



Integration Approach and Specification Document

Integrated e-filing and CPC 2.0 Project

Webservice Name	PAN Verification Service
Description	To verify PAN details from e-filing database

Version History

Version	Date	Description
1.0	29-04-2022	Initial Draft

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1 Brief Overview

Integrated e-Filing and CPC envisions to redefine income tax filing and processing in India to provide a best-in-class experience to all taxpayers.

The objectives of the proposed integrated Efiling and CPC 2.0 project are –

1. To partner with government to reform tax processing in the country
2. To provide a differentiated experience to tax payer
3. To enhance departmental efficiency and effectiveness

The above is planned to be achieved by –

1. Providing ease in filing returns using wizard based forms and generating pre-filled returns for the tax payers.
2. Actively promoting e-verification of returns and establish complete (100%) paperless environment.
3. Reducing processing time of returns on year-on-year (YoY) basis and achieve real time processing of returns and credit of refunds.
4. Educating and empowering the taxpayer by pro-actively engaging with taxpayer through digital media
5. Pro-actively communicating and engaging with taxpayer and enhancing transparency
6. Reducing errors, grievances, rectifications on a YoY basis and achieve "first-time-right" outcome
7. Facilitating taxpayer and consistently reducing the outstanding demand
8. Ensuring real time data exchange with all stakeholders and achieve total seamless integration
9. Continuously promoting tax compliance in the country resulting into reduction of tax delinquency

2 Scope

The scope of this document is to provide the technical and operational details to integrate the external agencies for PAN Verification Web Service. It will also include the test strategy.

3 Integration Details

Under this integration, "PAN verification service" functionality is provided post login under "My Account" in External Agency user.

4 Integration Approach

Integration approach for inbound calls to Efiling System are updated as below. All Inbound calls to Efiling System will have authentication process and later subsequent requests will be authorized basis the AuthToken provided during Authentication process.

4.1 API Description

External Agencies should register in Efiling2.0 portal as per the Registration process of the Efiling2.0. Efiling admin user will validate the External Agency registration details and approves the registration.

Once admin approves the registration, Efiling portal shares the userid and the login link of Efiling portal through e-mail. External Agency needs to login to Efiling portal and they need to set the password during first login.

Every web-service will include a **Service ID** and **Search parameters** specific to that web-service along with a Request ID.

4.1.1 Request End Point

URL	UAT – https://uat.services.incometax.gov.in/iec-uat/uat/CommVerServiceImplService/verifyDetails Prod - https://services.incometax.gov.in/iec/api/CommVerServiceImplService/verifyDetails
Content-Type	application/xml
Method	Post
Service Type	Incoming

4.1.2 Request Header

The header of the Simple Object Access Protocol (SOAP) request must contain ClientId, ClientSecret, Username Token and Timestamp. Username Token provides a standard way of representing a username (User ID registered in e-Filing) and password pair with WS-Security.

The request must be digitally signed using the private key of the user (user must have registered a valid DSC with e-Filing). Signature includes key info element that contains X.509 certificate details. To validate the signature details, the following elements must be signed in the SOAP:

- Timestamp
- UsernameToken
- Body

Encryption: After signing, the request (UsernameToken and Body) must be encrypted using the e-Filing's public key

Parameter Name	Description	Field Specification	Sample Value
clientId	Efiling Team will provide the client id from API Gateway as a pre-requisite.	Mandatory	17xx73b2ac90ce2f4f0d899e3bfb5b04fa84
clientSecret	Efiling Team will provide the client secret from API Gateway as a pre-requisite.	Mandatory	3edda3a406604bfe8a0464003e6ac41d
UsernameToken	user id and password	Alphabets Mandatory	EXTP123456
Timestamp	OASIS standards with expiry time of 180 seconds	Alphabets Mandatory	2020-12-12-23.45.45.000112
Signature	Signature (OASIS standards) of UsernameToken, Timestamp and Body	Alphabets Mandatory	

4.1.3 Request Parameters

The following table provides details on the **Request** Parameters:

Field Name	Description	Mandatory
serviceId	Service ID has to be populated based on the service to be invoked. 10001 – PAN Verification Service	Yes

searchParams	Parameters to be verified as per section: 4.2.2	Yes
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4.1.4 Response Parameters

The following table provides details on the **Response** Parameter:

Field Name	Description	Mandatory
serviceId	Service ID has to be populated based on the service to be invoked. 10001 – PAN Verification Service	Yes
responseParams	Mapping of result parameters as per section: 4.2.5	Yes

4.2 Service ID (10001) – PAN Verification

4.2.1 Request Parameters

The following table provides details on the Request Parameters

Field Name	Description	Mandatory
serviceId	10001	Yes
searchParams	Map of parameters to be verified	Yes

4.2.2 List of search Parameters for PAN Verification

The following table provides details on search parameters for PAN Verification

Field Name	Description	Mandatory
pan	PAN of the user.	Yes
fName	First Name	No
midName	Middle Name	No
surName	Last Name	No
fullName	Name on PAN card or Concatenation of First Name, Middle Name and SurName	Yes

dob	Date of Birth	Yes
gender	Gender	No

*Name and PAN are Case Insensitive

4.2.3 Sample Request

Sample payload is depicted in below table.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:dit="http://iec.incometax.gov.in/ditsecws"
xmlns:req="http://iec.incometax.gov.in/ditsecws/request">
<soapenv:Header/>
<soapenv:Body>
<dit:verifyDetails>
<dit:DitRequest uniqueRequestId="EXTA123456-763278367">
<req:serviceId>10001</req:serviceId>
<req:searchParams>
<searchParam searchKey="pan" searchValue="XXXXXXXXXX"/>
<searchParam searchKey="fName" searchValue="ABCD"/>
<searchParam searchKey="midName" searchValue="EFGH"/>
<searchParam searchKey="surName" searchValue="IJKL"/>
<searchParam searchKey="fullName" searchValue="XXXXXXX"/>
<searchParam searchKey="dob" searchValue="01/01/1900"/>
<searchParam searchKey="gender" searchValue="M"/>
</req:searchParams>
</dit:DitRequest>
</dit:verifyDetails>
</soapenv:Body>
</soapenv:Envelope>
```

4.2.4 Response Parameter

The following table provides details on the Response Parameters

Field Name	Description	Mandatory
serviceId	10001	Yes
response	Map of result parameters	Yes

4.2.5 List of Result Parameter for PAN verification Service

The following table provides details on result parameters for PAN Verification

Field Name	Description	Mandatory
pan	Verification flag (Y/N)	Yes
fName	Verification flag (Y/N)	No
midName	Verification flag (Y/N)	No
surName	Verification flag (Y/N)	No
fullName	Verification flag (Y/N)	Yes
dob	Verification flag (Y/N)	Yes
gender	Verification flag (Y/N)	No

4.2.6 Sample Payload

Sample payload is depicted in below table.

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Header></soap:Header>
<soap:Body>
<ns3:verifyDetailsResponse xmlns:ns2="http://iec.incometax.gov.in/ditsecws/request"
xmlns:ns3="http://iec.incometax.gov.in/ditsecws"
xmlns:ns4="http://iec.incometax.gov.in/ditsecws/response">
<ns3:DitResponse uniqueRequestId="EXTA101784-100004">
<ns4:serviceId>10001</ns4:serviceId>
<ns4:responseParams>
<result isMatched="Y" searchKey="pan"/>
<result isMatched="N" searchKey="dob"/>
<result isMatched="N" searchKey="fName"/>
<result isMatched="N" searchKey="fullName"/>
<result isMatched="Y" searchKey="midName"/>
<result isMatched="N" searchKey="surName"/>
<result isMatched="N" searchKey="gender"/>
</ns4:responseParams>
</ns3:DitResponse>
</ns3:verifyDetailsResponse>
</soap:Body>
</soap:Envelope>
```

4.2.7 Error Messages from Service

S. No	Scenario	Error Code	Description
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1	Unique Request ID is duplicate	EF-WS-SEC-ERR-10004	Duplicate Request. Please submit the request with valid request ID
2	any exception occurs	EF-WS-COM-ERR-10001	Service Unavailable. Please try again later
3	Signature is not valid	EF-WS-BVB-ERR-10002	Invalid DSC. Please use the DSC registered with External Agency.
4	PAN field is empty	EF-WS-BVB-ERR-10003	Please provide the PAN
5	PAN is not in correct format	EF-WS-BVB-ERR-10004	Entered PAN is invalid.
6	PAN does not exist	EF-WS-BVB-ERR-10004	Entered PAN does not exist.
7	PAN is inactive	EF-WS-BVB-ERR-10004	Entered PAN IS inactive.
8	Unique Request ID field is empty	EF-WS-BVB-ERR-10005	Please provide the Unique Request ID.
9	Unique Request ID is not in correct format	EF-WS-BVB-ERR-10006	Invalid Unique Request ID.
10	Service Id is not valid	EF-WS-BVB-ERR-10006	Invalid Service Id
11	Name as per PAN is empty	EF-WS-BVB-ERR-10007	Please provide the Name.
12	Name as per PAN is invalid	EF-WS-BVB-ERR-10007	Entered Name is invalid.
13	Name is not in correct format.	EF-WS-BVB-ERR-10008	No special characters are allowed in Name. Allowable special characters: "(", ")", "'", '&'
14	First Name, Mid Name, SurName, Full Name exceeds the character limit.	EF-WS-BVB-ERR-10010	Length exceeds the limit.
15	Date of Birth for ancestral PAN is invalid	EF-WS-BVB-ERR-10009	If HUF PAN is Ancestral, please enter the date of formation as 01/01/0001.

4.3 Test Strategy

UAT environment access will be provided to External Agencies for Integration testing over https with the above-mentioned APIs with the provided details.

4.5 Security Conditions

All requests to Efiling2.0 should be over https requests with TLS enabled for both Incoming and outgoing requests.

Also signing and encryption of payloads enables external agencies to share payloads more securely.

4.6 Frequency of Data Exchange

The frequency of the data exchange will be real-time, event based. Whenever the user clicks on any link or action on the external agency website, respective API of the Efiling gets invoked and synchronous response is received.