Oracle Utilities Customer Care and Billing

Release 2.3.1

Utility Reference Model

4.2.2.5 Manage Loan Charges

July 2012

Oracle Utilities Customer Care and Billing Utility Reference Model 4.2.2.5, Release 2.3.1

Contents

Chapter 1

Overview

This chapter provides a brief description of the "Manage Loan Charges" business process and associated process diagrams. This includes:

- **Brief Description**
    - **Actors/Roles**

Brief Description

Business Process: 4.2.2.5 Manage Loan Charges

Process Type: Sub Process

Parent Process: 4.2.2 Manage Bill

Sibling Processes: 4.2.2.2 Manage Meter Charges, 4.2.2.3 Manage Item Charges, 4.2.2.4 Manage External and Miscellaneous Charges, 4.2.2.6 Manage Deposit Charges, 4.3.1.1 Payments

This process describes Loan Billing. This process takes place if the Customer has a loan from the Utility Company. There are many reasons why the Utility Company practices to loan money to customers. For example,

-Finance service upgrades (e.g., to change to dual fuel)

-Support economic development (e.g., to extend a power line)

-Promote energy conservation (e.g., customers borrow to insulate their house)

Loans are billed on regular basis similar to other services provided by Utility Company. When the loan billing process is initiated, system bills the customer for the periodic payment amount that calculated based on the specific Utility company business rules and typically contains principal and calculated interest amount.

Most bills are produced in a Batch Billing process. However, the CSR or Authorized User can create Bills for loans manually if required. If a Bill is generated as valid but has missing or incomplete information, the CSR or Authorized User has the ability to modify the bill.

When bill is successfully completed the Utility Company makes it available for Customer.

Actors/Roles

The Manage Loan Charges business process involves the following actors and roles.

- **CC&B**: The Customer Care and Billing application. Steps performed by this actor/role are performed automatically by the application, without the need for user initiation or intervention.
- **CSR CC&B:** CSR or Authorized User of the Customer Care and Billing application.

Chapter 2

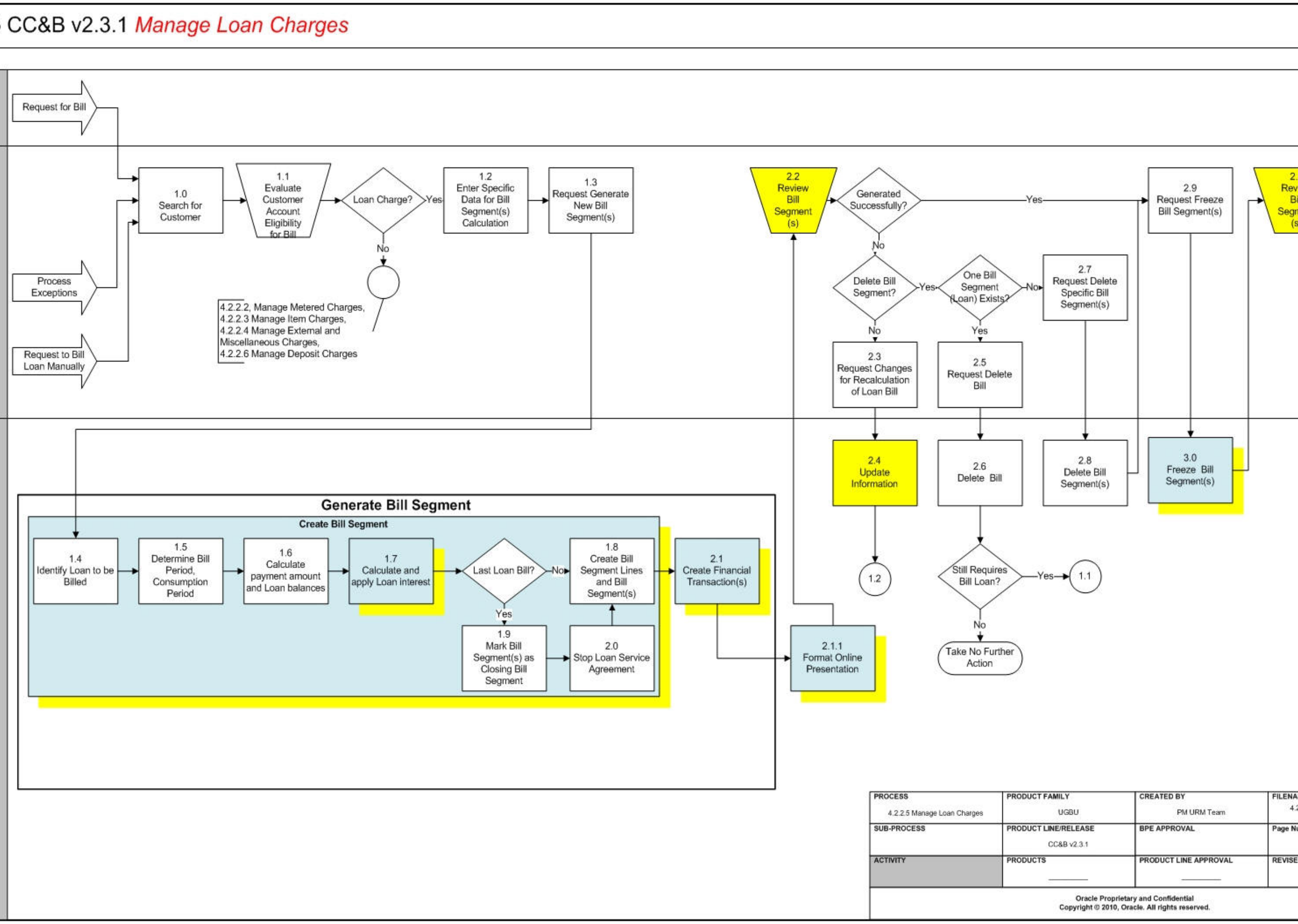
Detailed Business Process Model Description

This chapter provides a detailed description of the Manage Loan Charges business process. This includes:

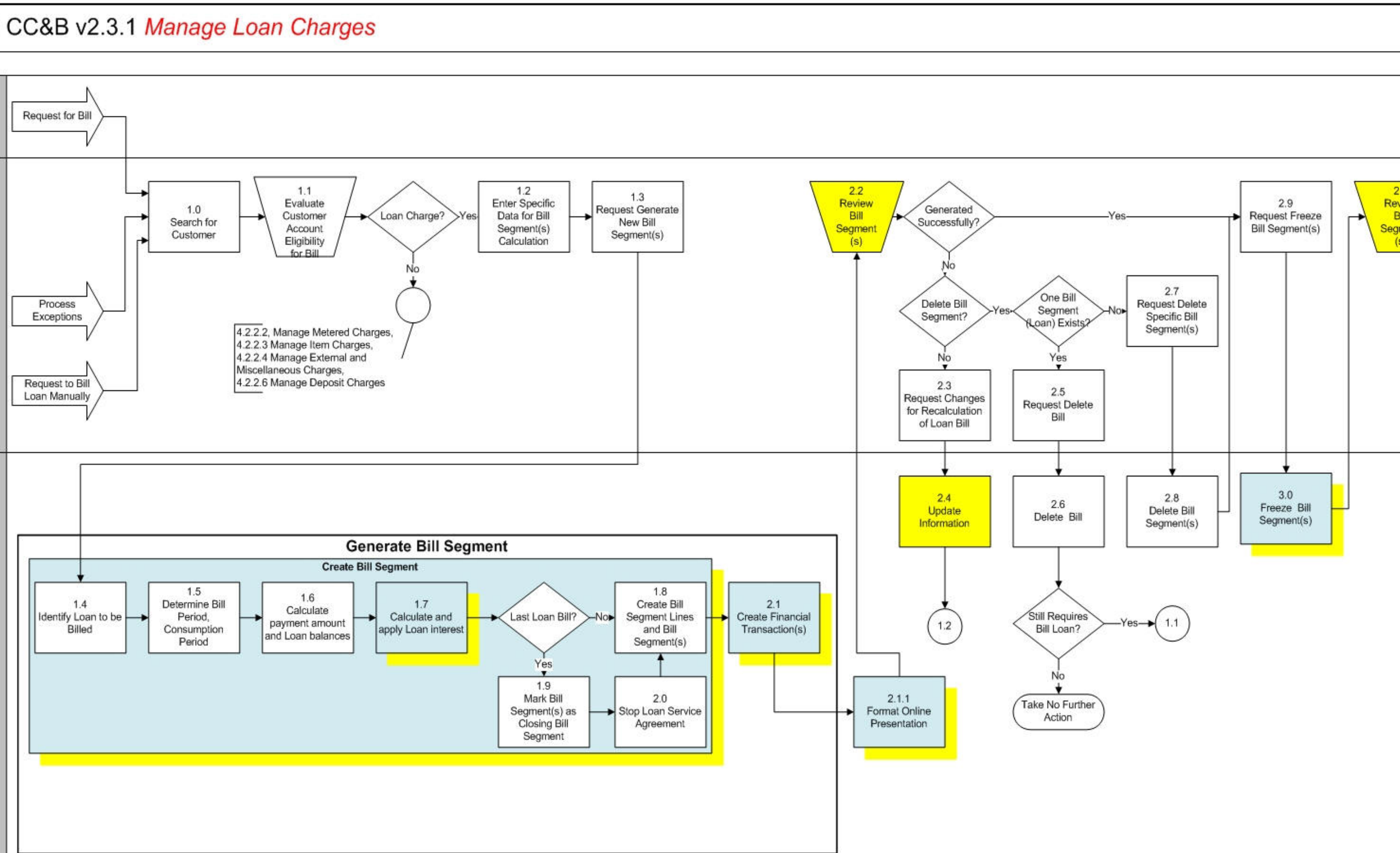
- **Business Process Diagrams**
  - **Manage Loan Charges Page 1**
  - **Manage Loan Charges Page 2**
  - **Manage Loan Charges Page 3**
  - **Manage Loan Charges Page 4**
- **Manage Loan Charges Description**
- **Installation Options - Control Central Alert Algorithms**
- **Rates**
- **Related Training**

ss Process Diagrams

Loan Charges Page 1

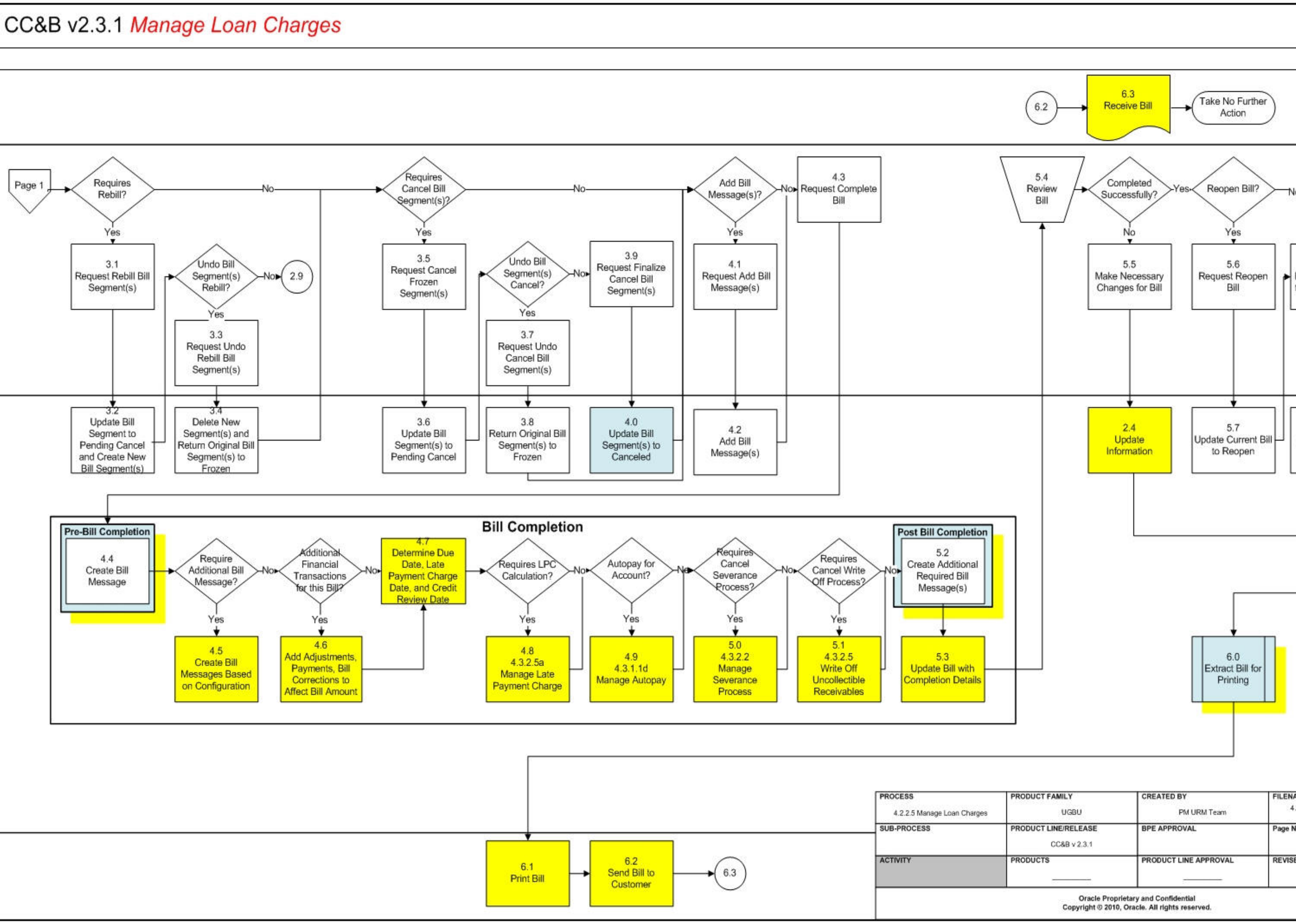


Loan Charges Page 2

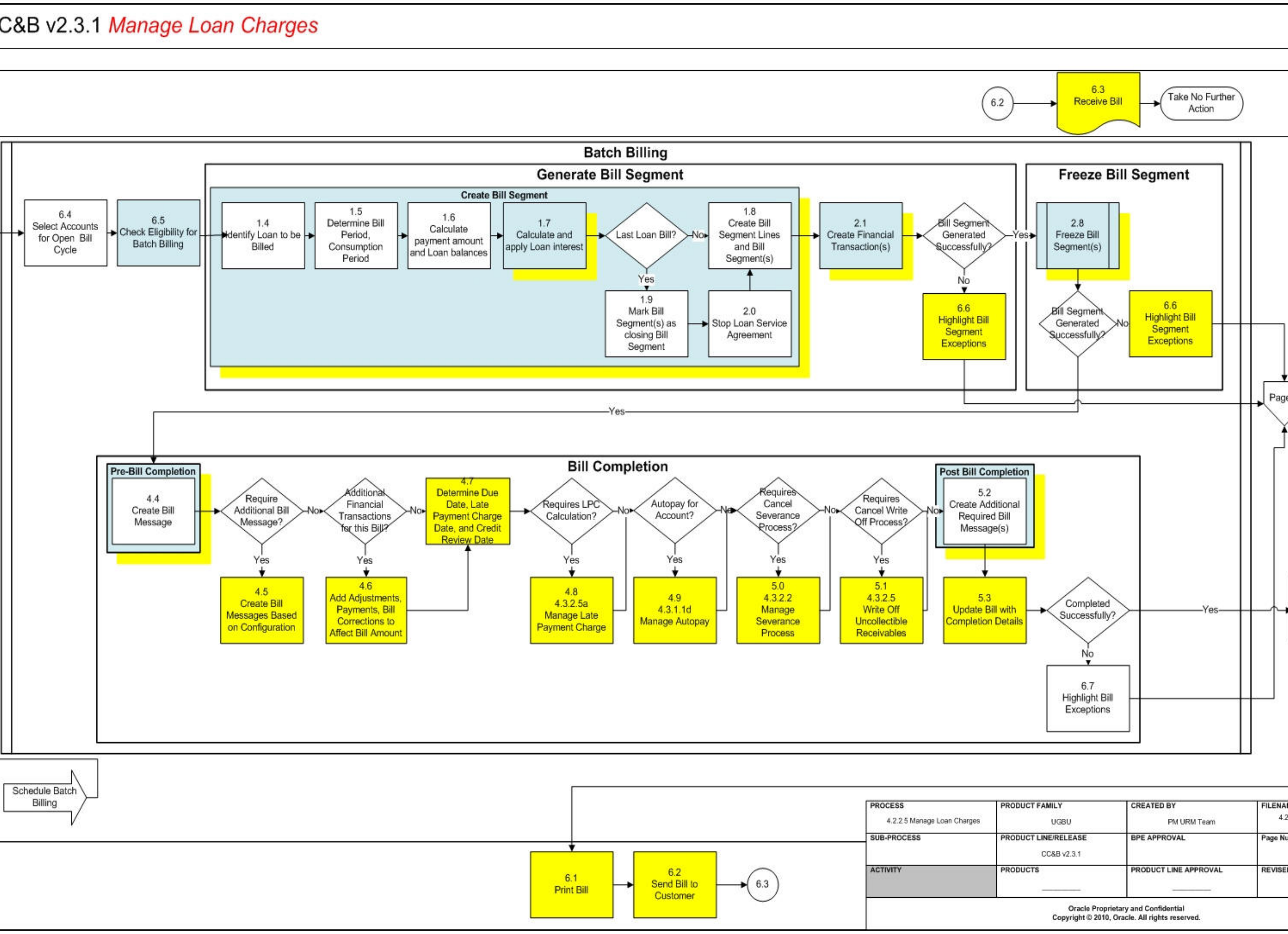


PROCESS	PRODUCT FAMILY	CREATED BY	FILENA
4.2.2.5 Manage Loan Charges	UGBU	PM URM Team	4.
SUB-PROCESS	PRODUCT LINE/RELEASE	BPE APPROVAL	Page N
	CC&B v2.3.1		
ACTIVITY	PRODUCTS	PRODUCT LINE APPROVAL	REVISE

Loan Charges Page 3



Loan Charges Page 4



Manage Loan Charges Description

This section includes detailed descriptions of the steps involved in the Manage Loan Charges business process, including:

- **1.0 Search for Customer**
- **1.1 Evaluate Customer Account Eligibility for Bill**
- **1.2 Enter Specific Data for Bill Segment(s) Calculation**
- **1.3 Request Generate New Bill Segment(s)**
- **1.4 Identify Loan to be Billed**
- **1.5 Determine Bill Period, Consumption**
- **1.6 Calculate Payment Amount and Loan Balances Charges**
- **1.7 Calculate and Apply Loan Interest**
- **1.8 Create Bill Segment(s) Lines and Bill Segment(s)**
- **1.9 Mark Bill Segment(s) as Closing**
- **2.0 Stop Loan Service Agreement**
- **2.1 Create Financial Transaction(s)**
- **2.1.1 Format Online Presentation**
- **2.2 Review Bill Segment(s)**
- **2.3 Request Changes for Calculation of Loan Bill**
- **2.4 Update Information**
- **2.5 Request Delete Bill**
- **2.6 Delete Bill**
- **2.7 Request Delete Specific Bill Segment(s)**
- **2.8 Delete Bill Segment(s)**
- **2.9 Request Freeze Bill Segment(s)**
- **3.0 Freeze Bill Segment(s)**
- **3.1 Request Cancel Frozen Bill Segment(s)**
- **3.2 Update Bill Segment(s) to Pending Cancel and Create New Bill Segment(s)**
- **3.3 Request Undo ReBill Bill Segment(s)**
- **3.4 Delete New Segment(s) and Return Original Bill Segment(s) to Frozen**
- **3.5 Request Cancel Frozen Bill Segment(s)**
- **3.6 Update Bill Segment(s) to Pending Cancel**
- **3.7 Request Undo Cancel Bill Segment(s)**
- **3.8 Return Original Bill Segment(s) to Frozen**
- **3.9 Request Finalize Cancel Bill Segment(s)**
- **4.0 Update Bill Segment(s) to Canceled**
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- **4.2 Add Bill Message(s)**
- **4.3 Request Complete Bill**

- **4.4 Create Bill Message**
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- **6.9 Create Bill Segment Exceptions To Do**
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- **7.1 Resolve Error**
- **7.2 Update Data**
- **7.3 Request Complete To Do**
- **7.4 Complete To Do Entry**
- **7.5 Identify Bills in Error Status**
- **7.6 Create Bill Exceptions To Do**

1.0 Search for Customer

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: Upon receipt of request or inquiry for Billing the CSR or Authorized User accesses Control Central Search to locate the customer in CC&B.

1.1 Evaluate Customer Account Eligibility for Bill

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: CC&B 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. Control Central Alerts and other Dashboard information assist the CSR or Authorized User in determining eligibility for adding new Bill or any rebilling based on established business rules.

Entities to Configure
Installation Options

Available Algorithms
Installation Options - Control Central Alert Algorithms

1.2 Enter Specific Data for Bill Segment(s) Calculation

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: If the CSR or Authorized User identifies a need to create a Loan Bill for the customer, the CSR or Authorized User provides the system with information about the Billing period for the bill to be created. The CSR or Authorized User must specify 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)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

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 for the Loan. The CSR or Authorized User requests to generate a new online Bill. This online Bill may contain one or more segments. If only one Loan Service Agreement exists for the Account, then only one Loan 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.

1.4 Identify Loan to be Billed

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: This task could be initiated from online and from batch billing.

Manual process: System identifies the specific Customer's loan based on the request criteria specified in step 1.2 of the current process

Automated process: System identifies Customer's Loan(s) that that needs be billed based on billing method specified for Loan. Typically all the loans that require billing when Bill window is "open" are selected.

Note: Typically loans are billed in advance and it's a common practice to use Future Anniversary Billing method for Companies to bill Loans.

Entities to Configure
Bill Segment Type
SA Types
Customer Class
Bill Cycle
Bill Schedule

Available Algorithms
BSBS-LO - Create a bill segment for a loan SA

Customizable Processess
BILLING

1.5 Determine Bill Period, Consumption

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: System identifies Bill Period and Consumption Period.

Entities to Configure
Bill Segment Type
SA Types
Customer Class

Available Algorithms
BSBS-LO - Create a bill segment for a loan SA

Customizable Processess
BILLING

1.6 Calculate Payment Amount and Loan Balances Charges

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: CC&B makes appropriate calculations to needed to determine Loan's payment amount that needs to be billed.

Entities to Configure
Bill Segment Type
SA Types
Customer Class
Bill Factor

Available Algorithms
BSBS-LO - Create a bill segment for a loan SA

Customizable Processess
BILLING

1.7 Calculate and Apply Loan Interest

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: CC&B calculates and creates the Loan segment and applies interest to the Service Agreement.

This step could be executed from online and batch processing.

Entities to Configure
Bill Segment Type
SA Types
Bill Factor

Available Algorithms
BSBS-LO - Create a bill segment for a loan SA
LINT-SI - Calculate Simple Interest for a Loan SA. The interest calculation is based on: 1) unbilled principal (i.e., the service agreement's payoff balance minus the current balance), 2) the number of billing periods covered by the bill, and 3) the interest rate.

Customizable Processess
BILLING

1.8 Create Bill Segment(s) Lines and Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: The system creates a bill segment and Bill Segment's Bill lines. One bill line shows the amount of interest in the payment, and another bill line shows the amount of principal.

Note: The principal amount is equal to the service agreement's periodic payment amount minus the amount of calculated interest.

This step could be executed from online and batch processing.

Entities to Configure
Bill Segment Type
SA Type

Available Algorithms
BSBS-LO - Create a bill segment for a loan SA

Customizable Processess
BILLING

1.9 Mark Bill Segment(s) as Closing

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: If generated Bill Segment is a last Loan bill, CC&B marks Bill Segment as closing Bill Segment.

Note: CC&B consider bill segment as last Bill Segment for Loan if the remaining principal balance (plus accrued interest) is less than or equal to the loan payment amount.

Customizable Processess
BILLING

2.0 Stop Loan Service Agreement

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: If generated Bill Segment is a last loan bill, CC&B initiates stop SA process for Loan Service Agreement and changes the status or Loan SA to Pending Stop.

Note: The Loan SA can then be stopped by the user or by the SA activation background process. (See process 3.3.2.4 Stop Non-Premise-Based Service for details).

Customizable Processess
BILLING

2.1 Create Financial Transaction(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Generate Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: CC&B 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. This step could be executed from online and batch processing.

Entities to Configure
Bill Segment Type
SA Type

Available Algorithms
BSBF-LO Payoff Amt = Interest / Current Amt = Bill Amount

Customizable Processess
BILLING

2.1.1 Format Online Presentation

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: Formatting information to be presented Online.

Entities to Configure
Bill Segment Type - Bill Segment Information
Installation Options - Framework- Bill Segment Information

Available Algorithms
C1-BSI-INFO - This algorithm formats the "Bill Segment Information" that appears throughout the system. It concatenates the fields and delimiters specified as algorithm parameters.
C1-BST-INFO - This algorithm formats the "Bill Segment Information" that appears throughout the system. It concatenates the fields and delimiters specified as algorithm parameters.

Customizable Processess
BILLING - The Bill cycle Batch processing creates Bills and Bill Segments for accounts with an "open" Bill cycle.

2.2 Review Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User reviews the Bill Segment for accuracy and determines the next action. The CSR or Authorized User decides if the billing process could be continued. The Bill Segment may be incorrect, or created by mistake and needs to be deleted, rebilled or canceled.

Business Objects
Bill - Bill business object (simple bill elements only)
This business object is used for simple access to bill information
CI_BillSegmentStatus - Bill Segment Status
This business object is used to retrieve the status of a bill segment

2.3 Request Changes for Calculation of Loan Bill

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: After review CSR or Authorized User identifies a problem with the generated Loan Bill segment. The CSR or Authorized User, based on established business rules, then adds or changes the data used for the Bill Segment calculation. Typical changes for a Loan Service Agreement may include a change to dates or recurring charge information.

2.4 Update Information

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: Changes by the CSR or Authorized User are updated in CC&B.

2.5 Request Delete Bill

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: During the review process it is determined the Bill Segment was created incorrectly or by mistake. Based on established business rules CSR or Authorized User requests to delete the Bill or Bill Segment. When a Bill has only one segment the Bill and the corresponding segment are deleted at the Bill level.

2.6 Delete Bill

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The Bill is deleted in CC&B and the financial record(s) are removed from the database. There is no financial impact to the Customer's Account.

2.7 Request Delete Specific Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User determines specific Billable Charge Bill Segment(s) associated with a given Bill need to be deleted.

2.8 Delete Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The specific Bill Segment(s) is deleted in CC&B and the financial records are removed from the database. There is no financial impact to the Customer's Account.

2.9 Request Freeze Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: If CSR or Authorized User does not identify any problem and decides to continue the Billing process, he/she requests to Freeze the Bill Segment.

3.0 Freeze Bill Segment(s)

See **Manage Loan Charges Page 1** on page 2-2 for the business process diagram associated with this activity.

Group: Freeze Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: The Bill Segment(s) and associated Financial Transaction are frozen in CC&B. 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- This is initiated by CSR or Authorized User when he/she requests to Freeze Bill Segments created for the 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 Manual process.

Entities to Configure
Installation Options - Bill Freeze Options
Customer Class
SA Type

Available Algorithms
BSFZ-Empty - Bill Segment freeze/cancel algorithm

Customizable Processess
BILLING

3.1 Request Cancel Frozen Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: 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.

Entities to Configure
Bill Cancel Reasons

3.2 Update Bill Segment(s) to Pending Cancel and Create New Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The original Bill Segment(s) is updated to Pending Cancel, and new Bill Segment(s) created. A new Financial Transaction is associated with the new Bill Segment and the original Financial Transaction is in the pending Cancel state.

Entities to Configure
Bill Cancel Reasons

3.3 Request Undo ReBill Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

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.

3.4 Delete New Segment(s) and Return Original Bill Segment(s) to Frozen

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: CC&B deletes the newly generated segment and returns the original Bill Segment to frozen. There is no impact to Financial Transactions.

3.5 Request Cancel Frozen Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The Bill Segment(s) may need to be canceled and not created again. The customer's balance should not be impacted by the original transaction. The CSR or Authorized User initiates the Cancel function.

Entities to Configure
Bill Cancel Reasons

3.6 Update Bill Segment(s) to Pending Cancel

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: When the CSR or Authorized User requests Initiate Cancel, the system updates the Bill Segment(s) to Pending Cancel.

Entities to Configure
Bill Cancel Reasons

3.7 Request Undo Cancel Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

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.

3.8 Return Original Bill Segment(s) to Frozen

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The original Bill Segment(s) is returned to Frozen in CC&B. There is no impact to financial transactions.

3.9 Request Finalize Cancel Bill Segment(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

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

Entities to Configure
Cancel Reasons

4.0 Update Bill Segment(s) to Canceled

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The existing Bill Segment(s) is updated to Canceled status in CC&B. 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.

Entities to Configure
Installation Options - Bill Freeze Options
Customer Class

Available Algorithms
BSFZ-Empty - This is a Customer Class Bill Segment freeze/ cancel algorithm

4.1 Request Add Bill Message(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User may add Loan Service Agreement related Bill Messages for a given 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.

Entities to Configure
Bill Messages

4.2 Add Bill Message(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The Bill Message is added to the bill in CC&B.

4.3 Request Complete Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: When CSR or Authorized User cannot find any problem with Frozen Loan Bill Segment as well as with other Bill Segments (if any) that belong to the same bill, he/she initiates the Complete Bill function.

4.4 Create Bill Message

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Pre-Bill Completion

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

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. This process could be initiated manually and automatically. CC&B makes use of Pre-Bill Completion algorithms. Based on configuration, one such algorithm 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 the deleted 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

Entities to Configure
To Do Type
To Do Role
Bill Message
SA Type
Customer Class

Business Objects	Available Algorithms
C1-AccountBillMessage - Account Bill Message	DEL-BSEG -This Bill pre-completion algorithm deletes Bill Segments that are in Error CPBC-DB - pre bill completion algorithm determines to delete a bill if it only contains frozen financial transactions of given types C1-CPBC-TAXT - This customer class pre-bill completion algorithm checks if taxes should be charged by conmparing the bill's accumulated tax amount with the tax threshold amount. For v2.3.1, this algorithm was enhanced to accumulate not only bill segment calc amounts, but also the adjustment calc amounts prior to comparing the total to the threshold amount; and if required, both bill segments and adjustments are re-generated.

Customizable Processess
BILLING

4.5 Create Bill Messages Based on Configuration

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: CC&B 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

This step could be initiated from online or billing batch process.

Entities to Configure
Customer Class Bill Messages
Rate Schedule Bill Messages
Meter Reader Remark Bill Messages
Account and Service Agreement Bill Messages

Business Objects
C1-AccountBillMessage - Account Bill Message

Customizable Processess
BILLING

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

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: During Bill Completion CC&B adds Adjustments, Payments or Bill corrections not included in the previous Bills to the newly created Bill.

This step could be executed from online and batch processing.

Customizable Processess
BILLING

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

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

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. Some Companies require Late Payment Charges calculated and added to the Bill. If this is the case, the system allows doing so. Two algorithms are listed below for information only. This step could be executed from online and batch processing.

Entities to Configure
SA Type
Customer Class
Adjustment Types

Available Algorithms
BILLPC-Total -calculate the late payment charge amount for a specific service agreement linked to an account.
BILPE-ALL -used during the late payment charge background process to determine if an account is eligible for late payment charges.

Customizable Processess
BILLING

4.8 4.3.2.5a Manage Late Payment Charge

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: Late Payment Charges may be calculated during Bill Completion. Refer to 4.3.2.5a Manage Late Payment Charge.

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

4.9 4.3.1.1d Manage Autopay

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: An Autopay payment may be created during Bill Completion. Refer to 4.3.1.1d Manage Autopay.

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

5.0 4.3.2.2 Manage Severance Process

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: The status of a Severance Process can change due to Bill Completion. Refer to 4.3.2.2 Manage Severance Process.

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

5.1 4.3.2.5 Write Off Uncollectible Receivables

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: The status of a Write Off Process or Write Off SA can change due to Bill Completion. Refer to 4.3.2.5 Write Off Uncollectible Receivables.

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

5.2 Add Additional Required Bill Message(s)

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Post Bill Completion Activity

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: CC&B can perform various post Bill completion activities. One example is to recreate Adjustments after a Credit Note is completed. This step could be executed from online and batch processing.

Entities to Configure
SA Type
Customer Class
Adjustment Types

Available Algorithms
C1-CN-ADNB - This customer class post Bill completion algorithm recreates adjustments after a credit note is completed.

Customizable Processess
BILLING

5.3 Update Bill with Completion Details

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: All Bill completion details are now updated in CC&B.

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

5.4 Review Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User evaluates the Account and reviews the Bill for accuracy. 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 the changes should be reflected in a new Bill.

Business Objects
Bill - Bill business object (simple bill elements only)
This business object is used for simple access to bill information
CI_BillSegmentStatus - Bill Segment Status
This business object is used to retrieve the status of a bill segment

5.5 Make Necessary Changes for Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

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.

5.6 Request Reopen Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User determines to reopen a Bill for the Customer's account.

5.7 Update Current Bill to Reopen

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The current Bill is reopened in CC&B and available for applicable changes.

5.8 Request Changes to Impact Balance

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CSR

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.

5.9 Update Balance

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The financial balance is updated in CC&B.

6.0 Extract Bill for Printing

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: Typically CC&B prepares required billing data and makes data available for the Document Management application.

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

Business Objects	Available Algorithms
BillRoutingR - Bill business object to read bill routing details. **Note:** This BO is currently used for reprint Bills.	Bill Route Type - BLEX-EX - This algorithm constructs the records that contain the information that appears on a printed Bill (for Doc 1). C1-BLEX-CR - This Bill Route Type extract algorithm prepares the report information needed to create a Bill using a Reporting Engine.

Customizable Processess
Custom Extract Process
POSTROUT - CIPBXBLB

6.1 Print Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: Document Management Software

Description: Document Management Software reads and process bill information produced by CC&B. It prints actual bills or prepare bills in another format (e-mail, PDF online format, short message service (SMS)).

6.2 Send Bill to Customer

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: Document Management Software

Description: The printed Bill is sent or made available for the Customer.

6.3 Receives Bill

See **Manage Loan Charges Page 2** on page 2-3 for the business process diagram associated with this activity.

Actor/Role: Customer

Description: The Customer receives the Bill.

Entities to Configure
Bill Route Type

6.4 Select Accounts for Open Bill Cycle

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: This step is the first step of batch billing process. Using the established Bill Cycle Schedule, CC&B selects Accounts defined within a specific Open Bill Cycle. The Bill Cycle's schedule controls when the system attempts to create Bills for the account. It's recommended to configure one day Window Billing if Loan should be billed.

Entities to Configure
Bill Cycle
Account

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

6.5 Check Eligibility for Batch Billing

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: Normally, most Bills are created and completed automatically. At Billing time, CC&B attempts to produce a Bill for an account and create one or more Bill Segments for every non-cancelled / non-closed service agreement linked to the account. CC&B evaluates Account, Service Agreement and Billable Charge eligibility. This step is executed form the batch process only.

Entities to Configure
SA Type
Customer Class

Available Algorithms
C1-SKIPINACC -stops processing an account if all the following conditions are true: - There are no Billable service agreements - There are no eligible Financial Transactions for the Bill - There are no temporary account messages to be swept onto the Bill

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

6.6 Highlight Bill Segment Exceptions

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Create Bill Segment

Group: Freeze Bill Segment

Group: Batch Billing

Actor/Role: CC&B

Description: If a Bill Segment cannot be created, CC&B creates a Bill Segment in "error" status with a message can be analyzed by a CSR or Authorized User. Typically errors are caused by missing or incomplete data. The error may be reviewed at this time or not. 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 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 Billing error is generated. This step could be executed from batch only.

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

6.7 Highlight Bill Exceptions

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: Bill Completion

Group: Batch Billing

Actor/Role: CC&B

Description: If a Bill cannot be completed, CC&B creates a Bill in "error" status with a message that is analyzed by a CSR or Authorized User. Typically errors are caused by missing or incomplete data.

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

6.8 Identify Bill Segments in Error Status

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: TO DO Bill Segment Error Process

Actor/Role: CC&B

Description: CC&B identifies Bill Segments in error status. CC&B can create a To Do Entry for every Bill Segment in error status.

Entities to Configure
To Do Role
To Do Type

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

6.9 Create Bill Segment Exceptions To Do

See **Manage Loan Charges Page 3** on page 2-4 for the business process diagram associated with this activity.

Group: TO DO Bill Segment Error Process

Actor/Role: CC&B

Description: CC&B 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.

Entities to Configure
To Do Role
To Do Type

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

7.0 Evaluate and Investigate Error

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User will review the Bill Segment error and supporting information in CC&B. 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 possible solutions or workarounds for the missing or incomplete information.

7.1 Resolve Error

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Actor/Role: CSR

Description: The CSR or Authorized User resolves the error and enters information in CC&B.

7.2 Update Data

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: Information required for resolution is updated in CC&B.

7.3 Request Complete To Do

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Actor/Role: CSR

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.

7.4 Complete To Do Entry

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: The To Do Entry is updated to Complete Status in CC&B.

7.5 Identify Bills in Error Status

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: TO DO Bill Error Process

Actor/Role: CSR

Description: CC&B identifies Bills in error status. CC&B can create a To Do Entry for every Bill in error status.

Entities to Configure
To Do Role
To Do Type

Customizable Processess
TD-BIERR - This background process creates a To Do entry for every Bill that's in error.

7.6 Create Bill Exceptions To Do

See **Manage Loan Charges Page 4** on page 2-5 for the business process diagram associated with this activity.

Group: TO DO Bill Error Process

Actor/Role: CC&B

Description: CC&B 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.

Entities to Configure
To Do Role
To Do Type

Customizable Processess
TD-BIERR - This background process creates a To Do entry for every Bill that's in error.

At times the organization is made aware of a possible anomaly with a particular Batch of Bills. There are two background processes for canceling or reopening an entire batch of Bills. Refer to 4.2.2.2 Manage Metered Charges.

Installation Options - Control Central Alert Algorithms

PP-Active	Show Count of Active Pay Plans
PP-Broken	Show Count of Broken Pay Plans
PP-Kept	Show Count of Kept Pay Plans
CC-PPDENIAL	Count Pay Plan Denial Customer Contacts
CCAL WFACCTX	Display Active WF for Account Based on Context
CCAL WFPREMX	Display Active WF for Premise Based on Context
CCAL WFACCTR	Display active WF for account based on char
CCAL WFPREMR	Display active WF for premise based on char
CCAL-TD	Highlight Outstanding To Do Entries
CCAL-DECL	Highlight Effective Declarations for Account and Premise
CCAL-CASE	Highlight Open Cases
CCAL-FAERMSG	Highlight FA's with outstanding outgoing messages
CI_WO_BILL	Highlight Written off Bills
CI_OD-PROC	Highlight Active Overdue Processes
CI_OMF_DF	Highlight Open and Disputed Match Even
CI_STOPSA-DF	Highlight Stopped SA's
C1-CCAL-CLM	Highlight Open Rebate Claims
C1-COLL-DF	Highlight Active Collection Processes
C1_COLLRF-DF	Highlight Active Collection Agency Referral
C1_PENDST-DF	Highlight Pending Start Service Agreements
C1_CASH-DF	Cash Only Account
C1_CRRT-DF	Credit Rating Alert
C1_LSSL-DF	Highlight Life Support/Sensitive Load on Person
C1_LSSLPR-DF	Highlight Life Support/Sensitive Load on Premise
C1_SEVPR-DF	Highlight Active Severance Processes
C1-CCAL-OCBG	Highlight Open Off Cycle Bill Generators
F1-SYNRQALRT	Retrieve Outstanding Sync Request

Rates

Rate Schedule Algorithms and Major Configuration Information

Available Algorithms

Bill Factor Rate Selection Date

C1-BFRACCTG	Bill Factor Date based on Accounting Date
C1-BFREND	Bill Factor Date based on Bill Segment End Date
C1-BFRSTRT	Bill Factor Date based on Bill Segment Start Date

Various Rate Component Type Algorithms

Rate Component Calculation

C1-RC-CLAMT	Sum Calc Line Amounts
RCAM-CCL	Calculate CCL
DEEMEDPROF	Create Deemed Profile Data
RCAM-VAT	Standard Rate VAT
RCAM-VATR	Reduced Rate VAT
MAX3KW	Capture maximum three kW interval values

Rate Component Criteria Comparison

RECC>=2YEARS	Check if date is at least two years old

Rate Component Criteria Field

RECF-AUTOPAY	Return True If On Autopay
RECF-HASELEC	Return TRUE if account has electric service
RECF-HASGAS	Return TRUE if account has gas service

Rate Component Interval Pricing

IPRC-CNALL	Continuous cons. curve * price curve (fast)
IPRC-NCNALL	Non continuous cons. curve * price curve (slower)
IPRC-NCNPOS	Non continuous OVERAGE curve * price curve
IPRC-NCNNEG	Non continuous UNDERAGE curve * price curve

Rate Component Interval Pricing Audit

IPRCA-ALL	Show all consumption and prices
IPRCA-EXCESS	Only show excess (positive) consumption and prices
IPRCA-UNDER	Only show underage (negative) consump. and pric

Rate Component Step Algorithm

MULT BY KW	Multiply step by KW
HIGHBP	Set step to high break point
LOW BP	Set step to low break point

Rate Component Time of Use (TOU) Pricing

M&P CONS	Map & Price Continuous, Consumptive Int Data
M&P PEAK	Map & Price Continuous, Peak Interval Data
TOUMAP1	Create SQ entries by applying TOU map to int. cons

Rate Component Time of Use (TOU) Pricing Audit

RCTPRSAU-CON	TOU Pricing Audit - Consumptive
RCTPRSAU-PK	TOU Pricing Audit - Peak

Rate Component Value Algorithm

PX PRICE	Extact avg price from weekly spot market prices
RCVALTHRSHSQ	Calc. price based on threshold 400 KWH OFF
CI_RNDXRF	Round Cross-Reference Amount

Other Algorithms related to Rates

BSBS-RT-DFT	Create bill segment using rate application
ADJG-RT	Adjustment generation - apply rate
CI_ADJ-RT-TX	Adjustment generation - apply rate
CALL RATEAPP	Apply the rate to each billing scenario

Entities to Configure

- Rate Schedule
- Rate Version
- Rate Components
- Service Quantity Rules
- Register Rules
- Service Quantity Identifiers
- Unit of Measure
- Frequency
- Bill Factors
- Characteristics
- Distribution Codes
- Various Algorithm Parameters
- Define Rates on Applicable SA Types
- Meter Configuration Type
- Bill Messages

Related Training

The following User Productivity Kit (UPK) modules provide training related to this business process:

- Oracle Utilities UPK for Customer Care and Billing, User Tasks
- Oracle Utilities UPK for Customer Care and Billing, Rating and Billing