

# Open Partner Interface



**Release 1.0**



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## Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help → General Information Classes and Information Classes for Business Information Warehouse* on the first page of the any version of *SAP Library*.

## Typographic Conventions

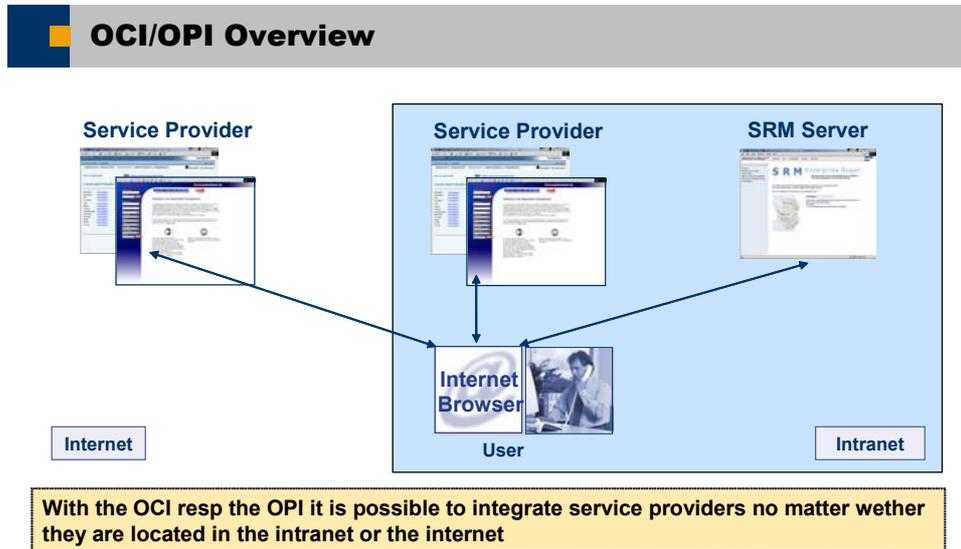
Type Style	Description
<i>Example text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Cross-references to other documentation.
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

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## 2 Introduction

The *Open Partner Interface (OPI)* incorporates external business partner directories in *SRM Server* applications. This way, data that is required in order to create a business partner in the *SRM Server* can be transferred directly from the external directory to the *SRM Server* application. The interface uses the transfer mechanisms of Hyper Text Transfer Protocol (HTTP) and uses similar architecture to the *Open Catalog Interface (OCI)*.



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**Graphic 1:** System landscape

The user here is working with an *SRM Server* application. This displays the available supplier directories. The user calls up one of these, selects the required business partner, and then transfers this data back to the *SRM Server* application. Depending on the application and authorization situation, this data is used to create a business partner in the *SRM Server* that can either be used directly or after approval.

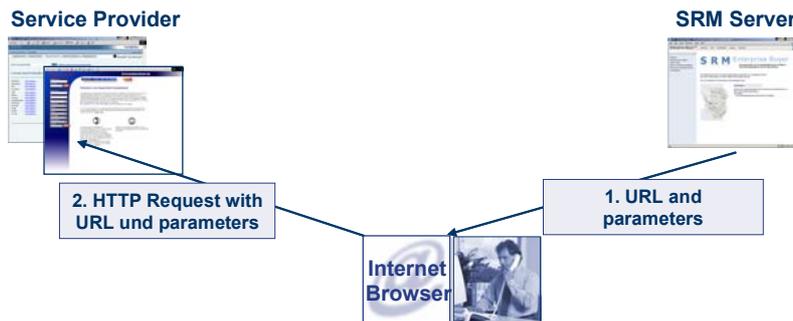
This documentation describes both the architecture and the structure of the *OPI* and thus provides all the information that is necessary to support the *OPI* with a business partner directory. Also, the possible processes and their prerequisites are described. The documentation has been written for both producers of directories and for system administrators of *SRM Server* systems.

[Section 3](#) describes how the *SRM Server* calls the business partner directory. [Section 4](#) shows how the data is transferred from the directory to the *SRM Server*. [Section 5](#) covers the handling of the different browser windows and [Section 6](#) gives some reference points for finding errors.

## 3 Calling up the Directory Using the SRM Server

In order for a business partner directory to be called up via the Intranet or Internet, its URL must be known in the *SRM Server*. If the business partner directory requires additional parameters for the call-up (for example log-on names or language identifier), these must also be known in the *SRM Server* before the call-up.

### OCI/OPI architecture I: call of the services



1. The SRM Server application shows the available service providers (product catalogs resp. vendor directories).
2. After the user has chosen one of them, the user will be redirected to the according web site. Therefore the parameters will be used, that have been maintained in the SRM Server customizing previously.

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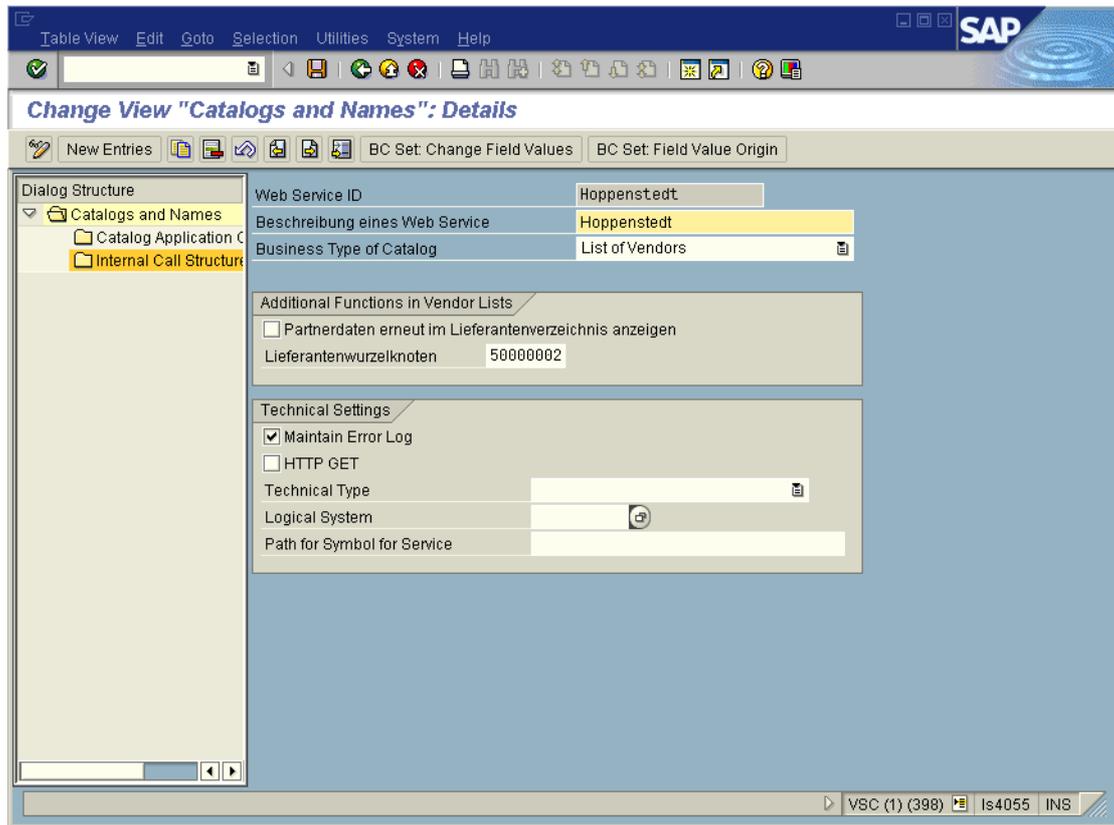
**Graphic 2:** Call-up

The URL and the business partner parameters are defined in the Implementation Guide (IMG) for *Supplier Relationship Management* → *SRM Server* → *Master Data* → *Define External Web Services (Catalogs, Supplier Directories, etc.)*. In the technical settings (see graphic 3), you can set GET or POST as the HTTP method for the call-up, the standard value is POST. The user's browser is then used to call up the business partner directory using the URL and the parameters.

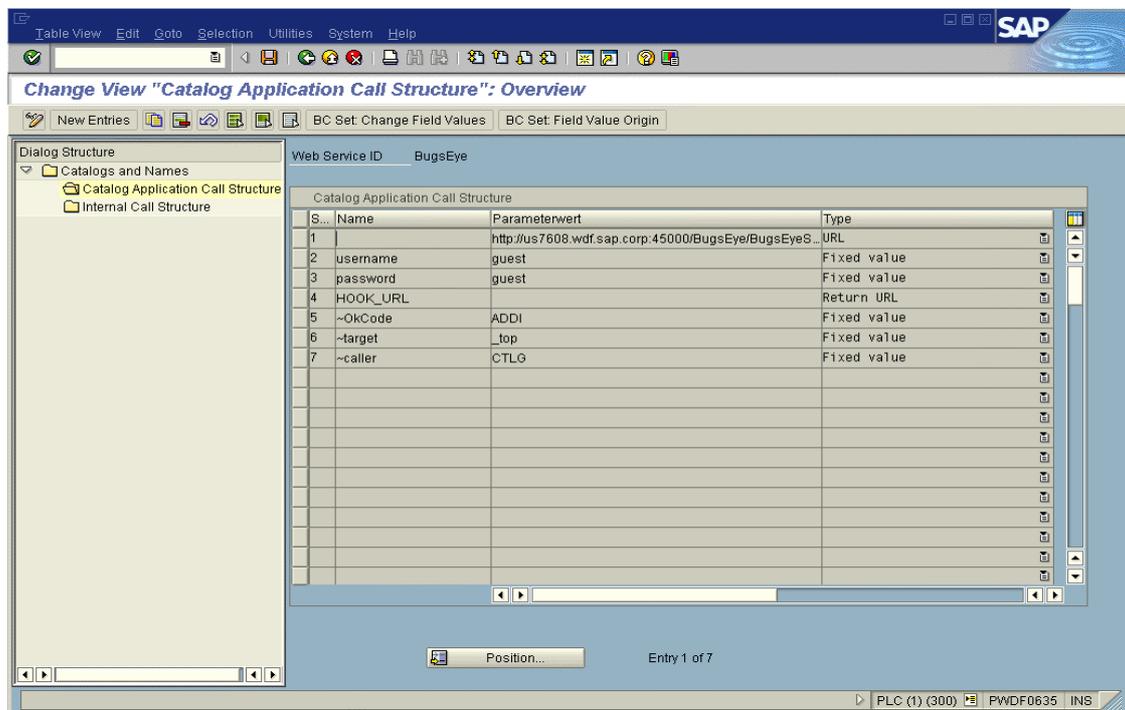
Depending on the situation, other parameters besides those defined in *SRM Server* Customizing (IMG) can also be transferred to the directory on call-up. These might be, for example, to provide the directory with generic data or to trigger specific functions in the directory. A summary of the transferred parameters is shown in [Section 3.3](#).

### 3.1 Settings in the SRM Server

The following two graphics show the maintenance screens for a business partner directory in the *SRM Server*. You can find the complete documentation on these in the description of the IMG activity.



Graphic 3: The maintenance screen for general supplier directory data



Graphic 4: The maintenance screen for the URL and parameters of the supplier directory

In the *SRM Server*, you must enter the URL and parameters in the following order in Customizing (IMG activity *Define External Web Services (Catalogs, Supplier Directories, etc.)*):

### 3.1.1 URL of the Business Partner Directory

You enter the URL of the directory in the first line of the call structure. All subsequent entries (including the return URL in line 40) are transferred to the directory as parameters. You do not need to specify a parameter name for the URL itself. *URL* is used here as the type. If the URL is longer than the field, you can distribute the URL over several successive fields that are then all of type *URL*. Parameters may not be entered as part of the URL. They must be maintained separately as described in the following section.

### 3.1.2 Parameters

After the URL, all parameters are specified that the directory requires on call-up. The provider of the directory must have documented the names and valid values of these parameters.

The parameter type can be either *fixed value* or *SAP Field*. This parameter type determines how the value of the parameter is determined from the column *Content*. In the case of fixed values, the value of the parameter is entered directly in the column *Content*. In the case of parameters of type *SAP Field* (generic parameters), however, the name of a SAP System variable is there. For the value of the parameter, the content of this system variable at runtime is used. This way it is possible, for example, to transfer the system language as a parameter (you choose *SAP Field* as type and *sy-langu* as content). In this manner you can transfer all the globally available fields at runtime from the *SRM Server* as parameters.

#### Transfer of additional parameters

If the fixed values and the generic parameter values are not sufficient for the chosen process, you can implement the Business Add-In (BAdI) *Transfer Additional Parameters* (BBP\_CAT\_CALL\_ENRICH) to transfer additional parameters from the *SRM Server* System to the directory. In this BAdI, you can determine multiple name-value pairs that are then transferred to the directory when it is called up. Also, if the format of generic parameters is to be changed (for example, if the system language is to be transferred in a different format: *DE-de* instead of simply *DE*), you can use the BAdI to convert these parameters.

As of *SRM 2.0*, a sample implementation is available for the BAdI *Transfer Additional Parameters* (BBP\_CAT\_CALL\_ENRICH). This reads the relevant user data in the *SRM Server* and transfers it to the business partner directory. (However, the sample implementation is only run if the business type of the category is set to *E-form*.)

For an example of how this data can be used by the Web service, see the ASP page (ASP = Active Server Pages) that is stored in the *SRM Server* System in the Internet Service BBP\_FREEFORM in the file *freeform.zip*. When you open all the data in an executable directory on an ASP-compatible Web server, you can use this page as a catalog application for ordering business cards. All the form fields automatically have the default values that have previously been transferred by the BAdI implementation. The user need only check the accuracy of the entries.

This ASP page can, of course, only serve as a template. The example is intended to show the options that are available on a project basis with a business partner directory and the implementation of the BAdI *Transfer Additional Parameters* (BBP\_CAT\_CALL\_ENRICH).

### 3.1.3 Return URL

The return URL is required so that the data from the external directory can be transferred back to the *SRM Server* application via the user's browser. The external directory must place it in the *Action* attribute of the transfer form. The return URL is also transferred to the external directory as a parameter. It usually contains other parameters and must not be changed.

All parameters (entered in *SRM Server* Customizing) *after* the return URL are generated as parameters for the return URL. They are not transferred to the directory as individual parameters (see [graphic 4, lines 50-70](#)). You can name the parameter for the return URL as you wish since the parameter must be evaluated by the external directory (usually

*HOOK\_URL* is used as the parameter name). The value of the return URL in Customizing must be empty, since the actual return URL is only determined during runtime.

As of *SRM Server 4.0*, the specification of the return URL and the following parameters ([see graphic 4, lines 50-70](#)) is optional in Customizing. If they are not specified, the return URL including the parameters is generated automatically. In this case *HOOK\_URL* is used as the name for the return URL. The name of the return URL must be specified only if the directory expects a different name for the return URL than *HOOK\_URL*. Even if the name has been specified for the return URL, as of *SRM Server 4.0* the parameters for the return URL need no longer be specified; they are also generated automatically in this case.

## 3.2 Additional Functions in the Business Partner Directory

The business partner directory can provide additional functions that can be used by *SRM Server* applications. In order to trigger these functions, additional parameters (defined within *OPI*) are transferred to the business partner directory when it is called up. The fact that the interface supports the additional functionality does not necessarily mean that the functionality is actually used by an *SRM Server* application.

### 3.2.1 Displaying Partner Data Again in the Business Partner Directory

The business partner data has already been transferred to the *SRM Server*. In the case of an *SRM Server* application, the business partner directory displays the data of the business partner again, since the directory contains additional data (like financial statements or similar) that are not specified in the scope of the *OCI*. The business partner is displayed directly and it is not necessary to start a new search.

If the partner data is to be displayed again in the business partner directory, the following additional parameters are transferred when you branch to the directory:

Name	Value
FUNCTION	DETAIL
DUNS_NUMBER	<DUNS number of the business partner>
PARTNERID	<Database key in the directory >

Normally, the detailed data for the respective business partner is displayed by the supplier directory. The existence of the DUNS number or the database key of the appropriate directory in the *SRM Server* is prerequisite for this functionality. These can be transferred prior to this in the *OPI* field *NEW\_PARTNER-EXT\_PARTNER\_ID* (for the DUNS number) or in the *OPI* field *NEW\_PARTNER-EXTERNAL\_KEY* (for the database key in the directory).

After the detailed data is displayed, it is possible to navigate as usual in the directory. However, in this situation, it is not possible to transfer a further business partner, since the return URL does not trigger an appropriate event in the *SRM Server* application.

### 3.3 Overview of the Call-Up Parameters

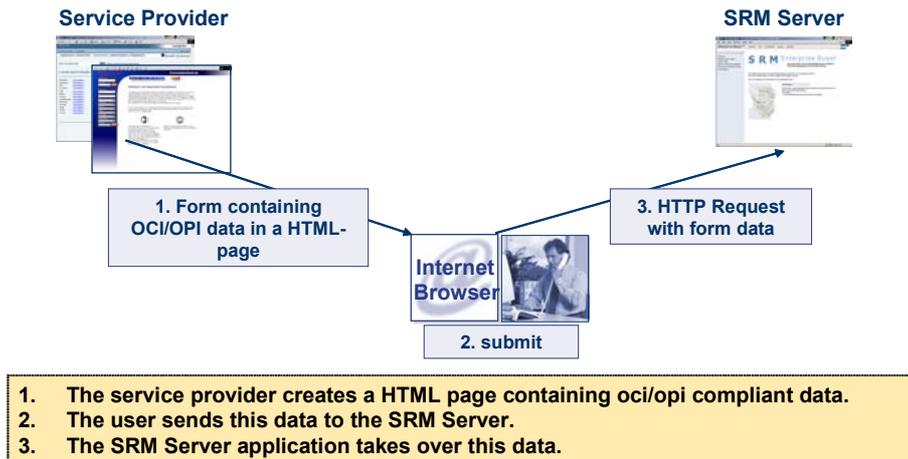
The following parameters are transferred when the directory is called up using either HTTP GET or POST, depending on what has been defined in *SRM Server Customizing*:

Description	Name of the Parameter	Content or Example
Parameters from <i>SRM Server Customizing</i>	As specified in <i>SRM Server Customizing</i>	See <a href="#">Section 3.1.2</a>
Parameters from a BAdI implementation	As implemented in the BAdI	See <a href="#">Section 3.1.2</a>
Parameters to trigger additional functions	As described in <a href="#">3.2 Additional Functions in the Business Partner Directory</a>	See <a href="#">Section 3.2</a>
Return URL	If not specified differently in <i>SRM Server Customizing</i> : ,HOOK_URL'	URL with parameters in the query string
Interface version OCI	OCI_VERSION	For example: 4.0
Interface version OPI	OPI_VERSION	For example: 1.0
Character set of <i>SRM Server Application</i>	http_content_charset	For example: iso-8859-1
Target (HTML target) for the return to the <i>SRM Server Application</i>	returntarget	For example: _parent

## 4 Return from External Directory

An HTML form is used to transfer the selected business partner data to the *SRM Server*. This form is part of an HTML page that must be created by the business partner directory. This page (the last page that is displayed by the business partner directory) is sent to the user's browser. The user can now send the form from this page to the *SRM Server* application that then copies the form data.

### OCI/OPI architecture II: taking over the data into the SRM Server Application



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**Graphic 5:** Transfer of the data

In order that you can transfer the data from the directory to the *SRM Server* via the user's browser, the return URL described in sections [3.1.3](#) and [4.1](#) must be inserted into the *Action* attribute of the HTML form created by the directory (the *Action* attribute of the form is the URL to which the form data is sent).

The data to be transferred is transported in the input fields of the form. The field names have to correspond with the syntax specified below. The "type" attribute of the input fields must be *text* or *hidden*. POST is recommended as HTTP method, since GET involves browser-dependent length restrictions.

## 4.1 Use of the Call-Up Parameters From Section 3.3

- Use of the parameters from *SRM Customizing* is directory-specific. Here, the only parameters transferred are those that the directory expects.
- Use of the parameters from a possible *BAdI* implementation is project-specific. Here, the only parameters transferred are those that the directory expects in the context of a customer project.
- The expected reactions to the parameters for triggering additional functions have already been described in [Section 3.2](#).
- The interface version has purely informative character. It clarifies which fields or processes are already supported by the *SRM Server* application.
- The return URL points to the current *SRM* application. It also contains further parameters. The URL without these parameters must be placed by the directory into the *action* attribute of the transfer form. The parameter names and their values must be placed into the attributes *name* and *value* of the individual *input* fields of the transfer form. The fields are to be of the type *hidden*.
- The character set used by the *SRM* application is transferred to the directory (parameter name: *http\_content\_charset*). When generating the HTML page with the transfer form, the directory must use this character set and must insert it into the *meta* tag after the detail *charset=*.
- The target for the return to the *SRM Server* application (parameter name *returntarget*) must be inserted into the *target* attribute of the transfer form.

## 4.2 Fields and Field Checks:

The naming convention for the fields in the *OPI* is as follows:

NEW\_PARTNER-<field name>[<index>].

The existence of the index indicates that it is possible to transfer several business partners at once. However, currently only the first one (index 1) is processed further, and all others are ignored. The following fields are contained in the interface:

Field Name	Type Length	Description
NEW_PARTNER-NAME1[]	CHAR 40	Name 1 of organization
NEW_PARTNER-NAME2[]	CHAR 40	Name 2 of organization (used if the 40 characters of name 1 are not sufficient)
NEW_PARTNER-LANGUAGE[]	CHAR 2	Language according to ISO 639
NEW_PARTNER-CO_NAME[]	CHAR 40	C/o name
NEW_PARTNER-CITY[]	CHAR 40	City
NEW_PARTNER-DISTRICT[]	CHAR 40	City district
NEW_PARTNER-POSTAL_CODE[]	CHAR 10	Postal code of city
NEW_PARTNER-POSTL_COD_PO_BOX[]	CHAR 10	Postal code of PO box
NEW_PARTNER-POSTL_COD_COMP[]	CHAR 10	Postal code of company (in the case of large customers)
NEW_PARTNER-PO_BOX[]	CHAR 10	PO box

NEW_PARTNER-PO_BOX_CITY[]	CHAR 40	City of PO box
NEW_PARTNER-PO_BOX_COUNTRY[]	CHAR 3	PO box country
NEW_PARTNER-STREET_PREFIX[]	CHAR 40	Street prefix
NEW_PARTNER-STREET[]	CHAR 60	Street
NEW_PARTNER-STREET_SUFFIX[]	CHAR 40	Street suffix
NEW_PARTNER-HOUSE_NUMBER[]	CHAR 10	House number
NEW_PARTNER-BUILDING[]	CHAR 20	Building (number or identifier)
NEW_PARTNER-FLOOR[]	CHAR 10	Floor in building
NEW_PARTNER-ROOM_NUMBER[]	CHAR 10	Room number
NEW_PARTNER-COUNTRY[]	CHAR 2	ISO code of country
NEW_PARTNER-PHONE_NUMBER[]	CHAR 30	Telephone number: Prefix + number
NEW_PARTNER-PHONE_EXTENS[]	CHAR 10	Telephone number: Extension
NEW_PARTNER-FAX_NUMBER[]	CHAR 30	Fax number: Prefix + number
NEW_PARTNER-FAX_EXTENSION[]	CHAR 10	Fax number: Extension
NEW_PARTNER-EMAIL_ADDRESS[]	CHAR 241	E-mail address
NEW_PARTNER-EXT_PARTNER_ID[]	CHAR 60	Identification number (currently only DUNS number)
NEW_PARTNER-CURRENCY[]	CHAR 5	Supplier order currency
NEW_PARTNER-EXTERNAL_KEY[]	CHAR 60	Identification number

The following fields are **required fields** in all cases:

NEW\_PARTNER-NAME1[]  
 NEW\_PARTNER-LANGUAGE[]  
 NEW\_PARTNER-COUNTRY[]  
 NEW\_PARTNER-PHONE\_NUMBER[]

Certain mandatory fields can also occur. These are then dependent on other fields and or on central address management settings of the corresponding *SRM Server* system. The following indicators influence the address field check:

- Indicator "Postal code: Mandatory entry for street address"
- Indicator "Postal code of PO box: Mandatory entry"

### 4.2.1 Indicator “Postal Code: Mandatory Entry for Street Address”

If this indicator (T005-XPLZS) is active, you have to enter a postal code when you maintain a street address. The check only works if at least one of the following fields is filled:

- Street (NEW\_PARTNER-STREET\_PREFIX[], NEW\_PARTNER-STREET[],NEW\_PARTNER-STREET\_SUFFIX[])
- House number (NEW\_PARTNER-HOUSE\_NUMBER[])
- City district (NEW\_PARTNER-DISTRICT[])

### 4.2.2 Indicator Postal Code of PO Box: Mandatory Entry

If this indicator (T005-XPLPF) is active, when you maintain a PO box address (the PO box field was filled or the indicator “PO box without number” set), it is also necessary to specify the postal code of the PO box.

Since the country of the address is a mandatory field, the country-dependent check rules are determined and the following checks are carried out:

- Was a postal code specified in conjunction with a street address when the “Postal code: Mandatory entry for street address” indicator (T005-XPLZS) is set? If this is not the case, the check notifies an error.
- Was a postal code specified in conjunction with a postal code address when the “Postal code of PO box: Mandatory entry (T005-XPLPF) indicator was set? If this is not the case, the check notifies an error.
- You cannot fill the PO box field and then set the indicator “PO box without number”. If this situation occurs, the check will notify an error.

A different city (PO box city) can only be specified if either the PO box address is specified or if the company postal code is filled.

You can find further information in the Help Portal at [help.sap.com](http://help.sap.com) → SAP R/3 and R/3 Enterprise → SAP R/3 Enterprise Release 4.70 SR01 → English → mySAP Technology Components → SAP Web Application Server → Basic Services/Communication Interfaces → Business Address Services (BC-SRV-ADR) → Address Checks.

## 5 Handling of the Browser Window

The business partner directory is normally displayed in a separate browser window. This window is both opened and closed again via the *SRM Server* application.

The HTTP response of the *SRM Server* application to the HTTP request with the *OPI* data consists of an HTML page that contains script for refreshing the window with the *SRM Server* application and for subsequently closing the directory window. This page assumes that the JavaScript reference window.opener points to the browser window of the *SRM Server* application.

You may not change the name of the original window object because this would destroy the reference between the *SRM Server* application window and the window of the directory. If this were to happen, the *SRM Server* application would no longer be able to correctly display the data that has been transferred from the directory or close the window.

If the directory opens additional windows during the search process, it must close these before the data is transferred back to the *SRM Server*.

## 6 Troubleshooting

When you create business partners using the *OPI*, errors can occur that are related to the meaning or validity of the data. In order to more easily identify such errors, you can activate the application log for a directory linked via the *OPI* in the *SRM Server* Customizing. For more information, see the Implementation Guide (IMG) for *Supplier Relationship Management* under *SRM Server* → *Master Data* → *Define External Web Services (Catalogs, Supplier Directories, etc)* → *Technical Settings* → *Maintain Error Log* (see graphic 3).

You reproduce the error after you have switched on the application log. You can use transaction *SLG1* to clear the application log in the *SRM Server*. Use *BBP\_OPI* as the entry for the field *Object*. You can find more information on the application log in the F1 Help *Maintain Error Log*.