



C2M v2.9

4.2.2.3 Manage Item Charges

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Brief Description

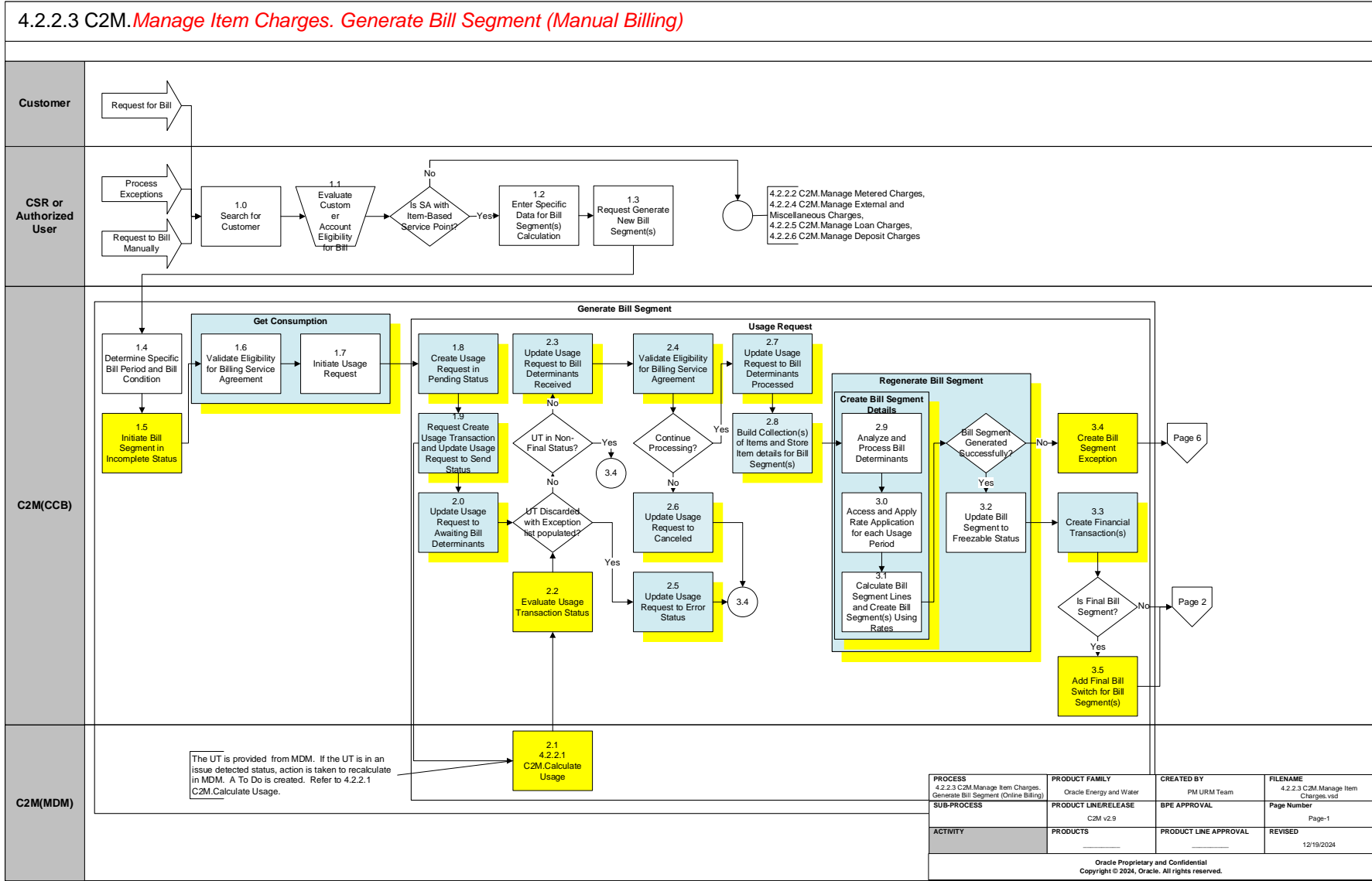
Business Process:	4.2.2.3 C2M.Manage Item Charges Using Bill Determinants
Process Type:	Sub Process
Parent Process:	4.2.2 C2M.Manage Bill
Sibling Processes:	4.2.2.2 C2M.Manage Meter Charges, 4.2.2.4 C2M.Manage External and Miscellaneous Charges, 4.2.2.5 C2M.Manage Loan Charges, 4.2.2.6 C2M. Manage Deposit Charges, 4.2.2.8 C2M.Manage Billing Disputes, 4.2.2.9 C2M.Manage Billing Inquires, 4.2.2.10a C2M.Manage Budget Billing, 4.2.2.10b C2M.Manage Monitored and Unmonitored Non-Billed Budget Billing, 4.2.2.12 C2M.Manage Payment Arrangement Charges

This process describes Billing for Item-based services. Utility Companies may charge for some equipment – badged and non-badged items installed on Service Points Premises due to various reasons. When such an item(s) is installed Utility Company expects to get paid for these items usage.

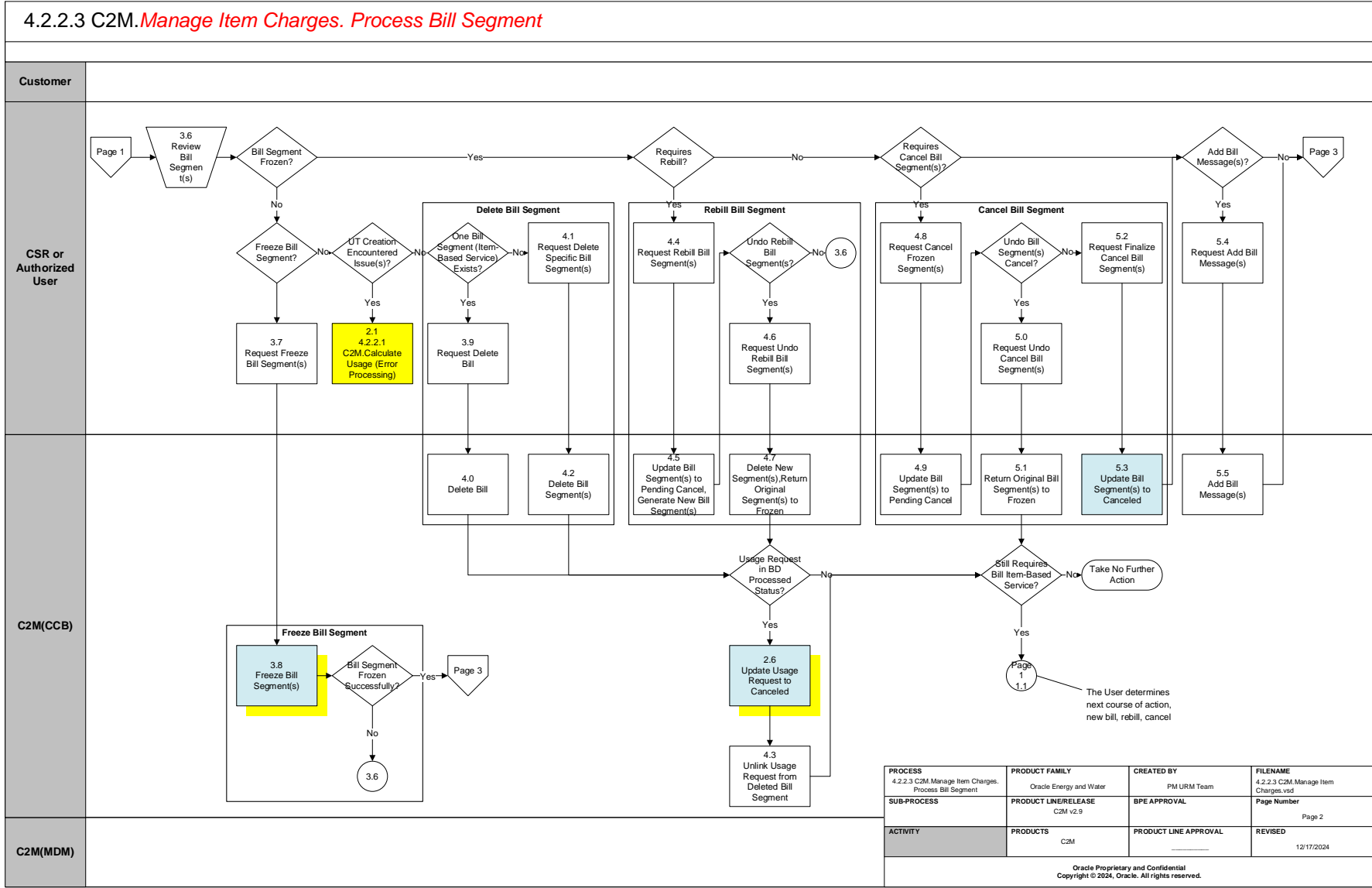
The Billing process evaluates the type and amount (if multiple items are installed), applies appropriate rates and generates Bill(s). Most bills are produced in a Batch Billing process. However, the CSR or Authorized User can create Bills manually if required. If a Bill is generated, but contains error(s) the CSR or Authorized User has the ability to modify the [Bill](#) or [Bill Segment](#).

As soon as a Bill is created, the Company makes it available for the Customer, and every person linked to the Customer's Account who requires a copy of the Bill.

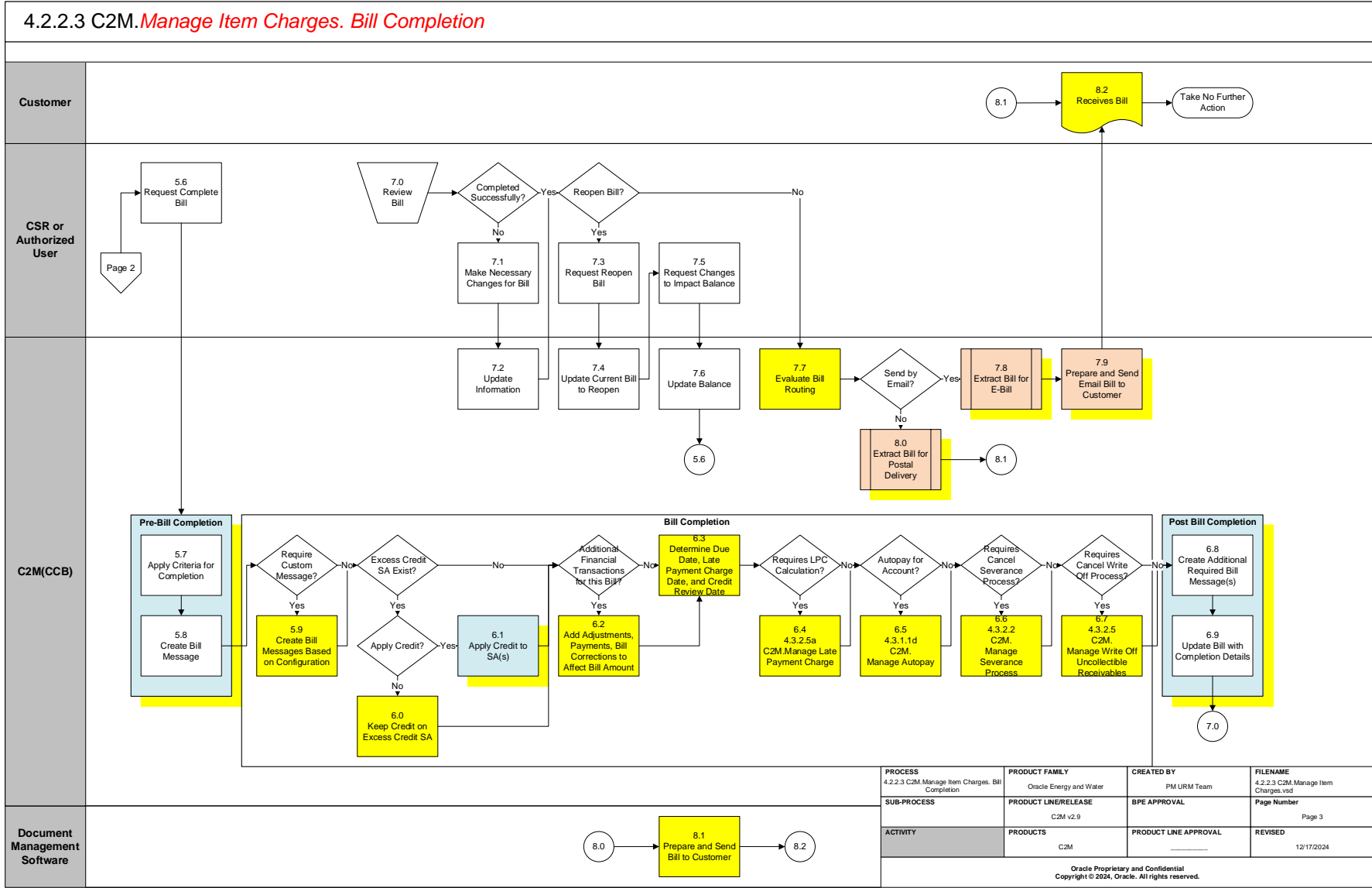
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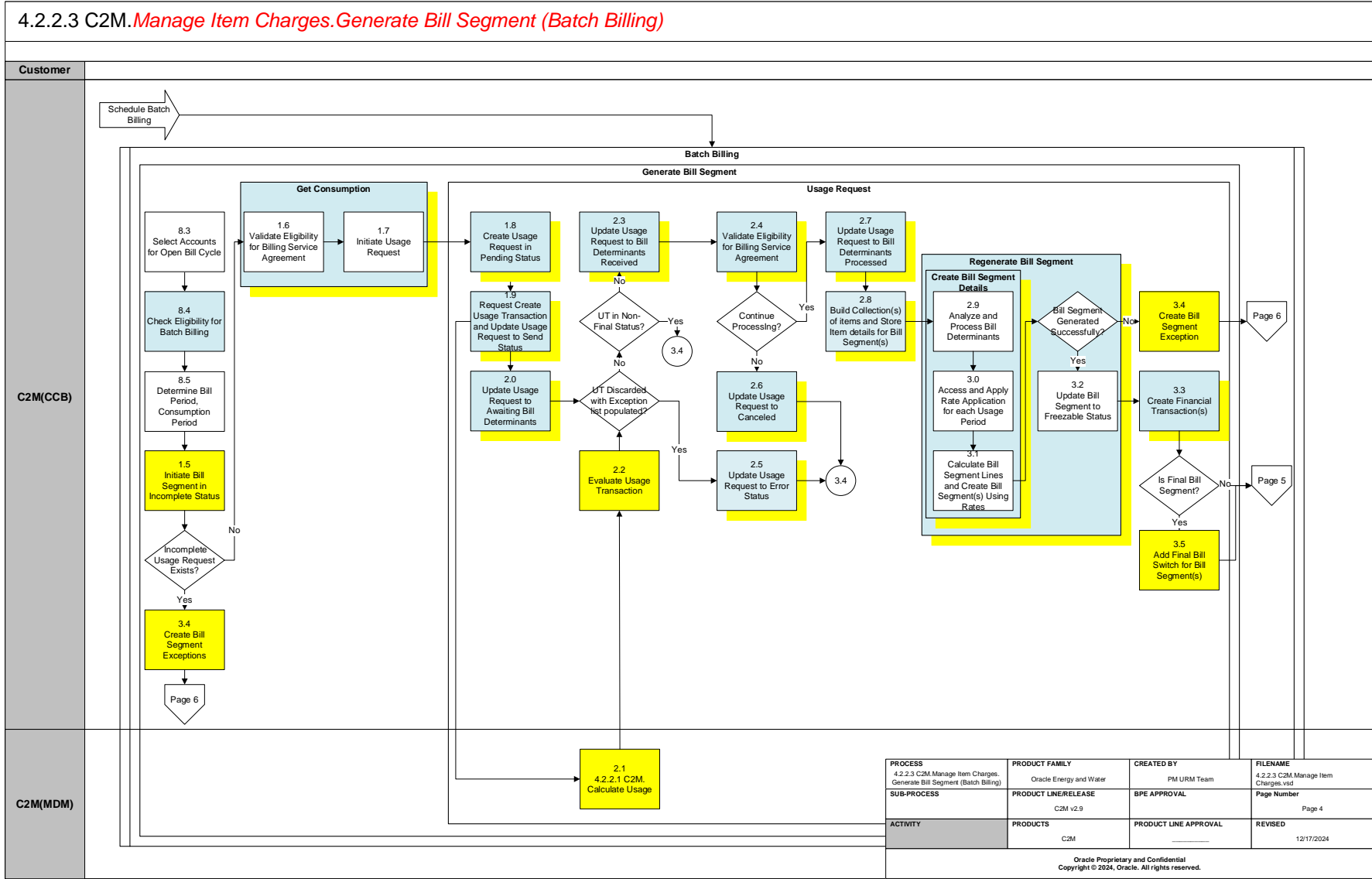
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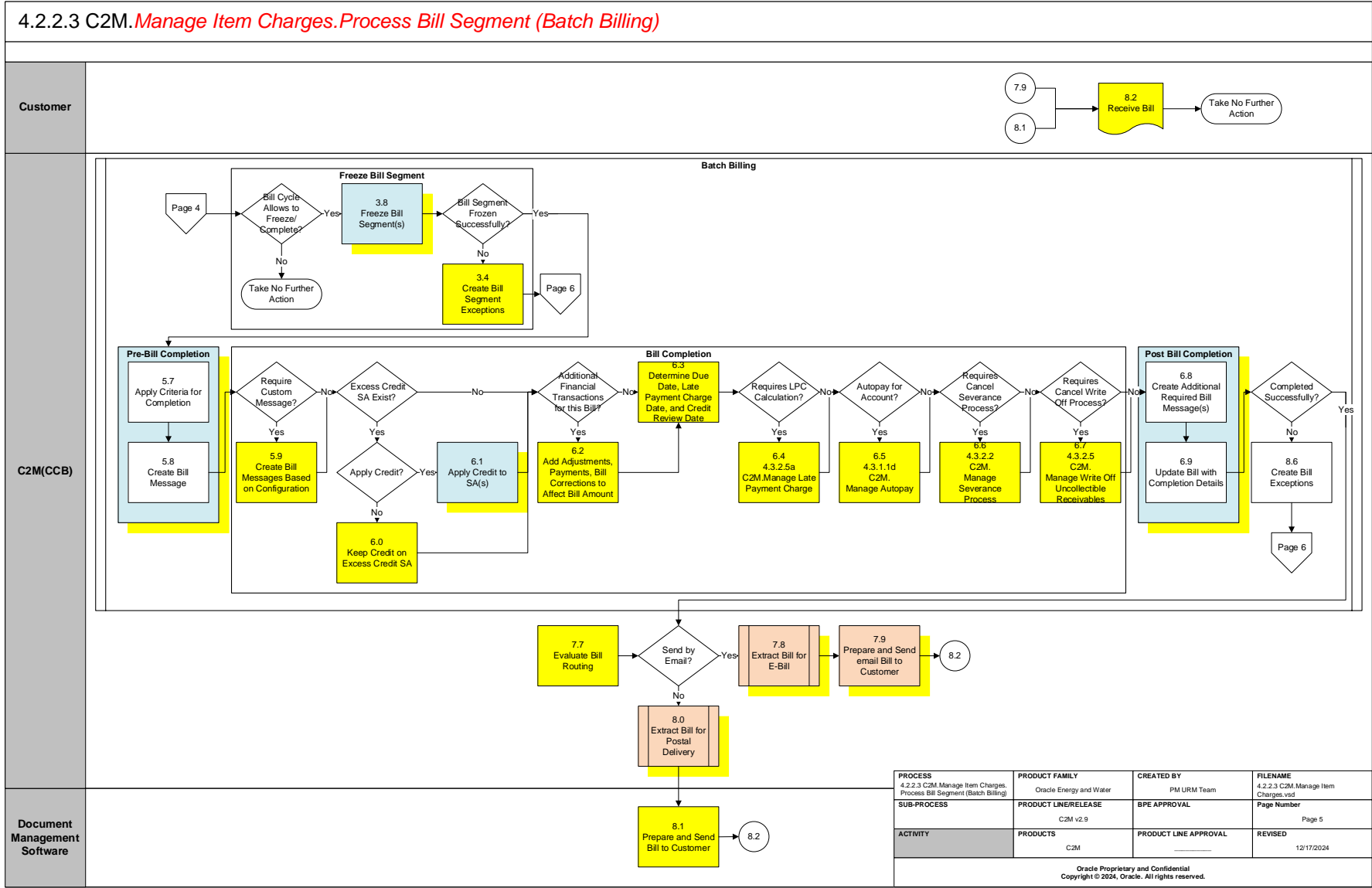
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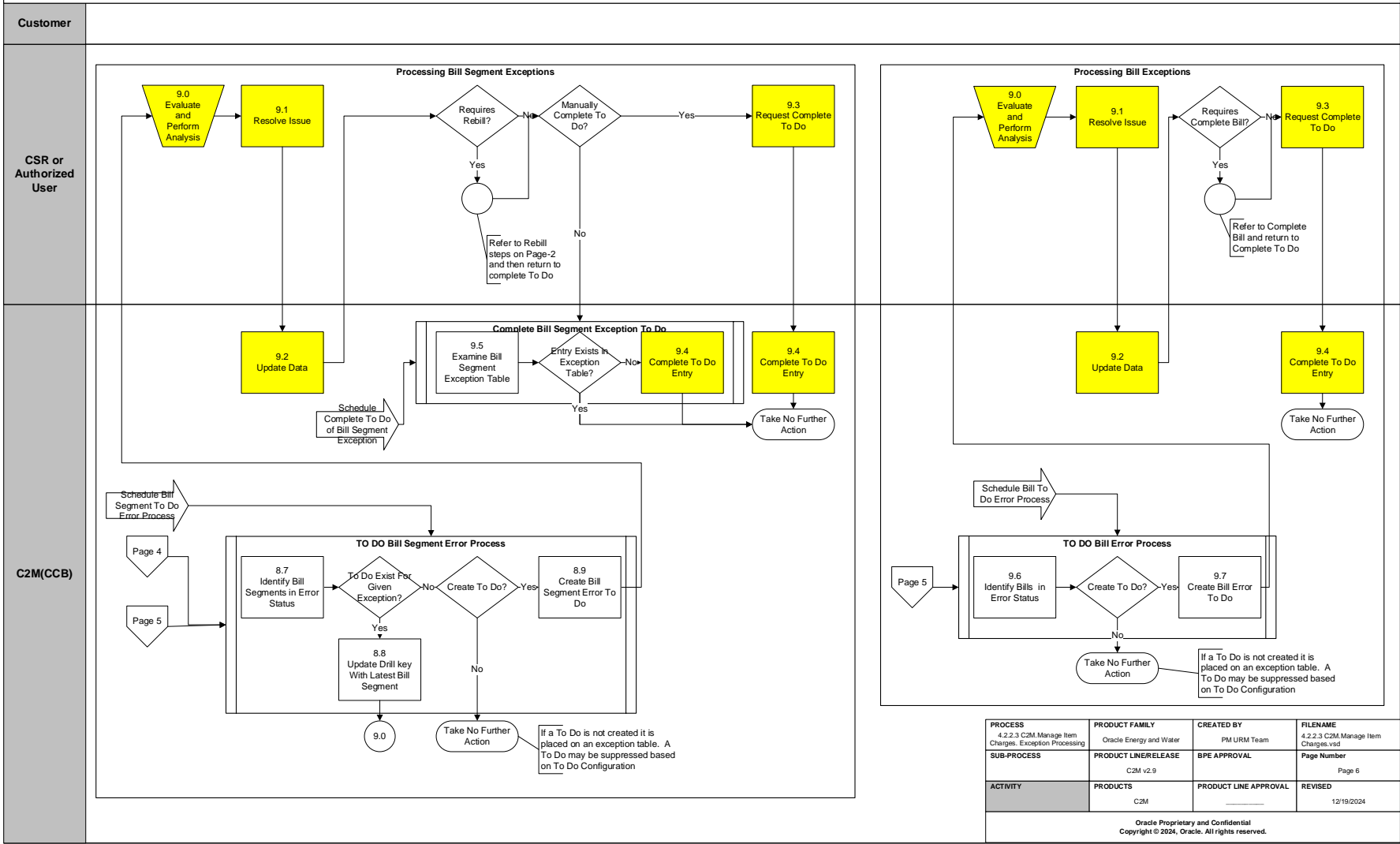


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Business Process Model Page 6

4.2.2.3 C2M.Manage Item Charges. Exception Processing



Detail Business Process Model Description

1.0 Search for Customer

Actor/Role: CSR or Authorized User

Description:

Upon receipt of request or inquiry for Billing, or while processing billing exceptions, the CSR or Authorized User accesses [Control Central Search](#) to locate the customer in C2M(CCB).

Configuration required Y **Entities to Configure:**

Installation Options

1.1 Evaluate Customer Account Eligibility for Bill

Actor/Role: CSR or Authorized User

Description:

C2M(CCB) provides the CSR or Authorized User with valuable insight and overall analysis of the Customer’s financial situation. The CSR or Authorized User evaluates the Customer’s Account. Account Financial History, Premise and Service Agreement Billing History, Credit Rating, and Credit and Collection History may be reviewed. In addition, the 360 view provides Service Point and Usage Subscription details. [Control Central Alerts](#) and other [Dashboard](#) information assists the CSR or Authorized User in determining eligibility for adding new Bill or any rebilling based on established business rules.

Configuration required Y **Entities to Configure:**

Installation Options

1.2 Enter Specific Data for Bill Segment(s) Calculation

Actor/Role: CSR or Authorized User

Description:

If the CSR or Authorized User identifies a need to create a [Bill](#) for the customer, the CSR or Authorized User provides information about the Billing period for the bill to be created. The CSR or Authorized User must specify a Cutoff Date or Use Schedule to determine the end date of each Bill Segment Bill period. The Accounting Date defaults to current date however the CSR or Authorized User may change this date based on established business rules.

1.3 Request Generate New Bill Segment(s)

Actor/Role: CSR or Authorized User

Description:

The Manual billing process consists of several steps. The first step is to request system to calculate and create the Bill and Bill Segment. The CSR or Authorized User requests to generate a new online [Bill](#). This online Bill may contain one or more segments. If only one Service Agreement exists for the Account, then only one Bill Segment is created.

Note: The “Generate” function is used when creating a new Bill, Bill Segment, or re-generating an existing freezable or error segment. A deleted [Bill Segment](#) may be generated again once information is changed.

Customizable Process N **Process Name:**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y **Entities to Configure:**

Bill Cycle

1.4 Determine Specific Bill Period and Bill Condition Group: Generate Bill Segment

Actor/Role: C2M(CCB)

Description:

C2M(CCB) determines the Bill Period boundaries.

Bill segments produced for a service agreement have two time periods:

- The bill segment period. The bill segment period defines the entire period of time covered by a bill segment's charges.
- The consumption period. The consumption period defines the period of time used to calculate the number of days for daily charges.

Bill Segment Start date:

- If this is the initial Bill Segment for the Service Agreement, the start date is set to the start date of the Service Agreement
- If this is not the initial Bill Segment for the Service Agreement, the start date is the previous Bill Segment's end date.

Bill Segment End Date

- If this is the last (final) Bill Segment for the Service Agreement, the end date is the Service Agreement's end date
- If this is not the last (final) Bill Segment for the Service Agreement, the Billing Option selected by the Authorized User determines how the end data is set. When Billing Option of Use Cutoff Date is selected, the end date is the specified Cutoff Date. When Billing Option of Use Schedule is selected, the end date is determined by available measurement data based on the Service Agreement's Service Point's measurement cycle.

The consumption period almost always starts one day after the bill segment period. The only time this true is the first bill segment that's produced for a new service agreement. This is because different utilities count the first day of a new service agreement differently than others. This is controlled by configuration of SA Type Initial Start Date Option.

The consumption period always ends on the bill segment's end date

The bill condition is noted on the Usage Request. Valid bill conditions are: initial, interim or final.

Note: The system ignores Service Points that are not billable, disconnected before the Bill period started, or are yet to be connected as of the Bill end date.

Customizable process N **Process Name:**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Bill Cycle
Frequency
Bill Segment Type and associated algorithms
Rates
SA Types

1.5 Initiate Bill Segment in Incomplete Status Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) initiates the bill in an incomplete status. Typically, this status is not viewable to the authorized user in an online scenario. In a specific exception process, the user may create a Bill and make use of functionality to save a bill segment in incomplete status. In this exception process, the user will be able to view the bill segment.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

1.6 Validate Eligibility for Billing Service Agreement Group: Get Consumption
Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

The C2M(CCB) Bill Segment Type Get Consumption algorithm has specific logic for service agreements that require bill determinants from MDM.

The system checks if the SA should be skipped from billing by checking the MDM Next Scheduled Read Date characteristic on the Service Agreement. If this date is populated and is in the future, the SA will be skipped from billing.

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

C1-BSGC-USG - This Bill Segment Type Get Consumption algorithm should only be specified on bill segment types used for service agreements that require bill determinants from MDM.
--

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

1.7 Initiate Usage Request Group: Get Consumption
Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

The C2M(CCB) Bill Segment Type Get Consumption algorithm’s logic is used for service agreements that require bill determinants from MDM. This logic initiates the Usage Request. If the Service Agreement is not skipped for billing, the usage request business object is initiated.

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

C1-BSGC-USG - This Bill Segment Type Get Consumption algorithm should only be specified on bill segment types used for service agreements that require bill determinants from MDM.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

1.8 Create Usage Request in ‘Pending’ Status Group: Usage Request
Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) creates a new [Usage Request](#) to be linked to the current bill segment being created or reprocessed.

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

F1-TRN-DF-NS - Generic Business Object Status Monitor - This algorithm type transitions business object current state to the input Next Status or to the status related to the input Next Transition Condition.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Business Object Y **Business Object**

The Parent Business Object as well as the two associated Child Business Objects are listed here for applicable Usage Request Statuses. Algorithms defined in the Business Object are shown at the

applicable lifecycle status. Separate Business Objects are defined for Batch Billing (cyclical) and Online (non-cyclical).
X1-UsageRequest - Usage Request - This business object defines the behavior of a usage request.
X1-UsageRequestCyclical – Cyclical Billing Usage Request - This business object defines the behavior of a usage request created from the cyclical or batch billing process.
X1-UsageRequestNonCyclical – Non-Cyclical Billing Usage Request - This business object defines the behavior of a usage request created from non-cyclical or online bill generation.

1.9 Request Create Usage Transaction and Update Usage Request to Send Status Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M(CCB)

Description:

The Usage Request information is provided for MDM to create the Usage Transaction. The Usage Request is updated to a Send Status.

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

F1-TRN-DF-NS - Generic Business Object Status Monitor - This algorithm transitions business object current state to the input Next Status or to the status related to the input Next Transition Condition.
X1-SENDUSGR – This algorithm creates usage transaction.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.0 Update Usage Request to Awaiting Bill Determinants Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M(CCB)

Description:

C2M(CCB) waits for the usage to be processed by C2M(MDM) and transitions the Usage Request to ‘Awaiting Bill Determinants’ status and monitors for next status.

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

X1-UPDURFRUT - This algorithm updates the usage request based on the response of the MDM Usage Transaction.
F1-TRN-DF-NS - Generic Business Object Status Monitor - This algorithm transitions business object current state to the input Next Status or to the status related to the input Next Transition Condition.

2.1 4.2.2.1 C2M.Calculate Usage Group: Batch Billing
Group: Generate Bill Segment

Actor/Role: C2M(MDM)
Description:
C2M(MDM) processes the usage request from C2M(CCB) and calculates the usage for use in billing. If the Usage Transaction is in an ‘Issue Detected’ status, a To Do is created and action is taken to recalculate in MDM. **Refer to 4.2.2.1 C2M. Calculate Usage for calculation logic.**

2.2 Evaluate Usage Transaction Status Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M(MDM)
Description:
C2M(CCB) evaluates the Usage Transaction from C2M(MDM) and determines the next status to transition the Usage Request.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.3 Update Usage Request to Bill Determinants Received Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M(CCB)
Description:
If no exceptions were encountered and C2M(MDM) has successfully returned a calculated usage, C2M(CCB) sets the status of the Usage Request to ‘Bill Determinants Received’.

Note: A “summary” account refers to an account with service agreements related to more than one premise. If these premises are linked to service points that span different measurement cycle routes scheduled for reading on different dates, there’s no guarantee that all the account’s SAs will be billed at the same time.

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

F1-TRN-DF-NS - Generic Business Object Status Monitor - This algorithm transitions business object current state to the input Next Status or to the status related to the input Next Transition Condition.
C1-CURUBSKSA This algorithm processes skip information from the usage response. If the usage response indicates that a usage request's SA should be skipped, this algorithm performs the following: - Update next read date schedule on SA characteristic. - Update bill segment exception indicating that usage request was canceled because SA was skipped. - Cancel the usage request. An SA may be skipped from billing if it belongs to a summary billed account (i.e. an account with SAs that cover multiple premises). If the premises are linked to SPs that span different measurement cycle routes scheduled for reading on different dates, there is no guarantee that all the account's SAs will be billed at the same time. If MDM detects that one of the account's SAs should be skipped, it returns this information along with the next read date schedule as part of the usage response.
C1-CHK-MBDAY This algorithm checks if the minimum bill days of the SA Type of the SA related to the non-closing usage request is violated. If it is violated, the usage request will be canceled, the SA Skip flag of the usage request will be set to true, and the bill segment exception will be updated with an error message indicating the reason for skipping the SA.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.4 Validate Eligibility for Billing Service Agreement Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M(CCB)

Description:

C2M(CCB) determines if the Usage Request is eligible to transition to the next status. The process also checks for sub usage requests. In this state, C2M(CCB) checks if the SA should be skipped for billing, due to Summary billing and if the minimum number of days have been reached for billing.

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

See algorithm descriptions from process Update Usage Request to Bill Determinants Received above. If the usage response indicates that a usage request's SA should be skipped, this algorithm performs the following:

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.5 Update Usage Request to Error Status Group: Batch Billing
Group: Generate Bill Segment
Group: Usage Request

Actor/Role: C2M

Description:

C2M(CCB) updates the Usage Request to Error status if the Usage Transaction cannot be provided, is discarded and an exception list is populated. If an error is encountered, this will trigger a creation of the bill segment exception.

2.6 Update Usage Request to Canceled Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) checks if there is a pending Usage Request linked to the bill being processed (for online it implies that a user is regenerating the bill segment). If found, the existing usage request is canceled. If Update Usage Request to Canceled, from online billing, that usage request is in incomplete status and a new usage request needs to be initiated.

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

Note: There are currently no base algorithms available for this Business Object plug-in spot.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

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

Note: There are currently no base algorithms available for this Business Object plug-in spot.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.7 Update Usage Request to Bill Determinants Processed Group: Batch Billing

Group: Generate Bill Segment

Group: Usage Request

Actor/Role: C2M(CCB)

Description:

C2M(CCB) updates the usage request with status of 'Bill Determinants Processed' if the usage transaction was not skipped in C2M(MDM) and is not in error.

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

Note: There are currently no base algorithms available for this Business Object plug in spot.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.8 Build Collection(s) of Items and Store Item details for Bill Segment(s) Group: Batch Billing

Group: Generate Bill Segment

Group: Usage Request

Actor/Role: C2M(CCB)

Description:

The Bill Determinant (item) information and service quantity(s) are copied from the usage request to the bill segment item.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

2.9 Analyze and Process Bill Determinants Group: Generate Bill Segment

Group: Create Bill Segment Details

Group: Batch Billing

Group: Regenerate Bill Segment

Actor/Role: C2M(CCB)

Description:

The Bill Determinant (item) information is passed along to analyze and process the bill determinant information and prepare for calculating the bill segment details.

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

C1-BSBS-UR - This bill segment creation algorithm creates a bill segment for a service agreement that requires bill determinants

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

3.0 Access and Apply Rate Application for each Usage Period Group: Generate Bill Segment

Group: Create Bill Segment Details

Group: Batch Billing

Group: Regenerate Bill Segment

Actor/Role: C2M(CCB)

Description:

This bill segment creation algorithm creates a bill segment for a service agreement that requires bill determinants from a meter data management system.

The algorithm finds the usage request linked to the bill segment in the bill determinants received state. It retrieves the usage period's list that contains an entry for each usage period that MDM calculated bill determinants for. Rate application is called for each entry in the usage period list; the usage period and bill determinants are passed to rate application.

Note the following about the resultant bill segment:

- A separate bill segment calculation header is created for each usage period in the list. Each calculation header reflects the consumption period used
- Both the usage period and the SP usage period list entries will be stored as 'Service Quantity' records in the bill segment Calculation/ Audit Usage Details.
- The usage period returned by MDM is also captured on the bill segment.
- If any reads details are found on the usage request, these are stored as 'Calculation/ Audit Read Details' records.
- After all usage period list entries have been processed; the system accumulates the bill determinants and stores these in the bill segment SQ collection for informational purposes.

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

C1-BSBS-UR - This bill segment creation algorithm creates a bill segment for a service agreement that requires bill determinants

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing

Configuration required Y

Entities to Configure:

process creates a Bill for account when requested by an Authorized User.
Rates Note: - The following calculation rules have an indicator on whether to be executed only once for the entire usage period or for every usage period: Apply To, - Summary, Calculate Service Quantity. - The Calculate Usage Days Derive Value algorithm has an option whether to return the number of days based on consumption/per usage period or the total usage consumption period.
SA Type
Bill Segment Type

3.1 Calculate Bill Segment Lines and Create Bill Segment(s) Using Rates Group: Generate Bill Segment
Group: Create Bill Segment Details
Group: Batch Billing
Group: Regenerate Bill Segment

Actor/Role: C2M(CCB)

Description:

C2M(CCB) passes the consumption information to rates to calculate the Bill Segment. Depending on the rate engine used, either the Calculation Groups/Calculation rules or the Rate Components are used to build the Bill Segment calculation lines..

Note the following about the resultant bill segment:

- A separate bill segment calculation header is created for each usage period in the list. Each calculation header reflects the consumption period used
- Both the usage period and the SP usage period list entries will be stored as 'Service Quantity' records in the bill segment Calculation/ Audit Usage Details.
- The usage period returned by MDM is also captured on the bill segment.
- If any reads details are found on the usage request, these are stored as 'Calculation/ Audit Read Details' records.
- After all usage period list entries have been processed; the system accumulates the bill determinants and stores these in the bill segment SQ collection for informational purposes.

Process Plug-in enabled Y

Available Algorithm(s):

C1-BSBS-UR - This bill segment creation algorithm creates a bill segment for a service agreement that requires bill determinants
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Customizable process N

Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing
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Configuration required Y

Entities to Configure:

process creates a Bill for account when requested by an Authorized User.
Rates, Calculation Groups/Calculation Rules or Rate Components with associated Rate Related Algorithms.

3.2 Update Bill Segment to Freezable Status Group: Generate Bill Segment
Group: Batch Billing
Group: Usage Request
Group: Regenerate Bill Segment

Actor/Role: C2M(CCB)
Description:
C2M(CCB) updates the bill segment to freezable status.

Process Plug-in enabled N

Available Algorithm(s):

X1-USG-BTBS - Regenerate Batch Bill Segment
X1-USG-ONBS - Regenerate Online Bill Segment

3.3 Create Financial Transaction(s) Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)
Description:
C2M(CCB) creates the associated financial details related to the Bill Segment. The Financial Transaction contains the financial effects of the Bill Segment on the Service Agreement’s current and payoff balances and on the General Ledger.

Process Plug-in enabled Y

Available Algorithm(s):

BSBF-BA - This Bill Segment financial transaction algorithm creates a financial transaction for a Bill Segment where: - Payoff amount = Bill amount - Current amount = Bill amount / zero / recurring charge amount BSBF-CU - This bill segment financial transaction algorithm creates a financial transaction for a bill segment where: - Payoff amount = 0 - Current amount = 0 - The general ledger is affected. Distribution codes are taken from the bill lines (typically these GL accounts are credited) and the SA type (typically this GL account is debited). C1-C0-GL - This bill segment financial transaction algorithm creates a financial transaction for a bill segment where:- Payoff amount = bill amount
--

- Current amount = 0- The general ledger is affected
 C1-C0-NOGL - This bill segment financial transaction algorithm creates a financial transaction for a bill segment where:- Payoff amount = bill amount - Current amount = 0- The general ledger is not affected.
 CI_BSGFTDIST - Payoff Amt = Bill Amt / Current Amt = Amt Due (Checks bill segment CLOB for GL details)

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required N Entities to Configure:

Bill Segment Type

3.4 Create Bill Segment Exception Group: Batch Billing
Group: Generate Bill Segment
Group: Freeze Bill Segment

Actor/Role: C2M(CCB)

Description:

If a freezable or frozen Bill Segment cannot be created, C2M(CCB) creates a [Bill Segment](#) in "error" status with a message that can be analyzed by a CSR or Authorized User. Typically, errors are caused by missing or incomplete data. The error may be reviewed when first created or left when Batch Billing and the bill window is open and the system looks for the missing data. Data may be changed before Batch Billing next runs. When the Batch Billing process next runs, it deletes all "error" Bill Segment(s) and attempts to recreate them. It continues this throughout the Bill window. If a Bill Segment(s) is still in error at the end of the Bill window, a user must intervene and fix them. If the Bill Segment(s) is still in error when the cycle's next window opens, a Bill error is generated by batch Billing.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

TD-BSERR - This process creates a To Do entry for every bill segment that's in error.

TD-BIERR - This process creates a To Do entry for every bill that's in error.

Configuration required N Entities to Configure:

To Do Role(s) for base TD-BSERR and TD-BIERR To Do Types

3.5 Add Final Bill Switch for Bill Segment(s) Group: Generate Bill Segment
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

If this is the final Bill Segment for this Service Agreement, it is marked as a closing Bill Segment.

Note: The Service Agreement must be stopped for this switch to be turned on.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required N Entities to Configure:

Installation Options – Final Bill Threshold

3.6 Review Bill Segment(s)

Actor/Role: CSR or Authorized User

Description:

If the bill was created online (rather than by the batch process), the CSR or Authorized User reviews the Bill Segment for accuracy and determines the next action. The CSR or Authorized User decides if billing process could be continued, Bill Segment is incorrect, or created by mistake and needs to be deleted, rebilled, or canceled

3.7 Request Freeze Bill Segment(s)

Actor/Role: CSR or Authorized User

Description:

If the CSR or Authorized User does not identify a problem and decides to continue the Billing process, he/she requests to Freeze the [Bill Segment\(s\)](#).

3.8 Freeze Bill Segment(s) Group: Freeze Bill Segment
Group Batch Billing

Actor/Role: C2M(CCB)

Description:

The [Bill Segment\(s\)](#) and associated Financial Transaction are frozen in C2M(CCB). The Bill Freeze Option on the Installation Options controls when a Service Agreement's balance and General Ledger is affected by the Bill Segment and must be configured to meet the organization's accounting practices.

Manual Process- Process is initiated by CSR or Authorized User when they request to Freeze Bill Segments created for Service Agreement.

Automated Process-This is a component of Batch Billing process and gets executed as a part of scheduled batch billing process that runs periodically. Functionality is the same as described in the Manual process.

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

Customizable process N Process Name

BSFZ-EMPTY - This is a Customer Class Bill Segment freeze/cancel algorithm

Configuration required Y Entities to Configure:

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Installation Options – Bill Freeze Options

3.9 Request Delete Bill Group: Delete Bill Segment

Actor/Role: CSR or Authorized User

Description:

During the review process, it is determined the Bill Segment was created incorrectly or by mistake. The CSR or Authorized User requests to delete the Bill or Bill Segment. When a Bill has only one Bill segment, the Bill and the corresponding segment are deleted at the Bill level.

Note: The Bill can be deleted prior to completion when Bill Segments are Freezable or in Error status.

4.0 Delete Bill Group: Delete Bill Segment

Actor/Role: C2M(CCB)

Description:

The Bill is deleted in C2M(CCB) and the financial record is removed from the database. There is no financial impact to the Customer's Account related to the deleted Bill and Bill Segments.

4.1 Request Delete Specific Bill Segment(s) Group: Delete Bill Segment

Actor/Role: CSR or Authorized User

Description:

The CSR or Authorized User determines specific Bill Segment(s) associated with a given Bill require deletion and requests to delete the Bill Segment(s).

4.2 Delete Bill Segment(s) Group: Delete Bill Segment

Actor/Role: C2M(CCB)

Description:

The specific Bill Segments are deleted in C2M(CCB) and the financial records are removed from the database. There is no financial impact to the Customer's Account related to the deleted Bill Segments.

4.3 Unlink Usage Request from Deleted Bill Segment

Actor/Role: C2M(CCB)

Description:

C2M(CCB) unlinks the usage request linked to the bill segment that is being deleted.

4.4 Request Rebill Bill Segment(s) Group: Rebill Bill Segment

Actor/Role: CSR or Authorized User

Description:

If more information is available, or there is further review or investigation, the CSR or Authorized User now determines a need to Rebill the Bill Segment(s). If the problem identified in the frozen Bill Segment has been resolved, the CSR or Authorized User requests to Cancel and Rebill the Bill Segment(s).

Configuration required Y Entities to Configure

Bill Cancel Reasons

4.5 Update Bill Segment(s) to Pending Cancel, Generate New Bill Segment(s) Group: Rebill Bill Segment

Actor/Role: C2M(CCB)

Description:

The original Bill Segment(s) are updated to Pending Cancel, and new Bill Segment(s) created. New unfrozen Financial Transactions are associated with the new freezable Bill Segment.

Configuration required Y Entities to Configure:

Bill Cancel Reasons

4.6 Request Undo Rebill Bill Segment(s) Group: Rebill Bill Segment

Actor/Role: CSR or Authorized User

Description:

The CSR or Authorized User determines not to freeze the new Bill Segment(s). If the undo function is used, the newly generated segment is deleted.

4.7 Delete New Segment(s) and Return Original Bill Segment(s) to Frozen Group: Rebill Bill Segment

Actor/Role: C2M(CCB)

Description:

C2M(CCB) deletes the newly generated segment and returns the original bill segment to frozen. There are no impacts to Financial Transactions.

4.8 Request Cancel Frozen Segment(s) Group: Cancel Bill Segment

Actor/Role: CSR or Authorized User

Description:

The Bill Segment(s) may need to be canceled and not created again. The CSR or Authorized User initiates the Cancel function.

Configuration required Y Entities to Configure:

Bill Cancel Reasons

4.9 Update Bill Segment(s) to Pending Cancel Group: Cancel Bill Segment

Actor/Role: C2M(CCB)

Description:

C2M(CCB) updates the bill segment to pending cancel. The CSR or Authorized User then reviews the bill segment input.

Configuration required Y Entities to Configure:

Bill Cancel Reason

5.0 Request Undo Cancel Bill Segment(s) Group: Cancel Bill Segment**Actor/Role:** CSR or Authorized User**Description:**

The CSR or Authorized User has the option to undo the pending Cancel Bill Segment(s). Prior to the cancellation the CSR or Authorized User determines the [Bill Segment\(s\)](#) should not be canceled, and uses the Undo function.

Configuration required Y Entities to Configure:

Bill Cancel Reasons

5.1 Return Original Bill Segment(s) to Frozen Group: Cancel Bill Segment**Actor/Role:** C2M(CCB)**Description:**

The original [Bill Segment\(s\)](#) are returned to Frozen in C2M(CCB). There is no impact to financial transactions. The Billing process could be resumed.

5.2 Request Finalize Cancel Bill Segment(s) Group: Cancel Bill Segment**Actor/Role:** CSR**Description:**

The CSR or Authorized User confirms the cancellation of Bill Segment(s).

Configuration required Y Entities to Configure:

Bill Cancel Reasons

5.3 Update Bill Segment(s) to Canceled Group: Cancel Bill Segment**Actor/Role:** C2M**Description:**

The existing Bill Segment(s) are updated to Canceled status in C2M(CCB). If a Bill Segment is cancelled, another Financial Transaction is created to reverse the original Financial Transaction. The cancellation Financial Transaction appears on the next Bill produced for the account as a Bill correction.

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

C1-PR-FT-CAN – This Customer Class FT Freeze algorithm is used to prevent cancellation of an FT where Freeze Date/Time is on or before the Conversion Date/Time.
--

5.4 Request Add Bill Message(s)**Actor/Role:** CSR or Authorized User**Description:**

The CSR or Authorized User may add Service Agreement related Bill Messages for a given frozen [Bill Segment\(s\)](#). The CSR or Authorized User may also add Bill Messages at the Account Level. The CSR or Authorized User adds these Bill Messages for an online Bill.

Configuration required Y**Entities to Configure:**

Bill Messages

5.5 Add Bill Message(s)**Actor/Role:** C2M**Description:**

The Bill Message is added in C2M(CCB).

5.6 Request Complete Bill**Actor/Role:** CSR or Authorized User**Description:**

When the CSR or Authorized User are satisfied with the Frozen Bill Segment(s) they initiate the Complete Bill function.

5.7 Apply Criteria for Completion Group: Pre-Bill Completion**Group: Batch Billing****Actor/Role:** C2M**Description:**

Bill Completion is the last and one of the most critical components of the Billing process. The system completes the Bill and it's ready for extract and print. C2M(CCB) uses Pre-Bill Completion algorithms. Based on the requirements, the configured algorithms can delete Bill Segments in error, create Bill messages for the deleted segments, and create a To Do entry.

Manual Process: Based on configuration, additional Bill Messages can be added**Automated Process:** (Batch billing) if required, such algorithms can:

- Delete Bill Segments in error, create Bill Messages for deleted Bill Segments, and create a To Do entry
- Delete bill certain type of Financial Transactions linked to the bill, for example, if only payments exist for newly created bill.
- Skip Bill Completion Action dependent on bill segment status. Additional available pre-bill completion algorithms are listed here.

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

DEL BSEG - This SA Type pre-bill completion algorithm deletes bill segments that are in Error if: 1) the bill is not in Error, 2) the bill is being completed in batch, and 3) the process date matches the bill cycle window end date 4) at least one other frozen bill segment exists that is not in Error.

When a bill segment is deleted, this algorithm also creates a To Do entry (using the To Do Type and To Do Role (if specified) and adds a Bill Message to the bill.

CPBC-DB - This Customer Class pre-bill completion algorithm determines to delete a bill if it only contains frozen financial transactions of given types

Customizable process N	Process Name	C1-CHKBLELIG - This Customer Class pre-bill completion algorithm checks if all Bill Segments on the Bill are Freezable, Frozen or Cancelled. If not, return Skip Bill Completion Action.
		C1-CPBC-TAXT – This Customer Class pre-bill completion algorithm accumulates and compares a bill's tax amount to the threshold amount and regenerates bill segments as necessary to take the threshold into consideration. If a bill's accumulated tax amount is less than the tax threshold amount, then taxes should not be charged.
		C1-CSB-EBC - This algorithm skips completion of a bill until the bill cycle schedule end date. This is only done if the account linked to the bill has a characteristic that matches the Summary Billing Characteristic Type and Characteristic Value parameters defined.
Configuration required Y	Entities to Configure:	BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.
		To Do Type
		To Do Role
		Bill Message
		SA Type
		Customer Class

5.8 Create Bill Message Group: Pre-Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) creates a bill message for the given bill when a bill segment is deleted. The Bill Message code is a parameter for the following algorithm.

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

Customizable process N	Process Name	DEL-BSEG -This Bill pre-completion algorithm deletes Bill Segments that are in Error

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

5.9 Create Bill Messages Based on Configuration Group: Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) can also automatically add - Bill Messages during Bill completion. Bill Messages come from a variety of sources:

- Account Bill Messages
- Customer Class Bill Messages
- Service Agreement related Messages that are linked to Bill Segments
- Rate Schedule Bill Messages
- Service Provider Bill Messages
- Meter Reader Remark Bill Messages
- Ad hoc Messages by CSR or Authorized User
- Custom Background Processes and Algorithm Bill Messages

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Customer Class Bill Messages
Rate Schedule Bill Messages
Account and Service Agreement Bill Messages

6.0 Keep Credit on Excess Credit SA Group: Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

Unless specifically configured as noted in process Apply Credit to SA(s), C2M(CCB) keeps any excess credit on an Excess Credit SA.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

6.1 Apply Credit to SA(s) Group: Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

When specifically defined, C2M(CCB) can transfer an existing credit on an Excess Credit SA to other SA's. Refer to 4.3.1.1 C2M.Manage Payments.
Note: An Excess Credit SA Type may be configured as a one-time charge SA Type, and automatically stopped, or may be allowed to stay in an Active Status for future transactions.

Note: Additional bill completion algorithms are also listed here.

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

C2M-CR-XFER - This SA Type bill completion algorithm will transfer the balance of a credit SA to other SAs linked to the account.
C1-SUP-PR-BL - This Customer Class bill completion algorithm checks if the current bill being completed is for an account that has already been final billed in a previous run. If the account has been final billed, and if the current bill is not the final bill, the bill routings of the current bill will be reset.
C1-CN-BRT - This Customer Class bill completion algorithm suppresses bill routings for credit notes.
C1-CN-RADJ - This customer class bill completion algorithm reverses adjustments for a bill when a credit note is being created and completed for that bill.
C1-CAPBILLMN - This SA Type Bill Completion algorithm creates an entry to bill characteristic to capture the bill month.
C1-CREPPBBM - This SA Type Bill Completion algorithm creates a bill message for prepaid service agreements.
C1-PYOF-DBT - This SA Type Bill Completion algorithm checks the input credit SA's balance. If the balance amount is a credit, it looks for all frozen payments linked to this SA. These frozen payments are used to pay-off the account's outstanding debt via payment transfer.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing
--

Configuration required Y Entities to Configure:

process creates a Bill for account when requested by an Authorized User.

SA Type

Transfer Adjustment Type

6.2 Add Adjustments, Payments, and Bill Corrections to Affect Bill Amount

Group: Bill Completion

Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

During Bill Completion C2M(CCB) adds Adjustments, Payments or Bill corrections not included in the previous Bills to the newly created Bill.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

6.3 Determine Due Date, Late Payment Charge Date, and Credit Review Date

Group: Bill Completion

Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

During Bill Completion, the Due Date, Late Payment Charge Date, and next Credit Review Date are determined and made available as information for the Bill and Account.

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

DUE DT OVRD - This override bill due date algorithm may override a bill's due date.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Customer Class - Due Date, LPC Eligibility, Late Payment Charge Grace Days

6.4 4.3.2.5a C2M.Manage Late Payment Charge

Group: Bill Completion

Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

Accounts that are eligible for Late Payment Charges have charges calculated after the LPC grace days. Refer to 4.3.2.5a C2M.Manage Late Payment Charge.

6.5 4.3.1.1d C2M.Manage Autopay **Group: Bill Completion**
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

An [Autopay](#) payment may be created during Bill Completion. Refer to 4.3.1.1d C2M.Manage Autopay.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

6.6 4.3.2.2 C2M.Manage Severance Process **Group: Bill Completion**
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

The status of a Severance Process can change due to Bill Completion. For example, an excess credit may be transferred to a utility SA that is currently covered by a severance process. Refer to 4.3.2.2 C2M.Manage Severance Process.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

6.7 4.3.2.5 C2M CCB Manage Write Off Uncollectible Receivables **Group: Bill Completion**
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

The status of a Write Off Process or Write Off SA can change due to Bill Completion. For example, an excess credit may be transferred to a utility SA that is currently covered by a Write Off Process. Refer to 4.3.2.5 C2M.Write Off Uncollectible Receivables.

Customizable process N **Process Name**

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

6.8 Create Additional Required Bill Message(s) Group: Post Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) can perform various post Bill completion activities. Additional custom Bill Message(s) can be added to the specific bill.

Note: Post completion activity allows for adding various custom functionality based on business rules to impact/modify the bill overall. Available post completion bill algorithms are shown here.

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

C1-CN-ADNB - This Customer Class post bill completion algorithm recreates adjustments after a credit note is completed. This algorithm is only applicable to credit notes.
C1-CR-BLRVWS - This Customer Class post bill completion algorithm creates a bill review record if a bill has financial transactions with FT GL lines that reference a distribution code with an accounting method of either 'Bill Due Date' or 'Earlier of Bill Due Date and Payment Date'. The Bill Review Batch Job is C1-BLRVW.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Customer Class
Bill Message

6.9 Update Bill with Completion Details Group: Post Bill Completion
Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

All Bill completion details are now updated in C2M(CCB) including any post bill completion messages.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing
--

process creates a Bill for account when requested by an Authorized User.

7.0 Review Bill

Actor/Role: CSR or Authorized User

Description:

If the bill was created by a CSR or Authorized User rather than the batch process, the CSR or Authorized User evaluates the Account and reviews the Bill for accuracy. The Bill may not be in a Complete status. Some data may be missing or has incomplete information. At times, it may be necessary to reopen the most recent Bill. Possibly a payment or adjustment was not included in the original Bill. A Bill Segment may need rebilling and changes reflected in a new Bill.

7.1 Make Necessary Changes for Bill

Actor/Role: CSR or Authorized User

Description:

During Bill Completion, information may be missing or incomplete. One example is the mailing address may be missing. The CSR or Authorized User reviews and resolves the error, enters correct data, and completes the Bill as needed.

7.2 Update Information

Actor/Role: C2M

Description:

C2M(CCB) updates bill information as needed.

7.3 Request Reopen Bill

Actor/Role: CSR or Authorized User

Description:

After reviewing the CSR or Authorized User determines to reopen a Bill for the Customer's account.

7.4 Update Current Bill to Reopen

Actor/Role: C2M

Description:

The current Bill is reopened in C2M(CCB) and available for applicable changes.

7.5 Request Changes to Impact Balance

Actor/Role: CSR or Authorized User

Description:

Based on investigation and established business rules, the CSR or Authorized User requests various changes that impact the balance. Typically, these changes can be: creation of a new Bill Segment, Rebill of a Bill Segment, Cancellation of a Bill Segment, Creation of a Payment or Adjustment, or Cancellation of a Payment or Adjustment.

7.6 Update Balance

Actor/Role: C2M(CCB)

Description:

The financial balance is updated in C2M(CCB).

7.7 Evaluate Bill Routing

Actor/Role: C2M(CCB)

Description:

As C2M(CCB) prepares the bill for the customer, the Bill Routing for the customer is checked to determine the routing method used to deliver the bill to the customer. The Bill Routing Type is defined on the customer’s Account record.

Customizable process Y Process Name

Bill Print Extract

Configuration required Y Entities to Configure:

Bill Route Type
Lookup - Bill Routing Method

7.8 Extract Bill for E-Bill

Actor/Role: C2M(CCB)

Description:

C2M(CCB) prepares required information for alternate delivery of the bill for the customer. This could be through text messaging, web presentation, email, or other communicated presentation. This is custom processing based on individual client needs.

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

BLEX-EX - This Bill Route Type Bill extract algorithm constructs the records that contain the information that appears on a printed Bill for Documaker.
C1-BLEX-XML- This Bill Route Type extract algorithm create XML bill extract records for Documaker.
C1-BLEX-BIP - This Bill Route Type extract algorithm schedules report job in BI Publisher to generate Bill Reports in range.
C1-BLEX-CR - This Bill Route Type extract algorithm prepares the report information needed to create a Bill using a Reporting Engine

Configuration required Y Entities to Configure:

Bill Route Type
Lookup - Bill Routing Method

7.9 Prepare and Send E-Bill to Customer

Actor/Role: C2M(CCB)

Description:

C2M(CCB) prepares required information for alternate delivery through some custom processing. This is a placeholder for any alternate method of bill delivery. This is custom processing based on individual client needs.

Customizable process Y Process Name

Custom Extract for Bill Delivery

8.0 Extract Bill for Postal Delivery

Actor/Role: C2M(CCB)

Description:

C2M(CCB) prepares required billing data and makes the data available for Document Management applications (Documaker and BI Publisher).

Note: An additional custom process may be created to interface with any other Document Management Software as needed.

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

BLEX-EX - This Bill Route Type Bill extract algorithm constructs the records that contain the information that appears on a printed Bill for Documaker.
C1-BLEX-XML- This Bill Route Type extract algorithm create XML bill extract records for Documaker.
C1-BLEX-BIP - This Bill Route Type extract algorithm schedules report job in BI Publisher to generate Bill Reports in range.
C1-BLEX-CR - This Bill Route Type extract algorithm prepares the report information needed to create a Bill using a Reporting Engine

Customizable process N Process Name

POSTROUT - CIPBXBLB

Customizable process Y Process Name

Custom Extract Process

Configuration required Y Entities to Configure:

Bill Route Type
Lookup - Bill Routing Method

8.1 Prepare and Send Bill to Customer

Actor/Role: Document Management Software

Description:

Document Management Software reads and process bill information produced by C2M(CCB). It prints actual bills or prepare bills in another format (e-mail, PDF online format, short message service (SMS)). The bill is made available for the Customer. This is custom processing based on individual client needs.

8.2 Receives Bill

Actor/Role: Customer

Description:

The Customer receives the Bill.

Configuration required Y Entities to Configure:

Bill Route Type

8.3 Select Accounts for Open Bill Cycles Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

For the open bill period, C2M(CCB) selects all accounts to be billed by looking at the account’s bill cycle.

Customizable Process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Bill Cycle

8.4 Check Eligibility for Batch Billing Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) verifies that the account is eligible to be billed.

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

C1-SKIPACCCB - This Customer Class bill eligibility algorithm stops processing an account during batch billing if a completed bill exists for the current bill cycle schedule.

C1-SKIPINACC - This Customer Class bill eligibility algorithm stops processing an “inactive” account if all the following conditions are true:

- There are no billable service agreements
- There are no FTs eligible for sweeping onto the bill
- There are no temporary account messages to be swept onto the bill

Customizable Process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Configuration required Y Entities to Configure:

Customer Class

8.5 Determine Bill Period, Consumption Period Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) determines the Bill Period boundary, and next determines the Consumption Period boundary.

Bill segments produced for a service agreement have two time periods:

- The bill segment period. The bill segment period defines the entire period of time covered by a bill segment's charges.
- The consumption period. The consumption period defines the period of time used to calculate the number of days for daily charges.

Bill Segment Start date:

- If this is the initial Bill Segment for the Service Agreement, the start date is set to the start date of the Service Agreement
- If this is not the initial Bill Segment for the Service Agreement, the start date is the previous Bill Segment's end date.

Bill Segment End Date

- If this is the last (final) Bill Segment for the Service Agreement, the end date is the Service Agreement's end date
- If this is not the last (final) Bill Segment for the Service Agreement, the Billing Option selected by the Authorized User determines how the end data is set. When Billing Option of Use Cutoff Date is selected, the end date is the specified Cutoff Date. When Billing Option of Use Schedule is selected, the end date is determined by available measurement data based on the Service Agreement's Service Point's measurement cycle.

The consumption period almost always starts one day after the bill segment period. The only time this true is the first bill segment that's produced for a new service agreement. This is because different utilities count the first day of a new service agreement differently than others. This is controlled by configuration of SA Type Initial Start Date Option.

The consumption period always ends on the bill segment's end date

The bill condition is noted on the Usage Request. Valid bill conditions are: initial, interim or final.

Note: The system ignores Service Points that are not billable, disconnected before the Bill period started, or are yet to be connected as of the Bill end date.

Customizable Process N	Process Name
Configuration required Y	Entities to Configure:

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

Bill Cycle
Frequency
Bill Segment Type and associated algorithms
Rates

SA Types

8.6 Create Bill Exceptions Group: Batch Billing

Actor/Role: C2M(CCB)

Description:

C2M(CCB) identifies Bills in an error status. They are placed in an exception table and can be made available as To Do entries. If C2M(CCB) determines the bill cannot be completed, a bill exception is created for review by a CSR or Authorized User. For example, if the customer’s mailing address is not defined, the corresponding bill cannot be completed.

Customizable process N Process Name

BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User.

8.7 Identify Bill Segments in Error Status Group: Processing Bill Segment Exceptions
Group: TO DO Bill Segment Error Process

Actor/Role: C2M(CCB)

Description:

C2M(CCB) identifies Bill Segments in error status. C2M(CCB) can create a To Do Entry for every [Bill Segment](#) in error status.

Customizable process N Process Name

TD-BSERR- This background process creates a To Do entry for every Bill Segment that's in error.

Configuration required Y Entities to Configure:

To Do Role (s) for base TD-BSERR To Do Type

8.8 Update Drill key With Latest Bill Segment Group: Processing Bill Segment Exceptions
Group: TO DO Bill Segment Error Process

Actor/Role: C2M(CCB)

Description:

C2M(CCB) helps to eliminate duplication of to do entries for same bill segment in error by validating if there is an existing to do entry for given exception. The TD-BSERR (To Do for Bill Segments in Error) batch control eliminates To Do Entry duplication by updating the drill value to reflect the regenerated Bill Segment ID when an existing To Do Entry is found for the original bill segment.

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

- | |
|---|
| C1-TDCR-DFRL - Default To Do Role via Account/Premise |
| C1-TDCR-CHAR - Link Account/Premise/Person/SA/SP to To Do |
| D1-TDPRCRE - To Do Pre-Creation |
| X1-TDPRCRE - Customer to Meter To Do Pre-Creation |

Customizable process N	Process Name	TD-BSERR- This background process creates a To Do entry for every Bill Segment that's in error.
Configuration required Y	Entities to Configure:	To Do Role(s) for base TD-BSERR To Do Type
		Installation Option Framework- To Do Pre-Creation Algorithms

8.9 Create Bill Segment Error To Do Group: Processing Bill Segment Exceptions
Group: TO DO Bill Segment Error Process

Actor/Role: C2M(CCB)

Description:

C2M(CCB) can create a To Do Entry for every Bill Segment in error status. The To Do functionality allows for online review by a user or group of users. To Do Lists summarize and total entries for different To Do Types. Status of To Do Entries is available for evaluation.

Customizable process N	Process Name	TD-BSERR- This background process creates a To Do entry for every Bill Segment that's in error.
Configuration required Y	Entities to Configure:	To Do Role
		To Do Type

9.0 Evaluate and Perform Analysis Group: Processing Bill Segment Exceptions
Group: Processing Bill Exceptions

Actor/Role: CSR or Authorized User

Description:

The CSR or Authorized User will review the [Bill Segment](#) error and supporting information in C2M. Service Point, Device (Meter) and Read historical information, Device (Meter) Configuration, Activity History, Account, Service Agreement, and Billing History are some of the areas reviewed.

Typically, errors are caused by missing or incomplete information. Based on established business rules, the CSR or Authorized User investigates viable solutions or workarounds for the missing or incomplete information.

9.1 Resolve Issue Group: Processing Bill Segment Exceptions
Group: Processing Bill Exceptions

Actor/Role: CSR or Authorized User

Description:

The CSR or Authorized User resolves the error and enters information into C2M.

9.2 Update Data Group: Processing Bill Segment Exceptions
Group: Processing Bill Exceptions

Actor/Role: C2M(CCB)

Description:

Information required for resolution is updated in C2M

9.3 Request Complete To Do Group: Processing Bill Segment Exceptions
Group: Processing Bill Exceptions

Actor/Role: CSR or Authorized User

Description:

The CSR or Authorized User marks the To Do Entry as complete and requests completion of the To Do Entry. The CSR or Authorized User may add comments or a log entry for future reference.

Note: Completed To Do entries are typically purged after a defined period of time.

9.4 Complete To Do Entry Group: Processing Bill Segment Exceptions
Group: Processing Bill Exceptions
Group: Complete Bill Segment Exception To Do

Actor/Role: C2M

Description:

The To Do Entry is updated to Complete Status in C2M

9.5 Examine Bill Segment Exception Table Group: Complete Bill Segment Exception To Do

Actor/Role: C2M(CCB)

Description:

C2M(CCB) identifies and completes To Do Entries that are "Open" or "Assigned" that were previously created for bill segment exception records, but currently have no entries in the exception table.

Customizable process N	Process Name	C1-CTBSE- Complete To Do of Bill Segment Exception
-------------------------------	---------------------	--

9.6 Identify Bills in Error Status Group: Processing Bill Exceptions
Group: TO DO Bill Error Process

Actor/Role: C2M

Description:

C2M(CCB) identifies Bills in an error status. If C2M(CCB) determines the bill cannot be completed, a bill exception is created for review by a CSR or Authorized User. An associated To Do can be created. For example, if the customer's mailing address is not defined, the corresponding bill cannot be completed.

Customizable process N	Process Name	TD-BIERR - This background process creates a To Do entry for every Bill that's in error.
Configuration required Y	Entities to Configure:	To Do Role(s) for base TD-BIERR To Do Type

9.7 Create Bill Error To Do Group: Processing Bill Exceptions
Group: TO DO Bill Error Process

Actor/Role: C2M(CCB)

Description:

C2M(CCB) can create a To Do Entry for every [Bill](#) in error status. The To Do functionality allows for online review by a user or group of users. To Do Lists summarize and total entries for different To Do Types. Status of To Do Entries is available for evaluation.

Customizable process N	Process Name	TD-BIERR - This background process creates a To Do entry for every Bill that's in error.
Configuration required Y	Entities to Configure:	To Do Role(s) for base TD-BIERR To Do Type

Test Assets related to the Current Process

Testing Asset Sr.No	Use Case	No Of Data sets
1	URM-C2M-4223-001-Manually-Gen-Complete-Bill-For-Accnt-With-Item-Charges	2
2	URM-C2M-4223-002-Manually-Gen-And-Complete-Final-Bill-For-Accnt-With-Item-Charges	2
3	URM-C2M-4223-003-Manually-Gen-Complete-Bill-With-Item-Charges-With-Adjustment	2
4	URM-C2M-4223-004-Manually-Gen-Complete-Bill-With-Item-Charges-Estimated-Read	2
5	URM-C2M-4223-005-Manually-Rebill-Frozen-Bill-Segment-Complete-Bill-With-Item-Charges	2
6	URM-C2M-4223-006-Manually-Gen-Complete-Then-Reopen-Bill-With-Item-Charges	2
7	URM-C2M-4223-007-Manually-Gen-Freeze-Est-Bill-Seg-With-Item-Charge-Rebill	2
8	URM-C2M-4223-008-Submit-Batch-Billing-With-Item-Charges	1

Document Control

Change Record

Date	Author	Version	Change Reference
6/8/09	Colleen King	Draft	No Previous Document
8/31/09	Colleen King		After Review
9/1/09	Colleen King		After Review
9/2/09	Colleen King		After Review
9/3/09	Colleen King		After Review
10/21/10	Geir Hedman		Updated Title and Content page
12/05/10	Sarit Cohen		Display Bill Info update, Tech update
2/9/11	Geir Hedman		Updated Document and Visio
3/25/2011	Conrad Pinili		Updated Document – Process Plug-Ins
10/3/2013	Becky Ray		Updated for v2.4
10/5/2013	Galina Polonsky		Reviewed, Approved
08/28/15	Jane Cuenco Tan		Updated Document and Visio
09/09/2015	Galina Polonsky		Reviewed, Approved
11/20/2017	Jeffrey Young		Updates for C2M item billing using usage request functionality
12/18/2017	Galina Polonsky		Reviewed, Approved
1/3/2018	Colleen King		Update Document and Visio
08/15/2018	Debby Phelps		Update Document and Visio for SP1
09/15/2018	Galina Polonsky		Reviewed, Approved
6/3/2019	Satya Kalavala		Updated format for v2.7
1/21/2020	Antonio Napoli		Changed Filename, Process name as per URM formatting in this document and Visio
03/14/2024	Kunal Nerkar		Updated Document and Visio C2M v2.9
03/18/2024	Line Prado		Reviewed
12/18/2024	Galina Polonsky		Reviewed, Approved

Attachments:

Bill Item

Bill

Bookmark

Next Item

Clear

Save

Refresh

Main

Bill Segments

Bill Routings

Bill Messages

Characteristics

Bill Info

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

Bill ID 141831969433

Account ID 1414619283 Brazil, Mark, Commercial, \$38.46

Bill Status

Complete

Display Bill

Due Date

03-11-2020

Create Date/Time

03-01-2020 5:29:11

Bill Date

03-01-2020

Completion Date/Time

03-01-2020 5:29:12

Late Payment Charge Details

Eligible for Late Payment Charge ☒

Late Payment Charge Date

03-23-2020

Previous Period's Balance	\$19.43	Bill Segment	Current Amount	Status	Remarks
Total Payments	\$0.00	California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385	\$18.74	Frozen	
Total Adjustments	\$0.29				
Total Bill Corrections	\$0.00				
Total Current Billing Charges	\$18.74				
Ending Balance This Period	\$38.46				

Total Generated Charge

\$18.74

Bill Segment Action

Generate

Freeze

Cancel Frozen

Bill Action

Complete

Delete

Reopen

Correction Note

Undo Correction Note

Bill

Bookmark

Next Item

Clear

Save

Refresh

Main

Bill Segments

Bill Routings

Bill Messages

Characteristics

Bill Info

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

Bill ID 141831969433

SA Filter

All

Status Filter

All

Search

Select All

Clear All

0 number of bill segments selected

	Premise	Bill Segment	Current Amount	Status	Remarks	Service Quantity	UOM	Bill Segr
<input type="checkbox"/>	Test,C2MO5.1.5.2-001_463, San Francisco, CA, 94105	California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385	\$18.74	Frozen		348.000000	Kilowatt-Hours	1418717

Bill Segment Actions

Generate

Freeze

Delete

Cancel/Rebill/Freeze

Cancel

Bill

Bookmark

Next Item

Clear

Save

Refresh

Main

Bill Segments

Bill Routings

Bill Messages

Characteristics

Bill Info

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

Bill ID 141831969433

Bill Routing Information

"1" of "1"

Person ID

9142980868 Brazil, Mark

Bill Routing Parameters

Bill Route Type	Route via postal service ▾	Format	* Detailed ▾	Copies	* 1
Sequence	1	Reprint	<input type="checkbox"/>	PO ID	<input type="text"/>
Batch Control	POSTROUT #	39 Do Not Extract	<input type="checkbox"/>	Intercept	<input type="text"/>

Address Information

Name 1	* URM-UTA-SD,Business_8991
Name 2	<input type="text"/>
Name 3	<input type="text"/>
Country	United States of America ▾
Zipcode	94105
Address 1	Test,C2MO5.1.5.2-001_463
Address 2	<input type="text"/>
Address 3	<input type="text"/>
City	San Francisco
County	USA
State	CA California 94105
<div>Validate</div>	

Bill

Bookmark

Next Item

Clear

Save

Refresh

Main

Bill Segments

Bill Routings

Bill Messages

Characteristics

Bill Info

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

Bill ID 141831969433

		Bill Message	Message on Bill	Priority	Insert Code
		<input type="text"/>			

Bill

Bookmark

Next Item

Clear

Save

Refresh

Main

Bill Segments

Bill Routings

Bill Messages

Characteristics

Bill Info

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

Bill ID 141831969433

		Characteristic Type	Sequence	Characteristic Value
		<input type="text"/>	<input type="text"/>	<input type="text"/>

Bill Segment

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

Account ID

1414619283

Brazil, Mark, Commercial, \$38.46

Current Amount

\$18.74

Bill ID

141831969433

Date: 03-01-2020, Complete, Due: 03-11-2020, \$38.46, Monthly bill cycle - day 1 / 03-01-2020

SA ID

1418340385

California / Electric lighting unmetered, E-LIGHT, Active, 01-01-2020, 1418340385

Period

02-01-2020 - 03-01-2020

Usage Period

02-02-2020 2:00:00 PST - 03-02-2020 2:00:00 PST

Bill Cycle

Monthly bill cycle - day 1 / 03-01-2020

Status

Frozen

Closing

Estimated

SQ Override

Item Override

Premise

Test,C2MO5.1.5.2-001_463, San Francisco, CA, 94105

Create Date/Time

03-01-2020 5:29:11

Bill Segment Actions

Generate

Delete

Freeze

Rebill

Init Cancel

Undo

Cancel

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

		Sequence	Item Type	Start Date	End Date	Item Count	Unit of Measure	Daily Service Quantity
+	🗑	*1	*Electric Item - 1000 Watt Mercury Vapor ▾	*02-02-2020 📅	*03-02-2020 📅	*1.00	Kilowatt-Hours ▾	12.0000

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

Service Quantity

		Unit of Measure	Time of Use	SQI	Initial Service Quantity	Billable Service Quantity
+	🗑	KWH	🔍 Kilowatt-Hours	🔍	348.000000	348.000000

Calculation/Audit Usage Details

Final Unit of Measure	Final Time of Use	Final Service Quantity ID	Start Date/Time	End Date/Time	Quantity	Sequence		Service Point ID
Kilowatt-Hours			02-02-2020 2:00:00 PST	03-02-2020 2:00:00 PST	348.000000	1		
Kilowatt-Hours			02-02-2020 2:00:00 PST	03-02-2020 2:00:00 PST	348.000000	2	👍	9927369666

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

Bill Seg Hdr

←

"1" of "1"

→

Sequence

1

Start Date

02-02-2020

End Date

03-01-2020

Amount

\$18.74

Desc on Bill

Street & highway lighting

Rate Version

Ⓢ Electric lighting unmetered 01-01-2000

Sequence	Description on Bill	Calculated Amount	Print	Appears in Summary	Unit of Measure	Time of Use	SQI
1	1 Electric Item - 1000 Watt Mercury Vapor at \$12.00 per item	\$12.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Kilowatt-Hours		
2	Energy charge: 348.00 kWh at \$0.01936 per kWh	\$6.74	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Kilowatt-Hours		
3	State sales tax 7.5% (100% exempt)	\$0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
4	Tax total	\$0.00	<input type="checkbox"/>	<input type="checkbox"/>			

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

Bill Segment FT

←

"1" of "1"

→

FT Type

Bill Segment

Current Amount

\$18.74

Show on Bill

☒

FT ID

141210554929

Posted by KNERKAR on 03-01-2020

Accounting Date

03-06-2020

Linked to Bill on 03-01-2020

Arrears Date

03-01-2020

Sequence	Distribution Code	Amount	Statistics	Statistics Amount	Description
1	R-E-LIGHT	\$-18.74	KWH	348.000000	
3	A/R-UTIL	\$18.74		0.000000	

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

Bill Seg Info

California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment ID *141871790750

		Msg Code	Message on Bill	Priority	Insert Code
+		<div><div>*</div><div></div></div>			

Bill Segment

Bookmark

Clear

Save

Refresh

Main

Items

SQ Details

Calc Lines

Financial Details

Bill Segment Messages

Sub Bill Segment

Usage

Bill Segment Portal

General Information

Bill Segment ID141871790750

Bill Segment InformationCalifornia / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment Usage

Filters: Bill Segment ID 141871790750

	Create Date/Time	Usage	Usage ID
1	03-01-2020 5:29:11	California / Electric lighting unmetered, Bill Determinants Processed, 02-02-2020 - 03-02-2020	141436801502

Bill Segment

Bookmark

Clear

MainItemsSQ DetailsCalc LinesFinancial DetailsBill Segment MessagesSub Bill SegmentUsageBill Segment Portal

General Information

Bill Segment ID141871790750

Bill Seg InfoCalifornia / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill Segment GL Details (CLOB)

Bill Segment IDCalifornia / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Service AgreementCalifornia / Electric lighting unmetered, E-LIGHT, Active, 01-01-2020, 1418340385

Start Date02-01-2020

End Date03-01-2020

Closing Bill Segmentfalse

Bill Segment StatusFrozen

Header Sequence	Line Sequence	Calculated Amount	Source Distribution Code	Target Distribution
-----------------	---------------	-------------------	--------------------------	---------------------

Multi Cancel/Rebill

Multi-Cancel/Rebill

Bookmark

Clear

Save

Refresh

Main

Graph

SA Info

California / Electric lighting unmetered, E-LIGHT, Active, 01-01-2020, 1418340385

SA ID

1418340385

Account ID

1414619283

Brazil, Mark, Commercial, \$38.46

Current Balance

\$38.46

Premise

Test,C2M05.1.5.2-001_463, San Francisco, CA, 94105

Payoff Balance

\$38.46

Select All











































Clear All

2 number of bill segments selected

	Start Date	End Date	Create Date/Time	Amount	Original Amount	Bill Segment Information
<input checked="" type="checkbox"/>	02-01-2020	03-01-2020	03-01-2020 5:29:11	\$18.74		California / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385
<input checked="" type="checkbox"/>	01-01-2020	02-01-2020	01-26-2023 21:42:50	\$19.43		California / Electric lighting unmetered, Frozen, Period: 01-01-2020 - 02-01-2020, \$19.43, 1418340385

Cancel/Rebill/Freeze

Admin Menu/Installation Options/Control Central Alerts

Installation Options - Framework				
Main Messages Algorithms Accessible Modules Installed Products				
		System Event	Sequence Number	Algorithm
+		* Control Central Alert ▾	* 10	 C1LASTCUSTCN  Highlight Last Customer Contact
+		* Control Central Alert ▾	* 20	 C1NOPNCUSTCN  Highlight Number of Open Customer Contacts
+		* Control Central Alert ▾	* 30	 C1CCEXSTACCT  Highlight Comment Exists on Account
+		* Control Central Alert ▾	* 40	 C1ACCTALERTS  Highlight Account Alerts
+		* Control Central Alert ▾	* 50	 C1ACTVWOPROC  Highlight Active Write-off Process
+		* Control Central Alert ▾	* 60	 C1FATYPALMSG  Highlight Field Activity Type Alert Message
+		* Control Central Alert ▾	* 70	 C1SATYPALMSG  Highlight Service Agreement Type Alert Message
+		* Control Central Alert ▾	* 80	 C1HNBBSA  Highlight Non-Billed Budget SA
+		* Control Central Alert ▾	* 90	 C1HNCASHDEP  Highlight Non-Cash Deposit
+		* Control Central Alert ▾	* 100	 C1HPENDSAREL  Highlight Pending SA Relationships
+		* Control Central Alert ▾	* 110	 C1PENDSTOPSA  Highlight Pending Stop SA
+		* Control Central Alert ▾	* 120	 C1PENDFAALRT  Highlight Pending Field Activity
+		* Control Central Alert ▾	* 130	 C1REACTSALRT  Highlight Reactivated SA
+		* Control Central Alert ▾	* 140	 C1PERLNKACCT  Highlight Person Linked to Multiple Accounts

Installation Options - Framework

Main

Messages

Algorithms

Accessible Modules

Installed Products

		System Event ▼	Sequence Number	Algorithm
+	🗑	* To Do Pre-Creation ▼	* 20	X1-TDPRCRE 🔍 Customer to Meter To Do Pre-Creation
+	🗑	* To Do Pre-Creation ▼	* 17	D1-TDPRCRE 🔍 To Do Pre-Creation
+	🗑	* To Do Pre-Creation ▼	* 15	C1-TDCR-CHAR 🔍 Link Account/Premise/Person/SA/SP to To Do
+	🗑	* To Do Pre-Creation ▼	* 10	C1-TDCR-DFRL 🔍 Default To Do Role via Account/Premise

Admin Menu/Installation Options/Billing

Installation Options

BookmarkClearSaveRefresh

MainPersonAccountBillingC&CFinancial Transaction

Bill Segment Freeze Option

* Freeze At Will

Accounting Date Freeze Option

* Change If Period Is Closed

Rollover Threshold Factor

* 0.700

Minimum Amount for Final Bill

\$0.45

User Can Override Bill Date

☒

Use High/Low Failures on Bill

☒

Base Time

2:00:00

Start Day Option

Current Day

Use Alternative Bill ID

☐

Alternative Bill ID Option

Bill Correction Option

Auto Pay Creation Option

* Create At Bill Completion

Control Central Search

Control Central Search

Main

Control Central Search ⓘ

Search By

Name and Address ▾

Name

Mark,Brazil

ⓘ

⌵

Address

City

Postal

CIS Division

▾

Show All Premises

☒

Search

Hide Filters

Person/Account ⓘ	Premise	ID Type	ID Nbr
Mark,Brazil - Home Phone:(415) 093-7829 (Main customer - Acct. 0221264307)	100 Switch Back Road, Apt. 105, Fremont, CA, 94516	Social security number	*****5711

Dashboard

Control Central

Account Information

Customer Information

Account Tree

Premise Tree

Bill/Payment Tree

Payment Agreements

Bookmark

Clear

Save

Refresh

Account Activity History

Account Financial History

	Arrears Date	Financial Transaction Type	Current Amount	Current Balance	Payoff Amount	Payoff Balance
1	03-01-2020	Late payment charge	\$0.29	\$38.46	\$0.29	\$38.46
2	03-01-2020	Bill Segment	\$18.74	\$38.17	\$18.74	\$38.17
3	02-01-2020	Bill Segment	\$19.43	\$19.43	\$19.43	\$19.43

Alerts

2 sync request(s) outstanding

29 day(s) until next bill

Applicable Campaigns

One Off Charges

Bill Graph

Billed Consumption

KWH

400.00

350.00

300.00

250.00

200.00

150.00

100.00

50.00

0.00

03-01-2020

02-01-2020

Billing History

Credit and Collection Info

Customer Information

Field Activity Information

Financial Information

Premise Activity Overview

SA Premise List

Service Credit Membership

Timeline

Current Customer



Customer Information (Map Zone)

Rate Algorithms / Entities to Configure

Entities to Configure

Rate Schedule	Bill Factors
Unit of Measure	Bill Factor Values
Calculation Groups	Characteristics
Calculation Rules	Distribution Codes
Calculation Line Category	Various Algorithm Parameters
Measuring Components	Define Rates on Applicable SA Types
Device Types	Bill Messages
Service Quantity Identifiers	Frequency

Bill Factor Rate Selection Date

<div>Expand Filters</div> <div>Filters: Algorithm Entity Bill Factor - Rate Selection Date</div>					
	Algorithm Type	Description 	Algorithm Entity	Script	Detailed Description
1	C1-BFRDATE	Bill Factor Rate Selection Date	Bill Factor - Rate Selection Date		This bill factor rate selection date algorithm defines how the system retrieves bill factor values o ...
2	C1-MONTHPROC	Month Based Processing	Bill Factor - Rate Selection Date	Month Based Processing 	This algorithm returns the bill segment consumption end date as the reference date used to retrieve ...
3	C1-RETBACCDT	Retrieve Bill Accounting Date	Bill Factor - Rate Selection Date		This bill factor rate selection date algorithm obtains the accounting date stored as bill characteri ...

Various Calculation Rule Algorithms (Using Java Rate Engine)

4.2.2.3 C2M.Manage Item Charges

	Algorithm Type	Description 	Algorithm Entity	
1	C1-ACALR-RFG	Execute Calculation Group	Calc Rule (BO) - Apply Calc Rule	
2	C1-ACRSUBUSG	Get Sub-Usage Request SQ	Calc Rule (BO) - Apply Calc Rule	G
3	C1-APPLYTO	Apply To	Calc Rule (BO) - Apply Calc Rule	
4	C1-CALCCCL	Calculate Climate Change Levy and Relief Charges	Calc Rule (BO) - Apply Calc Rule	
5	C1-CALCFNVL	Calculate Final Reading Value	Calc Rule (BO) - Apply Calc Rule	
6	C1-CALC-SQ	Calculate Service Quantity	Calc Rule (BO) - Apply Calc Rule	
7	C1-CALCVAT	Apply VAT to Cross Referenced Charges	Calc Rule (BO) - Apply Calc Rule	
8	C1-CALMSCCHG	Calculate Miscellaneous Charges	Calc Rule (BO) - Apply Calc Rule	
9	C1-CPY-MB-SQ	Copy Master Bill Segment Service Quantity	Calc Rule (BO) - Apply Calc Rule	C
10	C1-DET-DVTP	Determine Demand Value to Price	Calc Rule (BO) - Apply Calc Rule	
11	C1-FLAT-CHRG	Flat Charge	Calc Rule (BO) - Apply Calc Rule	
12	C1-ITEMTYPE	Item Type	Calc Rule (BO) - Apply Calc Rule	
13	C1-MATH	Math Rule	Calc Rule (BO) - Apply Calc Rule	
14	C1-MAXIMUM	Maximum Charge	Calc Rule (BO) - Apply Calc Rule	
15	C1-MINIMUM	Minimum Charge	Calc Rule (BO) - Apply Calc Rule	
16	C1-SIMP-SUMM	Simple Summary	Calc Rule (BO) - Apply Calc Rule	
17	C1-SQ	Service Quantity	Calc Rule (BO) - Apply Calc Rule	
18	C1-STPD-SQ	Stepped Service Quantity	Calc Rule (BO) - Apply Calc Rule	
19	C1-SUMMARY	Summary	Calc Rule (BO) - Apply Calc Rule	
20	C2M-CALDSTPC	Calculate GL Details Given Percentage Distribution	Calc Rule (BO) - Apply Calc Rule	C

4.2.2.3 C2M.Manage Item Charges

Algorithm Type

BookmarkDuplicateDelete

Main

Algorithm Type

🕒

CI-NOPROR

🔍

Description

*No Proration

This override proration factors algorithm prevents a calculation rule from being prorated.

If the standard proration logic does not satisfy your implementations requirements, an override proration algorithm may be specified to calculate the proration factors required. This algorithm can be referenced on either the calc rule BO, or on the parent calc rule BO if the override proration applies to all rates. In addition, ensure that override proration is set to true on the calculation rule(s).

Detailed Description

Algorithm Entity

*Calc Rule (BO) - Override Proration Factors

Program Type

*Plug-In Script

Plug-In Script

CI-NoPror

🔍No Proration

	Sequence	Parameter	Required	Owner
+🗑	* <div></div>	* <div></div>	<input type="checkbox"/>	

Algorithm Type

BookmarkDuplicateDeleteClear

Main

Algorithm Type

🕒

CI-MS-SQ

🔍

Description

*Multiply Step by SQ

This calc rule algorithm is used to change a "stepped" SQ high and/or low boundaries by multiplying each by the value of a UOM/TOU/SQ.

Whether the multiplication is performed against the Low, High, or Both boundaries is controlled by the value of parameter 4.

Detailed Description

Algorithm Entity

*Calc Rule - Step Multiplier

Program Type


*Plug-In Script

Plug-In Script


CI-MultStpSQ

🔍Multiply Step by SQ


	Sequence	Parameter	Required	Owner
+🗑	*1	*Unit of Measure	<input type="checkbox"/>	Customer Care and Billing
+🗑	*2	*Time of Use	<input type="checkbox"/>	Customer Care and Billing
+🗑	*3	*Service Quantity Identifier	<input type="checkbox"/>	Customer Care and Billing
+🗑	*4	*Manipulate Low, High, Both	<input checked="" type="checkbox"/>	Customer Care and Billing
+🗑	*5	*Prorate - Y or N	<input checked="" type="checkbox"/>	Customer Care and Billing

Algorithm Type Search		
Search By <div>Algorithm Type Information</div>		
<div>Expand Filters</div> Filters: Algorithm Entity Calculation Rule - Derive Value		
	Algorithm Type	Description 
1	C1BILLCRED	Bill Credits For Electric Consolidated Billing
2	C1-CALCBLDYS	Calculate usage days
3	C1CALCDA	Calculate Characteristic Type/ Value if Service Agreement Relationship Types Exist
4	C1-GETNBRMTR	Return Number of Meters
5	C1MDMACRED	MDMA Credits
6	C1MOMSCRED	Meter Ownership and MSP Credits
7	C1SEASDAY	Seasonal Days in a Billing Period
8	C2M-ACCQTY	Accumulate Billable Quantities
9	C2M-CALOTHBS	Calculate Other Bill Segment
10	C2MGETCATAMT	Derive value given target category type/value

Bill Segment – Get Consumption Algorithms

Algorithm Type Search					
Search By		Algorithm Type Information ▾			
Expand Filters		Filters: Algorithm Entity Bill Segment Type - Get Consumption			
	Algorithm Type	Description 	Algorithm Entity	Script	Detailed Description
1	BSGC-MS	Get Consumption From Master Bill Segment	Bill Segment Type - Get Consumption		This algorithm should only be specified on bill segment types that are specified on SA types associated with ...
2	BSGC-SP	Get Consumption From SP's Linked To SA	Bill Segment Type - Get Consumption		This algorithm is used to get consumption from the SPs linked to the SA. Use this algorithm for SAs ...
3	C1-BSGC-USG	Get bill segment consumption using a usage request	Bill Segment Type - Get Consumption		This Bill Segment Type Get Consumption algorithm should only be specified on bill segment types used ...

Adjustment Generation Apply Rate Algorithm

Algorithm Type Search					
Search By		Algorithm Type Information ▾			
Expand Filters		Filters: Algorithm Entity Adjustment Type - Generate Adjustment			
	Algorithm Type	Description 	Algorithm Entity	Script	Detailed Description
1	ADJG-RT	Adjustment Generation - Apply Rate	Adjustment Type - Generate Adjustment		This adjustment generation algorithm is used to calculate an adjustment by calling rate application. ...
2	C1-ADJG-WO	Generate Adjustment - Write Off Bills	Adjustment Type - Generate Adjustment		This adjustment generation algorithm is used to generate a write off adjustment for a given FT based ...

Account/AutoPay

Account

Bookmark

Main

Auto Pay

Persons

Financial Balances

Bill Messages

C & C

Budget

Deposits

Characteristics

Alerts

Account Portal

Account

Brazil, Mark, Commercial, \$38.46

Account Auto Pay

←

"1" of "1"

→ +

🗑

Start Date

01-01-2020

📅

End Date

01-01-2025

📅

Auto Pay ID

1414891150

Auto Pay Source

*

789456124-S

🔍 Bank of America - Savings 789456124

External Account ID

*

*****8734

Expires On

/

Name

*

Brazil, Mark

Maximum Withdrawal Amount

\$0.00

Comments

✎

Usage Request

Usage Request: California / Electric lighting unmetered, Bill Determinants Processed, 02-02-2020 - 03-02-2020

SearchBookmarkRefresh

MainLog

Usage Request

☑ ^

Main

^

Record Information

∨

InformationCalifornia / Electric lighting unmetered, Bill Determinants Processed, 02-02-2020 - 03-02-2020 ☑

StatusBill Determinants Processed

AccountBrazil, Mark, Commercial, \$38.46 ☑

Service AgreementCalifornia / Electric lighting unmetered, E-LIGHT, Active, 01-01-2020, 1418340385 ☑

Bill SegmentCalifornia / Electric lighting unmetered, Frozen, Period: 02-01-2020 - 03-01-2020, \$18.74, 1418340385

Bill CycleMonthly bill cycle - day 1

Window Start Date03-01-2020

Usage Request Details ☑

^

Previous UsageCalifornia / Electric lighting unmetered, Bill Determinants Processed, 01-01-2020 - 02-02-2020 ☑

Bill ConditionInterim

Automated Retry☒

Automated Retry Until Date/Time03-06-2020 23:59:59 PST

Interval Processing Information ☑

^

Start Date/Time02-02-2020 2:00:00 PST

End Date/Time From03-02-2020 2:00:00 PST

End Date/Time To03-02-2020 2:00:00 PST

Usage Response Details ☑

^

Usage Start Date/Time02-02-2020 2:00:00 PST

Usage End Date/Time03-02-2020 2:00:00 PST

Estimated☐

SA Skipped☐

Exception Details

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Messages

Usage Periods ☑

^

Period02-02-2020 2:00:00 PST - 03-02-2020 2:00:00 PST (Interval)

Standard Period02-02-2020 2:00:00 - 03-02-2020 2:00:00

Sequence	UQM	TOU	SQI	Quantity	Seconds Per Interval	SQ Highlight
1	Kilowatt-Hours			348.000000		

Item Information

Sequence	Item Type	Item Count	Start Date/Time	End Date/Time	Daily Service Quantity	UQM
1	Electric Item - 1000 Watt Mercury Vapor	1.00	02-02-2020 2:00:00 PST	03-02-2020 2:00:00 PST	12	Kilowatt-Hours

Service Point Usage Periods ☑

^

Period02-02-2020 2:00:00 PST - 03-02-2020 2:00:00 PST

Service PointTest,C2M05.1.5.2-001_463, San Francisco, CA, 94105 / Electric Unmetered Item (Badged) / Electric / UTA-5152-004-7354 / Read Cycle 02, Route 200 / Active ☑

Sequence	UQM	TOU	SQI	Quantity	Estimation	SQ Highlight
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4.2.2.3 C2M.Manage Item Charges

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Usage Request: California / Electric lighting unmetered, Bill Determinants Processed, 02-02-2020 - 03-02-2020

Main

Log

Usage Request Log

Filters: Usage ID 141436801502

	Date/Time	Details	User	Log Type	Related Object
1	03-01-2020 5:29:12	Transitioned to Bill Determinants Processed.	Nerkar , Kunal (KNERKAR)	Status Transition	
2	03-01-2020 5:29:12	Transitioned to Bill Determinants Received.	Nerkar , Kunal (KNERKAR)	Status Transition	
3	03-01-2020 5:29:12	Transitioned to Awaiting Bill Determinants.	Nerkar , Kunal (KNERKAR)	Status Transition	
4	03-01-2020 5:29:11	Transitioned to Send Request.	Nerkar , Kunal (KNERKAR)	Status Transition	
5	03-01-2020 5:29:11	Created in status Pending.	Nerkar , Kunal (KNERKAR)	Created	