C2M.MDM V2.2

5.6.4.1 C2M.MDM Synchronize Master Data

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Contents

Brief Description

Business Process: **5.6.4.1 C2M.MDM.Synchronize Master Data**
Process Type: **Process**
Parent Process:
Sibling Processes:

This process is initiated when an Authorized User adds or updates CCB master data. Master data that triggers the process includes Person, Account, Service Agreement, Service Point (non-C2M implementation only), Premise (non-C2M implementation only), Bill Cycle, Contract Option and Contract Option Event.

When data is added or updated the configuration of the maintenance object determines if objects of this type are synchronized, if they are a sync request is created. The sync request determines whether or not the details that have been added or changed require synchronization. If not the sync request is discarded. If however synchronization is required, in a Customer to Meter implementation an inbound sync request is created. In a non-Customer to Meter implementation, when synchronization is required, a message is sent to MDM through the Integration layer, when the message is received by MDM an inbound sync request is created.

The inbound sync request determines the MDM object to be added or updated, transforms any codes and identifiers, and adds or updates the MDM data. When the inbound sync request is completed the sync request is also completed. In a non-Customer to Meter implementation, MDM sends a positive acknowledge message to CCB to trigger the completion of the CCB sync request.

There are two variants of the synchronization process: initial load, which can be used for data migration, and ongoing synchronization, for normal operation.

Note: This document is based on the Person – Contact synchronization process however the processing of initial sync and ongoing sync is similar for all master data objects.

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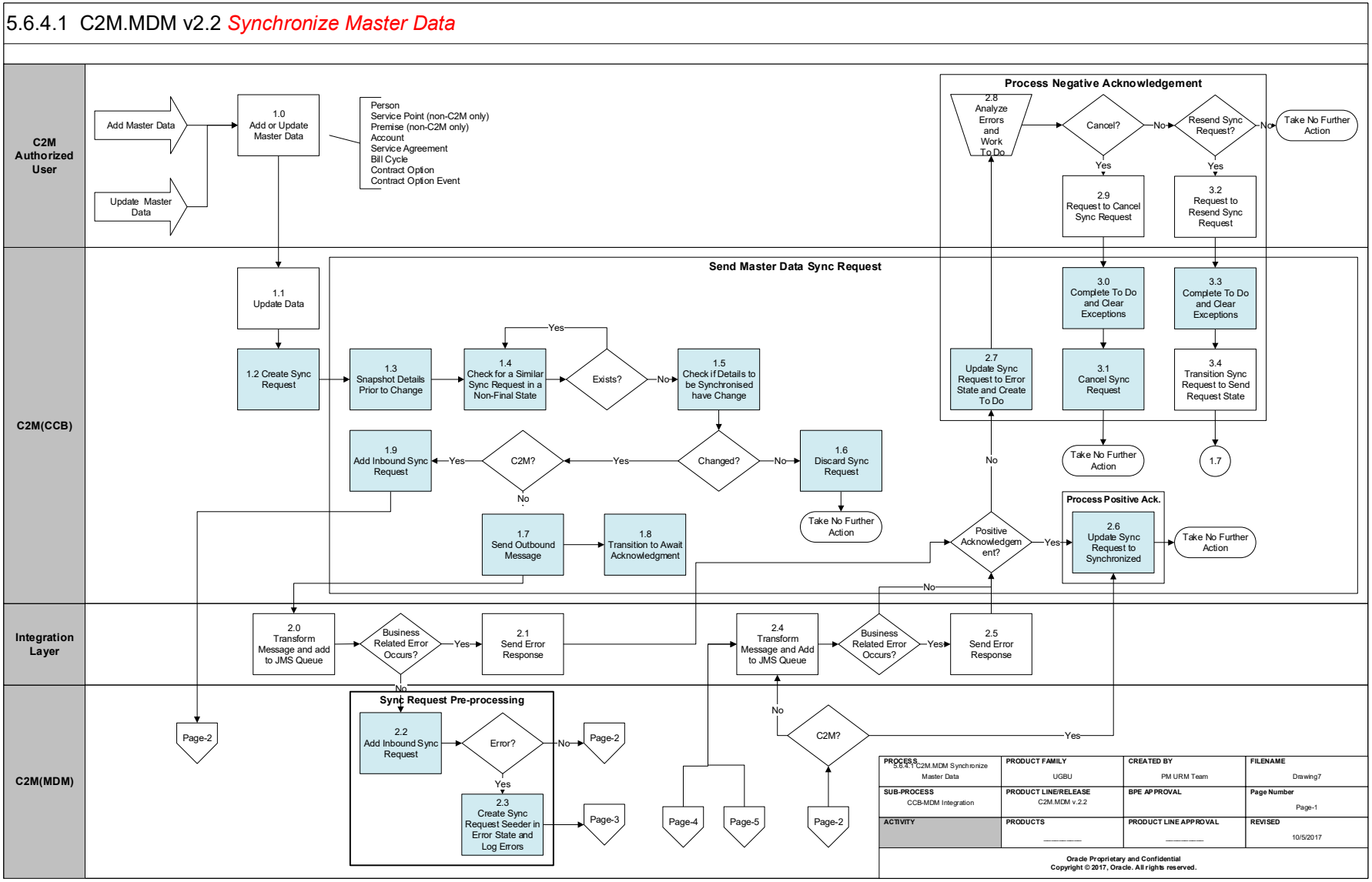

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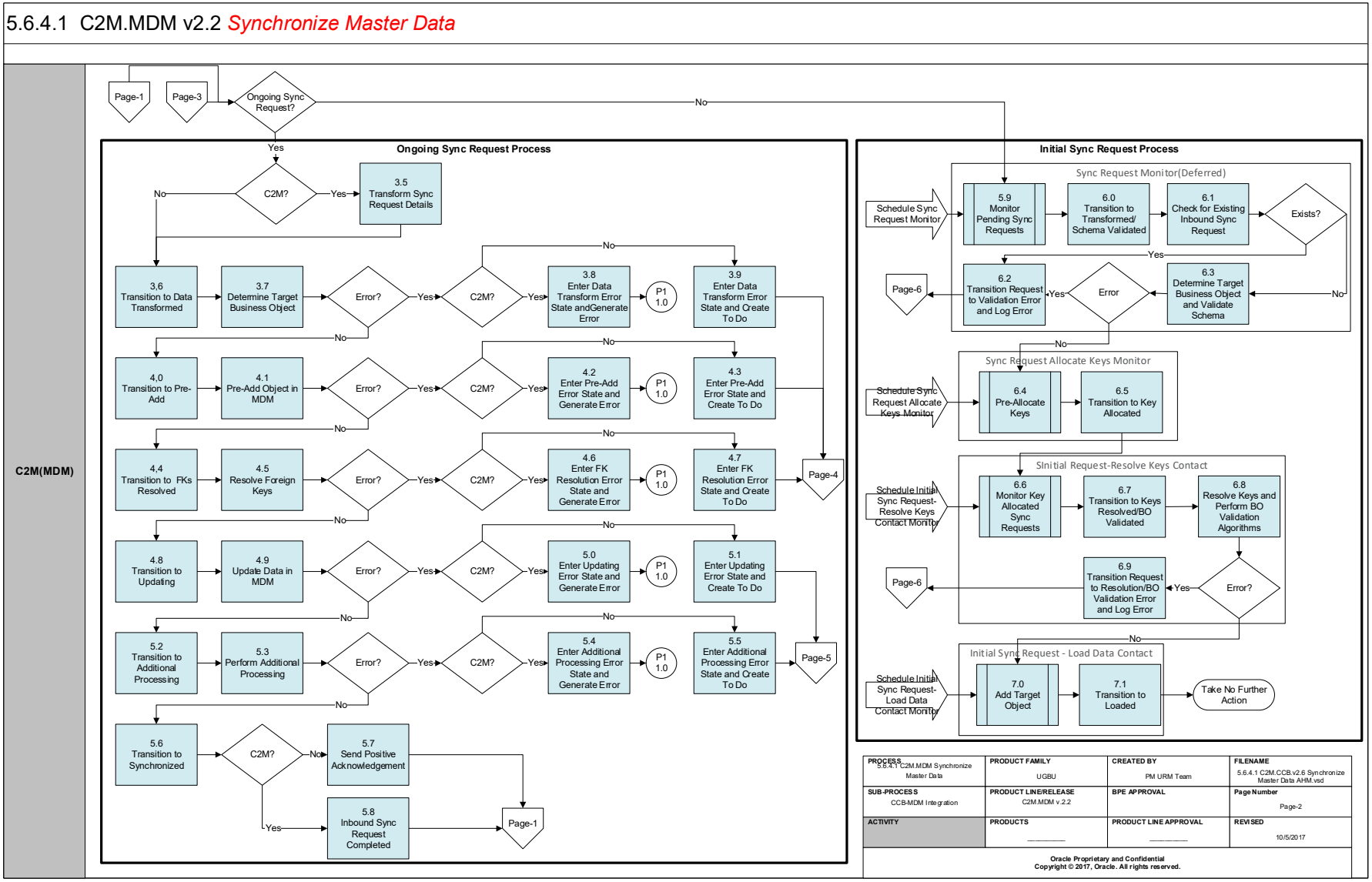

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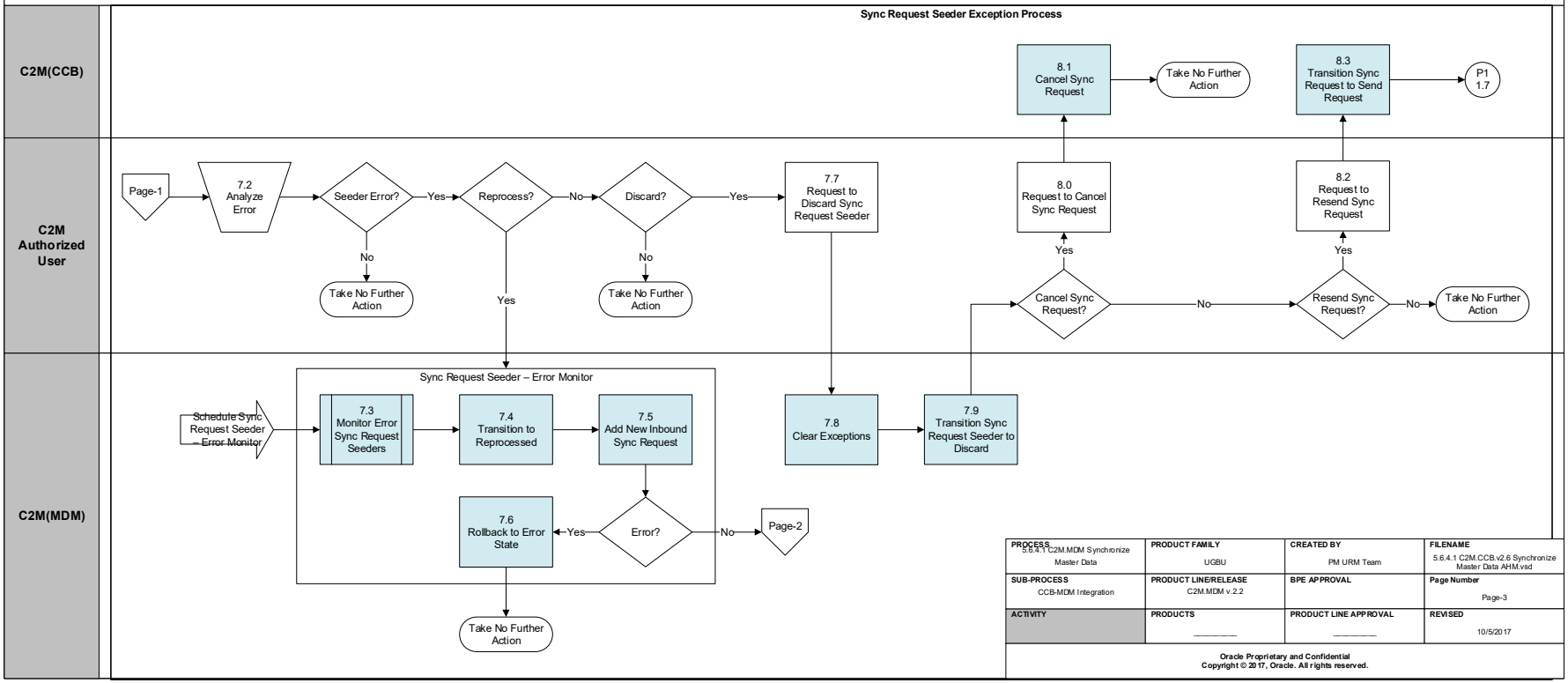
5.6.4.1 C2M.MDM v2.2 *Synchronize Master Data - Sync Request Seeder Exception Process*



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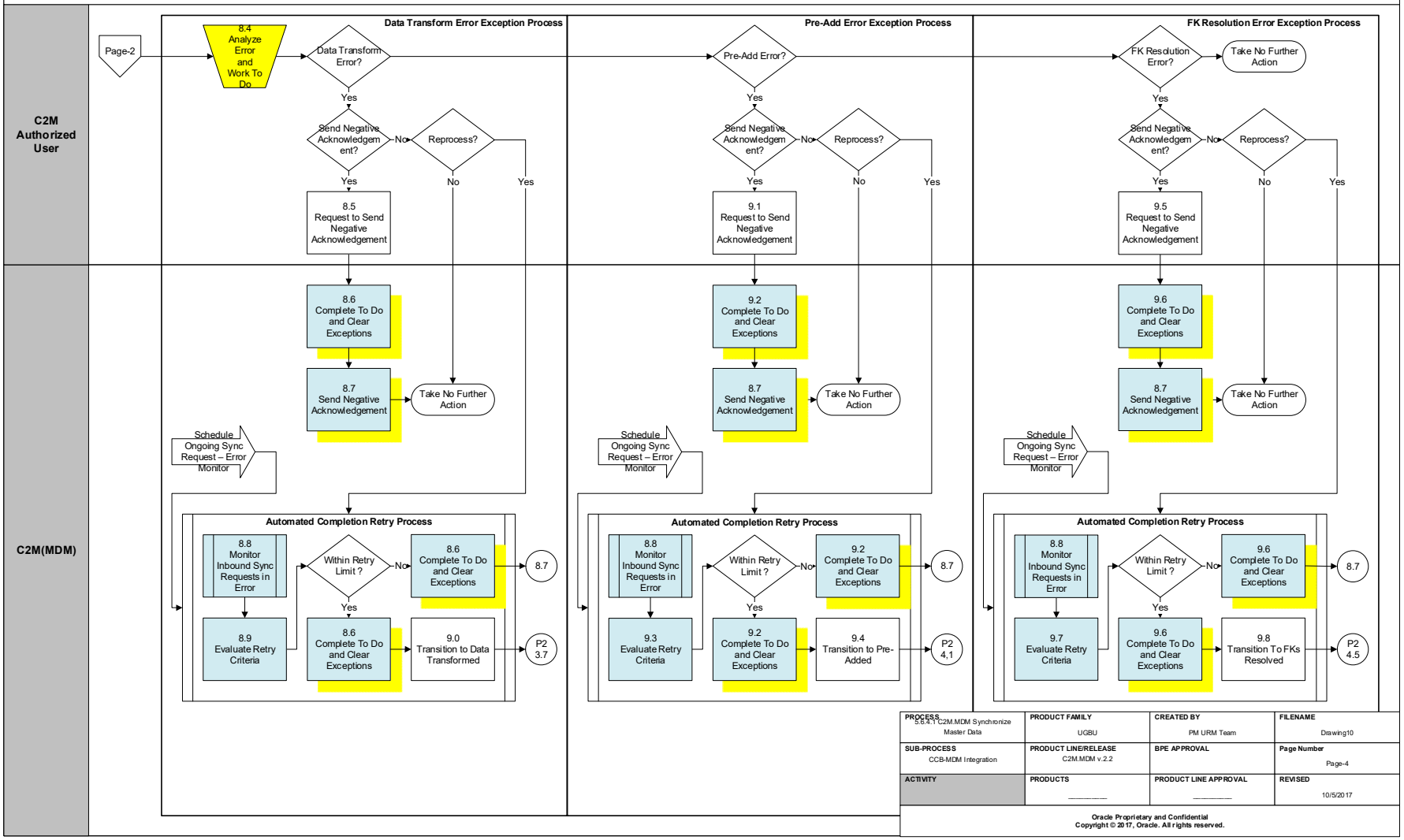
5.6.4.1 C2M.MDM v2.2 *Synchronize Master Data - Ongoing Sync Request Exception Process*



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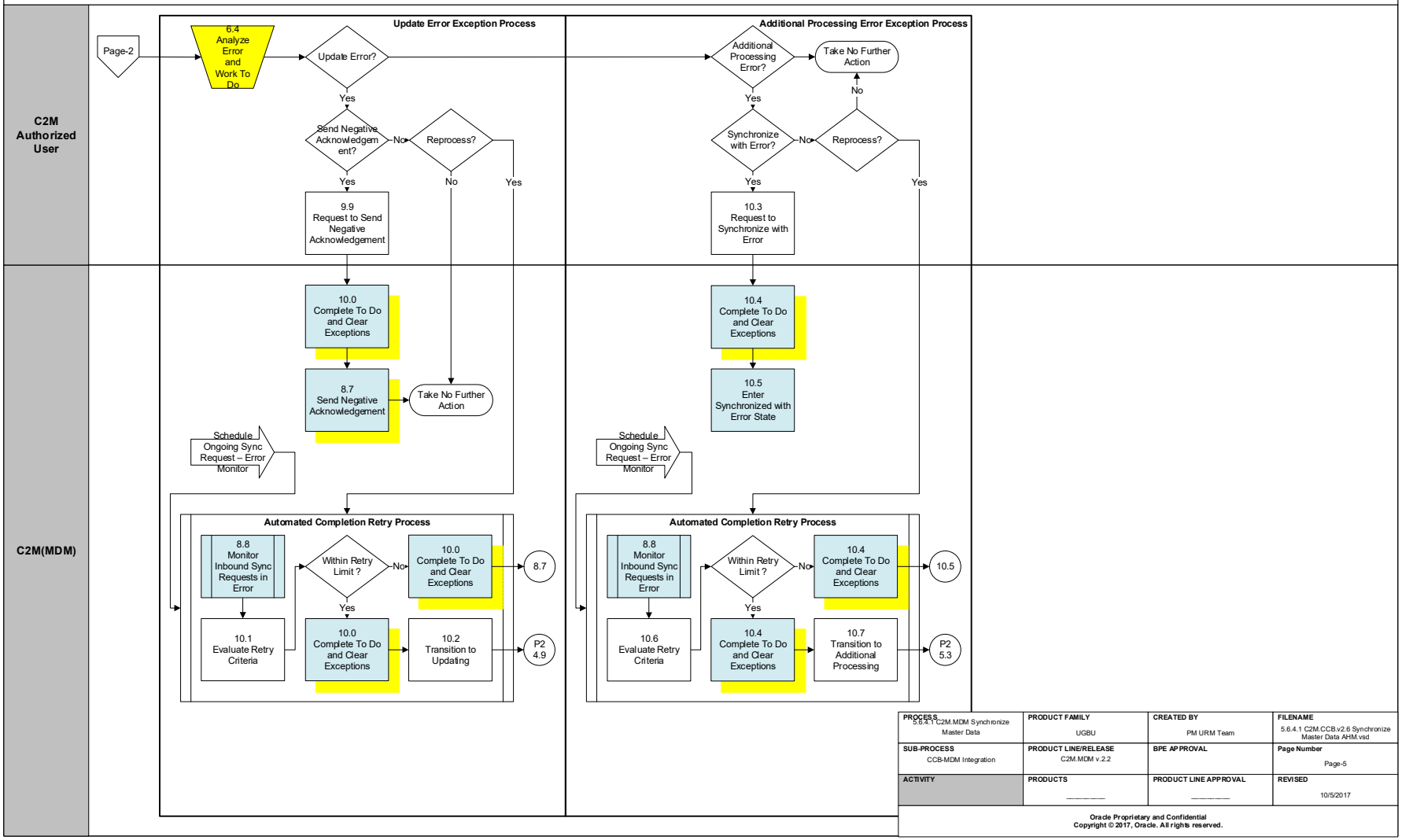
5.6.4.1 C2M.MDM v2.2 *Synchronize Master Data -Ongoing Sync Request Exception Process*



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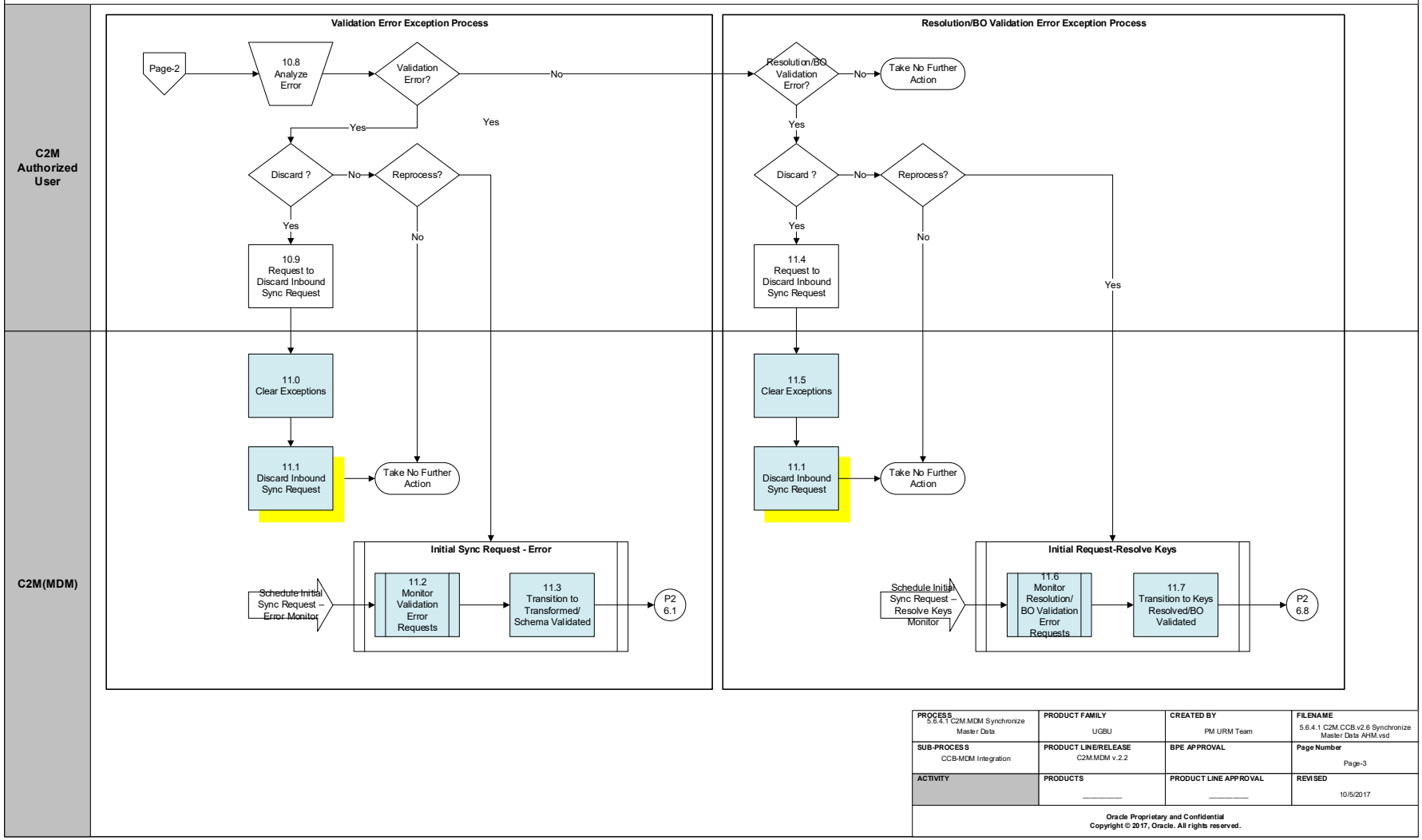
5.6.4.1 C2M.MDM v2.2 *Synchronize Master Data - Initial Load Sync Request Exception Process*



Detail Business Process Model Description

1.0 Add or Update Master Data

Actor/Role: C2M Authorized User
Description: C2M Authorized User adds or updates CCB master data. That is a Person, Account, Service Agreement, Service Point (non-C2M implementation only), Premise (non-C2M implementation only), Bill Cycle, Contract Option or Contract Option Event.

Configuration required (Y/N) **Entities to Configure:**

1.1 Update Data

Actor/Role: C2M(CCB)
Description: The data is updated in the system.

1.2 Create Sync Request

Actor/Role: C2M(CCB)
Description: When an object that is set up for synchronisation is added or updated, an audit algorithm on the object's maintenance object is performed. The standard base algorithm loops through each of the sync request business objects set up as an option ("Sync Request BO") in the maintenance object. For each option it checks if there is an existing sync request with the business object that is related to the object that has been changed and is in the initial state. If no sync request is found, a sync request is created for the business object recorded as a maintenance object option and related to the object that is being added or updated. Note there are other base product audit algorithms that create sync requests for related objects, for example an algorithm that creates service point related sync requests for each service point related to a premise that is being changed. This algorithm obtains the sync request business objects from algorithm's parameters.

Process Plug-in enabled **Available Algorithm(s):**

F1-GCHG-CDCP (Generic Change Data Capture)
CI_PREMCDCSP (Premise Change Data Capture (SP-Based))
CI_PREMCDCSP (Premise Change Data Capture (SP-Based))
X1-ACCTCDCSA (C2M Account Change Data Capture (SA-Based))
CI_ACCTCDCSA (Account Change Data Capture (SA-Based))

Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Configuration required	**Entities to Configure:**	Maintenance Object (Person)
		Maintenance Object (Service Point – non-C2M only)
		Maintenance Object (Premise – non-C2M only)
		Maintenance Object (Service Agreement)
		Maintenance Object (Account)
		Maintenance Object (Bill Cycle)
		Maintenance Object (Contract Option)
		Maintenance Object (Contract Option Event)

Group: Send Master Data Sync Request
1.3 Snapshot Details Prior to Change

A**ctor/Role:** C2M(CCB)
Description: When a Sync Request is created, the Source System and the Initial Snapshot details are populated in the Sync Request. The Initial Snapshot records the value of the details to be synchronized prior to the add or update.

In a Customer to Meter implementation the Source System is set to the "Our Name in their System" field of the External System recorded in the Master Configuration "Customer to Meter Configuration" (BO: X1-C2MMasterConfiguration). In a non Customer to Meter implementation the Source System is set to the "Our Name in their System" field of the External System recorded as an option in the Sync Request's Business Object.

The Initial Snapshot is obtained using a Business Object, Data Area and Script recorded in the parameters of the algorithm that captures the Initial Snapshot (X1-CMDM2PRI or CI_CMDM2PRI). The Business Object is used to read the object that has been added or updated, this is then moved to the Data Area, then if a Script is defined, the Script is performed passing in the Data Area and updating the Data Area with the result, finally the Data Area is moved to the Sync Request's Initial Snapshot. The Business Object, Data Area and Script can vary depending on details in the object. For example when a Person is being synchronized these values can be configured to be the same for all person objects or these values can differ based on the Person or Business indicator. The Business Object, Data Area and Script that are used are recorded in the Sync Request and used later to populated the Final Snapshot.

Process Plug-in enabled	**Available Algorithm(s):**	C1-SYNREQPRE (Sync Request - Pre-Processing Algorithm) (non-C2M)
		X1-SETSYNCSS (Set Sync Request Source System) (C2M)
		CI_CMDM2PRI (Capture MDM2 Person-Based Initial Snapshot) (non-C2M)
		X1-CMDM2PRI (Capture Person-Based Initial Snapshot) (C2M)
Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)
Configuration required	**Entities to Configure:**	Master Configuration: X1-C2MMasterConfiguration (Customer to Meter Configuration) (C2M)
		Business Object Option: Inactive Algorithm - C1-SYNREQPRE (C2M)

Group: Send Master Data Sync Request

1.4 Check for a Similar Sync Request in a Non-Final State

A**ctor/Role:** C2M(CCB)

Description: Check if there is a related Sync Request and if there is remain in the Pending state. This ensures that earlier changes are made first. A related Sync Request is one with the same Business Object code related to the same object.

Process Plug-in enabled	**Available Algorithm(s):**	F1-WAITRELSR (Wait For Related Sync To Complete)
		F1-TRN-DF-NS (Generic Business Object Status Monitor)

Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Configuration required	**Entities to Configure:**	Business Object State Option: Allow Manual Monitor - Y (non C2M)

Customizable process	**Process Name:**	F1-SYNRQ (Sync Request Monitor)

Group: Send Master Data Sync Request

1.5 Check if Details to be Synchronized have Changed

A**ctor/Role:** C2M(CCB)

Description: Populate the Final Snapshot in the Sync Request and compare this to the Initial Snapshot. The Final Snapshot records the value of the details to be synchronized after the add or update. If the Final and Initial Snapshots are not different transition the Sync Request to the Discarded state.

F1-TRN-DF-NS (Generic Business Object Status Monitor)

Process Plug-in enabled	Available Algorithm(s):
	C1-CMDM2PRF (Capture MDM2 Person-Based Final Snapshot)
	F1-COMPSNAPS (Compare Initial and Final Snapshots)

Business Object	Business Object
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Send Master Data Sync Request

1.6 Discard Sync Request

Actor/Role: C2M(CCB)

Description: In a non-Customer to Meter implementation, for a Person - Contact synchronizations auto-transition any Usage Transactions which are "Awaiting Data Sync" and are related to a Service Agreement whose Account's main customer is the Person. A Usage Transaction is "Awaiting Data Sync" if on the usage's Business Object there is a "State Condition" (F1SC) business object state option for the usage's current state with a value of "Awaiting Data Synch" (C1AS).

Process Plug-in enabled	Available Algorithm(s):
	C1-TRANUSGPR (Transition Related Usage Requests from Person Sync) (non C2M)

Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Configuration required	**Entities to Configure:**	Business Object State Option: Required Element – discardReason
		Business Object State Option: Inactive Algorithm - C1-TRANUSGPR (C2M)

Group: Send Master Data Sync Request
1.7 Send Outbound Message

Actor/Role: C2M(CCB)
Description: In a non-Customer to Meter implementation create an outbound message with details copied from the Sync Request. The Outbound Message's External System and Outbound Message Type are obtained from options on the Sync Request's Business Object.

Process Plug-in enabled	**Available Algorithm(s):**	C1-CR-OUTMSG (Create Outbound Message)
		F1-TRN-DF-NS (Generic Business Object Status Monitor)

Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Send Master Data Sync Request
1.8 Transition to Await Acknowledgment

Actor/Role: C2M(CCB)
Description: Transition to the Await Acknowledgement state.

Process Plug-in enabled	Available Algorithm(s):
	F1-AT-RQ (Transition to Default Next Status (Script))

Business Object	Business Object
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Send Master Data Sync Request
1.9 Add Inbound Sync Request

Actor/Role: C2M(CCB)
Description: In a Customer to Meter implementation an Inbound Sync Request is created. The business object of the Inbound Sync Request is obtained from the "Seeder Sync Request Master Configuration" Master Configuration (BO: D1-SeederSyncMasterConfig) using the External System and Initial Load indicator recorded on the Sync Request and the target Maintenance Object. In the Inbound Sync Request: the Sync Request's identifier is recorded as the external reference.

Process Plug-in enabled	Available Algorithm(s):
	X1-SENDPESY (Synchronize Person)
	F1-TRN-DF-NS (Generic Business Object Status Monitor)

Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request) C1-MDM2SPSyncRequest (MDM2 SP Sync Request) C1-MDM2SASyncRequest (MDM2 SA Sync Request) C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request) C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request) C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)
Configuration required	**Entities to Configure:**	Business Object State Option: Inactive Algorithm - C1-CR-OUTMSG Master Configuration: D1-SeederSyncMasterConfig (Seeder Sync Request Master Configuration)

2.0 Process, Transform Message, Add to JMS Queue

A**ctor/Role:** Integration Layer
Description: Integration layer transforms the request message and adds it to the JMS queue.

2.1 Send Error Response

A**ctor/Role:** Integration Layer
Description: Integration layer sends an error response to CCB if an error occurs during the transformation of the message received from CCB.

Group: Sync Request Pre-processing
2.2 Add Inbound Sync Request

A**ctor/Role:** C2M(MDM)
Description: Prior to the creation of the Inbound Sync Request its Business Object is obtained from the Master Configuration "Seeder Sync Request Master Configuration" (BO: D1-SeederSyncMasterConfig) using the External System, Maintenance Object and Initial Load indicator in the Inbound Sync Request. If a Business Object is not obtained from the Master Configuration an exception is added and an Inbound Sync Request Seeder will be created in its initial state of "Error".

Process Plug-in enabled	**Available Algorithm(s):**	D1-DETSYNRBO (Determine Sync Request BO)

Business Object	**Business Object**	D1-SyncRequestSeeder (Sync Request Seeder)
Configuration required	**Entities to Configure:**	Master Configuration: D1-SeederSyncMasterConfig (Seeder Sync Request Master Configuration)

Group: Sync Request Pre-processing

2.3 Create Sync Request Seeder in Error State and Log Errors

Actor/Role: C2M(MDM)
Description: MDM creates an inbound sync request seeder in the Error state and log entries for each exception.

Process Plug-in enabled	**Available Algorithm(s):**	D1-SETCLEXCP (Set Clear Exception Flag to true)
		F1-AT-RQJ (Transition to Default Next Status (Java))
		D1-ADDLOGSE (Add MO Log for Sync Request Seeder)
Business Object	**Business Object**	D1-SyncRequestSeeder (Sync Request Seeder)
		D1-InboundSyncRequestError (Inbound Sync Request Error)

2.4 Process, Transform Message, Add to JMS Queue

Actor/Role: Integration Layer
Description: Integration layer transforms the response message and adds it to the JMS queue.

2.5 Send Error Response

Actor/Role: Integration Layer
Description: Integration layer sends an error response to CCB if an error occurs during the transformation of the message received from MDM.

Group: Send Master Data Sync Request

Group: Process Positive Ack.

2.6 Update Sync Request to Synchronized

Actor/Role: C2M(CCB)
Description: **Transition the Sync Request to the Synchronized state.**

In a non-Customer to Meter implementation, auto-transition any Sync Request in a non-final state related to the same object that was added or updated (that is performs the monitor algorithms of the Sync Request's current state). Note this is intended to transition Sync Requests in the Pending state that have been waiting to be processed.

Also in a non-Customer to Meter implementation for a Person - Contact synchronizations auto-transition any Usage Transactions which are "Awaiting Data Sync" and are related to a Service Agreement whose Account's main customer is the Person. A Usage Transaction is "Awaiting Data Sync" if on the usage's Business Object there is a "State Condition" (F1SC) business object state option for the usage's current state with a value of "Awaiting Data Synch" (C1AS).

Process Plug-in enabled	**Available Algorithm(s):**	C1-TRANRELSY (Transition Sync Requests with same MO and PKs)
		C1-TRANUSGPR (Transition Related Usage Requests from Person Sync) (non C2M)
Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)
Configuration required	**Entities to Configure:**	Business Object State Option: Inactive Algorithm - C1-TRANUSGPR (C2M)

Group: Send Master Data Sync Request
Group: Process Negative Acknowledgement
2.7 Update Sync Request to Error State and Create To Do

Actor/Role: C2M(CCB)
Description: The Sync Request is updated to the Error State and a To Do entry is created.

Process Plug-in enabled	**Available Algorithm(s):**	Algorithm Type: F1-TDCREATE (Generic To Do Entry Creation)
Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)
Configuration required	**Entities to Configure:**	To Do Type (F1-SYNRQ)
		To Do Role
		Characteristic Type (F1-TODO)

Group: Process Negative Acknowledgement
2.8 Analyze Errors and Work To Do

Actor/Role: C2M Authorized User
Description: **A** user is assigned the To Do entry and analyses the Sync Request related error.

Group: Process Negative Acknowledgement
2.9 Request to Cancel Sync Request

Actor/Role: C2M Authorized User
Description: An Authorized User opts to cancel the Sync Request.

Group: Send Master Data Sync Request
Group: Process Negative Acknowledgement
3.0 Complete To Do and Clear Exceptions

Actor/Role: C2M(CCB)
Description: Any To Do entries related to the Sync Request are completed and the Sync Request's exceptions are removed.

Process Plug-in enabled	**Available Algorithm(s):**
	F1-TODOCOMPL (Generic To Do Completion)
	F1-SYNRCLREX (Clear Exceptions on Sync Request)

Business Object	**Business Object**
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Send Master Data Sync Request
Group: Process Negative Acknowledgement
3.1 Cancel Sync Request

Actor/Role: C2M(CCB)
Description: The Sync Request is transitioned to the Cancelled state.

Business Object	**Business Object**
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Configuration required	**Entities to Configure:**
	Business Object State Option: Required Element - cancelReason
	Business Object State Option: State Transition UI Map - F1-SyncReqCancelReasonInput

Group: Process Negative Acknowledgement
3.2 Request to Resend Sync Request

Actor/Role: C2M Authorized User
Description: An Authorized User opts to resend the Sync Request to MDM.

Group: Send Master Data Sync Request
Group: Process Negative Acknowledgement
3.3 Complete To Do and Clear Exceptions

Actor/Role: C2M(CCB)
Description: Any To Do entries related to the Sync Request are completed and the Sync Request's exceptions are removed.

Process Plug-in enabled	**Available Algorithm(s):**	F1-TODOCOMPL (Generic To Do Completion)
		F1-SYNRCLREX (Clear Exceptions on Sync Request)
Business Object	**Business Object**	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
		C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
		C1-MDM2SASyncRequest (MDM2 SA Sync Request)
		C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
		C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
		C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Send Master Data Sync Request
Group: Process Negative Acknowledgement
3.4 Transition Sync Request to Send Request
Actor/Role: C2M(CCB)
Description: The Sync Request is transitioned to the Send Request state.

Group: Ongoing Sync Request Process
3.5 Transform Sync Request Details

Actor/Role: C2M(MDM)

Description: In a Customer to Meter implementation, when an ongoing Inbound Sync Request is created the values in the data being synchronised that are codes are transformed from the CCB code to the MDM code. The Extendable Lookup C2M Mapping Field Values (BO: X1-CCBMDM-MDMCCB-Lookup) is used to transform the codes. Note if no corresponding MDM code is found for a CCB code, no error occurs the untransformed CCB code is used as the MDM code (if this is a problem the error will occur then the object is added or updated later in the synchronisation process).

Process Plug-in enabled	**Available Algorithm(s):**	X1-TRNCONFLD (Translate Contact-related fields)
Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request) D1-OngoingSyncRequestContact (Contact Ongoing Sync Request) D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request) D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request) D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request) D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)
Configuration required	**Entities to Configure:**	Extendable Lookup: X1-CCBMDM-MDMCCB-Lookup (C2M Mapping Field Values)

Group: Ongoing Sync Request Process

3.6 Transition to Data Transformed

A**ctor/Role:** C2M(MDM)

Description: The Inbound Sync Request is transitioned to the Data Transformed state. Note in a non Customer to Meter implementation a monitor process can optionally be used.

Process Plug-in enabled	**Available Algorithm(s):**	F1-AT-RQJ (Transition to Default Next Status (Java))
		D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request) D1-OngoingSyncRequestContact (Contact Ongoing Sync Request) D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request) D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request) D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)

Business Object	**Business Object**	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Customizable process	**Process Name:**	D1-SIOPE (Ongoing Sync Request - Pending) (non C2M – Optional)

Group: Ongoing Sync Request Process
3.7 Determine Target Business Object

A**ctor/Role:** C2M(MDM)
Description: Determines the Business Object to be used to add or update the object in the target application. The Business Object is obtained from a transactional business object recorded on the target object's type. The type is obtained from the data being synchronized recorded in the sync request. The Business Object that is determined is recorded in the Inbound Sync Request.

Process Plug-in enabled	**Available Algorithm(s):**	F1-AT-RQJ (Transition to Default Next Status (Java))
		D1-DETTARGCN (Determine Sync Request Target BO – Contact)
		D1-SETTRANDT (Setup Transformed Data)

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
3.8 Enter Data Transform Error State and Generate Error

Actor/Role: C2M(MDM)
Description: In a Customer to Meter implementation terminate with an error. The error message is retrieved from the latest exception log entry in the Inbound Sync Request.

Process Plug-in enabled	**Available Algorithm(s):**	X1-SYNCERROR (Raise Sync Request Error)
Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
3.9 Enter Data Transform Error State and Create To Do

Actor/Role: C2M(MDM)
Description: In a non Customer to Meter implementation create a To Do entry. The To Do Type and Role are obtained from algorithm parameters. The error message is retrieved from the latest exception log entry in the Inbound Sync Request. A log entry is added to the Inbound Sync Request with a reference to the new To Do Entry.

Process Plug-in enabled	**Available Algorithm(s):**	D1-TDCREATE (Sync Request To Do Entry Creation)
		D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)

Business Object	Business Object
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.0 Transition to Pre-Added State

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Pre-Added state.

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.1 Pre-Add Object in C2M(MDM)

Actor/Role: C2M(MDM)
Description: Checks if the object being synchronized already exists in MDM and if not adds a skeleton record with the minimum of details. The Master Configuration "Seeder Sync Request Master Configuration" (Business Object: D1-SeederSyncMasterConfig) is used to obtain the details required to find an existing record in MDM using the identifier of the CCB object being synchronised. Prior to adding a skeleton record any foreign keys in the skeleton record are resolved, that is CCB identifiers are converted to the corresponding MDM identifier. Information record in the Master Configuration "Master Data Synchronization Configuration" (Business Object: F1-SyncCfgBO) is used in resolving any foreign keys. Note the target object's business object should have an "Synchronization Add BO" option that records the Business Object to be used to add the skeleton record.

Process Plug-in enabled	Available Algorithm(s):
	F1-AT-RQJ (Transition to Default Next Status (Java))
	D1-SR-PREADD (Sync Request Pre-Add Data)

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)
Configuration required	**Entities to Configure:**	Master Configuration: D1-SeederSyncMasterConfig (Seeder Sync Request Master Configuration)
		Master Configuration: F1-SyncCfgBO (Master Data Synchronization Configuration)

Group: Ongoing Sync Request Process
4.2 Enter Pre-Add Error State and Generate Error

Actor/Role: C2M(MDM)
Description: In a Customer to Meter implementation terminate with an error. The error message is retrieved from the latest exception log entry in the Inbound Sync Request.

Process Plug-in enabled	**Available Algorithm(s):**	X1-SYNCERROR (Raise Sync Request Error)
		D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)

Business Object	Business Object
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.3 Enter Pre-Add Error State and Create To Do

Actor/Role: C2M(MDM)
Description: In a non Customer to Meter implementation create a To Do entry. The To Do Type and Role are obtained from algorithm parameters. The error message is retrieved from the latest exception log entry in the Inbound Sync Request. A log entry is added to the Inbound Sync Request with a reference to the new To Do Entry.

Process Plug-in enabled	Available Algorithm(s):
	D1-TDCREATE (Sync Request To Do Entry Creation)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.4 Transition to FKs Resolved

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the FKs Resolved state

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.5 Resolve Foreign Keys

A**ctor/Role:** C2M(MDM)
Description: The foreign keys in the data being synchronized are converted from identifiers to a CCB object to the identifier of the corresponding object in MDM. The identifiers are converted using the Master Configuration "Master Data Synchronization Configuration" (Business Object: F1-SyncCfgBO). The Inbound Sync Request is updated with the converted values.

Process Plug-in enabled	Available Algorithm(s):
	F1-AT-RQJ (Transition to Default Next Status (Java))
	D1-RESKEYFAL (Resolve Keys - Ongoing Sync)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required	**Entities to Configure:**	Master Configuration: F1-SyncCfgBO (Master Data Synchronization Configuration)

Group: Ongoing Sync Request Process
4.6 Enter FK Resolution Error State and Generate Error

Actor/Role: C2M(MDM)
Description: In a Customer to Meter implementation terminate with an error. The error message is retrieved from the latest exception log entry in the Inbound Sync Request.

Process Plug-in enabled	**Available Algorithm(s):**	X1-SYNCERROR (Raise Sync Request Error)

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.7 Enter FK Resolution Error State and Create To Do

Actor/Role: C2M(MDM)
Description: In a non Customer to Meter implementation create a To Do entry. The To Do Type and Role are obtained from algorithm parameters. The error message is retrieved from the latest exception log entry in the Inbound Sync Request. A log entry is added to the Inbound Sync Request with a reference to the new To Do Entry.

Process Plug-in enabled	**Available Algorithm(s):**	D1-TDCREATE (Sync Request To Do Entry Creation)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.8 Transition to Updating

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Updating state

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
4.9 Update Data in MDM

Actor/Role: C2M(MDM)
Description: The target object in MDM is updated with the transformed detailed in the Inbound Sync Request.

Process Plug-in enabled	Available Algorithm(s):
	F1-AT-RQJ (Transition to Default Next Status (Java))
	D1-SR-UPDDAT (Sync Request Update Data)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process

5.0 Enter Updating Error State and Generate Error

A**ctor/Role:** C2M(MDM)
Description: In a Customer to Meter implementation terminate with an error. The error message is retrieved from the latest exception log entry in the Inbound Sync Request.

Process Plug-in enabled	Available Algorithm(s):
	X1-SYNCERROR (Raise Sync Request Error)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process

5.1 Enter Updating Error State and Create To Do

Actor/Role: C2M(MDM)
Description: In a non Customer to Meter implementation create a To Do entry. The To Do Type and Role are obtained from algorithm parameters. The error message is retrieved from the latest exception log entry in the Inbound Sync Request. A log entry is added to the Inbound Sync Request with a reference to the new To Do Entry.

Process Plug-in enabled	**Available Algorithm(s):**
	D1-TDCREATE (Sync Request To Do Entry Creation)

Business Object	**Business Object**
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
5.2 Transition to Additional Processing

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Additional Processing state

Business Object	**Business Object**
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process

5.3 Perform Additional Processing

Actor/Role: C2M(MDM)
Description: Any implementation specific additional processing is performed.

Process Plug-in enabled	Available Algorithm(s):
	F1-AT-RQJ (Transition to Default Next Status (Java))

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process

5.4 Enter Additional Processing Error State and Generate Error

Actor/Role: C2M(MDM)
Description: In a Customer to Meter implementation terminate with an error. The error message is retrieved from the latest exception log entry in the Inbound Sync Request.

Process Plug-in enabled	Available Algorithm(s):
	X1-SYNCERROR (Raise Sync Request Error)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
5.5 Enter Additional Processing Error State and Create To Do

Actor/Role: C2M(MDM)
Description: In a non Customer to Meter implementation create a To Do entry. The To Do Type and Role are obtained from algorithm parameters. The error message is retrieved from the latest exception log entry in the Inbound Sync Request. A log entry is added to the Inbound Sync Request with a reference to the new To Do Entry.

Process Plug-in enabled	Available Algorithm(s):
	D1-TDCREATE (Sync Request To Do Entry Creation)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
5.6 Transition to Synchronized

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Synchronized state

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process

5.7 Send Positive Acknowledgement

Actor/Role: C2M(MDM)

Description: If this is not a Customer to Meter implementation an outbound message is sent to CCB to indicate that the synchronization has been successful. The outbound message's External System is obtained from the Inbound Sync Request. The Outbound Message Type is obtained from the "Outbound Message Type" option of the Inbound Sync Request's Business Object. The details of the message include the Inbound Sync Request's external reference identifier (this is the identifier of the CCB Sync Request). Note in CCB the absence of any exception details in the message indicates that the synchronization was successful. A log entry is added to the Inbound Sync Request with a reference to the outbound message (if the outbound message is set up to persist).

Process Plug-in enabled	Available Algorithm(s):
	D1-CREPOSACK (Create Positive Acknowledgement)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Ongoing Sync Request Process
5.8 Inbound Sync Request Completed

A**ctor/Role:** C2M(MDM)
Description: In a Customer to Meter implementation no outbound message is created instead the processing of the Inbound Sync Request ends and the process returns to the Sync Request.

Business Object	**Business Object**
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required	**Entities to Configure:**
	Business Object State Option: Inactive Algorithm - D1-CREPOSACK

Group: Initial Sync Request Process
5.9 Monitor Transition Pending Sync Requests

A**ctor/Role:** C2M(MDM)
Description: The batch process "Sync Request Monitor (Deferred)" (Batch Control: F1-SYSRQ) monitors initial Inbound Sync Requests that are Pending and invokes their monitor algorithms.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Customizable process	**Process Name:**	F1-SYSRQ (Sync Request Monitor (Deferred))

Group: Initial Sync Request Process
6.0 Transition to Transformed/Schema Validated

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Transformed/Schema Validated state.

Process Plug-in enabled	**Available Algorithm(s):**	F1-AT-RQJ (Transition to Default Next Status (Java))

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
6.1 Check for Existing Inbound Sync Request

Actor/Role: C2M(MDM)
Description: Check if there is another Inbound Sync Request for the same External System, Maintenance Object and primary key. If there is the Inbound Sync Request is transitioned to the Validation Error state.

Process Plug-in enabled	**Available Algorithm(s):**	D1-CHKSREXST (Check Inbound Sync Request existence)

Business Object	Business Object
	D1-InitialSyncRequestContact (Contact Initial Sync Request)
	D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
	D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
	D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
	D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
6.2 Transition Request to Validation Error and Log Error

Actor/Role: C2M(MDM)
Description: The error is record in the Inbound Sync Request as an exception and the Inbound Sync Request is transitioned to the Validation Error state.

Business Object	Business Object
	D1-InitialSyncRequestContact (Contact Initial Sync Request)
	D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
	D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
	D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
	D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
6.3 Determine Target Business Object and Validate Schema

Actor/Role: C2M(MDM)
Description: Determine the Business Object to be used to add or update the object in MDM and validate the details to be synchronized using this Business Object.

Process Plug-in enabled	Available Algorithm(s):
	D1-DETTARGCN (Determine Sync Request Target BO - Contact)
	D1-SETTRANDT (Setup Transformed Data)
	D1-VALSCHTRU (Validate Schema)

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
6.4 Pre-Allocate Keys

Actor/Role: C2M(MDM)
Description: The batch process "Sync Request Allocate Keys Monitor" (Batch Control: F1- F1-SAKRQ) monitors initial Inbound Sync Requests that are in the Transformed/Schema Validated state and pre-allocates the target objects key. The process then invokes the monitor algorithms for the Inbound Sync Request's current state.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Customizable process	**Process Name:**	F1-SAKRQ (Sync Request Allocate Keys Monitor)

Group: Initial Sync Request Process
6.5 Transition to Key Allocated

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Key Allocated state.

Process Plug-in enabled	**Available Algorithm(s):**	F1-AT-RQJ (Transition to Default Next Status (Java))

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
6.6 Monitor Key Allocated Sync Requests

Actor/Role: C2M(MDM)
Description: The batch process "Initial Request-Resolve Keys Contact" (Batch Control: D1-SIKCN) monitors initial Inbound Sync Requests that are in the Key Allocated state and invokes their monitor algorithms.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Customizable process	**Process Name:**	D1-SIKCN (Initial Request-Resolve Keys Contact)

Group: Initial Sync Request Process
6.7 Transition to Keys Resolved/BO Validated

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request is transitioned to the Keys Resolved/BO Validated state.

Process Plug-in enabled	**Available Algorithm(s):**	F1-AT-RQJ (Transition to Default Next Status (Java))

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request) D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request) D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request) D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request) D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process

6.8 Resolve Keys and Perform Validation Algorithms

A**ctor/Role:** C2M(MDM)

Description: **Any f**oreign keys in the data to be synchronized are converted from an identifier of a CCB record to the identifier of the corresponding MDM record. Information recorded in the Master Configuration "Master Data Synchronization Configuration" (Business Object: F1-SyncCfgBO) is used to do this conversion. After the foreign keys have been resolved the data to be synchronized is validated using the target object's validation algorithms.

Process Plug-in enabled	**Available Algorithm(s):**	D1-RESKEYTRU (Resolve Keys - Initial Sync) D1-VALSYNCBO (Perform BO Validation)
Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request) D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request) D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request) D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request) D1-InitialSyncRequestSP (Service Point Initial Sync Request)
Configuration required	**Entities to Configure:**	Master Configuration: F1-SyncCfgBO (Master Data Synchronization Configuration)

Group: Initial Sync Request Process

6.9 Transition Request to Resolution/BO Validation Error and Log Error

A**ctor/Role:** C2M(MDM)

Description: The error is record in the Inbound Sync Request as an exception and the Inbound Sync Request is transitioned to the Resolution/BO Validation Error state.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRIETR (Skip Monitoring for Key Resolution Error before Initial Iteration)

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Initial Sync Request Process
7.0 Add Target Object

Actor/Role: C2M(MDM)
Description: The batch process "Initial Sync Request - Load Data Contact" (Batch Control: D1-SILCN) adds the target object for the initial Inbound Sync Requests that are in the Keys Resolved/BO Validated state. The Inbound Sync Requests are then transitioned to the next default state.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Customizable process	**Process Name:**	D1-SILCN (Initial Sync Request - Load Data Contact)

Group: Initial Sync Request Process
7.1 Transition to Loaded

Actor/Role: C2M(MDM)

Description: The Inbound Sync Request enters the Loaded state.

Business Object	**Business Object**
	D1-InitialSyncRequestContact (Contact Initial Sync Request)
	D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
	D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
	D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
	D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Sync Request Seeder Exception Process
7.2 Analyze Error

Actor/Role: C2M Authorized User
Description: **A** user analyzes the seeder Inbound Sync Request related error and performs the necessary actions to resolve the error.

Group: Sync Request Seeder Exception Process
7.3 Monitor Error Sync Request Seeders

Actor/Role: C2M(MDM)
Description: The batch process "Sync Request Seeder - Error" (Batch Control: F1- D1-SRSDE) monitors seeder Inbound Sync Requests that are in the Error state and invokes their monitor algorithms.

Business Object	**Business Object**
	D1-SyncRequestSeeder (Sync Request Seeder)
	D1-InboundSyncRequestError (Inbound Sync Request Error)

Customizable process	**Process Name:**
	D1-SRSDE (Sync Request Seeder - Error)

Group: Sync Request Seeder Exception Process
7.4 Transition to Reprocessed

Actor/Role: C2M(MDM)

Description: The seeder Inbound Sync Request is transitioned to the Reprocessed state. Any exceptions recorded on the Inbound Sync Request are removed.

Process Plug-in enabled	**Available Algorithm(s):**	D1-SETCLEXCP (Set Clear Exception Flag to true)
		F1-AT-RQJ (Transition to Default Next Status (Java))
		D1-CLEAREXC (Sync Request Clear Exception)
Business Object	**Business Object**	D1-SyncRequestSeeder (Sync Request Seeder)
		D1-InboundSyncRequestError (Inbound Sync Request Error)

Group: Sync Request Seeder Exception Process
7.5 Add New Inbound Sync Request

A**ctor/Role:** C2M(MDM)
Description: The seeder Inbound Sync Request enters the Reprocessed state and attempts to create a new Inbound Sync Request with the same details as the seeder Inbound Sync Request. During the creation of the new Inbound Sync Request the Business Object is obtained from the Master Configuration "Seeder Sync Request Master Configuration" (BO: D1-SeederSyncMasterConfig) using the External System, Maintenance Object and Initial Load indicator copied from the seeder to the new Inbound Sync Request.

Process Plug-in enabled	**Available Algorithm(s):**	D1-SR-CRSEED (Instantiate a Sync Request Seeder)
		D1-SETCMPIND (Set Composite Indicator Value)
		D1-REPRINSY (Reprocess Inbound Sync Request)
		D1-DETSYNRBO (Determine Sync Request BO)
Business Object	**Business Object**	D1-SyncRequestSeeder (Sync Request Seeder)
		D1-InboundSyncRequestError (Inbound Sync Request Error)
Configuration required	**Entities to Configure:**	Master Configuration: D1-SeederSyncMasterConfig (Seeder Sync Request Master Configuration)

Group: Sync Request Pre-processing

7.6 Rollback to Error state

Actor/Role: C2M(MDM)
Description: If an error occurs when attempting to add a new Inbound Sync Request the processing that has been performed is rolled back, that is a new Inbound Sync Request is not created and the seeder Inbound Sync Request returns to the Error state.

Group: Sync Request Seeder Error Exception Process
7.7 Request to Discard Sync Request Seeder

Actor/Role: C2M Authorized User
Description: User opts to discard the seeder Inbound Sync Request.

Group: Sync Request Seeder Error Exception Process
7.8 Clear Exceptions

Actor/Role: C2M(MDM)
Description: The exceptions recorded in the Inbound Sync Request are removed.

Process Plug-in enabled	**Available Algorithm(s):**	D1-CLEAREXC (Sync Request Clear Exception)
Business Object	**Business Object**	D1-SyncRequestSeeder (Sync Request Seeder)
		D1-InboundSyncRequestError (Inbound Sync Request Error)

Group: Sync Request Seeder Error Exception Process
7.9 Transition Sync Request Seeder to Discard

Actor/Role: C2M(MDM)
Description: Inbound Sync Request Seeder enters the Discard state. The Inbound Sync Request is updated to indicate that it should be excluded from future checks for duplicate Inbound Sync Requests.

Process Plug-in enabled	**Available Algorithm(s):**	D1-SETCMPIND (Set Composite Indicator Value)

Business Object	Business Object
	D1-SyncRequestSeeder (Sync Request Seeder)
	D1-InboundSyncRequestError (Inbound Sync Request Error)

Group: Sync Request Seeder Error Exception Process
8.0 Request to Cancel Sync Request

Actor/Role: C2M Authorized User
Description: A user opts to cancel the Sync Request that is in the Awaiting Acknowledgement state.

Group: Sync Request Seeder Error Exception Process
8.1 Cancel Sync Request

Actor/Role: C2M(CCB)
Description: The Sync Request is transitioned from the Awaiting Acknowledgement state to the Cancelled state.

Business Object	Business Object
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Configuration required	Entities to Configure:
	Business Object State Option: Required Element - cancelReason
	Business Object State Option: State Transition UI Map - F1-SyncReqCancelReasonInput

Group: Sync Request Seeder Error Exception Process
8.2 Request to Resend Sync Request

Actor/Role: C2M Authorized User
Description: A user opts to resend to MDM the Sync Request that is in the Awaiting Acknowledgement state.

Group: Sync Request Seeder Error Exception Process
8.3 Transition Sync Request to Send Request
Actor/Role: C2M(CCB)
Description: The Sync Request is transitioned from the Awaiting Acknowledgement state to the Send Request state.

Business Object	Business Object
	C1-MDM2PersonSyncRequest (MDM2 Person Sync Request)
	C1-MDM2SPSyncRequest (MDM2 SP Sync Request)
	C1-MDM2SASyncRequest (MDM2 SA Sync Request)
	C1-MDM2BillCycleSyncRequest (MDM2 Bill Cycle Sync Request)
	C1-MDM2ContractOptSyncRequest (MDM2 Contract Option Sync Request)
	C1-MDM2ContrOptEvtSyncRequest (MDM2 Contract Option Event Sync Request)

Group: Data Transform Error Exception Process
8.4 Analyze Errors and Work To Do

Actor/Role: C2M Authorized User
Description: **A** user is assigned the To Do entry and analyses the Inbound Sync Request related error.

Group: Data Transform Error Exception Process
8.5 Request to Send Negative Acknowledgement

Actor/Role: C2M Authorized User
Description: A user opts to send a negative acknowledgement to CCB for an Inbound Sync Request that is in the Data Transform Error state.

Group: Data Transform Error Exception Process
8.6 Complete To Do and Clear Exceptions

Actor/Role: C2M(MDM)
Description: For an Inbound Sync Request in the Data Transform Error state any related To Do entries are completed and the Inbound Sync Request's exceptions are removed.

Process Plug-in enabled	Available Algorithm(s):
	D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
	D1-TODOCOMPL (Generic To Do Completion)
	D1-CLEAREXCP (Sync Request Clear Exception)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Data Transform Error Exception Process
8.7 Send Negative Acknowledgement

Actor/Role: C2M(MDM)
Description: If this is not a Customer to Meter implementation an outbound message is sent to CCB to indicate that the synchronization has not been successful.

Process Plug-in enabled	Available Algorithm(s):
	D1-CRENEGACK (Create Negative Acknowledgement)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required	**Entities to Configure:**	Business Object Option: Inactive Algorithm - D1-CRENEGACK (C2M)

Group: Data Transform Error Exception Process
8.8 Monitor Inbound Sync Requests in Error

Actor/Role: C2M(MDM)
Description: The batch process "Ongoing Sync Request - Error" (Batch Control: D1-SIOER)) monitors Inbound Sync Requests that are in one of the error states and invokes their monitor algorithms.

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Customizable process	**Process Name:**	D1-SIOER (Ongoing Sync Request - Error)

Group: Data Transform Error Exception Process
8.9 Evaluate Retry Criteria

Actor/Role: C2M(MDM)
Description: If the period of time indicated in the "To Do Retry Frequency" business object state option of the Inbound Sync Request in the Data Transform Error state has elapsed check if the count of retries is greater than the "To Do Maximum Retries" business object state option.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
		D1-SETCLEXCP (Set Clear Exception Flag to true)
		D1-TODORETRY (Sync Request Retry for To Do's)
		D1-TRANTONEG (Do Not Clear Exceptions and Transition to Negative State)

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)
Configuration required	**Entities to Configure:**	Business Object State Option: To Do Maximum Retries
		Business Object State Option: To Do Retry Frequency

Group: Data Transform Error Exception Process
9.0 Transition to Data Transformed

Actor/Role: C2M(MDM)
Description: Transition the Inbound Sync Request to the Data Transformed state.

Group: Pre-Add Error Exception Process
9.1 Request to Send Negative Acknowledgement

Actor/Role: C2M Authorized User
Description: A user opts to send a negative acknowledgement to CCB for an Inbound Sync Request that is in the Pre-Add Error state.

Group: Pre-Add Error Exception Process
9.2 Complete To Do and Clear Exceptions

Actor/Role: C2M(MDM)
Description: For an Inbound Sync Request in the Pre-Add Error state any related To Do entries are completed and the Inbound Sync Request's exceptions are removed.

Process Plug-in enabled	Available Algorithm(s):
	D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
	D1-TODOCOMPL (Generic To Do Completion)
	D1-CLEAREXCP (Sync Request Clear Exception)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Pre-Add Error Exception Process
9.3 Evaluate Retry Criteria

Actor/Role: C2M(MDM)
Description: If the period of time indicated in the "To Do Retry Frequency" business object state option of the Inbound Sync Request in the Pre-Add Error state has elapsed check if the count of retries is greater than the "To Do Maximum Retries" business object state option.

Process Plug-in enabled	Available Algorithm(s):
	D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
	D1-SETCLEXCP (Set Clear Exception Flag to true)
	D1-TODORETRY (Sync Request Retry for To Do's)
	D1-TRANTONEG (Do Not Clear Exceptions and Transition to Negative State)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required	Entities to Configure:	
		Business Object State Option: To Do Maximum Retries
		Business Object State Option: To Do Retry Frequency

Group: Pre-Add Error Exception Process
9.4 Transition to Pre-Added

Actor/Role: C2M(MDM)
Description: Transition the Inbound Sync Request to the Pre-Added state.

Group: FK Resolution Error Exception Process
9.5 Request to Send Negative Acknowledgement

Actor/Role: C2M Authorized User
Description: A user opts to send a negative acknowledgement to CCB for an Inbound Sync Request that is in the FK Resolution Error state.

Group: FK Resolution Error Exception Process
9.6 Complete To Do and Clear Exceptions

Actor/Role: C2M(MDM)
Description: For an Inbound Sync Request in the FK Resolution Error state any related To Do entries are completed and the Inbound Sync Request's exceptions are removed.

Process Plug-in enabled	Available Algorithm(s):	
		D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
		D1-TODOCOMPL (Generic To Do Completion)
		D1-CLEAREXCP (Sync Request Clear Exception)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: FK Resolution Error Exception Process
9.7 Evaluate Retry Criteria

Actor/Role: C2M(MDM)
Description: If the period of time indicated in the "To Do Retry Frequency" business object state option of the Inbound Sync Request in the FK Resolution Error state has elapsed check if the count of retries is greater than the "To Do Maximum Retries" business object state option.

Process Plug-in enabled	Available Algorithm(s):
	D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
	D1-SETCLEXCP (Set Clear Exception Flag to true)
	D1-TODORETRY (Sync Request Retry for To Do's)
	D1-TRANTONEG (Do Not Clear Exceptions and Transition to Negative State)

Business Object	Business Object
	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
	D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
	D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
	D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
	D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required	Entities to Configure:
	Business Object State Option: To Do Maximum Retries
	Business Object State Option: To Do Retry Frequency

Group: FK Resolution Error Exception Process
9.8 Transition to FKs Resolved

Actor/Role: C2M(MDM)
Description: Transition the Inbound Sync Request to the FKs Resolved state.

Group: Update Error Exception Process
9.9 Request to Send Negative Acknowledgement

Actor/Role: C2M Authorized User
Description: A user opts to send a negative acknowledgement to CCB for an Inbound Sync Request that is in the Updating Error state.

Group: Update Error Exception Process
10.0 Complete To Do and Clear Exceptions

Actor/Role: C2M(MDM)
Description: For an Inbound Sync Request in the Updating Error state any related To Do entries are completed and the Inbound Sync Request's exceptions are removed.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
		D1-TODOCOMPL (Generic To Do Completion)
		D1-CLEAREXCP (Sync Request Clear Exception)

Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Update Error Exception Process
10.1 Evaluate Retry Criteria

Actor/Role: C2M(MDM)
Description: If the period of time indicated in the "To Do Retry Frequency" business object state option of the Inbound Sync Request in the Update Error state has elapsed check if the count of retries is greater than the "To Do Maximum Retries" business object state option.

Process Plug-in enabled **Available Algorithm(s):**

D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
D1-SETCLEXCP (Set Clear Exception Flag to true)
D1-TODORETRY (Sync Request Retry for To Do's)
D1-TRANTONEG (Do Not Clear Exceptions and Transition to Negative State)

Business Object **Business Object**

D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Configuration required **Entities to Configure:**

Business Object State Option: To Do Maximum Retries
Business Object State Option: To Do Retry Frequency

Group: Update Error Exception Process
10.2 Transition to Data Updating

Actor/Role: C2M(MDM)
Description: Transition the Inbound Sync Request to the Updating state.

Group: Additional Processing Error Exception Process
10.3 Request to Synchronize with Error

Actor/Role: C2M Authorized User
Description: A user opts to the Synchronized with Error state which will send a positive acknowledgement to CCB.

Group: Additional Processing Error Exception Process
10.4 Complete To Do and Clear Exceptions

Actor/Role: C2M(MDM)
Description: For an Inbound Sync Request in the Additional Processing Error state any related To Do entries are completed and the Inbound Sync Request's exceptions are removed.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
		D1-TODOCOMPL (Generic To Do Completion)
		D1-CLEAREXCP (Sync Request Clear Exception)
Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)

Group: Additional Processing Error Exception Process
10.5 Enter Synchronized with Error State

Actor/Role: C2M(MDM)
Description: If this is not a Customer to Meter implementation a positive acknowledgement is sent to CCB indicating that the synchronization has been completed. The outbound message's External System is obtained from the Inbound Sync Request. The Outbound Message Type is obtained from the "Outbound Message Type" option of the Inbound Sync Request's Business Object. The details of the message include the Inbound Sync Request's external reference identifier (this is the identifier of the CCB Sync Request). Note in CCB the absence of any exception details in the message

indicates that the synchronization was successful. A log entry is added to the Inbound Sync Request with a reference to the outbound message (if the outbound message is set up to persist).

Process Plug-in enabled	**Available Algorithm(s):**	D1-CREPOSACK (Create Positive Acknowledgement)
Business Object	**Business Object**	D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)
		D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)
Configuration required	**Entities to Configure:**	Business Object Option: Inactive Algorithm - D1-CREPOSACK (C2M)

Group: Additional Processing Error Exception Process

10.6 Evaluate Retry Criteria

Actor/Role: C2M(MDM)
Description: If the period of time indicated in the "To Do Retry Frequency" business object state option of the Inbound Sync Request in the Additional Processing Error state has elapsed check if the count of retries is greater than the "To Do Maximum Retries" business object state option.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
		D1-SETCLEXCP (Set Clear Exception Flag to true)
		D1-TODORETRY (Sync Request Retry for To Do's)
		D1-TRANTONEG (Do Not Clear Exceptions and Transition to Negative State)
		D2-InboundBillCycleSyncRequest (Inbound Bill Cycle Sync Request)
		D1-OngoingSyncRequestContact (Contact Ongoing Sync Request)
		D2-OngoingSyncRequestDynOpt (Dynamic Option Ongoing Sync Request)

Business Object	**Business Object**	D2-OngoingSyncRequestDynOptEvt (Dynamic Option Event Ongoing Sync Request)
		D2-OngoingSyncRequestUS (Usage Subscription Ongoing Sync Request)
		D1-OngoingSyncRequestSP (Service Point Ongoing Sync Request)
Configuration required	**Entities to Configure:**	Business Object State Option: To Do Maximum Retries
		Business Object State Option: To Do Retry Frequency

Group: Additional Processing Error Exception Process
10.7 Transition to Additional Processing

A**ctor/Role:** C2M(MDM)
Description: Transition the Inbound Sync Request to the Additional Processing state.

Group: Validation Error Exception Process
10.8 Analyze Error

A**ctor/Role:** C2M Authorized User
Description: **A** user analyses an error related to a initial load Inbound Sync Request and if required performs the necessary actions to resolve the error.

Group: Validation Error Exception Process
10.9 Request to Discard Inbound Sync Request

A**ctor/Role:** C2M Authorized User
Description: A user opts to discard an Inbound Sync Request that is in the Validation Error state.

Group: Validation Error Exception Process
11.0 Clear Exceptions

A**ctor/Role:** C2M(MDM)
Description: Remove exceptions from an Inbound Sync Request in the Validation Error state.

Process Plug-in enabled	Available Algorithm(s):
	D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
	D1-CLEAREXCP (Sync Request Clear Exception)

Business Object	Business Object
	D1-InitialSyncRequestContact (Contact Initial Sync Request)
	D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
	D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
	D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
	D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Validation Error Exception Process
11.1 Discard Inbound Sync Request

Actor/Role: C2M(MDM)
Description: The Inbound Sync Request enters the Discarded state.

Business Object	Business Object
	D1-InitialSyncRequestContact (Contact Initial Sync Request)
	D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
	D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
	D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
	D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Validation Error Exception Process
11.2 Monitor Validation Error Requests

Actor/Role: C2M(MDM)
Description: The batch process "Initial Sync Request - Error" (Batch Control: D1-SIIER) monitors Inbound Sync Requests that are in the Validation Error state and invokes their monitor algorithms.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)
Customizable process	**Process Name:**	D1-SIIER (Initial Sync Request - Error)

Group: Validation Error Exception Process
11.3 Transition to Transformed/Schema Validated

A**ctor/Role:** C2M(MDM)
Description: Remove an Inbound Sync Request's exceptions and transition the Inbound Sync Request to the Transformed/Schema Validated state.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRDVLE (Sync Request Transition Determinant for Validation Error)
		D1-SETCLEXCP (Set Clear Exception Flag to true)
		F1-AT-RQJ (Transition to Default Next Status (Java))
		D1-GENTRITTR (Skip Monitoring for Validation Error after Initial Iteration)
		D1-CLEAREXCP (Sync Request Clear Exception)
Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Resolution/BO Validation Error Exception Process
11.4 Request to Discard Inbound Sync Request

Actor/Role: C2M Authorized User
Description: A user opts to discard an Inbound Sync Request that is in the Resolution/BO Validation Error state.

Group: Resolution/BO Validation Error Exception Process
11.5 Clear Exceptions

Actor/Role: C2M(MDM)
Description: Remove exceptions from an Inbound Sync Request in the Resolution/BO Validation Error state.

Process Plug-in enabled	**Available Algorithm(s):**	D1-CLEAREXCP (Sync Request Clear Exception)
Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Group: Resolution/BO Validation Error Exception Process
11.6 Monitor Resolution/BO Validation Error Requests

Actor/Role: C2M(MDM)
Description: The batch process "Initial Request-Resolve Keys Contact" (Batch Control: D1-SIKCN) monitors Inbound Sync Requests that are in the Resolution/BO Validation Error state and invokes their monitor algorithms.

Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)
Customizable process	**Process Name:**	D1-SIKCN (Initial Request-Resolve Keys Contact)

Group: Resolution/BO Validation Error Exception Process
11.7 Transition to Keys Resolved/BO Validated

A**ctor/Role:** C2M(MDM)
Description: Remove an Inbound Sync Request's exceptions and transition the Inbound Sync Request to the Keys Resolved/BO Validated state.

Process Plug-in enabled	**Available Algorithm(s):**	D1-GENTRDKRE (Sync Request Transition Determinant for Key Resolution Error)
		D1-SETCLEXCP (Set Clear Exception Flag to true)
		F1-AT-RQJ (Transition to Default Next Status (Java))
		D1-CLEAREXCP (Sync Request Clear Exception)
Business Object	**Business Object**	D1-InitialSyncRequestContact (Contact Initial Sync Request)
		D2-InitialSyncRequestDynOpt (Dynamic Option Initial Sync Request)
		D2-InitialSyncRequestDynOptEvt (Dynamic Option Event Initial Sync Request)
		D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)
		D1-InitialSyncRequestSP (Service Point Initial Sync Request)

Test Documentation related to the Current Process

ID	Document Name	Test Type

Document Control

Change Record

Date	Author	Version	Change Reference
11/01/2015	Srinivas Rao Kanteti	1	Initial Draft
11/15/2015	Galina Polonsky	1	Reviewed
06/26/2015	Angus Mackenzie	2	Altered for C2M
10/5/2016	Chetan Raut	2.1	Updated product and actor names to reflect C2M changes.
10/15/2017	Galina Polonsky	1	Reviewed

Attachments

F1-Sync Request BO Lifecycle

F1-Sync Request BO Lifecycle

D1-SyncRequestSeeder BO Lifecycle

D1-SyncRequestSeeder BO Lifecycle

D1-InitialSyncRequestContact BO Lifecycle

D1-InitialSyncRequestContact BO Lifecycle

D1-OngoingSyncRequestContact BO Lifecycle

D1-OngoingSyncRequestContact BO Lifec

Sync Seeder Master Configuration

Sync Seeder Master Configuration

Master Data Synchronization Configuration Master Configuration

Master Data
Synchronization Conf