

# MeriPehchaan

## National Single Sign-On for Citizens of India

Edited by **MOHAN DAS VISWAM**

The Ministry of Electronics and Information Technology proposed and entrusted the three core agencies National Informatics Centre (NIC), Centre for Development of Advanced Computing (C-DAC), and National eGovernance Division (NeGD) to build a National Single Sign-On (NSSO) platform “MeriPehchaan” for citizens with an intention to eliminate the need to repeatedly prove their identities to access different government applications.

The platform was launched by the Hon'ble Prime Minister of India, Shri Narendra Modi on 4th July 2022 at Gandhi Nagar, Gujarat on the occasion of Digital India Mahotsav.

The portal is available for all the citizens at <https://meripehchaan.gov.in/>.

### Onboarding

The NSSO platform is an extensive collaboration amongst three mainstream SSO platforms

MeriPehchaan is the one-stop authentication platform for Government and Public services. It provides users with seamless and secure accessibility using only a single set of credentials. This intuitive platform is an extensive collaboration of the three mainstream SSO platforms JanParichay, e-Pramaan and DigiLocker. Together they form a citizen-centric architecture of the National Single Sign-On to enhance the user-experience to access different applications.

JanParichay, e-Pramaan, and DigiLocker. It allows users to onboard the platform either using their existing login credentials or by generating login credentials, viz. username and password with their basic profile details such as Name, Gender, Date of Birth, and Mobile Number. They may perform eKYC using their UIDAI Number (Aadhaar), Personal Account Number (PAN), and Driving Licence.

Post-authentication, users may access the service integrated with any of the three SSO platforms. The comprehensive interoperability in between the three SSO platforms provides seamless user experience when they login to any of the three SSO platforms.

Registration on “MeriPehchaan” is free of cost i.e., users are not required to pay any charges for using its services.

NIC took the responsibility to strengthen the National Single Sign-On platform with inclusion of JanParichay and by contributing in all possible manners.

### Features

MeriPehchaan aims to eliminate individual and repetitive sign-on procedures by centralising user authentication and identity management at a central identity provider.

It increases user productivity on a national level as its intuitive interface allows better user mobility and provides seamless access to multiple services and applications by authenticating just once.

Some of the key features of MeriPehchaan NSSO are

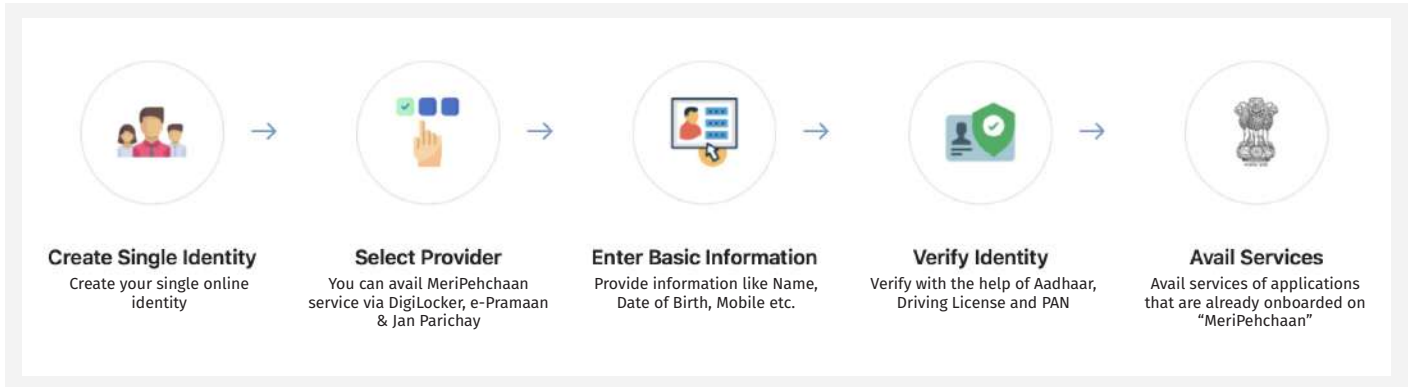
- Multi-factor authentication as per specific service policies
- SignUp using Social Account
- Aadhaar/ PAN/ Driving Licence based eKYC for user verification
- Manage multiple accounts with a single mobile number
- Government users can login using Parichay
- Password-less authentication



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▲ Fig. 8.1: MeriPehchaan onboarding process

## Technologies Used

Some of the key technologies used for the development of MeriPehchaan NSSO platform are

- Go for API application
- ReactJS / JavaScript / jQuery for Front-end
- NoSQL Database for User Profiling
- Key value pair for Caching Database
- Python and Java for Consumer Message Broker
- Java for Web Application

## Innovation Applied

Users can access the various integrated services by logging-in via MeriPehchaan NSSO. They can also utilise the platform using JanParichay and other SSO options i.e., DigiLocker, e-Pramaan, CSC, and Parichay to access and use the services for the SSO platform that they are registered with.

Services are integrated with the NSSO platform by following any of the three integration approaches i.e., Open API, OAuth 2.0, and SAML 2.0 as per their requirements.

## Key Benefits

MeriPehchaan removes the need for users to continually confirm their identities to multiple applications and maintain separate credentials for each application, while also assisting in distinguishing legitimate applications from bogus ones. On the other side, for the application owner, it helps them by saving their time, effort and cost to build the authentication systems for every service independently.

Some of the other key benefits of MeriPehchaan SSO platform are

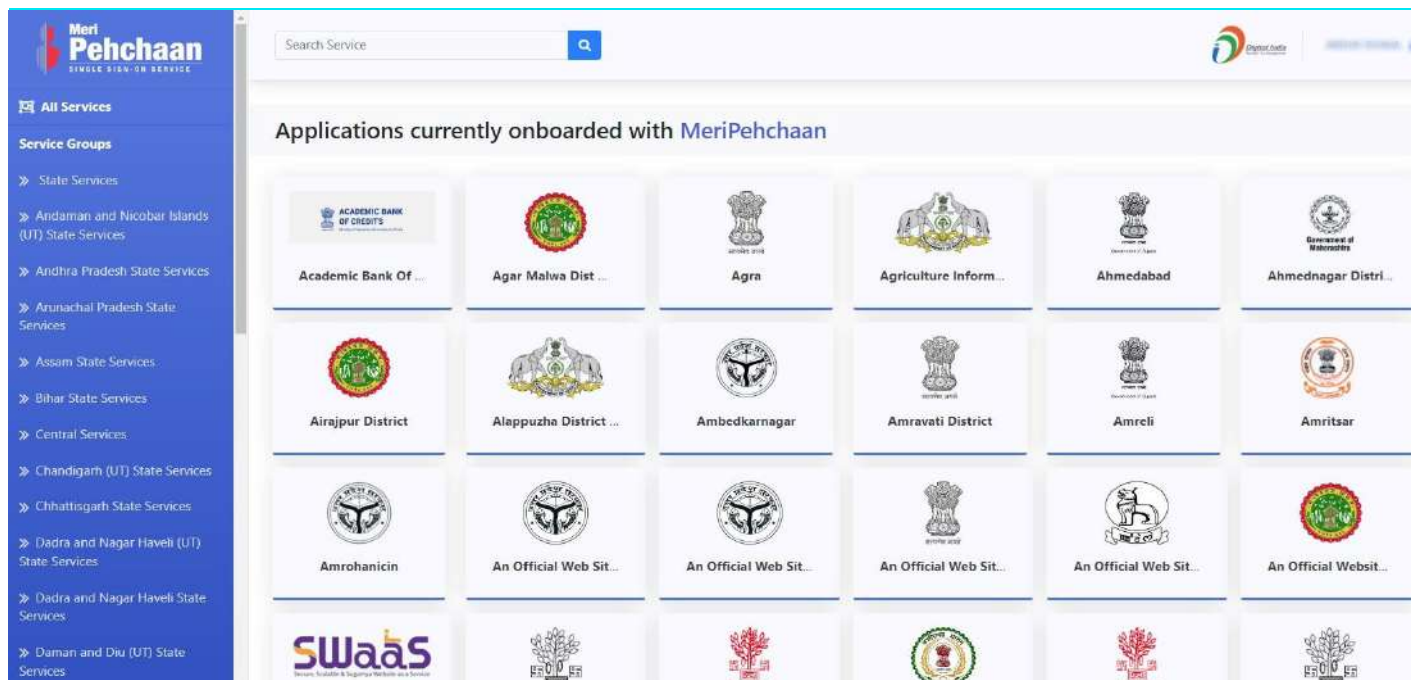
- **Seamless User Onboarding:** Citizens can login using their social media accounts, viz. Google,

In the current eco-system of evolving and sophisticated cyber threats, MeriPehchaan allows users to access multiple applications by adhering to the recommended security standards. MeriPehchaan is a landmark initiative by MeitY and an example of true collaboration as it has been rolled out by three organizations i.e. NIC, CDAC and NeGD as a unified endeavour.

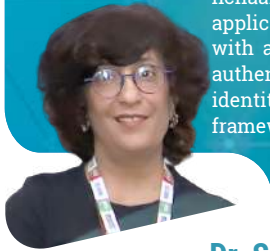


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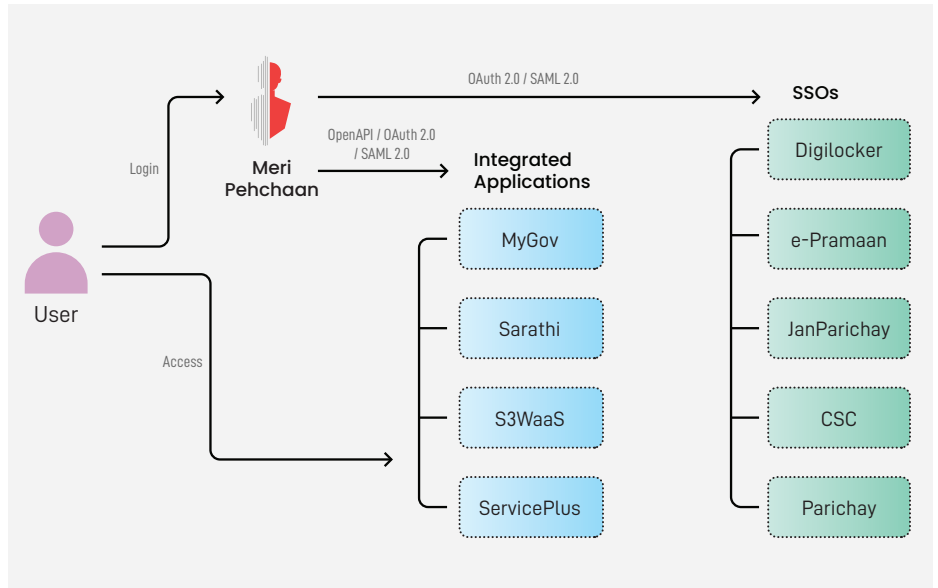
▼ Fig. 8.2: MeriPehchaan Dashboard



To deliver on the vision of Hon'ble Prime Minister's "Digital India Mission," MeitY has implemented MeriPehchaan, the National Single Sign-On platform of the Government. It provides users with enhanced secure authentication to access citizen-centric services using a single set of credentials. With seamless on-boarding of applications, MeriPehchaan provides application owners with a well-designed authentication and identity management framework.



**Dr. Seema Khanna**  
Dy. Director General



▲ Fig. 8.3: MeriPehchaan Architecture

Facebook, GitHub, Twitter and LinkedIn accounts while government users can login via Parichay, CSC accounts as well

- **User Authentication:** Services can force users to authenticate themselves over certain parameters before granting accessing the service

- **Language Interoperability:** Applications are accessible in multiple languages namely Hindi, English, Tamil, Malayalam, Marathi, Telugu etc.
- **Standardised Registration:** Users can login via Aadhaar, PAN, and Driving Licence
- **Reusable User Profile:** Users will be able to

reuse the MeriPehchaan profile information to access other Government services

- **Safe and Secure:** Completely safe as SSOs under MeriPehchaan take care of Aadhaar data and keep Aadhaar details in the Aadhaar vault as per the guidelines of the Aadhaar Act
- In-house Parichay Authenticator adds extra level of security
- **User Analytics:** Analytics Dashboard tracks log events for user and service sessions
- **Unified Partner Portal:** Unified Partner Portal to on-board applications and get verified information about Users who has logged in via Meri Pehchan

▼ Fig. 8.4: MeriPehchaan Application Layers



## Summary

The well-designed NSSO solution will significantly reduce complexities of applications regarding the authentication infrastructure and identity management, subsequently, decreasing their maintenance cost while increasing the security. The platform offers various additional benefits i.e., strengthening password policy, reducing risk of data breach, centralised access control, reduced workloads and most importantly ease of doing business.

This would result in a scalable framework offered by the Government to the citizens with a standardised user interface across all the three SSOs thereby enabling a NSSO platform. It will be a stepping stone towards enhancing Government-to-Citizen services.

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