

**Oracle Utilities Customer Self Service
Release 2.1.0**

Utility Reference Model

3.4.3.1 OUCSS-CCB-MDM Manage Financial
Queries

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Oracle Utilities Customer Self Service Release 2.1.0 Utility Reference Model 3.4.3.1 OUCSS-CCB-MDM
Manage Financial Queries

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3.4.3.1 OUCSS-CCB-MDM Manage Financial Queries

This section provides a brief description of the “OUCSS-CCB-MDM Manage Financial Queries” business process. This includes:

- ♦ [Brief Description](#)
 - ♦ [Actors/Roles](#)
- ♦ [Business Process Diagrams](#)
 - ♦ [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1](#)
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 - ♦ [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3](#)
- ♦ [OUCSS-CCB-MDM Manage Financial Queries Detailed Process Model Description](#)

Brief Description

Business Process: 3.4.3.1 OUCSS-CCB-MDM Manage Financial Queries

Process Type: Sub-Process

Parent Process: 3.4.3 OUCSS-CC&B-MDM.Provide Customer Service

Sibling Processes: n/a

This process takes place when a customer reviews account financial information via the self-service portal. The process allows understanding the relationship between the web-portal and financial information in CC&B.

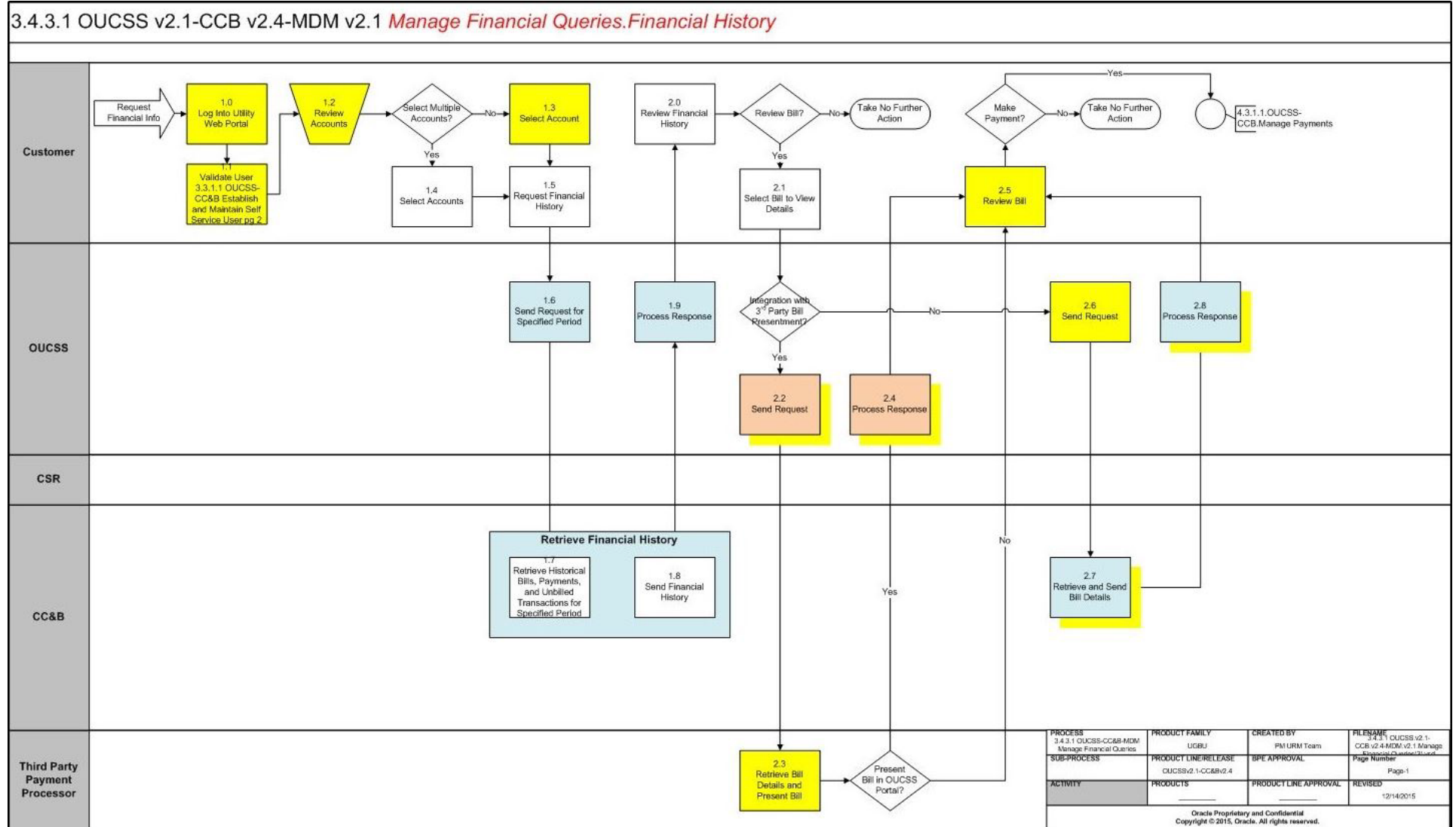
Actors/Roles

The OUCSS-CCB-MDM Manage Financial Queries 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.
- **Customer:** The service customer.
- **MDM:** Meter Data Management
- **OUCSS:** The Oracle Utilities Customer Self Service application.

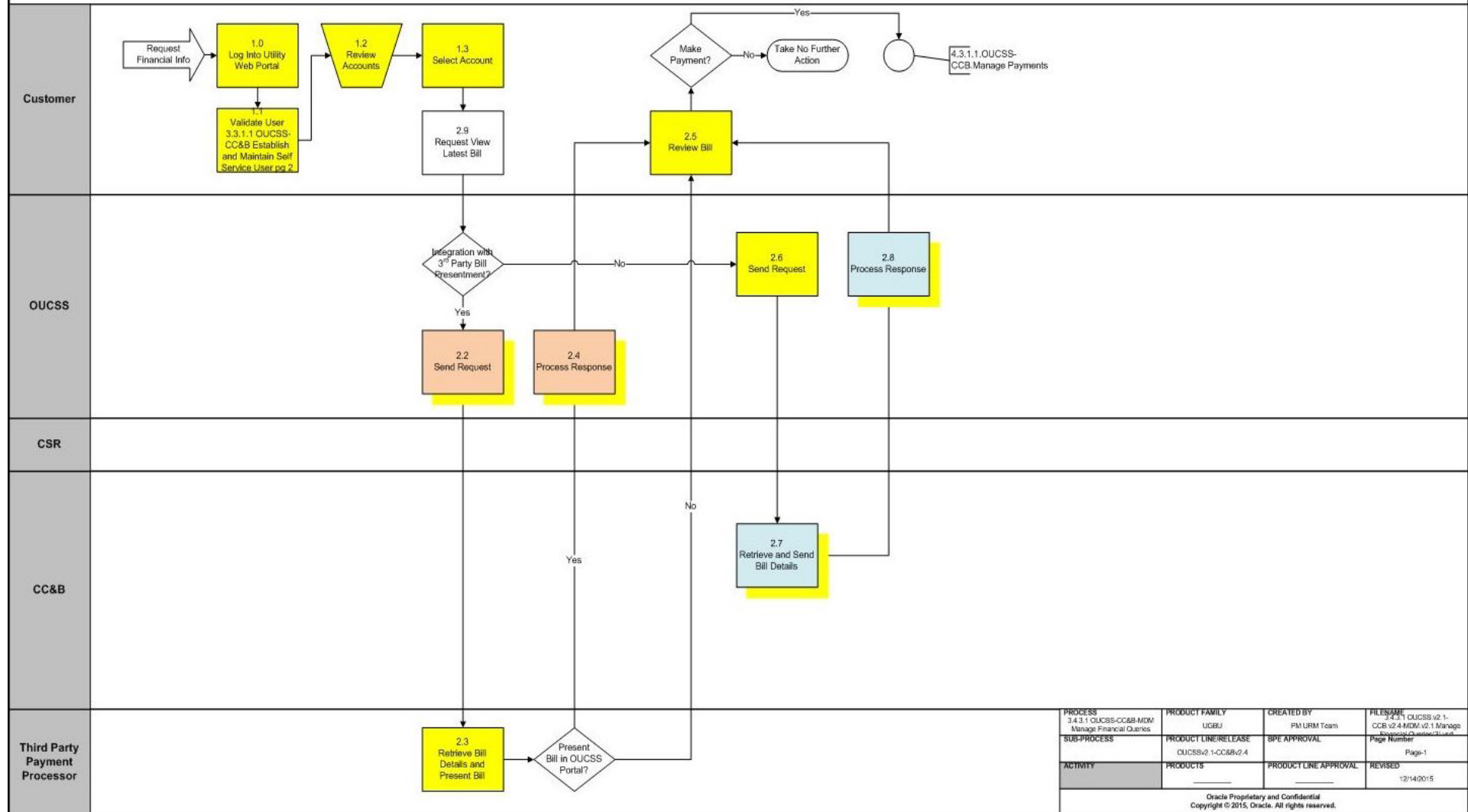
Business Process Diagrams

OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1



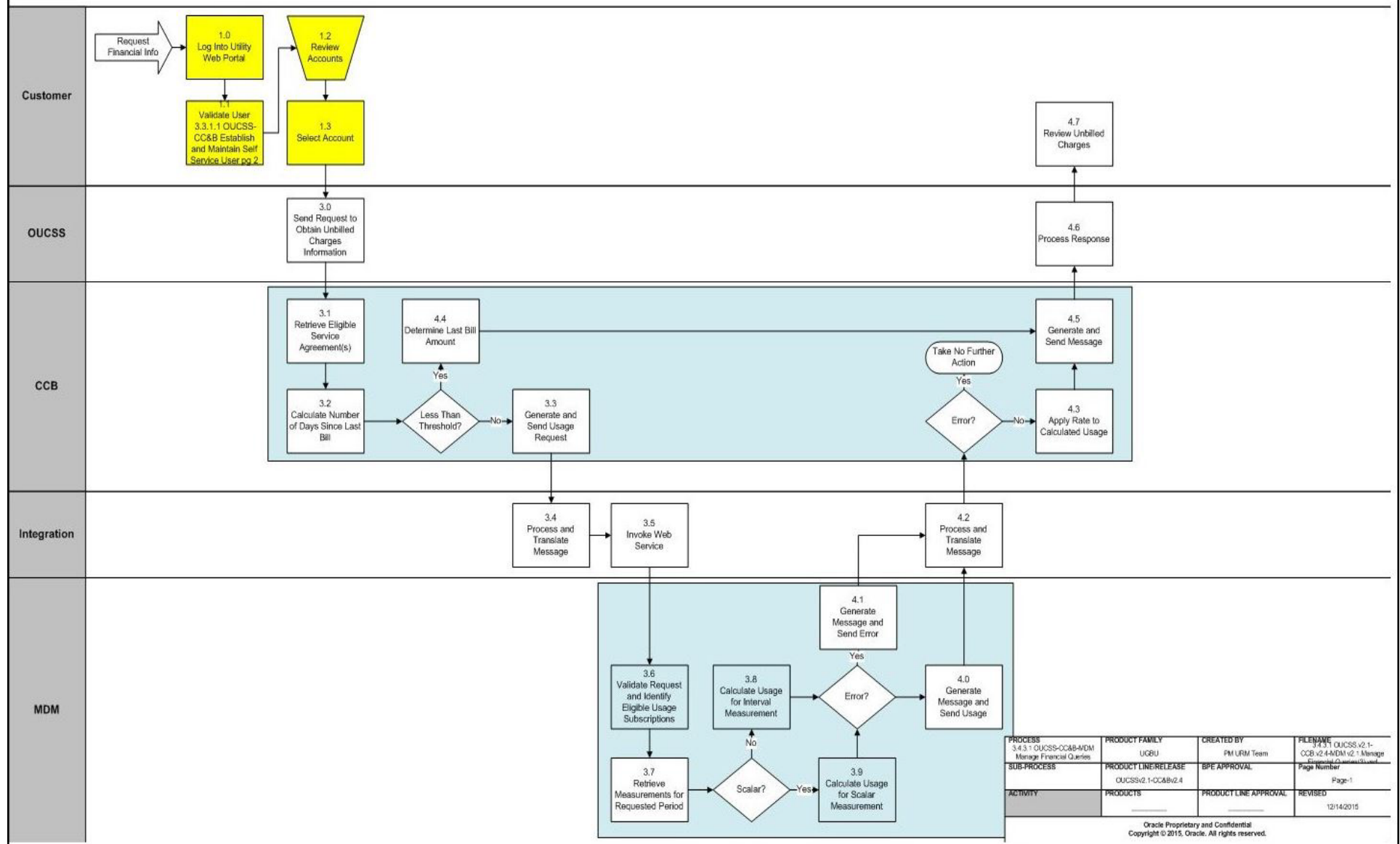
OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 2

3.4.3.1 OUCSS v2.1-CC&B v2.4 *Manage Financial Queries.View Bill*



OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3

3.4.3.1 OUCSS v2.1-CCB v2.4-MDM v2.1 *Manage Financial Queries.Service Charges to Date*



OUCSS-CCB-MDM Manage Financial Queries Detailed Process Model Description

This section provides a detailed description of the “OUCSS-CCB-MDM Manage Financial Queries” business process, including:

- ♦ 1.0 Log Into Utility Web Portal
- ♦ 1.1 Establish and Maintain Self Service User
- ♦ 1.2 Review Accounts
- ♦ 1.3 Select Account
- ♦ 1.4 Select Accounts
- ♦ 1.5 Request Financial History
- ♦ 1.6 Send Request for Specified Period
- ♦ 1.7 Retrieve Historical Bills, Payments, and Un-Billed Transactions for Specified Period
- ♦ 1.8 Send Financial History
- ♦ 1.9 Process Response
- ♦ 2.0 Review Financial History
- ♦ 2.1 Select Bill to View Details
- ♦ 2.2 Send Request
- ♦ 2.3 Retrieve Bill Details and Present Bill
- ♦ 2.4 Process Response
- ♦ 2.5 Review Bill
- ♦ 2.6 Send Request
- ♦ 2.7 Retrieve and Send Bill Details
- ♦ 2.8 Process Response
- ♦ 2.9 Request View Latest Bill
- ♦ 3.0 Send to Obtain Un-Billed Charges Information
- ♦ 3.1 Retrieve Eligible Service Agreement(s)
- ♦ 3.2 Calculate Number of Days Since Last Bill
- ♦ 3.3 Generate and Send Usage Request
- ♦ 3.4 Process and Translate Message
- ♦ 3.5 Invoke Web Service
- ♦ 3.6 Validate Request and Identify Eligible Usage Subscriptions and Devices
- ♦ 3.7 Retrieve Measurements for Requested Period
- ♦ 3.8 Calculate Usage for Interval Measurement
- ♦ 3.9 Calculate Usage for Scalar Measurement
- ♦ 4.0 Generate Message and Send Usage
- ♦ 4.1 Generate Message and Send Error
- ♦ 4.2 Process and Translate Message
- ♦ 4.3 Apply Rate to Calculated Usage
- ♦ 4.4 Determine Last Bill Amount
- ♦ 4.5 Generate and Send Message
- ♦ 4.6 Process Response
- ♦ 4.7 Review Un-Billed Charges

1.0 Log Into Utility Web Portal

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: User logs into self-service account to access Utility Web Portal.

1.1 Establish and Maintain Self Service User

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: See process 3.3.1.1 OUCSS-CC&B.Establish and Maintain Self Service User.

1.2 Review Accounts

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer reviews list of account(s) enrolled for self-service.

1.3 Select Account

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer selects a single account for which they want to review financial information.

1.4 Select Accounts

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer selects multiple accounts for which they want to review financial information.

1.5 Request Financial History

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer requests financial history for account(s).

1.6 Send Request for Specified Period

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS requests the financial history for the specified accounts and time period.

Entities to Configure

- OUCSS: Financial History Table Configuration

1.7 Retrieve Historical Bills, Payments, and Un-Billed Transactions for Specified Period

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B retrieves financial history for the specified accounts and time period.

Algorithms

- WX-AcctFinHs
- WX-MuAcFinHs

Entities to Configure

- XAI Service: WXFinancialHistoryRetriever

1.8 Send Financial History

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B sends the financial history details for the specified accounts and time period to OUCSS.

1.9 Process Response

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS processes the financial history data and presents it to the end-user.

Entities to Configure

- OUCSS: Financial History Table Configuration

2.0 Review Financial History

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer reviews the financial history information.

2.1 Select Bill to View Details

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer selects a specific bill for detailed review.

2.2 Send Request

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS sends the request to a third-party payment processor to produce the bill view. This requires a custom integration based on the payment processor's APIs.

2.3 Retrieve Bill Details and Present Bill

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Third Party Payment Processor

Description: The third-party payment processor takes the request and presents the bill to the customer.

2.4 Process Response

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS processes the bill view data and presents it to the end-customer. This requires a custom integration based on the payment processor's APIs.

Entities to Configure

- OUCSS: View Bill configuration

2.5 Review Bill

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer reviews the bill details.

2.6 Send Request

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS sends the bill view request to CC&B.

2.7 Retrieve and Send Bill Details

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B retrieves bill information and sends the details to OUCSS.

Algorithms

- WX-ViewBill

Entities to Configure

- XAI Service: WXBillView

2.8 Process Response

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 1 on page 3](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS processes the bill view data and presents it to the end-customer.

Entities to Configure

- OUCSS: View Bill configuration

2.9 Request View Latest Bill

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 2 on page 4](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer requests to view the latest bill.

3.0 Send to Obtain Un-Billed Charges Information

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS sends the un-billed charges request to CC&B.

3.1 Retrieve Eligible Service Agreement(s)

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B Retrieves a list of service agreements eligible for un-billed charges calculations.

Algorithms

- WX-UsgChrgDt
- WX-GetSAInfo

Entities to Configure

- XAI Service: WXUsageChargesToDate

3.2 Calculate Number of Days Since Last Bill

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B Calculates the number of days since the last bill in order. If the current date is near the last bill date (as set in master configuration), the last bill amount is sent back to OUCSS. Otherwise the Service Charges to Date is calculated.

Algorithms

- WX-UsgChrgDt

Entities to Configure

- Master Config: Service Charges to Date

3.3 Generate and Send Usage Request

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B generates an integration message and sends a usage request to MDM.

Algorithms

- WX-UsgChrgDt

Business Objects

- C1-UsageRequestOutMsg

3.4 Process and Translate Message

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: Integration

Description: Integration processes the usage request and translates it for MDM.

3.5 Invoke Web Service

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: Integration

Description: Integration invokes the MDM web service requesting usage information.

3.6 Validate Request and Identify Eligible Usage Subscriptions and Devices

Actor/Role: MDM

Description: MDM retrieves usage for the specified accounts and time period. If only an Account ID is provided, it will retrieve the list of eligible usage subscriptions.

Algorithms

- Business Service: D2-CalcUsgMR
- WX-DetUSSupportWSS
- D1-SSMCInfo
- D1-SPDCInfo
- D2-SSUSInfo

Entities to Configure

- XAI Service: D2-CalculateUsageMultipleRequests
- Master Configuration: Processing Scripts

3.7 Retrieve Measurements for Requested Period

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: MDM

Description: MDM retrieves usage for the specified usage subscriptions and time period.

Algorithms

- Business Service: D2-CalcUsgMR

3.8 Calculate Usage for Interval Measurement

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: MDM

Description: MDM calculates interval usage for the specified usage subscriptions and time period.

Algorithms

- Business Service: D2-CalcUsgMR

3.9 Calculate Usage for Scalar Measurement

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: MDM

Description: MDM calculates scalar usage for the specified usage subscriptions and time period. This uses a lag windows (in hours) for utilities that capture frequent scalar reads, multiple times a day.

Algorithms

- Business Service: D2-CalcUsgMR

Entities to Configure

- Master Configuration: Service Charges to Date Settings

4.0 Generate Message and Send Usage

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: MDM

Description: MDM Generates a message for CC&B with the usage data for processing.

Algorithms

- Business Service: D2-CalcUsgMR

Entities to Configure

- XAI Service: D2-CalculateUsageMultipleRequests

4.1 Generate Message and Send Error

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: MDM

Description: MDM Generates an error message for CC&B with the usage data for processing. Error examples include usage subscriptions with manual scalar meter reads or missing data.

Algorithms

- Business Service: D2-CalcUsgMR

Entities to Configure

- XAI Service: D2-CalculateUsageMultipleRequests

4.2 Process and Translate Message

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: Integration

Description: Integration processes the usage request and translates it for CC&B.

4.3 Apply Rate to Calculated Usage

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B applies the rate to the retrieved usage data.

Algorithms

- WX-UsgChrgDt

4.4 Determine Last Bill Amount

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: CC&B

Description: CC&B determines the last bill amount to send back to OUCSS.

Algorithms

- WX-UsgChrgDt

4.5 Generate and Send Message

Actor/Role: CC&B

Description: CC&B generates the service charges to date message and sends it to OUCSS.

Algorithms

- WX-UsgChrgDt

Entities to Configure

- XAI Service: WXUsageChargesToDate

4.6 Process Response

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS processes the un-billed charges information and presents it to the end-user.

Entities to Configure

- OUCSS: Service Charges to Date task flow

4.7 Review Un-Billed Charges

Reference: [OUCSS-CCB-MDM Manage Financial Queries Process Model - Page 3 on page 5](#) for the associated business process diagram.

Actor/Role: Customer

Description: Customer views the Service Charges to Date information.