

Huawei Tech. Co., Ltd

Digital CRM R2.1

TM Forum Framework 16.0 Certification

Business Process Framework (eTOM) Release 16.0

Self-Assessment Process Mapping Report

Level 2 Process: 1.3.4 - Customer Management

Version: V1R3 (Primary Review comments, third pass)

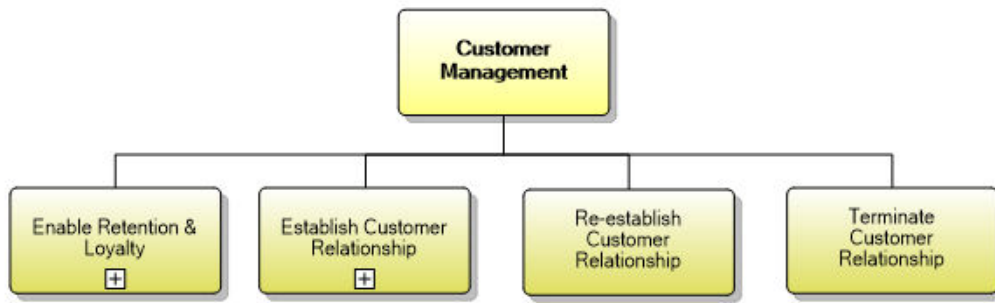
20th February 2017

Tianye (Dean)/Maxu

Table of Contents

Table of Contents.....	2
1 Level 2: 1.3.4 CUSTOMER MANAGEMENT.....	3
1.1 Level 3: 1.3.4.2 Establish Customer Relationship.....	4
1.1.1 Level 4: 1.3.4.2.1 Verify Customer.....	5
1.1.2 Level 4: 1.3.4.2.2 Establish New Customer Identity.....	8
Level 4: 1.3.4.2.3 Clean-up & Archive Customer Identifying Information.....	11
1.1.3 Level 4: 1.3.4.2.4 De-duplicate Customer Identity.....	16
1.1.4 Level 4: 1.3.4.2.5 Issue Unique Customer ID.....	19
1.1.5 Level 4: 1.3.4.2.6 Gather Authentication Information.....	20
1.2 Level 3: 1.3.4.3 Re-establish Customer Relationship.....	22
1.3 Level 3: 1.3.4.4 Terminate Customer Relationship.....	25

1 Level 2: 1.3.4 CUSTOMER MANAGEMENT



Framework Process	Level 3 Category	Process Identifier	Brief Description
Enable Retention & Loyalty	(3) eTOM Process Type	1.3.4.1	Manage all functionalities related to the retention of acquired customers, and the use of loyalty schemes in the potential acquisition of customers.
Establish Customer Relationship	(3) eTOM Process Type	1.3.4.2	Verify the customer identity and manage the customer identity across the Enterprise.
Re-establish Customer Relationship	(3) eTOM Process Type	1.3.4.3	Re-establish customer relationship.
Terminate Customer Relationship	(3) eTOM Process Type	1.3.4.4	Manage termination as appropriate

1.1 Level 3: 1.3.4.2 Establish Customer Relationship

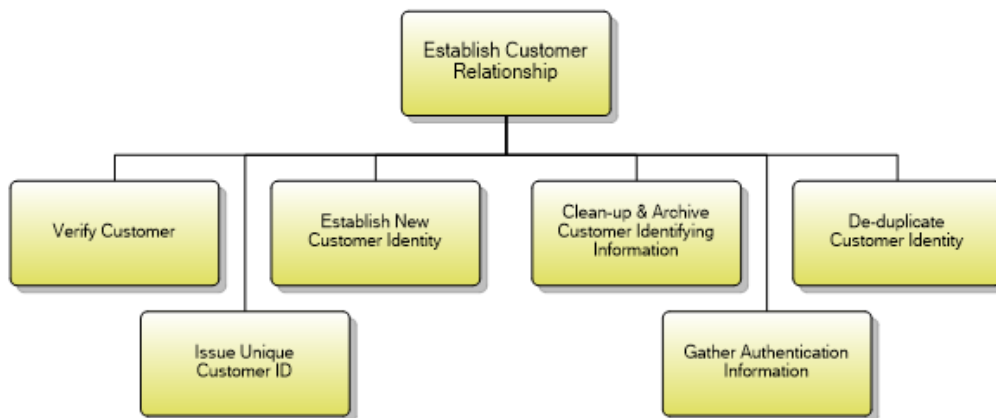


Figure 1 1.3.4.2 Establish Customer Relationship decomposition

Process Identifier: 1.3.4.2

Brief Description

Verify the customer identity and manage the customer identity across the Enterprise.

Extended Description

The purpose of this process is to verify that the customer is who they claim they are, To ensure only one customer identity exists across the Enterprise, which can be referenced across the whole Enterprise and allows the customer to quickly and easily identify himself, to establish and verify the Identity and to issue a unique Identifier and Authentication information. Before establishing an identity for a new customer it is essential to check that the customer does not already have an Identity with the Enterprise.

This process is also used to 'clean-up' duplicates of customer identifying information that may exist within the organization.

Comment for the compliance:

AM

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

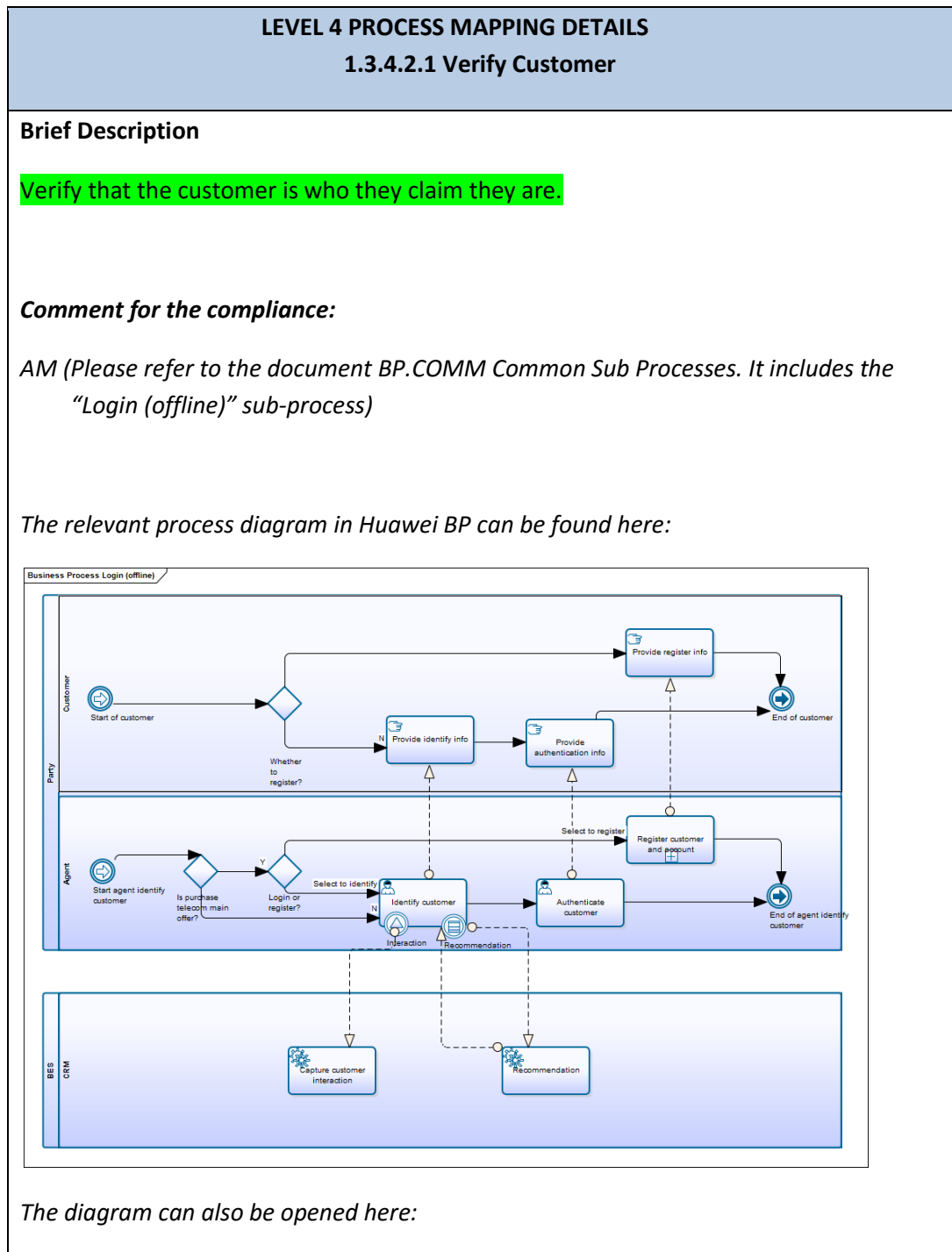
Optional

Reserved for future use.

Interactions

Reserved for future use.

1.1.1 Level 4: 1.3.4.2.1 Verify Customer





Login
(offline).png

In this process, the activities of the diagram are used to realize the “Verify Customer” in TMF Process Framework.

1.	<p>Provide identify info</p> <p>Identify Customer</p> <p>According to customer number and email, operator searches and locates customer.</p> <p>Customer provides valid identification such as ID card or passport, or identification information such as access number (such as mobile number). It can identify whether exists customer profile and customer state (idle, active) through customer identification information. It can query customer’s basic information according to customer identification information.</p>
2.	<p>Capture customer interaction</p> <p>Record customer contact information automatically with customer identify (triggered by operator) event.</p>

Here are the screen shots related to this process. It is used to query and verify the customer with the key attributes:

MY WORKBENCH | SIGN IN

QUERY CUSTOMERS

Certificate Type Certificate Number Service Number

Customer Name IMSI ICCID

Search Reset

Customer Name Gender Nationality Mobile Number Email Credit Level Operation

No Data

Extended Description

The purpose of this process is to verify that the customer is who they claim they are. This can be achieved by examination of an identity certification issued by a trusted body (such as governmental agency or other accepted means.) Certification means can be physical (such as Passport or ID card) biometrical or other.

Comment for the compliance:

AM

The process provided by Huawei CRM is using the "Identify Customer" step to describe the verification. The process node means the customer provides valid identification such as ID card or passport, or identification information such as access number. Such handling step is consistent with the "Extended Description"

Explanatory

Not used for this process element

Mandatory

Not used for this process element.

Optional

Not used for this process element

Interactions

For new customers, Establish New Customer Identify then deals this these.

1.1.2 Level 4: 1.3.4.2.2 Establish New Customer Identity

LEVEL 4 PROCESS MAPPING DETAILS
1.3.4.2.2 Establish New Customer Identity

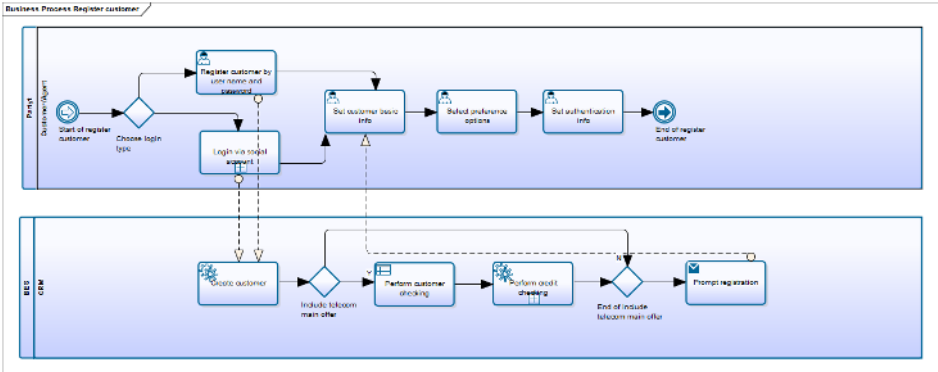
Brief Description

Issue a unique Identifier and Authentication information for a new customer without an existing identity.

Comment for the compliance:

AM (Please refer to the document BP.COMM Common Sub Processes. It includes the "Register customer sub-process")

The relevant process diagram in Huawei BP can be found here:



The diagram can also be opened here:



In this process, the activities of the diagram are used to realize the "Establish New Customer Identity" in TMF Process Framework.

#	Steps
	Register customer by user name and password
	Create customer
	Create customer and directly fill in username and password to register customer.

	<p>Login via social account</p> <p>Sub-process, use the method of “social application account” login to register customer——it still uses social account to login subsequently.</p>
	<p>Set customer basic info</p> <p>Set customer basic information, including customer name, sexuality, ID type, ID number, ID address, living address, birthday, nationality, belief, Social ID and email, etc.</p>
	<p>Select preference options</p> <p>Set default currency, default language, do-not disturb setting (first choice channel, allowed date and time span)</p>
	<p>Set authentication info</p> <p>Input authentication information, such as password, security authentication question and its answer. Input information will be used for subsequent customer authentication.</p>
	<p>If current offer is telecommunication primary offer, then it adds the following verification:</p>
	<p>Perform customer checking</p> <p>Execute customer related verification, such as blacklist.</p>
	<p>Perform credit checking</p> <p>Execute customer related credit verification.</p> <p>(reservation)</p>
	<p>Prompt registration</p> <p>After executing verification, it notifies customer (the result of creating customer). It can continue to set customer information.</p>

Here is the screen shot of registration:

CERTIFICATE INFO

Certificate Type: Certificate Number: Service Number:

Customer Name:

Check

BASIC INFO MORE ▾

Last Name: Middle Name: First Name:

Gender: Male Female UnknownSex Title: Mr Mrs Ms Nationality:

Birthplace:

ATTACHMENT LIST Upload

CONTACT INFO New

Contact Type	First Name	Middle Name	Last Name	Title	Contact Method	Operation
No Data						

ADDRESS INFO New

Region	Detailed Address	Postal Code	Address Type	Contact Point	Operation
No Data					

USER INFO

* Password: **Read** * Confirm Password: IPI Language:

Hidden Language:

SUBMIT **BACK**

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Issue a unique Identifier and Authentication information for a new customer without an existing identity.

Comment for the compliance:

AM

Please refer to the previous response to Brief Description

Optional

Not used for this process element

Interactions

Not used for this process element

Level 4: 1.3.4.2.3 Clean-up & Archive Customer Identifying Information

LEVEL 4 PROCESS MAPPING DETAILS

1.3.4.2.3 Clean-up & Archive Customer Identifying Information

Brief Description

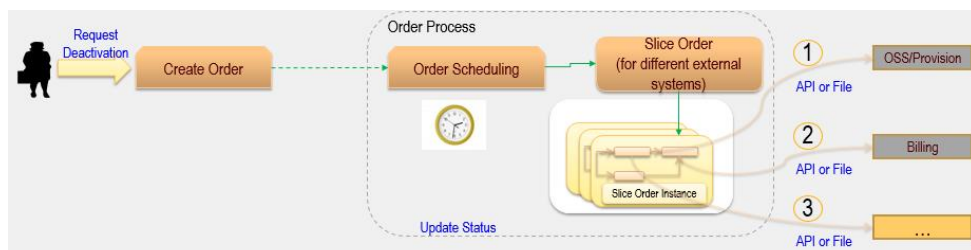
After termination, provides 'clean-up' duplicates of customer identifying information that may exist within the organization. Profile and preference information for terminated customer relationships is archived if acceptable to the customer. All relevant parties are informed of the ended relationship. Other processes are triggered to dismantle the customer solution and servicing arrangements as necessary.

Comment for the compliance:

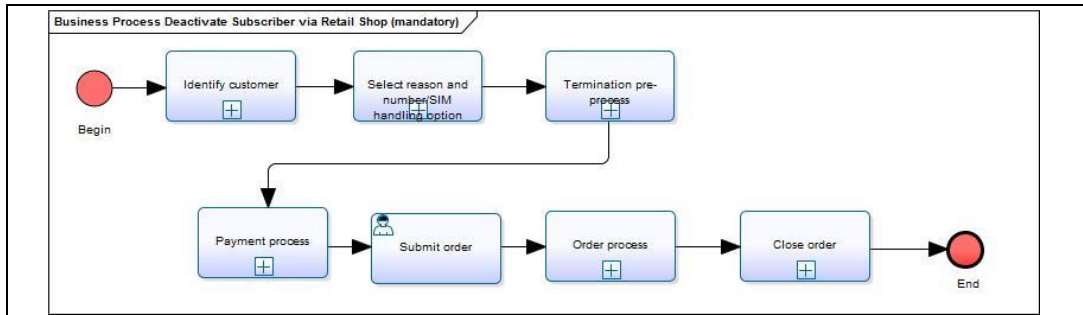
AM (Please refer to the document BP.CC.SUBMGT.08 Deactivate Subscriber. It includes the process of "Deactivate Subscriber (mandatory and immediately)")

The audit action to ensure complete clean-up or destroying data for the identifications is the task of manual work by operation & maintenance team. This step is occasionally triggered when there is the request for security or regularity.

The deactivation notification diagram explain how the external systems are informed during this process.



The relevant process diagram in Huawei BP can be found here:



In this process, the activities of the diagram are used to realize the “Clean-up & Archive Customer Identifying Information” in TMF Process Framework.

#	Milestone	Steps
	Main process	Identify customer Common step. Please refer to common process description – Login(offline).
	Main process	Retention process This sub-process is used to describe the process flow of retention process before doing deactivation operation for the subscriber.
	Select reason and number/SIM handling option	Record termination reason CSR records termination reason of the subscriber.
	Select reason and number/SIM handling option	Select number & SIM handling option
	Main process	Termination pre-process This sub-process is used to describe the process flow of pro-processing before deactivating the subscriber.

	Termination pre-process	<p>Get outstanding charge information</p> <p>Query outstanding charge information</p> <p>Generate outstanding charge information</p> <p>Check outstanding charge</p> <p>System generates outstanding charge information of the subscriber.</p>
	Termination pre-process	<p>Generate penalty information</p> <p>Check penalty</p> <p>System generates penalty information of the subscriber.</p>
	Termination pre-process	<p>Accept outstanding charge debt</p> <p>Negotiate outstanding charge debt</p> <p>CSR discusses debt information with the subscriber. The debt would be charged during payment sub-process.</p>
	Termination pre-process	<p>Accept penalty term</p> <p>Negotiate penalty detail</p> <p>CSR informs penalty detail to the subscriber and subscriber accepts the penalty term. The penalty would be also charged during payment sub-process.</p>
	Main process	<p>Balance pre-process</p> <p>This sub-process is used to describe the process flow of balance pro-processing before deactivating the subscriber.</p>
	Main process	<p>Payment process</p> <p>Common step. Please refer to common process description – Pay order.</p>
	Main process	<p>Order process</p> <p>This sub-process is used to describe the process flow of deactivation order.</p>

	Order process	Notify CBS to change subscriber state Change subscriber state Notify CBS to change subscriber to inactive state.
	Order process	Send deactivation request to provision Process deactivation request Request provision to deactivate subscriber in the network.
	Order process	Send deactivation request to CBS Process deactivation request Request CBS to deactivate subscriber in the CBS system.
	Order process	Process related inventory Process related inventory data in the CRM system.
	Order process	Archive subscriber information Archive subscriber information into the history storage.
	Main process	Close order Common step. Please refer to common process description – Close order.

The screen shot for deactivation (deregistration, termination) is as:

MY WORK... | FRAUDER...

Basic Info

Service No.: 14835239613	SIM Card No.: 3000233551400004622	Status: Active
Main Account Code: 21000029009	Network Type: GSM	Payment Type: Postpaid
User Type: Individual User	Primary Offering: Shared/roaming 18 yuan package 4G traffic card	Brand: 中国移动
Activation Time:	Latest Activation:	Valid From: 2016.11.30
Expiration Date: 2100.01.01	N/R Language:	Written Language:

RESOURCE RECYCLING

Number Recycling Mode: Immediately Freeze

SIM Card Handling Mode: Abandon Reuse

DEREGISTRATION REASON

Fee Problem Call quality problem Service problem Maintenance problem Special issues,no advance payments

Other

CONTRACT LIST

Contract Name	Status	Offering Name	Effective/Expiration Time	Duration	Prolongation Model	Operation
No Data.						

SUBMIT

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

After termination, provides ‘clean-up’ duplicates of customer identifying information that may exist within the organization. Profile and preference information for terminated customer relationships is archived if acceptable to the customer. All relevant parties are informed of the ended relationship.

Comment for the compliance:

AM

Please refer to the previous response to Brief Description

Optional

Not used for this process element

Interactions

Other processes are triggered to dismantle the customer solution and servicing arrangements as necessary.

1.1.3 Level 4: 1.3.4.2.4 De-duplicate Customer Identity

LEVEL 4 PROCESS MAPPING DETAILS

1.3.4.2.4 De-duplicate Customer Identity

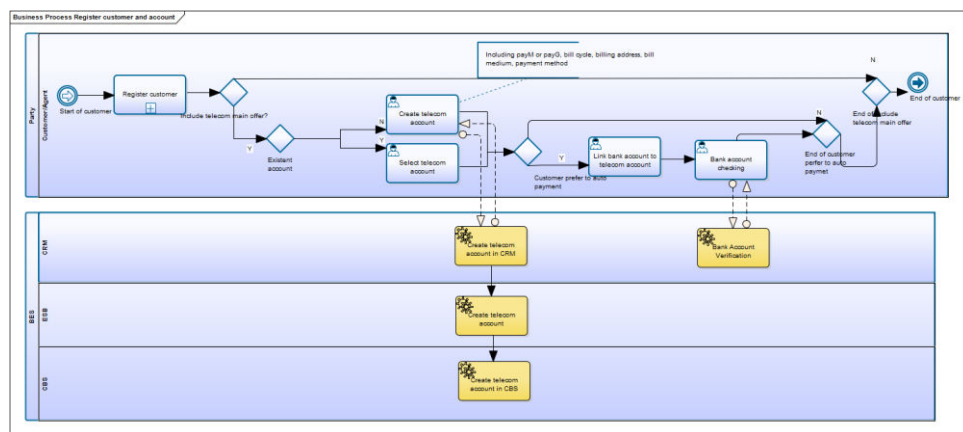
Brief Description

Merge multiple records from same customer.

Comment for the compliance:

AM (Please refer to the document BP.COMM Common Sub Processes. It includes the "Register customer & account" sub-process)

The relevant process diagram in Huawei BP can be found here:



The diagram can also be opened here:



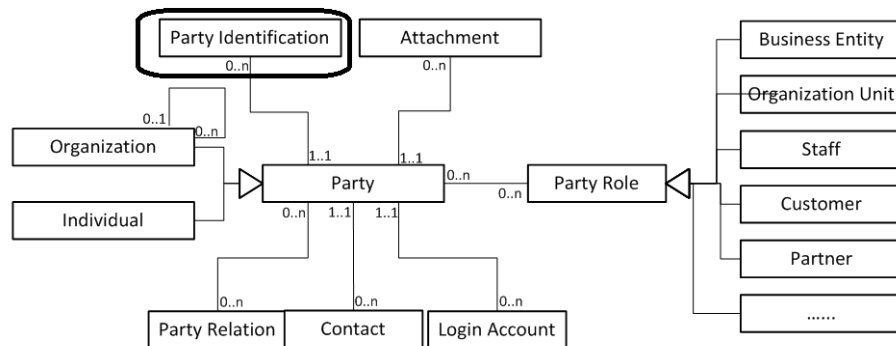
Register customer and account.png

In this process, the activities of the diagram are used to realize the "De-duplicate Customer Identity" in TMF Process Framework.

	<p><i>Create telecom account</i></p> <p><i>Create a new telecommunication account.</i></p> <p><i>Use newly created account as payment account of telecommunication primary product involved in current business handling.</i></p>
	<p><i>Select telecom account</i></p> <p><i>Select current existing account as payment account of telecommunication primary product involved in current business handling.</i></p>

Each customer record has the identifier to indicate its uniqueness. The identity is controlled based on the customer's personal certification or company registration information, such as passport ID or nationality ID.

The updating and creation of the customer data are all constrained by the uniqueness of the identity. When the key certification attribute of the new customer data are same with the existing one, the record will be treated as related to the existing customer.



Extended Description

The purpose of this process is to check that the customer does not already have an Identity with the Enterprise. This process is also used to 'clean-up' duplicates of customer identifying information that may exist within the organization.

Comment for the compliance:

AM

The compliance explanation is same as the paragraph above.

Explanatory

Not used for this process element.

Mandatory

Not used for this process element.

Optional

Not used for this process element.

Interactions

Not used for this process element.

1.1.4 Level 4: 1.3.4.2.5 Issue Unique Customer ID

LEVEL 4 PROCESS MAPPING DETAILS 1.3.4.2.5 Issue Unique Customer ID
<p>Brief Description</p> <p>Ensure only one customer identity exists across the Enterprise.</p> <p>Comment for the compliance:</p> <p><i>AM (Please refer to the document BP.COMM Common Sub Processes. It includes the "Register customer & account" sub-process)</i></p> <p><i>The details are same as the previous section.</i></p> <p>Extended Description</p> <p>The purpose of this process is to ensure only one customer identity exists across the Enterprise, which can be referenced across the whole Enterprise and allows the customer to quickly and easily identify himself. Before establishing an identity for a new customer de-duplication check is performed.</p> <p>Comment for the compliance:</p> <p><i>AM</i></p> <p><i>The compliance explanation is same as the paragraph above.</i></p> <p>Explanatory</p> <p>Not used for this process element.</p> <p>Mandatory</p> <p>Not used for this process element.</p> <p>Optional</p> <p>Not used for this process element.</p> <p>Interactions</p> <p>Not used for this process element.</p>

1.1.5 Level 4: 1.3.4.2.6 Gather Authentication Information

LEVEL 4 PROCESS MAPPING DETAILS 1.3.4.2.6 Gather Authentication Information

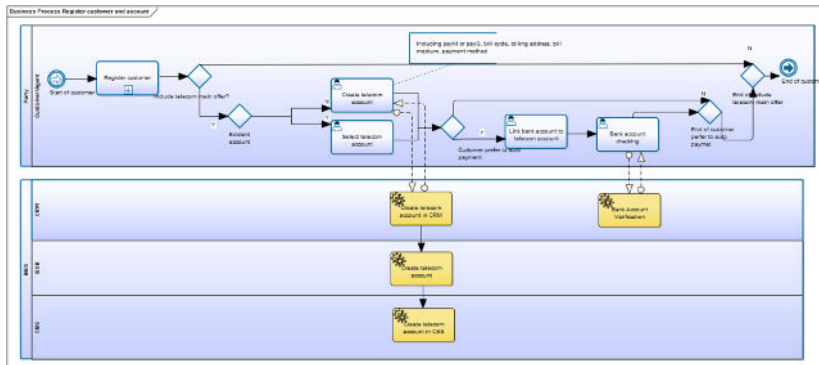
Brief Description

Gather Authentication Information from the customer.

Comment for the compliance:

AM (Please refer to the document BP.COMM Common Sub Processes. It includes the "Register customer & account" sub-process)

The details are as the diagram below.



Here is the screen shot of registration:

Sign In

USER NAME/EMAIL | MOBILE NUMBER

Input your mobile number

Input service password

SIGN IN

[Sign Up](#)

CERTIFICATE INFO

Certificate Type:

Certificate Number:

Service Number:

Customer Name:

Check

BASIC INFO MORE ▾

Last Name:

Middle Name:

First Name:

Gender: Male Female UnknownSex

Title: Mr Mrs Ms

Nationality:

Birthplace:

ATTACHMENT LIST Upload

CONTACT INFO New

Contact Type	First Name	Middle Name	Last Name	Title	Contact Method	Operation
No Data						

ADDRESS INFO New

Region	Detailed Address	Postal Code	Address Type	Contact First	Operation
No Data					

USER INFO

Password: Read

Confirm Password:

AR Language:

Written Language:

SUBMIT
BACK

Extended Description

The purpose of this process is to gather information that enables the enterprise to authenticate the customer identity. This information can be documents issued by other authorities (such as ID card or passport) or information that will enable the enterprise to re-authenticate the customer (such as answer to a secret question).

Comment for the compliance:

AM

The compliance explanation is same as the paragraph above.

Explanatory

Not used for this process element.

Mandatory

Not used for this process element.

Optional

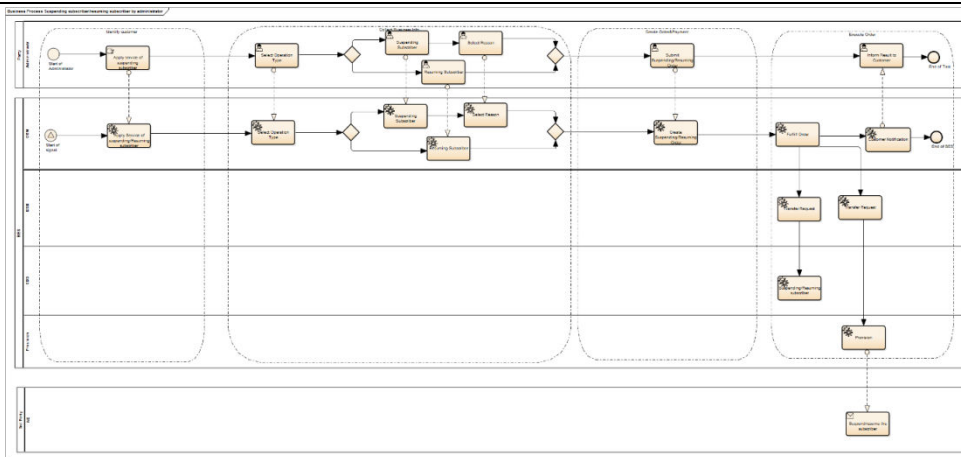
Not used for this process element.

Interactions

Not used for this process element.

1.2 Level 3: 1.3.4.3 Re-establish Customer Relationship

LEVEL 3 PROCESS MAPPING DETAILS 1.3.4.3 Re-establish Customer Relationship
<p>Brief Description</p> <p>Re-establish customer relationship.</p>
<p>Extended Description</p> <p>The purpose of this process is to re-establish customer relationship which were suspended or terminated in the past. This process recovers the appropriate customer information along with the past customer interactions and provides them to the operational systems in order to provide continuity in the customer management processes.</p> <p>Pending on the customer status this process performs:</p> <ul style="list-style-type: none">• Change in the status of the customer information in the operational systems• Retrieve customer information from archive systems• Create/Update the retrieved customer information• Restore / retrieve previous customer interactions information <p>Comment for the compliance:</p> <p><i>AM (Please refer to the document BP.CC.SUBMGT.07 “Suspending and Resuming Subscriber”. It includes the process of “Subscriber & Resuming Subscriber by Administrator or System Trigger”.)</i></p> <p><i>The relevant process diagram in Huawei BP can be found here:</i></p>



The diagram can also be opened here:



**Suspending
subscriberresumi**

In this process, the activities of the diagram are used to realize the “Re-establish Customer Relationship” in TMF Process Framework.

1.	<p>Select Operation Type</p> <p>Select operation type, for example:</p> <p style="text-align: center;"><i>apply for resuming subscriber</i></p>
----	--

The screen shot of resuming the customer’s service is as:

Resume

SERVICE NO. STATUS

Service No. 18835230616	Status Suspended	Status Details on demand Suspend
----------------------------	---------------------	-------------------------------------

OPERATION OPTIONS

Operation Type: Customer applying for resumption

Reason: Customer back to homeland

Effective Mode: Immediately Reserved

Effective Date:

Remarks:

CHECKOUT

Explanatory
Not used for this process element.

Mandatory
Not used for this process element.

Optional
Not used for this process element.

Interactions
Not used for this process element.

1.3 Level 3: 1.3.4.4 Terminate Customer Relationship

LEVEL 3 PROCESS MAPPING DETAILS
1.3.4.4 Terminate Customer Relationship

Brief Description

Manage termination as appropriate

Comment for the compliance:

AM (Please refer to the document BP.CC.SUBMGT.08 Deactivate Subscriber. It includes the process of “Deactivate Subscriber (mandatory and immediately)”

The relevant process diagram in Huawei BP can be found here:

Business Process Deactivate Subscriber via Retail Shop (mandatory)

```

graph LR
    Begin((Begin)) --> Identify[Identify customer]
    Identify --> Select[Select reason and number(SIM handling option)]
    Select --> Pre[Termination pre-process]
    Pre --> Payment[Payment process]
    Payment --> Submit[Submit order]
    Submit --> Order[Order process]
    Order --> Close[Close order]
    Close --> End((End))
    
```

In this process, the activities of the diagram are used to realize the “Terminate Customer Relationship” in TMF Process Framework.

#	Steps
	Send deactivation request to provision
	Process deactivation request
	Request provision to deactivate subscriber in the network.

	<p>Send deactivation request to CBS</p> <p>Process deactivation request</p> <p>Request CBS to deactivate subscriber in the CBS system.</p>
	<p>Process related inventory</p> <p>Process related inventory data in the CRM system.</p>
	<p>Archive subscriber information</p> <p>Archive subscriber information into the history storage.</p>
	<p>Close order</p> <p>Common step. Please refer to common process description – Close order.</p>

Extended Description

The customer relationship is terminated only if actually appropriate, the wishes of the customer are complied with where possible, records are kept in case the relationship with the customer is re-established, legal and ethical requirements for customer information are complied with.

Significant customer life-stage events or business decisions by the Service Provider cause one or both parties to terminate the relationship. The need for complete termination of relationships needs to be differentiated from just terminating all services. The principles behind this include the Service Provider ending a relationship only if the customer ceases to exist, or the customer is fraudulent, the Enterprise decides that it no longer wishes to do business with the customer. All relevant parties are informed of the ended relationship. Other processes are triggered to dismantle the customer solution and servicing arrangements as necessary.

Comment for the compliance:

AM

The compliance explanation is same as the paragraph above.

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element