

IRIS - ADX

(Iris- Asynchronous Data Exchange)

Outline

- Introduction
- Salient Features
- Target Audience
- Benefits
- Modules
- Instructions (One Time Installation)
- Installing Iris-ADX and supported applications
- Installing IRIS ADX Synchronization Service
- Filing Income Tax Return through Iris-ADX

Introduction

- Iris-ADX is a desktop application (Client-End) software.
- Taxpayers/e-intermediaries can prepare income tax returns and sales invoices on their own computer without internet connectivity (in offline mode).
- Income tax returns/ sales invoices can be calculated (online) using FBR's IT system as per user need.
- Submit tax documents to FBR IT system after completion.
- Tax consultants can share the workload by creating multiple users in ADX software.

Introduction (Who Should Install IRIS ADX?)

- Iris-ADX is a desktop application which can also be used in a Client-Server environment.
- This is an optional solution. The main purpose of launching this application is to facilitate Taxpayers / Intermediaries to prepare IT returns in an Offline mode.
- Once the return is prepared (offline), internet connectivity is required to calculate and submit online in off-peak hours (recommended).
- Build your own data store.

Salient Features

FOR TAXPAYERS

- Prepare Income Tax Return (offline)
- Prepare Wealth Statement (offline)
- Issue Sales Invoices (offline)
- Submit / Upload data to FBR IT System (as per need)
- Facilitation & Empowerment
- Activity/Responsibility Based Tasks Assignments
- Workload Performance Improvements
- Light-weight Client Application

FOR TAX CONSULTANTS / E-INTERMEDIARIES

- Workload Distribution through Multi-User Environment
- Prepare Income Tax Return on behalf of registered clients (offline)
- Prepare Wealth Statement on behalf of registered clients (offline)
- Submit / Upload data to FBR IT System (as per need)
- User Friendly

Target Audience

- Taxpayer
- E-Intermediaries
- Lawyers/Tax bars/Legal Representatives

Benefits

- **Tax Database on your own computer:** ADX shall store copy of all tax documents on your own computer. You can keep backup of your tax documents for later use.
- **Historical Data availability:** You can view history of tax related transactions and documents submitted to FBR on your own computer.
- **Offline Preparation:** The system does not require Internet Connectivity to prepare tax documents, that was the main hindrance for people when they opted to file tax returns. However, internet is only required when any electronic communication is required with FBR IT system.
- **Speed/Efficiency:** You shall not face peak loads and system downtime issues, the ADX application is installed on your own computer and works independently from FBR IT system.
- **Flexibility:** In case of bulk data, application streamlines the data communication process as two entities i.e. Client-end application and Iris online system can exchange information at their own pace.

Modules

- **User Management:** The client-end system provides User Management functionality, in order to allow multiple users to prepare tax returns being offline. The system is also capable of maintaining and defining roles for each user.
- **Income Tax Returns:** This module allows taxpayers / tax consultants to prepare draft Income Tax Returns in offline mode and later submit the Income Tax Returns to Iris online system. It possess the functionality of maintaining logs of all the Income Tax Returns drafted, processed, submitted.
- **Sales Invoices:** ADX Sales Invoice module allows the taxpayer to generate sales tax invoices in off-line mode and upload them to FBR IT system when needed. The solution allows importing of sales invoices in the form of excel files as well.

System Requirements: Client System Requirements

- **Client System Requirements:**
- **Operating System**
- Windows 7, Windows 8, Windows 8.1, Windows 10
- .Net v3.5/ .Net v4.5.2
- **Application Memory Requirements**
- Hard drive 80 Gigabytes (minimum)
- Ram 8GB (Recommended) – (Minimum 4GB)
- **Application CPU Requirements**
- Processor: Intel Core i3 and above (such as Intel Core i5, or Intel Core i7)
- Wired Networking: Ethernet LAN Port or USB Ethernet Adapter/Dongle (OR)
- Wireless Networking: 802.11n

System Requirements: Server System Requirements

- **Server System Requirements:**
- Operating System: Windows 7, Windows 8, Windows 8.1, Windows 10
- Microsoft Office Excel 2010
- .Net v3.5/ .Net v4.5.2
- Availability of 24/7 Internet
- **Application Memory Requirements**
- Hard drive 250 Gigabytes (minimum)
- Ram 8GB
- **Application CPU Requirements**
- Processor: 64-bit, four-core, 2.5 GHz minimum per core.
- Wired Networking: Ethernet LAN Port or USB Ethernet Adapter/Dongle (OR)
- Wireless Networking: 802.11n

System Requirements: DB Requirements

- **Database Requirements:**
- MS SQL Server (2005 or later version, SQL Express Edition recommended for Smaller Setups).

Required Skills

- The following installation guide is for persons with the following skill set:
 1. Basic knowledge of MS SQL Server,
 2. Basic database administration expertise (including Backups and Restoration)
 3. Some experience of installing Client-Server applications.
- **Note:** In case you do not possess such skills it is advised that you request the help of someone who does.



Instructions (One Time Installation)

Federal Board of Revenue

Step-by-step guide to use Iris-ADX Application

- **Online Step-by-Step help available on Knowledge Base Portal on the following link**
 - <http://help.fbr.gov.pk/?p=3947>
- **STEP-1:**
 - Download & install Net v4.5.2 from the link provided below:
 - <https://www.microsoft.com/en-pk/download/details.aspx?id=42643>
- **STEP-2**
 - Download & install Net v3.5 from the link provided below:
 - <https://www.microsoft.com/en-pk/download/details.aspx?id=25150>
- **STEP-3**
 - Download & Install a copy of Iris-ADX application



Step-by-step guide to use Iris-ADX Application

- **STEP-4**

- Download & install SQL Express Edition from the link provided below:
- <https://www.microsoft.com/en-us/download/details.aspx?id=29062>
 - File Name: ENU\x86\SQLEXPR_x86_ENU.exe (SQL Server Express Edition)
 - File Name: ENU\x86\SQLManagementStudio_x86_ENU.exe (SQL Management Studio)

- **STEP-5**

- Download Iris-ADX SQL Server Database Backup

- **STEP-6**

- Download Iris-ADX Data Synchronization Service (Windows Service)

Prerequisite: Installation of SQL Server Database

Note:

- SQL Server installation process may vary depending on version of SQL Server you are going to install.
- While installing SQL Server, please make sure that you choose SQL Server Authentication Mode as “**Mixed Mode (SQL Server Authentication and Windows Authentication)**”.

Restoring Iris-ADX Database

- After downloading “**Iris-ADX SQL Server Database Backup file**” in a location with sufficient space.
- Open the folder containing the downloaded zip file and extract the contents.
- You will find SQL Server Backup file named as “**IRISADX.bak**”.
- You can restore this backup on your SQL Server with Database name as “**IRISADX**”.
- For help on restoration of SQL Server Backup you can refer to Microsoft Knowledge Base or click the following link for kick-start.

[https://msdn.microsoft.com/en-us/library/ms177429\(v=sql.90\).aspx](https://msdn.microsoft.com/en-us/library/ms177429(v=sql.90).aspx)



How to Install Iris-ADX and supported applications

Federal Board of Revenue

Installation Step 1: Download IRIS ADX Setup

- Download and save the “**Iris-ADX application**” file in a location with sufficient space.
- Open the folder containing the downloaded zip file and extract the contents.
- In the extracted folder, run the “**IRIS-ADX Setup.exe**” file to start the installation.

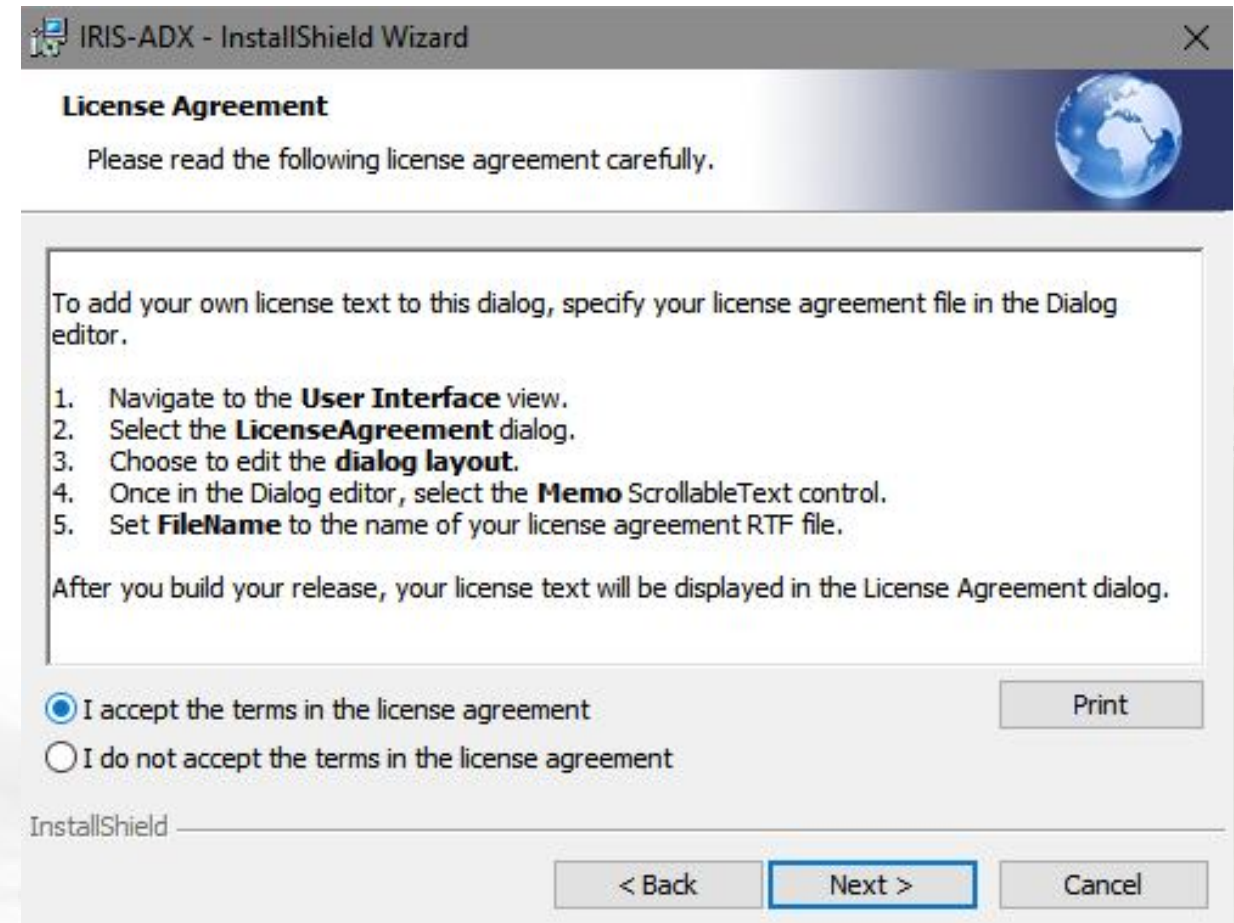
Installation Step 2: IRIS ADX Wizard

- The following screen shall appear:



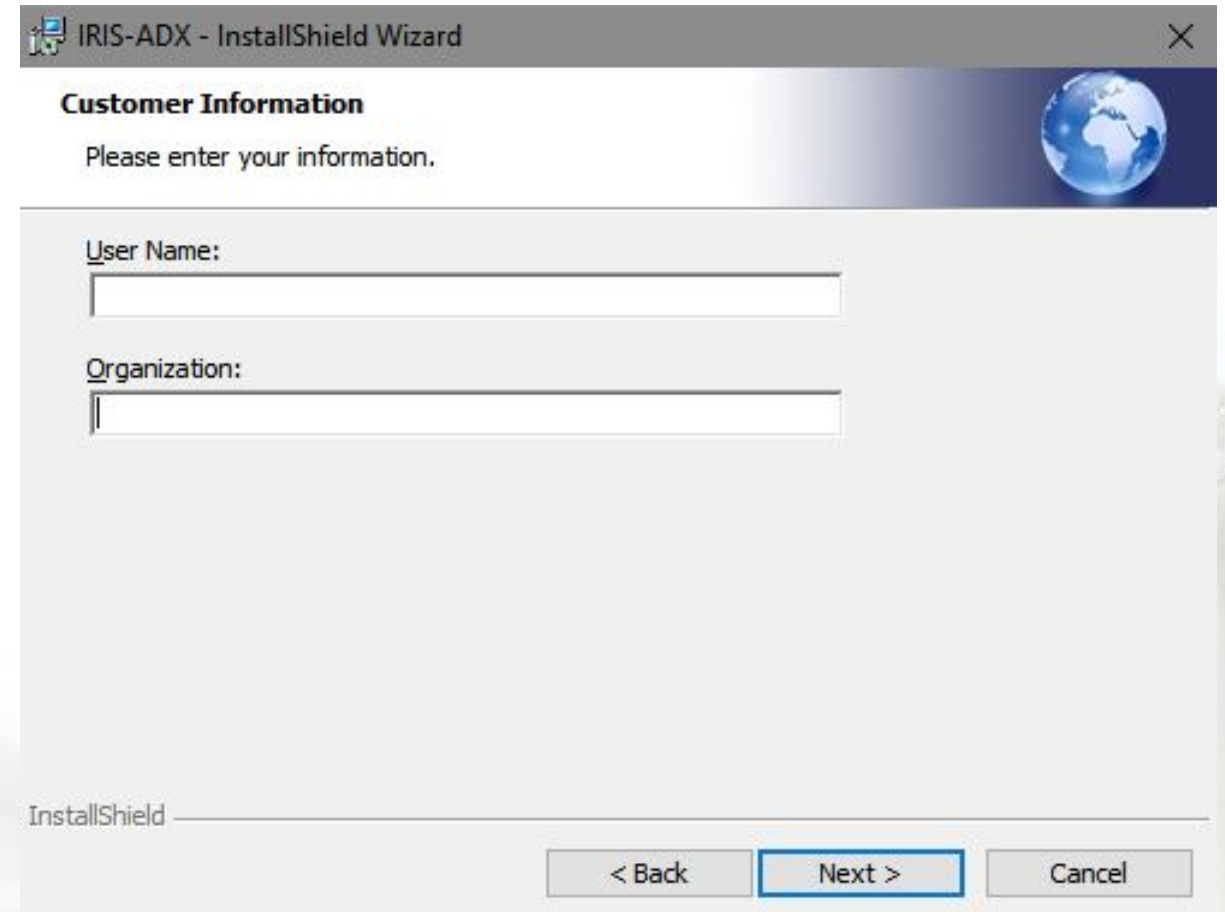
IRIS ADX Wizard: Accept License Agreement

- When visible, click on the **“Next”** button to continue with the installation.
- Read license agreement carefully and select **“I accept the terms in the license agreement”**.
- Click the **“Next”** button as shown in the figure.



IRIS ADX Wizard: Enter Your Information

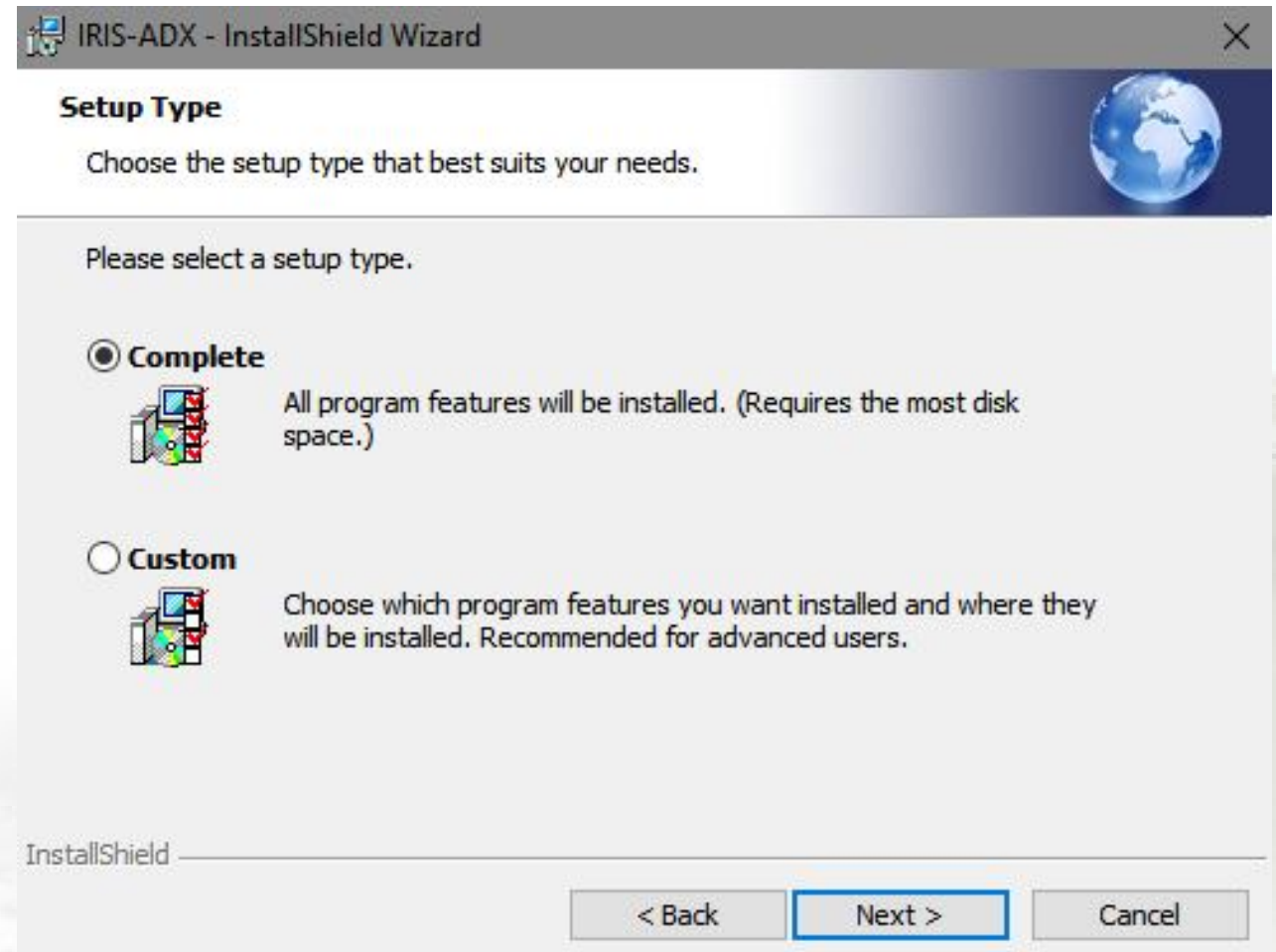
- Add your Name and Organization name in the fields as shown in the figure and click **“Next”**.



The screenshot shows a Windows-style dialog box titled "IRIS-ADX - InstallShield Wizard". The window has a standard title bar with a close button. Below the title bar, the text "Customer Information" is displayed in a bold font, followed by the instruction "Please enter your information." To the right of this text is a small globe icon. Below the instruction, there are two text input fields. The first field is labeled "User Name:" and the second field is labeled "Organization:". At the bottom of the window, there are three buttons: "< Back", "Next >" (which is highlighted with a blue border), and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the window.

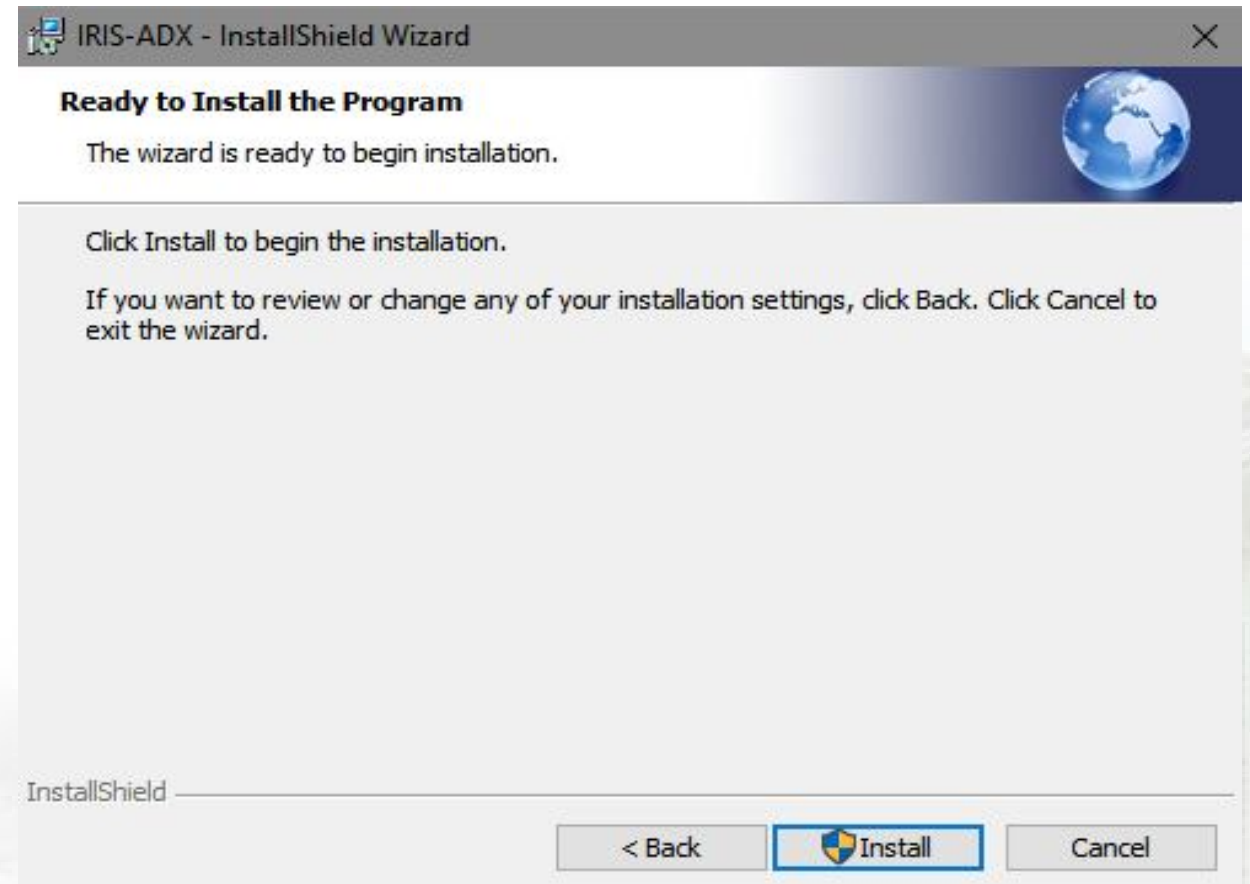
IRIS ADX Wizard: Setup Type

- Select 'Complete' option to install complete application.
- Select 'Custom' option to set advance features.
- Proceed by clicking the **"Next"** button as shown in the figure.



IRIS ADX Wizard: Start Installation

- In order to start the installation process with the previously provided information, click the **"Install"** button as shown in the figure.
- If you want to modify previously provided information, click 'Back' and make changes if any.



IRIS ADX Wizard: Installation Complete

- After the installation is complete, click the **“Finish”** button as shown in the figure.



Installation Step 3: Launch Application

- In order to start the application, double click on the **"Iris-ADX.exe"** shortcut icon on your desktop. Alternatively, you can find the application under **"Federal Board of Revenue"** folder in Programs Menu of Windows.
- Open the folder in windows file explorer where you have installed Iris-ADX Application.
- In this folder, you will see a file named as **"Iris-ADX.exe.config"** as shown in image below:



Installation Step 4: Configuration

- Find the line of code in this file as per image given below:

```
<add key="cnDB" value="Data Source=SQLServerIP_Instance; Initial Catalog=IRISADX; User ID=SQLServerUserID; Password= SQLServerUserPasssword;" />
```

- Replace the text "**SQLServerIP_Instance**" with your pre-configured SQL Server IP Address (and SQL Server Instance Name if any).
- Replace the text "**IRISADX**" with your SQL Server DB Name (if different from the one mentioned).
- Replace the User ID with your SQL Server User in place of "**SQLServerUserID**".
- Provide the User Password of your SQL Server User in place of "**SQLServerUserPassword**".
- Review the changes, Save the File and close Notepad.

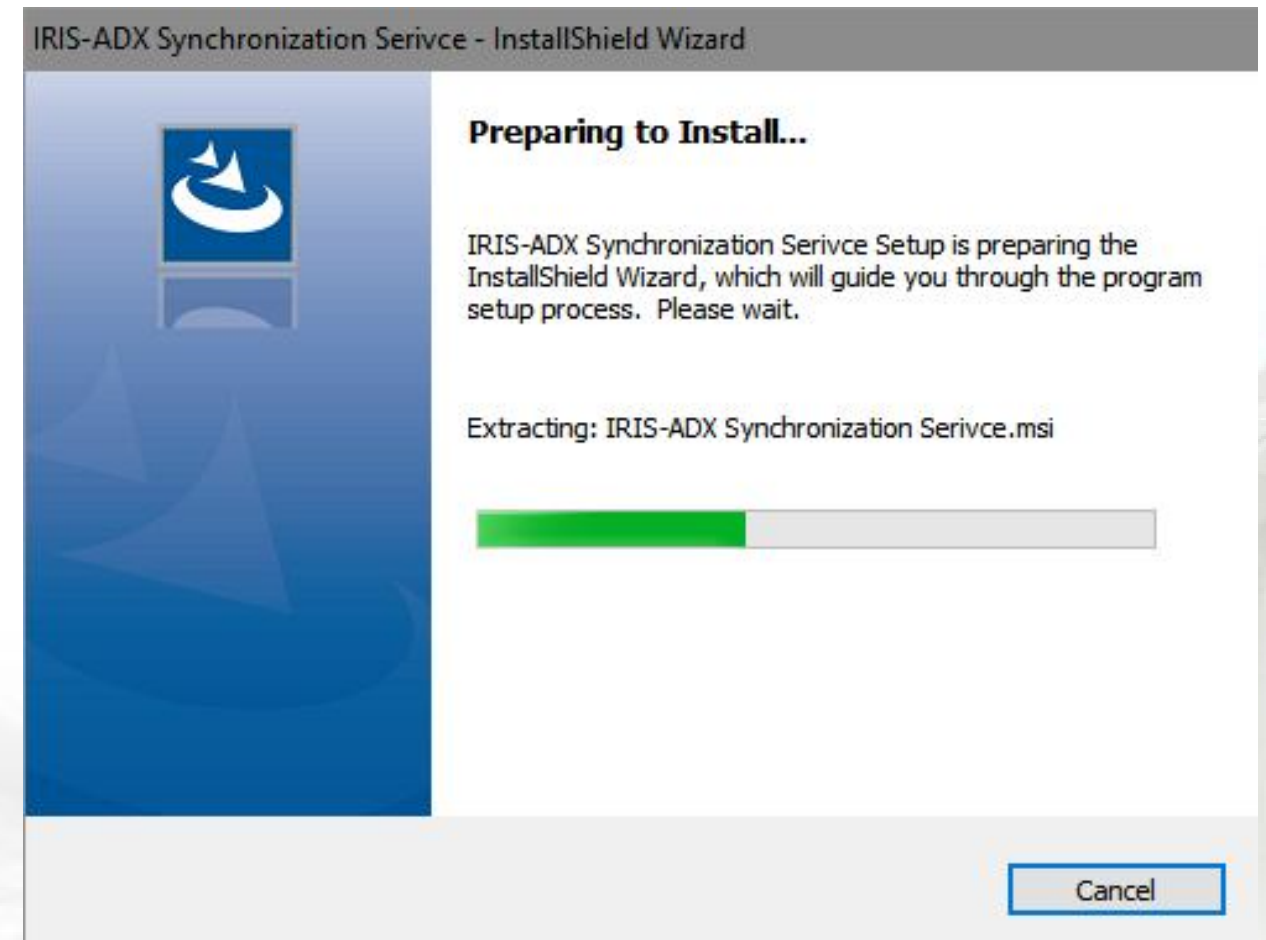


How to Installation IRIS ADX Synchronization Service

Federal Board of Revenue

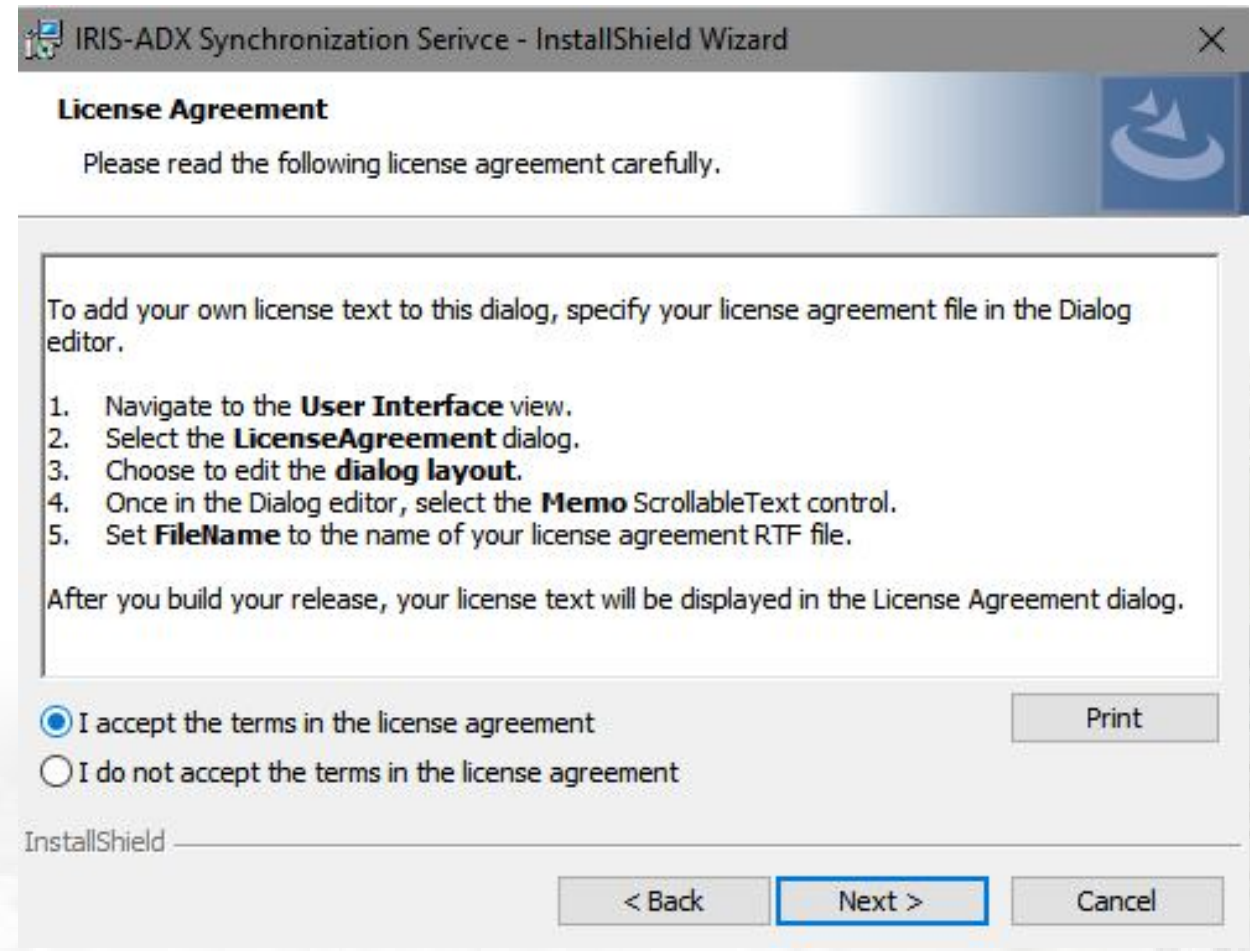
Installation Step 5: IRIS ADX Synchronization Service

- Download and save the “**Iris-ADX Data Synchronization Service**” file in a location with sufficient space.
- Open the folder containing the downloaded zip file and extract the contents.
- In the extracted folder, run “**IRIS-ADX Service Setup.exe**” file to start the installation. The following screen shall appear:



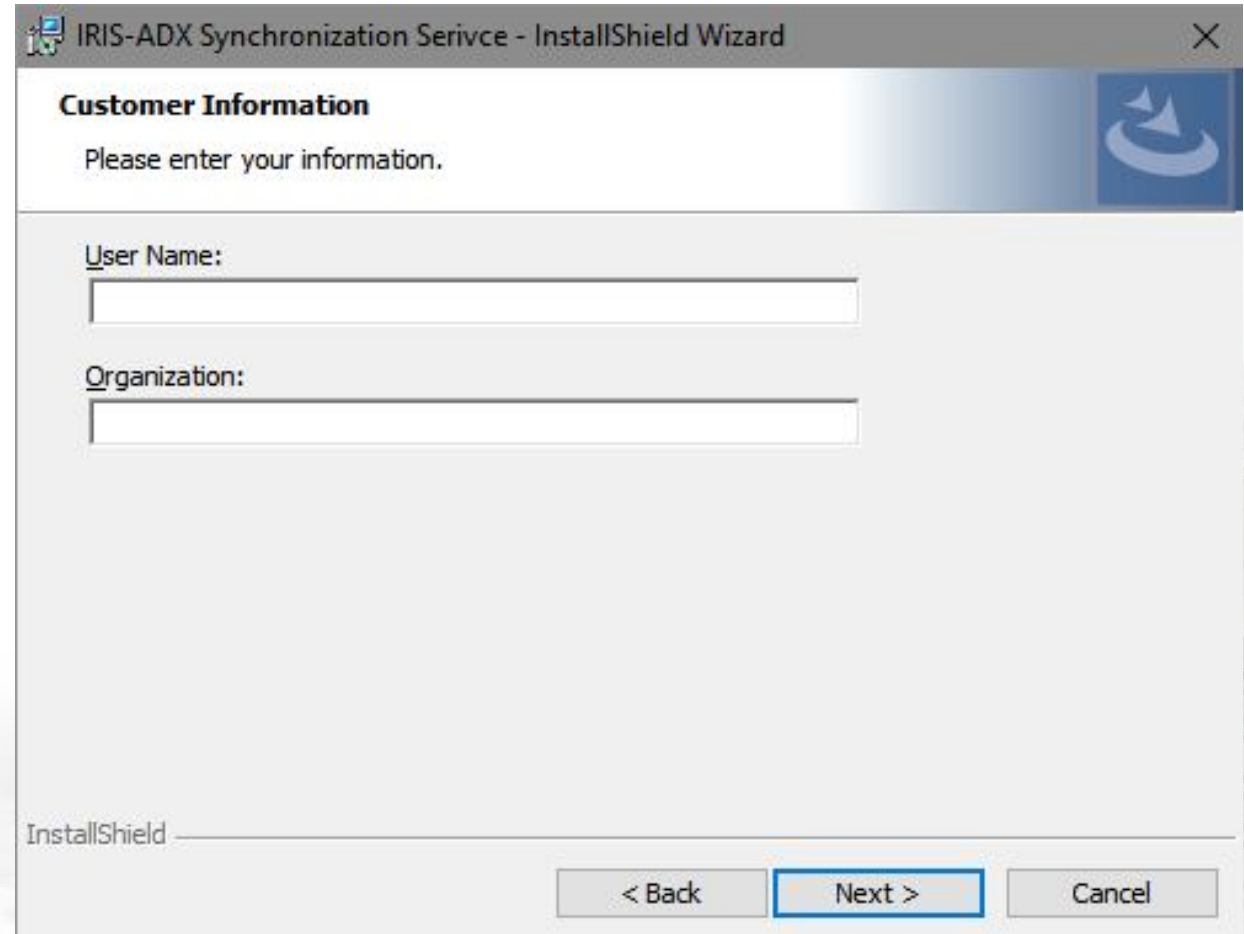
Sync. Service: Accept License Agreement

- When visible, click on the **"Next"** button to continue with the installation.
- Read the license agreement carefully and select **"I accept the terms in the license agreement"**, click **"Next"** button as shown in the figure



Sync. Service: Enter Your Information

- Add your Name and Organization name in the fields as shown in the figure and click **“Next”**.



IRIS-ADX Synchronization Service - InstallShield Wizard

Customer Information
Please enter your information.

User Name:

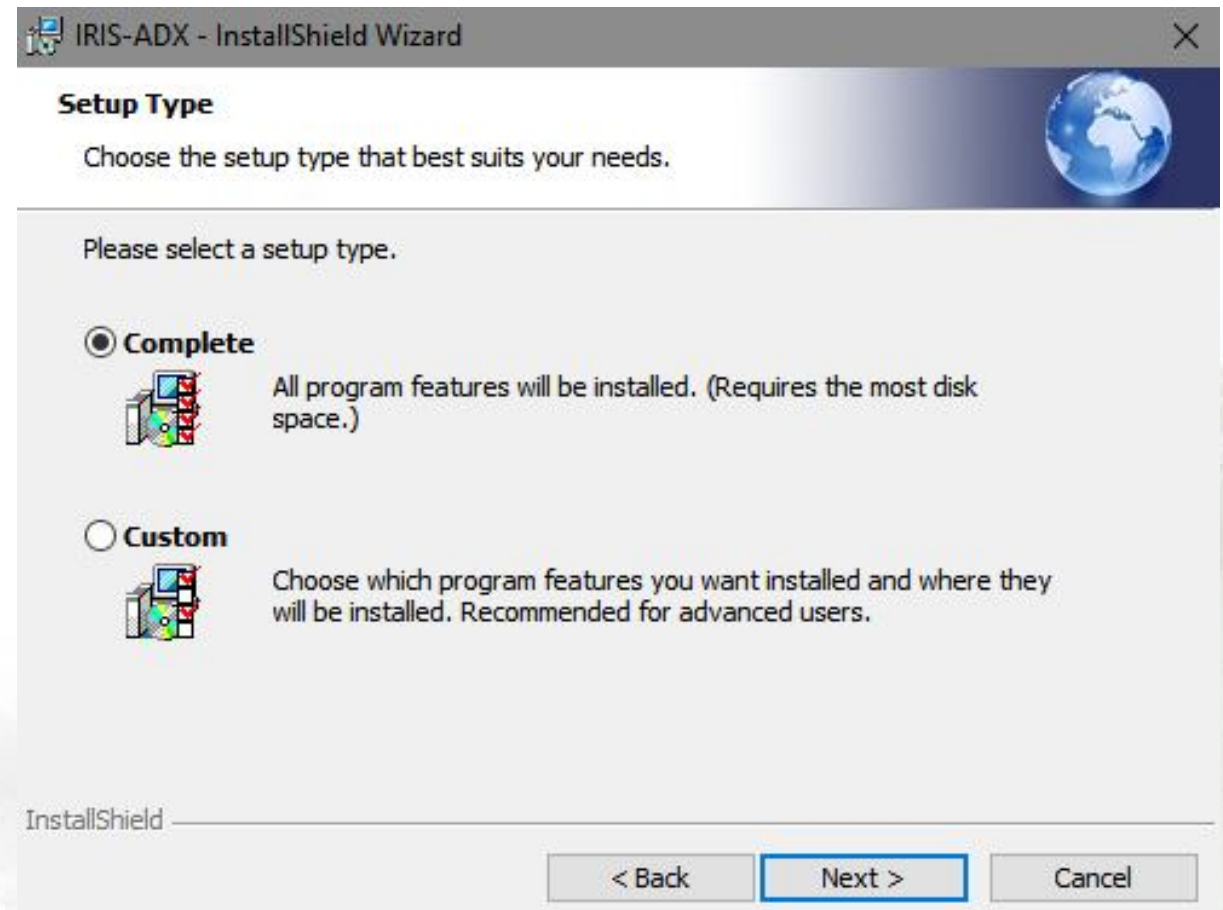
Organization:

InstallShield

< Back Next > Cancel

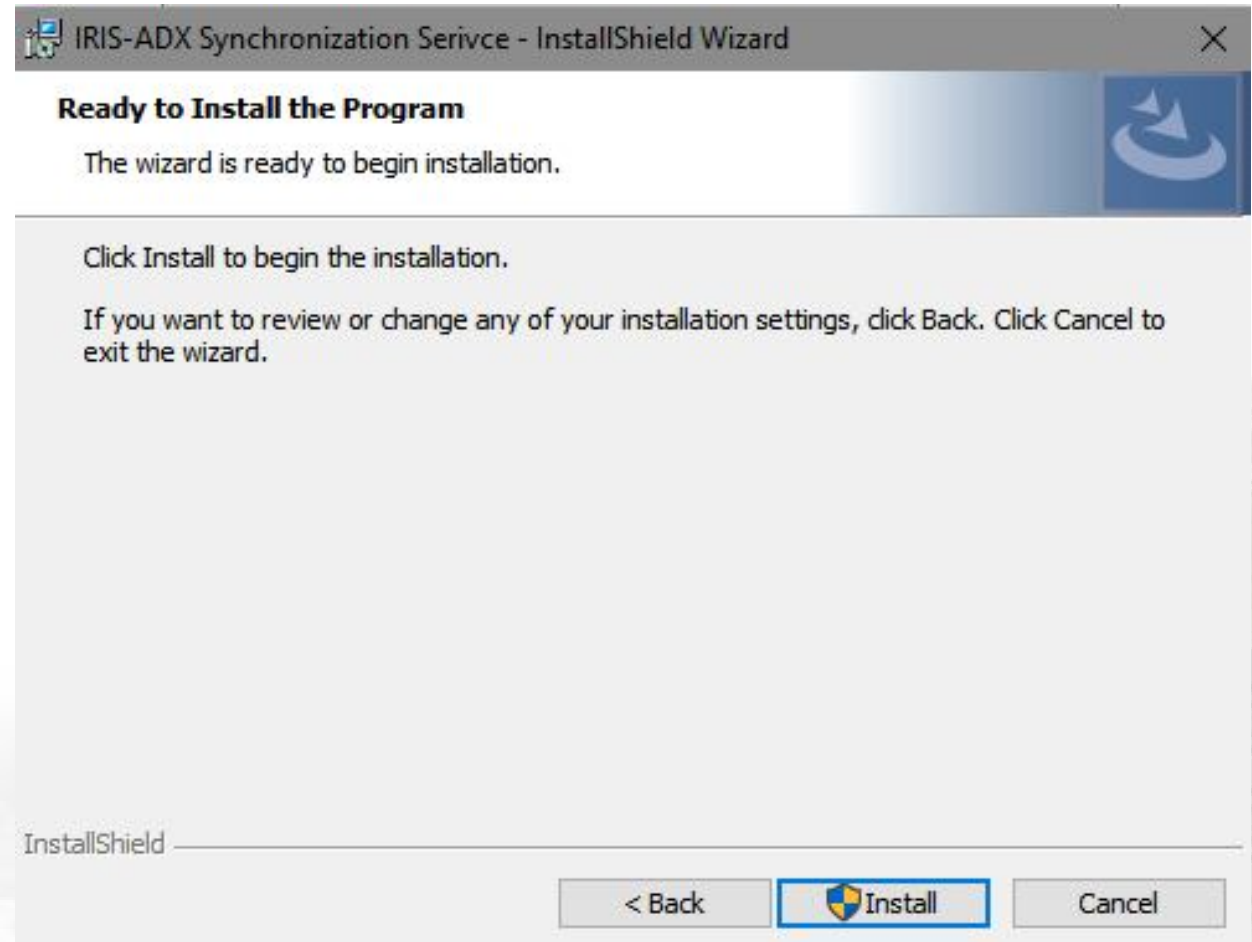
Sync. Service: Setup Type

- Select 'Complete' option to proceed with complete installation.
- Select 'Custom' option to set advance features.
- Proceed by clicking the **"Next"** button as shown in the figure.



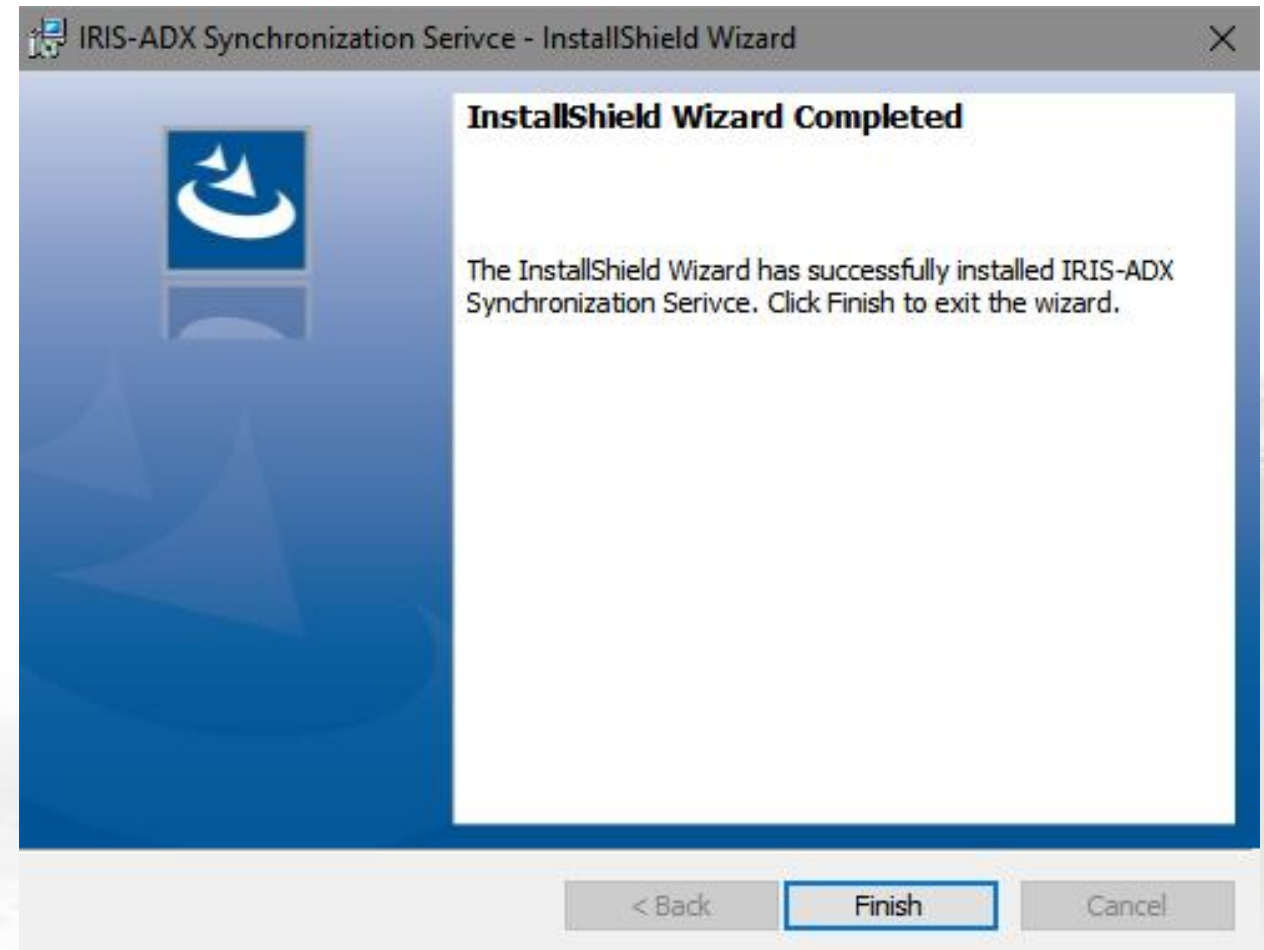
Sync. Service: Start Installation

- Click “**Install**” button as shown in the figure.



Sync. Service: Installation Complete

- Installation of the Synchronization Service shall start. In case, you are prompted for permission to install the service, please click on **“Yes”** to continue
- When the Installation is successful, you will see the following screen.
- Select **“Finish”**.



Installation Step 6: Service Configuration

- Open the folder “C:\Program Files (x86)\Federal Board of Revenue\ IRIS-ADX Synchronization Service” in windows.
- In this folder you will see a file named as “**IRISADXSvcService.exe.config**” as shown in image below



IRISADXSvcService.exe.config 1/16/2018 12:08 PM XML Configuratio... 3 KB

- Right-click and open this file in Notepad.

Service Configuration

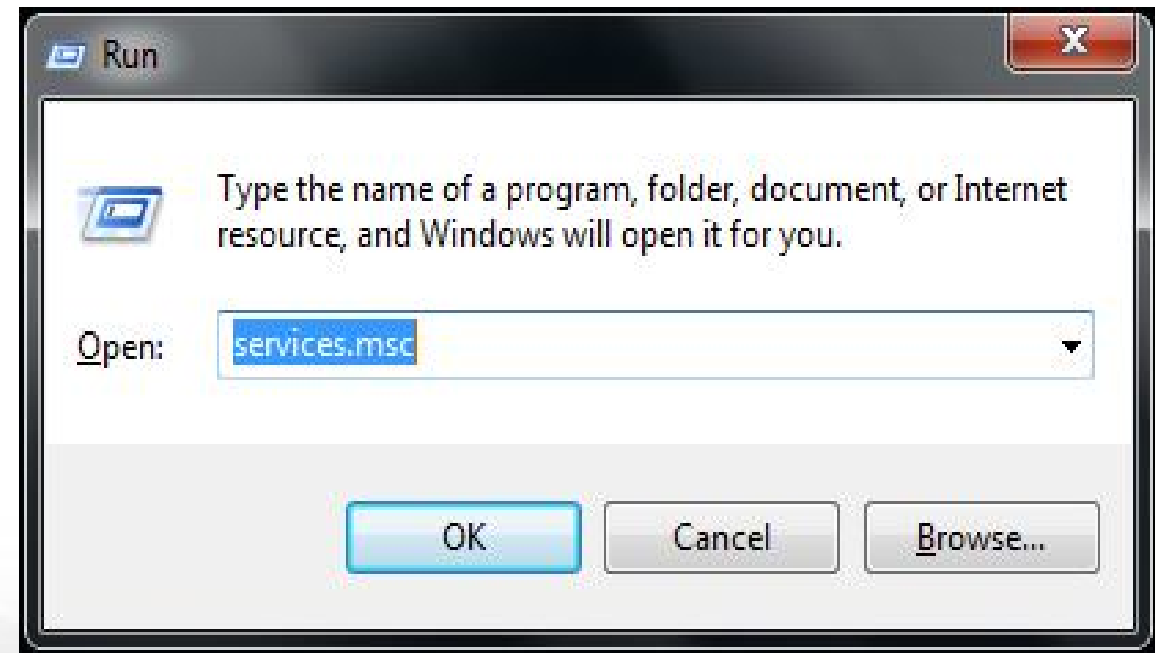
- Find the line in this file as per image given below:

```
<add key="cnDB" value="Data Source=SQLServerIP_Instance; Initial Catalog=IRISADX; User ID=SQLServerUserID; Password= SQLServerUserPasssword;" />
```

- Please change this line as mentioned in below steps:
 1. Replace the text **"SQLServerIP_Instance"** with your SQL Server IP Address (and SQL Server Instance Name if any).
 2. Replace the text **"IRISADX"** with your pre-defined SQL Server DB Name (if different from the one mentioned).
 3. Replace the User ID with your SQL Server User in place of **"SQLServerUserID"**.
 4. Provide the User Password of your SQL Server User in place of **"SQLServerUserPasssword"**.
 5. Review the changes, save file and close Notepad.

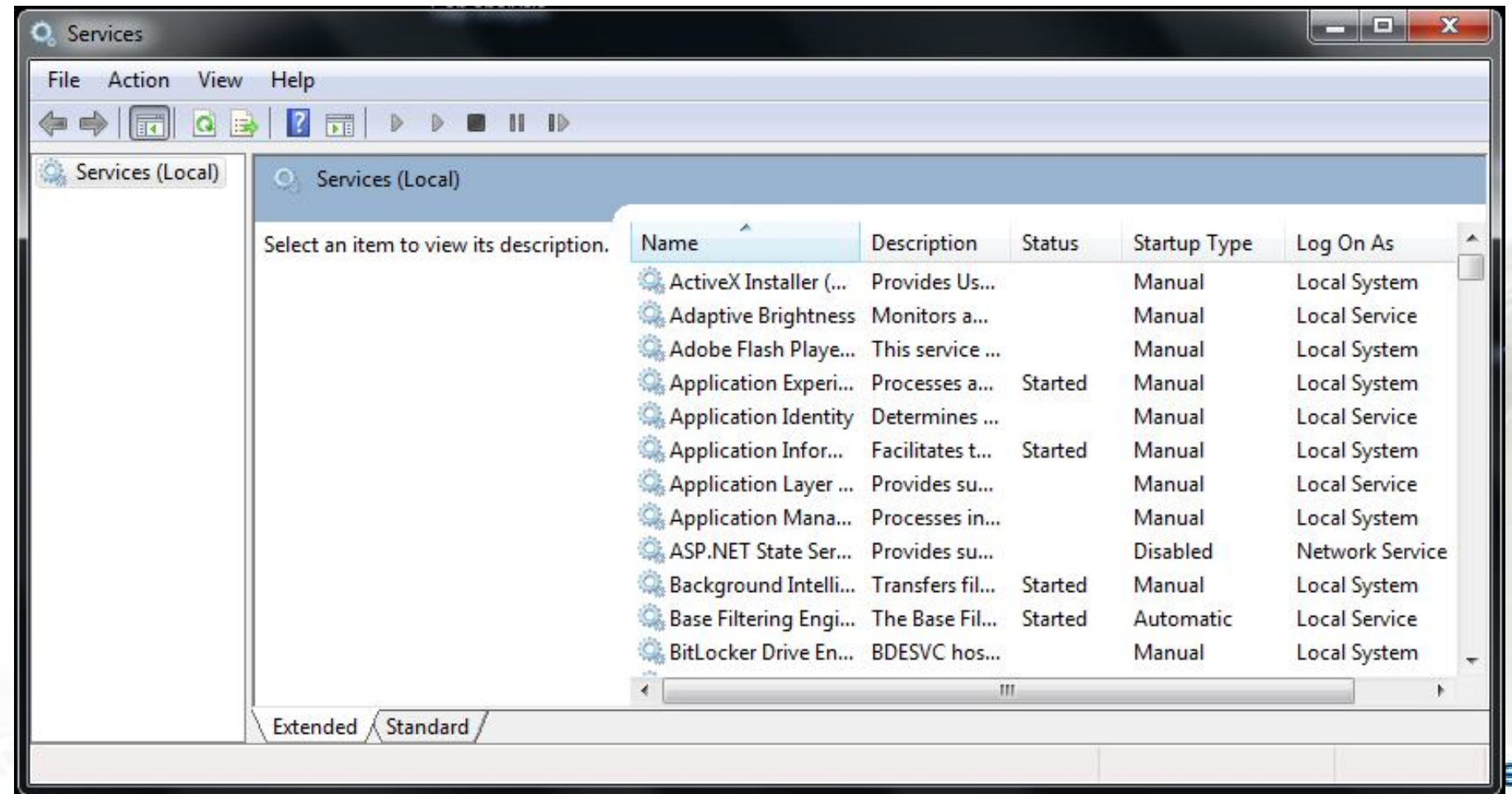
Service Configuration

- It is strongly recommended to **“Restart”** your System.
- After the system restarts, press **“Win + R”** buttons, following **“Run”** dialog shall appear.



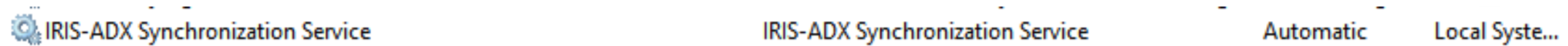
Service Configuration

- Type “services.msc” in the “Open” field, system displays a “Services” window as displayed.



Service Configuration

- Find a service with the name “**Iris-ADX Synchronization Service**” as shown below:



- In case, the service status under “**Status**” column is blank or stopped, start “**IRIS-ADX Synchronization Service**” service by clicking (**Right Mouse**) button, and selecting “**Start**” from the options.
- The synchronization service shall start and enabled for data synchronization with FBR Servers.
- Important:** IRIS-ADX Synchronization Service must be installed on the system, where database server is configured (i.e. only on server computer) and shall be installed only once. The service may not work as desired in case of multiple installations of IRIS-ADX Synchronization Service.

Login Iris-ADX

- Open Iris-ADX application by clicking ' ' icon placed on your desktop.
- A screen as shown shall appear.
- Enter the default **User Name (Admin)** and **Password (123456)** and click the **Login** button.



The screenshot shows the login interface for the Federal Board of Revenue. At the top left is the FBR Pakistan logo. To its right, the text reads "Federal Board of Revenue" and "Revenue Division - Government of Pakistan". Below this, the word "Login" is displayed in a large, bold, blue font. The login form consists of two input fields: "User Name :" and "Password :". Below the password field is a checkbox labeled "Remember Password". At the bottom of the form are two buttons: "Login" and "Close". A blue footer bar at the very bottom contains the text "Copyright 2018 All rights reserved Federal Board Of Revenue".

How to file Income Tax Return through Iris-ADX

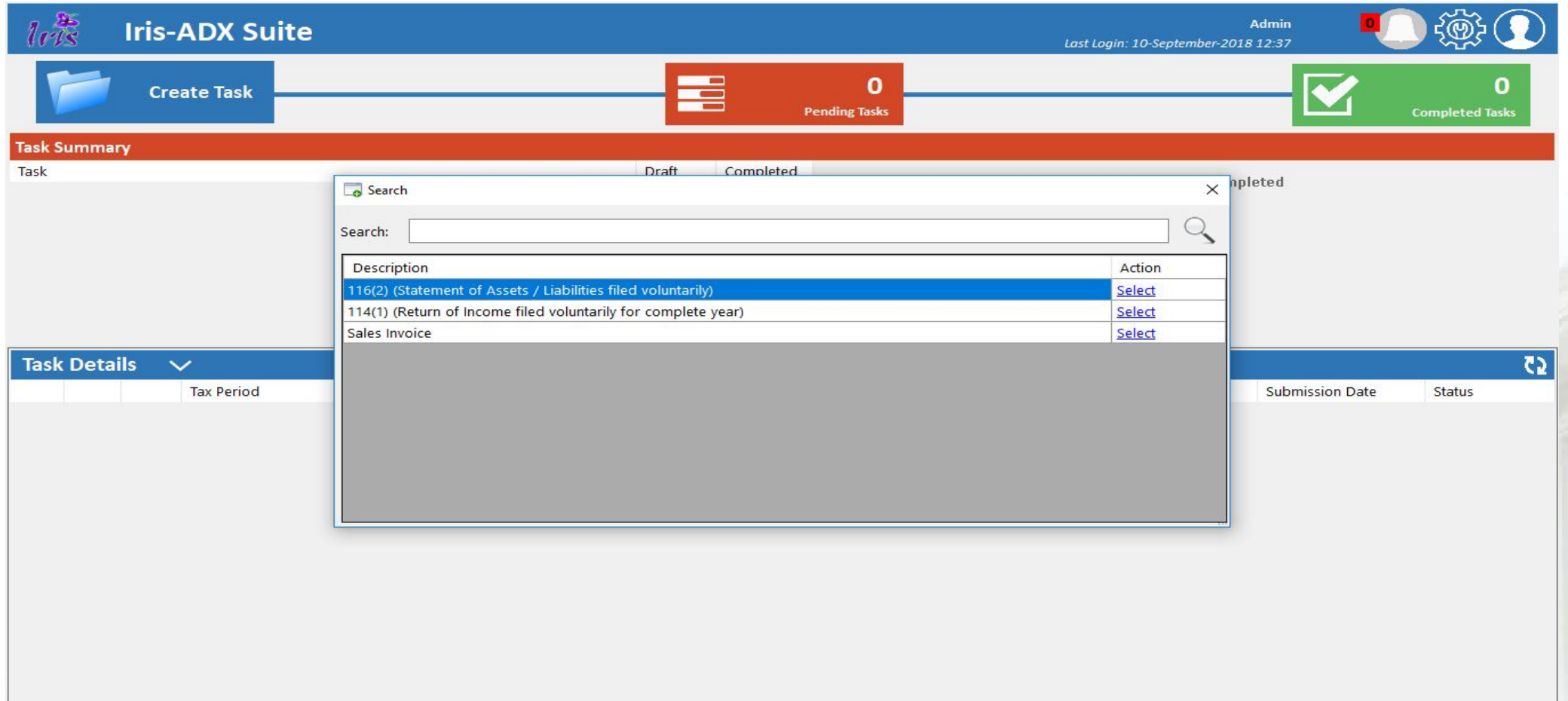


Iris-Dashboard main screen

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How To Fill Return Through Iris-ADX Application

- Click on Create Task Icon
- Popup window shall appear
- Select the relevant Task from the list i.e. 114(1) Income Tax Return Filed voluntarily for complete year



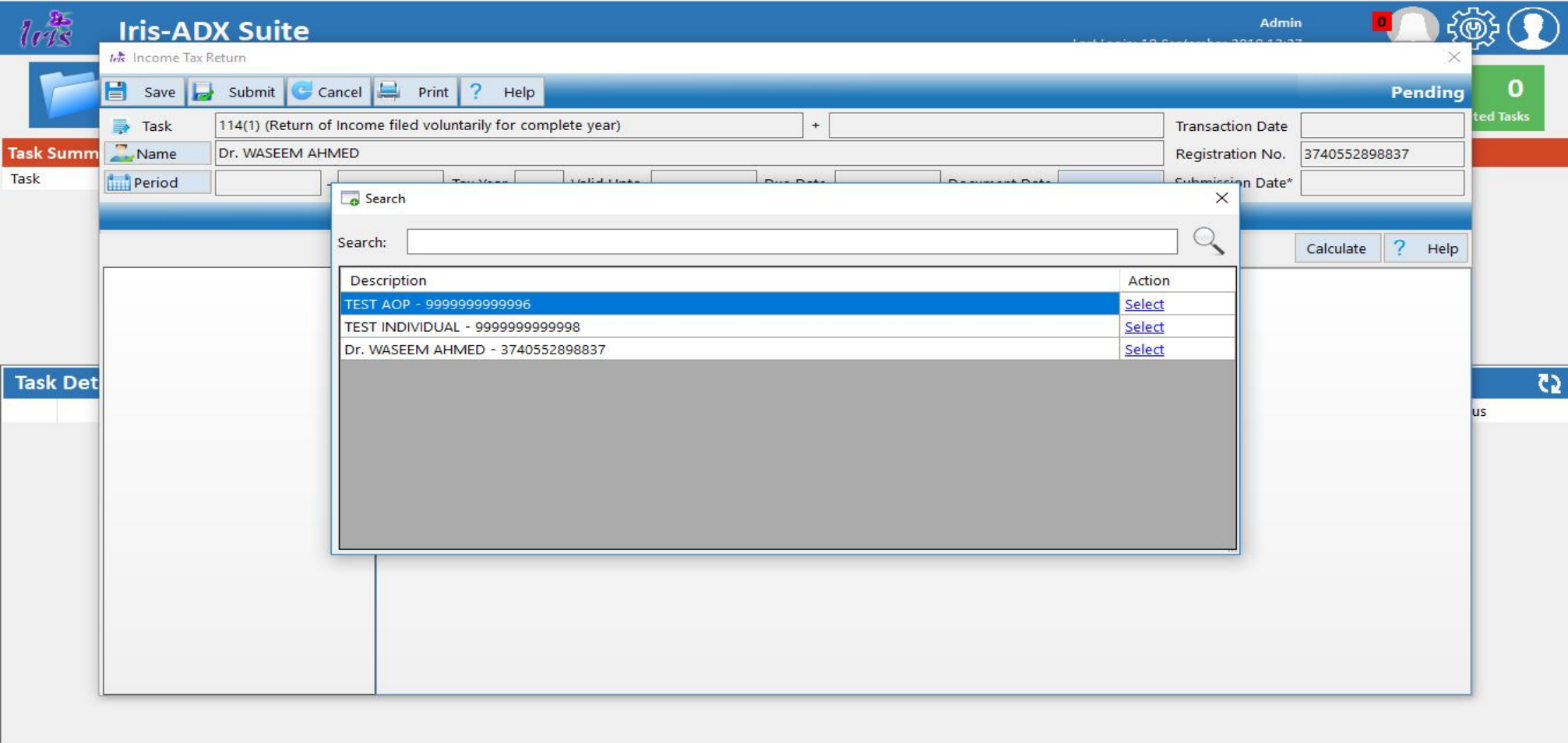
The screenshot displays the 'Iris-ADX Suite' application interface. At the top, there is a blue header bar with the 'Iris' logo, the text 'Iris-ADX Suite', and user information including 'Admin' and 'Last Login: 10-September-2018 12:37'. Below the header, there are three main buttons: 'Create Task' (blue), 'Pending Tasks' (red, showing 0), and 'Completed Tasks' (green, showing 0). The 'Create Task' button is highlighted. Below these buttons is a 'Task Summary' section with tabs for 'Draft' and 'Completed'. A search popup window is open, showing a search bar and a table of tasks. The table has two columns: 'Description' and 'Action'. The tasks listed are:

| Description | Action |
|---|------------------------|
| 116(2) (Statement of Assets / Liabilities filed voluntarily) | Select |
| 114(1) (Return of Income filed voluntarily for complete year) | Select |
| Sales Invoice | Select |

Below the search popup, there is a 'Task Details' section with a dropdown arrow and a table with columns 'Tax Period', 'Submission Date', and 'Status'.

How To Fill Return Through Iris-ADX Application

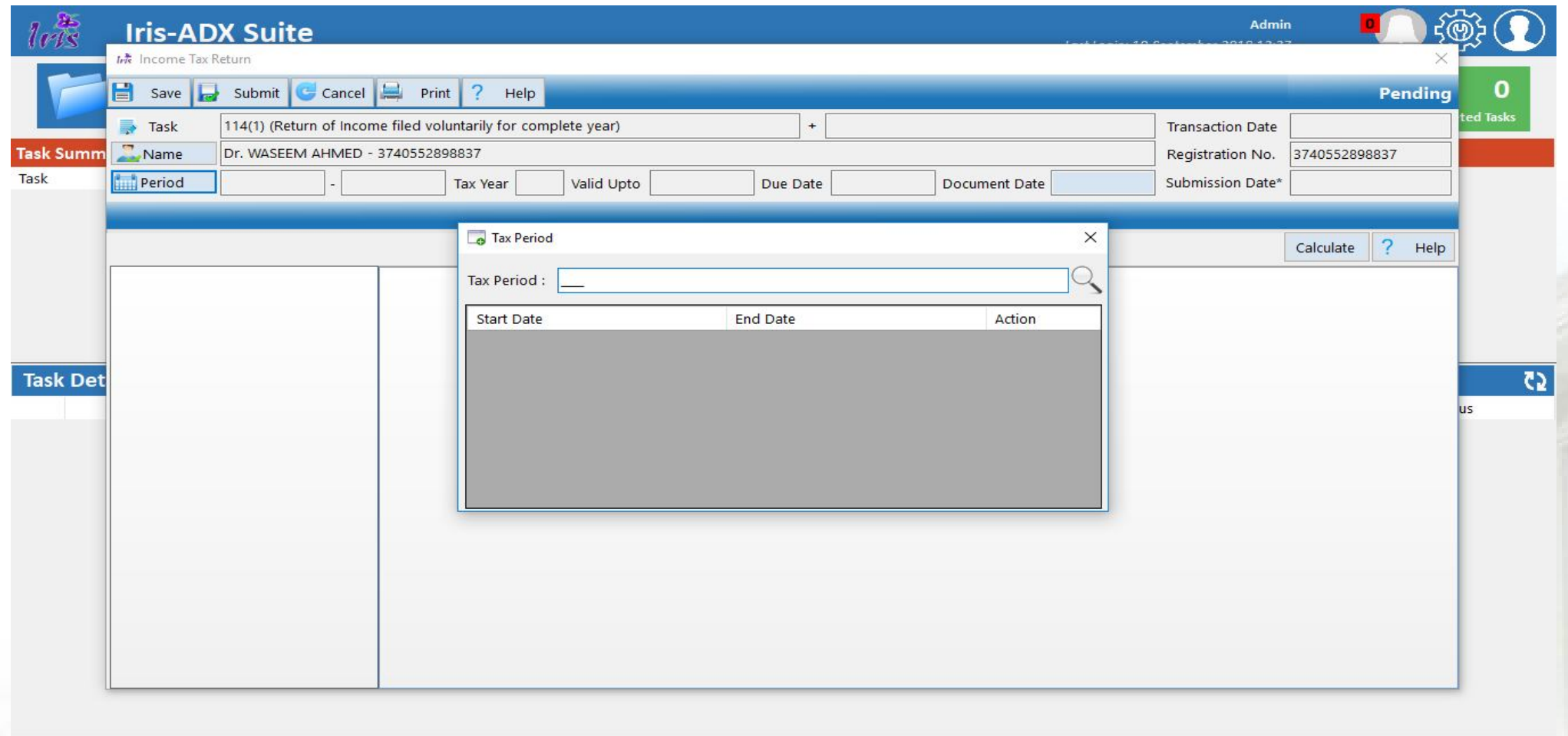
- In case Intermediary is Logged in, System shall ask for Tax payer name



The screenshot displays the Iris-ADX Suite application window. The main window has a title bar 'Iris-ADX Suite' and a menu bar with 'File', 'Edit', 'View', 'Tools', 'Help'. Below the menu bar is a toolbar with buttons for 'Save', 'Submit', 'Cancel', 'Print', and 'Help'. The main area is divided into several sections. On the left, there is a 'Task Summary' section with a 'Task' dropdown menu showing '114(1) (Return of Income filed voluntarily for complete year)'. Below this is a 'Name' field containing 'Dr. WASEEM AHMED'. To the right of the 'Name' field is a 'Transaction Date' field. Below the 'Name' field is a 'Period' field. On the right side of the main window, there is a 'Registration No.' field containing '3740552898837' and a 'Submission Date*' field. A 'Pending' status bar is visible at the top right, showing '0' pending tasks. A search dialog box is open in the center of the screen, titled 'Search'. It has a 'Search:' text box and a magnifying glass icon. Below the search box is a table with two columns: 'Description' and 'Action'. The table contains three rows: 'TEST AOP - 9999999999996' with a 'Select' link, 'TEST INDIVIDUAL - 9999999999998' with a 'Select' link, and 'Dr. WASEEM AHMED - 3740552898837' with a 'Select' link. The background of the main window is slightly dimmed.

How To Fill Return Through Iris-ADX Application

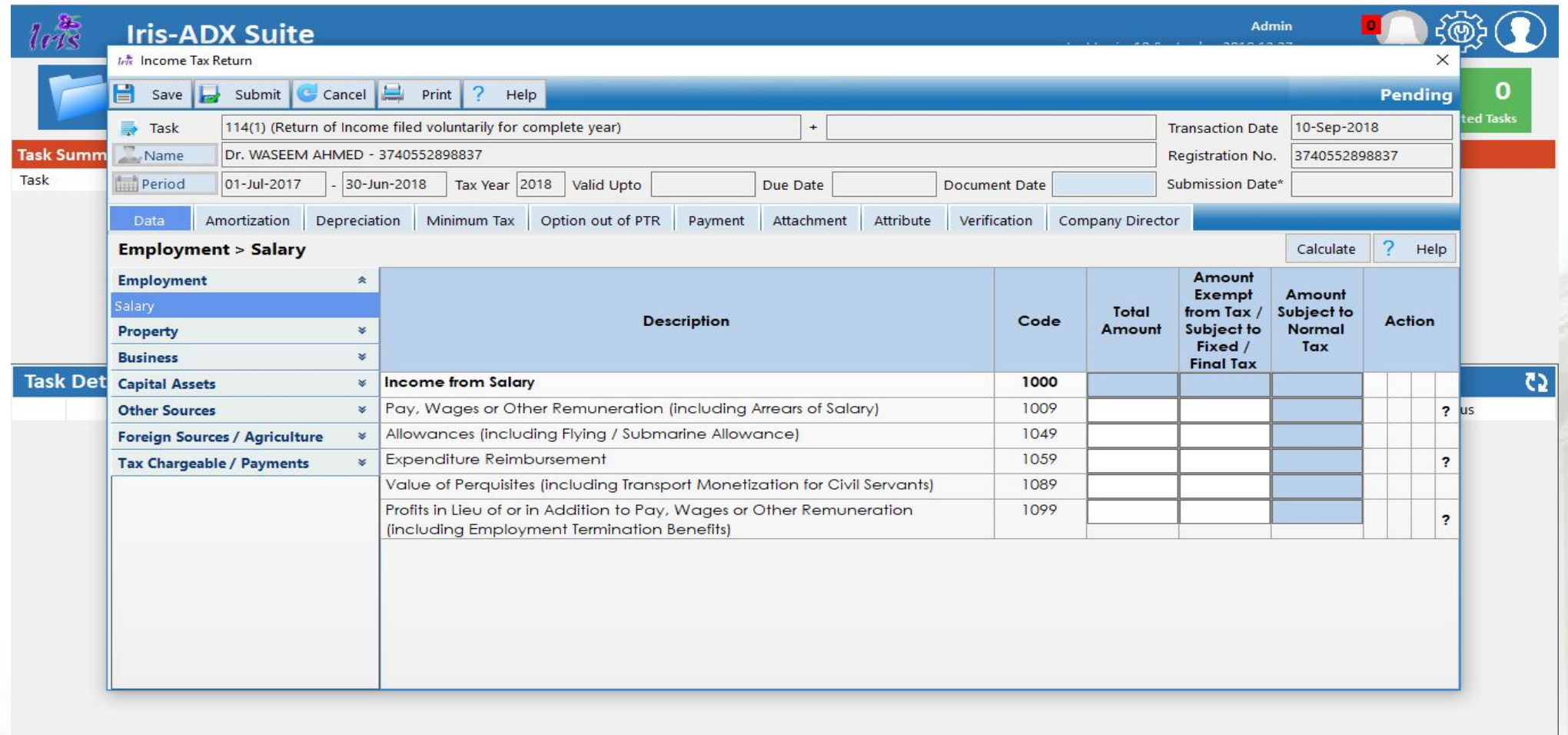
- Select relevant Tax period



The screenshot displays the 'Iris-ADX Suite' application interface. The main window is titled 'Income Tax Return' and contains a 'Task' field with the value '114(1) (Return of income filed voluntarily for complete year)'. Below this, the 'Name' field is populated with 'Dr. WASEEM AHMED - 3740552898837'. The 'Period' field is currently empty. To the right, there are fields for 'Transaction Date', 'Registration No.' (3740552898837), and 'Submission Date*'. A 'Pending' status indicator is visible in the top right corner. A 'Tax Period' dialog box is open in the foreground, showing a 'Tax Period' field and a table with columns 'Start Date', 'End Date', and 'Action'. The table is currently empty.

How To Fill Return Through Iris-ADX Application

- Income Tax Return 2018 shall be opened.
- Fill your information and press Calculate button.
- Press Save button to update the data locally and Submit button in case you want to upload data on Central Server.



The screenshot shows the Iris-ADX Suite Income Tax Return application. The interface includes a top navigation bar with the 'Iris' logo and 'Iris-ADX Suite' title. Below the navigation bar, there are tabs for 'Task', 'Task Summary', and 'Task Details'. The 'Task' tab is active, showing a form for 'Income Tax Return'.

The form includes the following fields:

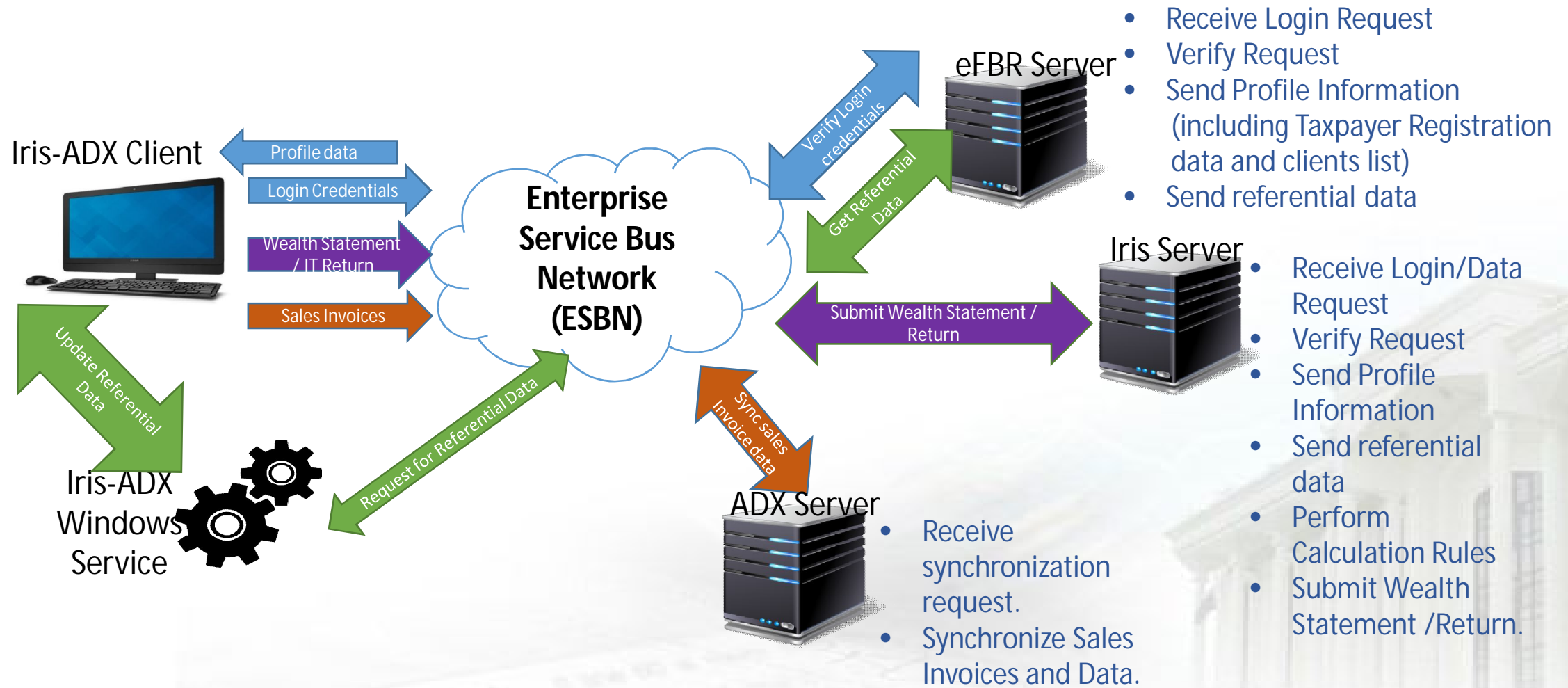
- Task:** 114(1) (Return of Income filed voluntarily for complete year)
- Name:** Dr. WASEEM AHMED - 3740552898837
- Period:** 01-Jul-2017 - 30-Jun-2018
- Tax Year:** 2018
- Valid Upto:**
- Due Date:**
- Document Date:**
- Transaction Date:** 10-Sep-2018
- Registration No.:** 3740552898837
- Submission Date*:**

Below the form, there are tabs for 'Data', 'Amortization', 'Depreciation', 'Minimum Tax', 'Option out of PTR', 'Payment', 'Attachment', 'Attribute', 'Verification', and 'Company Director'. The 'Data' tab is active, showing a table for 'Employment > Salary'.

| Employment | Description | Code | Total Amount | Amount Exempt from Tax / Subject to Fixed / Final Tax | Amount Subject to Normal Tax | Action |
|---|-------------|------|--------------|---|------------------------------|--------|
| Income from Salary | | 1000 | | | | |
| Pay, Wages or Other Remuneration (including Arrears of Salary) | | 1009 | | | | ? |
| Allowances (including Flying / Submarine Allowance) | | 1049 | | | | ? |
| Expenditure Reimbursement | | 1059 | | | | ? |
| Value of Perquisites (including Transport Monetization for Civil Servants) | | 1089 | | | | ? |
| Profits in Lieu of or in Addition to Pay, Wages or Other Remuneration (including Employment Termination Benefits) | | 1099 | | | | ? |

How to Iris-ADX Service Works

Download Resources for Installing Iris-ADX



Iris-ADX Web Services

- Iris-ADX utilizes the Enterprise Service Bus Network (ESBN) for communicating with various FBR Servers.

Iris-ADX Login service

- Iris-ADX utilizes the Login service (via ESBN) to synchronize the user's profile (Registration details, Clients etc.) with the eFBR Server.

Synchronization of Referential Data

- Once the user profile is synced while the user is logged in, a Windows Service is used by the Iris-ADX application to synchronize the Referential Data as per a pre-defined schedule.

Synchronization of Sales Invoices

- After the user has provided their sales invoice data using the Sales Invoice module of Iris-ADX, on instructions of the user, utilizes a web-service (via ESBN) for verifying and synchronizing the data with the ADX staging server.

Iris-ADX Web Services

Calculation of Wealth Statement/ Return

- Once the user has created their Wealth Statement (*116(2) Statement of Assets /Liabilities filed voluntarily*) or Income Tax Return (*114(1) Return of Income filed voluntarily for complete year*), on instructions of the user, Iris-ADX application utilizes a web-service (via ESNB) for performing calculations.
- The service creates a copy of the data on the Iris Server where the pre-defined calculation rules are applied and the calculated values are inserted. After the calculation is completed, the service updates the local Iris-ADX database.

Submission of Wealth Statement/ Return

- After the user has finalized their Wealth Statement (*116(2) Statement of Assets /Liabilities filed voluntarily*) or Income Tax Return (*114(1) Return of Income filed voluntarily for complete year*), on their instructions, Iris-ADX application utilizes a web-service (via ESNB) for submitting the statement /return.
- The service creates a copy of the statement or return data on the Iris Server where the pre-defined rules for reconciliation and verification are applied and the service returns a success message to the Iris-ADX application (relevant client), where the Statement / Return status is updated to "Submitted".



THANK YOU

Federal Board of Revenue