ESD WEB SERVICEDOCUMENTATIO

ESD Web Service Documentation

This documentation covers everything you need to know about the custom ESD Web Service

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Introduction

The custom made ESD Web service is a system based on the REST (Representational State Transfer) Architecture, and is used to sign invoices sent over the network. It also provides an interface for querying a previously signed invoice given the invoice number.

System Overview

The custom made ESD Web service is designed to work over the internet implementing REST Protocol. To sign invoices, you simply need to send the specific invoice details to the web service, after which the ESD Web service processes them and responds with a signature.

An invoice query function is also included in the functionality whereby, given an invoice number, you can query previously signed invoices, and get back the signature for the particular invoice.

Once the signature is received, it can be saved t or displayed on any other necessary interface as required by the client.

Diagrammatic System Overview

Advantages of using the Web Service System

1. Speed –it's fast and secure in processing invoice
2. Modular –It is independent and can be used by any department that needs to sign invoices. Different departments can have different invoice types and templates, all utilizing the same ESD web service.
3. Secure –Secured with credentials during invoice signing and invoice signature querying.
4. Cost Effective –the same system can be used by different departments to sign invoices.

Installation

Prerequisites

The following environment is required before installation of the Web Service;

1. Windows operating system (XP, Server 2003, Windows Vista, Win 7/8/10)
2. Java Runtime Environment (Latest or at least v1.8)
3. Electronic Signature Interface (ESI) version 3.16 or higher
4. Electronic Signature Device
5. Wildfly Application Server Version 8.2.0
6. Laborex Custom ESD Web Service deployment file

Installation instructions

1. Install Java
2. Extract Wildfly Server zip file under the Windows C:/ws Directory
3. Install ESI
4. Setup Batch Processing with folder selection as ;

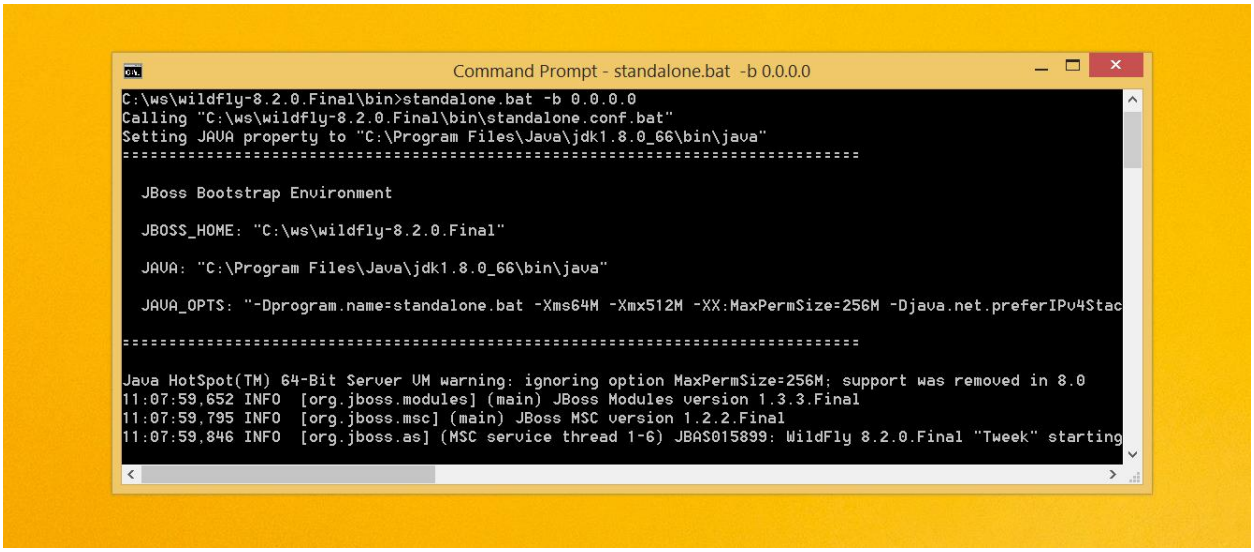
   Input:C:\ESD_DOCUMENTS\Input
   Output:C:\ESD_DOCUMENTS\Output
   ESD_Input:C:\ESD_DOCUMENTS\ESD_Input
   ESD_Output:C:\ESD_DOCUMENTS\ESD_Output
   (Or leave the default)
5. Install SOAP UI Application for Web Service Testing
6. Parse an invoice for signing using SOAP UI
7. Train the invoice template that will be created under ESD_Input folder
8. Parse invoice for signing again, test the query invoice functionality as well.

Startup

To start up the web service, navigate to the Wildfly folder copied under the C;/ws directory. Navigate to the bin folder under the wildfly directory. You will find the following file that is used for startup : standalone.bat.

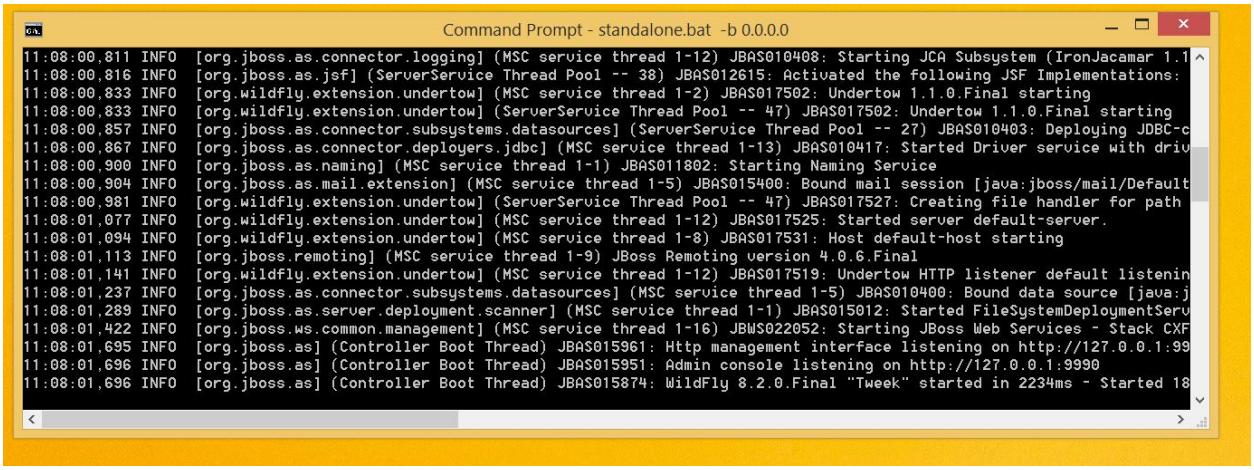
Open a terminal / command prompt, and navigate to the above folder and use the below command to startup the web service and press enter;

standalone.bat –b 0.0.0.0



Starting up the web service application

The application will print out the above in format



Signing Invoices

Sample request for signing an invoice

http://localhost:8084/esd/signinvoice_rest?invoice_date=10_06_2017&invoice_number=1026&vat_amount=18&gross_amount=100&invoice_total=118&username=esduser&password=esdpwd123

Endpoin: http://localhost:8084/esd/signinvoice


```
{
        "invoice_date": "10/06/2017",
        "invoice_number": "876788",
        "vat_amount": "18",
        "gross_amount": "100",
        "invoice_total": "118",
        "username": "esduser",
        "password": "esdpwd123"
}
```


Sample Response
==========


```
{
  "signature":
"FD23643F89C8D009FC4A822CDC5E162D99E1ED50/0001/00072635/2908121020/xxx#177000.00",
  "status": "00",
  "description": "Document signed successfully."
}
```


Query Invoice

To query an invoice signature, you will need to provide the invoice number, along with the web service credentials. The following is the REST Request

http://localhost:8084/esd/queryinvoice/1026?username=esduser&password=esdpwd123

Endpoint : http://localhost:8080/esd_rest_ws/ getsignature

Username: admin
Password : esdadmin2016
Invoice Number : 12345

Sample Response


```
{
    "signature":
"FD23643F89C8D009FC4A822CDC5E162D99E1ED50/0001/00072635/2908121020/xxx#17700
0.00",
    "status": "00",
    "description": "Document signed successfully."
}
```

Glossary

EFD –Electronic Fiscal Devices
ESD –Electronic Signature Device
REST –Representation State Transfer
WSDL –Web Service Definition Language
ESI –Electronic Signature Interface