ISBE-SIS Data Transfer Web Service

Overview:
The web service provides a simple and secure method to programmatically automate the sending and retrieving of batch data to SIS and the web service is hosted on a secure web server so all data transfers will be secure and encrypted so there is no need for external encryption or decryption of data.
Note: Your system must use TLS1.2 or TLS1.3 protocol.

Each school district using the web service will need a unique Activation Key which identifies the user and the system the batch data is associated with. SIS provides a method for the district to create a production activation key.

For testing purposes a QA server is available and vendors can request a test activation key by getting the ok of one of your school districts using your software package by having the district send an email to help@isbe.net stating their ok to provide a test activation key and the name of the software vendor and vendor contact email. Activation keys are generated specific for each district which is why you need to get approval from a school district.

Any modern programming language should have the ability to call a web service to automate the sending and retrieving of batch data.
Recommended Google searches for details on programming around a web service:

- How to consume a webservice in [your programming language here]
- How to consume a webservice in c#
- How to consume a webservice in java
- How to consume a webservice in vb.net
- How to consume a webservice in php

Test/QA URL of the web service is:
https://appsqa.isbe.net/ISBEDataTransferService/ISBEDataTransferService.asmx
URL for WSDL:
https://appsqa.isbe.net/ISBEDataTransferService/ISBEDataTransferService.asmx?wsdl
(To obtain an activation key for Test/QA check with your ISBE systems contact person)

Production URL of the web service is:
https://apps.isbe.net/ISBEDataTransferService/ISBEDataTransferService.asmx
URL for WSDL:
https://apps.isbe.net/ISBEDataTransferService/ISBEDataTransferService.asmx?wsdl

Web Service Send Data Method

SendData(ActivationKey, DataName, DataContents, ReturnedOK, ReturnMessage)

Parameter Descriptions:

ActivationKey (string): unique identity key for each outside entity.
DataName (string): the name you choose to give to your data package*.
DataContents (string): single string containing the data to be sent.
ReturnedOK (Boolean): True if no problems with the data transfer and False if an error occurred.
ReturnMessage (string): generally this will contain details if the ReturnedOK if False.

- *** The DataName (the name you choose to give to your data package) must always be unique for each batch sent.** Also, the file name you place in your batch header line must be unique and must match the value of the DataName parameter.
  - **We suggest using a naming convention similar to this:**
  - "979591790290001_ELL_12182015_1432.csv"
  - RCDTS_TypeOfBatch_Date_MilitaryTime

*** Web Service Retrieving Data Method***

DataContents = RequestData(ActivationKey, DataName, ReturnedOK, ReturnMessage)

Parameter Descriptions:

ActivationKey (string): unique identity key for each outside entity.
DataName (string): the name of the data package to retrieve.
DataContents (string): single string containing the retrieved data.
ReturnedOK (Boolean): True if no problems with the data transfer and False if an error occurred.
ReturnMessage (string): generally this will contain details if the ReturnedOK if False.

Example Calls in Visual Basic:

Sending Data

```
Dim _ws As New ISBEDataTransferService.DataTransfer
Dim _DataContents As String = ""
Dim _ReturnedOK As Boolean
Dim _ReturnMessage As String = ""

_ws.SendData"(ActivationKey", "DataName", _DataContents, _ReturnedOK, _ReturnMessage)
  If _ReturnedOK = False Then
     'Put code to handle failed sending of data here
  End If
```

Retrieving Data

```
Dim _ws As New ISBEDataTransferService.DataTransfer
Dim _ReturnedOK As Boolean
Dim _ReturnMessage As String = ""
Dim _DataContents As String = ""

_DataContents = _ws.RequestData("ActivationKey", "DataName, _ReturnedOK, _ReturnMessage)
  If _ReturnedOK = False Then
     'Put code to handle failed request here
  Else
     'Put code to process the returned data here
  End If
```

Developer NOTES:

- After sending a batch of data which you expect to generate a return batch, only call the web service no more than once per minute to avoid over stressing the web service. Check with the ISBE system developer you are working with to determine the optimal time to wait before calling the RequestData. For SIS a realistic wait time is around 5 minutes for most batches.

- Also since there is always the possibility of a system problem failing to produce a return batch always add a timeout to your system that preferable after 24 hours if you have not been able to retrieve your batch stop trying to and generate a notification to someone on your end and have them call ISBE and talk to the developer you are working with.

- If you are calling the RequestData() method to retrieve a batch and the ReturnedOK = True but no batch was returned then you can choose to check the ReturnMessage which may contain a Status message of the batch you attempted to retrieve:
  - '901-Batch picked up for processing but failed to complete.
    - **An error has occurred while SIS was processing the batch. Call the SIS helpdesk and they can reset the batch.**
  - '902-In Queue, Batch Not Processed'
    - **The batch has been received and is in the queue but is still waiting to be processed.**
  - '903-Batch Not Found'
    - **The batch being requested was not found, resubmit your batch.**
  - '904-Batch Already Retrieved'
    - **The batch being requested has already been retrieved. A batch can only be retrieved one time via the web service.**
  - '905-Batch ready for pickup'
    - **The batch has been processed and is waiting to be retrieved.**

ISBE System Specific Details:

- <u>Student Information System Additional Details</u>
  - Making a RequestData call using the keyword “DataNameList”” for the DataName parameter causes the service to return a comma delimited list of DataNames waiting to be retrieved.
  - When sending if the data fails level 1 validation the ReturnedOK will be False and the ReturnMessage will contain the validation error.
  - When sending data the DataName (the name you choose to give to your data package) must always be unique for each batch sent. Also, the file name you place in your batch header line must be unique and must match the value of the DataName parameter. We suggest using a naming convention similar to this:
    - "979591790290001_ELL_12182015_1432.csv"
    - RCDTS_TypeOfBatch_Date_MilitaryTime