3.5 Validate Notification Data (Service Provider, File Name)

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: Application validates message received.

Business Objects	Available Algorithms
D1-PayloadStatistics	D1-VALACTTYP Validate Activity Type D1-VALACTFIL Validate Activity File Name D1-SPRIDAGG Service Provider Identification (for Aggregation)

3.6 Transition Activity to Validation Error State and Log Error

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Group: Process Payload Notification Errors

Group: Process Payload Summary

Actor/Role: SGG

Description: If any error occurs during validations, SGG transitions the Activity to Validation Error state and logs an error.

Business Objects	Available Algorithms
D1-PayloadStatistics D1-PayloadErrorNotif D1-PayloadSummary D1-PayloadNotification	See list of algorithms associated with validations

3.7 Transition To Active State

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: If processing record successfully passed the validations, application transitions Payload Statistics activity to Active status.

Business Objects
D1-PayloadStatistics

3.8 Monitor Statistic Aggregation

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: SGG monitors payload statistics in Active state, evaluates payload cut off day and controls transition to the next logical step of the process (state).

Business Objects	Available Algorithms
D1-PayloadStatistics	D1-PRFACTAGG (Perform Activity Aggregation)

3.9 Transition Activity to Inactive

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: Application transitions payload statistics to Inactive state.

Automated Process: This step is performed if system detects that payload cut off date is in the past.

Manual Process: System also performs this task after Authorized User requests to inactivate payload statistics.

Business Objects

D1-PayloadStatistics

4.0 Accumulate File Statistics for Events and IMDs

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG

Description: Application collects statistics about all the events and IMDs uploaded as a result of payload processing.

Business Objects

D1-PayloadStatistics

Available Algorithms

D1-ACCSTATS (Accumulate Statistics Algorithm)

4.1 Review Active Payload Statistic Records

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG/MDM Authorized User

Description: Authorized User reviews and analyzes payload statistics using Payload Statistics screen.

4.2 Request Accumulate Statistics

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Actor/Role: SGG/MDM Authorized User

Description: If required, Authorized User requests accumulate payload statistics.

4.3 Request Inactivate Payload Statistics

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Group: Payload Statistics Error Processing

Actor/Role: SGG/MDM Authorized User

Description: Authorized User requests inactivate payload statistics.

4.4 Request Delete Payload Statistics

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Group: Payload Statistics Error Processing

Actor/Role: SGG/MDM Authorized User

Description: Authorized User requests delete payload statistics.

4.5 Delete Payload Statistics

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Statistics

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: Application deletes payload statistics.

Business Objects

D1-PayloadStatistics

4.6 Preprocess Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Notification Errors

Actor/Role: SGG

Description: Application preprocesses error notifications received from integration layer.

Business Objects

D1-PayloadNotification
D1-PayloadErrorNotif

Available Algorithms

D1-DETACTTYP Determine
Activity Type

4.7 Create Pending Payload Error Notification Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Notification Errors

Actor/Role: SGG

Description: Application creates pending error notification activity.

Business Objects

D1-PayloadNotification

D1-PayloadErrorNotif

4.8 Find Payload Statistics for Processed Payload and Transition to Validate State

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Notification Errors

Group: Process Payload Summary

Actor/Role: SGG

Description: SGG validates error notification and identifies Payload Statistics Activity created for processing Payload and couples it with currently processing notification.

Business Objects	Available Algorithms
D1-PayloadNotification	D1-SPRIDAGG (Service
D1-PayloadErrorNotif	Provider Identification (for
D1-PayloadSummary	Aggregation)
	D1-CPLPLST (Couple with
	Payload Statistics)

4.9 Update Payload Statistics with Error Information and Transition to Completed State

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Notification Errors

Actor/Role: SGG

Description: Application updates payload statistics with information from error notification.

Business Objects	Available Algorithms
D1-PayloadNotification	D1-UPERRINFO Update Error
D1-PayloadErrorNotif	Info onto Payload Statistics
	Algorithm Type

5.0 Preprocess Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Summary

Actor/Role: SGG

Description: Application preprocesses payload summary message (file trailer data) received from integration layer.

Business Objects	Available Algorithms
D1-PayloadSummary	D1-DEFACTTYP (Determine Activity Type) D1-PLSUCRBO (Set Payload Summary BO name)

5.1 Create Pending Payload Summary Activity

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Summary

Actor/Role: SGG

Description: Application creates pending payload summary activity.

Business Objects
D1-PayloadSummary

5.2 Update Payload Statistics with Payload Summary and Transition to Complete State

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Process Payload Summary

Actor/Role: SGG

Description: Application updates payload statistics with information from summary notification received from middleware (file trailer).

Business Objects	Available Algorithms
D1-PayloadSummary	D1-UMWSTAT (Update Middleware Statistics onto Payload Statistics)

5.3 Analyze Error and Work To Do

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User analyzes the error and respective To Do to determine the corrective action.

5.4 Request to Discard

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG/MDM Authorized User

Description: If SGG/MDM Authorized User decides that device event is not relevant, Authorized User requests to discard it.

5.5 Complete To Dos

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: SGG automatically completes To Do entries.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-COMPDE-TD

5.6 Update Event to Discard State

See **Upload Device Events (L+G) Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG

Description: SGG transitions Event Seeder to Discard state indicating that it cannot be used further.

Business Objects
D1-DeviceEventSeeder

5.7 Request to Reprocess

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User requests to reprocess event after error is corrected.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-DVENS

5.8 Update Event status to Reprocessed and Initialize Reprocessing

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG

Description: SGG transition the seeder to Reprocessed state and initializes reprocessing.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-REPRDVCET

5.9 Identify Event Record in Error State

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: MDM

Description: Application continuously monitors event seeder records to identify the event seeder in Error state.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-DVENS

6.0 Request to Reprocess

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Event Seeder Error Processing

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User requests to reprocess payload statistics.

6.1 Transition Activity Status to Validate and Initialize Reprocessing

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: SGG transition the seeder to Reprocessed state and initializes reprocessing.

Business Objects	Available Algorithms
D1-PayloadStatistics	D1-RBOE

6.2 Identify Activity in Validation Error State

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: Application continuously monitors payload statistics records to identify the records in validation error state.

Business Objects	Available Algorithms
D1-DeviceEventSeeder	D1-RBOE

6.3 Evaluate Criteria to Run Automated Retry Process

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Payload Statistics Error Processing

Actor/Role: SGG

Description: SGG evaluates criteria to run retry process (e.g. number of retries).

6.4 Contact Vendor

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Payload Statistics Error Processing

Actor/Role: SGG/MDM Authorized User

Description: SGG/MDM Authorized User contacts L+G Head End Head System User to report error.

6.5 Review Error

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: Payload Statistics Error Processing

Actor/Role: L+G Head End Head System User

Description: L+G Head End Head System User reviews and analyzes error.

6.6 Resolve Error

See **Upload Device Events (L+G) Page 4** on page 2-5 for the business process diagram associated with this activity.

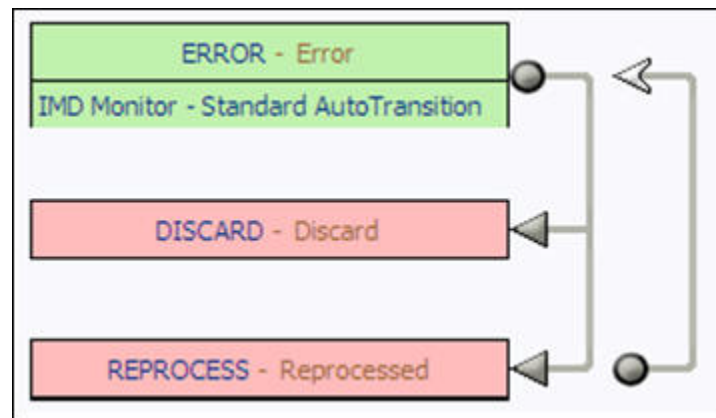
Group: Payload Statistics Error Processing

Actor/Role: L+G Head End Head System User

Description: L+G Head End Head System User works on payload error resolution.

Business Objects Life Cycle

Event Seeder



Event Types Example

Device Event Type	Description	Device Event Category
DEVICELOWBATTERY	Low Battery Detected - Device	Diagnostics
DEVICELOWVOLTAGE	Low Voltage - Device	Diagnostics
DEVICEMAGNETICTAMPER	Magnetic Tampering	Tampering
DEVICEPOWEROUTAGE	Power Outage - Device (Last Gasp)	Outage
DEVICEPOWERQUALITY	Poor Power Quality	Diagnostics
DEVICEPOWERRESTORATION	Power Restoration - Device	Outage
DEVICEREVERSEROTATION	Reverse Rotation	Tampering
DEVICESUSTAINEDOUTAGE	Sustained Outage - Device	Outage
DEVICETAMPERALERT	Tamper Alert	Tampering