

INFORMATION DELIVERY PORTAL (IDP)

User Connectivity Overview

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1. VERSION CONTROL

Version	Author	Date	Reason for changes
1.0	Jean Erasmus	01/08/2010	Created.
2.0	Jean Erasmus	22/10/2010	Made changes as result of testing.
2.1	Siviwe Xegwana	11/11/2010	Updated the WSDL content
2.2	John Steinberg	29/07/2012	Update filename convention in history section
2.3	Riaan Boucher, Maria Dalle Ave and Sandra Borrageiro	18/07/2013	Updated the document to include the number of concurrent connections to the JSE FTP platform. In addition, merged the equity and bond IDP connectivity documents into one as the connectivity process and procedures is consistent across the two services.
2.4		20/05/2014	Minor changes and document cleanup
2.5	Maria Dalle Ave, Andrew Cliffe	20/05/2014	Updated to include additional security controls required
2.6	Vikesh Ramdhani	03/04/2017	Update to Quick Reference Guide & Directory Structures.
2.7	Client Service Centre	03/04/2017	Minor amendments/corrections
2.8	Neil Vendeiro	27/09/2018	Included new section 8 that explains the new rule around the IDP polling interval

2. INTRODUCTION

This document outlines the various connectivity requirements, which includes the delivery protocols, for the access and retrieval of data files from the JSE’s delivery server, Information Delivery Portal (IDP).

Subscribers will be able to access the data files either via the Internet or via a leased line to the JSE delivery server, IDP, in Johannesburg. The JSE provides different protocols for accessing / for connectivity to the IDP service and these are covered in section 5.

Any problems in respect of the data in any file or in respect of connectivity must be communicated to the JSE Customer Support team for assistance. The JSE Customer Support team will conduct initial investigations and where necessary, the problem will be referred to the technical support staff of the JSE.

JSE Customer Support Contact details: CustomerSupport@jse.co.za		
Service Times	All times are in South African Standard Time (SAST)	Contact Number
JSE Business Hours:	06h30 – 19h00	+27 (0)11 520 7777
After Hours:	19h00 – 06h30	+27 (0)11 520 7900 (this number is automatically routed to the standby person) Or +27 (0)83 611 9315

3. AUTHENTICATION CREDENTIALS

The JSE deems the below access control measures critical to ensure that clients only access the information that they are licensed for and therefore entitled to. This structure also better protects the JSE from malicious activities.

On this basis, clients involved in the download service will be required to provide some personal information such as their email address, identification number and mobile number. This information will be kept strictly confidential and only used for the formal registration of user ID's and password resets.

To be able to access the service, you will need to have one or more valid user ID's and passwords as per the below guidelines.

- Clients that make use of an **automated routine to download the data files** will be required to register for a company level service account which must only be used for the purpose of automated scripting based downloads. This password will be changed on an annual basis. The JSE strongly recommends that this user name and password be maintained in a configuration file, rather than then being embedded into the scripting code, to better accommodate password changes. **Please note that this service account information must only be known by the required people that have to support the environment.**
- **Clients that make use of manual methods to download the data files**, as primary or acting as backup to the automated scripts, will be required to register an individual user account for each individual person that will be involved in doing download. These user level credentials will be personal and should therefore be treated as such i.e. no username and password sharing should be allowed. Users will be forced to change their password on a monthly basis.

4. PROVISION OF USER ID AND PASSWORD

1. A representative from the JSE Client Data team will provide clients with their Sign-on credentials with 72 hours of the initial request.
2. A representative from the JSE Customer Support team will contact clients to confirm receipt of the file(s), User ID and Password.
3. The onus is on clients to test as soon as they have received the above mentioned information to ensure that their access to the system is correctly configured. Any issues experienced should be immediately reported to the JSE Customer Support team.

5. CONNECTIVITY PROTOCOLS

When connecting to the IDP portal, clients will be allowed access through the use of different protocols. Clients will be able to make use of File Transfer Protocol (FTP), File Transfer Protocol Secure (FTPS) and a Web service over a Hyper Text Transfer Protocol Secure (HTTPS) Connection. Clients can connect via the internet or via direct leased lines to the JSE or via third party telecommunications provided to the JSE.

5.1. FTPS Protocol Support

FTPS is a File Transfer Protocol with enhanced security features and provides both a Secure Socket Layer (SSL) and Transport Layer Security (TLS) connection for inbound and outbound traffic. This is similar to standard FTP but performs operations over an encrypted link (SSL & TLS) and is more secure. To keep in line with industry best practice, the JSE enforces connections to only take place over TLS versions 1.1 and above, as previous versions of SSL (versions 2 & 3) and TLS (versions 1.0) are deemed vulnerable to sniffing, decryption and malicious attack. Therefore, **FTPS connections will require implicit TLS 1.1, and above, capable software clients connecting to TCP port 990 using passive mode.**

- **Access via the client access network (dedicated leased lines):**

FTPS

Domain Name System (DNS) and IP Address	<p>For IDP Securely accessidp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.152.16</p> <p><i>Or</i></p> <p>For BondFTP Securely accessbondftp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.152.24</p>
Ports	<p>990 for FTPS 65235 to 65535 Return Port range for FTPS The revised port range for FTPS allows an increase in the number of concurrent connections to the platform.</p>
Credentials	As supplied by JSE Client Data
File Location for IDP	/IDP

FTP

Domain Name System (DNS) and IP Address	<p>For IDP (Not Secured) accessftp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.152.18</p> <p>Or</p> <p>For BondFTP (Not Secured) accessbondftp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.152.24</p>
Ports	<p>21 Target Port for FTP 20 Return Data Port for FTP</p>
Credentials	As supplied by JSE Client Data
File Location for IDP	/IDP

- **Access via the Internet:**

FTPS

Domain Name System (DNS) and IP Address	<p>For IDP Securely idp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.154.143</p> <p>Or</p> <p>For BondFTP Securely bondftp.jse.co.za (We recommend using this to protect against future IP address changes) or 196.216.154.144</p>
Ports	<p>990 Target Port for FTPS 65235 to 65535 Return Port range for FTPS The revised port range for FTPS allows an increase in the number of concurrent connections to the platform.</p>
Credentials	As supplied by JSE Client Data
File Location for IDP	/IDP

5.2. HTTPS (Only available for the Internet)

HTTPS uses HTTP but additionally activates Web server security, in the form of Secure Sockets Layer (SSL). This means that the communications between the client and the (host) Web server are encrypted and, additionally, that the host Web server may be validated by the client using a Digital Certificate on the server.

Domain Name System (DNS)	https://idp.jse.co.za/IDPService.svc
Credentials	As supplied by JSE Client Data
Usage	Clients will have to request a wsdl file from the idp web service using the specified URL below or load the file using xml below. Clients can then use the wsdl to generate a proxy client that will communicate with the service.
WSDL	https://idp.jse.co.za/IDPService.svc?wsdl
<pre> <?xml version="1.0" encoding="utf-8" ?> <wsdl:definitions name="IDPService" targetNamespace="https://idp.jse.co.za/" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:wsa10="http://www.w3.org/2005/08/addressing" xmlns:wsx="http://schemas.xmlsoap.org/ws/2004/09/mex" xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy" xmlns:wsap="http://schemas.xmlsoap.org/ws/2004/08/addressing/policy" xmlns:msc="http://schemas.microsoft.com/ws/2005/12/wsdl/contract" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata" xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl" xmlns:tns="https://idp.jse.co.za/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:i0="http://tempuri.org/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"> <wsdl:import namespace="http://tempuri.org/" location="https://idp.jse.co.za/IDPService.svc?wsdl=wsdl0" /> <wsdl:types> <xsd:schema targetNamespace="https://idp.jse.co.za/Imports"> <xsd:import schemaLocation="https://idp.jse.co.za/IDPService.svc?xsd=xsd0" namespace="https://idp.jse.co.za/" /> <xsd:import schemaLocation="https://idp.jse.co.za/IDPService.svc?xsd=xsd1" namespace="http://schemas.microsoft.com/2003/10/Serialization/" /> </xsd:schema> </wsdl:types> <wsdl:message name="IIDP_InitializeDownload_InputMessage"> <wsdl:part name="parameters" element="tns:InitializeDownload" /> </wsdl:message> <wsdl:message name="IIDP_InitializeDownload_OutputMessage"> <wsdl:part name="parameters" element="tns:InitializeDownloadResponse" /> </wsdl:message> <wsdl:message name="IIDP_GetFileList_InputMessage"> <wsdl:part name="parameters" element="tns:GetFileList" /> </wsdl:message> <wsdl:message name="IIDP_GetFileList_OutputMessage"> <wsdl:part name="parameters" element="tns:GetFileListResponse" /> </pre>	


```

</wsdl:message>
<wsdl:portType name="IIDP">
<wsdl:operation name="InitializeDownload">
  <wsdl:input wsaw:Action="https://idp.jse.co.za/IIDP/InitializeDownload"
message="tns:IIDP_InitializeDownload_InputMessage" />
  <wsdl:output wsaw:Action="https://idp.jse.co.za/IIDP/InitializeDownloadResponse"
message="tns:IIDP_InitializeDownload_OutputMessage" />
</wsdl:operation>
<wsdl:operation name="GetFileList">
  <wsdl:input wsaw:Action="https://idp.jse.co.za/IIDP/GetFileList" message="tns:IIDP_GetFileList_InputMessage" />
  <wsdl:output wsaw:Action="https://idp.jse.co.za/IIDP/GetFileListResponse"
message="tns:IIDP_GetFileList_OutputMessage" />
</wsdl:operation>
</wsdl:portType>
<wsdl:service name="IDPService">
<wsdl:port name="secure" binding="i0:secure">
  <soap12:address location="https://idp.jse.co.za/IDPService.svc" />
<wsa10:EndpointReference>
  <wsa10:Address>https://idp.jse.co.za/IDPService.svc</wsa10:Address>
</wsa10:EndpointReference>
</wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

6. QUICK REFERENCE GUIDE – IDP

Once a Connectivity Protocol has been chosen, the below file directories may be used as a quick reference guide for specific file downloads from a Member, Common or Reference Data perspective. Please remember to have both the target and return ports open for the chosen connectivity protocol.

Once connected, clients will be prompted with multiple folder directories, accessing common files within the **‘Common’** directory and Equity Market reference data within the **‘Equity Market Prod’** directory.

For **Member Specific Files**, a reference guide is included below:

Service	File Name	FTP Location
BDA Dissemination	DDAP.SPRD.(alpha).B*.zip	Members/Member <i>Alpha</i> /Filename
BDA Brokers Notes	DDAP.SPRD.(alpha).XMLB*.zip	
Commodity Derivatives Market	DDAP.SPRD.(alpha).AD.zip	
Equity Derivatives Market	DDAP.SPRD.(alpha).ED.zip	
Interest Rates Market	DDAP.SPRD.(alpha).IR.zip	
Equity Market: Early File	DDAP.SPRD.(alpha).EE.zip	
Equity Market: EOD File	DDAP.SPRD.(alpha).E.zip	
Indices: All Africa	DDAP.SPRD.(alpha).AI.zip	
Indices: Specialized	DDAP.SPRD.(alpha).SI.zip	
Core Indices EOD File	DDAP.SPRD.(alpha).I.zip	
International Benchmark Indices	DDAP.SPRD.(alpha).II.zip	
Total Return Index Intraday Snapshot (TRI)	DDAP.SPRD.(alpha).III.zip	
Money Market	DDAP.SPRD.(alpha).MM.zip	

Historical information is available for up to 30 days for all member Specific files. These have an extension of the following format: D<YYMMDD> where

- YY is the year
- MM is the month (from 01 – 12)
- DD is the day of the month

e.g DDAP.SPRD.(alpha).I.zip.D170301

7. DIRECTORY STRUCTURES FOR BONDFTP

7.1. File Locations:

File / Report:	FTP Location
BONDDATA	BONDDATA File
CILI	CILI
CONSTITUENTS	Constituents
Index Values	Indexvalues
Daily Tri	Daily TRI
Linear Swap	Linear Swap
MTM Detailed	MTM Detailed
MTMT+1	MTMT+1
MTM Value Today	MTMVT
STRATE Data	Strate Data
TRI	TRI
Daily Turnover	Turnover Stats
UTMTM	UTMTM
UTMTMT+1	UTMTMT +1
UTMTM Value Today	UTMVtoday
Yield Curve	Yield Curve
2pm Zeros	Zerocurve 2pm
3pm Zeros	Zerocurve 3pm
Zero curve	Zerocurve Yield
Bond Market Bulletin	Turnover Stats
Instrument Detail	Turnover Stats
Member Client Position Detail	Turnover Stats
Trade Detail	Turnover Stats

These solutions provide the date and time that a file has been created or modified, allowing clients to make reference to verify a new or updated file.

8. IDP POLLING INTERVAL RULE

The JSE publishes information on the times that data files are typically made available. At times however, technical problems might delay the provision of a data file. In these instances where a data file is not available, it is expected that clients only poll the IDP server for the file at 5 minute intervals. This will help ensure that the IDP server is not overloaded by high frequency polling by multiple clients at the same time.