



White Paper

SAP Solution Manager 7.0

Service Desk Webservice API

May, 2009

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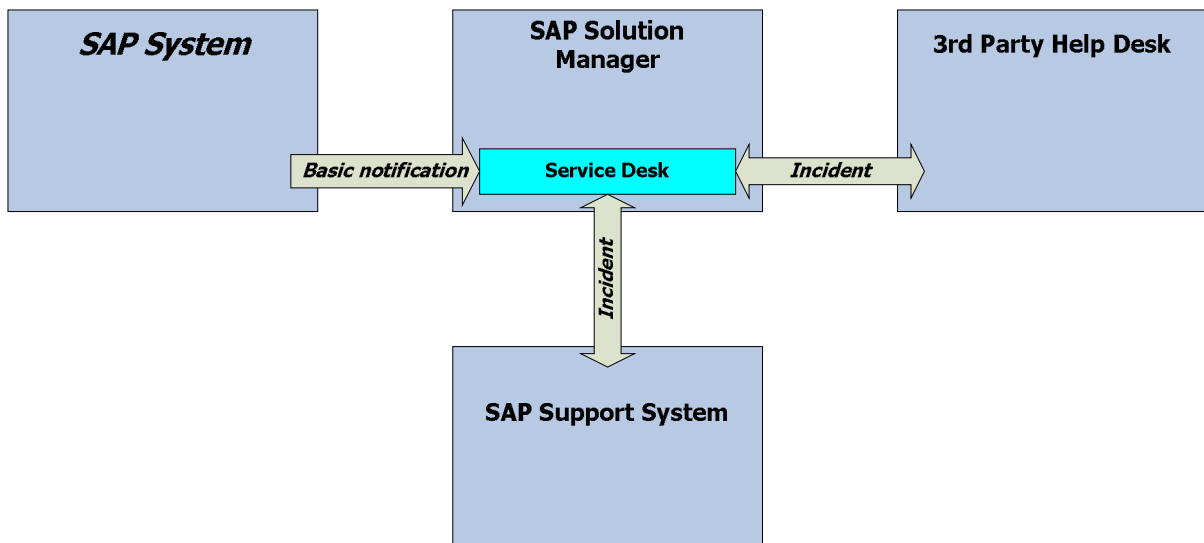
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1 Scenarios

The SAP Solution Manager supports you throughout the entire lifecycle of your solutions, from the Business Blueprint through configuration to production operation. It provides central access to tools methods and preconfigured content, that you can use during the evaluation, implementation, and productive operation of your systems.

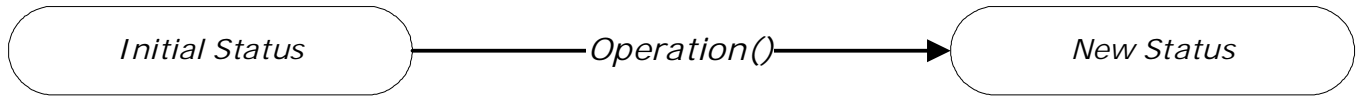
The Service Desk in the SAP Solution Manager helps you to support your solution. Your internal customers, i.e. end or key users, can create support messages from any SAP system. You process these support messages centrally in the SAP Solution Manager Service Desk and forward them to SAP Support, if necessary.

Support incidents in the Service Desk of SAP Solution Manager can be created or generated in various ways. The following scenarios show which incident initiators can be involved, and which systems can add data to incidents.



2 Status Model

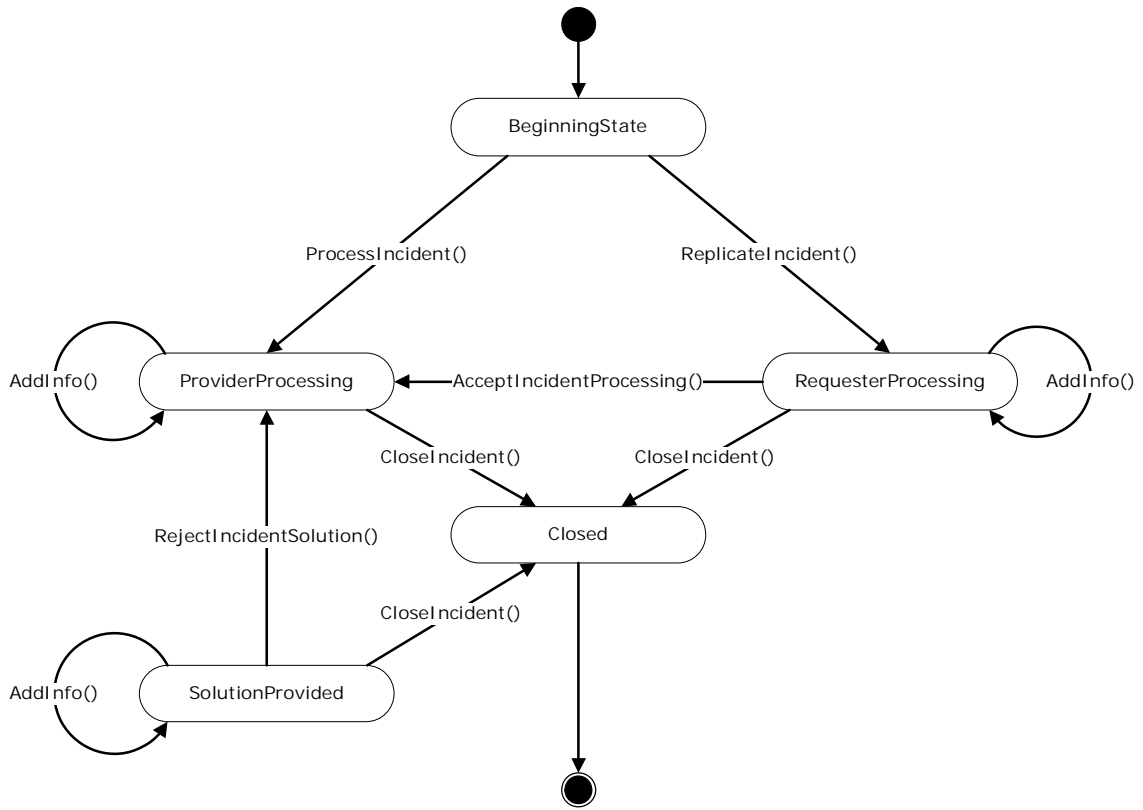
The status model defines which system can call which operations and when.



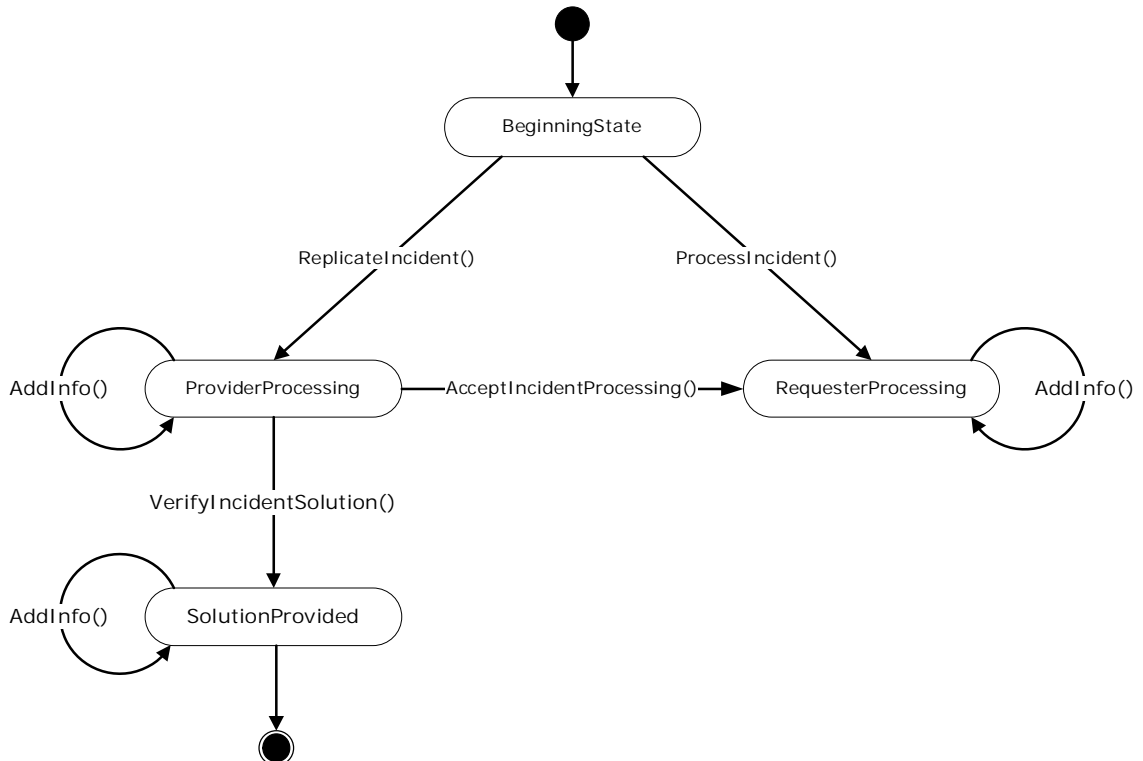
2.1 Status Definition

<i>Status</i>	<i>Current Incident-processor</i>	<i>Description</i>
BeginningState	Requester	The incident is not currently involved in an incident exchange with one or more external systems (providers). Initial incident status within the requester
ProviderProcessing	Provider	The incident is being processed by the provider.
RequesterProcessing	Requester	The incident is being processed by the requester.
SolutionProvided	Requester	The provider has offered/suggested a solution to the requester.
Closed	-	The incident has been closed by the requester.

2.2 Requester



2.3 Provider



3 Replication of Contact Persons

3.1 General

The interface parameter IctPersons (list based on the complex type IctIncidentPerson) replicates (inserts and changes) contact persons, incl. their contact information (telephone, fax, e-Mail, ...) by each Webservice call. An interface parameter structure which contains the field PersonId (see below), must refer to a corresponding entry in the list IctPersons, if the field PersonID is not empty. If this entry is missing, i.e. there is no corresponding master record in IctPersons, the interface raises an error. Unsuccessful Webservice calls (ErrorCode > 0) do not trigger system actions (call is rejected, Rollback).

This reference makes a contact person, with contact information, responsible for each activity (inserting information, deleting attachments, etc.).

External contact persons must always be identified by the same Person ID for all service calls within a service desk.

Interface parameter structures whose entries can refer to an entry in IctPersons:

- IctIncidentStatement
- IctIncidentAttachment
- IctIncidentSapNote
- IctIncidentSolution
- IctIncidentUrl

IctIncidentStatement

TextType	SU99
Texts	I have a problem.
Timestamp	20060131112211
PersonId	4711
Language	EN

IctPerson

PersonId	4711
PersonIdExt	0815
Sex	M
FirstName	Clint
LastName	Eastwood
Telephone	0049 6227 78-0
MobilePhone	
Fax	
Email	c.eastwood@sap.com



3.2 Scenarios

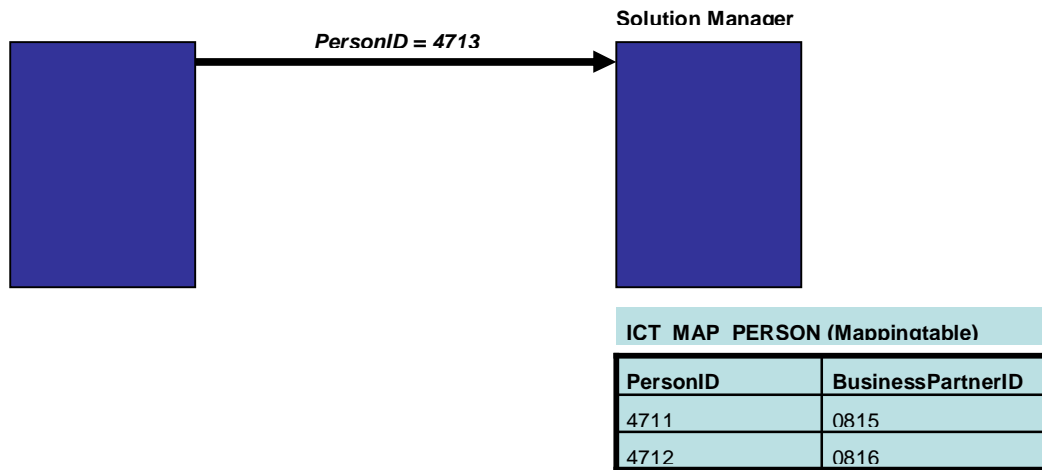
a) External mapping is not passed

If there is not yet a mapping to an existing business partner in the SAP Solution Manager, for an external Person ID, but the contact information passed contains an e-mail address, the SAP Solution Manager checks whether there is already a unique business partner with this e-mail address. If so, the external contact person is mapped to this business partner, i.e. a new entry is inserted into the mapping table, but no new business partner is created.

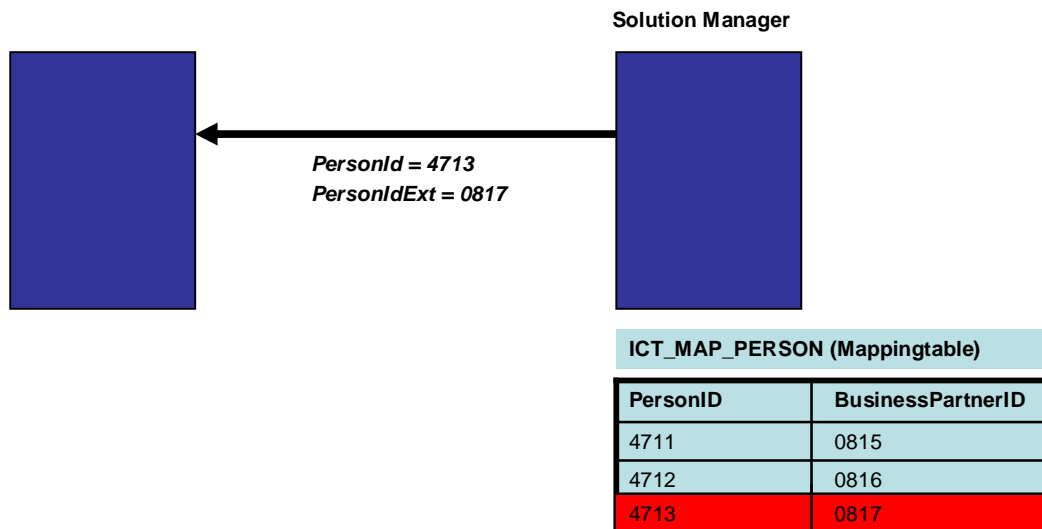
If no unique business partner is found by the e-mail search, a new business partner is created from the contact information passed and its ID is inserted into the table ICT_MAP_PERSON.

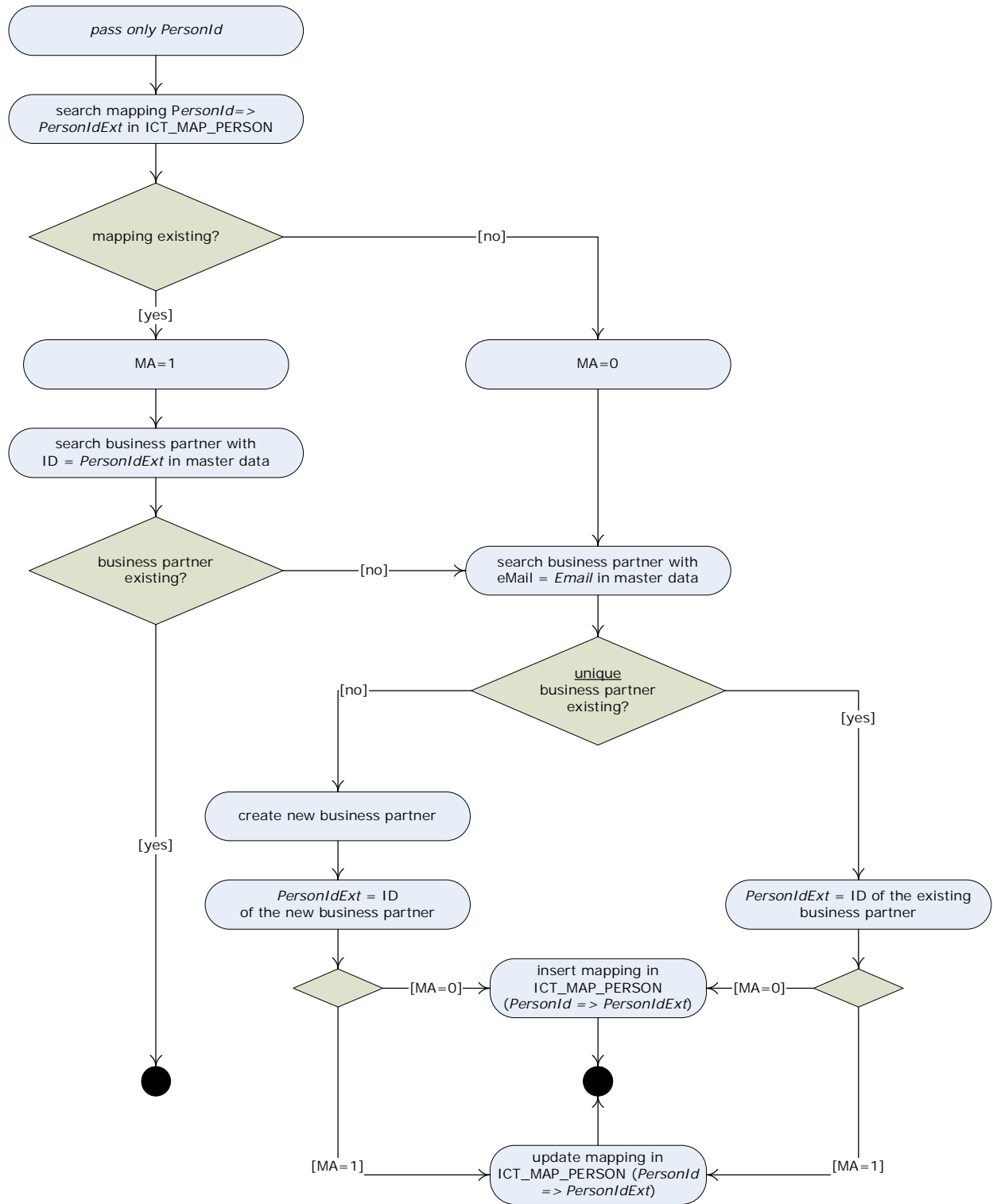
In both cases this mapping is returned to the external service desk in the PersonMaps interface parameter of the response message.

Request



Response



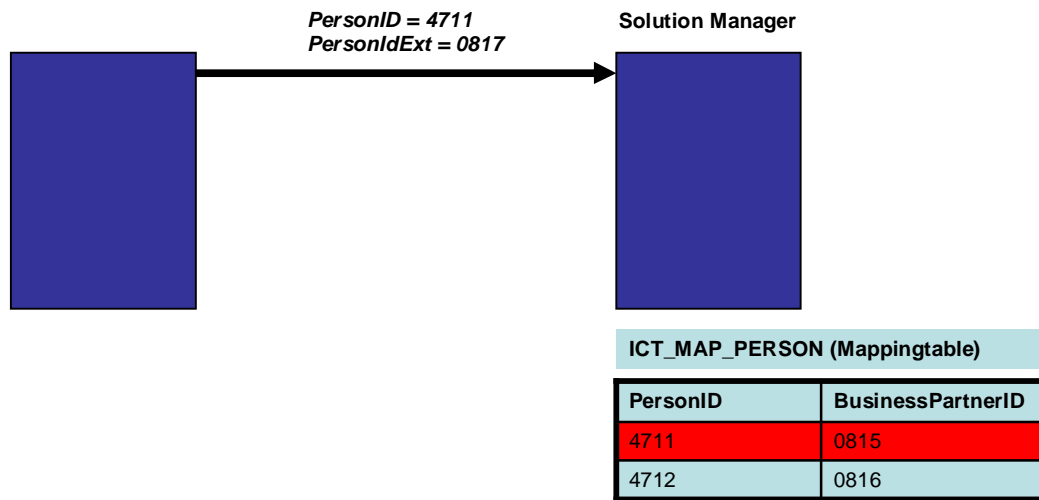


b) External mapping is passed

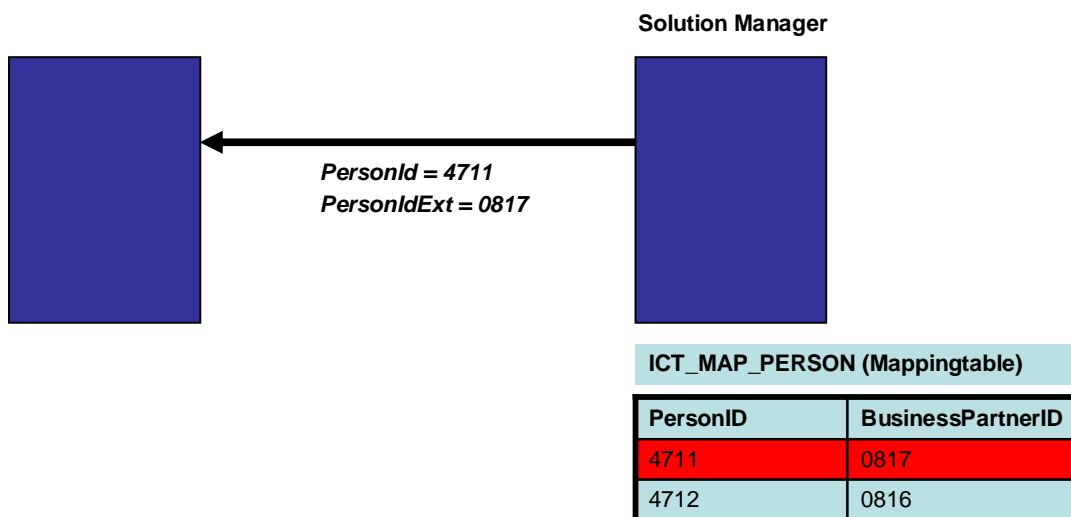
Passing a value in *PersonIdExt* of the interface structure *IctPerson* can overwrite and adjust the internal SAP Solution Manager mapping table.

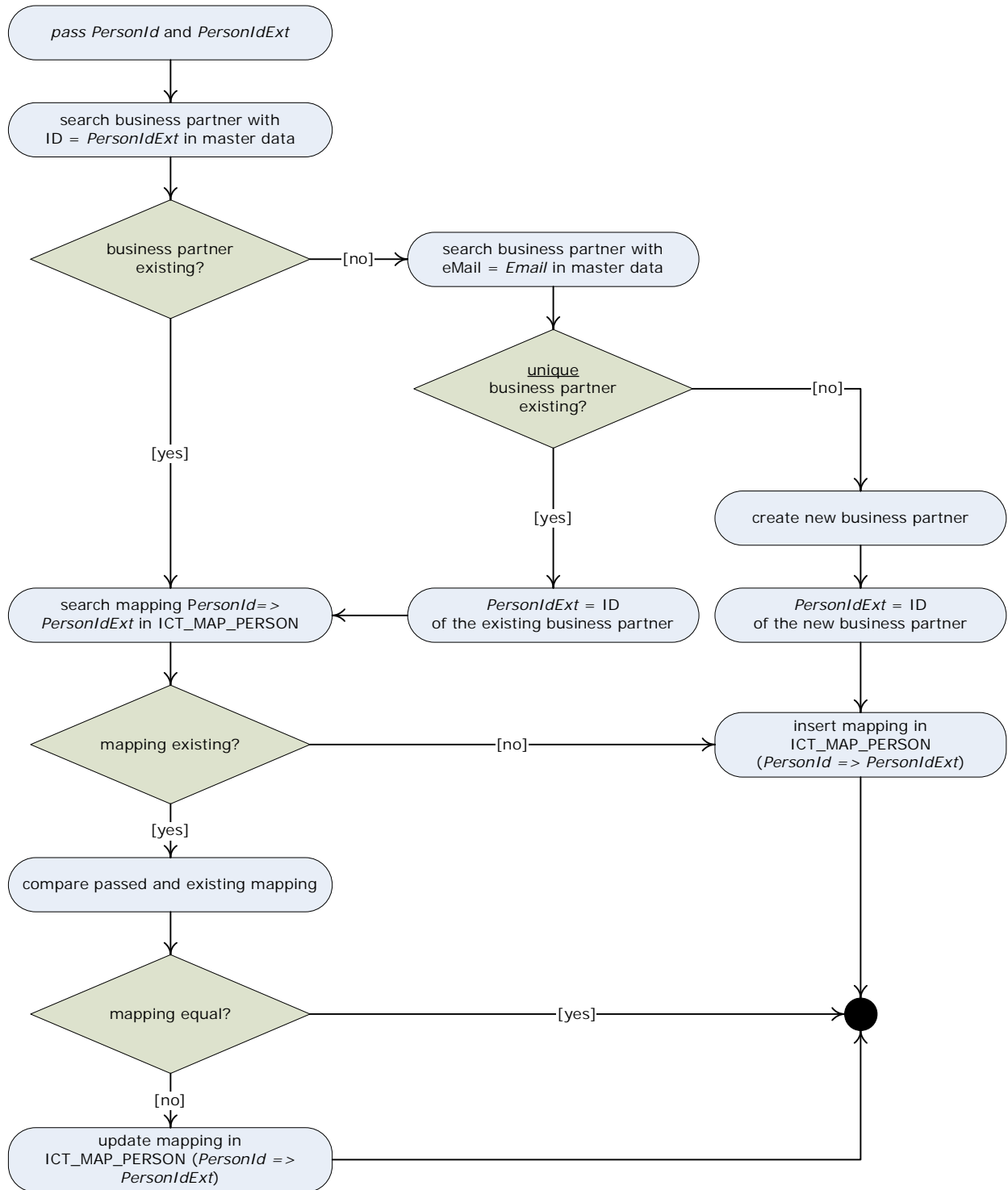
In the following example, the external contact person is mapped by the business partner 0817 with ID 4711, although the mapping table points to business partner 0815. This example scenario assumes that the business partner 0817 already exists.

Request



Response





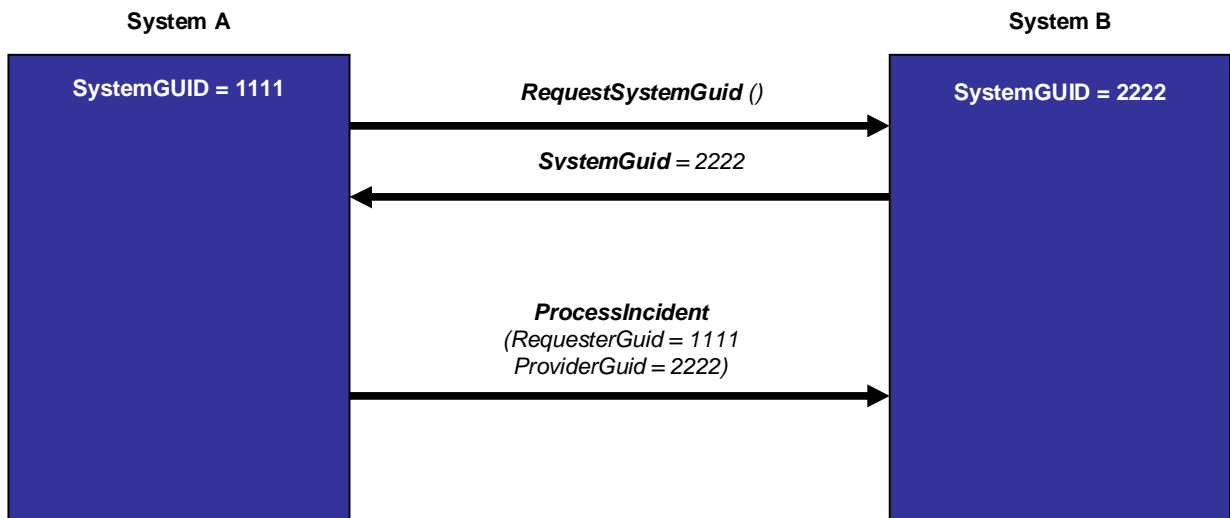
4 System Roles

To each system involved in a message exchange a system role must be assigned for each message separately, i.e. system A could have the role "Requester" for message 4711 and the role "Provider" for message 0815. These system roles specify which actions a system can perform or call for a message, depending on the status model, e.g. only the system with the role "Requester" can close a message (only the Requester can call the service *CloseIncident*).

Roles are assigned when a message exchange is initiated, by setting the fields *IncidentGuid* and *RequesterGuid* in the interface structure *IctHead* of the service *ProcessIncident* (initiate message exchange and send message) or *ReplicateIncident* (initiate message exchange and do not send message).

The service *RequestSystemGuid* gets a system-wide unique ID of the service desk system, which must not change as long as it still has open message exchanges. The SAP Solution Manager generates and returns a globally unique GUID.

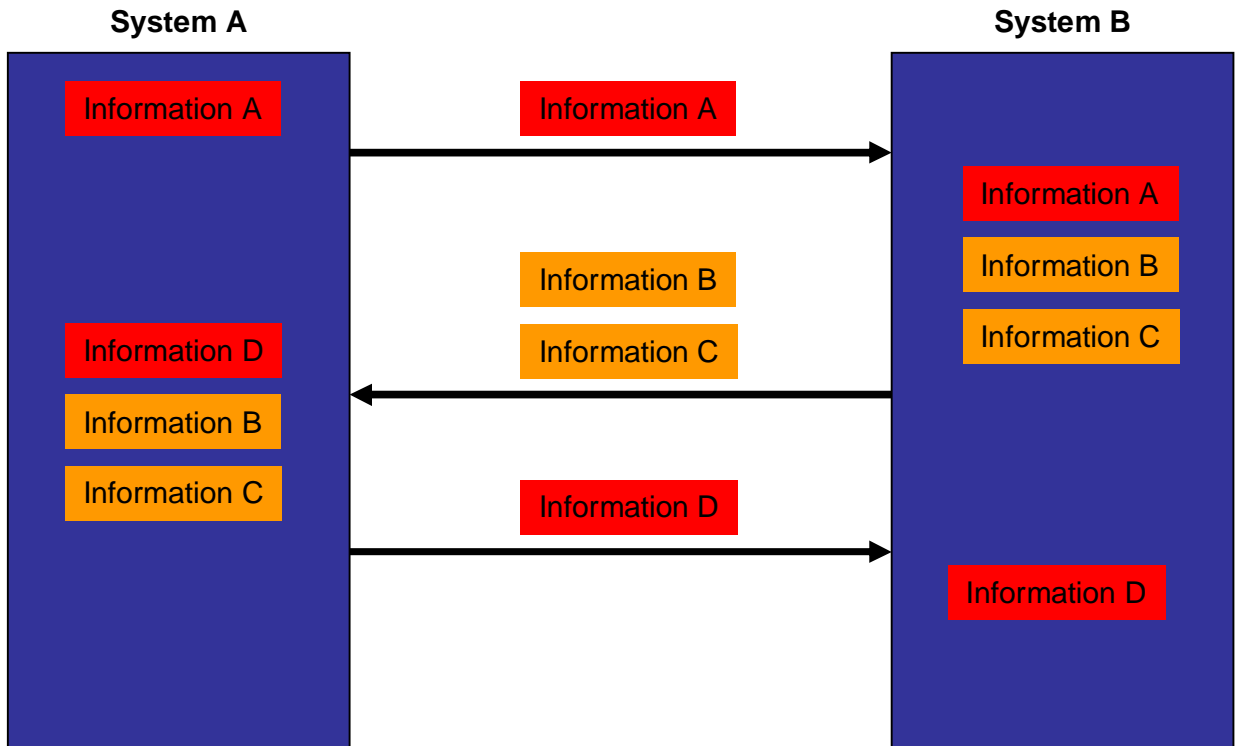
In the following example, the role "Provider" is assigned to the system B when the message exchange is initiated.



5 Message Data

Only delta information is exchanged between the systems involved in the message exchange, i.e. a service desk system only sends data which has been captured in the service desk in that system since the last service call.

The example shows that system A only sends data which has been captured in system A since its last service call to system B.



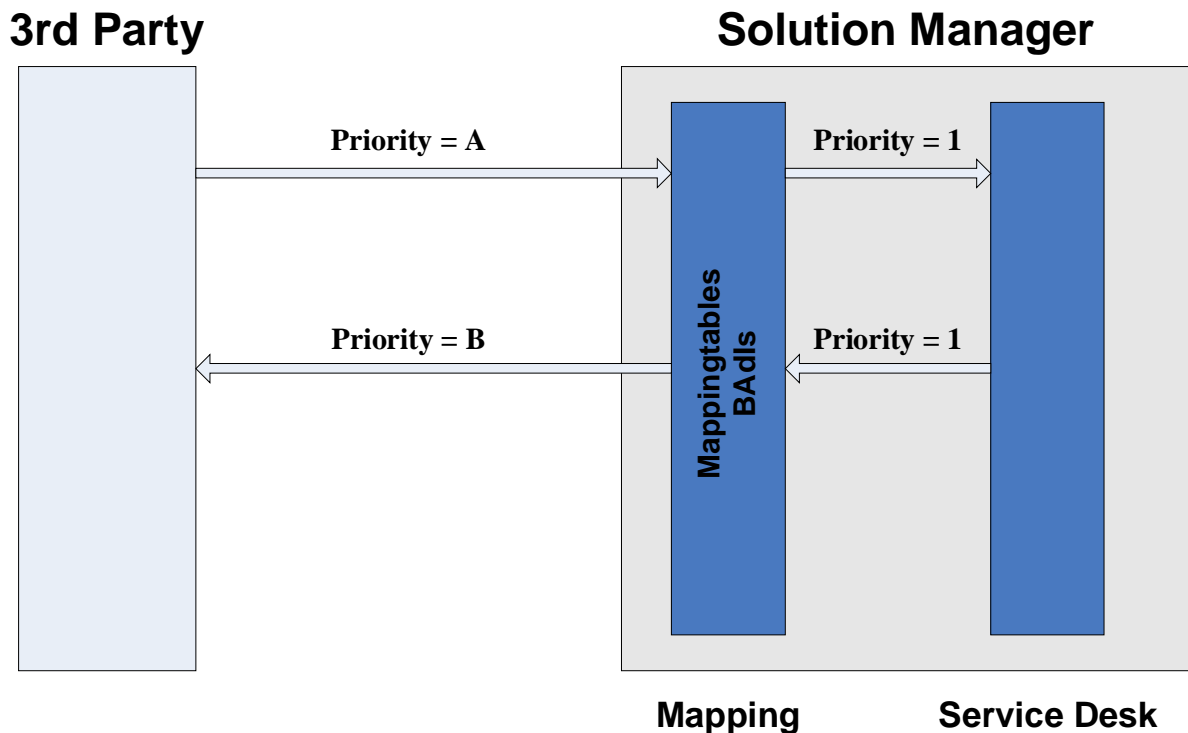
6 Mapping

Both the incoming and outgoing values of specific SAP Solution Manager Service Desk mappings (e.g. Priority) are specified in the SAP Solution Manager, i.e. an external system needs no mapping logic of functionality because the SAP Solution Manager provides the customizing tables, and BADIs for customer-specific mappings. You can also specify separate mappings for the incoming and outgoing processing, as shown in the figure below.

The following interface parameter fields can be mapped in customizing tables.

Interface Parameter	Field
IctHead	Priority
IctStatements	TextType
IctAdditionalInfos	all attributes

BADI implementations are not restricted to particular interface fields. You can access all incoming and outgoing data in a BADI, and map it to specified values.



7 Operations

Apart from the operation *RequestSystemGuid* all listed operations are involved in the incident exchange process. The operation *ProcessIncident* or *ReplicateIncident* initiates the incident exchange between two helpdesks. The operation *AcceptIncidentProcessing*, *AddInfo*, *VerifyIncidentSolution*, *RejectIncidentSolution* and *CloseIncident* reflect the different actions of the incident exchange process.

The request of these operations is always built up of the incident header (with some basic information about the incident) and the difference between the last incident exchange for statements (added statements), attachments (deleted/added), SAP Notes (deleted/added) Solutions (added/deleted) and URLs (added/deleted). Moreover, the parameter *AdditionalInfos* allows to set/overwrite additional specific attributes which need not to be taken into account by all help desks. The SAP Solution Manager Service Desk will use this parameter to provide the information for the SAP component, involded system ID etc. The attribute types starting with the prefix *SAP* are reserved for the use of the SAP Solution Manager Service Desk .

7.1 RequestSystemGuid

7.1.1 Description

Provides a Globally Unique Identifier (GUID) that uniquely identifies a (help desk) system. This ID is used within the incident exchange to provide the information which service desk is playing which role (requester or provider).

7.1.2 Type

Request/Response

7.1.3 Messages

Input

RequestSystemGuid

Part	Type/Element
parameters	RequestSystemGuid

```
<xsd:element name="RequestSystemGuid">  
  <xsd:complexType>  
    <xsd:sequence/>  
  </xsd:complexType>  
</xsd:element>
```

Output

RequestSystemGuidResponse

Part	Type/Element
parameters	RequestSystemGuidResponse

```
<xsd:element name="RequestSystemGuidResponse">  
  <xsd:complexType>  
    <xsd:sequence>  
      <xsd:element name="Errors" type="tns:IctErrors"/>  
      <xsd:element name="SystemGuid" type="n0:char32"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:element>
```

Element	Type	Description
Error	IctErrors	Error List
SystemGUID	char32	System GUID of the Help Desk System

7.2 ProcessIncident

7.2.1 Description

Creates an incident to be processed by the provider (third-party help desk); incident processing is handed over to the provider (status *ProviderProcessing*).

7.2.2 Initiator

Initiator	Status at start	Status at end
Requester	BeginningState	ProviderProcessing

7.2.3 Type

Request/Response

7.2.4 Messages

Input

ProcessIncident

Part	Type/Element
parameters	ProcessIncident

```

<xsd:element name="ProcessIncident">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctId" type="n0:char32"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctTimestamp" type="n0:decimal15.0"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs

IctIPersons	IctIncidentPersons	Contacts
IctID	char32	Incident number in the requester (help desk system)
IctTimestamp	decimal15.0	Incident creation UTC-Timestamp in the requester (help desk system)

Output

ProcessIncidentResponse

Part	Type/Element
parameters	ProcessIncidentResponse

```
<xsd:element name="ProcessIncidentResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="Errors" type="tns:IctErrors"/>
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>
      <xsd:element name="PrdIctId" type="n0:char32"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
Errors	IctErrors	Error List
PersonMaps	IctPersonMaps	Mapping of person IDs
PrdIctId	char32	Incident number in the provider (help desk system)

7.3 ReplicateIncident

7.3.1 Description

Creates a copy of an incident in the provider (connected help desk). Incident processing still takes place in the requester (status *RequesterProcessing*); the provider (the central message system, for example) is, initially, only informed about the incident (reporting).

7.3.2 Initiator

Initiator	Status at start	Status at end
Requester	BeginningState	RequesterProcessing

7.3.3 Type

Request/Response

7.3.4 Messages

Input

ReplicateIncident

Part	Type/Element
parameters	ReplicateIncident

```
<xsd:element name="ReplicateIncident">  
  <xsd:complexType>  
    <xsd:sequence>  
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>  
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>  
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>  
      <xsd:element name="IctId" type="n0:char32"/>  
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>  
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>  
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>  
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>  
      <xsd:element name="IctTimestamp" type="n0:decimal15.0"/>  
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:element>
```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs
IctIPersons	IctIncidentPersons	Contacts
IctID	char32	Incident number in the requester (help desk system)
IctTimestamp	decimal15.0	Incident creation UTC-Timestamp in the requester (help desk system)

Output

ReplicateIncidentResponse

Part	Type/Element
parameters	ReplicateIncidentResponse

```
<xsd:element name="ReplicateIncidentResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="Errors" type="tns:IctErrors"/>
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>
      <xsd:element name="PrdIctId" type="n0:char32"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
Errors	IctErrors	Error List
PersonMaps	IctPersonMaps	Mapping of person IDs
PrdIctId	char32	Incident number in the provider (help desk system)

7.4 AcceptIncidentProcessing

7.4.1 Description

Accepts an incident for processing; incident processing is handed over from the requester to the provider, or the other way around.

7.4.2 Initiator

Initiator	Status at start	Status at end
Requester	RequesterProcessing	ProviderProcessing
Provider	ProviderProcessing	RequesterProcessing

7.4.3 Type

Request/Response

7.4.4 Messages

Input

AcceptIncidentProcessing

Part	Type/Element
parameters	AcceptIncidentProcessing

```
<xsd:element name="AcceptIncidentProcessing">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs

IctIPersons	IctIncidentPersons	Contacts
-------------	--------------------	----------

Output

AcceptIncidentProcessingReponse

Part	Type/Element
parameters	AcceptIncidentProcessingResponse

```
<xsd:element name="AcceptIncidentProcessingResponse">  
  <xsd:complexType>  
    <xsd:sequence>  
      <xsd:element name="Errors" type="tns:IctErrors"/>  
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:element>
```

Element	Type	Description
PersonMaps	IctPersonMaps	Mapping of person IDs
Errors	IctErrors	Error List

7.5 AddInfo

7.5.1 Description

Adds or changes incident information. This operation does not cause a change in status.

7.5.2 Initiator

Initiator	Status at start	Status at end
Requester	ProviderProcessing	ProviderProcessing
	RequesterProcessing	RequesterProcessing
	SolutionProvided	SolutionProvided
Provider	ProviderProcessing	ProviderProcessing
	RequesterProcessing	RequesterProcessing
	SolutionProvided	SolutionProvided

7.5.3 Type

Request/Response

7.5.4 Messages

Input

AddInfo

Part	Type/Element
parameters	AddInfo

```

<xsd:element name="AddInfo">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs
IctIPersons	IctIncidentPersons	Contacts

Output

Add InfoReponse

Part	Type/Element
parameters	AddInfoResponse

```

<xsd:element name="AddInfoResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="Errors" type="tns:IctErrors"/>
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

Element	Type	Description
PersonMaps	IctPersonMaps	Mapping of person IDs
Errors	IctErrors	Error List

7.6 VerifyIncidentSolution

7.6.1 Description

Verifies a suggested solution.

7.6.2 Initiator

Initiator	Status at start	Status at end
Provider	ProviderProcessing	SolutionProvided

7.6.3 Type

Request/Response

7.6.4 Messages

Input

VerifyIncidentSolution

Part	Type/Element
parameters	VerifyIncidentSolution

```
<xsd:element name="VerifyIncidentSolution">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs
IctIPersons	IctIncidentPersons	Contacts

Output

VerifyIncidentSolutionResponse

Part	Type/Element
parameters	VerifyIncidentSolutionResponse

```
<xsd:element name="VerifyIncidentSolutionResponse">  
  <xsd:complexType>  
    <xsd:sequence>  
      <xsd:element name="Errors" type="tns:IctErrors"/>  
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:element>
```

Element	Type	Description
PersonMaps	IctPersonMaps	Mapping of person IDs
Errors	IctErrors	Error List

7.7 RejectIncidentSolution

7.7.1 Description

Rejects a solution suggested by the provider; incident processing is handed over to the provider again (status *ProviderProcessing*).

7.7.2 Initiator

Initiator	Status at start	Status at end
Requester	SolutionProvided	ProviderProcessing

7.7.3 Type

Request/Response

7.7.4 Messages

Input

RejectIncidentSolution

Part	Type/Element
parameters	RejectIncidentSolution

```
<xsd:element name="RejectIncidentSolution">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information
IctUrls	IctIncidentUrls	URLs
IctIPersons	IctIncidentPersons	Contacts

Output

RejectIncidentSolutionResponse

Part	Type/Element
parameters	RejectIncidentSolutionResponse

```
<xsd:element name="RejectIncidentSolutionResponse">  
  <xsd:complexType>  
    <xsd:sequence>  
      <xsd:element name="Errors" type="tns:IctErrors"/>  
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:element>
```

Element	Type	Description
PersonMaps	IctPersonMaps	Mapping of person IDs
Errors	IctErrors	Error List

7.8 CloseIncident

7.8.1 Description

Closes an incident after a solution has been found. The incident can no longer be processed or reopened. An incident can only be closed by the incident initiator (requester).

7.8.2 Initiator

Initiator	Status at start	Status at end
Requester	ProviderProcessing	Closed
	RequesterProcessing	Closed
	SolutionProvided	Closed

7.8.3 Type

Request/Response

7.8.4 Messages

Input

CloseIncident

Part	Type/Element
parameters	CloseIncident

```
<xsd:element name="CloseIncident">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="IctAdditionalInfos" type="tns:IctIncidentAdditionalInfos"/>
      <xsd:element name="IctAttachments" type="tns:IctIncidentAttachments"/>
      <xsd:element name="IctHead" type="tns:IctIncidentHead"/>
      <xsd:element name="IctPersons" type="tns:IctIncidentPersons"/>
      <xsd:element name="IctSapNotes" type="tns:IctIncidentSapNotes"/>
      <xsd:element name="IctSolutions" type="tns:IctIncidentSolutions"/>
      <xsd:element name="IctStatements" type="tns:IctIncidentStatements"/>
      <xsd:element name="IctUrls" type="tns:IctIncidentUrls"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
IncidentHead	IctIncidentHead	Incident Header
IncidentStatements	IctIncidentStatements	Texts
IncidentAttachments	IctIncidentAttachments	Attachments
IncidentSapNotes	IctIncidentSapNotes	SAP Notes
IncidentSolutions	IctIncidentSolutions	Solutions
IctAdditionalInfos	IctIncidentAdditionalInfos	Additional Information

IctUrls	IctIncidentUrls	URLs
IctIPersons	IctIncidentPersons	Contacts

Output

CloseIncidentResponse

Part	Type/Element
parameters	CloseIncidentResponse

```
<xsd:element name="CloseIncidentResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="Errors" type="tns:IctErrors"/>
      <xsd:element name="PersonMaps" type="tns:IctPersonMaps"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Element	Type	Description
PersonMaps	IctPersonMaps	Mapping of person IDs
Errors	IctErrors	Error List

8 Data Types

8.1 IctIncidentHead

Incident header

```
<xsd:complexType name="IctIncidentHead">
  <xsd:sequence>
    <xsd:element name="IncidentGuid" type="n0:char32"/>
    <xsd:element name="RequesterGuid" type="n0:char32"/>
    <xsd:element name="ProviderGuid" type="n0:char32"/>
    <xsd:element name="AgentId" type="n0:char32"/>
    <xsd:element name="ReporterId" type="n0:char32"/>
    <xsd:element name="ShortDescription" type="n0:char40"/>
    <xsd:element name="Priority" type="n0:char32"/>
    <xsd:element name="Language" type="n0:char2"/>
    <xsd:element name="RequestedBegin" type="n0:decimal15.0"/>
    <xsd:element name="RequestedEnd" type="n0:decimal15.0"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
IncidentGuid	X	Incident GUID
RequesterGuid	X	System GUID of requester (help desk system)
ProviderGuid	X	System GUID of provider (help desk system)
AgentId		ID of the person who is processing the problem (incident processor). The processor does not need to be specified when the incident is created. This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
ReporterId		ID of the person who has reported the problem (incident reporter). The reporter does not need to be specified when the incident is created. This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
ShortDescription	X	Incident short description
Priority	X	Incident priority (this value is mapped to/from an internal value by the SAP Solution Manager Service Desk)
Language	X	Incident language in accordance with ISO 639
RequestedEnd		Date and time when the incident should be solved

8.2 IctIncidentStatement

Incident text/statement/description

```
<xsd:complexType name="IctIncidentStatement">  
  <xsd:sequence>  
    <xsd:element name="TextType" type="n0:char32"/>  
    <xsd:element name="Texts" type="tns:IctIncidentTexts"/>  
    <xsd:element name="Timestamp" type="n0:decimal15.0"/>  
    <xsd:element name="PersonId" type="n0:char32"/>  
    <xsd:element name="Language" type="n0:char2"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
TextType	X	Text type (this value is mapped to/from an internal value by the SAP Solution Manager Service Desk)
Texts	X	Text lines
Timestamp	X	UTC-Timestamp when the text was added to the incident
PersonId	X	ID of the person who added the text. This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
Language		Language of the statement in accordance with ISO 639

8.3 IctIncidentTexts

List of text lines

```
<xsd:complexType name="IctIncidentTexts">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="xsd:string"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Text line

8.4 IctIncidentStatements

List of incident texts/statements/descriptions

```
<xsd:complexType name="IctIncidentStatements">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentStatement"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Incident text/statement/description

8.5 IctIncidentAttachment

File attachment

```
<xsd:complexType name="IctIncidentAttachment">
  <xsd:sequence>
    <xsd:element name="AttachmentGuid" type="n0:char32"/>
    <xsd:element name="Filename" type="xsd:string"/>
    <xsd:element name="MimeType" type="n0:char128"/>
    <xsd:element name="Data" type="xsd:base64Binary"/>
    <xsd:element name="Timestamp" type="n0:decimal15.0"/>
    <xsd:element name="PersonId" type="n0:char32"/>
    <xsd:element name="Url" type="n0:char4096"/>
    <xsd:element name="Language" type="n0:char2"/>
    <xsd:element name="Delete" type="n0:char1"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
AttachmentGuid	X	GUID to uniquely identify an attachment
Filename	(X)	File name Mandatory if <i>Delete</i> = 'space' (attachment is added)
MimeType	(X)	File type/extension Mandatory if <i>Delete</i> = 'space' (attachment is added)
Data	(X)	File/file content Mandatory if <i>Delete</i> = 'space' (attachment is added)
Timestamp		UTC-Timestamp when the file was attached/removed to/from the incident
PersonId	X	ID of the person who added or deleted the attachment. This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
Url		URL that allows to display the attachment
Language		Language of the attachment in accordance with ISO 639
Delete		Deletion ID ≠ 'space', file was removed from the incident

8.6 IctIncidentAttachments

List of file attachments

```
<xsd:complexType name="IctIncidentAttachments">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentAttachment"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		File attachment

8.7 IctIncidentSapNote

Reference to SAP Note

```
<xsd:complexType name="IctIncidentSapNote">
  <xsd:sequence>
    <xsd:element name="NoteId" type="n0:char30"/>
    <xsd:element name="NoteDescription" type="n0:char60"/>
    <xsd:element name="Timestamp" type="n0:decimal15.0"/>
    <xsd:element name="PersonId" type="n0:char32"/>
    <xsd:element name="Url" type="n0:char4096"/>
    <xsd:element name="Language" type="n0:char2"/>
    <xsd:element name="Delete" type="n0:char1"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
NoteId	X	SAP Note number
NoteDescription	(X)	SAP Note short description Mandatory if <i>Delete</i> = 'space' (SAP Note is added)
Timestamp		UTC-Timestamp when the reference to the SAP Note was added/deleted to/from the incident
PersonId	X	ID of the person who added or deleted the reference to an SAP Note. This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
Url		URL that allows to display the note
Language		Language of the SAP Note in accordance with ISO 639
Delete		Deletion ID ≠ 'space', reference to an SAP Note was removed from the incident

8.8 IctIncidentSapNotes

List of references to SAP Notes

```
<xsd:complexType name="IctIncidentSapNotes">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentSapNote"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Reference to SAP Note

8.9 IctIncidentSolution

Solution

```
<xsd:complexType name="IctIncidentSolution">
  <xsd:sequence>
    <xsd:element name="SolutionId" type="n0:char32"/>
    <xsd:element name="SolutionDescription" type="n0:char60"/>
    <xsd:element name="Timestamp" type="n0:decimal15.0"/>
    <xsd:element name="PersonId" type="n0:char32"/>
    <xsd:element name="Url" type="n0:char4096"/>
    <xsd:element name="Language" type="n0:char2"/>
    <xsd:element name="Delete" type="n0:char1"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
SolutionId	X	Solution number
SolutionDescription	(X)	Short solution description Mandatory if <i>Delete</i> = 'space' (Solution is added)
Timestamp	X	UTC-Timestamp when the solution was added/removed to/from the incident
PersonId	X	ID of the person who added or deleted the solution This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
Url		URL that allows to display the solution
Language		Language of the solution in accordance with ISO 639
Delete		Deletion ID ≠ 'space', solution was removed from the incident

8.10 IctIncidentSolutions

List of solutions

```
<xsd:complexType name="IctIncidentSolutions">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentSolution"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Solution

8.11 IctIncidentAdditionalInfo

Additional information

```
<xsd:complexType name="IctIncidentAdditionalInfo">  
  <xsd:sequence>  
    <xsd:element name="Guid" type="n0:char32"/>  
    <xsd:element name="ParentGuid" type="n0:char32"/>  
    <xsd:element name="AddInfoAttribute" type="n0:char255"/>  
    <xsd:element name="AddInfoValue" type="n0:char255"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
Guid		ID of the attribute
ParentGuid		Parent ID of the attribute (if the attributes are built up hierarchically)
AddInfoAttribute	X	Attribute Type (see chapter 6 for SAP attribute types)
AddInfoValue		Attribute Value

8.12 IctIncidentAdditionalInfos

List of additional informations

```
<xsd:complexType name="IctIncidentAdditionalInfos">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentAdditionalInfo"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Additional information

8.13 IctIncidentUrl

URL

```
<xsd:complexType name="IctIncidentUrl">
  <xsd:sequence>
    <xsd:element name="UrlGuid" type="n0:char32"/>
    <xsd:element name="Url" type="n0:char4096"/>
    <xsd:element name="UrlName" type="n0:char40"/>
    <xsd:element name="UrlDescription" type="n0:char64"/>
    <xsd:element name="Timestamp" type="n0:decimal15.0"/>
    <xsd:element name="PersonId" type="n0:char32"/>
    <xsd:element name="Language" type="n0:char2"/>
    <xsd:element name="Delete" type="n0:char1"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
UrlGuid	X	GUID to uniquely identify an URL
Url	X	URL
UrlName	(X)	Name (language independent) Mandatory if <i>Delete</i> = 'space' (Solution is added)
UrlDescription		Description (language dependant) Mandatory if <i>Delete</i> = 'space' (Solution is added)
Timestamp	X	UTC-Timestamp when the URL was added/removed to/from the incident
PersonId	X	ID of the person who added or deleted the URL This ID refers to an entry in IctIPersons. If this entry is missing in IctIPersons, an error is triggered.
Language		Language of the URL content in accordance with ISO 639
Delete		Deletion Flag ≠ 'space', solution was removed from the incident

8.14 IctIncidentUrls

List of URLs

```
<xsd:complexType name="IctIncidentUrls">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentUrl"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		URL

8.15 IctPhone

Phone number

```
<xsd:complexType name="IctPhone">  
  <xsd:sequence>  
    <xsd:element name="PhoneNo" type="n0:char30"/>  
    <xsd:element name="PhoneNoExtension" type="n0:char10"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
PhoneNo		Phone number
PhoneNoExtension		Phone number extension

8.16 IctFax

Fax number

```
<xsd:complexType name="IctFax">  
  <xsd:sequence>  
    <xsd:element name="FaxNo" type="n0:char30"/>  
    <xsd:element name="FaxNoExtension" type="n0:char10"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
FaxNo		Fax number
FaxNoExtension		Fax number extension

8.17 IctIncidentPerson

Person

```
<xsd:complexType name="IctIncidentPerson">  
  <xsd:sequence>  
    <xsd:element name="PersonId" type="n0:char32"/>  
    <xsd:element name="PersonIdExt" type="n0:char32"/>  
    <xsd:element name="Sex" type="n0:char1"/>  
    <xsd:element name="FirstName" type="n0:char40"/>  
    <xsd:element name="LastName" type="n0:char40"/>  
    <xsd:element name="Telephone" type="tns:IctPhone"/>  
    <xsd:element name="MobilePhone" type="n0:char30"/>  
    <xsd:element name="Fax" type="tns:IctFax"/>  
    <xsd:element name="Email" type="n0:char240"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
PersonId	X	ID to uniquely identify a person
PersonIdExt		ID of the person in the external system
Sex		Sex (m = male, f = female)
FirstName	X	First name
LastName	X	Last name
Telephone		Telephone number
MobilePhone		Mobile phone number
Fax		Fax number
Email		e-mail address

8.18 IctIncidentPersons

List of persons

```
<xsd:complexType name="IctIncidentPersons">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctIncidentPerson"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Person

All ID references to persons have to be included in this list.

8.19 IctError

Operation errors, return code of a value service call

```
<xsd:complexType name="IctError">
  <xsd:sequence>
    <xsd:element name="ErrorCode" type="xsd:unsignedByte"/>
    <xsd:element name="Val1" type="n0:char255"/>
    <xsd:element name="Val2" type="n0:char255"/>
    <xsd:element name="Val3" type="n0:char255"/>
    <xsd:element name="Val4" type="n0:char255"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
ErrorCode	X	Error code; see <i>Error Handling</i>
Val1		Variable used to provide details of the error (see <i>Error Handling</i>)
Val2		Variable used to provide details of the error (see <i>Error Handling</i>)
Val3		Variable used to provide details of the error (see <i>Error Handling</i>)
Val4		Variable used to provide details of the error (see <i>Error Handling</i>)

8.20 IctErrors

List of operation errors

```
<xsd:complexType name="IctErrors">
  <xsd:sequence>
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctError"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
item		Operation error

8.21 IctPersonMap

List of person mapping information

```
<xsd:complexType name="IctPersonMap">
  <xsd:sequence>
    <xsd:element name="PersonId" type="n0:char32"/>
    <xsd:element name="PersonIdExt" type="n0:char32"/>
  </xsd:sequence>
</xsd:complexType>
```

Element	Mandatory	Description
PersonId		ID of the person
PersonIdExt		External ID of the person (see chapter 3)

8.22 IctPersonMaps

List of person mapping information

```
<xsd:complexType name="IctPersonMaps">  
  <xsd:sequence>  
    <xsd:element name="item" minOccurs="0" maxOccurs="unbounded" type="tns:IctPersonMap"/>  
  </xsd:sequence>  
</xsd:complexType>
```

Element	Mandatory	Description
item		Person mapping

9 Error Handling

9.1 Error Code

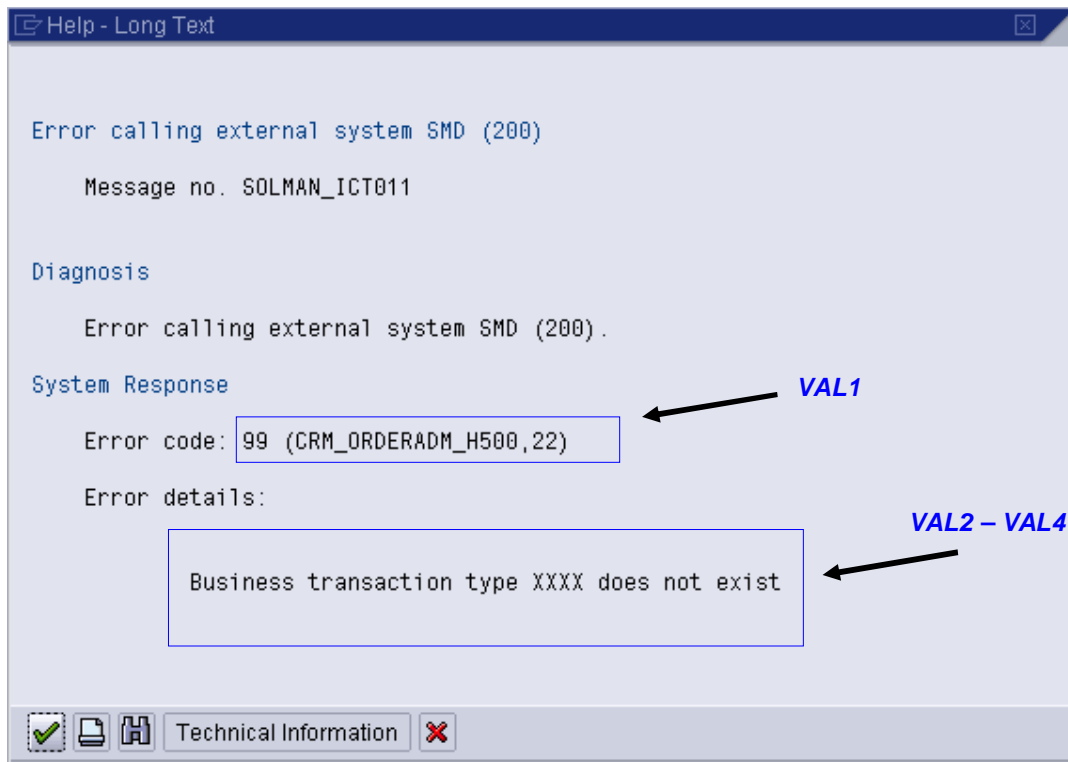
ErrorCode	Description
01	missing incident GUID
02	missing requester GUID
03	missing provider GUID
04	requester GUID and provider GUID are equal
11	Incident is locked
12	Authority check failed
98	unknown error
99	internal error

9.1.1 Internal Error

Val1	Description
051	no unique internal system GUID
099	unspecified/unknown internal error

9.2 Error Messages

In the SAP Solution Manager Service Desk error messages are displayed as follows:



If an error occurs during the message exchange the SAP Solution Manager system sends a generic message (e.g. the message with the technical ID SOLMAN_ICT011) to the user. Details about the actual error are displayed under section “System Response”:

- “Error code”: technical error code, which might be useful for the support team (e.g. technical message ID)
- “Error details”: additional error information which might be useful for the end user

The “Error code” information is to be supplied in the element *VAL1* of the ICT_ERROR type.

The elements *VAL2*, *VAL3*, and *VAL4* can be used to provide detailed information. SAP Solution Manager concatenates these 3 parameters into one text which is displayed under “Error details”.

10 Attribute Types of the SAP Solution Manager Service Desk

Attribute Type	Description
SAPComponent	SAP Component (e.g. SV-SMG-SUP)
SAPSystemID	SAP System ID
SAPSystemClient	Client of SAP System
SAPCategory	Category of the Incident
SAPSystemType	SAP System Type
SAPInstNo	SAP Installation Number
SAPSubject	Subject of the Incident
SAPOperatingSystem	Operating System of SAP System
SAPDatabase	Database of SAP System
SAPFrontend	Frontendsystem and Version
SAPSoftwareComponent	Software Component
SAPSoftwareComponentRelease	Software Component Release
SAPSoftwareComponentPatch	Software Component Patch
SAPIncidentID	ID of the Incident at SAP (when forwarded to SAP)
SAPIncidentStatus	Status of the Incident at SAP (when forwarded to SAP)