SAP BusinessObjects™

Supplement for Salesforce.com

- SAP BusinessObjects Data Services 4.1 Support Package 1 (14.1.1.0)

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Contents

Introduction

This user guide tells you how to use the SAP BusinessObjects Data Services Adapter for Salesforce.com interface to integrate Salesforce.com with Data Services.

The Data Services Adapter for Salesforce.com interface allows you to create a datastore that connects to the Salesforce.com web service and retrieves data using Data Services data flows.

1.1 Audience and assumptions

This user guide assumes the following:

- You understand how to use the most current version of SAP BusinessObjects Data Services to design and run batch and real-time data flows and administer Data Services processes. (Administer adapters from the Administrator.)
- You have a working knowledge of Salesforce.com..
- You know what an adapter is and the role it plays in business systems integration.
- You are familiar with how to use SQL query statements.
- You understand Changed Data Capture concepts.
- You are familiar with object-oriented modeling and can work with an object-oriented XML configuration file.
- Because you will integrate Data Services, the Data Services Adapter for Salesforce.com, and Salesforce.com, familiarity with systems administration and systems integration issues is recommended.

Overview and installation

2.1 Installing the Adapter for Salesforce.com

The SAP BusinessObjects Data Services Adapter for Salesforce.com is automatically installed when you install Data Services version 12.0.0 or later. The adapter is associated with several files including:

- Adapter jar files
- Adapter configuration templates
- Salesforce.com Software System extensions
- *User's Guide for Adapter for Salesforce.com* (this document)

2.1.1 Requirements

The Job Server you associate with adapters must be configured to manage adapters. For general Job Server installation and configuration information, see the *SAP BusinessObjects Data Services Installation Guide*.

Note:
For information about Salesforce.com, visit the Salesforce.com Web page.

Related Topics

- Deployment overview

2.2 Adapter overview

The SAP BusinessObjects Data Services Adapter for Salesforce.com allows you to access Salesforce.com data from within the native Data Services extraction, transformation and loading (ETL) environment. The adapter interface allows you to quickly and easily take advantage of Salesforce.com by:

- Supporting a fully automated process for Salesforce.com configuration
- Allowing you to browse Salesforce.com schema metadata in the same manner as all sources and targets from within the Designer interface

2.2.1 To use the Adapter for Salesforce.com from SAP BusinessObjects Data Services

1. Install SAP BusinessObjects Data Services version 12.0.0 or later (for more information, see the *Installation Guides*).

   Installing the software automatically installs the Salesforce.com adapter.
2. Configure the Job Server local to your installation of the software for adapter management. See the *Installation Guides* and the *Administrator Guide* for Job Server configuration details.
3. Configure the SAP BusinessObjects Data Services Adapter for Salesforce.com interface.

   Configure one or more adapter instances. You can configure and use multiple instances simultaneously.
4. Through the Designer, use the adapter inside data flows. You can:
   - Create the adapter's datastore
   - Import the adapter's metadata
   - Use imported metadata as sources in your data flows
   - Run jobs and verify results

Deploying the Adapter

This section explains the actions required to deploy the SAP BusinessObjects Data Services Adapter for Salesforce.com interface. Tasks are sequenced in logical order of performance. However, you may need to modify the sequence based on your environment.

3.1 Deployment overview

All Data Services adapters communicate with Data Services through a designated Adapter Manager Job Server. An adapter must be installed on the same computer as this Job Server before you can integrate the adapter with the software using the Administrator and Designer. After the adapter is installed:

1. Use the Server Manager utility to configure adapter connections with the Adapter Manager Job Server. For details, see the "Server management" section in the *Data Services Administrator Guide* as well as the "Adapters" section in the *Data ServicesManagement Console Guide*.
2. From the Administrator:
   - Configure an adapter instance.
   - Start and stop the adapter instance.
3. From the Designer:
   - Create the datastore in the object library. The datastore and adapter make it possible for you to import metadata from Salesforce.com into the software.
   - Browse and import metadata through the datastore. Use metadata accessed through the adapter to create batch and/or real-time jobs. For details, see the "Adapter datastores" section of the *Data Services Designer Guide*.
   - Design flows that move Salesforce.com data through the applications you design using the software.
   - Run applications to finalize the integration process (includes troubleshooting and parameter adjustments).

3.2 Configure the adapter

Integrate SAP BusinessObjects Data Services with Salesforce.com by combining an instance of the Adapter for Salesforce.com with a data flow created in the Designer. To use an adapter instance, you must first configure it as described in this section. You can configure one or more adapter instances.

3.2.1 Configure an adapter instance

Use the Administrator to add an Adapter for Salesforce.com to the SAP BusinessObjects Data Services system and to edit existing adapter configurations. Until you add the adapter in the Administrator, you cannot run jobs using information from that adapter.

Note:
Before you add an adapter in the Administrator, you must first establish Administrator connection to your adapter-enabled repository. For general information on connecting repositories to the Administrator, refer to the “Administrator Management” section of the *Management Console Guide*.

3.2.1.1 To add an adapter instance in the Administrator

1. Select a Job Server name under the **Adapter Instances** node in the navigation tree. Or, select **Adapter Instances** > **Job Server**.
2. Select the Configuration tab.
3. On the Adapter Instance Configuration page, click **Add** to see a list of adapters managed by that Job Server.
4. Select the Adapter for Salesforce.com from the list, then click **Apply**.
5. Complete the Adapter Instance start-up configuration form.

Option	Description
Adapter Instance Name	(Required) Enter a unique name to identify this instance of the adapter.
Access Server Host	Leave blank (or you can provide the correct Access Server Host information). **Note:** If you enter incorrect information in this text box, configuration will fail with an error message.
Access Server Port	Leave blank (or you can provide the correct Access Server Port information). **Note:** If you enter incorrect information in this text box, configuration will fail with an error message.
Character Set	Converts text characters to and from bytes.
Adapter Retry Count	Applies if the adapter instance fails or crashes. Enter 0 for no retries and a negative number for indefinite retries.
Adapter Retry Interval	Wait in milliseconds between adapter retry attempts.
Classpath	Indicates the -classpath Java parameter value when the adapter starts.
Autostart	When set to True, the adapter interface automatically starts when the Administrator starts.
Trace mode	Set this flag to control the number of trace messages the adapter writes. There are two settings: **False** Adapter interface writes minimal information messages. The adapter writes trace message to the adapter_instance_name_trace.txt file in the LINK_DIR\adapters\logs directory. **True** Adapter interface writes additional information messages to help debug problems.
Additional Java Launcher Options	Enables when launching the Java process that hosts the adapter. **Note:** If you are connecting to the adapter from behind a proxy server, append the following to the Additional Java Launcher options: `-Dhttp.proxyHost=proxy_server_name -Dhttp.proxyPort=proxy_server_port`

Option	Description
Adapter type name	(Read-only) The name of the adapter used to create this instance.
Adapter version	(Read-only) The version of the adapter used to create this instance.
Adapter Class	(Read-only) A name that identifies the adapter class. The name depends on the type of adapter.

6. Click **Apply** and the Administrator adds your adapter instance to the list of those available to the SAP BusinessObjects Data Services system.
7. Start the adapter, verify that it functions.

Related Topics

• Start and stop the adapter instance

3.2.2 Start and stop the adapter instance

Click the **Status** tab to view the status of all adapter instances you configured. From this tab, you can Start adapter instances and Shutdown or Abort instances that are running.

From the **Status** tab, you can also navigate to view Adapter Instance configuration details, Log Files, and Dependent Objects for each configured adapter instance.

3.3 Create the datastore

To associate the SAP BusinessObjects Data Services Adapter for Salesforce.com with data flows, you must create an adapter datastore in the Designer. For general information on creating an adapter datastore, refer to the Datastores section of the *Designer Guide*.

3.3.1 To create an Adapter for Salesforce.com datastore

1. In the Datastores tab of the Designer Object Library, right-click and select **New**.

   The "Datastore Editor" window appears.
2. Type a unique, descriptive name in the **Datastore name** box.

3. Select **Adapter** from the **Datastore type** list.
4. Select the **Job server** associated with the adapter for Salesforce.com.
5. For **Adapter instance name**, choose the instance name you configured in the Administrator.
6. Click the **Advanced** button to access Adapter Options. Configure the following options:
   a. **Username** and **Password** (for Salesforce.com access)
   b. **Web service end point** (https://www.salesforce.com/services/Soap/u/6.0)
   c. **Batch size** (200 is default)
   d. **Metadata resilience?** Select **yes** if you want the adapter to perform in any of the following ways without throwing an error message (**no** is default)

When reading from normal or CDC sources	When reading from normal or CDC sources	When loading data to Salesforce.com
If a table no longer exists, the adapter sends no record of that table to SAP BusinessObjects Data Services	If a table no longer exists, the adapter sends no record of that table to SAP BusinessObjects Data Services.	If a table no longer exists, the adapter sends no data for that table to Salesforce.com.
If a field use in a data flow no longer exists, the adapter returns a NULL value for that field to Data Services	If a field used in a dataflow no longer exists, the adapter retains a NULL value for that field to Data Services.	If a column no longer exists, the adapter sends no value for that column to Salesforce.com.
If a field used in a WHERE clause no longer exists, all conditions that use that field automatically evaluate to FALSE, possibly reducing the conditions. For example, if the WHERE clause is 'WHERE ColumnA = A and (ColumnB = B or ColumnC = C)' and ColumnC no longer exists, the clause will be processed as follows: 'WHERE ColumnA = A and (ColumnB = B or ColumnC = C)' 'WHERE ColumnA = A and (ColumnB = B or FALSE)' 'WHERE ColumnA = A and ColumnB'		

The software can push the date and datetime fields down to Salesforce.com if you use the software's default formats ("yyyy-mm-dd hh:mi:ss" for datetime and "yyyy-mm-dd" for date) in your WHERE clause.

Note:
Salesforce.com does not support the "like" operator on an ID type field. the software maps this type to varchar. The software's optimizer is unable to recognize a Salesforce.com ID field and cannot push down SQL statements containing the "like" operator in the ID field.

e. **Enable CDC** Select **yes** to configure as a CDC datastore (**no** is default).

Note:
To avoid data processing problems, it is recommended that after you create the datastore you do not modify the Enable CDC value. Instead, create a new datastore and configure with the other Enable CDC value.

f. Set **Default Based64Binary field length** to establish the default length for a Salesforce.com Base64Binary field.

7. Click **OK** to save values and finish creating the datastore.

   If you did not provide the correct user name and password, or if you entered an invalid parameter, you will see an error message stating that the "Adapter connection failed."

3.4 Working with Salesforce.com metadata

The Salesforce.com adapter supports only tables (not function calls, documents, and so on).

3.4.1 Browse and import metadata

For general information on how to browse and import metadata using a SAP BusinessObjects Data Services datastore, see the Datastores section of the *Designer Guide*.

3.4.1.1 To browse and import adapter metadata

1. Double-click your adapter datastore icon, or double-click the **Tables** icon underneath the adapter datastore icon. Alternatively, you can right-click the datastore icon and select **Open**.

   The Adapter Metadata Browser window opens with a list of table objects (and their descriptions) from Salesforce.com that are available for viewing.

2. Click to open nodes and browse the available metadata.

   Two or three folders appear under each table node. These folders include: Referenced by, References, and Columns.

- The Referenced by and References folders show relationships between the expanded table and itself as well as other tables. (For example, if a Contact belongs to an Account, it will have an AccountId column pointing to its parent account. So, Account is "referenced by" Contact and Contact "references" Account.)
- The Columns folder lists the table columns and their descriptions.

3. Right-click any node to find out if that metadata can be imported into SAP BusinessObjects Data Services. If **Import** appears as a right-click menu option, select it to import the metadata object.

Option	Imports
Table node	That table
Referenced By node	All tables directly under that node
References node	All tables directly under that node

4. You can also import metadata by name.
   a. Go to the Datastores tab of the object library.
   b. Right-click the adapter datastore and choose **Import By Name**.
   c. In the "Import By Name" window, enter the full, exact table name in the **Value** column.

3.4.2 The DI_PICKLIST_VALUES table

The Salesforce.com adapter includes a SAP BusinessObjects Data Services proprietary table you can import like any other Salesforce.com table. This table contains all Salesforce.com picklists (a set of enumerated values from which to select). To use the DI_PICKLIST_VALUES table as a source in data flows, import the DI_PICKLIST_VALUES just like you would any other table, then drag-and-drop it as a source in your data flow. Connect to a Query transform and drill down to add a WHERE clause and filter the values you require. Columns defined for this table include:

OBJECT_NAME, FIELD_NAME, VALUE, IS_DEFAULT_VALUE, IS_ACTIVE, and LABEL.

Note:
If you have translated pickup values in Salesforce.com, the LABEL column returns values for the language specified in your personal information settings. If pickup values are not translated, the VALUE and LABEL columns return the same values.

3.4.3 Open and delete imported metadata

You can open imported metadata to view input and output schemas. To open an imported table, double-click its icon. To find the icon go to the adapter datastore in the object library and open **Tables**.

From the Designer, you can also delete imported metadata by right-clicking an imported object and selecting **Delete** from the menu.

After you import metadata, it is available for use in Data Services data flows.

3.4.4 Metadata mapping

Salesforce.com data types map to SAP BusinessObjects Data Services data types as follows:

Salesforce Datatype	Description	SAP BusinessObjects Data Services Datatype
xsd:base64Binary	Base 64-encoded binary data	varchar
xsd:boolean	Boolean (True/False) values	varchar ('true' or 'false')
xsd:date	Date values	date
xsd:datetime	Date/time values (timestamps)	datetime
xsd:double	Double values	decimal
xsd:int	Integer values	int
xsd:string	Character strings	varchar

The date/time values that the Salesforce.com adapter retrieves from Salesforce.com are all in ISO 8601 format, reflect GMT time, and include a time zone field. To adjust for any time zone differences, the Salesforce.com adapter automatically performs a translation based on the associated local and server clocks. When the Salesforce.com adapter communicates datetime information to SAP BusinessObjects Data Services, the software receives those values in local time and the time zone field is not considered.

Note:
If your local and server clocks are not synchronized, translation speed is unaffected. However, if your local clock is not set to the correct time, the software may send incorrect times to Salesforce.com and changes that you expected to be returned may not be returned until a later synchronization.

Examples:

- If we are in Pacific Standard Time (PST) and the adapter receives '2005-08-10T23:00:00Z' (where 'Z' means GMT time) from Salesforce.com, the value sent to the software will be '2005.08.10 15:00:00'.
- You want to retrieve information that has changed since yesterday at 6:00 PM local time. You write a condition stating: SFDC_TIMESTAMP >='2005.08.10 18:00:00' and the software sends this

condition "as is" to the adapter. Because Salesforce.com will not understand this timestamp (it lacks a time zone indicator), the Salesforce.com adapter automatically converts the time specified in the software to a format that Salesforce.com understands, formatting the value to '2005-08-11T01:00:00Z'.

3.4.5 CDC datastore tables and generated columns

The CDC table nodes differ from normal tables. If you expand a CDC table node, you will only see a Columns folder that contains the same columns as the original table with three generated columns. The generated columns are used for CDC data retrieval. Generated columns include:

- DI_SEQUENCE_NUMBER: The sequence number (int).
- DI_OPERATION_TYPE: The operation type (varchar).
- SFDC_TIMESTAMP: The Salesforce.com timestamp (datetime).

3.5 Design flows

After importing metadata as datastore objects in the Designer, you can use that metadata when designing data flows.

(For general application design and administration information, see the *SAP BusinessObjects Data Services Designer Guide* and the *SAP BusinessObjects Data Services Administrator Guide*.)

3.5.1 Changed data and Salesforce.com

One simple usage of the Salesforce.com tables is to read changed data. The following example explains one way you can schedule SAP BusinessObjects Data Services to query Salesforce.com for changed data after loading Salesforce.com tables into your local repository.

3.5.1.1 To read changed data from Salesforce.com

1. Import CDC table metadata into your local repository.
2. Build a data flow by selecting a CDC table as a source object and connecting that source to a Query transform.

3. Drill into the source object and select the following tabs to set CDC-related options:

   CDC Options. CDC table options include:

Option Name	Description
CDC subscription name	(Required) A name that Data Services uses to keep track of your location in a continuously growing Salesforce.com CDC table. Salesforce.com CDC uses the subscription name to mark the last row read so that the next job starts reading the CDC table from that position. You can use multiple subscription names to identify different users who read from the same imported Salesforce.com CDC table. Salesforce.com CDC uses the subscription name to save the position of each user. Type a new name to create a new subscription. A subscription name must be unique within a datastore, owner, and table name. For example, you can use the same subscription name without conflict with different tables that have the same name in the same datastore if they have different owner names. The software requires that you enter a value for this option.
Enable check-point	Enables the software to restrict CDC reads using check-points. After a check-point is in place, the next time the CDC job runs, it reads only the rows inserted into the CDC table since the last check-point. By default, check-points are not enabled.
Get before-image for each update row	Some databases allow two images to be associated with an UPDATE row: a before-image and an after-image. If your source can log before-images and you want to read them during change-data capture jobs, enable this option. By default, the software retrieves only after-images.

   a. Specify a value for the **CDC subscription name**.
   b. If you select **Enable check-point**, the software remembers the timestamp of last load and automatically applies that timestamp as the start time for the next load. By using the **Enable check-point option**, you do not need to define a WHERE clause in the Query transform.
   c. Do not select **Get before-image for each update row** (for use only if your source can log before-images and you want to read them during change-data capture jobs) as Salesforce.com provides no before-images.

   Adapter source options include:

Option Name	Description
Column delimiter	Specify a one-character delimiter for data columns by entering the forward-slash (/) followed by a three-digit ASCII code to indicate an invisible character.

Option Name	Description
Row delimiter	Specify a one-character delimiter for data rows by entering the forward-slash (/) followed by a three-digit ASCII code to indicate an invisible character.
Escape character	Must be one character.
CDC table source default start date	This option works with the CDC **Enable check-point** option. Salesforce.com requires the software to supply a start date and end date as part of a changed data request.
Fetch deleted records	Set this value to **Yes** to also fetch the deleted records from the table. The default value is **No**.

4. Add a Map_CDC_Operation transform after the Query transform.
5. Drill into the Map_CDC_Operation transform and configure the CDC columns in the transform editor.
   - Note that the software automatically pre-populates the **Sequencing column** and the **Row operation columns** fields with DI_SEQUENCE_NUMBER and DI_OPERATION_TYPE, respectively.

     The software fills DI_SEQUENCE_NUMBER using sequential numbers starting at 0 every time the CDC operation starts. Returned rows are always sorted by this column.

     The DI_OPERATION_TYPE indicates the type of operation performed on the object: INSERT, UPDATE or DELETE (I, U or D). The adapter does not return before-image records (B).
   - The SFDC_TIMESTAMP value will always indicate the time at which the operation was performed, (when the object was inserted, deleted, or last updated).
   - The other column values may or may not be set by the software, depending on the operation type. For a DELETE operation, only the ID will be set. For UPDATE and INSERT, the columns are set to represent the state of the object after the operation.
6. Connect the Map_CDC_Operation transform to your target table (where the INSERT, UPDATE and DELETE commands will be executed).

The following table shows the CDC operation mapping of data from Salesforce.com to the software:

Salesforce.com data since last CDC operation	Records returned to Data Services
INSERT	INSERT
UPDATE	UPDATE
DELETE	DELETE
INSERT & UPDATE	INSERT & UPDATE
INSERT & DELETE	DELETE

Salesforce.com data since last CDC operation	Records returned to Data Services
UPDATE & DELETE	DELETE
INSERT & UPDATE & DELETE	DELETE

If an object was inserted and updated after the reference time, two CDC records are returned to the software, one for each operation. However, both records will contain the same information, reflecting the state of the object after the UPDATE. So, in this type of situation, there is no way of knowing the object state after the INSERT operation.

Related Topics

- Designer Guide: Techniques for Capturing Changed Data, Using mainframe check-points
- Designer Guide: Techniques for Capturing Changed Data, Using before images from mainframe sources

3.5.1.2 Using check-points

If you can replicate an object, Salesforce.com allows applications to retrieve the changed data for that object. Salesforce.com saves changed data for a limited amount of time (for details, see your Salesforce.com technical documentation). Salesforce.com monitors neither the retrieving application nor the data retrieved.

When you enable check-points, a CDC job in Data Services uses the subscription name to read the most recent set of appended rows and to mark the end of the read (using the SF_Timestamp of the last record). If you disable check-points, the CDC job always reads all the rows in the CDC data source which increases processing time.

To use check-points, on the Source Table Editor enter the CDC Subscription name and select the **Enable check-point** option. If you enable check-points and run a CDC job in recovery mode, the recovered job begins to review the CDC data source at the last check-point.

Note:
To avoid data corruption problems, do not reuse data flows that use CDC datastores because each time a source table extracts data it uses the same subscription name. This means that identical jobs, depending upon when they run, can get different results and leave check-points in different locations in the file.

3.5.1.3 Using the CDC table source default start date

The CDC table source default start date is dependent on several factors. This date can be a value you specify, a check-point value, or a date related to the Salesforce.com retention period.

When you do not specify a value for the start date:

- SAP BusinessObjects Data Services uses the beginning of the Salesforce.com retention period as the start date if a check-point is not available (during initial execution).
- The software uses the check-point as the start date if a check-point is available and occurs within the Salesforce.com retention period. If the check-point occurs before the retention period, the software uses the beginning of retention period as the start date.
- However, if a table is created within the Salesforce.com retention period and a check-point is not available, the execution returns an error message. Drill into the source object and enter a value for the CDC table source default start date. The value must be a date that occurs after the date the table was created to work around this problem.

When you specify a start date value, if your date occurs:

- Within the Salesforce.com retention period and no check-point is available, then the software uses your specified value.
- Within the Salesforce.com retention period and after the check-point, the software uses your specified value.
- Within the Salesforce.com retention period and before the check-point, the software uses the check-point value as the start date.
- Outside of the Salesforce.com retention period, the Salesforce.com Adapter ignores the value.

3.5.1.4 Limitations

The Table Comparison and SQL transforms and the lookup and lookup_ext functions cannot be used with a source table imported with a CDC datastore because of the existence of the SAP BusinessObjects Data Services generated columns. You cannot compare or search these columns.

3.6 Run applications

After you design your application(s), you must run them to finalize SAP BusinessObjects Data Services-Salesforce.com integration. These are the basic startup tasks:

- In the Administrator, start each application to be used in the integration.

  Real-time: Start services and applications that use this service.

  Batch: Start/schedule the job.

- In the Administrator, monitor progress for each job. You can monitor pending requests, processed requests, failed requests, and status.

Note:
The Administrator does not automatically refresh views. To refresh views, go to the View menu and select Refresh.

- In the Administrator, monitor progress for each (real-time) service.
- On the Salesforce.com Server, monitor messaging progress for the configured queues.

If problems occur:

- For error message descriptions and suggested troubleshooting actions, see the Understanding error messages section.
- To understand the source of a problem, use error and log tracing.
- To enable debug tracing for the adapter instance, use the Administrator.

Related Topics

- Understanding error messages

3.7 Understanding error messages

During the course of designing and deploying your jobs, you may encounter error messages. Find error messages and their descriptions (including suggested actions) listed in the following table:

Error Message	Description
Login operation has failed. SForce.com message is {0}	Invalid user name/password or user account is blocked for another reason, which is explained by the Salesforce.com message. ACTION: Confirm password or contact Salesforce.com for more information.
Unknown object type. SForce.com message is {0}	The table used in the query is no longer available or visible to the user. ACTION: Browse Salesforce.com metadata and look for the table.
Invalid field. SForce.com message is {0}	One or more fields used in the query are no longer available. ACTION: Browse Salesforce.com metadata to determine if there is a difference between the imported table and the actual metadata. If necessary, rebuild your data flow.
Unsupported SQL statement: {0}	Your data flow is not supported by Salesforce.com. ACTION: Rebuild according to the restrictions described in this document.

Error Message	Description
Malformed query: {0}. SForce.com message is {1}	The submitted query is unsupported by Salesforce.com. Most likely you have encountered a bug translating between data flows and Salesforce.com queries. ACTION: Contact product support.
Invalid session parameter: name = {0}, value = {1}	The URL or batchSize session parameter is invalid. Either the URL is malformed or batchSize is not a positive integer. ACTION: Check the integrity of the URL and confirm that the batchSize is a positive integer.
Invalid CDC query: {0}	The data flow built over a CDC table is invalid. ACTION: Check for (and fix) any missing WHERE clause condition for SFDC_TIMESTAMP.
There was a service connection error when talking to SForce.com: {0}	The adapter could not connect to Salesforce.com. ACTION: Confirm that the web service end point is correct and accessible through your network.
There was a communication error when talking to SForce.com: {0}	A protocol error occurred. ACTION: Contact product support.
There was an unexpected error. SForce.com message is {0}	An unknown, unexpected error occurred. ACTION: Contact product support.

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