BILLING

Billing Accounts

Billing accounts provide a flexible mechanism for bill creation. They influence the content of the bill as well as the number of bills a party receives. This flexibility is achieved by assigning the billing account to different entities.

Assignment to Different Items

Billing account assignments can be also created for all charges of a certain contract or for charges that match a specific combination of flexible filter criteria. For more information, refer to Charge Assignment.

Types

Each payment responsible party has at least one billing account, the primary billing account, assigned. This account is created automatically during the creation of the payment responsible party. If no other billing accounts are defined, all charges for that party are accumulated in the primary billing account and the party receives only one bill.

However, additional billing accounts of different types can be created:

- For customers, the only billing account type that can be assigned is the invoicing billing account. Therefore, if no further billing account is defined, the primary billing account is automatically assigned to all contracts created for the customer. However, creating additional billing accounts and assigning them to separate contracts allows the following:
  - A bill for a specific contract can be sent to a different address than the bills for all other contracts.
  - Different tax calculation and tax reduction measures can be applied to different contracts.
  - A customer can pay for charges incurred by another customer.
- Business partners can have the billing account types invoicing, reconciliation and business partner credit memo assigned to them. Which of these types has to be assigned to a business partner depends on the role of the business partner and therefore on the type of contract the business partner can hold. When creating a new business partner contract and the business partner does not have the needed billing account type assigned, this billing account is created automatically.

Statuses

Billing accounts pass through a number of statuses, with inactive being the initial status and closed being the last one. Primary billing accounts and automatically created billing accounts for business partners are automatically activated, whereas manually created billing accounts have to be activated manually. For a detailed description of each status refer to Billing Account Statuses.

Attributes

The billing process needs several attributes in order to correctly produce a bill. Some of these attributes are provided by the party, some of them by the party's billing account. For a detailed description of these attributes and their dependencies, refer to Billing Account Attributes.

As long as a contract is on-trial, usage charges accumulated with this contract cannot be billed and discounts cannot be applied.

Payments

Apart from customer and invoice levels, payments (financial and reversal transactions) can optionally be allocated at billing account level. If an overpayment is made and no billing account or invoice is specified, then the overpayment amount is allocated to the primary billing account.

Charge Assignment

By default, the customer's primary billing account results in one bill containing all charges of the contracted services. But it is also possible to split the billing, by means of explicit assignments between billing accounts and contracts. The charges that are assigned to a specific billing account are defined by an assignment template that contains the assignment rules.

The templates for charge assignment are set up in Customer Center (CX), and one such template is assigned to each assignment between billing account and contract. If required, the assignment templates can be restricted to specific business units.

Any combination of the following criteria can be defined in an assignment rule inside a template. Multiple assignment rules can be specified in one assignment template and they are processed by Billing Cycle Handler (BCH) in the order defined by the priority of the assignment rules:

- **user profile**

  The billing account accumulates charges incurred on a specific user profile. **Example:**A customer wants to use the alternate line option and wants separate bills. For an example of the alternate line option refer to Use Case: Alternate Line Functionality.

- **service**

  Charges arising from the use of specific services are accumulated in a separate billing account. **Example:** A customer wants to receive one bill for all charges incurred for fax, and a separate bill for telephony and all other services, because the customer uses fax only in connection with office-related tasks. Two billing accounts have to be available for this customer, one assigned to the fax service, the other one to the telephony service and the other services. In this way, the fax charges are included on one bill, and the charges for telephony and the other services on a second bill.

- **charge type**

  The billing accounts accumulate specific charge types (usage charges, one time charges and recurring charges) on separate bills. **Example:** The customer is provided by his company with a company telephone he can also use for private purposes. The one-time and recurring charges of the telephony service should be paid by the company, the usage charges by the customer. The customer has two billing accounts, one billing account assigned to the one-time and the recurring charge types, the other one assigned to the usage charge type. Two bills will be generated:
  - The first bill for the first billing account, containing the one-time and the recurring charges of the telephony service.
  - The second bill for the second billing account, containing the usage charges of the telephony service.

- **usage type**

  If charges of type 'usage' are assigned to a specific billing account, a customer or business partner might want to receive invoices separated per usage type. Usage types are for example:
  - outbound
  - service charge
  - amount payable

- collected amount
- amount to be collected
- commission
- advised charge
- partial commission

Usage types are defined in the UDC_USAGE_TYPE_TABLE database table.

Only for content provider contracts, the default usage type assignment is configured. The network operator can decide to configure the usage types for other contract types as well. This is not part of the default setup. For all other contract types, no default usage type assignments is configured.

For all business partner contract types except dealer contracts, a second default billing account is configured depending on the billing account flag (reconciliation or partner credit memo). For content provider contracts, a reconciliation or partner credit memo billing account is configured as default. For all other contract types (neither reconciliation nor credit memo relevant) no second default billing account is configured.

- **complex conditions**

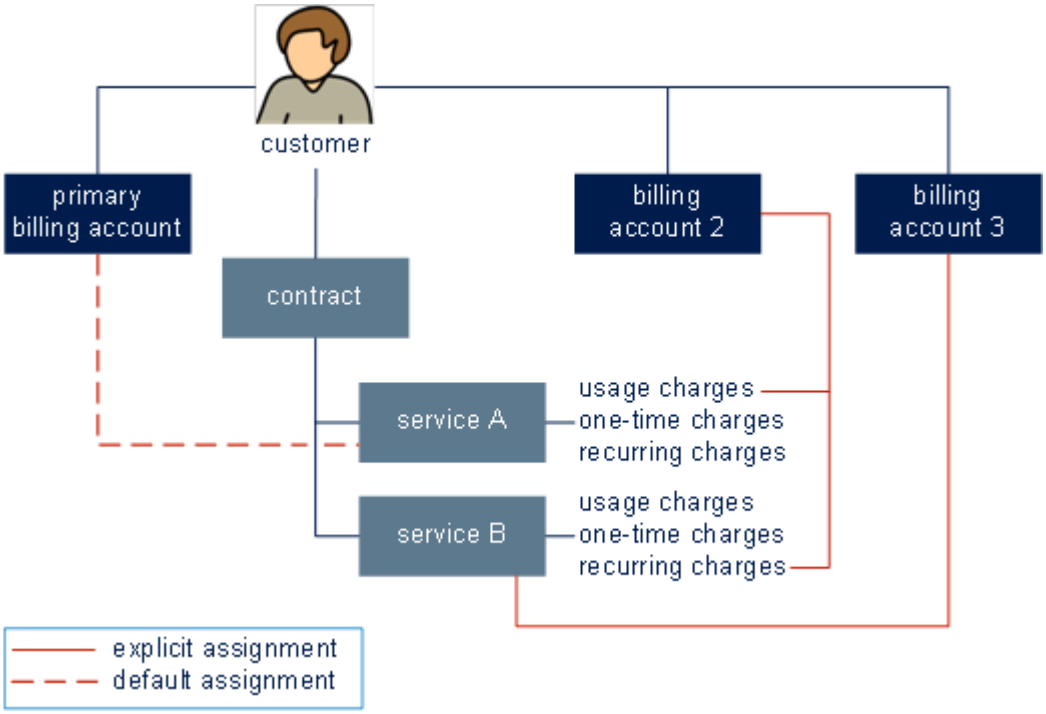
  Individual fields in a usage data record (UDR) can be defined as filter criteria for the charge assignment. The fields to be evaluated for the charge assignment have to be set up as complex condition in Product Center (PX). For more information, refer to Setting up Complex Conditions.

  Complex conditions are restricted to usage, one-time and recurring charges because only these charges are contained in the UDR.

  Example:

Example

The following figure gives an example how explicit billing account assignments for specific services or charge types can influence the content of the customer's bills:



Example of billing account assignment

With the setup detailed above, the customer receives three bills for the same contract:

- **One bill for the primary billing account**, summing up the following charges:
  - one-time charges for service A
  - recurring charges for service A

  Service A has not been explicitly assigned to another billing account, therefore the bill generated for the primary billing account contains all charges which have not been explicitly assigned to a different billing account. In our example, the usage charge which has been assigned to billing account 2 is not contained in this bill.
- **One bill for billing account 2**, summing up the following charges:
  - usage charges for service A
  - recurring charges for service B
- **One bill for billing account 3**, summing up the following charges:
  - usage charges for service B
  - one-time charges for service B

    Billing account 3 is explicitly assigned to service B, but the recurring charges are explicitly assigned to billing account 2. Therefore, these charges are part of the bill generated for billing account 2.

Billing Account Statuses

A billing account can have the following statuses:

- **inactive**

  The initial status when a billing account is created, and if the billing account is temporarily not used for bill generation. Inactive billing accounts can be set to active or closed. When the payment responsibility of a large account member is removed, the member's primary billing account is automatically set to inactive.
- **active**

  All billing-relevant attributes are linked to the billing account. The billing account is used to accumulate charges and generate bills. Active billing accounts can be set to inactive. However, all charges must be reassigned before this status change can be performed. When a billing account is activated, the customer is by default payment responsible for any charges that are not assigned to another customer's billing account.
- **closed**

  The billing account can never be used for billing again.

The status of a billing account and the version of the billing account are stored in the BILLING_ACCOUNT_VERSION database table. The date when the version became valid is also stored in the table, so that it is possible to extract historical information related to the billing account. The customer to whom the billing account is assigned, is stored in the BILLING_ACCOUNT database table.

Restrictions

In case of primary billing accounts, the following restrictions regarding status changes exist:

- The primary billing account is the first to get the **active** status and the last to get the **inactive** status. This means that no other billing accounts can be active as long as the primary billing account is

inactive, and the primary billing account cannot be inactive as long as there are other active billing accounts.

- The primary billing account of an individual customer cannot be **inactive** unless the customer is deactivated.
- The primary billing account of a large account root node cannot be **inactive** unless the whole large account is deactivated.
- The primary billing account of a deactivated customer cannot be **closed** until **CDRmaxage** (the date on which call detail records become invalid) has been reached.

Invoicing Billing Account

Billing accounts of the type invoicing can be used for customers as well as business partners.

- In case of large accounts, billing accounts can be used to split the bills according to the different large account levels. For details, refer to Billing Accounts in Large Accounts.
- In case of single customers, billing accounts be used for billing alternate lines. For details, refer to Use Case: Alternate Line Functionality.

Billing Accounts in Large Accounts

Comparable to individual customers, large account members automatically get assigned a primary billing account during their creation.

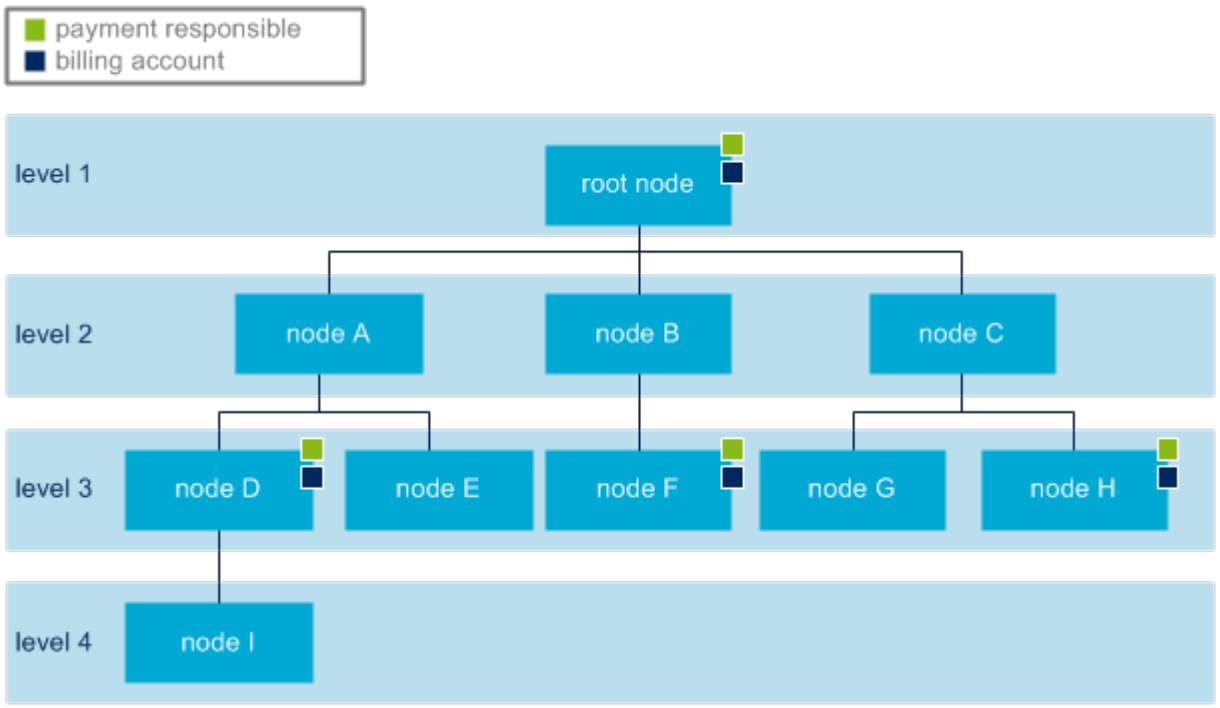
- If large account members are marked as payment responsible, they receive a bill for all charges (one-time, recurring and usage) accumulated for their primary billing account. However, by defining additional billing account assignments on other large account levels, the accumulated charges can be split.
- If large account members are not marked as payment responsible, they cannot be owner of an active billing account and the primary billing account created for them is automatically set to inactive. All charges accumulated for these members are automatically assigned to the next higher member with an active primary billing account, except those charges explicitly assigned with the help of an additional billing account assignment.
- If not payment responsible large account members are defined as payment responsible, a default billing account is assigned to them.
- If the payment responsibility is removed from a large account member, its billing account is set to inactive.
- If a large account member who is not payment responsible is converted to an individual customer, the new individual customer is automatically payment responsible and a default billing account is assigned.
- If a payment responsible individual customer is converted to a large account member who is not payment responsible, the corresponding billing account is deactivated.

For an example, how payment responsibilities can be split within a large account if only primary billing accounts are involved, refer to the **Payment Responsibilities** concept.

In addition to the primary billing accounts, additional billing accounts can be manually created for each large account member, which makes the assignment of charges to billing accounts and the resulting bills

more flexible. All non-primary billing accounts of all large account members can be used for additional billing account assignments.

The following figure gives an example how the payment of charges can be split within a large account hierarchy by means of additional billing account assignments. For the sake of simplicity, only the billing accounts necessary for payment distribution are displayed:

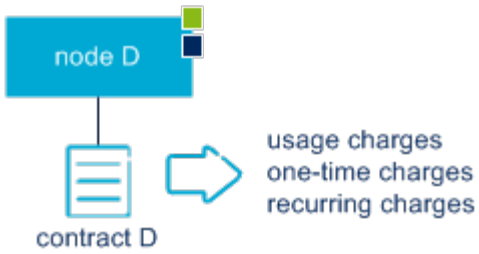


Within this structure, three contracts are created:

- Contract D for node D
- Contract F for node F
- Contract I for node I

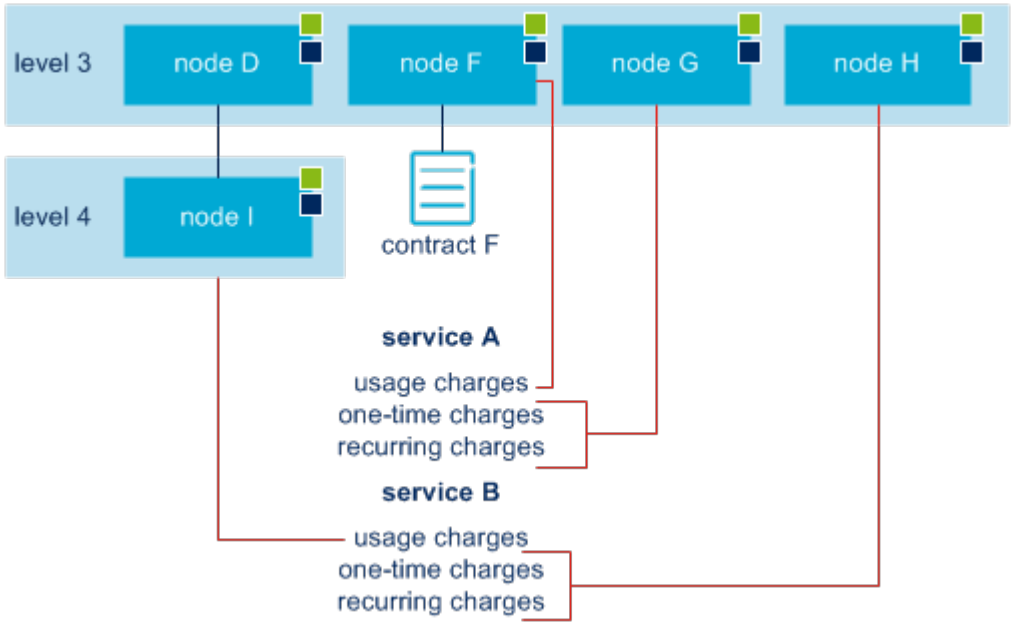
Contract D for Node D

Contract D is set up in the following way:



Contract F for Node F

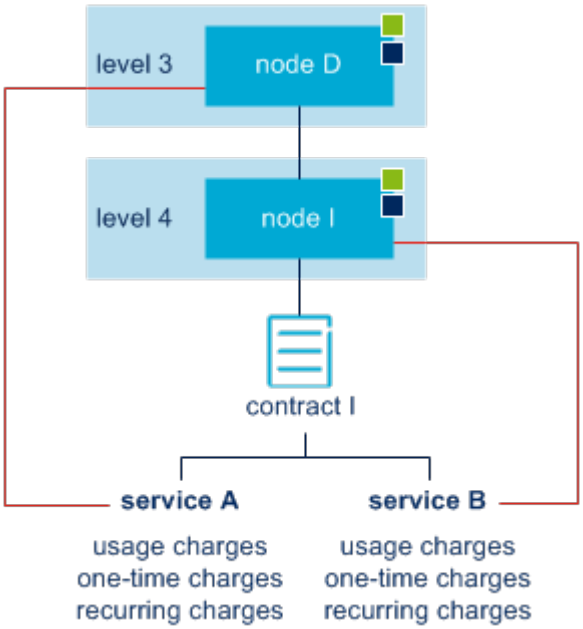
Contract F is set up in the following way:



For more details about the assignment of charge types to billing accounts, refer to the description how billing account can be assigned to different levels in Customer Center.

Contract I for Node I

Contract I is set up in the following way:

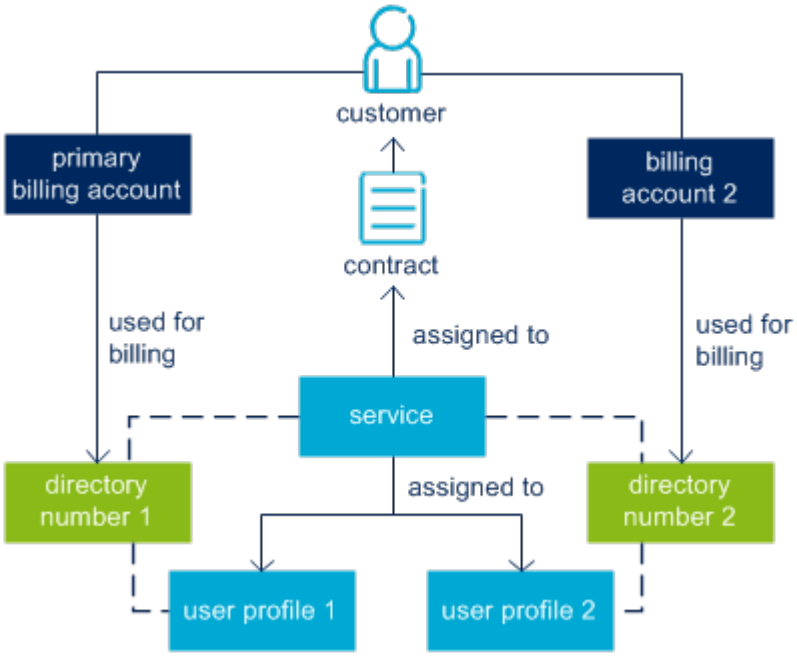


For more details about the assignment of services to billing accounts, refer to the description how billing account can be assigned to different levels in Customer Center.

Use Case: Alternate Line Functionality

An example of how billing accounts can be used is the scenario in which a customer has the alternate line function and wants separate bills. Alternate line allows a customer to have two directory numbers for the same service, for example, telephony. This function is useful if, for example, a customer wants to use the same mobile telephone for business and private purposes.

To use the alternate line function, the following setup is necessary:



Alternate line setup

1. Two billing accounts are needed. The primary one is created automatically for each customer, billing account 2 has to be created manually.
2. A contract is created for this customer.
3. During the creation of the contract, a service is contracted, for example, telephony. To be able to assign two different directory numbers to this service, one for private and one for business use, the service is assigned to two different user profiles (user profile 1 and user profile 2).
4. The service is then treated as a separate service for each user profile, which means that a different directory number can be assigned to the service for each user profile. Refer to Multiple User Profiles in the **Contracts** concept) for more information about user profiles.

Two invoices are produced, one for each billing account.

- The first invoice indicates the charges for directory number 1 (for private use).
- The second invoice indicates the charges for directory number 2 (for business use).

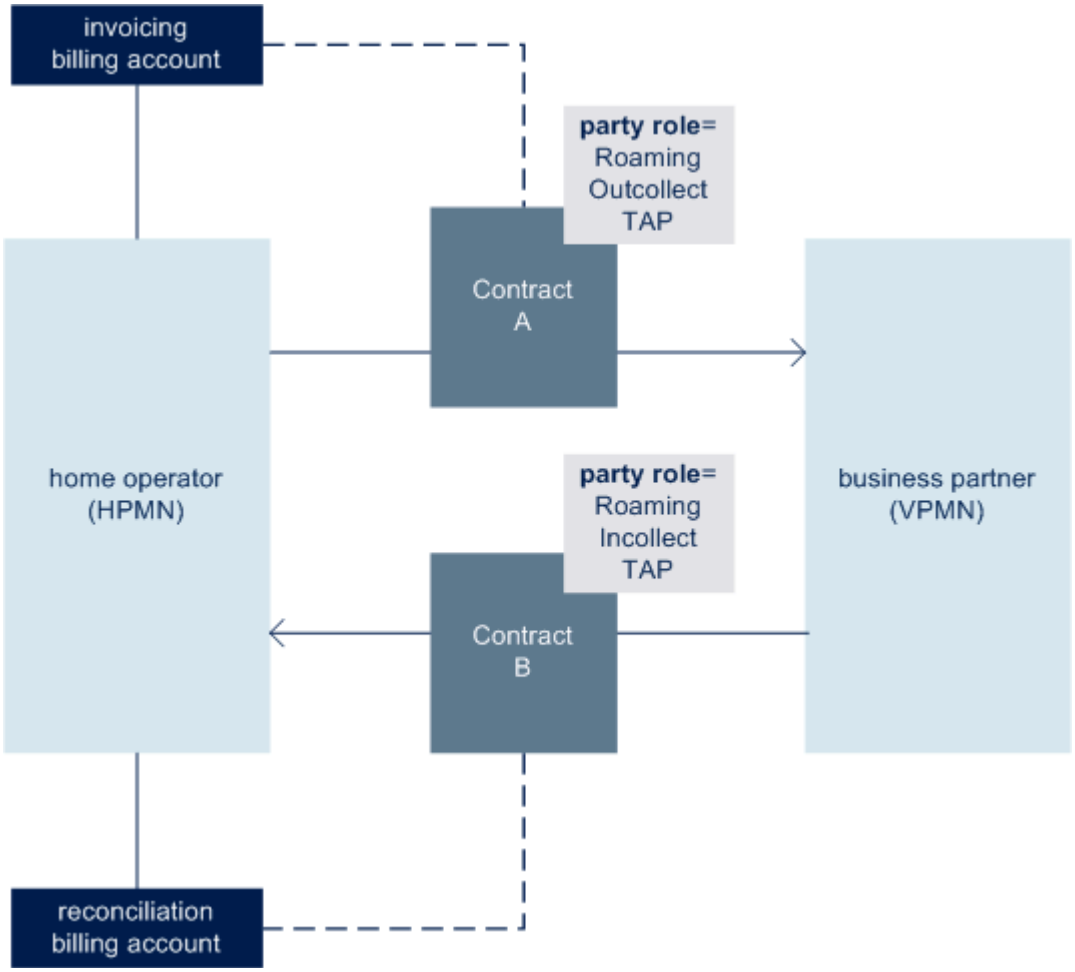
There is no alternate contract needed to set up alternate lines. One contract can have multiple MSISDN (service resources) using NET_VIRTUAL_HLR.DIRNUM_ASSIGN_METHOD.
The NET_VIRTUAL_HLR.DIRNUM_ASSIGN_METHOD**AL** is used, if only multiple MSISDN are required per contract, and no separate invoices or different prices are required.

The terms **alternate line** and **twin line** are often used interchangeably.

Reconciliation Billing Accounts

Business partner billing distinguishes reconciliation billing accounts from invoicing billing accounts. The invoicing billing accounts are explained in the sections above.

For each business partner one or more contracts can be assigned. A business partner contract (refer to Harmonization of Customer and Business Partner Handling) is specified by its party role. According to a specific party role, a contract will be linked to a reconciliation billing account or an invoicing billing account. A typical party role of a contract linked to a reconciliation billing account is called **Roaming Incollect TAP**. This contract identifies the network usage of a home customer outside of his or her HPMN.



The BILLING_ACCOUNTS.INVOICING_IND database table specifies whether the billing account is used for invoicing or for reconciliation.

There are no restrictions in configuration of these billing accounts (assignment levels). The configuration is identical to invoicing billing accounts.

The items used for billing and reconciliation are written to different billing accounts, but the period for billing and reconciliation is the same, because the billing period is defined for the business partner, not for

the billing accounts separately. Therefore, to provide reconciliation, the billing period has to be adapted to the reconciliation period otherwise it is difficult to compare the incoming invoices with the reconciliation statement.

Billing Applications

Global Billing Configuration

Language Settings

To make sure that the characters to be written to the XML billing documents are retrieved correctly from the database, the NLS_LANGOracle setting has to be set to the character encoding required for the system language. Usually, this is the same as the database character set. Refer to Setting up the ORACLE System Environment for the list of Oracle encoding names for ISO character encoding. Details about the NLS_LANG setting can be found in the Oracle Globalization Support Guide.

Billing Run Parameters

Before Billing Cycle Handler (BCH) can execute a billing run, you have to configure several parameters relating to billing runs in External Interfaces (EI) and Taxation Administration (TA). The following paragraphs provide you with a brief description of these parameters.

BILLING_CONFIG

Configuration parameters for billing runs are maintained in the BILLING_CONFIG database table.

External Interfaces

EI handles parameters related to the following functions:

- **Billing document generation** - the types of XML billing documents to be created, for example, invoice information or call detail documents: Configuring the Handling of Billing Documents.

  Refer to billing documents for a detailed description of these documents.
- **Call detail record processing** - the parameters related to the processing of call detail records, that is, the maximum age of the CDRs to be processed, the application of free units, and the basis for granting of free units: Configuring the Processing of Call Detail Records
- **Rounding rules application** - the rounding rules for the selected **currency** in relation to a billing cycle: Specifying Rounding Rules for Billing Cycles
- **Storage period definition** - the storage (archive) periods for invoices and deposit requests: Configuring the Storage Periods for Business Documents
- **Billing parameter configuration** - the values for specific parameters relating to billing runs, for example, the trace level of BCH or the application of promotions to rerated call detail records: Configuring Billing Parameters

Taxation Administration

TA handles parameters related to the following functions:

- **Billing strategies specification** - configuration of whether taxes are applied to TAP charges for external usage, TAP tax rates, IC charges for external usage or IC tax rates: Specifying the Billing Strategies for Externally Rated Charges (TAP/IC)
- **Rounding rules application** - the rounding rules to be applied to **taxes** - Specifying Rounding Rules for Taxes

Promotion Rules

A rule has a predefined number of input channels (≥ 0) as well as a predefined number of output channels (≥ 1). The rule combines input and output on a logical basis without any specific knowledge about the actual business process involved. Threshold values (or decision table values) have to be defined for each input and output channel.

The input for a rule is determined by evaluation mechanisms, and the output is used in application mechanisms. The threshold values are set up as rule value data in Motivation and Incentives (MI) or General Ledger (GL).

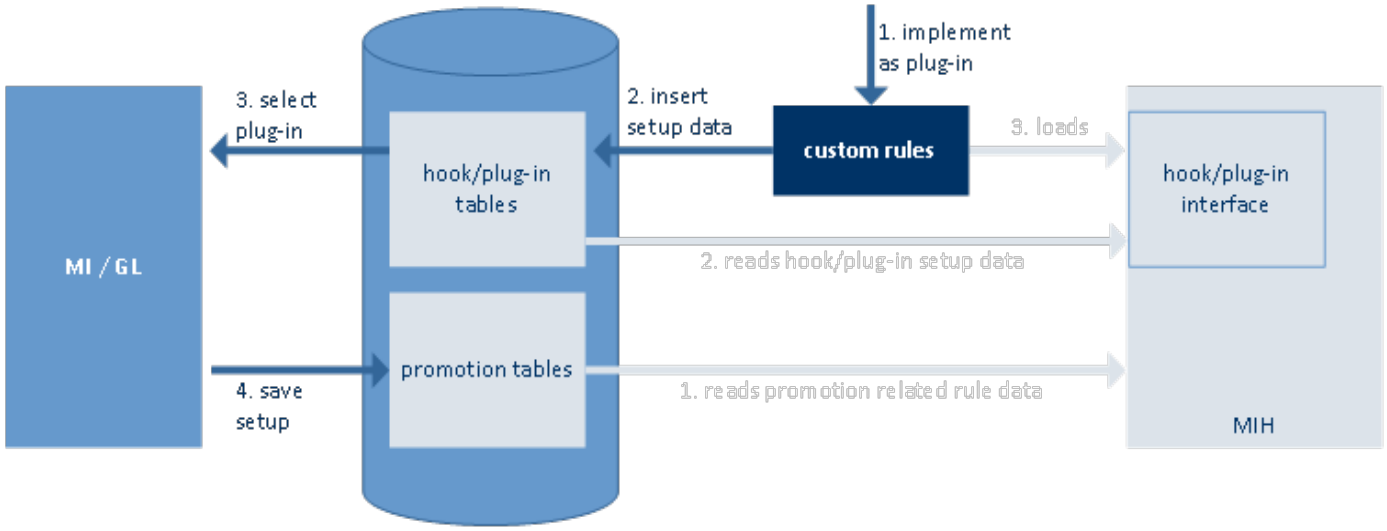
Standard Rules

The most common rules are preconfigured as standard rules. They are inserted into the relevant setup tables for hooks and plug-ins and into the promotion rule tables during the baseline setup.

Refer to the **Rule Templates** section of the MI and GL documentation for a list of available standard rules.

Custom Rules

The overview figure shows how new custom rules are set up so that they can be read by MIH on initialization when promotions are applied.



Creation and setup of custom rules

Creation and Setup

Perform the steps below to create a custom rule and to enter the setup into the database:

1. Implement a custom rule as a plug-in in C++ and compile it into a shared library.

   Currently, the following hooks have been defined for which you can implement plug-ins:

   - RulePromoConfig - for rules used to configure promotions
   - RuleGLAccDeterm - for rules used to determine GL accounts

2. Insert the setup data into the tables used for hooks and plug-ins
3. In MI or GL, select the plug-in to be used for a specific rule template.

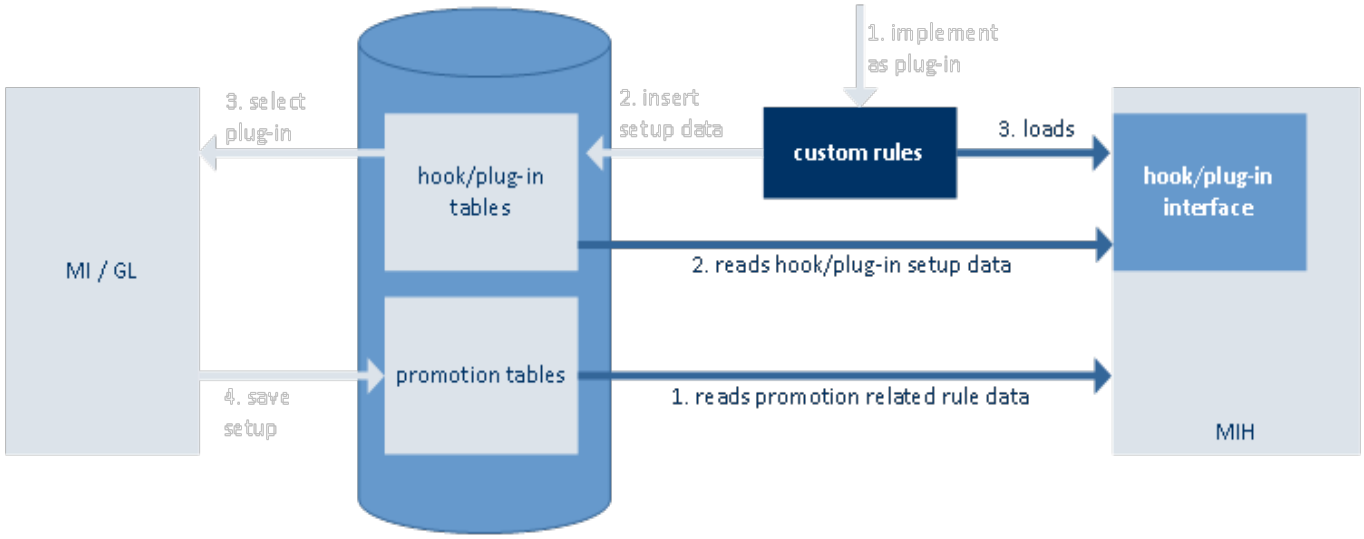
   Refer to the **How to...?** section for information about how to set up a custom rule template in MI or in GL.

4. In MI or GL, set up further rule related data, such as rule name and version, effective date, detailed description, and save the setup in the promotion rule tables.

   Check that the rule is consistent and release it into production, so that it can be assigned to model elements. Refer to the **How to...?** section for information about how to assign a rule template to a model element in MI or in GL.

MIH Execution

Once the setup has been completed, MIH can perform the actions shown in the figure and described below:



MIH execution

MIH performs the following actions:

1. Reads promotion-related rule data and configured promotions during initialization.
2. Reads setup data for hooks and plug-ins using the hook/plug-in interface.
3. Loads the related shared libraries, so that the function related to a specific rule can be called as soon as a specific rule is executed in MIH.

BILLING_CONFIG

BILLING_CONFIG contains configuration data for Billing Cycle Handler (BCH), Motivations and Incentives (MIH), Billing Server (BILLSRV), Bill Generation Handler (BGH), Debt Collection Handler(DSH), and Recurring Charge Handler (RCH). Each entry can be overwritten using an environment variable with the same name as BILLING_CONFIG.PARAM_NAME.

There are global parameters which are used by several applications as in the table below.

PARAM_NAME	Description	Used by
BCH_LA_FRAGMENT_MAX_FRACTION	**Maximum percentage of customers within a fragment** Specifies the maximum percentage of customers a fragment can have, compared to the total of customers in a large account or sublevel. If the percentage of customers in a package is higher, all customers are processed within one step and no fragmented billing is executed. For example: the total number of customers in a large account is 1005 and the fragment threshold is 1000. In this case the first fragment would have 1000 customers and the second 5. As the first fragment contains more than 90% of all customers, the large account is not fragmented and all customers are processed within one transaction. **Value:** Any percentage up to 100%. The default value is 90%.	BCH, BILLSRV
BCH_LA_FRAGMENT_THRESHOLD	**Fragmented billing threshold** The fragment threshold for fragmented billing of a large account or sub-level. If the size of the large account or sub-level is larger than the threshold, the large account or sub-level is fragmented. As a fragment size the threshold value is used. Nevertheless the threshold value is not always the maximum size of a fragment. For example: All contracts sharing a POFUL have to be within the same fragment. Therefore the fragment size can in this case be bigger than the threshold value. **Value:** Any number. The default value is 1000 (customers). The BCH_LA_FRAGMENT_THRESHOLD needs to be configured in such a way that not too many fragments are processed in a billing run. If the number of fragments is too high, problems arise regarding database partitions. Charges that need to be forwarded between fragments are stored in the AGGR_CHRG_INT table. For fast access, this table is partitioned. Each large account fragment requires two partitions of that table in each phase. The partitions are reserved in the BCH_INT_STORAGE_PARTITION table per fragment and phase. By default a number of 100 partitions is available in BCH_INT_STORAGE_PARTITION. If BCH needs more partitions than that during a billing run, it stops with a fatal error. To avoid this, the BCH_LA_FRAGMENT_THRESHOLD parameter must be defined in such a way that BCH does not reserve more than 100 partitions per billing run. This means, if several big large accounts need to be billed in a billing run,	BCH, BILLSRV

PARAM_NAME	Description	Used by
	determine the value of BCH_LA_FRAGMENT_THRESHOLD based on the following formula:  "2" is the number of required partitions, and "100" is the default number of partitions available in BCH_INT_STORAGE_PARTITION. Another option is to increase the number of available partitions in the BCH_INT_STORAGE_PARTITION table as described in FATAL ERROR ...: Internal Error in method 'CustomerPackage::getAndReserveUDSPartition'.	
BCH_TRACE_LEVEL	**BCH trace level** You can determine how detailed the trace information is that BCH and MIH write to the trace file. **Values**: 0..9: Specifies a trace level between 0 and 9. o trace level 0: only very important information is printed o trace level 1: all executed SQL queries, important class objects (i.e. free unit accounts or interval attributes) and macro steps information (i.e. processing contract services, processing call records, applying promotions, etc.) are printed. o trace level 2: all calculated charges and basic customer and contract information are printed. o trace level 3: reference data (i.e. free unit packages and their element definitions), application details, aggregation details, processing services by contract, processing call records by contract and main information about decisions taken for contractor customer are printed. o trace level 9: every trace information and method details where charges are generated are printed. default: Do not create a trace file.	BCH, MIH
DOCIMAGES_ROOTDIR	**Root directory of business documents** Document images are created by the business document formatter and are stored in the file system. For example, if BGH is used as the business document formatter, HTML files are created and stored in a path relative to the root directory. For invoice display in CX, Billing Server can request the file	BILLSRV, BGH

PARAM_NAME	Description	Used by
	references to these document images from the business document formatter by sending a "Document Retrieval" GSR via DaTA. The business document formatter replies with a DRR, which contains the relative or absolute path to document image files residing in a location shared by Billing Server and the business document formatter. Depending on the setting in BILLING_CONFIG.DIRECT_DOC_RETRIEVALeither the document or only the document path is passed to CX. If the setting is that the path is passed to CX, the DOCIMAGES_ROOTDIR parameter is of importance, as it contains the directory path, which is used by CX to locate the files. BGH passes the absolute path to Billing Server, which Billing Server cuts off the directory, configured in DOCIMAGES_ROOTDIR. The relative path is then passed to CX. CX takes the relative path, reads the directory from DOCIMAGES_ROOTDIR and recreates the absolute path to retrieve the file. This is necessary, as the applications run on different machines. If the DOCIMAGES_ROOTDIR environment variable is set, it overrules the setting of this parameter. **Value**: <directory that can be accessed by the business document formatter and Billing Server and which is read by CX> By default, the Billing Server working directory is used as the root directory.	
DXL_PROFILE_LEGEND	**Profile for DRRs generated by Billing Server with assembled document type "legend"** The DRRs for legend pages are written to a persistent queue. Billing Server and DSH have to delete the old legend page DRR before entering a new one into the queue. This parameter is required to configure which queue needs to be deleted. **Value**: <message profile as set up in DXL_PROFILE.DXL_PROFILE_ID >	BILLSRV, DSH
FC_17	**Determine reference date for recurring charges** By default, the 'last billed date' of the service to be processed (from PROFILE_SERVICE.DATE_BILLED) is used as the reference date. If the service has never been billed before, the date of the first activation of the service is used. You can use this parameter to specify that the 'last bill	BCH, RCH

PARAM_NAME	Description	Used by
	date' (LBC_DATE) of the billing cycle should be used instead. Using the last billed date of the billing cycle is not recommended when using RCH for access charge calculation because it might lead to unexpected (wrong) results. **Values**: Y: An additional reference date - the last billed date of the customer's billing cycle - is used to calculate service charges. BCH refers to the last entry of the corresponding billing cycle in BCH_HISTORY_TABLE in order to identify the number of days used as a basis for calculating the recurring charges of a service. **Example**: If the BCH_HISTORY_TABLE.LRSTART date is defined as 1. November 2005, 30 days are used as a basis for calculating the recurring charges. N: The 'last billed date' of the service to be processed is taken as the reference date from PROFILE_SERVICE.DATE_BILLED.	

There are also parameters which are only used by one application. The application specific parameters can be found in the related section in the application:

- BCH - BILLING_CONFIG
- BILLSRV - BILLING_CONFIG
- BGH - BILLING_CONFIG
- DSH - BILLING_CONFIG
- RCH - BILLING_CONFIG

Invoice Enrichment

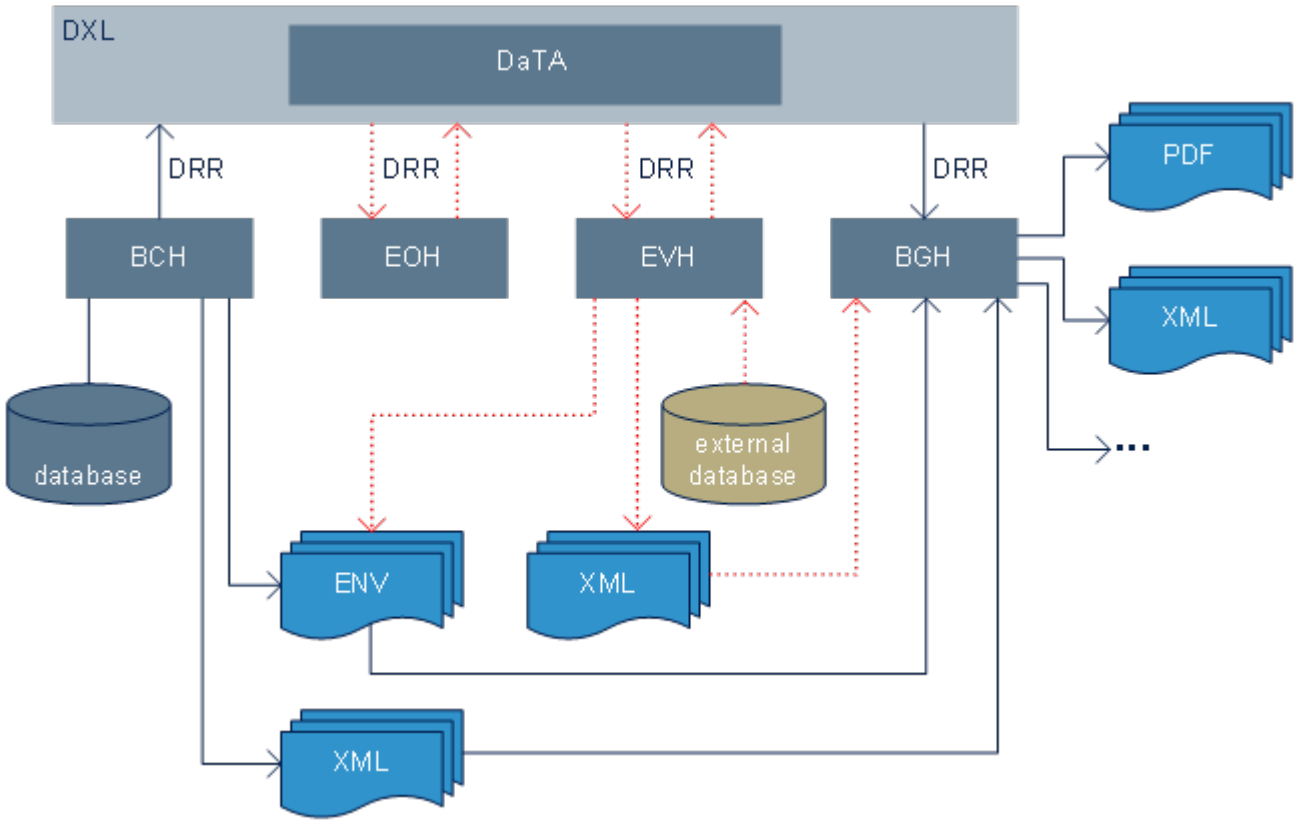
In the standard configuration, Billing Cycle Handler (BCH) creates billing documents in XML format after processing UDRs. These XML files are then used by Bill Generation Handler (BGH) to create the final business documents to be sent to customers or business partners.

Through configuration tasks, it is also possible to add additional input data, which is also used by BGH to generate enriched business documents, such as invoices. A plug-in for Event Handler (EVH) must be created, and depending on the plug-in, data from either the database or from an external source can be obtained and made available to be included in the business documents. In principle, a non-kernel application could also be used instead of an EVH plug-in to obtain the additional data. However, in the description below only the plug-in is mentioned.

The required tasks can be summarized as follows:

- A plug-in for EVH must be created. By means of the plug-in, the additional data to be included in the business documents is defined. This task is an on-site configuration task and not included in the standard BSCS system.
- Change the DXL routing so that document reference records (DRRs) are sent first to Event Output Handler (EOH) and to EVH instead of directly to BGH. This task is an on-site configuration task and not included in the standard BSCS system.
- The BCH_INVOICE_ENRICHMENT parameter in the BILLING_CONFIG database table must be set to 'Y'.

The following figure shows the processing flow with and without invoice enrichment.



In the standard configuration, after processing the UDRs, BCH sends DRRs to BGH via DaTA. The DRRs include event code 20, which designates them as being applicable for BGH, and contain a reference to the envelope file. The envelope file contains references to the XML billing documents, which BGH uses as the basis for creating the final business documents, such as invoices. Not shown in the figure is that BGH also takes information from other files such the Fixtext.xml file, and it uses style sheets to produce the final output as PDF, XML or another format. These processing flows are shown in the figure by solid lines.

In the customized configuration, which enables invoice enrichment, the extended processing flows are shown by the red, dotted lines. The steps in this case are as follows:

- The DRRs generated by BCH include event code 21, which designates them as being applicable for EOH. This is the case when the BCH_INVOICE_ENRICHMENT parameter in the BILLING_CONFIG database table is set to 'Y'.

- EOH then lists the appropriate plug-in to be used in the DRRs and sends the DRRs on to EVH.
- The EVH plug-in is responsible for creating additional XML files with the additional data to be included in the business documents. In the figure above, the additional data is retrieved from an external database. However, the data could also be additional data taken from the internal database or from other sources.
- The EVH plug-in also updates the envelope file with a reference to the additional XML file(s) it created.
- The DRRs are then routed to BGH, which in this case uses the modified envelope file to find the appropriate XML billing documents, including the additional file(s) created by the EVH plug-in.
- BGH then creates the output files (business documents), this time with the additional data.

The order of the files referenced in the envelope file is not configurable, and for example, would be as follows for a standard invoice billing document:

- AGG - aggregated charge details
- ADD - address page
- BAL - balance page
- CDS - call detail statement
- CIN - customer information
- INV - invoice
- IIN - invoice information page
- SUM - summary
- XCD: call detail page