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# INSIGHT



Harnessing the Potential of  
Unique Identification

**HCL**

# About Unique Identification

The Government of India (GOI) has setup a Unique Identification Authority of India (UIDAI) with the mandate of providing a unique identity number to all residents of India that will remain valid for life. The project aims to create a platform that serves as an authentication infrastructure for the delivery of public and private services to the residents of India.

This is a unique and first of its kind biometric based citizen-centric identity solution in the world. The UID number is a 12 digit unique number linked to the resident's demographic and biometric information. The unique identity number is random, and is devoid of any classification based on caste, creed, religion and geography.



*In a world where identity theft is growing, public service agencies and enterprises continue to seek risk-appropriate authentication methods that balance assurance and accountability against user experience and cost. HCL understands this pressing need for unique identification requirements and is successfully delivering unique identity authentication solutions on a national scale through a combination of advanced technologies and techniques.*

## Need for Unique Identification

India has enjoyed tremendous growth over the past two decades, but to continue on that trajectory it is critical to include the very poor and geographically remote in the economy. With the size of the population of India, its diversity and complexity, one of the biggest barriers preventing the residents from accessing benefits and subsidies is to prove their identity.

Giving a unique identity to 1.2 billion residents is a challenging task. The scope to capture the record of 12 billion fingerprints, 1.2 billion

photographs, and 2.4 billion iris scans and to ensure that no person gets more than one identity number is indeed unique. The solution for such project had to be built from a ground level. A Managed Service Provider was therefore needed by UIDAI to manage end-to-end technology infrastructure comprising implementation and management of Central ID Repository, implementation of information security management systems, operations support and maintenance and technical helpdesk .



The portfolio of solutions offered by HCL include -



### • Biometric Identification System

The heart of solution for this largest biometric ID system is Automated Biometric Identification System (ABIS). HCL is managing biometric standards to ensure the inter-operability of devices, systems and processes used by various agencies that communicate with the UID system.



### • Intranet and Knowledge Management Portal

In order to provide various forms of information to the state, non-state and residents, HCL has been assigned the responsibility of design, development, maintenance and support of Intranet and knowledge management. This information portal provides administrative access for internal users, partners, and general information / reports/ grievances / take appointment for enrolment services to public.



### • Datacenter Setup and Maintenance

HCL designed and built one of India's biggest data center which houses about 10,000 computing devices, double digit Petabyte of storage and 10GB secured network links. All of these along with application stack is monitored and managed with automation using open source monitoring tool framework.



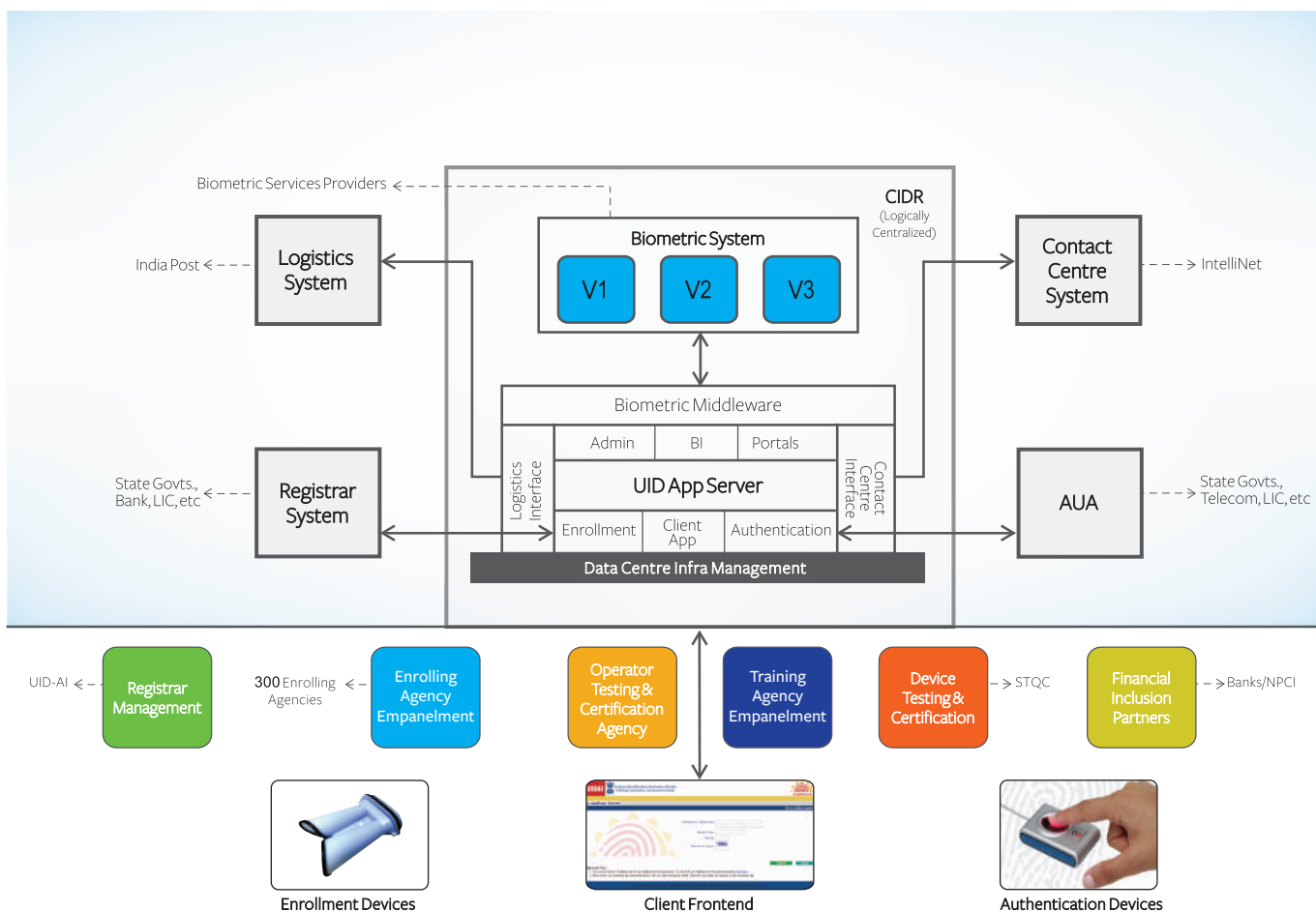
### • Business Intelligence Solutions

For providing trends, patterns, analysis of identity fraud scenarios, authentication success, usage of various services and their element, HCL implemented, Big data solution to enable real time decision making and information update as applicable. The salient features of BI solutions comprised

- Interactive dashboards to enable UIDAI users/ partners to take effective business decisions.
- Interactive reports to track enrolment progress, SLAs, revenue from authentications etc.
- GIS representation of reports
- Near real time Business Intelligence (BI) updates on the portal
- Delivery of BI information on mobiles, portals, RSS feeds
- Upto 500 concurrent users and a total of 5,000 users can perform various operations such as downloading datasets, request for new datasets etc

# AADHAAR Eco-System - Powered by HCL

## (Technical)



“ Aadhaar project is an example of using modern technology to leapfrog for future development and transformation of a country.

Aadhaar project is to solve the problem of people who do not have an acknowledgement of their existence by people and the state or lack of acknowledgement of their identity.”

**Nandan Nilekani - UIDAI Chairman**

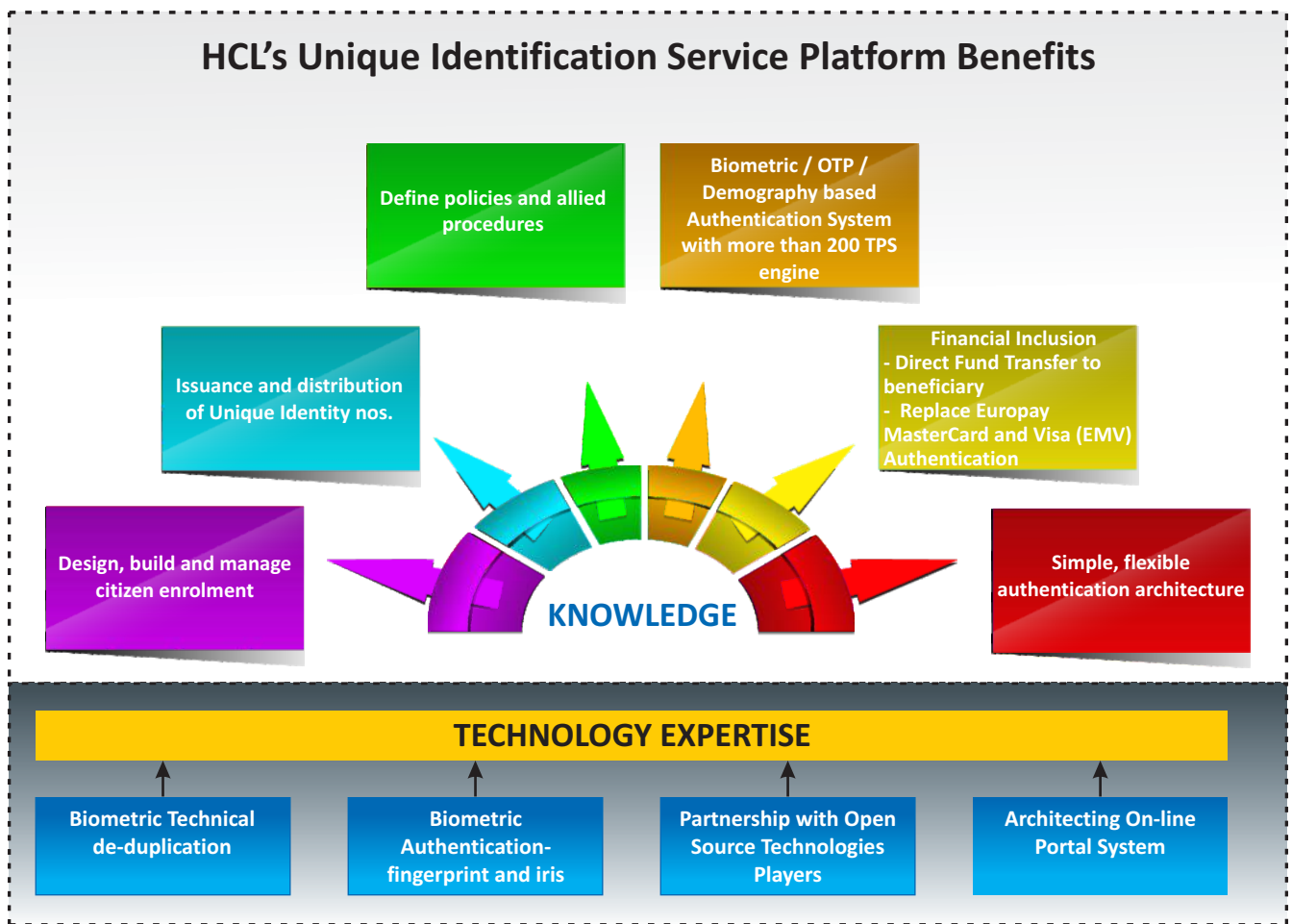
“ The cost of identification is a big challenge. UID will ease our operations.”

**Shikha Sharma - Managing Director & CEO - Axis Bank**

“ UID could help build a GIS-compatible health information system, and establish nationwide surveillance and diagnosis facilities for service and research on infectious diseases. Given that many Indians lack identity proof and migrate for work, maintaining health and immunization records is a challenge.”

**Dr. Preetha Reddy - Managing Director - Apollo Hospitals**

[Sources: 4,5,6]



The unique identification project holds great potential to unlock a new wave of social progress and economic growth in India. The solutions offered by HCL in this ambitious project will deliver social, financial and infrastructural benefits to all levels of society. The benefits offered include -

### For UIDAI

- Highly scalable solution
- With one of its kind the de-duplication model ensures number of duplicates are less than 0.01% for a population of 1.2 billion
- Very low cost solution due to open sources technologies
- The use of PKI security model ensures no data leakage out of the central Data Repository
- Innovation on the device technology has brought cost of device down which will enable large usage of Aadhaar authentication services
- Identity Fraud is prevented by tracking and tracing all the potential scenarios using check

and balance at all stages and algorithms to detect patterns

- Benefits from reduction in leakages that occur due to identification and authentication issues

### For the Government

- Rapid implementation of e-governance initiatives
- Adding new beneficiaries - Authentication can be used by the government as proof of identity and address to extent social welfare programs.
- Attendance management - Government

- Programs where financial outlay is linked to beneficiary attendance can use biometric authentication for attendance tracking
- Reducing leakage in government social expenditure through de-duplication of beneficiary lists
  - Enabling Financial Inclusion

#### **For Organizations**

- Enable organizations to create a single customer master
- A platform for low cost authentication

- To improve reach of Financial Services
- Ensuring that all fake, duplicate and ghost records are weeded out from database to avoid leakages

#### **For Residents**

- No repeated KYC checks for residents - It would give residents access to social levelers such as banking and telecom which they have so far been denied for want of identity proof
- Access control - The authentication could be used in future to control access / entry to restricted area such as airports, hotels, examination halls etc.

#### **Sources**

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## About HCL

HCL is a \$6.3 billion leading global technology and IT enterprise comprising two companies listed in India - HCL Technologies and HCL Infosystems. Founded in 1976, HCL is one of India's original IT garage start-ups. A pioneer of modern computing, HCL is a global transformational enterprise today. Its range of offerings includes product engineering, custom & package applications, BPO, IT infrastructure services, IT hardware, systems integration, and distribution of information and communications technology (ICT) products across a wide range of focused industry verticals. The HCL team consists of over 90,000 professionals of diverse nationalities, who operate from 31 countries including over 720 points of presence in India. HCL has partnerships with several leading global 1000 firms, including leading IT and technology firms.

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The HCL logo is displayed in a bold, blue, sans-serif font. The letters 'H', 'C', and 'L' are connected, with the 'H' and 'C' sharing a vertical stroke on the left. The 'L' is a simple vertical bar with a horizontal base. The logo is positioned in the bottom right corner of the page.