Reporting: Web Services as Data Source

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Case Study

• Need to access an XML field in a table
• XML field is an XML file, say with all details of a 911 CALL.
• Create a Report with fields from XML file
Technology

• Visual Studio 2003
• SQL Server 2005
• Crystal Reports 2008
Three Step Solution
Solution - SQL

1. Wrote a SQL Script using Open XML which will convert the xml format to a document representation.
Solution – Web Services

• Wrote a Web Service that create a DB Connection, use this stored procedure and access the XML file.

• Input Parameter for Web Service is the Identifier for the XML File
Sample code

<WebMethod()> _
Public Function GetCallType(ByVal IdentiKey As Integer) As Integer
    Dim oConn As SqlConnection
    oConn = New SqlConnection("packet size=4096;user id=sa;pwd=Password1;data source=P"
    oConn.Open()
    Dim oCommand As SqlCommand
    oCommand = New SqlCommand("getxml", oConn)
    oCommand.CommandType = CommandType.StoredProcedure
    Dim oParam As SqlParameter
    oParam = New SqlParameter("@identifier_key", IdentiKey)
    oCommand.Parameters.Add(oParam)
    Dim iResult = System.Convert.ToInt32(oCommand.ExecuteScalar())
    oConn.Close()
    'Nature = "Test"
    Return iResult
End Function
Solution – Crystal Reports

• Use the Web Service as Data Source
• Displays the result in Report
Disadvantages of this approach

• Can Access only one field at a time.
• Have to make DB connection call each time to access the file
• Crystal cannot access multiple fields at a time.
Crystal Reports : Step -1
Step-2

Browse the data source for the tables you want to add.
(Note: to edit the alias for a table, select the table in the 'Selected Tables' tree and click on it or press the F2 key.)

Available Data Sources:
- Database Files
- Java Beans Connectivity
- JDBC (JNDI)
- ODBC (RDO)
- OLAP
- OLE DB (ADO)
- Salesforce.com
- Universes
- XML and Web Services
  - Make New Connection
- http://localhost/Webservice
- Repository
- More Data Sources

Selected Tables:
Step-3
Step-4

XML and Web Services

Web Service Location
Specify the location of your Web Service file

- Use Local WSDL:
  - Local WSDL File:
- Use HTTP(S) WSDL:
  - HTTP(S) WSDL URL: localhost/WebService/Service1.asmx?WSDL
- Use WS-Security Config File:

< Back  Next >  Finish
Step-5

XML and Web Services

Authentication for HTTP WSDL URL

Enter a user ID and password (if necessary) for HTTP WSDL URL

HTTP(S) WSDL User ID:  
sphilipose

HTTP(S) WSDL Password:  
************

Finish
Step-6

Web Service, Port and Method
Specify a Web Service, a port and a method

Services: Service1

Ports: Service1Soap

Methods: GetCallType
Step-7