**Asurion Subscriber Billing System Product Specification**

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# Introduction

The Asurion Subscriber Billing System incorporates automatic and manually controlled service operations. After a subscriber is enrolled, automatic “CRM” processes flow through the Asurion Finance Service Gateway. Authorized users control manual “NET” processes via Tibco BusinessWorks (BW) screens. Depending upon need, the particular set of services present at one customer site may differ from those available a different customer’s site.

**Also See**

“Asurion Subscriber Billing System API Specification” for descriptions of the system APIs and supporting data storage software.

## In This Document

This document contains a range of product specifications for the Subscriber Billing System, focusing on:

* Requirements, Assumptions, Constraints, and Risks
* Asurion Subscriber Billing System Overviews
* Subscriber Billing System Security
* Subscriber Billing System Networking
* Subscriber Billing System Monitoring and Logging
* Subscriber Billing System Controls
* Subscriber Billing System Maintenance
* Subscriber Billing System Error Reporting, Software Quality Assurance, and Testing
* Subscriber Billing System database table descriptions
* Subscriber Billing System Support

**Also See**

“Asurion Subscriber Billing System Finance Services API Specification” and “Asurion Subscriber Billing System QA Testing Specification “at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

# Requirements, Assumptions, Constraints, and Risks

The following sections identify requirements, assumptions, constraints, and risks for operating and reliably maintaining the Asurion Subscriber Billing System.

## Requirements

Machines running the Asurion Subscriber Billing System must support:

* Software:
  + Extensible Markup Language (XML) 1.0 or later
  + Hypertext Transfer Protocol Secure (HTTPS)
  + Java Message Service (JMS) 1.1 or later
  + Simple Object Access Protocol (SOAP) 1.1 or later
  + Tibco ActiveMatrix BusinessWorks (BW)
  + Tibco Enterprise Management System (EMS)
  + Windows or Apple compatible Web Browser (Internet Explorer, Google Chrome, Mozilla Firefox, Opera, Maxthone, and so on).
* Network Connectivity
  + Asurion IT is responsible for configuring connectivity between the vendor (internal, external) and the Gateway is the responsibility. A secure mechanism (e.g., HTTPS) is necessary.
* Asurion Schemas
  + Vendor-clients must use the Asurion-supplied XML schemas and UI for the Subscriber Billing System.
* Standards Compliance
  + Asurion and customers comply with Payment Card Industry (PCI) and Personally Identifiable Information (PII) standards for data security.
* System User Authorization:
  + Depending upon their responsibilities, users must be authorized for appropriate access to the Subscriber Billing System.

## Assumptions

Asurion Subscriber Billing System operations assume the following:

* The Asurion IT and business organizations will assign the features needed for each integration.
* Extraction, Transform, and Load (ETL) services are available.
* Asurion Disaster Recovery (DR) processes are acceptable.
* Any third party connectivity is highly available and fault tolerant for all data centers.

## Constraints and Risks

As the following list of possible constraints/risks and resolutions indicate, Asurion can continue to provide Subscriber Billing System services at times of unexpected delays or disasters.

* Natural disasters or other shutdowns affecting the product work site—Asurion’s standard DR processes assure reliable services.
* Data Security— Asurion will conform to all “safe harbor” data storage requirements for separating Asurion data from Client data.

**Also See**

For lists of identified client-specific constraints and risks, refer to Asurion Risk Management documents located at

<https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2F05%2DSprints%2FRisk%20Management>.

# Asurion Subscriber Billing System Overviews

This section provides high-level overviews of the following Asurion Subscriber Billing System services:

* Finance Service
* CancelPremium API Service
* GetClientHashValue API Service
* GetContract API Services
* GetPayments API Services
* Message Header API Services
* CRM Services
* ProcessDunning API Services
* ProcessPreDunning API Service
* ProcessPremium API Services
* ProcessRefPayment API Services
* ProcessRefPremiumPayment API Services
* ProcessRefund API Services
* ReconcilePayment API Services
* SearchPayments API Services
* SearchReconciledPayments API Services

## Finance Services

Asurion Finance Services includes a multi-functional Finance Services Gateway (also known as the “Gateway”). These service process flows are introduced in the following sections.

### Finance ServiceGateway Process Flows

The key processing components and messaging of the Asurion Finance Service are represented in the following diagram.

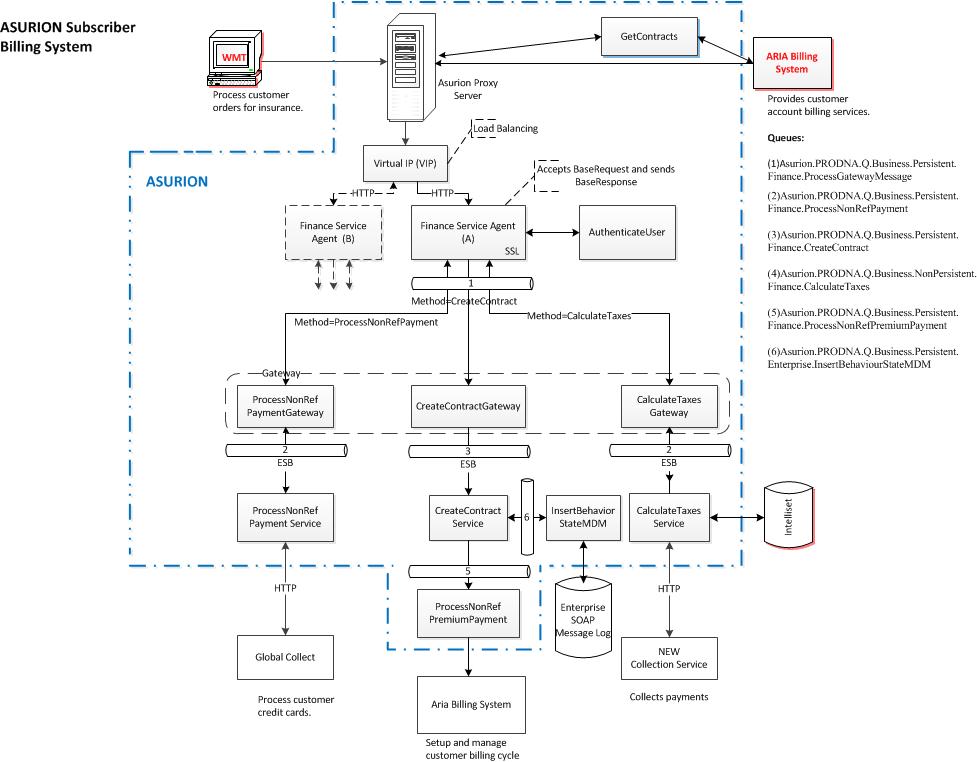


Figure 1. Asurion Finance Service Gateway

**Asurion Proxy Server Process Flow**

Within Asurion, the Proxy Server forwards requests from customers to create CRM contracts for subscriber insurance. The Proxy Server also requests current subscriber contract information from the ARIA Billing Service via GetContracts. Handling create contract request, the Proxy Server uses the Virtual IP to pass requests to the appropriate Finance Service Agent for processing.

**Virtual IP (VIP) Process Flow**

Providing load balancing, the Asurion Virtual IP (VIP) passes each request message from the Proxy Server to a Finance Service Agent. The VIP determines which Finance Service Agent will receive a message depending upon standard criteria (operational status, smallest current queue, and so forth).

**GetContract Process Flow**

The Asurion Proxy Server requests information (via HTTP) on current contracts through GetContract. Aria responds with the latest customer contract information. Aria also sends requests to process non-refundable credit card payments to Asurion via GetContract.

**Also See**

“GetContract API Services” in this document.

**FinanceServiceAgent Process Flow**

The Asurion Finance Service Agent (FSA) manages all requests and responses passed through the Finance Service Gateway. FSA accepts BaseRequest request messages from the VIP to returns BaseResponse response messages back to the server. Each BaseRequest includes request headers, URL arguments, and the submitted files. A BaseResponse includes response headers, current status, and response data as a string.

Upon accepting requests, FSA first authenticates the request user before further processing the request. FSA sends an AUTH message to the AuthenticateUser Service for user verification. This service verifies the user ID based on information stored in an Active Directory and returns the results to FSA.

When user authentication is returned, FSA sends each request to a central queue (Asurion.PRODNA.Q.Business.Persistent.Finance.ProcessGatewayMessage) which calls the API methods CreateContract, ProcessNonRefPayment, or CalculateTaxes to pass the request to the appropriate service. In the opposite direction, FSA accepts return responses from the ProcessNonRefPaymentGateway (via the ProcessNonRefPayment method) and CalculateTaxesGateway (via the CalculateTaxes method). The FSA has a set of global variables that are available to Gateway APIs.

**Note**: The CreateContract process flow path is one-way (request only). ProcessNonRefPayment and CalculateTaxes are two-way (request and response).

**CreateContractGateway Process Flow**

Upon accepting a request (SOAP via HTTP) to create a CRM customer contract from the FSA via the API method CreateContract, the CreateContractGateway adds the request to a message queue (Asurion.PRODNA.Q.Business.Persistent.Finance.CreateContract). From the queue, the request passes via an Enterprise Service Bus (ESB) to the CreateContract Service for processing. CreateContract is a TIBCO step in the Asurion enrollment process.

**Note**: ESB enables the gateway to handle messages that originated with different protocols (HTTP, FTP, SMTP, and so forth).

**CreateContract Service**—Upon receiving a request from the message queue, the CreateContract Service first sends a request to the InsertBehaviorStateMDM (via the message queue Asurion.PRODNA.Q.Business.Persistent.Financ e.Enterprise.InsertBehaviorStateMDM) to determine the current behavior state of the request to prevent processing duplication.

Upon receiving the message, InsertBehaviorStateMDM queries the Enterprise SOAP Message Log for log messages about the current values of “BehaviorInteractionIdentifier” and “CurrentBehaviorInteractionIdentifier” and returns the status information to InsertBehaviorStateMDM via the message queue.

If the status information indicates that the create contract request has not already advanced to the next process, CreateContract Service sends the create contract request via a message queue (Asurion.PRODNA.Q.Business.Persistent.Finance.ProcessNonRefPremiumPayment) to the ProcessNonRefPremiumPayment API method.

**InsertBehaviorStateMDM**—Upon receiving requests for the current status of a device from the CreateContractService, the InsertBehaviorStateMDM gets the information from the Enterprise SOAP Message Log (maintained by TIBCO) and passes it back to the service.

**Also See**

“CRM Database” in the “Asurion Subscriber Billing System - Finance Services API Specification”.

**ProcessNonRefPremiumPayment API**—Upon receiving requests to process non-refundable credit card payments from the CreateContract Service, this API formulates the request and submits it to the outside ARIA billing system.

**ARIA Billing System**—Outside Asurion, the Aria Billing System accepts requests to create customer contracts from the Asurion ProcessNonRefPremiumPayment API. In response, Aria establishes and manages customer billing cycles for Asurion insurance coverage. When the Asurion Proxy Server requests information (via HTTP) on current contracts through GetContracts, Aria responses with the latest customer contract information. Aria also sends requests to process non-refundable credit card payments to Asurion.

**Also See**

“CreateContract API” in the “Asurion Subscriber Billing System - Finance Services API Specification”.

**ProcessNonRefPaymentGateway Process Flow**

Upon accepting a request (SOAP via HTTP) to process non-refundable credit card payments from the FSA via the API method ProcessNonRefPayment, the ProcessNonRefPayments Gateway adds the request to a message queue (Asurion.PRODNA.Q.Business.Persistent.Finance.ProcessNonRefPayment). From this queue, the request is passed via an ESB to the ProcessNonRefPayment Service.

**ProcessNonRefPremiumPayment Service**—Upon receiving a request to process a non-refundable credit card payment, this service sends it (via HTTP) to the outside Global Collect service. In the return direction, responses from the Global Collect are sent back (via HTTP) to the ProcessNonRefPayment Service which sends them up through the ESB to the queue, and finally, to the gateway.

**Global Collect Service**—Outside Asurion, the Global Collect service accepts requests from the ProcessNonRefPayment Service to process non-refundable credit card payments. Global Collects processes the requests and returns responses back (via HTTP) to the ProcessNonRefPayment Service.

**Also See**

“ProcessNonRefPayment API” in the “Asurion Subscriber Billing System - Finance Services API Specification”.

**CalculateTaxesGateway Process Flow**

Upon accepting a request (SOAP via HTTP) to calculate taxes on a customer bill from the FSA via the API method CalculateTaxes, the CalculateTaxesGateway adds it to a message queue (Asurion.PRODNA.Q.Business.Persistent.Finance.CalculateTaxes). From the queue, the request is passed via an ESB to the CalculateTaxes Service.

**CalculateTaxesService**—Upon receiving a request to calculate taxes via the API method CalculateTaxes, the CalculateTaxes Service gets information about the rate of sales and service tax that should be charged for contracts purchased by customers and services (for example, maintenance) provided to customers. This data is included in a request sent (via HTTP) to the new collection service.

**New Collection Service**—This release of the Asurion Finance Services includes processing flows with a new collection service. Upon receiving a request to calculate taxes for a contract from the CalculateTaxes Service, this collection service processes the request and handles billing (including the taxes) for customer contracts that use the outside Vertex online Web-based billing service. (The Gateway does not directly connect to Vertex.)

**Also See**

“CalculateTaxes API” in the “Asurion Subscriber Billing System Finance Services API Specification”.

### Finance Service Gateway Accessed Databases

Finance Service Gateway API operations access several databases to store, update, and retrieve records primarily stored in two databases: AsurionFinance DB and the CRM DB.

Asurion Finance Database

This database stores Gateway-processed financial transaction records including message requests and responses. Gateway processes access the DB to display and update records. The AsurionFinance Database (Asurion Finance DB) stores this data in the following tables:

* **AreaUser**—Stores information about the UserID generated for Aria.
* **BTADetail**—Stored information about the Bill to Account actions.
* **CreditCardDetail**—Stores information about credit card transactions.
* **DeuCSDetail**—Stores information about transactions processed through the DeuCS Gateway.
* **DirectDebitDetail**—Stores information about transactions processed through the DDProcessing Gateway.
* **ECheckDetail**—Stores information about e-check transactions.
* **EDIFactDetail**—Stores information about transactions processed through the EDIFact Gateway.
* **InStoreDetail**—Stores information about in-store transactions.
* **PaymentGatewayRequestStatus**—Stores clienthashvalue and its status.
* **RefundQueue**—Stores information about refunds processed by the system.
* **RefundQueueFee**—Stores information about the fee amount.
* **Transaction**—Stores information about a particular transaction, identified by a unique transaction ID. Other tables get information on the transaction from this table.
* **TransactionDetai**l—Stores information about transactions. Other tables refer to fields in this table for transaction details.
* **VerisignDetail**—Stores information that is used in transactions processed through the PayFlowProcess Gateway.

**Also See**

“Figure 2. Asurion Finance Database ERD” below.

#### Asurion Finance Database ERD

Asurion Finance Database inter-table relations are indicated in the following Entity Relationship Diagram (ERD).

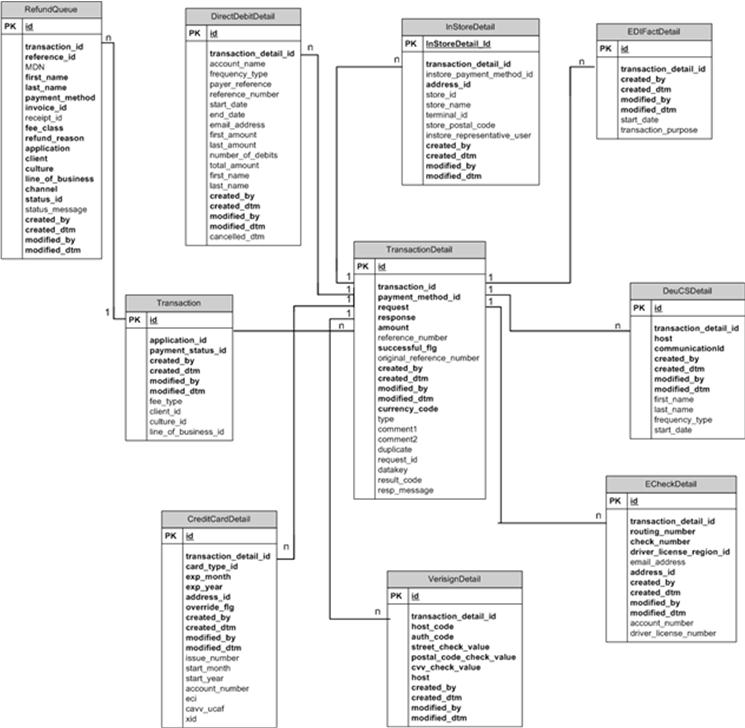


Figure 2. Asurion Finance Database ERD

CRM Database

The CRM Database (CRM DB) stores the requests and responses to manually entered enrollment, contact, billing cycle, invoice, and other information about Finance Service customer account. The CalculateTax API calls the CRM Web Service to update the database. The CRM Database stores this data in the following tables:

* **AncillaryData**—Stores ancillary data (for example, reason for enrollment status) about contacts.
* **ValidationSummary**—Stores validation summary data.
* **asu\_enrollment**— Stores overview information about policy enrollments.
* **Contact**—Stores contact information.
* **asu\_billingcycle**—Stores billing cycle information.
* **asu\_communicationmethod**—Stores information about communication methods.
* **asu\_configuration**—Stores information about system configurations.
* **asu\_configurationitems**—Stores configuration items (for example, “asur\_configurationid”).
* **asu\_contentscriptset**—Stores content scripts for each account.
* **asu\_emsactivitylogger**—Stores logs of all manual requests and responses.
* **asu\_culture**—Stores culture information (for example, “Asu\_cultureid”) used by Gateway APIs.
* **asu\_holiday**—Stores information about holidays celebrated by supported cultures.
* **asu\_paymentmethod**—Stores information about payment methods.
* **asu\_program**—Stores information about programs.
* **Invoice**—Stores information about invoices.

**Also See**

“Figure 3. CRM Database ERD” below.

#### CRM Database ERD

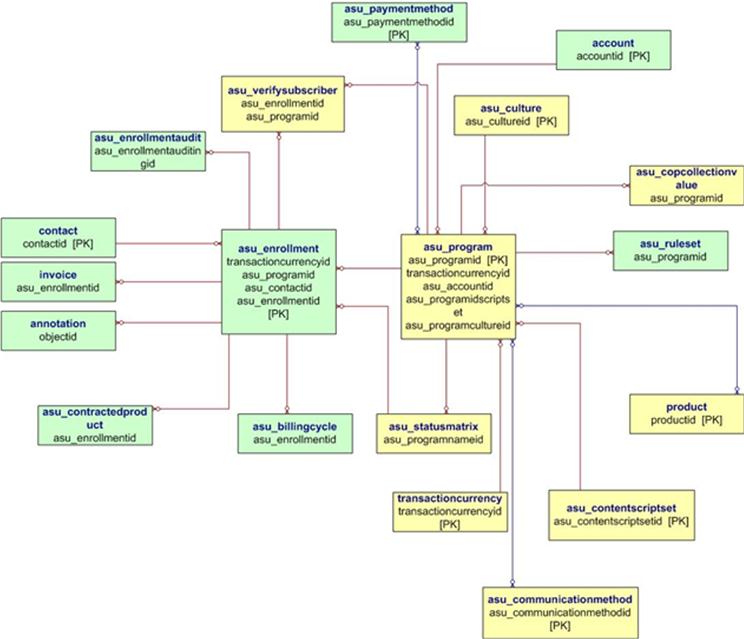


Figure 3. CRM Database ERD

## CancelPremium API Service

The CancelPremium API service method is used to cancel a premium that is already paid. The overall process involves:1) getting enrollment details from the CRM DB, 2) cancelling the premium payment account in the Asurion Finance DB, and 3) calculating the premium and deposit the refund amount.

CancelPremium incorporates:

* **CancelPremiumRequest**—SOAP message requests CancelPremium information. Request has one required parameter, CancelPremiumByContractId.
* **CancelPremiumByContractId**—The CancelPremiumByContractId SOAP message is required to cancel a premium payment identified by contract ID. The message takes one required parameter: ContractId. It also takes several optional parameters: IsRequestBySubscriber, DenyRefund, ProvideFullRefund, ZeroPremiumPaidThroughDate, NullPremiumPaidThroughDate, IsPPIDValidParamValid, and IsHandlingRefundValid.

**Note**: The CRM database shows the invoice for this premium payment with a status Submitted for Refund.

* **CancelPremiumResponse**—SOAP message response (type: CancelPremiumResult) is returned to the requester. This message has one required parameter: RefundedFees.

### CancelPremium Process Flows

CancelPremium process flows are represented in the diagram “CancelPremiumGlobal.vsd” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

**Also See**

Sample “CancelPremiumRequest\_SOAP.xml” and “CancelPremiumResponse\_SOAP” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## GetClientHashValue API Service

The GetaClientHashValue API service method accesses the AsurionFinance DB to fetch the clienthashvalue for a datakey after it is validated. This service method is also used to determine the number of times that the clienthashvalue has been accessed for a specific datakey. The service method incorporates:

* **GetHashValueRequest**—SOAP message request creates an instance of GetClientHashValueByDataKey, populates its fields, and sets SearchParameters equal to the instance.
* **GetHashValueByDataKey**—Request validates a datakey, then fetches the clienthashvalue for the datakey. This request has two required parameters: DataKey and TransactionType. It also takes one optional parameter: IsOverride.
* **GetHashValueResponse**—SOAP message response takes one required parameter: GetClientHashValueResult.
* **GetClentHashValueResult**—Given a data key, returns a clienthashvalue. The result has two required parameters: ClientHashValue and AccessCount.

**Also See**

“GetClientHashValueRequest\_SOAP” and “GetClientHashValueResonse\_SOAP” at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## GetContract API Services

The Asurion Proxy Server requests information (via HTTP) on current contracts through the GetContract Service API. Aria responds with the latest account contract information including account owner data, demographics, associated dates, status, plan, notification method, password, and billing information. In the other direction, Aria sends requests to process non-refundable credit card payments to Asurion via GetContract.

**Note**: The GetContract Service is a Tibco wrapper for the Aria get\_acct\_details\_all service method.

### GetContract Process Flow

See the GetContract process flow in “Figure 2. GetContracts Process Flow” in the “Asurion Subscriber Billing System API Specification” at

<https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d>.

**Also See**

“GetContract Service API Data” in this document.

## GetPayments API Services

GetPayments API is used to search through the Asurion Finance DB for payment details based on multiple parameters. The Transaction ID is returned in response. The service method incorporates:

* **GetPaymentsRequest**—SOAP message requests payment details with one required parameter: GetPaymentsByTransactionId.
* **GetPaymentsByTransactionID**—Fetches all payment transaction details for a TransactionID. Takes one required parameter: TransactionId. The request also takes the following optional parameter: ReturnUnmasked.
* **GetPaymentsResponse**—SOAP message returns requested payment transaction details. Takes one required parameter: SearchResult.
* **GetPaymentsResult**—Returns payment transaction details. Required one parameter: Transaction.

### GetPayments Process Flow

See GetPayments process flow diagrams “GetPaymentsGlobal”, “GetPaymentsIntelliset” and “GetPaymentsUK” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d).

**Also See**

“GetPaymentsRequest\_SOAP” and “GetPaymentsResponse\_SOAP” at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## Message Header API Services

The MessageHeader API service defines the message header content required for messages exchanged in the following contexts:

* [AlltelIntelliset](#_Toc260411957)
* [AlltelWirelessStoreFront](#_Toc260411959)
* [ATTClaimsLite](#_Toc260411960)
* [ATTiWeb](#_Toc260411961)
* [ATTSinglePlatformU](#_Toc260411962)
* [ATTWirelessStoreFront](#_Toc260411963)
* [BellCanadaWISE](#_Toc260411964)
* [BestBuyPega](#_Toc260411965)
* [CellutionsWirelessStoreFront](#_Toc260411967)
* [CentennialWirelessStoreFront](#_Toc260411968)
* [CingularWirelessStoreFront](#_Toc260411969)
* [CricketWirelessStoreFront](#_Toc260411970)
* [DobsonWirelessStoreFront](#_Toc260411971)
* [EmbarqWirelessStoreFront](#_Toc260411972)
* [EnterpriseIntellise](#_Toc260411973)
* [EnterpriseRARefundApp](#_Toc260411977)
* [EnterpriseWirelessStoreFront](#_Toc260411978)
* [EPlusClaimsLite](#_Toc260411979)
* [MetroPCSIntelliset](#_Toc260411980)
* [MetroPCSWirelessStoreFront](#_Toc260411983)
* [RogersWirelessStoreFront](#_Toc260411984)
* SOAP
* [SprintSinglePlatformUI](#_Toc260411985)
* [SprintWirelessStoreFront](#_Toc260411986)
* [SprintWITS](#_Toc260411987)
* [TelebecNortelWirelessWISE](#_Toc260411990)
* [TmobileIntelliset](#_Toc260411991)
* [TMobileWirelessStoreFront](#_Toc260411993)
* [VerizonIntelliset](#_Toc260411994)
* [VerizonSinglePlatformUI](#_Toc260411996)
* [VerizonWirelessStoreFront](#_Toc260411997)

**Also See**

“Finance Messageheader API.doc” at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## CRM Services

CRM services access the CRM DB to obtain information about account payments and communications with customers. The database stores the requests and responses to enrollment, contact, billing cycle, invoice, and other information about Finance Service customer accounts. The CalculateTax API calls the CRM Web Service to update the CRM DB.

**Also See**

“CRM Database” in this document.

## ProcessDunning API Services

The ProcessDunning API service method accesses the CRM DB to determine whether or not a contract should be cancelled depending upon the scheduled cancellation date of CRM enrollment. If the contact (customer) is within the dunning period, the method sends an email to the contact found in Finance DB records. The service method incorporates:

* **ProcessDunningRequest**—This is the process dunning request. The request takes one required parameter: ProcessDunningByContractId.
* **ProcessDunningByContractId**—This request is used to determine whether or not a contract should be cancelled depending upon its scheduled cancellation date of enrollment. If this date has arrived, the contract must be cancelled. If it has not arrived, email is sent to remind the subscriber of the number of remaining days. The request takes one required parameter: ContractId.
* **ProcessDunningResponse**—Takes one required parameter: ProcessDunningResult.
* **ProcessDunningResult**—The response result message indicates whether the contract should be cancelled or not depending upon the Scheduled cancellation enrollment date. The request takes on required parameter: CancelContract.

### ProcessDunning Process Flow

See the ProcessDunning process flow diagram “ProcessPreDunningGlobal” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d).

**Also See**

“ProcessDunningRequest\_SOAP.xml” and “ProcessDunningResponse\_SOAP” at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## ProcessPreDunning API Service

This API service method is used to send email to a subscriber whose credit card will expire within the 15 days. In this case, Dunning involves enrollments that are in Suspended status. PreDunning involves the following actions:

1. Getting the latest create or update transaction detailed for the passed Transaction ID.
2. Getting enrollment and contract details.
3. Sending email notification to the contact.

The service method includes:

* **ProcessPreDunningRequest**—This is the process predunning request This request takes one required parameter: GetPaymentsByTransactionId.
* **ProcessPreDunningByTransactionId**—Takes one required parameter: TransactionId. ProcessPreDunningByTransactionId is used when email is sent to the contact using an existing TransactionId (returned from creating the payment account).
* **ProcessPreDunningResponse**—Takes one required parameter: ProcessPreDunningResult. The request calls ProcessPreDunningResult.
* **ProcessPreDunningResult**—If the response result is empty, this process outcome is SUCCESS. Otherwise, an error message is generated.

### ProcessPreDunning Process Flow

See the ProcessPreDunning process flow diagram “ProcessPreDunningGlobal” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d)

**Also See**

SOAP request “ProcessPreDunningRequestSOAP” and SOAP response “ProcessPreDunningResponseSOAP” at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6DA69BD2-25DE-48A5-A0B8-039239D5C7F8}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6DA69BD2-25DE-48A5-A0B8-039239D5C7F8%7d).

## ProcessPremium API Services

The API service method is used to process a premium that is already paid. This processing involves the following actions:

* Processing a premium payment account using the CRM-generated contract ID.
* Depending upon the payment status of processed premium payment, creating or updating the CRM billing cycle, invoices, and enrollment.

The service method includes

* **ProcessPremiumRequest**—The is the process premium request. The request takes one required parameter: ProcessPremiumByContractId.
* **ProcessPremiumByContractId**—This request is required to process a premium payment using the CRM-generated contract ID, update CRM billing cycles, process enrollment, and create invoices. The request takes on required parameter: ContractId. Accepts optional parameters IsInitialPremiumPayment and AllowFuturePremium.
* **ProcessPremiumByTransactionId**—This request is required to modify an existing invoice and create a new billing cycle (if indicated by the TransactionId). The request takes one required parameter: TransactionId. Accepts optional parameters IsInitialPremiumPayment and IsCatchUpPremiumPayment.
* **ProcessPremiumByContractIdWithBillingCycleId**——This request is used to process a premium based on the Billing Cycle ID. The request takes two required parameters: ContractId and BillingCycleId. Accepts optional parameter AllowFuturePremium.
* **ProcessPremiumByTransactionIdWithTender**——This request is used to process the premium based on Transaction Id and Tender details. The request takes four required parameters: TransactionId, BillingAddress, BillingHolder, and Tender. Accepts optional parameters IsInitialPremiumPayment and IsCatchUpPremiumPayment.
* **UpdatePremiumByContractId**——This request is used to change an account’s billing cycle and calculate the premium for a newly-generated cycle. The request takes two required parameters: ContractId and BillDay.
* **ProcessPremiumResponse**——This is the response to the request message. The response takes one required parameter: Result (type: ProcessPremiumResult).
* **ProcessPremiumResult**——This response result message contains processed transaction details and the valid payment status. The result takes one required parameter: ProcessedTransaction.

### ProcessPremium Process Flow

See the ProcessPremium process flow diagram “ProcessPremiumGlobal” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d).

**Also See**

“ProcessPremiumByContractId\_SOAP”, “ProcessPremiumByTransactionId\_SOAP”, and “ProcessPremiumResult\_SOAP” located at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc)..

## ProcessRefPayment API Services

This API service method is used to process an ad hoc payment account that already exists for Echeck, CreditCard, and InStore payments.

The service method incorporates:

* **ProcessRefPaymentRequest**—This is the process refund payment request. The request takes the following required parameters: ProcessRefPaymentByTransactionId and ProcessRefPaymentSecure3d.
* **ProcessRefPaymentByTransactionType**—This request is used to process a transaction that is already created with a different transaction type (CREDIT, VOID, CAPTURE, and so on). The request takes three required transactions: TransctionId, TransactionType, and OriginalReferenceNumber. Accepts optional parameters TransactionAmount, TaxAmount, PaymentMethod, CurrencyCode, ClientHashValue, DataKey, IsOverride, Comment1, Comment2, and BatchOnFailure.
* **ProcessRefPaymentByTransactonId**—This request is used to process a payment account that was already created. The request takes one required parameter: TransactionId. Accepts optional parameter BatchOnFailure.
* **ProcessRefPaymentSecure3d**—This request is used to authenticate a payment. The request takes three required parameters: TransactionId, TransactionType, and ACSResponsePayload.
* **ProcessRefPaymentResponse**—This is the response to the request message. The response takes one required parameter: Result (type: ProcessRefPaymentResult/ProcessRefPaymentInStoreResult).
* **ProcessRefPaymentResult**—This result contains processed transaction details and the valid payment status.
* **ProcessRefPaymentInStoreResult**—The response result contains the TransactionID that is generated after a transaction is processed with an InStore PaymentMethod.

### ProcessRefPayment Process Flow

See the ProcessRefPayment process flow diagrams “ProcessRefPaymentEU”, “ProcessRefPaymentGlobal”, “ProcessRefPaymentInStore”, “ProcessRefPaymentIntelliset”, and “ProcessRefPaymentSprint” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d).

**Also See**

“ProcessRefPaymentByTransactionId \_SOAP” and “ProcessRefPaymentResult\_SOAP” located at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## ProcessRefPremiumPayment API Services

This API service method is used to UPDATE, CREDIT and CANCEL a premium payment account that already exists with Echeck and CreditCard payment methods.

The service method incorporates:

* **ProcessRefPremiumPaymentRequest**—This is the refund premium payment request. The request takes one required parameter: ProcessRefPremiumPaymentByTransactionType.
* **ProcessRefPremiumByTransactionType**—This request is used to update an existing premium payment account. The request takes two required parameters: TransactionId and TransactionType. ProcessRefPremiumByTransactionType also accepts optional parameters TransactionAmount, OriginalReferenceNumber, PaymentMethod, CurrencyCode, ClientHashValue, DataKey, IsOverride, BillingAddress, and Tender.
* **CreditPremiumPaymentByTransactionId**—This request is used to credit an amount against an existing premium payment account The request takes two required parameters: TransactionId and DataKey. CreditPremiumPaymentByTransactionId also accepts optional parameters CleintHashValue, TransactionAmount, IsOverride, BatchOnFailure, and TransactionType.

**UpdatePremiumPaymentByTransactionId**—This request is used to update details such as BillingAddress and TenderDetails of an existing premium payment account. The request takes three required parameters: TransactionId, Tender, and TransactionType. UpdatePremiumPaymentByTransactionId also accepts optional parameters Customer, BillingAddress, and TransactionAmount.

* **ProcessRefPremiumPaymentByTransactionId**—This request is used to process an existing premium payment account. The request takes one required parameter: TransactionId. ProcessRefPremiumByTransactionId also accepts the optional parameter BatchOnFailure.
* **ProcessRefPremiumPaymentResponse**—This is the response to the ProcessRefPremiumPaymentRequest. The response takes one required parameter: Result.
* **ProcessRefPremiumPaymentResult**—This response result contains processed transaction details and the valid payment status. The result takes four required parameters: ProcessedTransaction, IsResponseCodeKnown, ClientHashValue, and AccessCount.

### ProcessRefPremiumPayment Process Flow

See process flow diagrams “ProcessRefPremiumPaymentDE”, “ProcessRefPremiumPaymentGlobal”, and “ProcessRefPremiumPaymentUK” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d)

**Also See**

“ProcessRefPremiumPayment\_Request\_SOAP.xml”, “ProcessRefPremiumPayment\_Response\_SOAP.xml”, “ProcessRefPremiumPaymentResponse\_SOAP.xml”, and “UpdatePremiumPaymentNyTransactionId\_Request\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## ProcessRefund API Services

This API service method is used to process refunds using the valid RefundId that is generated when the premium is cancelled. The refund process involves the following steps: 1) calculate the total refund amount for the RefundId, 2) get CRM Invoice details, and 3) process the refund against the cancelled premium payment.

The service method incorporates:

* **ProcessRefundRequest**—This is the request for processing. The request takes one required parameter: ProcessRefundByRefundId.
* **ProcessRefundByRefundId**—This request is used to process a refund using the RefundId that was generated after the premium was canceled. The request takes one required parameter: RefundId.
* **ProcessRefundResponse**—This is the response to the processing request. The response takes one required parameter: Results.
* **ProcessRefundResult**—This is the response result. If the result is empty, the processing refund status is SUCCESS. Otherwise, the result contains error message details.

### ProcessRefund Process Flow

See the ProcessRefund process flow diagram “ProcessRefundGlobal” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d)

**Also See**

“ProcessRefundRequest\_SOAP.xml” and “ProcessRefundResponse\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## ReconcilePayment API Services

This API service method is used to create and process Reconcile Payment transactions.

The method includes these components:

* **ReconcilePaymentRequest**—This is the processing request. The request takes the following required parameters: ReconcileMandate and ReconcileCharge.
* **ReconcileCharge**—This request is used to update the billing cycle, CRM invoice, and STAR invoice to create and process the charge. The request takes four required parameters: CustomerReference, TransactionReference, ReasonCode, and TransactionAmount.
* **ReconcileMandate**—This request is used to process the Mandate. The request takes five required parameters: CustomerReference, ReasonCode, Customer, Tender, and TransactionAmount.
* **ReconcilePaymentResponse**—This is the request response. The response takes one required parameter: Result.
* **ReconcilePaymentResult**—The response result contains information about the reconcile payment transaction. The result takes four required parameters: ContractId, Status, Reconciled, and FailureReason.

### ReconcilePayment Process Flows

See ReconcilePayment process flow diagram “ReconciledPaymentsGlobal” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d)

**Also See**

“ReconcilePaymentChargeRequest\_SOAP.xml”, “ReconcilePaymentMandateRequest\_SOAP.xml”, and “ReconcilePaymentResponse\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## SearchPayments API Services

This API service method is used to search payment details that are already paid. These records can be searched by Comment1, Comment2, Customer Name, FeeType (“PREM”, “DED”, etc.), and Payment Status (“APPROVED”, “DECLINED”, etc.). For security, this service method stars out all sensitive information in the payment details. The service method incorporates:

* **SearchPaymentsRequest**—This is the search request. This request takes the following required parameters: SearchPaymentsByComment1OrName, SearchPaymentsByComment2, SearchPaymentsByStatus, and SearchPaymentsByComment1FeeType.
* **SearchPaymentsByComment1OrName**—This request is used to search for payment details by Comment1 or CustomerName. This request takes four required parameters: Comment1, Name, StartRow, and EndRow.
* **SearchPaymentsByComment2**—This request is used to search for payment details by Comment2. This request takes three required parameters: Comment2, StartRow, and EndRow.
* **SearchPaymentsByComment1FeeType**—This request is used to search for payment details by Comment1 and FeeType. This request takes four required parameters: Comment1, FeeType, StartRow, and EndRow.
* **SearchPaymentsByStatus**—This request is used to search for payment details by Status (“APPROVED,” “CANCELLED,” “DECLINED,” etc.). This request takes five required parameters: PaymentStatus, StartDate, EndDate, StartRow, and EndRow.
* **SearchPaymentsResponse**—This is the request response. This response takes one required parameter: Result.
* **SearchPaymentsResult**—This response result contains the requested payment details.. This result takes one required parameter: Transaction.

### SearchPayments Process Flow

See SearchPayments process flow diagrams “SearchPaymentsGlobal” and “SearchPaymentsIntelliset” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View={98315392-540F-4FA1-9CC9-D1B7D9A851F6}](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/FinanceService%20%20Restricted/Forms/AllItems.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FFinanceService%20%20Restricted%2FProcess%20Flow%20Diagrams&FolderCTID=0x01200091999D425DBE154EBF7E67C31D758CF9&View=%7b98315392-540F-4FA1-9CC9-D1B7D9A851F6%7d)

**Also See**

“SearchPaymentRequest\_SOAP.xml”, “SearchPaymentsComment2Request\_SOAP”, “SearchPaymentsComment1FeeTypeRequest\_SOAP.xml”, and “SearchPaymentsResult\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## SearchReconciledPayments API Services

This API service method is used to search reconciled payments and reprocess all premium payments that have a CONFIRMED status. If reprocessing is requested, this action updates the reconciled payment. The service method incorporates:

* **SearchReconciledPaymentsRequest**—This is the search request. This request takes one required parameter: SearchReconciledPaymentsAll.
* **SearchReconciledPaymentsAll**—This request is used to search through all reconciled payments for reprocessing purposes. This request takes one required parameter: UpdateTransactionWithReconciledStatus.
* **SearchReconciledPaymentsResponse**—This is the search request response. This response takes one required parameter: SearchPararmeters.
* **SearchReconciledPaymentsResult**—This response result contains a list of all transaction details that are processed as part of reconciled payments and their payment status (“CANCELLATION”, “EXCEPTION”, etc.). This result takes one parameter: Transaction.

**Also See**

“SearchReconciledPaymentsRequest\_SOAP.xml” and “SearchReconciledPaymentsResult\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

## SearchRefunds API Services

This API service method is used to search for refund details. The service method incorporates:

* **SearchRefundsRequest**—This is the refund search request. This request takes the following parameters: SearchRefundsByStatusAndFeeClass, SearchRefundsByFeeClass, SearchRefundsByTransactionId, SearchRefundsAdvanced, and SearchRefundsById.
* **SearchRefundsByStatusAndFeeClass**—This request is used to search for refund details by Status (for example, “Pending Payment Approval”). The request takes the following required parameters: FeeClass and Status.
* **SearchRefundsByFeeClass**—This request is used to search for refund details by FeeClass (for example, “PREM”). This request takes the following required parameter: FeeClass.
* **SearchRefundsByTransactionId**—This request is used to search for refund details by TransactionId. This request takes the following required parameter: TransactionId.
* **SearchRefundsAdvanced**—This request is used to search for refund details by Status, PaymentMethod, MDN, ReferenceId, Subscriber, or FeeClass. This request takes the following required parameters: Status, PaymentMethod, MDN, ReferenceId, Subscriber, and FeeClass.
* **SearchRefundsById**—This request is used to search for refund details by RefundId. This request takes the following required parameter: RefundId.
* **SearchRefundsResponse**—This is the request response. This response takes the following required parameter: SearchResult.
* **SearchRefundsResult**—This is the response result. This result takes the following required parameter: Refunds.

**Also See**

“SearchRefundsByStatusAndFeeClass\_Request\_SOAP.xml”, “SearchRefundsByFeeClass\_Request\_SOAP.xml”, “SearchRefundsAdvances\_Request\_SOAP.xml”, “SearchRefundsByTransactinId\_Request\_SOAP.xml”, “SearchRefundsById\_Request\_SOAP.xml”, and “SearchRefundsResponse\_SOAP.xml” at

[https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

# Asurion Subscriber Billing System Security

Asurion manages Subscriber Billing System security through authentication, authorization, and certification processes.

## Authentication and Authorization

Asurion takes an integrated approach to user authentication and authorization. When a client customer at the point of sale (POS) contacts the Asurion AuthenticateUser Web Service, it uses the systemusername and systempassword that was previously given to customer at the time of development. This username and password pair is used for all requests to the Asurion Web Service.

From that point on, the client customer uses that Asurion-issued system user ID and system password in request message headers for financial transaction servicing. Asurion stores the system user ID and system password in an Active Directory (AD). Asurion validates new requests for processing against the previously-issued system user ID and system password stored in the AD.

## Certification

Asurion Finance Service servers are certified periodically. A Root Certificate Authority is obtained for the Mendes and Cane servers. Asurion obtains this digital certificate from the DigiCertHighAssuranceCA certificate authority.

The Root Certificate Authority passes certification down to other servers hosting Finance Service processes. A Root Certificate Authority applies for 1 years. The Asurion Technology Products team certifies servers hosting the Subscriber Billing System Finance Services Gateway processes. The overall process for obtaining SSL Certification, for example, is outlined in the Asurion document referenced below.

When a digital certificate has expired, the Asurion Network Operations Center (NOC) opens a P6 CIRT report for the expired certificate. If a RunBook is not available for the servers hosting the expired certificate, the problem is passed to the Asurion IT Product Support Team (L2) for resolution.

**Also See**

“SSL Certificates” at <https://syswiki.int.asurion.com/index.php/SSL_Certificates>.

And, see “L1 Support: NOC” and “L2 Support: IT Product Support” in this document.

# Asurion Subscriber Billing System Networking

Asurion Subscriber Billing System networking system incorporates tailored management and architecture. The following sections introduce the networking that supports Gateway activities.

## Network Monitoring and Management

Asurion manages client networks through the Network Operations Center (NOC). NOC monitors network infrastructure and application resources, reports network communications problems, and manages network problem resolution. NOC uses the Paessler Router Traffic Grapher (PRTG) to monitor the condition of Asurion networks, bandwidth usage, and applications.

**Also See**

“Asurion Subscriber Billing System Monitoring and Logging”.

### Asurion Subscriber Billing System Network

The network configuration supporting Asurion Finance Service Gateway incorporates multiple high-capacity servers, effective load-balancing, and two layers of firewall protection. Connecting Asurion with the customer, this network is organized into three areas of connectivity: Asurion core, Asurion DMZ, and the greater internet.

Within the network, the Asurion core includes three servers hosting the Finance Service, and two load balancing Virtual IP’s (VIP). Beyond the firewall, the Asurion DMZ includes two proxy servers and three VIP’s. On the other side of the next firewall, the greater Internet includes customers and the Aria Billing System.

# Asurion Subscriber Billing System Monitoring and Logging

Asurion uses TIBCO BusinessWorks (BW) HAWK to monitor the health and performance of the Asurion Subscriber Billing System operations. Treating the entire network as one system, HAWK provides a broad-ranging approach to monitoring the TIBCO Enterprise Management Service (EMS) and EMS server operations involved in Finance Service Gateway activities.

## Monitoring Services

Using Hawk, the Asurion QA team monitors rulesbases, connection counts, BW engine exceptions, BW application instance restarts, application error DB inserts, BW historical data,, and view BW log, files that have not been rolled in the past 7 – 14 days.

Using the Paessler Router Traffic Grapher (PRTG), the Asurion NOC team monitors Asurion networks, bandwidth usage, and applications.

## Logging Services

The results of monitoring are recorded in the domain folder (for example, PROD\_FINANCE) in the host server. These Hawk logs are maintained and updated every second and minute. Asurion uses the Tibco `Administrator to monitor, manage, deploy, and undeploy monitoring archives (MARs). The team also uses the Tibco Enterprise RTView dashboard console to display the current status of various BW and EMS servers.

**Also See**

“Asurion Subscriber Billing System Monitoring and Logging” in the “Asurion Subscriber Billing System QA Testing Specification”.

# Asurion Subscriber Billing System Controls

The Asurion Subscriber Billing System uses built-in rules and mechanisms to assure the correct transaction processing. The following sections describe the key approaches to control.

## Rules Engine Control

When the system determines the amount for a refund, for example, the computation follows rules in the code. The resulting amount is solely determined by inputs (for example, total amount paid by the subscriber for the contract) and in-coded calculation rules.

Manual inputs are validated (date format and range, limits on dollar amounts entered, and so on) by the software. Incorrect inputs are rejected.

## Transaction Duplication Avoidance Control

Built-in Asurion Finance Services mechanisms prevent duplicate transaction. These processes are summarized below.

### DataKey “Claim-Lock” Duplication Protection

When Finance Services processes a claim payment, contract billing-cycle, or a refund payments are made according to Transaction Type. This “claim-lock” protection assures that only one transaction is allowed per transaction type for any claim or contract.

To avoid duplicate request processing, Finance Services use a DataKey combination of:

* Comment1 (contract ID or the claimID) and the Date, or
* Comment2 and the FeeType.

Every transaction for a transaction type is assigned a unique DataKey.

For example, a Sale Transaction for a particular ClaimId and OrderId will be assigned a unique DataKey. Later, it the same Sale Transaction is submitted for processing, the repeated DataKey will be detected. The transaction will be marked as a duplicate and not processed.

Every transaction record has an associated DataKey and ClientHashValue. Finance Services controls record processing based on the ClientHashValue. The Datakey is mapped with the ClientHashValue. Finance Services uses the DataKey to validate the ClientHastValue of an incoming request.

### Rubber Wall Protection

A “rubber wall” mechanism uses the ClientHashValue to determine the current status of a transaction record being processed:

* Status = -1 (record is executing for the first time)
* Status = 0/-2 (record is locked)
* Status = 1 (record is duplicate)

The Status value is stored in the PaymentGatewayRequestStatus Table of the Asurion Finance database. Status setting process:

1. An incoming request for record processing is assigned a unique ClientHashValue and the duplicate protection status “-1 As the record is processed, the status changes to “0”. When processing is complete, the status changes to “1”.If the record is submitted but not assigned a status of -1 (new), it is and marked as a duplicate.

**Note**: ClientHashValue is stored in the “record\_Id” field of the TransactionDetail table.

1. If the status of a record indicates that it is a duplicate, the system fetches the transaction from the passed in ClientHashValue and updates records it in the TransactionDetail Table.
2. If the status of a record indicates that it is in locked status, the system attempts to fetch the transaction using the ClientHashvValue. If the transaction is not found, the system raises the exception “Duplicate Protection Failure.”

# Asurion Subscriber Billing System Maintenance

Asurion maintains reliable disaster recovery and certification services. These Subscriber Billing System maintenance features are introduced in the following sections.

## Certificate Maintenance

Asurion Finance Service servers are regularly certified. An Asurion Root Certificate Authority is obtained through. his process is explained in the section “Certification”.

## Disaster Recovery

Asurion has implemented a disaster recovery (DR) system and procedures that assure the continuous availability of Subscriber Billing System functions including Finance Service Gateway operations.

Regular Subscriber Billing System backups are stored at the Sterling Data Center (SDC). These backup data stores are available to Asurion 7/24.

Asurion conducts DR testing regularly to assure the constant availability of the Subscriber Billing System. The next section shows the result of a sample DRtest.

### Asurion Subscriber Billing System Client DR Exercise

The following figure (three part) shows the result of a sample DR test of the Asurion Subscriber Billing System application running on a client machine.

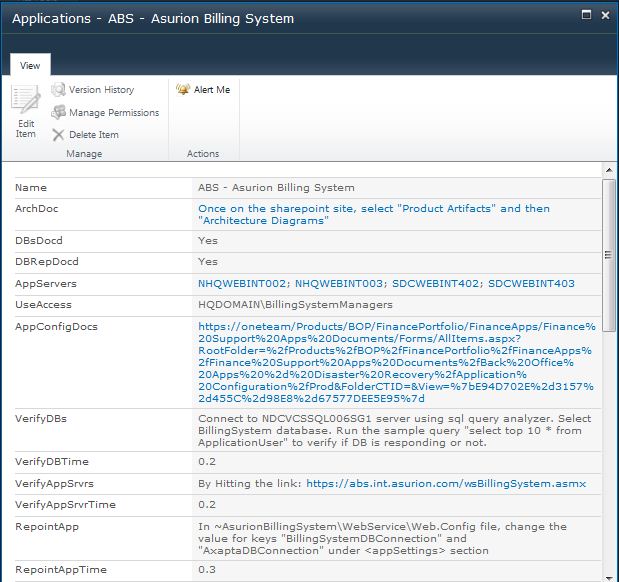


Figure 4. DR Sample Test (1)

The next section of the display shows the following.

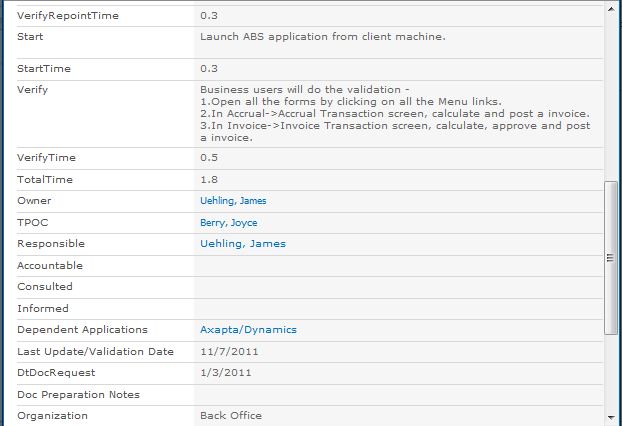


Figure 5. DR Sample Test (2)

The lower portion of the screen shows the following.

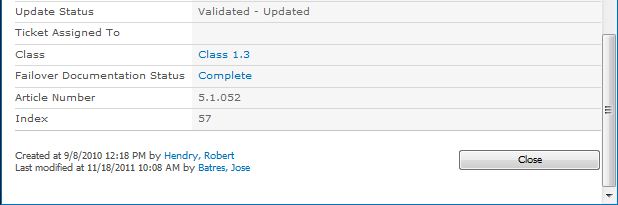


Figure 6. DR Sample Test (3)

**Also See**

Asurion Disaster Recovery process description wiki pages at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/ITInfrastructure/dr/default.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FITInfrastructure%2Fdr%2FShared%20Documents%2FClient%20Connectivity%20%2D%20documentation&FolderCTID=0x0120001FC15C17E76B6149931E55F91DF5CE00&View={DB4F8FC2-1819-453C-A381-6BD8BEFF8F56](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/ITInfrastructure/dr/default.aspx?RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FITInfrastructure%2Fdr%2FShared%20Documents%2FClient%20Connectivity%20%2D%20documentation&FolderCTID=0x0120001FC15C17E76B6149931E55F91DF5CE00&View=%7bDB4F8FC2-1819-453C-A381-6BD8BEFF8F56).

## System Availability

The Asurion Subscriber Billing System is available for financial transactions, record viewing, and other operations every day, 24 hours per day.

# Asurion Billing System Error Reporting, Software Quality Assurance, and Testing

Asurion product development, production deployment, and maintenance support involves reliable systems of error reporting, Quality Assurance (QA), and testing. Before the Asurion product is released to production, it is thoroughly tested by our QA/QC teams. The teams run the Finance Service Gateway through a rigorous suite of testing.

On a system level, QA/QC testing demonstrates the ability of the Gateway and component gateways and services to properly validate, accept, and process customer data. On a lower level, QA/QC testing assesses the functions of individual APIs.

At the system level, the Asurion QA/QC team uses the ARIA Billing Manager to conduct the following tests of the product implementation:

* Smoke test
* Integration test with the customer and ARIA application
* System test
* Regression test
* End to end test to verify that the system is working properly.

**Also See**

“Asurion Subscriber Billing System SQA Testing Specification” (AsurionSubscriberBillingSystem SQATestSpec.doc) at [https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View={6da69bd2-25de-48a5-a0b8-039239d5c7f8}&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc](https://oneteam/Teams/OrganizationalTeams/TechnologyProducts/RelationshipProductMgmt/ProductMgmtBackOffice/HRFinanceLegal/SubscriberBilling/Shared%20Documents/Forms/AllItems.aspx?FolderCTID=0x0120005617996FC3AE2747809B62081EE5F1B4&View=%7b6da69bd2-25de-48a5-a0b8-039239d5c7f8%7d&RootFolder=%2FTeams%2FOrganizationalTeams%2FTechnologyProducts%2FRelationshipProductMgmt%2FProductMgmtBackOffice%2FHRFinanceLegal%2FSubscriberBilling%2FShared%20Documents%2FAsurion%20Subscriber%20Billing%20System%20Specs&TreeField=Folders&TreeValue=Asurion%20Subscriber%20Billing%20System%20Specs&ProcessQStringToCAML=1&SortField=Modified&SortDir=Desc).

# Asurion Subscriber Billing System Support

Asurion provides three levels of support for the Subscriber Billing System operations:

* L1 --- Network Operations Center (NOC)
* L2 --- Asurion IT Product Support
* L3 --- E2E Billing Operations Team

## L1 Support: NOC

The Asurion NOC team provides L1 level support for the Asurion Subscriber Billing System. A sample internal Asurion NOC report is shown below.

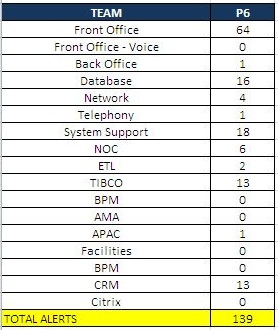


Figure 7. Asurion NOC Report

This NOC report lists P6 level system problems for each team involved in developing, implementing, and supporting the Asurion Subscriber Billing System

**Note**: The NOC team has two levels of concern:

* P1 = Reactive, critical problems that impact business.
* P6 = Proactive, incidents that may become critical if they are not resolved. They do not presently impact business.

**Also See**

“L2 Support: IT Product Support” and “L3 Support: E2E Billing Operations Team”.

## L2 Support: IT Product Support

The Asurion IT Product Support group provides L2 level support for the Asurion Subscriber Billing Systems. When system problems are reported by the NOC team, they may be addressed by the L2 support team.

Generally, this team performs the following tasks:

* Addresses any alerts concerning servers that host the Asurion Subscriber Billing Systems.  These alerts range from the server down, site unavailable, server performance issues, and so forth.
* Addresses any alerts concerning the Asurion Subscriber Billing System service that are logging a higher than normal error rate and could impact customer transactions or SLA levels with clients.
* Works with the L3 team to triage any service performance issues that are causing a CIRT outage or could lead to a CIRT notification.

**Also See**

“L1 Support: NOC” and “L3 Support: E2E Billing Operations Team”.

## L3 Support: E2E Billing Operations Team

The E2E Billing Operations incident response teams provide L3 level support for the Asurion Subscriber Billing System. When system problems are reported by NOC not handled by the L2 team, they are passed to the E2E Billing Operations team.

This team of developers and service application maintenance programmers examine the code in detail for problems and code-in solutions.

**Also See**

“L1 Support: NOC” and “L2 Support: IT Product Support”.

# Appendix – Supplemental Information

## A.1 Asurion Subscriber Billing System Tibco, NET, and CRM Services

The following tables list names of the Asurion Finance Services by service area, Tibco service name, NET service name, and CRM service name.

|  |  |  |
| --- | --- | --- |
| Tibco Services | NET Services | CRM Services |
| AutoConfirm | ReconcilePayment | NA |
| CalculateTaxes | calculateTax | NA |
| CalculateTaxesGateway | NA | NA |
| CancelPremium | CancelPremium | NA |
| CreateContract-Walmart | GetPayments | NA |
| CreateContract Gateway | NA | NA |
| CreateContractNote | NA | Create |
| DoPayout | DoPayout | NA |
| FinanceGateway | FinanceGateway | NA |
| FinanceServiceAgent | NA | NA |
| GetContract | get\_acct\_details\_all | NA |
| GetPayments | GetPayments | NA |
| ProcessDunning | ProcessDunning | NA |
| ProcessNonRefPayment | ProcessNonRef Payment | NA |
| ProcessNonRefPremium PaymentGateway | NA | NA |
| ProcessPreDunning | ProcessPreDunning | NA |
| ProcessPremium | ProcessPremium | NA |
| ProcessRefPremiumPayment | ProcessRefPremiumPayment | NA |
| ProcessRefPaymentGateway | NA | NA |
| ProcessRefundsForCancelled | NA | NA |
| ReconcilePayment | ReconcilePayment | NA |
| ResubmitFailed Invoices | NA | NA |
| SendCancellation Notice | NA | Update |
| UpdateContract | NA | NA |

## A.2 Asurion Subscriber Billing System Data Dictionary

The following sections describe the data types used by Subscriber Billing System components (for example, Finance Services).

### A.2.1 Enterprise Canonical Model Data

The Asurion Enterprise Canonical Model for a system identifies key abstract elements that appear in individual schema. For the Asurion Subscriber Billing System, the model includes abstract types “BaseRequest,” “BaseResponse,” and “Errors,” and many basic data types.

The data types included in WSDL definition of the Enterprise Canonical Model (described below) apply to Asurion Subscriber Billing System APIs.

**Message Header Data**

| **Name** | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| MessageHeader |  |  |  |
|  | Application | Identifies the application. | String.Value: “WalmartPOS” |
|  | Channel | Message channel. | String. Value: “ISR”. |
|  | Client | Identifies the client using the system. | String. Value: “Walmart”. |
|  | Culture | Identifies the client’s culture or region. | String. Value: “en-US”. |
|  | LineOfBusiness | Type of service business. | String. Value: “HandSetInsurance”. |
|  | Method | Service method. | String. Value: “CreateContract”, “CalculateTaxes”, or  “ProcessNonRef Payment”. |
|  | ParentMessage RequestID | Unique identifier generated by Wall-Mart to double link requests for a particular transaction. | String. |
|  | Principal | Refers to the system username and password of the principal. | String.  “SystemUsername”  “SystemPassword” |
|  | Service | Type of service. | String (e. g., “Finance”). |
|  | TimeStamp | Date and time in UTC format. Thus, 2011-08-23T10:12:16.182-04:00. | dateTime. |
|  | Version | Service version. | Value: “1.0” (current version), “1.1”, “1.2”. |

**Message Body Data**

| **Name** | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| AccessCodeType |  | Type of access code. | String, Values: “0”, “1”, “2”, or “3” |
| Account |  | Current account status. | String  “Status” |
| Address |  |  |  |
|  | AddressType | Type of postal address. | String, 1 space, Values:  “S” = Street, “M” = Military, “P” = POB, “R” = Rural, or “F” = Foreign. |
|  | Attention | Identifies recipient. | String, 0 to 25 characters. Optional. |
|  | AddressLine1 | Top line of address (for example, street number and name). | String, 1 to 50 characters.  **Note**: Some systems will not be able to accept` or return this number of characters for an address line. |
|  | AddressLine2 | Second line of address. | String, 1 to 50 characters. Optional. |
|  | City | City of the address. | String, 1 to 50 characters. |
|  | State | Abbreviation for US State name. | String, 2 characters. **Note**: See the description of type “USStateAbbr.” |
|  | PostalCode | Postal zipcode. | String, 5 characters |
|  | Country | Abbreviation for the Country name. | String, 2 characters.  Default = “US” |
| AddressType |  |  | **Note**: See “AddressType” in the previous table. |
| Addresses |  |  | Complex type |
|  | Address | Address associated with the request. | Unbounded. Optional. |
| AlarmLevelEnum |  | Number indicating alarm level. | String, Values:  “Good”, “Info”, “Warning”, “Error”, or “Critical”. |
| AreaCodeType |  | Type of area code. | String. 3 or 5 characters. |
| ArrayOfHeartBeat Info |  |  |  |
|  | Heart BeatInfo | HeartBeat message information. | Unbounded. Optional. |
| BaseRequest |  | Input request message. | “True” |
| BaseResponse |  | Output request response message. | “True” |
|  | Errors | Information about errors associated with the request. | String. |
| CancelReason |  | Indicates that the response is to cancel the request. | String, Values:  “Out of Stock”, or “Undeliverable”. |
| Channel |  | Type of channel. | String. Values:  “CSR”, “InStore”, “IVR”, “Web”, “Unknown”, or “SCM”. |
| ClaimInfo |  | Claim information. |  |
|  | ClaimID | Claim ID. | String, Value: 1 to 30 characters. |
|  | Sequence | Sequence of ClaimID. | String, Value: 1 to 30 spaces.. |
| CountryAbbr |  | Abbreviation of the country name. | String, 1 to 2 characters. Default value: “US”. |
| CountryCodeType |  | Type of Country Code. | String. Value: “0” or “4” |
| Culture |  | Language of the country. | String. Value: “en-US” (English), “ja-JP” (Japanese), or “ko-KR” (Korean). |
| Currency |  | Monetary value. | Decimal. Pattern value: 0 to 7 digits + . (decimal point) + 1 or 2 digits. |
| Customer |  | Information identifying the customer. |  |
|  | CompanyName | Company name. | String. Value: 1 to 50 characters. |
|  | Name | Person’s name. | **Note:** See the description of type “PersonName”. |
|  | EmailAddress | Email address associated with the company or person. | **Note:** See the description of type “EmailAddress”. Optional. |
|  | PhoneNumber | Phone number associated with the company or person. | **Note:** See the description of type “PhoneNumber”. |
|  | Addresses | Addresses associated with the company and person. | **Note:** See the description of type “Addresses”. |
| Discount |  | Amount, reason, and type of discount. | Complex type. |
|  | Amount | Amount of discount. | Currency. |
|  | Reason | Reason for the discount. | String. Value: 0 to 1024 characters. |
|  | Type | Type of discount. | See the description of type ”DiscountType”. |
| DiscountType |  | Type of discount. | String. Value: “Coupon” or “Customer Satisfaction.” |
| Error |  |  | Type for API error messages. |
|  | ErrorMessage | Content of the error message. | String. |
|  | ErrorNumber | Error number. | String |
|  | ErrorStackTrace | Error stack trace. | String. |
|  | ErrorType | Type of error. | String. |
| ESN |  | Unique Electronic Serial Number (ESN) of the device. | String. Maximum length = 20 characters. |
| EmailAddress |  | Email address associated with the customer. | Valid email address conforming to standard RFC 2822. |
| EnrollmentType |  | Type of enrollment. | String. Value: “Business” or “Consumer.” |
| Equipment |  | Equipment identification. | ComplexType |
|  | ESN | Electronic Serial Number (ESN) of the device. | String. Maximum length = 20 characters. |
|  | IMEI | International Mobile Equipment Identity (IMEI) number of the device. | **Note:** See “IMEI” type. |
|  | SKU | Stock Keeping Unit (SKU) identification of the device. | String. Value: 1 to 30 characters. |
|  | ReferenceSKU | SKU that identifies the type of device. | String. Value: 0 to 30 characters. |
|  | ManufacturerInfo | Information about the device issued by the manufacturer. | **Note:** See “ManufacturerInfo” in this table. |
|  | Type | Type of equipment. | **Note:** See “EquipmentType” in this table. |
| EquipmentType |  | Type of equipment. | String. Value:  “Memory Card”, “SIM Card”, “Phone”, “Home Charger”, “Return Envelope”, or “Battery”. |
| Equipments |  |  |  |
|  | Equipment |  | **Note:** See “Equipment” in this table. |
| Fee |  | Fee information. |  |
|  | Type | Type of fee. | **Note:** See “FeeType” in this table. |
|  | Amount | Fee amount. | String. |
|  | Date | Date and time associated with the fee. | dateTime |
|  | Discount | Information about the fee discount. | **Note:** See “Discount” in this table. |
|  | Notes | Notes about the fee. | String. |
| FeeType |  | Type of fee.. | String. Value: “Deductible”, “Equipment Repair”, “Salvage Non Return”, “StateTax”, “DistTax”, “CountyTax”, “CityTax”, “SalesPrice”, “PurchasePrice”, “ShippingFee”, “MiscFee”, or “Product Non Return.” |
| Fees |  |  |  |
|  | Fee | See the description of type “Fee.” | Unbounded. |
| FreightCarrier |  | Identifies the freight carrier. | String. Value:  “DHL”, “UPS”, “USPS”, or “FedEx.” |
| FulfillmentChannel |  | Channel for fulfilling the request. | String. Value:  “DirectFulfillment”, “InstoreRepair”, “InstoreReplacement”,”Reimbursement”, “IntelliStore”, or “InstoreDeductible.” |
| HeartBeatInfo |  | Device HeartBeat information. |  |
|  | SybsystemType | Type of Sybsystem. | **Note:** See “SybsystemType Enum” in this table. |
|  | SybsystemName | Name of the Sybsysem. | String. Value: 0 to 30 characters. |
|  | AlarmLevel | Alarm level number. | **Note:** See “AlarmLevelEnum” in this table. |
|  | ExceptionThrone | Thrown exception. | String. Value 0 to 1024 characters. |
| HoldStatus |  | Device hold status. | String. Value:  “Cancelled” or “Void.” |
| IMEI |  | International Mobile Equipment Identity (IMEI) number of the device. | String. MaxLength = 20 characters. |
| Instruction |  | Device instruction. |  |
|  | Sequence | Instruction is a sequence. | String. |
|  | InstructionText | Instruction is in text format. | String. Value 0 to 1024 characters. |
| Instructions |  |  |  |
|  | Instruction | Device instruction. | **Note:** See “Instruction” in this table. |
| LossType |  | Type of device loss. | String. Value: “Damaged”, “Lost”, “Stolen”, “Unrecoverable”, or “Malfunction”. |
| ManufacturerInfo |  | Device manufacturer information. |  |
|  | Make | Device make. | String. |
|  | Model | Device model. | String. ???  Optional. |
|  | Color | Device color. | String. ??? |
| MessageRequestID |  | Message request identifier. | String. Value: 1 to 255 characters. |
| OrderItem |  | Identifies the ordered item. |  |
|  | Equipment | Equipment ordered. | **Note:** See “Equipment” in this table. |
|  | Fees | Information about the fee(s) associated with the order. | **Note:** See “Fee” in this table. |
|  | Quantity | Number of items ordered. | Two character, non-negative integer. |
|  | PackingGroup | Packing group number. | Two character, non-negative integer. |
| OrderItems |  | Information about the ordered items. |  |
|  | OrderItem |  | Unbounded. See the description of the type “OrderItem.” |
| OrderStatus |  | Current status of the order. | String. Value:  “Fulfilled” or “Not fulfilled” |
| Payment |  | Information about the order payment. |  |
|  | Fees | Fees associated with the order. | **Note:** See “Fees” in this table. |
|  | PaymentID | Payment ID associated with the order. | String. Value: 1 to 50 characters. |
| PaymentType |  | Type of payment for the order.. | String. Value:  “COD”, “CreditCard”, “E-check”, “WirelessBill”, or “Cash”. |
| Payments |  |  |  |
|  | Payment | Order payment information. | **Note:** See “Payment” in this table. |
| PersonName |  | Customer’s name. |  |
|  | NamePrefix | Prefix before the name (for example, “Miss”). | String. Value: 0 to 5 characters. |
|  | FirstName | Customer’s first name. | String. Value: 1 to 30 characters. |
|  | MiddleName | Customer’s middle name. | String. Value: 1 to 30 characters. |
|  | LastName | Customer’s last name. | String. Value: 1 to 30 characters. |
|  | NameSuffix | Suffix after the customer’s name (for example, “Jr.”). | String. Value: 0 to 12 characters. |
|  | AdditionalTitle | Additional title following the customer’s name (for example, “Ph.D.”). | String. Value: 0 to 15 characters. |
| PhoneNumber |  | Phone number associated with the order. |  |
|  | AccessCode | Phone number access code associated with the order | String. See the description of type “AccessCodeType.” |
|  | CountryCode | Phone number country code associated with the order. | String. See the description of type “CountryCodeType.” |
|  | AreaCode | Phone number area code associated with the order. | String. See the description of type  “AreaCodeType.” |
|  | LocalNumber | Local phone number associated with the order. | String. |
| PostalCode |  |  |  |
|  | Zipcode | Postal zipcode associated with the request. | String. See the description of type “Zipcode.” |
|  | Extension | Zipcode extension. | String. See the description of the type “ZipcodeExtension.” |
| Relationship |  | Relationship of the requester to the account. | String. Value: “Account Holder”, “Authorized User”, or “Other”. |
| SalesOrder |  |  |  |
|  | ID | Sales order number. | String. Value: 1 to 30 characters. |
|  | CreateDate | Sales order creation date. | Standard dateTime format. |
|  | Status | Current status of the sales order. | String. See the description of type “OrderStatus.” |
|  | StatusDate | Date of the sales order status. |  |
|  | SkipFulfillment | Indicates if the order is fulfilled. | Boolean. “True” or “False” (default). |
|  | ShippingInfo | Sales order shipping information. | String. See the description of type “ShippingInfo.” |
|  | Items | Sales order items. | String. See the description of type “OrderItems.” |
| SalesOrders |  |  |  |
|  | SalesOrder | Information about the sales order | String. Unbounded. **Note:** See “SalesOrder” in this table. |
| Scripts |  |  |  |
|  | Script | Information about the script associated with the request. | String. Unbounded. Value: 0 to 1024 characters. |
| ShippingInfo |  |  |  |
|  | AllowPartial Shipment | Indicates if a partial order shipment is permitted. | Boolean. “True” or “False” (default). |
|  | DeliveryAddress | Order shipment delivery address. | String. See description of type “Address.” |
|  | DeliveryDate | Order shipment delivery date. | Standard dateTime format. |
|  | DeliveryMethod | Method of order shipment delivery. | String. ??? |
|  | FreightCarrier | Identifies the order shipment freight carrier. | String. Value: 1 to 13 characters. |
|  | ShipDate | Date of order shipment. | Standard dateTime format. |
|  | ShipmentTracking ID | Identifier for order shipment tracking. | String. |
|  | Shipping Instructions | Order shipping Instructions. | String. See the description of the type “Instructions.” |
|  | WaiveShippingFee | Indicates if the order shipping fee can be deleted. | Boolean. “True” or “False”. |
| SKU |  | The Stock Keeping Unit (SKU) number associated with the device. | String. Value: 1 to 30 characters. |
| SKUs |  | Stock Keeping Units associated with the device. |  |
|  | SKU | SKU number of the device. | String. Unbounded. **Note:** See “SKU” in this table. |
| SybsystemType Enum |  | Type of syb system. | String. Value: “None”, “Server”, “Database”, “AWD”, “External”, or “Unknown.” |
| TelephoneNumber |  | Phone number associated with the contract. | String. Standard 10 digit number. |
| USStateAbbr |  | Postal address abbreviation for the state or region. | String, 2 characters. Values: “AL","AK", "AS”,”AZ","AR", "CA", CO","CT",  "DE","DC","FM”, "FL","GA”,"GU",  "HI","ID","IL", "IN","IA","KS",  "KY”,"LA","ME", "MH","MD","MA",  "MI","MN","MS", "MO","MT”,"NE”, "NV","NH","NJ”, "NM","NY","NC",  "ND","MP","OH”, "OK”,“OR”,"PW", "PA","PR”,"RI", "SC","SD","TN", "TX","UT","VT", "VI","VA”,"WA”, “WV”,"WI”,"WY”, ”AE”,"AA”,“AP”. |
| ZipCode |  | US Postal Service Zip code associated with the request. | String. Value: 5 characters. |
| ZipCodeExtension |  | Extension used with the Zip code associated with the request. | String. Value: 0 or 4 characters. |

**Also See**

Sections “**CreateContractGateway Process Flow**“, “**ProcessNonRefPaymentGateway Process Flow**, and “**Also See**

“ProcessNonRefPayment API” in the “Asurion Subscriber Billing System - Finance Services API Specification”.

**CalculateTaxesGateway Process Flow**” for descriptions of the process flows associated with the Service Methods identified above.

**Integer Definitions**

| **String** | | **Description** | **Value** |
| --- | --- | --- | --- |
| int\_9 |  | 9 digit integer. | Positive or negative.  totalDigit value = “9”. |
| int\_10 |  | 10 digit integer. | Positive or negative.  totalDigit value: = “10” |
| int\_nonNegative\_2 |  | 2 digit positive integer. | Positive .  totalDigit value = “2” |
| int\_nonNegative\_9 |  | 9 digit positive integer. | Positive .  totalDigit value = “9” |
| int\_nonNegative\_10 |  | 10 digit positive integer. | Positive .  totalDigit value = “10” |
| removeThis |  | Indicates that a 10 digit integer is to be removed. | totalDigit value = “10” |

**String Definitions**

| **Integer** | | **Description** | **Value** |
| --- | --- | --- | --- |
| string\_0\_5 |  | Character string of 0 to 5 spaces. | maxLength value = “5” |
| string\_0\_12 |  | Character string of 0 to 12 spaces. | maxLength value = “12” |
| string\_0\_15 |  | Character string of 0 to 15 spaces. | maxLength value = “15” |
| string\_0\_19 |  | Character string of 0 to 19 spaces. | maxLength value = “19” |
| string\_0\_20 |  | Character string of 0 to 20 spaces. | maxLength value = “20” |
| string\_0\_21 |  | Character string of 0 to 21 spaces. | maxLength value = “21” |
| string\_0\_25 |  | Character string of 0 to 25 spaces. | maxLength value = “25” |
| string\_0\_30 |  | Character string of 0 to 30 spaces. | maxLength value = “30” |
| string\_0\_50 |  | Character string of 0 to 50 spaces. | maxLength value = “50” |
| string\_0\_60 |  | Character string of 0 to 6050 spaces. | maxLength value = “60” |
| string\_0\_100 |  | Character string of 0 to 100 spaces. | maxLength value = “100” |
| string\_0\_120 |  | Character string of 0 to 120 spaces. | maxLength value = “120” |
| string\_0\_255 |  | Character string of 0 to 255 spaces. | maxLength value = “255” |
| string\_0\_1024 |  | Character string of 0 to 1024 spaces. | maxLength value = “1024” |
| string\_1\_0 |  | Character string of 1 space. | minLength value = “1” |
| string\_1\_13 |  | Character string of 1 to 13 spaces. | minLength value = “1”  maxLength value = “13” |
| string\_1\_30 |  | Character string of 1 to 30 spaces. | minLength value = “1”  maxLength value = “30\*” |
| string\_1\_35 |  | Character string of 1 to 35 spaces. | minLength value = “1”  maxLength value = “35\*” |
| string\_1\_50 |  | Character string of 1 to 50 spaces. | minLength value = “1”  maxLength value = “50\*” |
| string\_1\_255 |  | Character string of 1 to 255 spaces. | minLength value = “1”  maxLength value = “255” |
| string\_8\_15 |  | Character string of8 to 15 spaces. | minLength value = “8”  maxLength value = “15\*” |

### A.2.2 Asurion Finance Services Data

The following sections describe types of data used by Asurion Finance Services.

#### CreateContract API Data

The data types listed in these tables appear in the Asurion XML schemas for CreateContract. These API components also used Asurion Canonical Model data types.

**Notes**: When a data type is a Canonical Model data type, the Value cell entry in the following table refers to the complete description in the “Canonical Model Data Types” section. Data types in this table are mandatory unless the Value cell includes “Optional.”

**Message Header Data**

**Note**: The MessageHeader data types listed below apply to request and response messages of CreateContract, ProcessNonRefPayment and CalculateTaxes APIs,

| **Name** | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| MessageHeader |  |  |  |
|  | Status | Status information in the message. | Sting. Optional. |
|  | Context | Message context. | Sting. Optional.  **Note**: See “Context” in the “Message Body Data Type” table below. |
|  | Metrics | Metrics for message. | Sting. Optional.  **Note**: See “ArrayOfMetricItem” in the Message Body Data Type table below. |
|  | MessageRequestId | Identifier for request message. | Sting. Optional. |
|  | ParentMessage RequestId | Identifier for request of parent message. | Sting. Optional. |
|  | CallingMember | Calling member. | Sting. Optional. |

**Message Body Data**

| **Name** | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| Address |  |  |  |
|  | Address1 | First line of address. | String. Optional. |
|  | Address2 | Second line of address. | String. Optional. |
|  | City | City of address. | String. Optional. |
|  | Region | Region of the address. | String. Optional. |
|  | PostalCode | Postal code of the address. | String. Optional. |
|  | Country | Country of the address. | String. Optional. |
| ArrayOfEnterprise StringPVK |  |  |  |
|  | DataItem |  | Unbounded. Optional.  **Note**: See “EnterpriseStringPVK” in this table. |
| ArrayOfError |  |  |  |
|  | Error |  | Unbounded. Optional.  **Note**: See “Error” in this table. |
| ArrayOfMetricItem |  |  |  |
|  | EventDescription | Event description. | String. Optional. |
|  | ElapseTime | Elapsed time. | **Note**: See “TimeSpan” in this table. |
|  | MiloSeconds | Number of milliseconds. | Integer. |
|  | Seconds | Number of seconds. | Integer. |
|  | Minutes | Number of minutes. | Integer. |
| ArrayOf Product |  |  |  |
|  | Product | Product information. | Unbounded. Optional.  **Note**: See “Product” in this table. |
| ArrayOfSecurity Question |  |  |  |
|  | SecurityQuestion | Security question. | Unbounded. Optional.  **Note**: See “SecurityQuestion” in this table. |
| Authentication Provider |  | Type of authentication provider. | String. Value: “DEFAULT” or “ACTIVE\_DIRECTORY”. |
| BasePolicy Administration Request |  | Base policy administration request. | **Note**: See “BaseRequest” in this table. |
| BaseRequest |  | Request message. | **Note**: See “BaseRequest” in “**Error! Reference source not found.**”. |
| BaseResponse |  | Response message. |  |
|  | Contracted Products | Products under contract. | **Note**: See “ArrayOfContracted Products” in this table. |
|  | DateOfBirth | Date of the contract holder’s birth. | String. Optional. |
|  | EnrollmentDate | Date of contract enrollment. | dateTime |
|  | FeatureCode | Determines the program in which the enrollment is placed. | String. Numeric. |
|  | IsAddress Standardized | Indicates if the address is in standard format. | Boolean. “True” or “False”. |
|  | IsContract ValidationDone | Indicates if the contract is done or not. | Boolean. “True” or “False”. |
|  | PremiumPayment TransactionId | Identifies the specific premium payment transaction. | String. |
| Contact |  |  |  |
|  | BusinessName | Contact business name. | String. Optional. |
|  | Salutation | Salutation addressed to the contact. | String. Optional. |
|  | FirstName | Contact first name. | String. Optional. |
|  | MiddleName | Contact middle name. | String. Optional. |
|  | LastName | Contact last name. | String. Optional. |
|  | Email | Email address of the contact. | String. Optional. |
|  | Telephone | Telephone for the contact. | String. Optional. |
|  | Address1 | First line of contact address. | **Note**: See “Address” in this table. |
|  |  |  |  |
| Context |  |  |  |
|  | Application | Application associated with the context. | String. Optional. |
|  | Channel | Channel associated with the context. | String. Optional. |
|  | Client | Client associated with the context. | String. Optional. |
|  | Culture | Language of the country. | String. Optional.  Acceptable Values: “en-US” (English), “ja-JP” (Japanese), or “ko-KR” (Korean). |
|  | LineOfBusiness | Type of business. | String. Optional. |
|  | Mode | Mode of context. | String.  **Note**: See “ServiceMode” in this table. |
|  | Principal | The principal for the context. | String. Optional.  **Note**: See “Principal” in the table. |
|  | TimeStamp | Time stamp of context. | dateTime |
| Contract |  |  |  |
|  | ContractHolder | Contract holder. | Optional.  **Note**: See “Contact” in this table. |
|  | FeatureCode | Determines the program in which the enrollment is placed. Corresponds to the lookup of equipment service maintained by WMT. | String. Numeric. |
|  | PremiumPayment TransctionId | Identifier of premium payment. | Long. |
|  | BillingHolder | Billing holder. | Optional.  **Note**: See “Contact” in this table. |
|  | PremiumPayment Tender | Premium payment tendered. | Optional.  **Note**: See “BaseTender” in this table. |
|  | ContractStatus | Current status of contract. | String. Optional. |
|  | ContractPending StatusReason | Reason for contract in Pending status. | String. Optional. |
|  | IsContract ValidationDone | Indicates if contract validation is done. | Boolean. Value: “True” or “False”. |
|  | IsAddress Standardized | Indicates if the address associated with the contract is in standard format. | Boolean. |
|  | EnrollmentDate | Contract enrollment date. | dateTime. Optional. |
|  | ExtendedData | Additional information about the contract. | String. Optional. |
|  | ValidationGroupId | Group identifier for the validation. | String. Optional. |
|  | SecurityQuestions | Security questions about the contract. | Optional.  **Note**: See “ArrayOfSecurity Question” in this table. |
|  | Contracted Products | Contracted products. | Optional.  **Note**: See “ArrayOf Product” in this table. |
| CreateContractBy Contract |  |  |  |
|  | Contract | Contract information. | String.  **Note:** The user creates an instance of CreateContract ByContract and populates its field. And, then sets parameters equal to the instance. |
| CreateContract Response |  |  |  |
|  | Result | Result of the CreateContract request. | Optional. |
| CreateContract Result |  |  |  |
|  | Contracted Products | Contracted products. | Optional.  **Note**: See “ArrayOfProduct”. |
|  | ContractId | Identifier of the contract. | String. Optional. |
|  | ContractStartDate | Start date of the contract. | dateTime. |
|  | ContractStatus | Current status of the contract. | String. Optional. |
|  | ContractUnique Identifier | Unique identifier of the contract. | String. Optional. |
|  | DepositAmount | Amount of the deposit. | Decimal. |
|  | MarketCode | Code indicating the market. | String. Optional. |
|  | PremiumAmount | Amount of the premium. | Decimal. |
| CreateContract Request |  |  |  |
|  |  | Parameters of the request. | String. Optional. |
| CreateContract Response |  |  |  |
|  | Response | Current status of the CreateContract request. | String. Mandatory.  **Note**: This response only indicates message receipt for processing. It does not mean that processing is complete. |
| CreditCardTender |  |  |  |
|  | AccountNumber | Account number of the credit card tendered in payment. | String. Optional. |
|  | CardType | Credit card type (e.g., “Visa”). | String. Optional. |
|  | ExpirationMonth | Credit card expiration month. | Integer. |
|  | ExpirationYear | Credit card expiration year. | Integer. |
|  | IssueNumber | Credit card issue number. | String. Optional. |
|  | StartMonth | Starting month of the credit card account. | Integer. Optional. |
|  | StartYear | Starting year of the credit card account. | Integer. Optional. |
| ECheckTender |  |  |  |
|  | AccountNumber | Account number of customer paying with the e-check. | String. Optional. |
|  | CheckNumber | E-check check number. | String. Optional. |
|  | DriverLicense Number | Driver license number of the customer paying with the e-check. | String. Optional. |
|  | DriverLicense Region | Driver license region of the customer paying with the e-check. | String. Optional. |
|  | RoutingNumber | E-check routing number. | String. Optional. |
| EnterpriseString PVK |  |  |  |
|  | Key | Key of the EnterpriseString PVK. | String. Optional. |
|  | Value | Value of the EnterpriseString PVK. | String. Optional. |
| Error |  |  |  |
|  | Context | Error context. | Optional.  **Note**: See “Context” in this table. |
|  | ErrorId | Identifier of the error. | Integer. |
|  | ErrorIdDescription | Description of the error. | String. Optional. |
|  | ErrorMessage | Message text of error. | String. Optional. |
|  | ErrorStackTrace | Stack trace of the error. | String. Optional. |
|  | ErrorTitle | Title of the error. | String. Optional. |
|  | ErrorData | Error data. | Optional.  **Note**: See “ArrayOfEnterprise StringPVK” in this table. |
|  | ErrorPriority | Priority of the error. | Integer. |
|  | ErrorSeverity | Severity of the error. | **Note**: See “TraceEventType” in this table. |
|  | ErrorSource | Source of the error. | String. Optional. |
|  | InnerError | Error information. | Optional. |
|  | MachineName | Name of the machine on which the error occurred. | String. Optional. |
|  | MessageRequestId | Identifier of the request message. | String. Optional. |
|  | ServiceMethod | Service method. | String. Optional. |
|  | ServiceName | Name of the service associated with the error. | String. Optional. |
| ErrorResponse |  |  |  |
|  | Errors | Error response to request. | **Note**: See “ArrayOfError” in this table. |
| ExtendedECheck Tender |  |  |  |
|  | BankCode | Code identifying the bank associated with the e-check. | String. Optional. |
|  | BranchCode | Bank branch code associated with the e-check. | String. Optional. |
|  | CheckDigit | Identifying digit (e.g., check number) associated with the e-check. | String. Optional. |
| Principal |  |  |  |
|  | Authentication Provider | Authentication of the provider. | String.  **Note**: See “Authentication Provider” in this table. |
|  | Password | Password of the principal. | String. Optional. |
|  | Username | Name of the principal user. | Sting. Optional. |
| Product |  |  |  |
|  | Deductible | Indicates if a deductible applies. | Decimal. |
|  | DeviceId | Unique identifier of product device. | String. Optional. |
|  | Make | Product make. | String. Optional. |
|  | Model | Product model. | String. Optional. |
|  | Owner | Current owner of the product. | String. Optional.  **Note**: See “Contact” in this table. |
|  | PurchaseDate | Date of product purchase. | dateTime. |
|  | Type | Type of product. | String. Optional. |
| ReInstateContract  ByContractId |  |  |  |
|  | ContractId | Identifier of the contract. | String. Optional. |
|  | EnrollmentDate | Contract enrollment date. | dateTime. |
| SecurityQuestion |  |  |  |
|  | Question | Security question. | String. Optional. |
|  | Answer | Acceptable answer to the question. | String. Optional. |
|  | IsCaseSensitive | Indicates whether the answer must be case sensitive or not. | Boolean. “True” or “False”. |
|  | IsSecure | Indicates whether the question is secure or not. | String. Optional. |
| ServiceMode |  | Current service mode. | String. Value: “Stub” or “Live”. |
| TimeSpan |  | Length of time associated with the CreateContractRequest. | **Note**: For additional information, see “ArrayofMetricItem” in this table. |
| TraceEventType |  | Type of event trace. | String. Values:“Critical”, “Error”, “Warning”, “Information”, “Verbose”, “Start”, “Stop”, “Suspend”, “Resume”, or “Transfer”. |

#### ProcessNonRefPayment API Data

The data types listed in this table appear in the Asurion XML schema for ProcessNonRefPayment. These API components also use Asurion Canonical data types.

**Notes**: When a data type is a Canonical Model data type, the Value cell entry in the following table refers to the complete description in the “Canonical Model Data Types” section. Data types in this table are mandatory unless marked “Optional.”

**Message Header Data**

The standard Asurion MessageHeader API Service is used for ProcessNonRefPayment requests. See the “Message Header Data Types” under “CreateContract API Data” above.

**Message Body Data**

The following table describes the required and optional parameters for the API.

| Name | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| Address |  |  |  |
|  | AddressLine1 | Top line of the address of the customer making the non-refundable payment. | Optional. String. |
|  | AddressLine2 | Second line of the address. | String. Optional. |
|  | AddressLine3 | Third line of the address. | String. Optional. |
|  | City | City of the address. | String. Optional. |
|  | Region | Region (for example. State) of the address. | String. Optional. |
|  | PostalCode | Postal code of the address. | String. Optional. |
|  | Country | Country of the address. | String. Optional. |
| ArrayOfEnterprise StringKVP |  |  |  |
|  | EnterpriseString KVP |  | Unbounded. Optional.  **Note**: See “EnterpriseStringKVP” in this table. |
| ArrayOfTransactionDetail |  |  |  |
|  | TransactionDetail | Transaction details. | Unbounded. Optional.  **Also See**: “TransactionDetail” in this table. |
| AriaGateway |  | An extension of the BaseGateway, the Aria Gateway is used to interact with the Aria Service. The Gateway gathers parameters needed to properly communicate with Aria. |  |
|  | ClientId | Client identifier for the Gateway. | Long. |
|  | AuthKey | Authentication key for the Gateway. | Sting. Optional. |
| Authentication Provider |  | Identifies the authentication provider. | **Note**: Same values as “Authentication Provider” in the table for “CreateContract Request”. |
| BaseGateway |  | The BaseGateway includes elements that are used by other Gateways. |  |
|  | Comment1 | Claim ID or ContractID. | String. Optional. |
|  | Comment2 | Order ID. | String. Optional. |
|  | TransactionDetailId | Transaction detail identifier. | Long. |
|  | TransType | Transaction type. | String. Optional. |
|  | AuthCode | Authentication code. | String. Optional. |
|  | ResponseMessage | Response message. | String. Optional. |
|  | ResultCode | Result code. | String. Optional. |
|  | Duplicate | Indicates whether or not this transfer is duplication. | Boolean. “True” or “False”. |
|  | RequestId | Request identifier. | String. Optional. |
| BaseTender |  | Base type for other Tender data types. | Extension of “BaseFinanceTransferObject”. |
| BTATender |  |  | Extension of “BaseTender” |
|  | BTADetail | Detailed information about a BTA tender. | String. Optional. |
| BellMobility Gateway |  | Not currently used. |  |
|  | LongDescription | Long description. | Optional.  **Note**: See “ArrayOfEnterprise StringKVP” in this table. |
|  | ResponseDate Time | Date and time of the response. | dateTime. |
|  | ShortDescription | Short description. | String. Optional. |
| Caller |  |  |  |
|  | FirstName | First name of the caller. | String. Optional. |
|  | LastName | Last name of the caller. | String. Optional. |
|  | EmailAddress | Email address of the caller. | String. Optional. |
| Context |  | Context of the ProcessNonRefPayment  Request. | **Note**: Same values as “Context” in the table for “CreateContract Request”. |
| CreditCardTender |  |  | **Note:** Data type is an extension of … /Finance/Transfer Object/Tender/base=”CreditCareTender”.  Checks the CVV and AVS codes.  **Also See**: “CreditCardTender” below. |
|  | CheckCVVCode | Indicates if the CVV (Card Verification Value) code is to be checked. | Boolean. “True” or “False”. |
|  | CheckAVS | Indicates if the AVS code is to be checked. | Boolean. “True” or “False”. |
| CreditCardTender |  |  | **Note:** Data type is an extension of …/Finance/Transfer Object/Tender/base= ”BaseTender”  Details about the tendered credit card.  **Also See**: “CreditCardTender” above. |
|  | AccountNumber | Credit card number. | String. Optional. |
|  | CardType | Identifies the type of card. | String. Optional. Values:  “Visa”, “Mastercard”, “Discover”, or “American Express”. |
|  | CVVCode | CVV code appearing on the reverse side of the credit card. | String. Optional. |
|  | ExpirationMonth | Expiration date of the credit card. | Integer. 2 digits. |
|  | ExpirationYear | Expiration year of the credit card. | Integer. 2 digits. |
|  | IssueNumber | Card issue number. | String. Optional. |
|  | StartMonth | Start month of card. | Integer. |
|  | StartYear | Start year of card. | Integer. |
|  | ECI | Electronic Commerce Indicator (ECI) value. | String. Optional.  Field text identifies card processing method. |
|  | CavvUCAF | Cardholder Authentication Verification Value (Cavv) -Universal Cardholder Authentication Field (UCAF) indicator. This value is optionally included in the request. | String. Optional.  . |
|  | Xid | Exchange Id (Xid) associated with the credit card processing device. | String. Optional. |
| DDProcessing Gateway |  | An extension of the BaseGat3eway, the DDProcessingGateway is used for requests to- and responses from- the Direct Debit Service. The Gateway gathers parameters needed to properly communicate with the Direct Debit Service. |  |
|  | AccountName | Name of the account. | String. Optional. |
|  | CancelledOn | Cancellation date. | dateTime. |
|  | EndDate | End date. | dateTime. |
|  | FrequencyType | Frequency type. | String. Optional. |
|  | FirstAmount | First amount. | Integer. |
|  | Host | Host associated with the account. | String. Optional. |
|  | LastAmount | Last amount. | Integer. |
|  | NumberOfDebits | Number of debits for the account. | Integer. |
|  | PayerReference | Account payer reference. | String. Optional. |
|  | PslId | This service user ID is used to interact with the Direct Debit. When the user sends request for DDProcessing, the bank validates the ID. If the PslId value is incorrect, the following error message is generated: “Missing or Incorrect Service UserId”. | String. Optional. |
|  | ReferenceNumber | Reference number associated with the account. | String. Optional. |
|  | StateDate | Start date. | dateTime. |
|  | TotalAmount | Total amount of the account. | Integer. |
|  | UserName | Name of the user associated with the account. | String. Optional. |
| DEUCSGateway |  | An extension of the BaseGat3eway, the DEUCSGateway is used for requests to- and responses from- the DEUCS Service. The Gateway gathers parameters needed to properly communicate with the DEUCS Service. |  |
|  | CommunicationId | Communication identifier for the Gateway. | String. Optional. |
|  | FrequencyType | Type of frequency associated with the Gateway. | String. Optional. |
|  | Host | Host associated with the Gateway. | String. Optional. |
|  | StartDate | Start date. | dateTime. |
| ECheckTender |  | Information about the e-check tendered for payment. | **Note**: See “ECheckTender” in the “CreateContract Request” table. |
| EDIFactGateway |  | The EDIFactGateway is used for requests to- and responses from- the EDIFact Service. The Gateway gathers parameters needed to properly communicate with the EDIFact Service. |  |
|  | StartDate | Starting date. | dateTime. |
|  | Transaction Purpose | Purpose of the transaction. | String. Optional. |
| EnterpriseString KVP |  |  |  |
|  | Key | Key string (unique identifier) associated with the Value string. Together, the Key and Value form a Key Value Pair (KVP). | String. Optional. |
|  | Value | Identified data. This is Value string of the KVP. | String. Optional. |
| ExtendedECheck Tender |  | Information about the extended e-check payment. | **Note**: See “ExtendedECheck Tender” in the “CreateContract Request” table. |
| InStoreGateway |  | The InStoreGateway is used to process in-store payments. The Gateway gathers parameters needed to properly communicate with the store. |  |
|  | InStoreProcessor | Information about the in store processor. | String. Optional. |
| InStoreTender |  |  |  |
|  | InStorePayment Method | Method of payment in the store. | String. Optional. |
|  | InStore RepresentitiveUser | Representative store user. | String. Optional.  **Reviewer Note**: Should this be spelled “InStore RepresentativeUser”? |
|  | StoreId | Store identifier. | String. Optional. |
|  | StoreName | Store name. | String. Optional. |
|  | StorePostalCode | Store address postal code. | String. Optional. |
|  | TerminalId | Terminal identifier. | String. Optional. |
|  | InStorePayment Status | Current status of the in-store payment. | String. Optional. |
|  | InStoreReference Number | Reference number associated with the in-store payment. | String. Optional. |
|  | InStoreProcessor | Store processor of the payment. | String. Optional. |
|  | InStoreAuthCode | Authorization code for the in-store payment. | String. Optional. |
| MetricItem |  | Identifies the type of metrics (for example, “seconds”) used to measure the ProcessNonRefPayment Request. | **Note**: Same values as “ArrayOfMetricItem” in the table for “CreateContract Request”. |
| PayflowPro Gateway |  | The PayflowProGateway is used for requests to- and responses from- the Paypal Service and the Global Collect Service. The Gateway gathers parameters needed to properly communicate with PayPal or Global Collect. |  |
|  | CvvCheckValue | Card verification value (Cvv) check value. | String. Optional. |
|  | Host | Host using the gateway. | String. Optional. |
|  | HostCode | Code associated with the Host. | Integer. |
|  | PostalCodeCheck Value | Check value for the postal code. | String. Optional. |
|  | StreetCheckValue | Street check value. | String. Optional. |
|  | VerisignDetailId | Detail Verisign identifier. | Long. |
|  | MerchantVendor | Merchant vendor. | String. Optional. |
|  | MerchantUser | Merchant user. | String. Optional. |
| Principal |  | Username, password, and authentication provider for the principal associated with the ProcessNonRef PaymentRequest. | **Note**: Same values as “Principal” in the table for “CreateContract Request”. |
| ProcessNonRef Payment |  |  |  |
|  | Request |  | **Note**: See “ProcessNonRef PaymentRequest” in this table. |
| ProcessNonRef PaymentInStore Result |  |  |  |
|  | TransactionId | Transaction identifier for the Created Instore Payment. | Integer. |
| ProcessNonRef PaymentRequest |  |  | **Note**: Extension of …  /Finance/Request/  base=”BaseFinance  Request”. |
|  | Parameters | Request parameters. | Optional. |
| ProcessNonRef PaymentResponse |  |  |  |
|  | ProcessNonRef PaymentResult | Response to the request. | Optional. **Note**: See “ProcessNonRef PaymentResponse” below. |
| ProcessNonRef PaymentResponse |  |  | Optional.  **Note**: Extension of …/Finance/Response/base=”BaseFinance Response”. |
|  | Result | Result of the request. | **Note**: See “ProcessNonRefPaymentResult” in this table. |
| ProcessNonRef PaymentResult |  |  |  |
|  | AccessCount | Number of times the ClientHashValue has been returned for the DataKey. | Integer. |
|  | ClientHashValue | Unique hash value identifier for a transaction. Used by the DataKey. | String. Optional. |
|  | IsResponseCode Known | “True” if the response from the processing company is known. | Boolean. Value: “True” or “False”. |
|  | Processed Transaction | Information about the processed transaction. | Optional.  **Note**: See “Transaction” in this table. |
| ProcessNonRef PaymentWith Tender |  | This service method is used to create and process an ad hoc payment account for e-check, credit card, or in-store payments. |  |
|  | BatchOnFailure | Indicates whether or not to batch the request and retry if a failure occurs. | Boolean. Value: “True” or “False” (default). |
|  | BillingAddress | Billing address associated with the non-refundable payment. | **Note**: See “Address” in the “CreateContract Request” table. |
|  | ClientHashValue | Unique identifier for a transaction hashed from the DataKey. | String. Optional. |
|  | Comment1 | First comment about the payment. | String. Optional. |
|  | Comment2 | Second comment about the payment. | String. Optional. |
|  | CurrencyCode | Code identifies the currency type (for example, “USD”). | String. Optional. |
|  | Customer | Customer information. | **Note**: See “Caller” in this table. |
|  | DataKey | Data key for the transaction. The format for the data key is based on the message context. | String. Optional. |
|  | FeeType | Type of fee required for the transaction. | String. Optional.  Value: “DED”, or “SNR”. |
|  | IsOverride | Indicates whether or not to override a previously used DataKay. | Boolean. Value: “True” or “False”. |
|  | TaxAmount | Amount of tax required with the payment. | Decimal. |
|  | Tender | Non-refundable payment. | String. Optional.  **Note**: See “BaseTender” in this table. |
|  | TransactionAmount | Amount billed. | Decimal. |
|  | TransactionType | Transaction type. | String. Optional.  Value: “AUTHORIZE”, “SALE”, or “PROCESS”. |
| ReProcessNonRefPaymentBy TransactionId |  | Request is required to reprocess an earlier payment using the previous payment transactionId. |  |
|  | BatchOnFailure | Indicates whether or not to batch the request and retry if a failure occurs. | Boolean. “True” or “False” (default). |
|  | DataKey | Data key associated with the TransactionId. | String. Optional. |
|  | TransactionAmount | Amount billed. | Decimal. |
|  | TransactionId | Transaction identifier. | Long. |
| Secure3dGateway |  | Not currently used. |  |
|  | Host | Host associated with the transaction. | String. Optional. |
|  | ACSUrl | The URL for the Assertion Consumer Service (ACS). | String. Optional. |
|  | ACSRequest Payload | The payload of the request message | String. Optional. |
|  | ACSResponse Payload | The ACS response payload. | String. Optional. |
|  | Transaction ReferenceNumber | Transaction reference number. | String. Optional. |
|  | OrderReference Number | Order reference number. | String. Optional. |
|  | Enrolled | Enrollment information. | String. Optional. |
|  | Authentication Status | Current status of authentication. | String. Optional. |
|  | Signature Verification | Information about signature verification. | String. Optional. |
| ServiceMode |  | Service mode associated with the ProcessNonRef PaymentRequest. | **Note**: Same values as “ServiceMode” in the table for “CreateContract Request”. |
| TimeSpan |  | Length of time associated with the ProcessNonRefPayment Request. | **Note**: For additional information, see “ArrayofMetricItem” in the “CreateContract Request” table. |
| TMobileGateway |  | Not currently used. | **Note**: See “BaseGateway” in this table. |
| Transaction |  |  |  |
|  | Application | Application associated with the non-refundable payment. | String. Optional. |
|  | Client | Client associated with the non-refundable payment. | String. Optional. |
|  | Culture | Culture associated with the non-refundable payment | String. Optional. |
|  | FeeType | Type of fee applied to the non-refundable payment. | String. Optional. |
|  | LineOfBusiness | Line of business associated with the non-refundable payment. | String. Optional. |
|  | PaymentMethod | Method of payment. | String. Optional. |
|  | PaymentStatus | Current payment status. | String. Optional. |
|  | ProcessedBy | Indicates who processed the payment. | String. Optional. |
|  | ProcessedDate Time | Date and time of non-refundable payment processing. | dateTime. |
|  | Processing Company | Company that processes the non-refundable payment. | String. Optional. |
|  | TransactionDetails | Details about the transaction. | String. Optional. |
|  | TransactionId | Transaction identifier. | Long. |
| TransactionDetail |  |  |  |
|  | TransactionType | Type of transaction. | String. Optional. |
|  | BillingAddress | Address for billing. | String. Optional.  **Note**: See “Address” in this table. |
|  | Caller | Caller associated with the transaction. | String. Optional. |
|  | EmailAddress | Email address associated with the transaction. | String. Optional. |
|  | GatewayDetail | Information about the gateway. | Optional.  **Note**: See “BaseGateway” in this table. |
|  | IsOverride | Indicates whether or not to override a previously used DataKay. | Boolean. “True” or “False”. |
|  | IsSuccessful | Indicates if the transaction was successful. | Boolean. “True” or “False”. |
|  | OriginalReference Number | Original reference number of the transaction. | String. Optional. |
|  | ProcessedDate Time | Transaction date and time. | dateTime. |
|  | ReferenceNumber | Current reference number of the transaction. | String. Optional. |
|  | Request | Transaction request information. | String. Optional. |
|  | Response | Transaction response information. | String. Optional. |
|  | TenderDetail | Detailed information about the payment. | String. Optional. |
|  | TransactionAmount | Amount of the transaction. | Decimal. |
|  | CurrencyCode | Code indicates the currency used in the transaction. | String. Optional. |
|  | TransactionDetailId | Identifier of the transaction detail. | Long. |
|  | DataKey | Data key for the transaction. | String. Optional. |
|  | PaymentMethod | Method of payment used for the transaction. | String. Optional. |
| UnknownGateway |  | When a message is sent to Asurion from an incorrect gateway, the Finance Service returns the UnknownGateway (an extension of the BaseGateway) in response. The Gateway gathers parameters needed to properly communicate with the unknown service. | **Note**: See “BaseGateway” in this table. |

#### CalculateTaxes API Data

The data types listed in this table appear in the Asurion XML schemas for CalculateTaxRequest and CalculateTaxResponse. These API components also used Asurion Canonical data types.

**Notes**: When the data is a Canonical Model data type, the Value cell entry in the following table refers to the complete description in the “Canonical Model Data Types” section. Data types in this table are mandatory unless the Value cell includes “Optional.”

**Message Header Data**

The standard Asurion MessageHeader API Service is used for CalculateTaxes requests. See the “Message Header Data Types” under “CreateContract API Data” above.

**Message Body Data**

| **Name** | **Type Element** | **Description** | **Value** |
| --- | --- | --- | --- |
| Address |  |  |  |
|  | addressLine1 | First line of address. | String. Optional. |
|  | addressLine2 | Second line of address. | String. Optional. |
|  | city | City of address. | String. Optional. |
|  | state | State of address. | String. Optional. |
|  | postalCode | Postal code of the address. | String.  **Note**: See “USStateAbbr” in “Canonical Model Data Types”. |
|  | country | Country of the address. | String. Optional. |
| CalculateTax |  |  |  |
|  | calculateTax Request | Calculate tax request. | **Note:** See “CalculateTaxRequestType” in this table. |
| CalculateTax RequestType |  |  |  |
|  | appId | Application identifier. | String. |
|  | authKey | Authorization key. | String. |
|  | programCode | Program code. | String. Optional. |
|  | clientId | Client identifier. | String. Optional. |
|  | invoiceNumber | Invoice number. | String. Optional. |
|  | invoiceAmount | Invoice amount. Tax is calculated on this amount. | String. |
|  | invoiceType | Type of invoice. Informs the Tax Gateway of the type of invoice on which to calculate taxes. This is the service line item from the ARIA system. | String. |
|  | forEstimateOnly | Indicates if the tax calculation is only an estimate. If this is set to True and the country code is “US”, only the ZIP is used to estimate the US tax. This does not apply to Canadian tax calculations.  **Note**: For more on Canadian tax calculation, see the description of type “CanadianTaxResult”. | String. Optional. |
|  | countryCode | Country code. | String. Optional. |
|  | shipToAddress | Shipment destination address. The tax calculation engine reads ship-to, ship-from, and order acceptance geoCodes to determine if the transaction is interstate or intrastate and the type of tax to be collected.  The ship-to address is the minimum address information needed for tax calculation. If the ship-to address is the only supplied address information, the ship-from geocode and order acceptance geoCode default to the ship-to geoCode, and STQ will use the sales tax rate.  For those regions that tax on either the ship-from or order acceptance address, these addresses should be supplied. If they are not, calculations of intrastate transactions can result in an incorrect tax rate.  For example, in a region that taxes on ship-from address, failing to supply the ship-from address will result in the sales tax calculation instead of the seller’s use tax.  If the ship-to and order acceptance geoCodes are supplied, STQ reads each geoCode and determines the type of tax to be collected. | **Note**: See “Address” in this table. |
|  | shipFromAddress | Shipment origination address. | Optional.  **Note**: See “Address” in this table. |
|  | orderToAddress | Order destination address. | Optional.  **Note**: See “Address” in this table. |
| CalculateTax Response |  |  |  |
|  | CalculateTax Response |  | **Note**: See “CalculateTax ResponseType” in this table. |
| CalculateTax ResponseType |  |  |  |
|  | returnCode | Returned code. | String. |
|  | returnMessage | Returned message. | String. Optional. |
|  | invoiceNumber | Invoice number. | String. Optional. |
|  | totalTaxAmount | Total tax amount. | String. Optional. |
|  | totalTaxRate | Total tax rate. | String. Optional. |
|  | taxDetail | Tax details. | **Note**: See “DetailedTaxResult Type” in this table. |
| CanadianTaxResult |  |  |  |
|  | GSTAmount | Amount of applied Goods and Services Tax (GST). | String. Optional. |
|  | HSTAmount | Amount of applied Harmonized Sales Tax (HST), a value-added tax combining PST and GST. | String. Optional. |
|  | PSTAmount | Amount of Provincial Sales Tax (PST). | String. Optional. |
|  | QSTAmount | Amount of applied Quebec Sales Tax (QST). | String. Optional. |
| DetailedTaxResult Type |  |  |  |
|  | detailedUSTax | Type of the US tax applied to the result. | Optional.  **Note**: See “DetailedUSTaxResultType” in this table. |
|  | detailedCanadaTax | Details of the Canadian tax applied to the result. | Optional.  **Note**: See “CanadianTaxResult” in this table. |
| DetailedUSTax ResultType |  |  |  |
|  | cityTaxAmount | Amount of city tax. | String. Optional. |
|  | cityTaxRate | Rate of city tax. | String. Optional. |
|  | countyName | Name of the county applying the tax. | String. Optional. |
|  | countyTaxAmount | Amount of county tax. | String. Optional. |
|  | countryTaxRate | Rate of county tax. | String. Optional. |
|  | districtTaxAmount | Amount of district tax. | String. Optional. |
|  | districtTaxRate | Rate of district tax. | String. Optional. |
|  | geocodeValue | Calculated geographic code (based on address) determining the tax rate. | String. Optional. |
|  | stateTaxAmount | Amount of state tax. | String. Optional. |
|  | stateTaxRate | Rate of state tax. | String. Optional. |

#### GetContract Service API Data

**Message Header Data**

The standard Asurion MessageHeader API Service is used for GetContract requests. See the “Message Header Data Types” under “CreateContract API Data” above.

### Message Body Data

**Request Parameters**—The request message takes the following inputs.

| **Field** | **Description** |
| --- | --- |
| client\_no | Identifies the client supplying service to the account. String (8 characters. Required. |
| Auth\_key | Key passed with each method call to authenticate the requestor. String (32 characters). Required. |
| Acct\_no | Number identifies the account. String (12 characters). Required. |

**Return Parameters**—The response message may contain the following fields.

| **Field** | **Description** |
| --- | --- |
| error\_code | Error code. Long. Not nullable. |
| error\_msg | Error message. String. Optional. |
| first\_name | Account owner’s first name. String (300 characters). Optional. |
| mi | Account owner’s middle initial. String (2 characters). Optional. |
| Last\_name | Account owner’s last name. String (300 characters). Optional. |
| userid | Identifies the account owner. String (100 characters). Optional. |
| Birthdate | Account owner’s birthdate. String (YYYY-MM-DD). Optional. |
| Job\_title | Account owner’s job title. String (200 characters). Optional. |
| Salutation | Salutation to be used in correspondence with the account owner. String (20 characters). Optional. |
| Senior\_acct\_no | If this a child account, this returned value will be the Aria-assigned account number of the parent account. String (8 characters). Optional. |
| Client\_acct\_id | Client’s own account identifier. String (20 characters). Optional. |
| Resp\_level\_cd | Responsibility level of this account. String (2 characters). Optional.  “1” = Standard self-pay.  “2” = Parent pay.  “3” = Parent usage and pay.  “4” = Parent usage and pay with a self-usage note. |
| Is\_test\_acct | Indicates whether or not this is a test account. String (1 character). Optional. |
| Alt\_email | Alternate email address. String (100 characters). Optional. |
| Address1 | First line of the account address. String (300 characters). Optional. |
| Address2 | Second line of the account address. String (300 characters). Optional. |
| City | City of the account address. String (50 characters). Optional. |
| State\_prov | Abbreviation for state or province of account address. String (2 characters). Optional. |
| Locality | Address locality. String (300 characters). Optional. |
| Postal\_code | Postal code or ZIP code of the account address. String (15 characters). Optional. |
| Country | Country of the account address. String (25 characters). Optional. |
| Company\_name | Name of the company associated with the account. String (100 characters). Optional. |
| Cell\_phone\_npa | Area code for the cell phone associated with the account. String (3 characters). Optional. |
| Cell\_phone\_nxx | Cell phone three digit exchange. String (3 characters). Optional. |
| Cell\_phone\_suffix | Cell phone four digit suffix. String (4 characters). Optional. |
| Fax\_phone | FAX phone number associated with the account. String (20 characters). Optional. |
| Intl\_cell\_phone | International cell phone number associated with the account. String (20 characters). Optional. |
| Intl\_phone | International phone number associated with the account. String (25 characters). Optional. |
| phone\_extension | Phone extension associated with the account. String (10 characters). Optional. |
| Phone\_npa | Phone area code associated with the account. String (3 characters). Optional. |
| Phone\_nxx | Phone three digit exchange. String (3 characters). Optional. |
| Phone\_suffix | Phone four digit suffix. String (4 characters). Optional. |
| Work\_phone\_extension | Work phone extension associated with the account. String (10 characters). Optional. |
| Work\_phone\_npa | Work phone area code. String (3 characters). Optional. |
| Work\_phone\_nxx | Work phone exchange. String (3 characters). Optional. |
| Work\_phone\_suffix | Work phone suffix. String (4 characters). Optional. |
| Bill\_day | Billing day of the month for this account. May be one or two digits long. String (2 characters). Optional. |
| Created | Date on which this account was created. String (YYYY-MM-DD). Optional. |
| Date\_to\_expire | Date on which this account’s status will change to “inactive”. String (YYYY-MM-DD). Optional. |
| Date\_to\_suspend | Date on which this account’s status will change to “Suspended.” String (YYYY-MM-DD). Optional. |
| Last\_arrears\_bill\_thru\_ date | Date through which this account was billed for usage. String (YYYY-MM-DD). Optional. |
| Last\_bill\_date | Date on which this account was last billed. String (YYYY-MM-DD). Optional. |
| Last\_bill\_thru\_date | Date through which the account was billed. String (YYYY-MM-DD). Optional. |
| Next\_bill\_date | Next date on which the account is to be billed. String (YYYY-MM-DD). Optional. |
| Plan\_date | Date on which the account was assigned to its current plan. String (YYYY-MM-DD). Optional. |
| Status\_date | Date on which the account was assigned to its current status. String (YYYY-MM-DD). Optional. |
| Status\_degrade\_date | Date on which the account will be downgraded further in the dunning process. String (YYYY-MM-DD). Optional. |
| Status\_cd | Indicates the account status. String (8 characters). Optional. |
| Status\_label | Label of the account status. String (30 characters). Optional. |
| Plan\_no | Number identifies the account’s plan. String (8 characters). Optional. |
| Plan\_name | Account plan name. String (100 characters). Optional. |
| Notify\_method | Indicates the method of notifying the account. String (2 characters). Optional. |
| Notify\_method\_name | Name of the account notification method. String (40 characters). Optional. |
| Password | Account password. String (40 characters). Optional. |
| Pin | Account pin number. String (10 characters). Optional. |
| Secret\_question | Security question for the account. String (300 characters). Optional. |
| Secret\_question\_answer | Answer to the security question for the account. String (300 characters). Optional |
| Pay\_method | Identifies the payment method for the account. String. Optional |
| Pay\_method\_name | Name of the account payment method. String. Optional |
| currency\_cd | Currency code for the account. String (3 characters). Optional |
| Tax\_id | Tax identification number for the account. String (1 character). Optional |
| Billing\_email | Data from the account’s billing record. String (50 characters). Optional |
| Billing\_first\_name | Data from the account’s billing record. String (300 characters). Optional |
| Billing\_middle\_initial | Data from the account’s billing record. String (2 characters). Optional |
| Billing\_last\_name | Data from the account’s billing record. String (300 characters). Optional |
| Billing\_address1 | Data from the account’s billing record. String (300 characters). Optional |
| Billing\_address2 | Data from the account’s billing record. String (50 characters). Optional |
| Billing\_city | Data from the account’s billing record. String (2 characters). Optional |
| Billing\_state | Data from the account’s billing record. String (300 characters). Optional |
| Billing\_locality | Data from the account’s billing record. String (300 characters). Optional |
| Billing\_zip | Data from the account’s billing record. String (15 characters). Optional |
| Billing\_country | Data from the account’s billing record. String (25 characters). Optional |
| Cc\_suffix | Last 4 digits of the account owner’s credit card. String (4 characters). Optional |
| Cc\_expire\_mm | Month on which the credit card expires One or two digits. String (2 characters). Optional |
| Cc\_expire\_yyyy | Year on which the credit card expires. String (YYYY). Optional |
| Cc\_id | Type of credit card. String (3 characters). Optional.  “1” = Visa  “2” = MasterCard  “3” = American Express  “4” = Discover  “5” = Diner’s Club / Carte Blanche  “6” = Maestro |
| Bank\_acct\_suffix | Last 4 digits of the bank account number String (4 characters). Optional |
| Bank\_routing\_no | Bank routing number. String (9 characters). Optional |
| Billing\_cell\_phone\_npa | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_cell\_phone\_nxx | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_cell\_phone\_suffix | Data from the account’s billing record. String (4 characters). Optional |
| Billing\_company\_name | Data from the account’s billing record. String (100 characters). Optional |
| Billing\_intl\_phone | Data from the account’s billing record. String (25 characters). Optional |
| Billing\_phone\_extension | Data from the account’s billing record. String (5 characters). Optional |
| Billing\_phone\_npa | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_phone\_nxx | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_phone\_suffix | Data from the account’s billing record. String (4 characters). Optional |
| Billing\_work\_phone\_ extension | Data from the account’s billing record. String (10 characters). Optional |
| Billing\_work\_phone\_npa | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_work\_phone\_nxx | Data from the account’s billing record. String (3 characters). Optional |
| Billing\_work\_phone\_suffix | Data from the account’s billing record. String (4 characters). Optional |
| Balance | Account balance String. Optional |
| Client\_receipt\_id | Client-defined identifier used to track associated system activity. String (50 characters). Optional |

## A.3 Finance Service Gateway Database Tables

This appendix provides detailed information about the Asurion Finance Database and CRM Database.

### A.3.1 Asurion Finance Database Tables

Asurion Finance Database tables store information about automatically entered (”NET”) financial transactions including all requests and responses. Sensitive data is encrypted. These tables are briefly described in the following sections.

#### AriaUser Table

This database stores details about an Aria user. The table is used when a subscriber is enrolled.

| **Field** | **Description** |
| --- | --- |
| id | Identifies the Aria user. Primary key for the table. |
| tenant | Input for Walmart (always the same). Numeric (for example, “1234”). |
| requested | Requested MDN. Numeric (for example, “816373369”). |
| issued | Indicates the model (for example, “Nokia”). |
| counter | MDN counter. Numeric (for example, “2”). |
| userid | If MDN already exists, the counter is appended to MDN. For example, “\_2”. This is a user ID. |
| password | Initial password for a newly created user. This is the last 4 digits passed in the credit card number. |

#### BTADetail Table

This table stores details about the the Bill to Account.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Primary key for the BTADetail table. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| address\_id (FK) | Foreign key to the Id field in the Address table. |
| bta\_detail | Record the response from the Web service. |

#### Code Table

This table stores texts that are required by Finance Service for framework and business logic implementations. Several other AsurionFinance DB tables have foreign links to the Code table.

| **Field** | **Description** |
| --- | --- |
| Id | Numeric identifier. |
| Name | Text information (“APPROVED”,”DECLINED,” etc.). |
| Type\_id (FK) | Relationship of the text to a logical group. Foreign key to the CodeType table. |

#### CodeType Table

This table stores information that is related to a logical group Service identified in the CodeType Table.

| **Field** | **Description** |
| --- | --- |
| Id | Numeric identifier. |
| Name | Logical group (for example, “Payment Status”). |

#### CreditCardDetail Table

This table stores details about a credit card Service used in a transaction.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Primary key for the CreditCardDetail table. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| card\_type\_id (FK) | Identifies the type of the credit card(for example, “VISA”). Foreign key to the Id field in the Code table. |
| exp\_month | Credit card expiration month (for example, “10”). |
| exp\_year | Credit card expiration year (for example, “12”). |
| address\_id (FK) | Foreign key to the Id field in the Address table. |
| issue\_number | Credit card issue number. |
| start\_month | Effective starting month for the credit card. |
| start\_year | Effective starting year for the credit card. |
| cavv\_ucaf | Credit card Cardholder Authentication Verification - Universal Cardholder Authentication Field. |
| Xid | Xid (eXchange ID) number for the credit card. |
| account\_number | Credit card account number. |

#### DeuCSDetail Table

This table stores details about transaction processing Service via the DeucsGateway.

| **Field** | **Description** |
| --- | --- |
| id | Deucs Details identifier. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| host | Host URL. |
| first\_name | Account holder’s first name. |
| last\_name | Account holder’s last name. |
| frequency\_type | Frequency of debits to the account (for example, “Monthly”). |
| start\_date | Start date. |

#### DirectDebitDetail Table

This table stores details about transaction processing via the Service DirectDebitProcessing Gateway.

| **Field** | **Description** |
| --- | --- |
| id (PK) | DirectdebitDetail Id. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| account\_name | Account name. |
| frequency\_type | Frequency of account deductions (for example, “Monthly”). |
| payer\_reference | Payer reference number obtained from the DirectDebit response. |
| start\_date | Period start date. |
| end\_date | Period end date. |
| email\_address | Account holder’s email address. |
| first\_amount | Initial amount. |
| last\_amount | Final amount. |
| number\_of\_debits | Number of debits configured. |
| total\_amount | Total amount. |
| First Name | Account holder’s first name. |
| Last Name | Account holder’s last name. |

#### ECheckDetail Table

This table stores details about Service ECheck transactions.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Primary key for the Echeck Detail Table. |
| transaction\_detail\_id (FK) | Foreign key with Id in TransactionDetail table. |
| routing\_number | Routing Number for the bank account. |
| check\_number | Check number. |
| driver\_license\_region\_id (FK) | Identifies the region of the driving license; for example, Colorado. Foreign key with the Id in the Code table . |
| email\_address | ECheck payer’s email address. |
| address\_id (FK) | Foreign key to the Address table. |
| account\_number | Account number. |
| driver\_license\_number | ECheck payer’s driving license number. |

#### EDIFactDetail Table

This table stores details about the transaction processing service via the Edifact Gateway.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Edifact detail Id. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| Start Date | Start date. |
| Transaction Purpose | Purpose of the transaction. For example, “Mandate” or “Intial Charge”. |

#### InStoreDetail Table

This table stores the in-store details Service about a transaction.

| **Field** | **Description** |
| --- | --- |
| InStoreDetail\_Id (PK) | Primary key for the InstoreDetail table. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| instore\_payment\_method\_id (FK) | Payment method (for example “Cash”). Foreign key to the Id field in the Code table. |
| address\_id (FK) | Foreign key to the Id field in the Address Table. |
| store\_id | Identifies the store where the contract was purchased. |
| store\_name | Store name; for example, “WalMart”. |
| terminal\_id | Terminal Id. |
| store\_postal\_code | Postal code for the store location. |
| instore\_representative\_ user | Name of the store representative. |

#### PaymentGatewayRequestStatus Table

This table stores ClientHashValue (RequestID) and its current Status.

| **Field** | **Description** |
| --- | --- |
| RequestId | ClientHashValue. Type: varchar. |
| Status | Status of the Client Hash Value. Values: “-2”. “-1”, “0”, “1”. Type: smallint. |

#### Refund Queue Table

This database stores details about a refund.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Refund queue identifier. |
| transaction\_id (FK) | Transaction identifier associated with the refund. Foreign key to the Transaction table. |
| reference\_id | Reference Id in the request. |
| MDN | Mobile device number. |
| first\_name | First name of the person associated with the refund. |
| last\_name | Last name of the person associated with the refund. |
| payment\_method | Method of payment (for example, ECheck). |
| invoice\_id | ID generated for the Star invoice. |
| receipt\_id | ID generated for the Star receipt. |
| fee\_class | Fee type: “‘PREM” for premium payments ,”DED” for deductibles, and so on. |
| refund\_reason | Reason for the refund; for example, “‘Cancellation”. |
| status\_id (FK) | Status of the refund; for example, “Pending Payment Approval'”. Foreign key to the Code table. |

#### Refund Queue Fee Table

This database stores details about a refund. The table is used to determine the amount that is refundable during Cancellation / Refund Cancellation.

| **Field** | **Description** |
| --- | --- |
| id | Identifies the particular refund fee. Numeric (for example, “3”). Primary key for the table. |
| refundqueue\_id | Identifies the particular refund queue. Numeric (for example, “4”). Foreign key to the RefundQueue table. |
| fee\_type | Identifies the fee type (for example, “PRMH”). |
| invoice\_lineitem\_id | Stars invoice line item ID. Numeric (for example, “1310900”). |
| transaction\_amount | Amount to be refunded. Numeric (for example, “13”). |
| currency\_code | Code indicates the type of currency for the refund (for example, “USD”). |

#### Transaction Table

This table stores identifying information about a transaction.

| **Field** | **Description** |
| --- | --- |
| Id (PK) | Transaction ID for any transaction. Primary key for the table. |
| payment\_status\_id (FK) | Payment status (APPROVED, DECLINED, and so forth). Foreign key to the TransactionDetail table. |
| fee\_type | Fee type (feeType) information. This field value may be “PREM” for Premium Payments,”DED” for deductibles, and so on. |
| client\_id (FK) | Client Name. This field value may be “ WalMart”, “ATT”, “VirginMobile”, and so on. Foreign key to the Code table. |
| culture\_id (FK) | Identifies the culture; for example, “en-US” for a US customer. Foreign key to the Code table. |
| line\_of\_business\_id (FK) | Field value identifies the line of business. Foreign key to the Code table. |

#### TransactionDetail Table

This table stores details about a transaction.

| **Field** | **Description** |
| --- | --- |
| Id (PK) | Transaction Detail ID. Primary key for the table. |
| transaction\_id (FK) | Transaction ID. Foreign key to the Transaction table. |
| payment\_method\_id (FK) | Payment method information (CreditCard, ECheck, and so on). Foreign key to the Transaction table. |
| request | Request for processing. |
| response | Response received to the request. |
| amount | Amount of the transaction. |
| reference\_number | Payment reference number in the response. |
| type | Indicates the type of transaction (“S” for Sale, “P” for Process Transaction, and so on). |
| comment1 | Contains the contract ID or claim ID. |
| comment2 | Contains the order ID. |
| duplicate | Check bit indicating that the record is being duplicated for a given client hash value. |
| request\_id | Stores the client hash value while the record is being processed. |
| datakey | The dataKey is used during transaction processing. For example, “123549222|7/15/2011|PREM” could be a dataKey value. |
| result\_code | The result\_code indicates whether the current transaction was processed successfully or not. |
| resp\_message | This field value indicates whether the transaction record is “APPROVED”, “DECLINED”, and so on. |

Transaction Status Codes

The current status of a Finance Service transaction is stored in the Asurion Finance DB Transaction Details table. This table lists status codes used in the Transaction Details table.

| **Code** | **Status** |
| --- | --- |
| A | Authorize |
| S | Sale |
| C | Credit |
| V | Void |
| D | Capture |
| E | Create |
| U | Update |
| N | Cancel |
| P | Process |
| O | Confirm |
| F | NSF |
| B | AccountUnavailable |
| I | AccountInvalid |
| L | Cancellation |
| X | Exception |
| J | Objected |
| K | Lookup |
| T | Authenticate |
| M | Completed |
| G | AccountChange |
| Q | InvalidData |
| V | Payout |
| Z | Deceased |

#### VerisignDetail Table

This table stores details about transaction processing via PayFlowProGateway.

| **Field** | **Description** |
| --- | --- |
| id (PK) | Primary key for the VerisignDetail table. |
| transaction\_detail\_id (FK) | Foreign key to the Id field in the TransactionDetail table. |
| host\_code | Host code received in the response. |
| auth\_code | Authentication code received in the response. |
| street\_check\_value | Street check value. |
| postal\_code\_check\_value | Postal code check value. |
| cvv\_check\_value | CVV check value. |
| host | URI of the Web service. |

### A.3.2 CRM Database Tables

CRM Database tables store information about manually entered enrollment, contact, billing cycle, invoice, and other information for Tibco and the Asurion Finance Service. The CalculateTax API calls the CRM Web Service to update the database. These tables are briefly described in the following sections.

#### AncillaryData Table

This table stores ancillary data about contracts.

| **Field** | **Description** |
| --- | --- |
| ContractID | Contract ID. |
| Client | Name of Client. |
| Culture | Identifies culture (for example, En-US) of the contact. |
| LineOfBusiness | Area of business. |
| Name | Name for the information to be stored. |
| Value | Value for the detail. |
| Type | Data type of the value. |
| Sequence | Order in which data appears in the UI. |

#### 

#### asu\_enrollment Table

This table stores information about enrollments.

| **Field** | **Description** |
| --- | --- |
| asu\_contactiddsc | Unique identifier for the contact associated with the enrollment. |
| asu\_contactidname | Name of the contact that is enrolled for insurance. |
| asu\_programiddsc | Plan ID for the enrollment. |
| asu\_programidname | Name of the program enrolled. |
| transactioncurrencyid name | Identifier for the currency used in the transaction. |
| asu\_activationdate | Enrollment activation date. |
| asu\_billdate | Date for billing to start. |
| asu\_billdatechanged | Bit field. Set when the billing date is changed. |
| asu\_cancelenrollment | Bit field. Set when the enrollment is cancelled. |
| asu\_enrollmentdate | User enrollment date. |
| asu\_enrollmentid | Identifies the particular enrollment. Primary key. |
| asu\_enrollmentonternalid | Internal enrollment ID. |
| asu\_enrollmentetatus reason | Reason for the enrollment status. |
| asu\_railurereason | Reason for a failure. |
| asu\_isaddress standardized | Bit field. Set when the address is standardized. |
| asu\_iscontractvalidation done | Bit field. Set when contract validation is complete. |
| asu\_paymentamount | Amount paid for a specific plan. |
| asu\_paymentamount\_base | Payment amount value in base currency. |
| asu\_paymentrequested date | Date when payment will be requested. |
| asu\_postalcode | Postal code of the contact person. |
| asu\_premiumpaidthrough date | End date of the last confirmed billing cycle. |
| asu\_processpayment attempts | Number of attempts made to make a payment. |
| asu\_refundamount | Amount that is applicable for the refund. |
| asu\_refundamount\_base | Refund amount value in base currency. |
| asu\_scheduled\_ cancellation\_date | Date on which subscriber will be cancelled if the account is not reconciled within the dunning period. |
| asu\_securityquestionsetid | Identifier for the security question set. |
| asu\_state | State of the enrollment. |
| asu\_status | Enrollment status. |
| asu\_systemerror | Indicates a system error involving the enrollment. |
| asu\_transactionid | Transaction number for the payment details. |
| asu\_insurancecontract number | Enrollment contract ID. |
| asu\_programid | Plan ID for the enrollment. |
| asu\_contactid | Unique identifier for the contact associated with the enrollment. |
| asu\_consecutive successfulpayment attempts | Number of consecutive successful payment attempts. This value is reset when a payment is declined. |
| asu\_consecutive unsuccessfulpayment attempts | Number of unsuccessful payment attempts. This value may be reset when a payment attempt is successful. |
| asu\_currentpayment method | Current payment method selected for the enrollment. |
| asu\_extendededata | Extended data. |
| asu\_bankaccountno | Bank account number for payment details. |
| asu\_banksortcode | Bank sort code for payment details. |
| asu\_validationgroupid | Unique identifier for each contract. This ID will be used to identify validations from ValidationSummary table. |
| asu\_pendingcancellation | Indicates whether or not an enrollment is pending cancellation. |

#### asu\_program Table

This table stores detailed information about programs.

| **Field** | **Description** |
| --- | --- |
| Asu\_area | Defines the program area. |
| Asu\_deposit\_amount | Value of the deposit\_amount in base currency. |
| TransactionCurrencyId | Identifies the currency associated with the program. |
| ExchangeRate | Exchange rate for the currency associated with the program with the base currency. |
| asu\_deposit\_amount\_Base | Value of the deposit\_amount in base currency. |
| Asu\_deposit\_days | Number of days that the deposit covers. |
| Asu\_dunning\_days | Number of days that a sub stays in the dunning status before cancellation. |
| Asu\_effectivedate | Start date of program. |
| Asu\_PhoneValueRank | Rank value of phone information. |
| Asu\_premium\_amount | Amount that the customer will be charged per month in premium. |
| asu\_premium\_amount\_ Base | Value of the premium\_amount in base currency. |
| Asu\_Program\_Id | Identification number of the program. |
| Asu\_programId | Identifies the particular program. |
| Asu\_Programname | Stores the name of program for each client. |
| Asu\_Region | Region of the program. |
| Asu\_TerminationDate | End date of the program. |
| CreatedBy | Identifies the user who created the record. |
| CreatedOn | Date and time that the record was created. |
| ImportSequenceNumber | Sequence number of the import action that created this record. |
| ModifiedBy | Identifies the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| OrganizationId | Identifies the organization. |
| OverriddenCreatedOn | Date and time that the record was overridden (migrated). |
| statecode | Status of the program. |
| statuscode | Code indicates the reason for the program status. |
| TimeZoneRuleVersion Number | For internal use only. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |
| asu\_accountid | Identifies the relationship with account. |
| Asu\_MarketCode | Code of the market. |
| Asu\_billingterm | Days in one billing cycle. |
| Asu\_daysinmonth | Days in the month used for premium and billing cycle calculations. |
| Asu\_featurecode | Code relates the program to an external feature code (equipment or item code from manufacturer, carrier, or client) |
| Asu\_lineofbusiness | Line of business associated with the program. |
| Asu\_maxunsuccessful paymentattempts | Maximum number of successful payment attempts. |
| Asu\_unsuccessfulpaymentattemptsresetvalue | Maximumnumber of unsuccessful attempts to reset the payment value. |
| Asu\_initialpremiumamount | Amount to be charged for the initial premium. |
| asu\_initialpremiumamount\_Base | Value of the Initial premium amount in base currency. |
| asu\_programidscriptset | Identifies the content script set associated with the program. |
| asu\_programcultureid | Identifies the culture associated with the program. |
| Asu\_AutomaticDeniedDays\_CC\_Bit | Indicates whether or not the Automatic Denied Days option applies to the credit card. |
| Asu\_AutomaticDeniedDays\_CC\_IncludeHoliday | Indicates whether or not we must include holidays with the Automatic Denied Days. |
| Asu\_AutomaticDeniedDays\_CC\_Int | Indicates the value of Automatic Denied Days for a credit card. |
| Asu\_AutomaticDeniedDays\_Echeck\_Bit | Indicates whether or not the Automatic Denied Days is available for an Echeck. |
| Asu\_AutomaticDeniedDays\_Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Automatic Denied Days. |
| Asu\_AutomaticDeniedDays\_Echeck\_Int | Indicates the value of Automatic Denied Days for an Echeck. |
| Asu\_AutomaticSuspDays\_Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Automatic Suspended Days. |
| Asu\_AutomaticSuspendedDays\_CC\_Bit | Indicates whether or not Automatic Suspended Days is available for a credit card. |
| Asu\_AutomaticSuspendedDays\_CC\_IncludeHoliday | Indicates whether or not to include holidays with Automatic Suspended Days. |
| Asu\_AutomaticSuspendedDays\_CC\_Int | Indicates the value of Automatic Suspended Days for a credit card. |
| Asu\_automaticsuspended days\_echeck\_bit | Indicates whether or not Automatic Suspended Days is available for an Echeck. |
| Asu\_automaticsuspended days\_echeck\_int | Indicates the value of the Automatic Suspended Days for an Echeck. |
| Asu\_DepositDays\_CC\_Bit | Indicates whether or not Deposit Days is available for a credit card. |
| Asu\_DepositDays\_CC\_ IncludeHoliday | Indicates whether or not to include holidays with Deposit Days. |
| Asu\_DepositDays\_CC\_Int | Indicates the value of Deposit Days for a credit card. |
| Asu\_depositdays\_echeck\_bit | Indicates whether or not Deposit Days is available for an Echeck. |
| Asu\_DepositDays\_Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Deposit Days. |
| Asu\_depositdays\_echeck\_ int | Indicates the value of Deposit Days for an Echeck. |
| Asu\_DunningDays\_CC\_Bit | Indicates whether or not Dunning Days is available for a credit card. |
| Asu\_DunningDays\_CC\_IncludeHoliday | Indicates whether or not to include holidays with Dunning Days. |
| Asu\_DunningDays\_CC\_Int | Indicates the value of Dunning Days for a credit card. |
| Asu\_dunningdays\_echeck\_bit | Indicates whether or not Dunning Days is available for an Echeck. |
| Asu\_DunningDays\_Echeck\_IncludeHoliday | Indicates whether nor not to include holidays with Dunning Days. |
| Asu\_dunningdays\_echeck\_int | Indicates the value of Dunning Days for an Echeck. |
| Asu\_LeadDays\_CC\_Bit | Indicates whether or not Lead Days is available for a credit card. |
| Asu\_LeadDays\_CC\_ IncludeHoliday | Indicates whether or not to include holidays with Lead Days. |
| Asu\_LeadDays\_CC\_Int | Indicates the value of Lead Days for a credit card. |
| Asu\_leaddays\_echeck\_bit | Indicates whether or not Lead days is available for an Echeck. |
| Asu\_LeadDays\_Echeck\_ IncludeHoliday | Indicates whether or not to include holidays with Lead Days. |
| Asu\_leaddays\_echeck\_int | Indicates the value of Lead Days for an Echeck. |
| Asu\_mandateLeadDays\_ CC\_Bit | Indicates whether or not Mandate Lead Days is available for a credit card. |
| Asu\_MandateLeadDays\_ CC\_IncludeHoliday | Indicates whether or not to include holidays with Mandate Lead Days. |
| Asu\_MandateLeadDays\_ CC\_Int | Indicates the value of Mandate Lead Days for a credit card. |
| Asu\_mandateleaddays\_ echeck\_bit | Indicates whether or not Mandate Lead Days is available for an Echeck. |
| Asu\_MandateLeadDays\_ Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Mandate Lead Days. |
| Asu\_mandateleaddays\_ echeck\_int | Indicates the value of Mandate Lead Days for an Echeck. |
| Asu\_NoticePeriod\_CC\_Bit | Indicates whether or not Notice Period is available for a credit card. |
| Asu\_NoticePeriod\_CC\_ IncludeHoliday | Indicates whether or not to include holidays with Notice Period. |
| Asu\_NoticePeriod\_CC\_Int | Indicates the value of Notice Period for a credit card. |
| Asu\_NoticePeriod\_Echeck\_Bit | Indicates whether or not Notice Period is available for an Echeck. |
| Asu\_NoticePeriod\_Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Notice Period. |
| Asu\_NoticePeriod\_Echeck\_Int | Indicates the value of Notice Period for an Echeck. |
| Asu\_PPThresholdLimit Days\_CC\_Bit | Indicates whether or not PP Threshold Limit Days is available for a credit card. |
| Asu\_PPThresholdLimit Days\_CC\_IncludeHoliday | Indicates whether or not to include holidays with PP Threshold Limit Days. |
| Asu\_PPThresholdLimit Days\_CC\_Int | Indicates the value of PP Threshold Limit Days for a credit card. |
| Asu\_PPThresholdLimit Days\_Echeck\_Bit | Indicates whether or not PP Threshold Limit Days is available for an Echeck. |
| Asu\_PPThresholdLimit Days\_Echeck\_Int | Indicates the value of PP Threshold Limit Days for an Echeck. |
| Asu\_PPThresLimitDays\_ Echeck\_IncludeHoliday | Indicates whether or not to include holidays with PP Threshold Limit Days. |
| Asu\_ReconcileDays\_CC\_ Bit | Indicates whether or not Reconcile Days is available for a credit card. |
| Asu\_ReconcileDays\_CC\_ IncludeHoliday | Indicates whether or not to include holidays with Reconcile Days. |
| Asu\_ReconcileDays\_CC\_ Int | Indicates the value of Reconcile Days for a credit card. |
| Asu\_ReconcileDays\_ Echeck\_Bit | Indicates whether or not Reconcile Days is available for an Echeck. |
| Asu\_ReconcileDays\_ Echeck\_IncludeHoliday | Indicates whether or not to include holidays with Reconcile Days. |
| Asu\_ReconcileDays\_ Echeck\_Int | Indicates the value of Reconcile Days for an Echeck. |
| Asu\_MinimumContract Period | Minimum contract period. |
| Asu\_Invoice\_Rebill\_Days | Days after which a failed invoice must be selected for Auto-Rebill. |

#### asu\_billingcycle Table

This table stores billing cycle information.

| **Field** | **Description** |
| --- | --- |
| asu\_enrollmentidDsc | Enrollment ID. |
| asu\_enrollmentidName | Contract ID for the billing cycle. |
| asu\_billingcycleId | Identifies the particular billing cycle. |
| asu\_contractid | Contract ID. |
| asu\_EndDate | End date of the billing cycle. |
| asu\_FSMessage | Finance service message. |
| asu\_FSTransactionId | Transaction ID for the payment received via the billing cycle. |
| asu\_PremiumAmount | Premium amount for the billing cycle. |
| TransactionCurrencyId | Identifies the transaction currency. |
| asu\_premiumamount\_Base | PremiumAmount value in base currency. |
| asu\_StartDate | Start date of the billing cycle. |
| asu\_Status | Transaction status of the billing cycle. |
| UTCConversionTimeZone Code | Time zone code in use when the record was created. |
| asu\_enrollmentid | Identifies the enrollment associated for the billing cycle. |
| asu\_ActualBillDate | Actual bill date of the billing cycle. |
| asu\_ActualProcessDate | Actual process date of the billing cycle. |
| asu\_ActualReconcileDate | Actual reconcile date of the billing cycle. |
| asu\_ScheduledBillDate | Scheduled bill date of the billing cycle. |
| asu\_ScheduledProcess Date | Scheduled process date of the billing cycle. |
| asu\_ScheduledReconcile Date | Scheduled reconcile date of the billing cycle. |
| asu\_TenderType | Type of the tender used during a transaction (for example, Echeck). |

Billing Cycle Processing Status Codes

The following table identifies the status codes of a billing cycle stored in the asu\_billingcycle table.

| **Status Code** | **Description** |
| --- | --- |
| StartDate | Start date (anniversary) of a billing cycle. Initially, the StartDate is the subscriber’s enrollment date, EnrDate. |
| EndDate | End date (date toward which a customer is paying) of a billing cycle. |
| ScheduledProcessDate | Date that a billing cycle is to be processed (submitted). |
| ActualProcessDate | Date the billing cycle is actually processed. |
| ScheduledBillDate | Date that the subscriber’s account is scheduled to be debited. |
| ActualBillDate | Date that the subscriber was actually debited. |
| ScheduledReconcileDate | Date that a billing cycle is to be reconciled (exception or banked). |
| ActualReconcileDate | Date that the billing cycle was actually reconciled. |
| Amount | Amount that the customer will be charged. |
| ResultMessage | Text result of a reconciled billing cycle. |
| TramsactionId | TransactionId (from FinanceService DB) of a processed billing cycle. |
| ContractId | Identifier (from FinanceService DB) of the associated contract. |
| Status | Current status of the billing cycle:   * Pending * Cancelled * Process * Complete * Exception (NSF, Exception, AccountInvalid, Objected, etc.) * Confirm |
| Tender | The tender (for example, ECheck) or method of billing cycle payment. |

**Example:**For example, a transaction at the CreateContract stage, could have the following status code values:

StartDate = EnrDate (subscriber enrollment date)

EndDate = EnrDate + Term (billing term; for example, 30 days)

ScheduledProcessDate = Now (today’s date) + MLD (Mandate Lead Days) – LD (Lead Days.

ContractId = Current

Status = Pending

Tender = ECheck

#### asu\_communicationdetail Table

This table stores detailed information about communications.

| **Field** | **Description** |
| --- | --- |
| asu\_communication  methodid | Identifies the method of communication. |
| asu\_lettercodeidDsc | Identifies the letter code. |
| asu\_communicationdetailId | Communication detail id. |
| asu\_name | Name of communication detail. |
| asu\_lettercodeid | Letter code ID. |

#### asu\_communicationmethod Table

This table stores information about communication methods.

| **Field** | **Description** |
| --- | --- |
| asu\_communication methodId | Identifies the communication method. |
| asu\_name | Name of the communication method. |
| UTCConversionTimeZone Code | Time zone code that was used when the record was created. |

#### asu\_configuration Table

This table stores information about system configurations.

| **Field** | **Description** |
| --- | --- |
| asu\_accountidDsc | Identifies the account. |
| asu\_CodeType\_Id | Code type ID. |
| asu\_configurationId | Identifies the configuration. |
| asu\_Configurationnumber | Configuration number. |
| asu\_name | Configuration name. |
| CreatedBy | Identifies the user who created the record. |
| CreatedOn | Date and time that the record was created. |
| ImportSequenceNumber | Sequence number associated with this record. |
| ModifiedBy | Identifies the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| OrganizationId | Identifies the organization. |
| OverriddenCreatedOn | Date and time that the record was migrated.. |
| statecode | State of the configuration. |
| statuscode | Status code for the configuration. |
| asu\_accountid | Identifies the account associated with the configuration.. |

#### asu\_configurationitems Table

This table stores configuration items.

| **Field** | **Description** |
| --- | --- |
| asu\_configurationid | Identifies the particular configuration. |
| asu\_Active | Bit field. Indicates that the state is active or inactive. |
| asu\_Code\_Id | Code ID. |
| asu\_configurationitemsId | Identifies the configuration item. |
| asu\_Itemcode | Configuration item code. |
| asu\_itemvalue | Configuration item value. |
| asu\_name | Configuration item name. |
| asu\_configurationid | Identifies the configuration for the item. |

#### asu\_content Table

This table stores content information.

| **Field** | **Description** |
| --- | --- |
| asu\_ContentId | Identifies the content. |
| asu\_contentname | Content name or key value based on the content. |
| asu\_Description | Describes the content management. |
| CreatedBy | Identifies the user who created the record. |
| CreatedOn | Date and time that the record was created. |
| ImportSequenceNumber | Sequence number associated with the content record. |
| ModifiedBy | Identities the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| OrganizationId | Organization ID. |
| OverriddenCreatedOn | Date and time that the record was overridden (migrated). |
| statecode | Code indicating the content state. |
| statuscode | Code indicates the content status. |
| asu\_contentgrpnameid | Identifies the content group. |

#### asu\_contentgroup Table

This table stores content group information.

| **Field** | **Description** |
| --- | --- |
| asu\_contentgroupId | Content group ID. |
| asu\_contentgrpname | Content group name. |
| asu\_Description | Description of the content group. |
| CreatedBy | Identifies the user who created the record. |
| CreatedOn | Date and time that the record was created. |
| ImportSequenceNumber | Sequence number associated with the record creation. |
| ModifiedBy | Identifies the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| OrganizationId | Organization ID. |
| OverriddenCreatedOn | Date and time that the record was migrated. |
| statecode | Code indicates the state of the content group. |
| statuscode | Code indicates the status of the content group. |

#### asu\_contentscript Table

This table stores the content retention script.

| **Field** | **Description** |
| --- | --- |
| asu\_contentscriptsetand contentscriptName | Name of the client associated with the content script. |
| asu\_contentscriptId | Identifies the content script record. |
| asu\_scriptname | Name of the content script. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |
| asu\_ScriptType | Type of the content script. |

#### asu\_contentscriptset Table

This table stores content scripts for each account.

| **Field** | **Description** |
| --- | --- |
| asu\_CallScript\_ CancellationEnrollment | Cancellation enrollment script. |
| asu\_CallScript\_CCCCInfo | Stores a call script to be displayed to CSR when a subscriber calls in to update his payment details using a credit card tender. |
| asu\_CallScript\_eCheckInfo | Stores a call script to be displayed to CSR when a subscriber calls in to update his payment details using an eCheck. |
| asu\_CallScript\_genericMessage | Generic message script. |
| asu\_CallScript\_Refund Amount | Refund amount script. |
| asu\_contentscriptsetId | Identifies a particular content script. |
| asu\_ContentScriptSet Number | Number of the content script set. |
| asu\_name | Name of the content script set. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |
| asu\_CustomerRetention | Customer retention. |

#### asu\_culture Table

This table stores culture information associated with accounts.

| **Field** | **Description** |
| --- | --- |
| asu\_cultureId | Identtifies the particular culture. |
| asu\_name | Name of the culture. |

#### asu\_emsactivitylogger Table

This table stores logs of all CRM activities.

| **Field** | **Description** |
| --- | --- |
| asu\_Client | Name of the client. |
| asu\_ContractId | Identifies the particular contract. |
| asu\_emsactivityloggerId | Identifies the particular activity logger. |
| asu\_MDN | Mobile device number. |
| asu\_MessageXML | Message in XML format. |
| asu\_name | Name of the custom log. |
| asu\_QueueName | Name of the queue. |
| asu\_TibcoMessageId | ID of the message from TIBCO. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |

#### asu\_holiday Table

This table stores information about holidays celebrated by supported cultures.

| **Field** | **Description** |
| --- | --- |
| asu\_culture | Culture associated with the holiday. This field will be used to pick up holidays for a given region. |
| asu\_holidaydate | Date of the holiday. |
| asu\_holidayId | Identifies the particular holiday. |
| asu\_name | Name of the holiday. |
| ModifiedBy | Identifies the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| TimeZoneRuleVersion Number | For internal use only. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |

#### asu\_paymentmethod Table

This table stores information about the payment method.

| **Field** | **Description** |
| --- | --- |
| asu\_isactive | Bit field. Indicates if the payment method is active or not. |
| asu\_name | Name of the payment method. |
| asu\_NameId | Name identifier value in a picklist. |
| asu\_paymentmethodId | Identifies the particular payment method. |
| CreatedBy | Identifies the user who created the record. |
| CreatedOn | Date and time that the record was created. |
| ImportSequenceNumber | Sequence number of the import action that created this record. |
| ModifiedBy | Identifies the user who modified the record. |
| ModifiedOn | Date and time that the record was modified. |
| OverriddenCreatedOn | Date and time that the record was migrated. |
| OwningBusinessUnit | Identifies the business unit that owns the record. |
| statecode | Code indicating the status of the payment method. |
| TimeZoneRuleVersion Number | For internal use only. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |
| OwningUser | Identifies the user who owns the record. |

#### Contact Table

This table stores contact information.

| **Field** | **Description** |
| --- | --- |
| AccountIdDsc | Account ID. |
| AccountIdName | Client Name associated with the subscriber enrollment TESCO, Bouygues Telecom, and so on). |
| asu\_regionidDsc | ID for the region. |
| asu\_regionidName | Name of the region for contact’s residence. |
| Address1\_AddressId | Unique identifier for address 1. |
| Address1\_AddressType Code | Type of address for address 1 such as billing, shipping, or primary address. |
| Address1\_Name | Name for address 1. |
| Address1\_PrimaryContact Name | Name of the primary contact for address 1. |
| Address1\_Line1 | Information on the first line of address 1. |
| Address1\_Line2 | Second line for address 1. |
| Address1\_Line3 | Third line for address 1. |
| Address1\_City | City name for address 1. |
| Address1\_StateOrProvince | State or province name for address 1. |
| Address1\_County | County name for address 1. |
| Address1\_Country | Country/region name for address 1. |
| Address1\_PostOfficeBox | Post office box number for address 1. |
| Address1\_PostalCode | ZIP Code or postal code for address 1. |
| Address1\_UTCOffset | UTC offset for address 1. This is the difference between local time and standard Coordinated Universal Time. |
| Address1\_FreightTerms Code | Freight terms for address 1. |
| Address1\_UPSZone | United Parcel Service (UPS) zone for address 1. |
| Address1\_Latitude | Latitude for address 1. |
| Address1\_Telephone1 | First telephone number associated with address 1. |
| Address1\_Longitude | Longitude for address 1. |
| Address1\_ShippingMethod Code | Method of shipment for address 1. |
| Address1\_Telephone2 | Second telephone number associated with address 1. |
| Address1\_Telephone3 | Third telephone number associated with address 1. |
| Address1\_Fax | Fax number for address 1. |
| Address2\_AddressId | Unique identifier for address 2. |
| Address2\_AddressType Code | Type of address for address 2, such as billing, shipping, or primary address. |
| Address2\_Name | Name for address 2. |
| Address2\_PrimaryContact Name | Name of the primary contact for address 2/ |
| Address2\_Line1 | First line of information for address 2. |
| Address2\_Line2 | Second line for address 2. |
| Address2\_Line3 | Third line for address 2. |
| Address2\_City | City name for address 2. |
| Address2\_StateOrProvince | State or province name for address 2. |
| Address2\_County | County name for address 2. |
| Address2\_Country | Country or region name for address 2. |
| Address2\_PostOfficeBox | Post office box number for address 2. |
| Address2\_PostalCode | ZIP Code or postal code for address 2. |
| Address2\_UTCOffset | UTC offset for address 2. This is the difference between local time and standard Coordinated Universal Time. |
| Address2\_FreightTerms Code | Freight terms for address 2. |
| Address2\_UPSZone | United Parcel Service (UPS) zone for address 2. |
| Address2\_Latitude | Latitude for address 2. |
| Address2\_Telephone1 | First telephone number associated with address 2. |
| Address2\_Longitude | Longitude for address 2. |
| Address2\_Shipping Method Code | Method of shipment for address 2. |
| Address2\_Telephone2 | Second telephone number associated with address 2. |
| Address2\_Telephone3 | Third telephone number associated with address 2. |
| Address2\_Fax | Fax number for address 2. |
| OwnerId | Unique identifier of the user owner (contact). |
| ParentCustomerId | Unique identifier of the account or customer associated with the contact. |
| ContactId | Unique identifier of the contact. |
| DefaultPriceLevelId | Unique identifier of the default price level associated with the contact. |
| CustomerSizeCode | Size of the contact’s business. |
| CustomerTypeCode | Type of business associated with the contact. |
| PreferredContactMethod Code | Preferred contact method for the contact. |
| LeadSourceCode | Source of the lead for the contact. |
| OriginatingLeadId | Unique identifier for the lead for the contact. |
| OwningBusinessUnit | Identifies the business unit associated with the contact. |
| OwningUser | Identifies the contact user. |
| PaymentTermsCode | Payment terms for the contact. |
| ShippingMethodCode | Code Indicates the method of shipping for the contact. |
| OwningTeam | Identifies the team associated with the contact. |
| AccountId | Identifies the account associated with the contract. |
| ParticipatesInWorkflow | Indicates whether or not the contact participates in workflow rules. |
| IsBackofficeCustomer | Indicates whether or not the contact is in an associated Microsoft Great Plains database. |
| Salutation | Salutation for correspondence with the contact. |
| JobTitle | Job title of the contact. |
| FirstName | Contact’s first name. |
| Department | Department in the business unit or organization associated with the contact. |
| NickName | Contract’s nickname. |
| MiddleName | Contact’s middle name. |
| LastName | Contract’s last name. |
| Suffix | Suffix for the contact name, such as Jr., Sr., or Dr. |
| YomiFirstName | Hiragana or Katakana phonetic guide for the contact’s first name, used for Yomi sorting. |
| FullName | Contact’s full name. |
| YomiMiddleName | Hiragana or Katakana phonetic guide for the contact’s middle name, used for Yomi sorting. |
| YomiLastName | Hiragana or Katakana phonetic guide for the contact’s last name, used for Yomi sorting. |
| Anniversary | Contact’s wedding anniversary. |
| BirthDate | Contact’s birth date. |
| GovernmentId | Contact’s government ID. |
| YomiFullName | Hiragana or Katakana phonetic guide for the contact’s full name, used for Yomi sorting. |
| Description | Description of the contact. |
| EmployeeId | Contact’s employee ID. |
| GenderCode | Contact’s gender. |
| AnnualIncome | Contact’s annual income. |
| HasChildrenCode | Indicates whether or not the contact has children. |
| EducationCode | Indicates the level of contact’s formal education. |
| WebSiteUrl | Web site URL associated with the contact. |
| FamilyStatusCode | Contact’s marital status. |
| FtpSiteUrl | FTP site URL associated with the contact. |
| EMailAddress1 | Contact’s first e-mail address. |
| SpousesName | Name of the contact's spouse/partner. |
| AssistantName | Name of the contact's assistant contact. |
| EMailAddress2 | Contact’s second e-mail address. |
| AssistantPhone | Phone number of the contact's assistant. |
| EMailAddress3 | Contact’s third e-mail address. |
| DoNotPhone | Indicate whether or not to make phone calls to the contact. |
| ManagerName | Name of the contact's manager. |
| ManagerPhone | Phone number of the contact's manager. |
| DoNotFax | Indicates whether or not to send fax transmittals to the contact. |
| DoNotEMail | Indicates whether or not to send e-mails to the contact. |
| DoNotPostalMail | Indicates whether or not to send postal mail to the contact. |
| DoNotBulkEMail | Indicates whether to send direct e-mail to the contact. |
| DoNotBulkPostalMail | Indicates whether or not to send bulk-rate postal mail to the contact. |
| AccountRoleCode | Account role of the contact. |
| TerritoryCode | Identifies the territory to which the contact is assigned. |
| CreditLimit | Contact’s credit limit. |
| CreatedOn | Date and time that the contact was created. |
| CreditOnHold | Indicates whether or not credit for the contact is on hold. |
| CreatedBy | Identifies the user who created the contact. |
| ModifiedOn | Date and time that the contact was last modified. |
| ModifiedBy | Identifies the user who last modified the contact. |
| NumberOfChildren | Number of the contact’s children. |
| ChildrensNames | Names of the contact's children. |
| MobilePhone | Contact’s mobile phone number. |
| Pager | Contact’s pager number. |
| Telephone1 | Contact’s first telephone number. |
| Telephone2 | Contact’s second telephone number. |
| Telephone3 | Contact’s third telephone number/ |
| Fax | Contact’s fax number. |
| Aging30 | For internal use only. |
| StateCode | State code for the contact. |
| Aging60 | For internal use only. |
| StatusCode | Status code for the contact. |
| Aging90 | For internal use only. |
| ParentContactId | Identifies the parent contact. |
| PreferredSystemUserId | Identifies the system user preferred by the contact for scheduling service activities. |
| PreferredServiceId | Identifies the scheduling service preferred by the contact for services. |
| MasterId | Master ID for the contact. Used for merges. |
| PreferredAppointment Day Code | Day of the week that the contact prefers for scheduled service activities. |
| PreferredAppointment Time Code | Time of day that the contact prefers for scheduled service activities. |
| DoNotSendMM | Indicates whether or not to send marketing mail to the contact. |
| Merged | Indicates whether the account has been merged with a master contact. |
| ExternalUserIdentifier | Identifier for an external user. |
| SubscriptionId | For internal use only. |
| PreferredEquipmentId | Unique identifier of the facility/equipment preferred by the contact for scheduled service activities. |
| LastUsedInCampaign | Date and time that the contact was last contacted in a marketing campaign. |
| TransactionCurrencyId | Identifies the currency associated with the contact. |
| OverriddenCreatedOn | Date and time that the record was overridden (migrated). |
| ExchangeRate | Exchange rate with base currency for the currency associated with the contact. |
| ImportSequenceNumber | Identifies the data import or data migration that created this record. |
| TimeZoneRuleVersion Number | For internal use only. |
| UTCConversionTimeZone Code | Time zone code that was in use when the record was created. |
| AnnualIncome\_Base | Base currency equivalent of the contact’s annual income. |
| CreditLimit\_Base | Base currency equivalent of the contact’s credit limit. |
| Aging60\_Base | Base currency equivalent of the aging 60 for the contact. |
| Aging90\_Base | Base currency equivalent of the aging 90 for the contact. |
| Aging30\_Base | Base currency equivalent of the aging 30 for the contact. |
| Asu\_addresstype | Address type. |
| Asu\_brandname | Brand name. |
| Asu\_companyname | Company name. |
| Asu\_Country | Country name for the contact |
| Asu\_daytimecontact | Contact’s daytime number. |
| Asu\_eveningcontact | Contact’s evening number. |
| Asu\_mobilecontact | Contact’s mobile number. |
| Asu\_salutation | Salutation used to address the contact |
| Asu\_street | Street name of the contact’s address. |
| Asu\_streetnumber | Street number of the contact’s address. |
| Asu\_AddressLine4 | Fourth line for address information. |
| Asu\_AddressLine5 | Fifth line for address information. |
| Asu\_Address1\_State | State of the contact’s address 1. |

#### Invoice Table

This table stores detailed information about invoices.

| **Field** | **Description** |
| --- | --- |
| asu\_billingcycleidDsc | Identifies the particular Billing Cycle associated with the invoice. |
| asu\_enrollmentidDsc | Identifies the enrollment associated with the Invoice. |
| CustomerId | Identifies the account or contact associated with the invoice. |
| InvoiceId | Identifies the particular invoice. |
| OwningTeam | Identifies the team that owns the invoice. |
| OpportunityId | Identifies the opportunity with which the invoice is associated. |
| PriorityCode | Code indicates invoice priority. |
| SalesOrderId | Identifies the sales order associated with the invoice. |
| OwningUser | Identifies the user who owns the invoice. |
| OwningBusinessUnit | Identifies the business unit that owns the invoice. |
| LastBackofficeSubmit | Date and time that the invoice was last submitted to Microsoft Great Plains. |
| PriceLevelId | Identifies the price list associated with the invoice. |
| AccountId | Identifies the account associated with the invoice. |
| ContactId | Identifies the contact associated with the invoice. |
| InvoiceNumber | Invoice number. |
| Name | Name of the invoice. |
| Description | Description of the invoice. |
| DiscountAmount | Discount expressed as a monetary amount for the invoice. |
| FreightAmount | Cost of freight for the invoice. |
| TotalAmount | Total price of the invoice. |
| TotalLineItemAmount | Total line item amount for the invoice. |
| TotalLineItemDiscount Amount | Total line item discount for the invoice. |
| TotalAmountLessFreight | Total price minus the freight charges for the invoice. |
| TotalDiscountAmount | Total discount for the invoice. |
| CreatedBy | Identifies the user who created the invoice. |
| TotalTax | Total tax for the invoice. |
| ShippingMethodCode | Method of shipment for the invoice. |
| PaymentTermsCode | Payment terms for the invoice. |
| CreatedOn | Date and time that the invoice was created. |
| ModifiedBy | Identifies the user who last modified the invoice. |
| ModifiedOn | Date and time that the invoice was last modified. |
| StateCode | Status of the invoice. |
| StatusCode | Reason for the status of the invoice. |
| ShipTo\_Name | Name of the shipping address. |
| VersionNumber | For internal use only. |
| PricingErrorCode | Type of pricing error for the invoice. |
| ShipTo\_Line1 | First line of the shipping address. |
| ShipTo\_Line2 | Second line of the shipping address. |
| ShipTo\_Line3 | Third line of the shipping address. |
| ShipTo\_City | City name of the shipping address. |
| ShipTo\_StateOrProvince | State or province of the shipping address. |
| ShipTo\_Country | Country or region name of the shipping address. |
| ShipTo\_PostalCode | ZIP code or postal code of the shipping address. |
| WillCall | Indicates whether or not the customer will call for the invoiced products or the products to be shipped. |
| ShipTo\_Telephone | Telephone number associated with the shipping address. |
| BillTo\_Name | Name of the billing address. |
| ShipTo\_FreightTermsCode | Freight terms for the shipping address. |
| ShipTo\_Fax | Fax number for the shipping address. |
| BillTo\_Line1 | First line of the billing address. |
| BillTo\_Line2 | Second line of the billing address. |
| BillTo\_Line3 | Third line of the billing address. |
| BillTo\_City | City name of the billing address. |
| BillTo\_StateOrProvince | State or province of the billing address. |
| BillTo\_Country | Country or region name of the billing address. |
| BillTo\_PostalCode | ZIP code or postal code of the billing address. |
| BillTo\_Telephone | Telephone number associated with the billing address. |
| BillTo\_Fax | Fax number for the billing address. |
| DiscountPercentage | Discount expressed as a percentage of the invoice. |
| IsPriceLocked | Indicates whether or not invoice pricing is locked. |
| DateDelivered | Date all products in the invoice were delivered. |
| DueDate | Date by which the invoice must be paid. |
| TimeZoneRuleVersion Number | For internal use only. |
| ImportSequenceNumber | Identifies the data import or data migration action that created this record. |
| OverriddenCreatedOn | Date and time that the record was overridden (migrated). |
| ExchangeRate | Exchange rate for the currency associated with the invoice with the base currency. |
| UTCConversionTimeZone Code | Code for the time zone in which the record was created. |
| TransactionCurrencyId | Identifies the currency associated with the invoice. |
| TotalLineItemAmount\_Base | Base currency equivalent of the total line item amount for the invoice. |
| TotalLineItemDiscount Amount\_Base | Base currency equivalent of the total line item discount for the invoice. |
| TotalTax\_Base | Base currency equivalent of the total tax for the invoice. |
| TotalAmountLessFreight\_ Base | Base currency equivalent of the total price minus the freight charges for the invoice. |
| DiscountAmount\_Base | Base currency equivalent of the total line item discount for the invoice. |
| FreightAmount\_Base | Base currency equivalent of the cost of freight for the invoice. |
| TotalDiscountAmount\_Base | Base currency equivalent of the total discount for the invoice. |
| Asu\_billedamount | Billed amount. |
| asu\_billedamount\_Base | Value of the Billed Amount in base currency. |
| Asu\_creditcardno | Credit card number. |
| Asu\_enddate | End date copied from billing cycle for display in the CRM UI. |
| Asu\_invoicetype | Type of invoice. |
| Asu\_negativereceiptid | ID of a negative receipt. |
| Asu\_paymentfailurereason | Stores the actual reason for failure (NSF, exception, and so on). |
| Asu\_paymentmethod | Payment method. |
| Asu\_paymentstatus | Status of payment for this invoice. |
| Asu\_referenceid | Reference ID. |
| Asu\_refundamount | Refund Amount. |
| asu\_refundamount\_Base | Value of the Refund Amount in base currency. |
| Asu\_ResubmitPayment | Identifies a resubmit payment. |
| Asu\_starinvoiceid | Star Invoice ID. |
| Asu\_starrecieptid | Star Receipt ID. |
| Asu\_startdate | Start Date copies from the billing cycle to explain the associated view in CRM. |
| Asu\_subject | Identifies the subject. |
| Asu\_systemerror | System error description. |
| asu\_billingcycleid | Identifies the Billing Cycle associated with Invoice. |
| asu\_enrollmentid | Identifies the Enrollment associated with Invoice. |
| Asu\_paymentaccount number | Payment account number. |
| Asu\_duplicate | Value indicates whether or not a charge was marked as a duplicate by payment processor ( the customer was not charged). |

#### ValidationSummary Table

This table stores summary validation information.

| **Field** | **Description** |
| --- | --- |
| ValidationName | Name of the validation. |
| ValidationStatus | Status of the validation. |

## A.4 Asurion Subscriber Billing System Port Bindings

Port bindings determine where and how a message is sent or received. Asurion Billing Subscriber System - Finance Service Gateway messages are sent via HTTP transport and received via HTTP and SOAP. Individual services that send and receive data are identified by port number. When a system has multiple IP addresses, a single service (within the system) can be bound to a single IP address through port binding. Applications accessed by the service will only respond to requests from the specified address. The primary Gateway ports and bindings are listed below.

| **Port** | **Binding** | **Transported Message** | **Description** |
| --- | --- | --- | --- |
| PolicyAdministration Service | PolicyAdministration Service SOAP | * CreateContract MessageHeader * CreateContractSoap In * CreateContractSoapOut * ProcessNonRef PaymentMessageHeader * ProcessNonRef PaymentSoapIn * ProcessNonRef PaymentSoapOut | CreateContract  ProcessNonRefPayment  Associated operations follow a SOAPprotocol. |
| PolicyAdministration Service Soap12 | PolicyAdministrationService Soap12 | Above | CreateContract  ProcessNonRefPayment  Associated operations follow a SOAP protocol. |
| PolicyAdministration HttpGet | PolicyAdministrationHttpGet | Above | CreateContract  ProcessNonRefPayment  Associated message includes an HTTP GET. |
| PolicyAdministration Http Post | PolicyAdministrationHttpPost | Above | CreateContract  ProcessNonRefPayment  Associated message include an HTTP POST. |
| NewTaxEngine\_ webservice\_wsd\_ calculateTax Webservice\_Port | NewTaxEngine\_ webservice\_wsd\_ calculateTax Webservice\_Binder | * calculateTaxWebservice\_PortType\_ calculateTax * calculateTaxWebservice\_PortType\_ calculateTax Response | CalculateTax |

## A5. Asurion Subscriber Billing System Error Messages

The .NET and CRM components of the system provide error messages to identify problems arising from functional and user input activities.

**Also See**

Appendix “A.1 Asurion Subscriber Billing System Error Messages” in the *Asurion Subscriber Billing System SQA Testing Specification*.

## A.6 Asurion Subscriber Billing System Glossary

This glossary defines abbreviations and terms used in this document.

| **Abbreviation / Term** | **Description** |
| --- | --- |
| Billing Cycle | Billing cycle for an enrolled subscriber. |
| CRM | Asurion Customer Relationship Management. Automatic CRM processes flow through the Subscriber Billing System after a subscriber is enrolled. |
| CVV | Card Verification Value. |
| DR | Disaster Recovery |
| EndDate | End date of enrollment for a subscriber. |
| ESB | Enterprise Service Bus. |
| ESN | Electronic Serial Number. |
| ETL | Extraction, Transform, and Load. |
| FSA | Finance Service Agent |
| Gateway | Asurion Finance Service Gateway. |
| LD | Lead Days. |
| MDN | Mobile Device Number. |
| MLD | Mandate Lead Days. |
| .NET | Authorized users control manual “NET” processes through Tibco BusinessWorks (BW) screens. |
| NOC | Network Operations Center (NOC) |
| PCI | Payment Card Industry (PCI).  Asurion complies with all PCI standards for data security. |
| PII | Personally Identifiable Information.  Asurion complies with all PII standards for data security. |
| POS | Point of Sale. For example, “Walmart POS”. |
| ScheduledProcessDate | Today’s Date + MLD – LD. |
| StartDate | The start date (anniversary) of a billing cycle. |
| Status | Current status of an object in the Subscriber Billing System. Thus, “Transaction Status” refers to the current status of an subscriber account for example, “Authorize”).  See the list of status descriptions in the Appendix in “Asurion Subscriber Billing System Finance Service API Specification”. |
| Tender | Type of payment (for example, ECheck). |
| TIBCO WSDL | See “WSDL”. |
| VIP | Asurion Virtual IP. |
| WSDL | Developed with Asurion, the TIBCO XML Web Service Description Language. Asurion uses WSDL definitions for the Finance Service service names, port names, bindings, address locations, port types, and operations |

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