

Oracle[®] Contracts for Service

API Reference Guide

Release 11*i*

September 2001

Part No. A95222-01

ORACLE[®]

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Oracle Contracts for Service API Reference Guide, Release 11*i*

Part No. A95222-01

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Oracle Contracts for Service, Content Development Manager
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Preface

Welcome to the Oracle CRM Contracts for Service API Reference Guide. This manual describes the Contracts for Service's public APIs, and provides information to help you work effectively with these public APIs.

Note: This document provides API information for Oracle Contracts for Service.

This preface explains how the Reference Guide is organized and introduces other sources of information that can help you.

Intended Audience

This manual is intended for anyone who is interested in understanding or using (with minimal impact) the public APIs provided by Oracle Contracts for Service.

This includes the following:

- Oracle consultants
- Oracle internal development members
- Oracle support members
- Oracle customers

The information in this document is intended for experienced application programmers working in PL/SQL only.

Structure

This manual contains the following chapters:

- | | | |
|-----------|--|---|
| Chapter 1 | Introduction | Discusses the following topics: |
| | | <ul style="list-style-type: none">▪ API and parameter specifications▪ Standard IN and OUT parameters▪ Status messages |
| Chapter 2 | Oracle Contracts for Service Public APIs | Discusses the following APIs: |
| | | <ul style="list-style-type: none">▪ OKS_ENTITLEMENTS_PUB▪ OKS_CON_COVERAGE_PUB▪ OKS_OMINT_PUB |

Related Documents

For additional information about Oracle Contracts for Service, see the following manuals:

- *Oracle Contracts for Service 11i Concepts and Procedures*

For information about Oracle coding standards, see the following: *Oracle Applications Coding Standards, A42530-02*.

Additional Sources of Information

For general information about Oracle Contracts for Service, see the following classes provided through Oracle University:

- *11i Implement CRM Contracts for Service*
- *11i Use and Administer Contracts for Service*

Notational Conventions

This document uses the following notational conventions:

- | | |
|--------------------------|--|
| Monospace text | Monospace text represents code or SQL statements. |
| <i>lowercase italics</i> | Lowercase italics in the text represent variables. Substitute an appropriate value for the variable. |

UPPERCASE	Uppercase characters within the text represent command names, SQL reserved words and keywords, and terms associated with the Oracle database.
Indentation	Indentation helps to show structure within code examples, but is not required.
<text>	Text inside angle brackets denotes a variable that is replaced with an actual value at runtime.

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Introduction

The public APIs provided by the Oracle Contracts for Service application and described in this document are divided into groups of public packages. There are one or more packages for each of the following modules covered here.

Within the appropriate package, each API is specified by listing its code definition, including all of its parameters. The API parameters are then defined. In addition, the data structures used by the individual APIs are also defined, as are the relevant status messages for each API.

Note: The words *procedure* and *API* are used interchangeably in this document.

1.1 Parameter Specifications

The specifications for the public APIs provided by the Oracle CRM Applications define four categories of parameters:

- Standard IN
- Standard OUT
- Procedure specific IN
- Procedure specific OUT

Standard IN and OUT parameters are specified by the Oracle Applications business object API Coding Standards, and are discussed in the following sections.

Procedure specific IN and OUT parameter are related to the API being specified, and are discussed with that individual API.

1.1.1 Standard IN Parameters

The following table describes standard IN parameters, which are common to all public APIs provided by Oracle CRM Applications.

Table 1–1 Standard IN Parameters

Parameter	Data Type	Required	Description
p_api_version	NUMBER	Yes	This must match the version number of the API. An unexpected error is returned if the calling program version number is incompatible with the current API version number (provided in the documentation).
p_init_msg_list	VARCHAR2	Yes	Default = FND_API.G_FALSE: <ul style="list-style-type: none"> ▪ If set to true, then the API makes a call to <i>fnd_msg_pub.initialize</i> to initialize the message stack. ▪ If set to false then the calling program must initialize the message stack. This action is required to be performed only once, even in the case where more than one API is called.
p_commit	VARCHAR2(1)	No	Default = FND_API.G_FALSE: <ul style="list-style-type: none"> ▪ If set to true, then the API commits before returning to the calling program. ▪ If set to false, then it is the calling program's responsibility to commit the transaction.

1.1.2 Standard OUT Parameters

The following table describes standard OUT parameters, which are common to all public APIs provided by Oracle CRM Applications.

Note: All standard OUT parameters are required.

Table 1–2 Standard OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2(1)	Indicates the return status of the API. The values returned are one of the following: <ul style="list-style-type: none"> ▪ FND_API.G_RET_STS_SUCCESS Success: Indicates the API call was successful ▪ FND_API.G_RET_STS_ERROR Expected Error: There is a validation error, or missing data error. ▪ FND_API.G_RET_STS_UNEXP_ERROR Unexpected Error: The calling program can not correct the error.
x_msg_count	NUMBER	Holds the number of messages in the message list.
x_msg_data	VARCHAR2(2000)	Holds the encoded message if <i>x_msg_count</i> is equal to one.

1.1.3 Parameter Size

Verify the size of the column from the base table for that column when passing a parameter of a specific length. For example, if you pass a NUMBER value, first query to find the exact value to pass. An incorrect value can cause the API call to fail.

1.1.4 Missing Parameter Attributes

The following table describes optional IN parameters which are initialized to pre-defined values representing missing constants. These constants are defined for the common PL/SQL data types and should be used in the initialization of the API formal parameters.

Table 1–3 Initialized IN Parameters

Parameter	Type	Initialized Value
G_MISS_NUM	CONSTANT	NUMBER:= 9.99E125
G_MISS_CHAR	CONSTANT	VARCHAR2(1):= chr(0)
G_MISS_DATE	CONSTANT	DATE:= TO_DATE('1','j');

These constants are defined in the package `FND_API` in the file `fndpapis.pls`. All columns in a record definition are set to the `G_MISS_X` constant as defined for the data type.

1.1.5 Parameter Validations

The following types of parameters are always validated during the API call:

- Standard IN
- Standard OUT
- Mandatory procedure specific IN
- Procedure specific OUT

1.1.6 Invalid Parameters

If the API encounters any invalid parameters during the API call, then one of the following actions will occur:

- An exception is raised.
- An error message identifying the invalid parameter is generated.
- All API actions are cancelled.

1.2 Version Information

It is mandatory that every API call pass a version number for that API as its first parameter (*p_api_version*).

This version number must match the internal version number of that API. An unexpected error is returned if the calling program version number is incompatible with the current API version number.

Warning: The currently supported version at this time is 1.0 Use only this for the API version number.

In addition, the object version number **must** be input for all update and delete APIs.

- If the *object_version_number* passed by the API matches that of the object in the database, then the update is completed.

- If the *object_version_number* passed by the API does not match that of the object in the database, then an error condition is generated.

1.3 Status Messages

Note: It is not required that all status notifications provide a number identifier along with the message, although, in many cases, it is provided.

Every API must return one of the following states as parameter *x_return_status* after the API is called:

- S (Success)
- E (Error)
- U (Unexpected error)

Each state can be associated with a status message. The following table describes each state.

Table 1–4 Status Message and Description

Status	Description
S	<p>Indicates that the API performed all the operations requested by its caller.</p> <ul style="list-style-type: none"> ■ A success return status may or may not be accompanied by messages in the API message list. ■ Currently, the CRM APIs do not provide a message for a return status of success.
E	<p>Indicates that the API failed to perform one or more of the operations requested by its caller.</p> <p>An error return status is accompanied by one or more messages describing the error.</p>
U	<p>Indicates that the API encountered an error condition it did not expect, or could not handle, and that it is unable to continue with its regular processing.</p> <ul style="list-style-type: none"> ■ For example, certain programming errors such as attempting to a division by zero will cause this error. ■ These types of errors usually cannot be corrected by the user and requires a system administrator or application developer to correct.

Warning and Information Messages

In addition to these three types of possible status messages, you can also code the following additional message types:

- Warnings
- Information

To create a warning message, perform the following steps:

1. Create a global variable to be used to signal a warning condition. For example, this could be similar to the following:

```
G_RET_STS_WARNING := 'W'
```

This global variable is not part of the FND_API package.

2. Return this value if the warning condition is encountered. For example, using the same example as in step one, set up the following code in the API to process the warning condition:

```
x_return_status := G_RET_STS_WARNING
```

This code replaces the more usual:

```
x_return_status := fnd_api.g_ret_sts_unexp_error for "U"
```

3. If desired, perform a similar procedure to create Information messages.

Oracle Contracts for Service Public APIs

2.1 Entitlement/OM Integration APIs

Entitlements refers to various services a customer is entitled once a service contract is in effect. A set of public APIs are provided to expose the entitlements to other modules such as Oracle Customer Support, Service Core, Field Service, Depot Repaire, Charges etc. Any other modules are also welcome to use these APIs within its capabilities explained below. They are query only APIs.

Service Contracts OM/Integration Public API contains various procedures used by Order Management application to get service duration, Check the availability of Service for a customer or a product, get a list of Services available for a Customer or a product.

All the Entitlements OM/Integration APIs procedures are defined in the following packages.

- OKS_ENTITLEMENTS_PUB, see Table 2-1
- OKS_CON_COVERAGE_PUB, see Table 2-2
- OKS_OMINT_PUB, see Table 2-3

Table 2–1 Entitlements APIs - OKS_ENTITLEMENTS_PUB

Procedure	Description
Check Coverage Times	This API returns whether a particular date and time in a time zone (may be the sysdate), is covered in the coverage time specified for a given service line and business process. The output may be 'Y' or 'N' (Yes/No).

Table 2–1 Entitlements APIs - OKS_ENTITLEMENTS_PUB

Procedure	Description
Check Reaction Times	This API returns the reaction time, unit of measure and react by date (date & time) in a time zone for a given service line and business process. The output may be 2, Hrs, 01-JUN-2001 14:00
Get React Resolve By Time	This API returns the reaction and/or resolution time information in a time zone for a given service line and business process. There are options to get the first or best reaction time, resolution time or both.
Get All Contracts	This API returns the contract header information for any combination of input parameter as explained in API Signature section.
Get Contract Details	This API returns the contract line information for any combination of input parameter as explained in API Signature section.
Get Contracts	This is an over loaded API which returns contract information for different combination of Service, Extended Warranty or Warranty, Coverage Levels and Business Processes. Detailed explanation of input and output parameters are explained in the API signature section of this document.
Get Coverage Levels	This API returns the Coverage Level such as Party, Customer, Site, System, Item and Product information for a Service, Extended Warranty or Warranty.
Get Contacts	This API returns the Contact information for a contract or a line.
Get Preferred Engineers	This API returns the details of Preferred Engineers for a Service, Extended Warranty or Warranty.

Table 2–2 Coverage APIs - OKS_CON_COVERAGE_PUB

Procedure	Description
Apply Contract Coverage	This API returns the discounted amount for a Service or Extended Warranty based up on the Discount Amount and % Covered, specified in the Service Contract coverage terms for a specific business process.

Table 2–3 OKS OM Integration APIs - OKS_OMINT_PUB

Procedure	Description
Get Duration	This API calculates the Service duration based on the cotermination flag and the minimum service duration
Is Service Available	This API checks for the availability of the service for a Customer and a product
Available Services	This API gives the list of services available to a Customer and a Product
OKS Available Services	This API gives the list of services with Name, Description and Coverage Associated available to a Customer and a Product.

2.2 Package OKS_ENTITLEMENTS_PUB

The Entitlements APIs consist of the following procedures.

- Check Coverage Times
- Check Reaction Times
- Get React Resolve By Time
- Get All Contracts
- Get Contract Details
- Get Contracts (Overloaded)
- Get Coverage Levels
- Get Contacts
- Get Preferred Engineers

2.2.1 Check Coverage Times

This API returns whether a particular date and time in a time zone (may be the sysdate), is covered in the coverage time specified for a given service line and business process. The output may be 'Y' or 'N' (Yes/No).

Procedure Specification

```
PROCEDURE check_coverage_times
    (p_api_version          IN Number
    ,p_init_msg_list       IN Varchar2
```

```

,p_business_process_id IN Number
,p_request_date        IN Date
,p_time_zone_id       IN Number
,p_contract_line_id    IN Number
,x_return_status      OUT NOCOPY Varchar2
,x_msg_count          OUT NOCOPY Number
,x_msg_data           OUT NOCOPY Varchar2
,x_covered_yn         OUT NOCOPY Varchar2);

```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–4 Check Coverage Times - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_business_process_id	NUMBER	Yes	Business Process ID
p_request_date	DATE	Yes	Request Date and Time
p_time_zone_id	NUMBER	Yes	Request Time Zone ID
p_contract_line_id	NUMBER	Yes	Line ID of Service, Extended Warranty or Warranty

The following table describes the OUT parameters associated with this API:

Table 2–5 Check Coverage Times - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_covered_yn	VARCHAR2	Y/N

2.2.2 Check Reaction Times

This API returns the reaction time, unit of measure and react by date (date & time) in a time zone for a given service line and business process. The output may be 2, Hrs, 01-JUN-2001 14:00.

Procedure Specification

```
PROCEDURE check_reaction_times
    (p_api_version          IN  Number
    ,p_init_msg_list        IN  Varchar2
    ,p_business_process_id  IN  Number
    ,p_request_date         IN  Date
    ,p_sr_severity          IN  Number
    ,p_time_zone_id        IN  Number
    ,p_contract_line_id    IN  Number
    ,x_return_status       OUT NOCOPY Varchar2
    ,x_msg_count           OUT NOCOPY Number
    ,x_msg_data            OUT NOCOPY Varchar2
    ,x_react_within        OUT NOCOPY Number
    ,x_react_tuom          OUT NOCOPY Varchar2
    ,x_react_by_date       OUT NOCOPY Date);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–6 Check Reaction Times - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_business_process_id	NUMBER	Yes	Business Process ID
p_request_date	DATE	Yes	Request Date
p_sr_severity	NUMBER	Yes	Severity ID
p_time_zone_id	NUMBER	Yes	Request Time Zone ID

Table 2–6 Check Reaction Times - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_contract_line_id	NUMBER	Yes	Line ID of Service, Extended Warranty or Warranty

The following table describes the OUT parameters associated with this API.

Table 2–7 Check Coverage Times - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_react_within	NUMBER	Reaction Time
x_react_tuom	VARCHAR2	Unit of Measure for Reaction Time
x_react_by_date	DATE	Date and Time by which the reaction or response has to be made for a Service Request.

2.2.3 Get React Resolve By Time

This API returns the reaction and/or resolution time information in a time zone for a given service line. There are options to get the first or best reaction time, resolution time or both.

Procedure Specification

```
PROCEDURE get_react_resolve_by_time
    (p_api_version          in number
    ,p_init_msg_list       in varchar2
    ,p_inp_rec              in grt_inp_rec_type
    ,x_return_status       out nocopy varchar2
    ,x_msg_count           out nocopy number
    ,x_msg_data            out nocopy varchar2
    ,x_react_rec           out rcn_rsn_rec_type
    ,x_resolve_rec        out rcn_rsn_rec_type);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–8 Get React Resolve By Time - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_inp_rec	grt_inp_rec_type	Yes	See the Data Structure Specification grt_inp_rec_type

The following table describes the OUT parameters associated with this API.

Table 2–9 Get React Resolve By Time - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_react_rec	rcn_rsn_rec_type	Reaction Time information. See the Data Structure Specification rcn_rsn_rec_type
x_resolve_rec	rcn_rsn_rec_type	Resolution Time information. See the Data Structure Specification rcn_rsn_rec_type .

2.2.4 Get All Contracts

This API returns the contract header information for any combination of input parameter as explained in API Signature section.

Procedure Specification

```

PROCEDURE get_all_contracts
    (p_api_version          IN Number
    ,p_init_msg_list       IN Varchar2
    ,p_inp_rec              IN inp_rec_type
    ,x_return_status       OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
    ,x_msg_data             OUT NOCOPY Varchar2
    ,x_all_contracts       OUT NOCOPY hdr_tbl_type);
    
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–10 Get All Contracts - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_inp_rec	grt_inp_rec_type	Yes	See the Data Structure Specification grt_inp_rec_type

The following table describes the OUT parameters associated with this API.

Table 2–11 Get All Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_all_contracts	hdr_tbl_type	Contract header information. See the Data Structure Specification hdr_tbl_type .

2.2.5 Get Contract Details

This API returns the contract line information for any combination of input parameter as explained in API Signature section.

Procedure Specification

```
PROCEDURE get_contract_details
    (p_api_version          IN Number
    ,p_init_msg_list       IN Varchar2
    ,p_contract_line_id    IN Number
    ,x_return_status      OUT NOCOPY Varchar2
    ,x_msg_count          OUT NOCOPY Number
    ,x_msg_data           OUT NOCOPY Varchar2
    ,x_all_lines          OUT NOCOPY line_tbl_type);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–12 Get Contract Details - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_contract_line_id	NUMBER	Yes	Contract Line ID

The following table describes the OUT parameters associated with this API.

Table 2–13 Get Contract Details - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter

Table 2–13 Get Contract Details - OUT Parameters

Parameter	Data Type	Description
x_all_lines	line_tbl_type	Contract line information. See the Data Structure Specification line_tbl_type

2.2.6 Get Contracts

This is an over loaded API which returns contract information for different Coverage Levels such as Party, Customer, Site, System, Item and Product.

Procedure Specification

```
PROCEDURE get_contracts
    (p_api_version           IN Number
    ,p_init_msg_list        IN Varchar2
    ,p_inp_rec              IN inp_cont_rec
    ,x_return_status        OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
    ,x_msg_data             OUT NOCOPY Varchar2
    ,x_ent_contracts        OUT NOCOPY ent_cont_tbl);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–14 Get Contracts - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_inp_rec	inp_cont_rec	Yes	Input record. See the Data Structure Specification inp_cont_rec

The following table describes the OUT parameters associated with this API.

Table 2–15 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_ent_contracts	ent_cont_tbl	Contract information. See the Data Structure Specification ent_cont_tbl .

2.2.7 Get Contracts

This is an over loaded API which returns contract information for different combination of Service, Extended Warranty or Warranty, Coverage Levels such as Party, Customer, Site, System, Item or Product and Business Processes. If the input parameter `validate_flag` is 'Y', request date is checked against Date Effectivity and only those contracts eligible for entitlements are returned. The output table will be sorted in the order of ascending resolution time.

Procedure Specification

```
PROCEDURE get_contracts
    (p_api_version           IN Number
    ,p_init_msg_list        IN Varchar2
    ,p_inp_rec              IN get_contin_rec
    ,x_return_status        OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
    ,x_msg_data             OUT NOCOPY Varchar2
    ,x_ent_contracts        OUT NOCOPY get_contop_tbl);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–16 Get Contracts - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_inp_rec	get_contin_rec	Yes	Input record. See the Data Structure Specification get_contin_rec

The following table describes the OUT parameters associated with this API.

Table 2–17 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_ent_contracts	get_contop_tbl	Contract information. See the Data Structure Specification get_contop_tbl

2.2.8 Get Contracts

This is an over loaded API which returns contract information for different combination of Service, Extended Warranty or Warranty, Coverage Levels such as Party, Customer, Site, System, Item or Product and Business Processes. If the input parameter `validate_flag` is 'Y', only those contracts eligible for entitlements are returned. The output table will be sorted in the order of ascending resolution time.

Procedure Specification

```
PROCEDURE get_contracts
    (p_api_version           IN  Number
    ,p_init_msg_list        IN  Varchar2
    ,p_inp_rec              IN  input_rec_ib
    ,x_return_status        OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
```

```
,x_msg_data          OUT NOCOPY Varchar2
,x_ent_contracts     OUT NOCOPY output_tbl_ib);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–18 Get Contracts - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_inp_rec	input_rec_ib	Yes	Input record. See the Data Structure Specification input_rec_ib

The following table describes the OUT parameters associated with this API.

Table 2–19 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_ent_contracts	output_tbl_ib	Contract information. See the Data Structure Specification output_tbl_ib .

2.2.9 Get Coverage Levels

This API returns the Coverage Level such as Party, Customer, Site, System, Item and Product information for a Service, Extended Warranty or Warranty.

Procedure Specification

```
PROCEDURE get_coverage_levels
    (p_api_version           IN  Number
    ,p_init_msg_list        IN  Varchar2
    ,p_contract_line_id     IN  Number
    ,x_return_status       OUT NOCOPY Varchar2
    ,x_msg_count           OUT NOCOPY Number
    ,x_msg_data            OUT NOCOPY Varchar2
    ,x_covered_levels      OUT NOCOPY clvl_tbl_type);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–20 Get Coverage Levels - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_contract_line_id	NUMBER	Yes	Line ID of Service, Extended Warranty or Warranty.

The following table describes the OUT parameters associated with this API.

Table 2–21 Get Coverage Levels - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_covered_levels	clvl_tbl_type	Coverage Level information. See the Data Structure Specification clvl_tbl_type .

2.2.10 Get Contracts

This API returns the Contact information for a contract or a line.

Procedure Specification

```
PROCEDURE get_contacts
    (p_api_version          IN Number
    ,p_init_msg_list       IN Varchar2
    ,p_contract_id         IN Number
    ,p_contract_line_id    IN Number
    ,x_return_status       OUT NOCOPY Varchar2
    ,x_msg_count           OUT NOCOPY Number
    ,x_msg_data            OUT NOCOPY Varchar2
    ,x_ent_contacts        OUT NOCOPY ent_contact_tbl);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–22 Get Contracts - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_contract_id	NUMBER	No	Contract Header ID
p_contract_line_id	NUMBER	No	Contract Line ID of Service, Extended Warranty or Warranty.

The following table describes the OUT parameters associated with this API.

Table 2–23 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter

Table 2–23 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_msg_data	VARCHAR2	Standard OUT Parameter
x_ent_contacts	ent_contact_tbl	Contact information. See the Data Structure Specification ent_contact_tbl

2.2.11 Get Preferred Engineers

This API returns the details of Preferred Engineers for a Service, Extended Warranty or Warranty.

Procedure Specification

```
PROCEDURE get_preferred_engineers
    (p_api_version          IN  Number
    ,p_init_msg_list        IN  Varchar2
    ,p_contract_line_id     IN  Number
    ,x_return_status        OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
    ,x_msg_data             OUT NOCOPY Varchar2
    ,x_prf_engineers        OUT NOCOPY prfeng_tbl_type);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–24 Get Preferred Engineers - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_contract_line_id	NUMBER	Yes	Contract Line ID of a of Service, Extended Warranty or Warranty.

The following table describes the OUT parameters associated with this API.

Table 2–25 Get Contracts - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_prf_engineers	prfeng_tbl_type	Contact information. See the Data Structure Specification prfeng_tbl_type

2.3 Package OKS_CON_COVERAGE_PUB

The Apply Contract Coverage APIs consist of the following procedure.

- Apply Contract Coverage

2.3.1 Apply Contract Coverage

This API returns the discounted amount for a Service or Extended Warranty based up on the Discount Amount and % Covered, specified in the Service Contract coverage terms for a specific business process.

Procedure Specification

```
PROCEDURE apply_contract_coverage
    (p_api_version           IN  Number
    ,p_init_msg_list         IN  Varchar2
    ,p_est_amt_tbl           IN  ser_tbl_type
    ,x_return_status        OUT NOCOPY Varchar2
    ,x_msg_count            OUT NOCOPY Number
    ,x_msg_data             OUT NOCOPY Varchar2
    ,x_est_discounted_amt_tbl OUT NOCOPY cov_tbl_type);
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–26 Apply Contract Coverage - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	Standard IN Parameter
p_init_msg_list	VARCHAR2	Yes	Standard IN Parameter
p_est_amt_tbl	ser_tbl_type	Yes	Input table of records. See the Data Structure Specification ser_tbl_type

The following table describes the OUT parameters associated with this API.

Table 2–27 Apply Contract Coverage - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	Standard OUT Parameter
x_msg_count	NUMBER	Standard OUT Parameter
x_msg_data	VARCHAR2	Standard OUT Parameter
x_est_discounted_acmt_tbl	cov_tbl_type	Output table of records. See the Data Structure Specification cov_tbl_type

2.4 Package OKS_OMINT_PUB

The OKS_OMINT_PUB consist of the following procedures.

- Get Duration
- Is Service Available
- Available Services
- OKS Available Services

2.4.1 Get Duration

This API is to calculate Service Duration by entering the Start_Date and End_Date (Optional). You can also choose to coterminate all the service programs that you order so that the program ends at the same time as other service programs for the products associated with the same customer or system.

Procedure Specification

```

PROCEDURE Get_Duration
(
  P_Api_Version           IN           Number,
  P_init_msg_list        IN           Varchar2 Default OKC_API.G_FALSE,
  X_msg_Count            OUT          Number,
  X_msg_Data             OUT          Varchar2,
  X_Return_Status        OUT          Varchar2,
  P_customer_id          IN           Number,
  P_system_id            IN           Number,
  P_Service_Duration     IN           Number,
  P_service_period       IN           Varchar2,
  P_coterm_checked_yn    IN           Varchar2 Default OKC_API.G_FALSE,
  P_start_date           IN           Date,
  P_end_date             IN           Date,
  X_service_duration     OUT          Number,
  X_service_period       OUT          Varchar2,
  X_new_end_date         OUT          Date
)

```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–28 Get Duration - IN Parameters

Parameter	Data Type	IN/OUT	Required	Description and Validations
p_api_version	NUMBER	IN	Yes	
p_init_msg_list	VARCHAR2	IN	Yes	
p_customer_id	NUMBER	IN	(REQ. IF SYSTEM ID IS NULL)	Customer Id
p_system_id	NUMBER	IN		System Id
p_coterm_checked_yn	VARCHAR2	IN	No	Cotermminate Flag Y/N
p_service_duration	NUMBER	IN	No	Duration of the Service

Table 2–28 Get Duration - IN Parameters

Parameter	Data Type	IN/OUT	Required	Description and Validations
p_service_period	VARCHAR2	IN	No	Period of the Service
p_start_date	DATE	IN	(REQ)	Start Date of The Service
p_end_date	DATE	IN	No	End Date of the Service

The following table describes the OUT parameters associated with this API.

Table 2–29 Get Duration - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	fnd_api.g_ret_sts_success, fnd_api.g_ret_sts_error, fnd_api.g_ret_sts_unexp_error
x_msg_count	NUMBER	Message count in the message list.
x_msg_data	VARCHAR2	Message
x_service_duration	VARCHAR2	
x_new_end_date	DATE	
x_service_period	VARCHAR2	

Profiles To Be Set

- OKS Minimum Service Duration
- OKS Minimum Service Period.

Validations

- API will check the minimum duration profile and Day_UOM, if it is not set it will error out.
- Will check if service duration is greater than or equal to minimum duration.
- If Cotermination flag is set, It will pull system or customer coterminate date and accordingly sets the service duration.

- The Coterminate date for a customer can be set in Cotermination set up form.
- Either P_end_date or (p_service_duration,p_service_period) is required if Coterminate flag not set.
- Service duration is calculated based on co-termination flag of customer/system co-termination dates. System Co Terminate Date gets the priority over customer co-termination date.

2.4.2 IS Service Available

This API can be used to check whether the given service is available for a product or for a customer.

Procedure Specification

```

PROCEDURE Is_service_available
(
  P_Api_Version           IN      Number,
  P_init_msg_list        IN      Varchar2 Default OKC_API.G_FALSE,
  X_msg_Count            OUT     Number,
  X_msg_Data             OUT     Varchar2,
  X_Return_Status        OUT     Varchar2,
  p_check_service_rec    IN      CHECK_SERVICE_REC_TYPE,
  X_Available_YN        OUT     Varchar2
)

```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–30 Is Service Available - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	
p_init_msg_list	VARCHAR2	Yes	default fnd_api.g_false
p_check_service_rec	CHECK_SERVICE_REC_TYPE	Yes	

The following table describes the OUT parameters associated with this API.

Table 2–31 Is Service Available - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	fnd_api.g_ret_sts_success, fnd_api.g_ret_sts_error, fnd_api.g_ret_sts_unexp_error
x_msg_count	NUMBER	Message count in the message list.
x_msg_data	VARCHAR2	Message
x_Available_yn	VARCHAR2	Available Y/N

Functionality

- Returns Available as 'N' if that service item is not defined in Service Availability form and the customer product has service order allowed flag set to 'N'.
- Returns Available as 'Y' if that service item is not defined in Service Availability form and the customer product has service order allowed flag set to 'Y'.
- If Service item , Product item id and Customer id are passed then the procedure checks if the service is available for both the customer and the product item.
- It checks if request date of the service item available for the product item or customer falls with in the effectivities of all the three parameters service item, product item and customer id.

Validations

- Will error out if Customer Id and Product item id are Null.
- The Product item id passed should be of a serviceable Item.

Note: OKS Service Availability Form allows or restricts access to specific service programs for specific customers and products/revisions. It can be further delimited by entering starting and ending availability dates.

2.4.3 Available Services

This API returns list of services available to ORDER for a customer or product.

Procedure Specification

```
PROCEDURE Available_Services
(
  P_Api_Version           IN      Number,
  P_init_msg_list        IN      Varchar2 Default OKC_API.G_FALSE,
  X_msg_Count            OUT     Number,
  X_msg_Data             OUT     Varchar2,
  X_Return_Status        OUT     Varchar2,
  p_avail_service_rec    IN      AVAIL_SERVICE_REC_TYPE,
  X_Orderable_Service_tbl OUT     order_service_tbl_type
)
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–32 Available Services - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	
p_init_msg_list	VARCHAR2	Yes	default fnd_api.g_false
p_avail_service_rec_rec	avail_services_rec_type	Yes	See the Data Structure Specification avail_service_rec_type

The following table describes the OUT parameters associated with this API.

Table 2–33 Available Services - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	fnd_api.g_ret_sts_success, fnd_api.g_ret_sts_error, fnd_api.g_ret_sts_unexp_error

Table 2–33 Available Services - OUT Parameters

Parameter	Data Type	Description
x_msg_count	NUMBER	Message count in the message list.
x_msg_data	VARCHAR2	Message
x_orderable_services_rec	order_service_tbl_type	Service Item information. See the Data Structure Specification order_service_tbl_type

2.4.4 OKS Available Services

This API returns the list of services with Name, Description and the Coverage template associated to the Service available to ORDER for a customer or product.

Procedure Specification

PROCEDURE Available_Services

```
(
P_Api_Version          IN      Number,
P_init_msg_list        IN      Varchar2 Default OKC_API.G_FALSE,
X_msg_Count            OUT     Number,
X_msg_Data             OUT     Varchar2,
X_Return_Status        OUT     Varchar2,
p_avail_service_rec    IN      AVAIL_SERVICE_REC_TYPE,
X_Orderable_Service_tbl OUT    oks_order_service_tbl_type
)
```

Current Version

1.0

Parameter Descriptions

The following table describes the IN parameters associated with this API.

Table 2–34 OKS Available Services - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_api_version	NUMBER	Yes	
p_init_msg_list	VARCHAR2	Yes	default fnd_api.g_false

Table 2–34 OKS Available Services - IN Parameters

Parameter	Data Type	Required	Description and Validations
p_avail_service_rec_rec	avail_service_rec_type	Yes	See the Data Structure Specification avail_service_rec_type .

The following table describes the OUT parameters associated with this API.

Table 2–35 OKS Available Services - OUT Parameters

Parameter	Data Type	Description
x_return_status	VARCHAR2	fnd_api.g_ret_sts_success, fnd_api.g_ret_sts_error, fnd_api.g_ret_sts_unexp_error
x_msg_count	NUMBER	Message count in the message list.
x_msg_data	VARCHAR2	Message
x_orderable_service_tbl	oks_order_service_tbl_type	Service Item information. See the Data Structure Specification order_service_tbl_type

2.5 Data Structure Specifications

The following Data Structure Specifications are being used by these packages.

- [OKS_ENTITLEMENTS_PUB](#)
- [OKS_CON_COVERAGE_PUB](#)
- [OKS_OMINT_PUB](#)

2.5.1 OKS_ENTITLEMENTS_PUB

The following data structures are used in OKS_ENTITLEMENTS_PUB:

- grt_inp_rec_type - Input record for get_react_resolve_by_time
- rcn_rsn_rec_type - Output record for get_react_resolve_by_time
- inp_rec_type - Input record for get_all_contracts

- `hdr_tbl_type` - Output table for `get_all_contracts`
- `line_tbl_type` - Output table for `get_contract_details`
- `inp_cont_rec` - Input record for `get_contracts`
- `ent_cont_tbl` - Output table for `get_contracts`
- `get_contin_rec` - Input record for `get_contracts`
- `get_contop_tbl` - Output table for `get_contracts`
- `input_rec_ib` - Input record for `get_contracts`
- `output_tbl_ib` - Output table for `get_contracts`
- `clvl_tbl_type` - Output table for `get_coverage_levels`
- `ent_contact_tbl` - Output table for `get_contacts`
- `prfeng_tbl_type` - Output table for `get_preferred_engineers`

2.5.2 `grt_inp_rec_type`

Input record for `get_react_resolve_by_time`.

Record Specification

```
TYPE grt_inp_rec_type IS RECORD
  (contract_line_id      number
  ,business_process_id  okx_bus_processes_v.id1%type
  ,severity_id          okx_incident_severits_v.id1%type
  ,request_date         date
  ,time_zone_id        okx_timezones_v.timezone_id%type
  ,category_rcn_rsn    okc_rules_b.rule_information_category%type
  ,compute_option      varchar2(10));
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–36 `grt_inp_rec_type` - Parameters

Parameter	Data Type	Description
<code>contract_line_id</code>	NUMBER	Contract Line ID
<code>business_process_id</code>	NUMBER	Business Process ID
<code>severity_id</code>	NUMBER	Severity ID

Table 2–36 grt_inp_rec_type - Parameters

Parameter	Data Type	Description
request_date	DATE	Request Date
time_zone_id	NUMBER	Request Time Zone ID
category_rcn_rsn	VARCHAR2	OKS_ENTITLEMENTS_PUB.G_ REACTION - Returns reaction time information OKS_ENTITLEMENTS_PUB.G_ RESOLUTION - Returns resolution time information OKS_ENTITLEMENTS_PUB.G_ REACT_RESOLVE - Returns reaction and resolution time information
compute_option	VARCHAR2	OKS_ENTITLEMENTS_PUB.G_ BEST - Returns the best reaction and/or resolution time information OKS_ENTITLEMENTS_PUB.G_ FIRST - Returns the first reaction and/or resolution time information

2.5.3 rcn_rsn_rec_type

Output record for get_react_resolve_by_time.

Record Specification

```
TYPE rcn_rsn_rec_type IS RECORD
  (duration          okc_react_intervals.duration%type
  ,uom               okc_react_intervals.uom_code%type
  ,by_date_start    date
  ,by_date_end      date);
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–37 rcn_rsn_rec_type - Parameters

Parameter	Data Type	Description
duration	NUMBER	Reaction or Resolution Time
uom	VARCHAR2	Unit of Measure for Reaction or Resolution Time
by_date_start	DATE	Date and Time by which the Reaction / Response or Resolution has begun for a Service Request.
by_date_end	DATE	Date and Time by which the Reaction / Response or Resolution has to be completed for a Service Request.

2.5.4 inp_rec_type

Input record for get_all_contracts.

Record Specification

```
TYPE inp_rec_type IS RECORD
  (contract_id          NUMBER
  ,contract_status_code VARCHAR2(30)
  ,contract_type_code   VARCHAR2(30)
  ,end_date_active      DATE
  ,party_id             NUMBER);
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–38 inp_rec_type - Parameters

Parameter	Data Type	Description
contract_id	NUMBER	Contract Header ID
contract_status_code	VARCHAR2	Contract Status Code
contract_type_code	VARCHAR2	Contract Type Code
end_date_active	DATE	End Date Active
party_id	NUMBER	Party ID

2.5.5 hdr_tbl_type

Output table for get_all_contracts.

Record Specification

```

TYPE hdr_tbl_type IS TABLE OF hdr_rec_type
    INDEX BY BINARY_INTEGER;
TYPE hdr_rec_type IS RECORD
  (ORG_ID                OKC_K_HEADERS_B.AUTHORING_ORG_ID%TYPE
  , CONTRACT_ID          OKC_K_HEADERS_B.ID%TYPE
  , CONTRACT_NUMBER      OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
  , SHORT_DESCRIPTION    KC_K_HEADERS_TL.SHORT_DESCRIPTION%TYPE
  , CONTRACT_AMOUNT     Number(18,2)
  , CONTRACT_STATUS_CODE OKC_K_HEADERS_B.STS_CODE%TYPE
  , CONTRACT_TYPE        OKC_K_HEADERS_B.CHR_TYPE%TYPE
  , PARTY_ID            Number
  , TEMPLATE_YN         OKC_K_HEADERS_B.TEMPLATE_YN%TYPE
  , TEMPLATE_USED       OKC_K_HEADERS_B.TEMPLATE_USED%TYPE
  , DURATION            Number
  , PERIOD_CODE         Varchar2(25)
  , START_DATE_ACTIVE   OKC_K_HEADERS_B.START_DATE%TYPE
  , END_DATE_ACTIVE     OKC_K_HEADERS_B.END_DATE%TYPE
  , BILL_TO_SITE_USE_ID Number
  , SHIP_TO_SITE_USE_ID Number
  , AGREEMENT_ID        OKC_K_HEADERS_B.CHR_ID_AWARD%TYPE
  , PRICE_LIST_ID       Number
  , MODIFIER            Number
  , CURRENCY_CODE       Varchar2(25)
  , ACCOUNTING_RULE_ID  Number
  , INVOICING_RULE_ID   Number
  , TERMS_ID           Number
  , PO_NUMBER           OKC_K_HEADERS_B.CUST_PO_NUMBER%TYPE
  , BILLING_PROFILE_ID  Number
  , BILLING_FREQUENCY   Varchar2(25)
  , BILLING_METHOD      Varchar2(3)
  , REGULAR_OFFSET_DAYS Number
  , FIRST_BILL_TO       Date
  , FIRST_BILL_ON       Date
  , AUTO_RENEW_BEFORE_DAYS OKC_K_HEADERS_B.AUTO_RENEW_DAYS%TYPE
  , QA_CHECK_LIST_ID    OKC_K_HEADERS_B.QCL_ID%TYPE
  , RENEWAL_NOTE        CLOB
  , TERMINATION_NOTE    CLOB
  , TAX_EXEMPTION       Varchar2(450)
  , TAX_STATUS          Varchar2(450)

```

```
, CONVERSION_TYPE          Varchar2 (450) );
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–39 **hdr_rec_type - Parameters**

Parameter	Data Type	Description
org_id	NUMBER	Org ID
contract_id	NUMBER	Contract Header ID
contract_number	VARCHAR2	Contract Number
short_description	VARCHAR2	Short Description
contract_amount	NUMBER	Contract Amount
contract_status_code	VARCHAR2	Contract Status Code
contract_type	VARCHAR2	Contract Type
party_id	NUMBER	Party ID
template_yn	VARCHAR2	Y/N
template_used	VARCHAR2	Contract Template Name
duration	NUMBER	Contract Duration
period_code	NUMBER	Period Code
start_date_active	DATE	Start Date Active
end_date_active	DATE	End Date Active
bill_to_site_use_id	NUMBER	Bill To Site Use ID
ship_to_site_use_id	NUMBER	Ship To Site Use ID
agreement_id	NUMBER	Agreement ID
price_list_id	NUMBER	Price List ID
modifier	NUMBER	Contract Number Modifier
currency_code	VARCHAR2	Currency Code
accounting_rule_id	NUMBER	Accounting Rule ID
invoicing_rule_id	NUMBER	Invoicing Rule ID

Table 2–39 **hdr_rec_type - Parameters**

Parameter	Data Type	Description
terms_id	NUMBER	Terms ID
po_number	VARCHAR2	Purchase Order Number
billing_profile_id	NUMBER	Billing Profile ID
billing_frequency	VARCHAR2	Billing Frequency
billing_method	VARCHAR2	Billing Method
regular_offset_days	NUMBER	Regular Offset Days
first_bill_to	DATE	First Bill To Date
first_bill_on	DATE	First Bill On Date
auto_renew_before_days	NUMBER	Auto Renew Before Days
qa_check_list_id	NUMBER	QA Check List ID
renewal_note	CLOB	Renewal Note
termination_note	CLOB	Termination Note
tax_exemption	VARCHAR2	Tax Exemption
tax_status	VARCHAR2	Tax Status
conversion_type	VARCHAR2	Conversion Type

2.5.6 line_tbl_type

Output table for get_contract_details.

Record Specification

```

TYPE line_tbl_type IS TABLE OF line_rec_type
    INDEX BY BINARY_INTEGER;
TYPE line_rec_type IS RECORD
    (CONTRACT_LINE_ID          OKC_K_LINES_B.ID%TYPE
    ,CONTRACT_PARENT_LINE_ID  OKC_K_LINES_B.CLE_ID%TYPE
    ,CONTRACT_ID              OKC_K_LINES_B.CHR_ID%TYPE
    ,LINE_STATUS_CODE         OKC_K_LINES_B.STS_CODE%TYPE
    ,DURATION                  Number
    ,PERIOD_CODE              Varchar2(25)
    ,START_DATE_ACTIVE        OKC_K_HEADERS_B.START_DATE%TYPE
    ,END_DATE_ACTIVE          OKC_K_HEADERS_B.END_DATE%TYPE
  )

```

```

,LINE_NAME                Varchar2(150)
,BILL_TO_SITE_USE_ID     Number
,SHIP_TO_SITE_USE_ID     Number
,AGREEMENT_ID            OKC_K_HEADERS_B.CHR_ID_AWARD%TYPE
,MODIFIER                Number
,PRICE_LIST_ID           Number
,PRICE_NEGOTIATED        OKC_K_LINES_B.PRICE_NEGOTIATED%TYPE
,BILLING_PROFILE_ID      Number
,BILLING_FREQUENCY       Varchar2(25)
,BILLING_METHOD           Varchar2(3)
,REGULAR_OFFSET_DAYS     Number
,FIRST_BILL_TO           Date
,FIRST_BILL_ON           Date
,TERMINATION_DATE        Date);

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–40 line_rec_type - Parameters

Parameter	Data Type	Description
contract_line_id	NUMBER	Contract Line ID
contract_parent_line_id	NUMBER	Contract Parent Line ID
contract_id	NUMBER	Contract Header ID
line_status_code	VARCHAR2	Line Status Code
duration	NUMBER	Duration
period_code	VARCHAR2	Period Code
start_date_active	DATE	Start Date Active
end_date_active	DATE	End Date Active
line_name	VARCHAR2	Line Name
bill_to_site_use_id	NUMBER	Bill To Site Use Id
ship_to_site_use_id	NUMBER	Ship To Site Use Id
agreement_id	NUMBER	Agreement Id
modifier	NUMBER	Modifier
price_list_id	NUMBER	Price List Id

Table 2–40 line_rec_type - Parameters

Parameter	Data Type	Description
price_negotiated	NUMBER	Price Negotiated
billing_profile_id	NUMBER	Billing Profile Id
billing_frequency	VARCHAR2	Billing Frequency
billing_method	VARCHAR2	Billing Method
regular_offset_days	NUMBER	Regular Offset Days
first_bill_to	DATE	First Bill To
first_bill_on	DATE	First Bill On
termination_date	DATE	Termination Date

2.5.7 inp_cont_rec

Input record for get_contracts.

Record Specification

```

TYPE inp_cont_rec IS RECORD
  (contract_number          OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
  ,coverage_level_line_id  Number
  ,party_id                Number
  ,site_id                 Number
  ,cust_acct_id            Number
  ,system_id               Number
  ,item_id                 Number
  ,product_id              Number
  ,request_date            Dte
  ,validate_flag           Varchar2(1));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–41 inp_cont_rec - Parameters

Parameter	Data Type	Description
contract_number	VARCHAR2	Contract Number
coverage_level_line_id	NUMBER	Coverage Level Line Id

Table 2–41 inp_cont_rec - Parameters

Parameter	Data Type	Description
party_id	NUMBER	Party Id
site_id	NUMBER	Site Id
cust_acct_id	NUMBER	Cust Acct Id
system_id	NUMBER	System Id
item_id	NUMBER	Item Id
product_id	NUMBER	Product Id
request_date	DATE	Request Date
validate_flag	VARCHAR2	Validate Flag Y/N. See the API description for more information.

2.5.8 ent_cont_tbl

Output table for get_contracts.

Record Specification

```

TYPE ent_cont_tbl IS TABLE OF ent_cont_rec
        INDEX BY BINARY_INTEGER;
TYPE ent_cont_rec IS RECORD
    (contract_id           Number
    ,contract_number      OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
    ,service_line_id      Number
    ,service_name         OKC_K_LINES_V.NAME%TYPE
    ,service_description  OKC_K_LINES_V.ITEM_DESCRIPTION%TYPE
    ,coverage_term_line_id Number
    ,Coverage_term_name   OKC_K_LINES_V.NAME%TYPE
    ,coverage_term_description OKC_K_LINES_V.ITEM_DESCRIPTION%TYPE
    ,coverage_level_line_id Number
    ,coverage_level       OKC_LINE_STYLES_TL.NAME%TYPE
    ,coverage_level_code  OKC_LINE_STYLES_B.LTY_CODE%TYPE
    ,coverage_level_start_date Date
    ,coverage_level_End_date Date
    ,coverage_level_id    Number
    ,warranty_flag        Varchar2(1)
    ,eligible_for_entitlement Varchar2(1));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–42 ent_cont_rec - Parameters

Parameter	Data Type	Description
contract_id	NUMBER	Contract Id
contract_number	VARCHAR2	Contract Number
service_line_id	NUMBER	Service Line Id
service_name	VARCHAR2	Service Name
service_description	VARCHAR2	Service Description
coverage_term_line_id	NUMBER	Coverage Term Line Id
Coverage_term_name	VARCHAR2	Coverage Term Name
coverage_term_description	VARCHAR2	Coverage Term Description
coverage_level_line_id	NUMBER	Coverage Level Line Id
coverage_level	VARCHAR2	Coverage Level
coverage_level_code	VARCHAR2	Coverage Level Code
coverage_level_start_date	DATE	Coverage Level Start Date
coverage_level_End_date	DATE	Coverage Level End Date
coverage_level_id	NUMBER	Coverage Level Id
warranty_flag	VARCHAR2	Warranty Flag
eligible_for_entitlement	VARCHAR2	Eligible For Entitlement

2.5.9 get_contin_rec

Input record for get_contracts.

Record Specification

```
TYPE get_contin_rec IS RECORD
  (contract_number      OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
  ,service_line_id     Number
```

```

,party_id           Number
,site_id           Number
,cust_acct_i       Number
,system_id         Number
,item_id           Number
,product_id        Number
,request_date       Date
,business_process_id Number
,severity_id        Number
,time_zone_id       Number
,calc_resptime_flag Varchar2(1)
,validate_flag      Varchar2(1));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–43 get_contin_rec - Parameters

Parameter	Data Type	Description
contract_number	VARCHAR2	Contract Number
service_line_id	NUMBER	Service Line Id
party_id	NUMBER	Party Id
site_id	NUMBER	Site Id
cust_acct_i	NUMBER	Customer Account Id
system_id	NUMBER	System Id
item_id	NUMBER	Item Id
product_id	NUMBER	Product Id
request_date	DATE	Request Date
business_process_id	NUMBER	Business Process Id - Required if calc_resptime_flag is Y.
severity_id	NUMBER	Severity Id - Required if calc_resptime_flag is Y.
time_zone_id	NUMBER	Time Zone Id - Required if calc_resptime_flag is Y.
calc_resptime_flag	VARCHAR2	Calculate Reaction and Resolution Time Flag Y/N

Table 2–43 get_contin_rec - Parameters

Parameter	Data Type	Description
validate_flag	VARCHAR2	Validate Flag Y/N. See API description for more information.

2.5.10 get_contop_tbl

Output table for get_contracts.

Record Specification

```

TYPE get_contop_tbl IS TABLE OF get_contop_rec
    INDEX BY BINARY_INTEGER;
TYPE get_contop_rec IS RECORD
(contract_id          Number
 ,contract_number    OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
 ,contract_number_modifier OKC_K_HEADERS_B.
    CONTRACT_NUMBER_MODIFIER%TYPE
 ,sts_code           OKC_K_HEADERS_B.STS_CODE%TYPE
 ,service_line_id    Number
 ,service_name       OKX_SYSTEM_ITEMS_V.NAME%TYPE
 ,service_description OKX_SYSTEM_ITEMS_V.DESCRPTION%TYPE
 ,coverage_term_line_id Number
 ,coverage_term_name OKC_K_LINES_V.NAME%TYPE
 ,coverage_term_description OKC_K_LINES_V.ITEM_DESCRIPTION%TYPE
 ,service_start_date Date
 ,service_end_date   Date
 ,warranty_flag      Varchar2(1)
 ,eligible_for_entitlement Varchar2(1)
 ,exp_reaction_time  Date
 ,exp_resolution_time Date
 ,status_code        Varchar2(1)
 ,status_text        Varchar2(1995));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–44 get_contop_rec - Parameters

Parameter	Data Type	Description
contract_id	NUMBER	Contract Id
contract_number	VARCHAR2	Contract Number

Table 2–44 get_contop_rec - Parameters

Parameter	Data Type	Description
contract_number_ modifier	VARCHAR2	Contract Number Modifier
sts_code	VARCHAR2	Contract Status Code
service_line_id	NUMBER	Service Line Id
service_name	VARCHAR2	Service Name
service_description	VARCHAR2	Service Description
coverage_term_line_id	NUMBER	Coverage Term Line Id
coverage_term_name	VARCHAR2	Coverage Term Name
coverage_term_ description	VARCHAR2	Coverage Term Description
service_start_date	NUMBER	Service Start Date
service_end_date	NUMBER	Service End Date
warranty_flag	VARCHAR2	Warranty Flag
eligible_for_ entitlement	VARCHAR2	Eligible For Entitlement
exp_reaction_time	DATE	Expected Reaction Time
exp_resolution_time	DATE	Expected Resolution Time
status_code	VARCHAR2	Status Code after returning reaction and/or resolution time S - Success E - Error U - Unexpected Error.
status_text	VARCHAR2	Status Text for the above Status Code.

2.5.11 input_rec_ib

Input record for get_contracts.

Record Specification

```

TYPE input_rec_ib IS RECORD
  (contract_number          OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
  ,contract_number_modifier OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
  ,service_line_id         Number
  ,party_id                Number
  ,site_id                 Number
  ,cust_acct_id            Number
  ,system_id               Number
  ,item_id                 Number
  ,product_id              Number
  ,business_process_id     Number
  ,severity_id             Number
  ,time_zone_id            Number
  ,calc_resptime_flag      Varchar2(1)
  ,validate_flag           Varchar2(1));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–45 input_rec_ib - Parameters

Parameter	Data Type	Description
contract_number	VARCHAR2	Contract Number
contract_number_modifier	VARCHAR2	Contract Number Modifier
service_line_id	NUMBER	Service Line Id
party_id	NUMBER	Party Id
site_id	NUMBER	Site Id
cust_acct_id	NUMBER	Customer Accountt Id
system_id	NUMBER	System Id
item_id	NUMBER	Item Id
product_id	NUMBER	Product Id
business_process_id	NUMBER	Business Process Id - Required if calc_resptime_flag is Y.
severity_id	NUMBER	Severity Id - Required if calc_resptime_flag is Y.

Table 2–45 input_rec_ib - Parameters

Parameter	Data Type	Description
time_zone_id	NUMBER	Time Zone Id - Required if calc_resptime_flag is Y.
calc_resptime_flag	VARCHAR2	Calculate Reaction and Resolution Time Flag Y/N
validate_flag	VARCHAR2	Validate Flag Y/N. See the API description for more information.

2.5.12 output_tbl_ib

Output table for get_contracts.

Record Specification

```

TYPE output_tbl_ib IS TABLE OF output_rec_ib
    INDEX BY BINARY_INTEGER;
TYPE output_rec_ib IS RECORD
    (contract_id          Number
    ,contract_number      OKC_K_HEADERS_B.CONTRACT_NUMBER%TYPE
    ,contract_number_modifier OKC_K_HEADERS_B.
        CONTRACT_NUMBER_MODIFIER%TYPE
    ,sts_code             OKC_K_HEADERS_B.STS_CODE%TYPE
    ,service_line_id      Number
    ,service_name         OKX_SYSTEM_ITEMS_V.NAME%TYPE
    ,service_description  OKX_SYSTEM_ITEMS_V.DESCRPTION%TYPE
    ,coverage_term_line_id Number
    ,coverage_term_name   OKC_K_LINES_V.NAME%TYPE
    ,coverage_term_description OKC_K_LINES_V.ITEM_DESCRIPTION%TYPE
    ,service_start_date   Date
    ,service_end_date     Date
    ,warranty_flag        Varchar2(1)
    ,eligible_for_entitlement Varchar2(1)
    ,exp_reaction_time    Date
    ,exp_resolution_time  Date
    ,status_code          Varchar2(1)
    ,status_text          Varchar2(1995));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–46 output_rec_ib - Parameters

Parameter	Data Type	Description
contract_id	NUMBER	Contract Id
contract_number	VARCHAR2	Contract Number
contract_number_modifier	VARCHAR2	Contract Number Modifier
sts_code	VARCHAR2	Contract Status Code
service_line_id	NUMBER	Service Line Id
service_name	VARCHAR2	Service Name
service_description	VARCHAR2	Service Description
coverage_term_line_id	NUMBER	Coverage Term Line Id
coverage_term_name	VARCHAR2	Coverage Term Name
coverage_term_description	VARCHAR2	Coverage Term Description
service_start_date	DATE	Service Start Date
service_end_date	DATE	Service End Date
warranty_flag	VARCHAR2	Warranty Flag
eligible_for_entitlement	VARCHAR2	Eligible For Entitlement
exp_reaction_time	DATE	Exp Reaction Time
exp_resolution_time	DATE	Exp Resolution Time
status_code	VARCHAR2	Status Code after returning reaction and/or resolution time. S - Success E - Error U - Unexpected Error.
status_text	VARCHAR2	Status Text for the above Status Code.

2.5.13 clvl_tbl_type

Output table for `get_coverage_levels`.

Record Specification

```
TYPE clvl_tbl_type IS TABLE OF clvl_rec_type
    INDEX BY BINARY_INTEGER;
TYPE clvl_rec_type IS RECORD
  (ROW_ID                ROWID
  ,LINE_ID              OKC_K_LINES_B.ID%TYPE
  ,HEADER_ID           OKC_K_LINES_B.CHR_ID%TYPE
  ,PARENT_LINE_ID     OKC_K_LINES_B.CLE_ID%TYPE
  ,LINE_LEVEL         Varchar2(150)
  ,CP_ID              Number
  ,CP_NAME            Varchar2(240)
  ,INV_ITEM_ID        Number
  ,ITEM_NAME          Varchar2(240)
  ,SITE_ID            Number
  ,SITE_NAME          Varchar2(240)
  ,SYSTEM_ID          Number
  ,SYSTEM_NAME        Varchar2(240)
  ,CUSTOMER_ID        Number
  ,CUSTOMER_NAME      Varchar2(240)
  ,PARTY_ID           Number
  ,PARTY_NAME         Varchar2(500)
  ,QUANTITY           Number
  ,LIST_PRICE         Number
  ,PRICE_NEGOTIATED  OKC_K_LINES_B.PRICE_NEGOTIATED%TYPE
  ,LINE_NAME          Varchar2(150)
  ,DEFAULT_AMCV_FLAG  Varchar2(1)
  ,DEFAULT_QTY        Number
  ,DEFAULT_UOM        Varchar2(25)
  ,DEFAULT_DURATION   Number
  ,DEFAULT_PERIOD     Varchar2(25)
  ,MINIMUM_QTY        Number
  ,MINIMUM_UOM        Varchar2(25)
  ,MINIMUM_DURATION   Number
  ,MINIMUM_PERIOD     Varchar2(25)
  ,FIXED_QTY          Number
  ,FIXED_UOM          Varchar2(25)
  ,FIXED_DURATION     Number
  ,FIXED_PERIOD       Varchar2(25)
  ,LEVEL_FLAG         Varchar2(1));
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–47 `clvl_rec_type` - Parameters

Parameter	Data Type	Description
<code>row_id</code>	ROWID	Row Id
<code>line_id</code>	NUMBER	Line Id
<code>header_id</code>	NUMBER	Header Id
<code>parent_line_id</code>	NUMBER	Parent Line Id
<code>line_level</code>	VARCHAR2	Covered Level
<code>cp_id</code>	NUMBER	Customer Product Id
<code>cp_name</code>	VARCHAR2	Customer Product Name
<code>inv_item_id</code>	NUMBER	Inventory Item Id
<code>item_name</code>	VARCHAR2	Item Name
<code>site_id</code>	NUMBER	Site Id
<code>site_name</code>	VARCHAR2	Site Name
<code>system_id</code>	NUMBER	System Id
<code>system_name</code>	VARCHAR2	System Name
<code>customer_id</code>	NUMBER	Customer Id
<code>customer_name</code>	VARCHAR2	Customer Name
<code>party_id</code>	NUMBER	Party Id
<code>party_name</code>	VARCHAR2	Party Name
<code>quantity</code>	NUMBER	Quantity
<code>list_price</code>	NUMBER	List Price
<code>price_negotiated</code>	NUMBER	Price Negotiated
<code>line_name</code>	VARCHAR2	Line Name
<code>default_amcv_flag</code>	VARCHAR2	Default Amcv Flag
<code>default_qty</code>	NUMBER	Default Quantity

Table 2–47 `clvl_rec_type` - Parameters

Parameter	Data Type	Description
<code>default_uom</code>	VARCHAR2	Default Uom
<code>default_duration</code>	NUMBER	Default Duration
<code>default_period</code>	VARCHAR2	Default Period
<code>minimum_qty</code>	NUMBER	Minimum Quantity
<code>minimum_uom</code>	VARCHAR2	Minimum Uom
<code>minimum_duration</code>	NUMBER	Minimum Duration
<code>minimum_period</code>	VARCHAR2	Minimum Period
<code>fixed_qty</code>	NUMBER	Fixed Quantity
<code>fixed_uom</code>	VARCHAR2	Fixed Uom
<code>fixed_duration</code>	NUMBER	Fixed Duration
<code>fixed_period</code>	VARCHAR2	Fixed Period
<code>level_flag</code>	VARCHAR2	Level Flag

2.5.14 `ent_contact_tbl`

Output table for `get_contacts`.

Record Specification

```

TYPE ent_contact_tbl IS TABLE OF ent_contact_rec
    INDEX BY BINARY_INTEGER;
TYPE ent_contact_rec IS RECORD
    (contract_id          Number
    ,contract_line_id    Number
    ,contact_id          Number
    ,contact_name        Varchar2(50)
    ,contract_role_id    Number
    ,contract_role_code  Varchar2(30)
    ,contract_role_name  Varchar2(80));

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–48 ent_contact_rec - Parameters

Parameter	Data Type	Description
contract_id	NUMBER	Contract Id
contract_line_id	NUMBER	Contract Line Id
contact_id	NUMBER	Contact Id
contact_name	VARCHAR2	Contact Name
contact_role_id	NUMBER	Contact Role Id
contact_role_code	VARCHAR2	Contact Role Code
contact_role_name	VARCHAR2	Contact Role Name

2.5.15 prfeng_tbl_type

Output table for get_preferred_engineers.

Record Specification

```
TYPE prfeng_tbl_type IS TABLE OF prfeng_rec_type
    INDEX BY BINARY_INTEGER;
TYPE prfeng_rec_type IS RECORD
    (engineer_id      Number
    , resource_type   Varchar2(30));
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–49 prfeng_rec_type - Parameters

Parameter	Data Type	Description
engineer_id	NUMBER	Engineer Id
resource_type	VARCHAR2	Resource Type

2.5.16 OKS_CON_COVERAGE_PUB

The following data structures are used in OKS_CON_COVERAGE_PUB:

- ser_tbl_type - Input table for apply_contract_coverage.
- cov_tbl_type - Output table for apply_contract_coverage.

2.5.17 ser_tbl_type

Input table for apply_contract_coverage.

Record Specification

```
TYPE ser_tbl_type IS TABLE OF ser_rec_type
    INDEX BY BINARY_INTEGER;
TYPE ser_rec_type IS RECORD
    (charges_line_number  Number
    , estimate_detail_id  Number
    , contract_line_id   Number
    , txn_group_id       Number
    , billing_type_id    Number
    , charge_amount      Number);
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–50 ser_rec_type - Parameters

Parameter	Data Type	Description
charges_line_number	NUMBER	Charges Line Number
estimate_detail_id	NUMBER	Estimate Detail Id
contract_line_id	NUMBER	Contract Line Id
txn_group_id	NUMBER	Txn Group Id
billing_type_id	NUMBER	Billing Type Id
charge_amount	NUMBER	Charge Amount

2.5.18 cov_tbl_type

Output table for apply_contract_coverage.

Record Specification

```
TYPE cov_tbl_type IS TABLE OF cov_rec_type
    INDEX BY BINARY_INTEGER;
TYPE cov_rec_type IS RECORD
    (charges_line_number  Number
    , estimate_detail_id  Number
    , contract_line_id   Number
```

```

,txn_group_id      Number
,billing_type_id   Number
,discounted_amount Number
,status            Varchar2(1);

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–51 cov_rec_type - Parameters

Parameter	Data Type	Description
charges_line_number	NUMBER	Charges Line Number
estimate_detail_id	NUMBER	Estimate Detail Id
contract_line_id	NUMBER	Contract Line Id
txn_group_id	NUMBER	Txn Group Id
billing_type_id	NUMBER	Billing Type Id
discounted_amount	NUMBER	Discounted Amount
status	VARCHAR2	Status of returning records. T - Discount defined in coverage. F - Discount not defined in coverage

2.5.19 OKS_OMINT_PUB

The following data structures are used in OKS_OMINT_PUB:

- Check_Service_rec_type - Input record for IS_service_Available.
- avail_service_rec_type - Input record for Available_services and OKS_Available_Services.
- order_service_tbl_type - Output table for Available_services.
- oks_order_service_tbl_type - Output table for OKS_Available_services

2.5.20 Check_Service_rec_type

Input record for IS_service_Available.

Record Specification

```

TYPE CHECK_SERVICE_REC_TYPE IS RECORD
(
product_item_id           Number
,service_item_id         Number
,customer_id             Number
,customer_product_id     Number
,product_revision        Varchar2(3)
request_date              Date
)

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–52 Check_service_rec_type - Parameters

Parameter	Data Type	Required	Description
product_item_id	NUMBER	Required If Customer id Is null	The inventory item id of the product
service_item_id	NUMBER	Yes	Inventory Item ID of the Service
customer_id	NUMBER	Required. If Product item id Is Null	The Customer Id
customer_product_id	NUMBER	No	The Customer product Id
product_revision	VARCHAR2	No	The revision of the product
request_date	DATE	No	Default : SYSDATE, Otherwise Ordering date

2.5.21 avail_service_rec_type

Input record for Available_Services and OKS_Available_Services.

Record Specification

```

TYPE AVAIL_SERVICE_REC_TYPE Is RECORD
(

```

```

product_item_id      Number
,customer_id         Number
,product_revision    Varchar2(3)
,request_date        Date
)

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–53 avail_service_rec_type - Parameters

Parameter	Data Type	Required	Description
product_item_id	NUMBER	Required If Customer id Is null	The inventory item id of the product
customer_id	NUMBER	Required If Product item id Is null	The Customer Id
product_revision	VARCHAR2	No	The revision of the product
request_date	DATE	No	Default : SYSDATE, Otherwise Ordering date

2.5.22 order_service_tbl_type

Output record for Available_Services.

Record Specification

```

TYPE inp_rec_type IS RECORD
  (Service_item_id OUT NUMBER);

```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–54 Order_Service_rec_type - Parameters

Parameter	Data Type	Description
Service_item_id	NUMBER	Service Item

2.5.23 Oks_order_service_tbl_type

Output record for Available_Services.

Record Specification

```
TYPE order_service_rec_type IS RECORD
  (Service_item_id    NUMBER,
   Name               VARCHAR2,
   Description         VARCHAR2,
   Coverage_template_id NUMBER);
```

Parameter Descriptions

The following table describes the parameters associated with this data structure.

Table 2–55 Order_Service_rec_typ - Parameters

Parameter	Data Type	Description
Service_item_id	NUMBER	Service Item
Name	VARCHAR2	Name Of service
Description	VARCHAR2	Description Of service
Coverage_template_id	NUMBER	Coverage Associated with Service