

# Integration of Cisco Agent Desktop for Cisco Unified Contact Center Enterprise and Express

## Sample Salesforce.com Java API Interaction

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/*****
 * Method: execSFQuery()
 * This method first builds the SOSL query string (a simple SQL statement)
 * using the object name and the Phone Number/ANI passed as input arguments.
 * This method then calls the query() method of the SoapBindingStub Class to
 * execute the actual query.
 * If any error or exception occurs, this method returns SystemError.
 * If the query was executed successfully, this method checks the size of the
 * return QueryResult object to determine if a match was found or not, or if
 * more than one match was found.
 *
 * Input:
 *      1. SForce Object Type (String) - either Contact or Account
 *      2. Column to Query (String) - either phone or email
 *      3. Query Value (String) - either ANI/Phone Number or Email Address
 * Output: Return Code (String)
 *      SystemError
 *      NoMatchFound
 *      Success
 *      003 (More than one match for Contact Lookup)
 *      001 (More than one match for Account Lookup)
 *****/
public String execSFPhoneQuery(String strQryValue)
{
    String strReturnCode;
    String strQryString = "";
    String strContactActID = "";
    String strAccountID = "";
    int intArrayCounter = 0;
    SearchResult srchRslt = null;
    Vector vctContactAcctID = new Vector();
    Vector vctAccountID = new Vector();
    try
    {
        slog.writeFile("SForceLokup-execSFPhoneQuery(): INPUT - ANI/Phone = " +
strQryValue, "3");
        // First get a connection
        splkStub = objSOAPPool.getConnection();
        bindingStub = splkStub.getStub();
        if (bindingStub != null)
        {
            // Obtained valid connection to SForce.
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Obtained valid SForce
Connection", "3");
            strQryString = "Find { ";
            strQryString = strQryString + strQryValue;
            strQryString = strQryString + " } in PHONE FIELDS ";
            strQryString = strQryString + " RETURNING Contact(accountId), Account(Id)";
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Query String: " + strQryString,
"3");

            srchRslt = bindingStub.search(strQryString); // Execute the query
            SearchRecord[] srchRecords = srchRslt.getSearchRecords(); // Put the
results into an array of SearchRecords
            if ( (srchRecords != null) &&( srchRecords.length > 0) ) // Check the
number of records returned
            {
                for (int i=0; i<srchRecords.length; i++)
                {
                    Object objSObj = srchRecords[i].getRecord();
                    if (objSObj instanceof Contact)
                    {

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        Contact objContact = (Contact) srchRecords[i].getRecord();
        strContactActID = objContact.getAccountID();
        if (strContactActID != null)
            vctContactAcctID.addElement(strContactActID); // Add the AccountID to
the vector only if it is not null
    }
    else if (objSObj instanceof Account)
    {
        Account objAccount = (Account) srchRecords[i].getRecord();
        strAccountID = objAccount.getId();
        if (strAccountID != null)
            // Add the AccountID to the vector only if it is not null
            vctAccountID.addElement(strAccountID);
    }
    else
        slog.writeFile("SForceLokup-execSFPhoneQuery(): Search result is not from
Contact or Acct " + strQryString, "3");

        intArrayCounter++;
    } // End for loop

    // For debugging purpose, display the Vector
    //displayArray(vctContactAcctID);
    //displayArray(vctAccountID);

    slog.writeFile("SForceLokup-execSFPhoneQuery(): Contact Lookup Results
Returned =" + vctContactAcctID.size() , "3");
    // If the size of the Contact Lkp Array is 1, then return one match found.
    if (vctContactAcctID.size() == 1)
    {
        slog.writeFile("SForceLokup-execSFPhoneQuery(): Single Record Match Found
in Contact object ", "3");
        slog.writeFile("SForceLokup-execSFPhoneQuery(): AccountID = " +
vctContactAcctID.get(0), "3");
        this.strAccountID = (String) vctContactAcctID.get(0);
        strReturnCode = this.strSuccess;
    } // End if (vctContactAcctID.size() == 1)
    else if (vctContactAcctID.size() > 1)
    {
        // else check if the SObjectID value in the Array is the same or different
        // If it is the same in all array elements, return one match found
        // else return more than one match found
        slog.writeFile("SForceLokup-execSFPhoneQuery(): Compare AcctIDs to
determine if Single / Multiple match found in Contact Object...", "3");
        int intrC = compareAcctID(vctContactAcctID);
        if (intrC == 1)
        {
            // Single match Found
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Single match found in
Contact Object...", "3");
            slog.writeFile("SForceLokup-execSFPhoneQuery(): AccountID = " +
vctContactAcctID.get(0), "3");
            this.strAccountID = (String) vctContactAcctID.get(0);
            strReturnCode = this.strSuccess;
        } // End if (intrC == 1)
        else
        {
            // Multiple match Found
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Multiple match found in
Contact Object...", "3");
            strReturnCode = this.strMoreThanOneMatchContact;
        } // End else if (intrC == 1)
    } // End else if (vctContactAcctID.size() > 1)
    else
    {
        // No Match found in Contacts
        slog.writeFile("SForceLokup-execSFPhoneQuery(): No records Found for " +
strQryValue + " in Contact object ", "1");
        slog.writeFile("SForceLokup-execSFPhoneQuery(): Account Lookup Results
Returned =" + vctAccountID.size() , "3");
        // If the size of the Account Lkp Array is 1, then return one match found.

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        if (vctAccountID.size() == 1)
        {
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Single Record Match Found
in Account object ", "3");
            slog.writeFile("SForceLokup-execSFPhoneQuery(): AccountID = " +
vctAccountID.get(0),"3");
            this.strAccountID = (String) vctAccountID.get(0);
            strReturnCode = this.strSuccess;
        } // End if (vctAccountID.size() == 1)
        else if (vctAccountID.size() > 1)
        {
            // else check if the SObjectID value in the Array is the same or
different
            // If it is the same in all array elements, return one match found
            // else return more than one match found
            slog.writeFile("SForceLokup-execSFPhoneQuery(): Compare AcctIDs to
determine if Single / Multiple match found in Account Object..." ,"3");
            int intRC = compareAcctID(vctAccountID);
            if (intRC == 1)
            {
                // Single match Found
                slog.writeFile("SForceLokup-execSFPhoneQuery(): Single match found in
Account Object..." ,"3");
                slog.writeFile("SForceLokup-execSFPhoneQuery(): AccountID = " +
vctAccountID.get(0),"3");
                this.strAccountID = (String) vctAccountID.get(0);
                strReturnCode = this.strSuccess;
            } // End if (intRC == 1)
            else
            {
                // Multiple match Found
                slog.writeFile("SForceLokup-execSFPhoneQuery(): Multiple match found
in Account Object..." ,"3");
                strReturnCode = this.strMoreThanOneMatchAccount;
            } // End else if (intRC == 1)
        } // End else if (vctAccountID.size() > 1)
        else
        {
            // No Match found in Accounts
            slog.writeFile("SForceLokup-execSFPhoneQuery(): No records Found for " +
strQryValue + " in Account object ", "1");
            strReturnCode = this.strNoMatch;
        } // End else (vctAccountID.size() == 1)
    } // End else (vctContactAcctID.size() == 1)
} // End if ((srchRecords != null) &&( srchRecords.length > 0) )
else
{
    // No Match found in Contacts / Accounts
    slog.writeFile("SForceLokup-execSFPhoneQuery(): No records Found for " +
strQryValue + " in Contact / Account object ", "1");
    strReturnCode = this.strNoMatch;
} // End else ((srchRecords != null) &&( srchRecords.length > 0) )

    slog.writeFile("SForceLokup-execSFPhoneQuery(): Query Return Code " +
strReturnCode, "3");
    objSOAPPool.returnConnection(splkStub);
} // End if (bindingStub != null)
else
{
    // Unable to obtain a proper connection - Return Error
    slog.writeFile("SForceLokup-execSFPhoneQuery(): ERROR - unable to obtain SForce
connection", "1");
    slog.writeFile("SForceLokup-execSFPhoneQuery(): ERROR - returning error code "
+ this.strSalesForceError, "1");
    strReturnCode = this.strSalesForceError;
} // End else (bindingStub != null)
return strReturnCode;
} // End try
catch (Exception ex)
{
    slog.writeFile("SForceLokup-execSFPhoneQuery(): ERROR - Exception is " + ex,"1");

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        strReturnCode = strErrorCode;  
        return strErrorCode;  
    } // End catch  
} // End method execSFPhoneQuery()
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