API Setu

Driving Digital Transformation

HEALTH

FINANCE

INSURANCE

EDUCATION

OpenAPI in a nutshell

OPENAPI INITIATIVE

Third-Party Developer Community

Backend Systems

Open API

Mobile & Web Applications
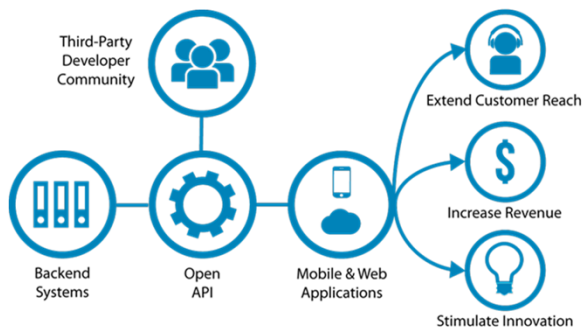
Extend Customer Reach

Increase Revenue

Stimulate Innovation

Image Source: https://en.wikipedia.org/wiki/Open_API

The **OpenAPI Specification (OAS), is a technical specification that describes REST APIs.**

It is a standard interface description for REST APIs that is programming language agnostic.

This enables both computers and human users to identify and understand service capabilities without requiring additional documentation, accessing source code, or inspecting network traffic.

APIs in Government

New Zealand	Achieved **Rank 1** in Ease of Doing Business
Estonia	**Saved 820 Man-Years** of time annually with their X-Road API gateway
United States of America	The US government currently **offers a catalog** of open APIs (open APIs here online).
INDIA	Notified its **OpenAPI Policy** and building products for fast tracking its enablement

APIs Transforming India

AADHAAR   INCOME TAX DEPARTMENT   UPI   UMANG   DigiLocker   C-WIN Winning Over COVID - 19   BHARAT BILLPAY   BHASHINI

Aadhaar   PAN   UPI   UMANG   DigiLocker   Co-win   Bhar

APIs Setu Open API Platform

- Facilitate implementation of **Open API Policy** notified in July 2015

- To **build open and interoperable digital platform** to enable **seamless service delivery** across **government silos**

- To **enable quick and transparent software integration** with other e-Governance applications and systems.

- To promote **'API first'** approach, enabling an ecosystem of micro-services and related cost savings

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- To enable and promote **safe and reliable sharing of information** and data across various e-Governance applications and systems.

- **Promote innovation** through the availability of data from e-Governance applications and systems to the industry and public.

- Provide guidance to Government organizations in developing, publishing and implementation of Open APIs

Benefits Open API Platform

Minimises Implementation Logic

Consumers can interact with and understand remote services easily

Single Point of truth - Quality and Security

Following industry standards
Reduces misalignment between the back-end-offered API and the client-consumed API

Automation

Documentation generation tools, testing tools,
Code generation tools that generate clients and servers in various programming languages, and others

Overall efficiency and reduction in Costs

All the benefits translate in to cost reduction

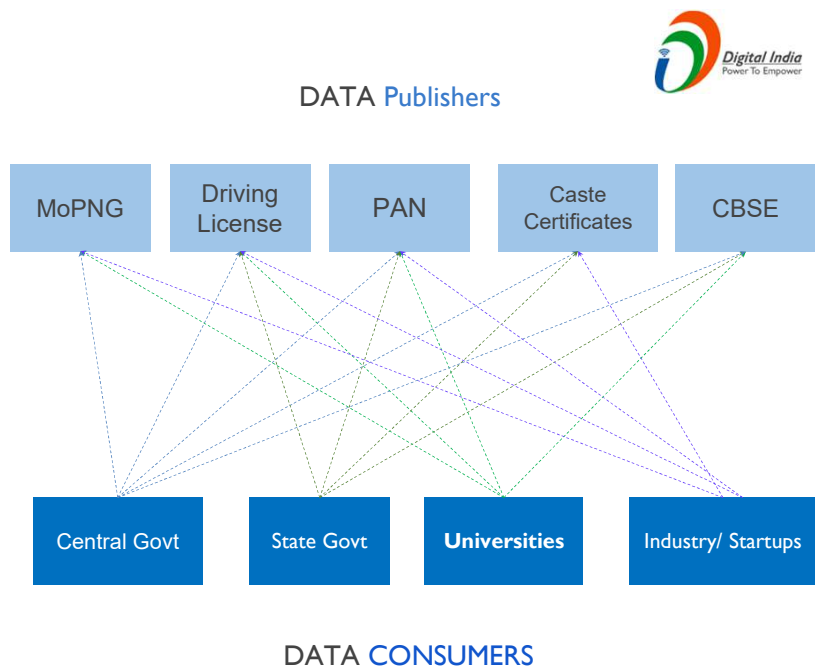---

Challenges

DATA Publishers

Lack of API **availability**
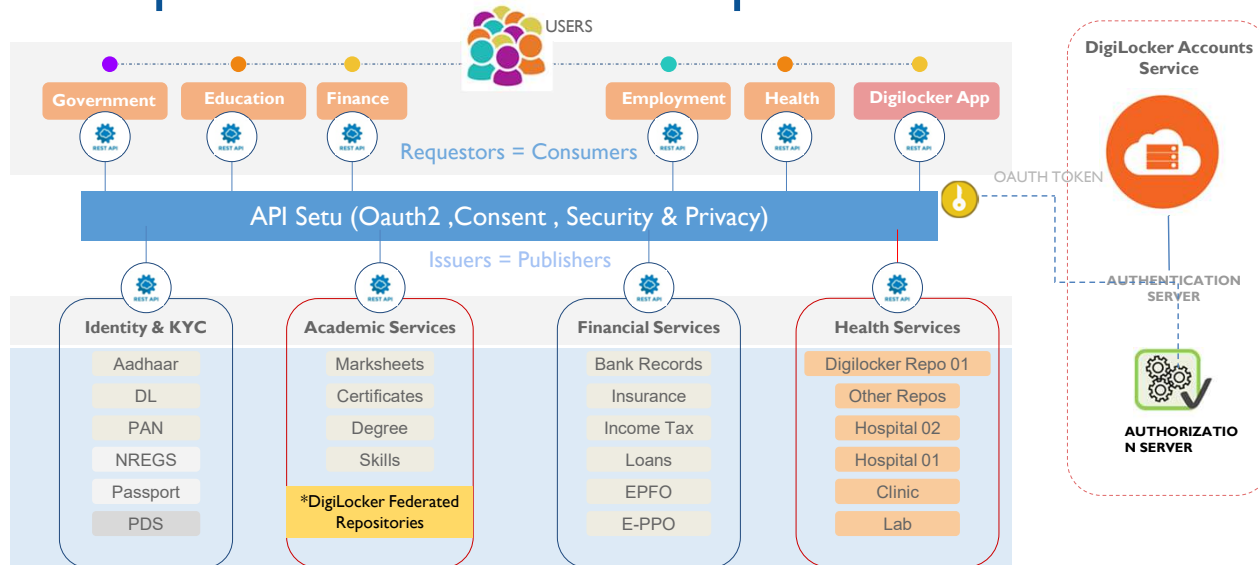
Proprietary **standards and protocols**

Absence of **common data standards**

N to N connections for access

Lack of **central governance, common policy, contro**l, **accounting and monitoring**

MoPNG	Driving License	PAN	Caste Certificates	CBSE

Central Govt	State Govt	**Universities**	Industry/ Startups

DATA CONSUMERS

API Setu – Features

Single platform to publish and discover APIs

One-stop platform for publishers and consumers

Common policy and governance structure

Industry standard protocols

Standardization of data exchange

API Setu **Features**

- **Provides the features for API management:**
  - configure, test, publish, discover
  - logging & monitoring,
  - rate limiting and throttling,
  - API authentication and authorization (client id, client secret, API key and OAuth 2.0)
  - caching
- **Transformation and Standardization**
  - **Transforms data** in machine readable format
  - Maintains and enforces **data standards - metadata** and **schemas** for information sharing
- **Consent based data access**

Present Status

APIs Published	Publishers	Consumers
2531	**1098**	**369**

Over **6 crore monthly** transactions

API Setu How It Works

As Publisher

Manage API Clients
Control the API Quotas
Monitor usage and performance of APIs

As Consumer

Easily discover APIs
Test and Deploy to perform data exchange

API Development in accordance with Industry standards

Open APIs
Open API Specifications: Doesn't not require rewriting existing APIs
RestFul APIS
https://apisetu.gov.in/home/resource

Thank You
www.apisetu.gov.in