



API Catalog for Intellectual Property

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What is API Catalog for IP?

1

API Catalog for IP is a unified platform that provides access to a comprehensive list of APIs offered by participating IP offices, for their products and services

2

Currently contains 179 APIs from 10 IP offices (WIPO, DMPA, IP Australia, EPO, EUIPO, JPO, MOIP, QAZ Patent, UPRP and USPTO)

3

The catalog features a multilingual user interface and detailed guides, available in 10 languages: Arabic, Chinese, German, English, French, Japanese, Korean, Portuguese, Russian and Spanish.

<https://www.wipo.int/en/web/standards/ip-api-catalog/index>

Background

Initiative:

At its eighth session, the Committee on WIPO Standards (CWS) established **Task No. 56** to develop a unified API catalog, aiming to increase transparency and accessibility of IP office services.

The **API Task Force** was assigned to support the International Bureau in designing and developing a catalog listing APIs made externally available by participating in IP offices.

Collaborative Planning:

In 2022, the API Task Force convened multiple meetings to explore opportunities, address challenges, and define the project's scope and benefits.

Project Kickoff:

With broad support, the API Task Force agreed to launch the API catalog project in 2023



API Catalog for IP project

Objective: To build a catalog of APIs provided by IP offices

- API Catalog for IP development phase (**November 2023 - July 2024**)
- API Catalog went live in **July 2024**
- API Catalog for IP maintenance phase (**July 2024 – current**)

API Catalog for IP development phase

1

Research and Documentation of API Services

- Collect and document details of APIs including URLs, specifications, and formats
- Establish communication with responsible personnel
- Ensure all data is standardized and complete

2

Recommendations for IP offices to update their APIs and related document

- Prepare guidelines on documentation standards and catalog integration,
- Ensuring flexibility for future expansion other offices.

3

Design and Development of the API Catalog Portal

- Develop user-friendly portal that enables easy navigation and information retrieval
- Index APIs collected from participating IP offices within the portal.
- Ensuring efficient API search functionality, and intuitive access to API documentation

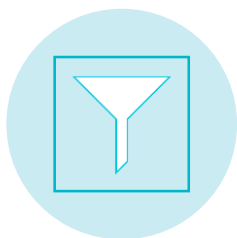
API Catalog for IP project- Maintenance phase

Goal : Improve and extend the API Catalog for IP

Planned improvements - (from July 2024 onward)

- Expand coverage by incorporating additional APIs from other Intellectual Property (IP) institutions.
- Improve categorization and labelling by introducing new filter values.
- Enable management through a dedicated admin interface.
- Provide multilingual support, offering translated versions of the API Catalog Portal and Guide Pages.
- Enhance the “Search” functionality, complementing existing filter-based searches.
- Implement automated identification and indexing of new APIs.

API Catalog for IP Improvements Since the Last CWS Session



Admin Management Interface – Added functionality allowing administrators to manage and configure filter values, add new API and institution directly.



DMPA (German Patent and Trademark Office) joined the catalog this year.



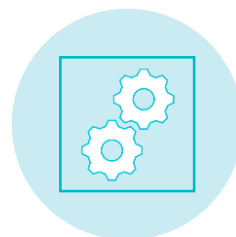
Advanced Search Capability (OpenSearch) – Integrated a new **OpenSearch** engine to significantly improve **search accuracy and performance**.



Exact Keyword Search – Users can now perform **exact match searches** by enclosing terms in quotation marks (e.g., *“intellectual property”*).



Multilingual Documentation and Interface – The **API Catalog User Interface**, **User Guide**, and **IP Institution Guide** are now available in **10 languages**: *Arabic, Chinese, German, English, French, Japanese, Korean, Portuguese, Russian, and Spanish*.

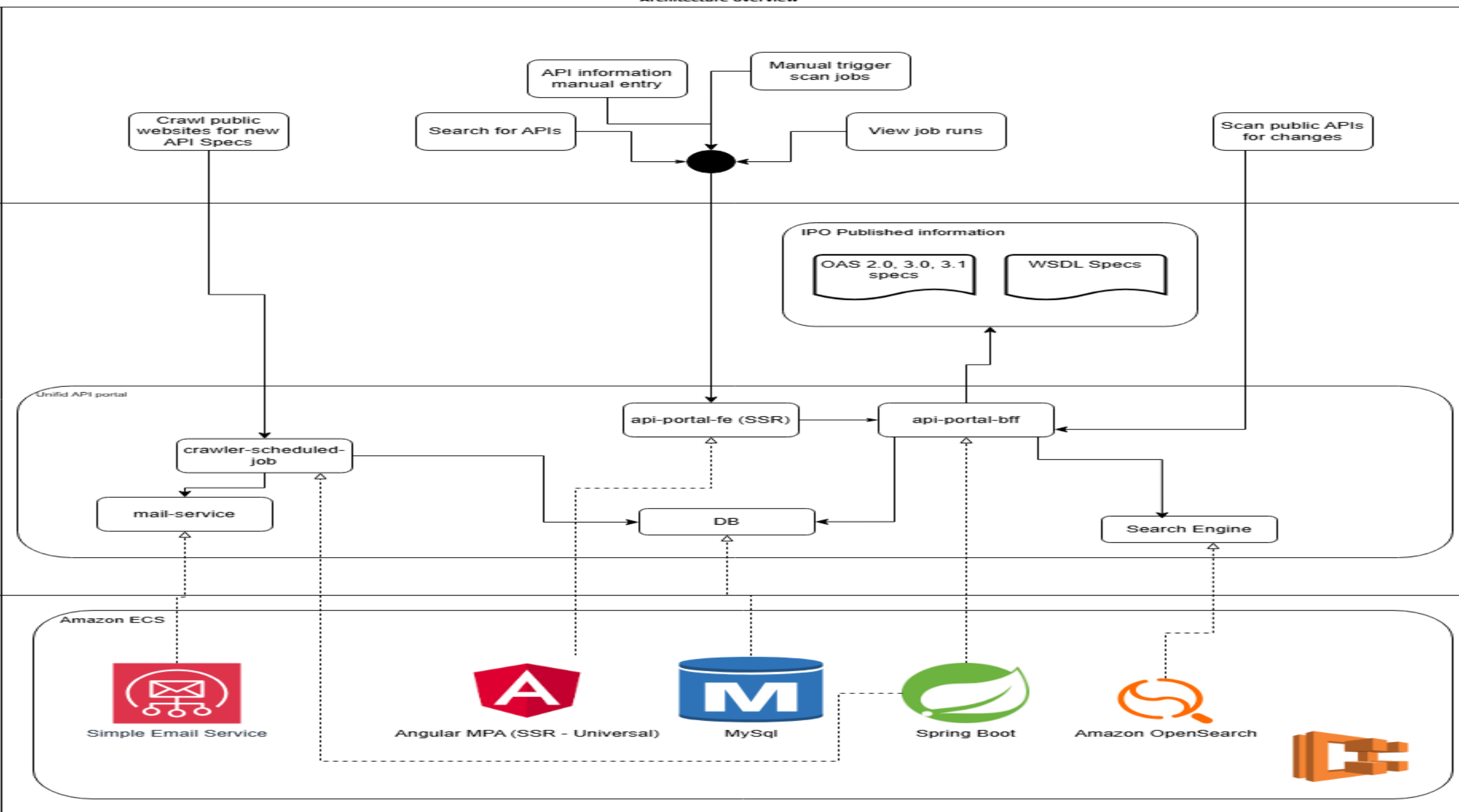


Implementation of the IP API Crawler feature which is an automated tool of the API Catalog for identifying and collecting new API launched by IP Office.

Business

Application

Technology



Workflow of the API Crawler

The IP API Crawler feature is an automated mechanism of the API Catalog for IP, designed to discover publicly available API specifications (e.g., OpenAPI, Swagger, WSDL) published on IPO websites.

Steps:

Initialization: Start from base URLs; track each run

Crawling: Follow links (depth 3+); scan for API files (.json, .yaml, .wsdl)

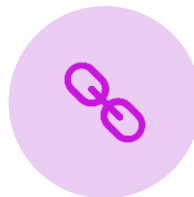
Pattern Detection: Match URLs/content to known API patterns (e.g., “swagger”, “openapi”, “api-docs”)

Results & Notification: Store metadata; generate reports/email alerts

Challenges of API Crawler



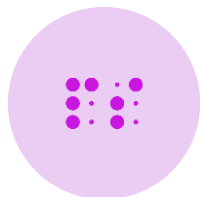
Dynamic Content:
APIs generated via JavaScript/AJAX may not be visible in static HTML



Deeply Nested Links:
Documentation buried beyond configured depth (5–10 levels) may be missed



Authentication: Only publicly accessible pages can be crawled; restricted areas are inaccessible



Non-Standard/Hidden URLs: Specs not linked on the website cannot be discovered



Performance Constraints: Large or complex sites require time; depth and page limits apply

How to address the challenges

Category	Guideline	Challenge addressed	Notes / Examples
Visibility & Placement	Expose an explicit, clickable link to the machine-readable spec and the human docs on a page within crawl depth.	Non-Standard/Hidden URLs Performance Constraints	Example (HTML): <link rel="service-desc" href="/api/openapi.yaml" /> <link rel="service-doc" href="/api/docs" />
URL Design	Publish a stable, direct spec URL using OpenAPI 3.x (.json or .yaml). Avoid hash-based or JS-only routes.	Dynamic content	Prefer: /api/openapi.yaml or /api/openapi.json (alias /v3/api-docs where applicable).
Reachability (Depth)	Keep API docs/spec reachable within 3–5 clicks from your main domain or developer landing page.	Deeply nested links Performance Constraints	Provide a prominent “Developer” or “APIs” link in top-level navigation.
Documentation Index	Offer a single page that lists all APIs with links to their specs and guides.	Non-Standard/Hidden URLs Performance Constraints	E.g., /developer or /api/docs with per-API entries and stable links.
Versioning	Maintain per-version spec URLs and a canonical latest.	Non-Standard/Hidden URLs	E.g., /api/openapi-v1.yaml and /api/openapi.yaml (301 redirects acceptable).
Access & Caching	Ensure public, unauthenticated GET access to docs/spec. Use standard caching headers to reduce load	Authentication	ETag / Last-Modified recommended; enabling CORS for GET helps dev tools (optional for the crawler).

API Catalog Statistics

(September 15, 2024 to October 31, 2025)

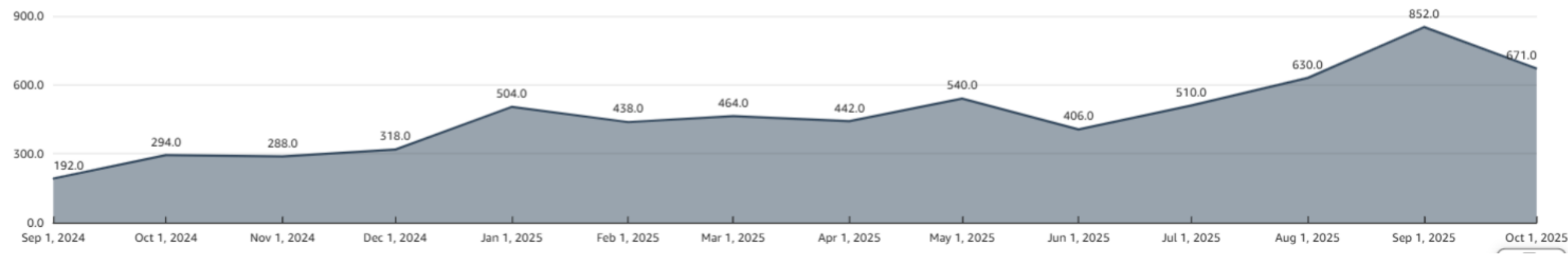
Unique Visitors

6,080

Pageviews

18,707

How are Unique Visitors trending, per Day

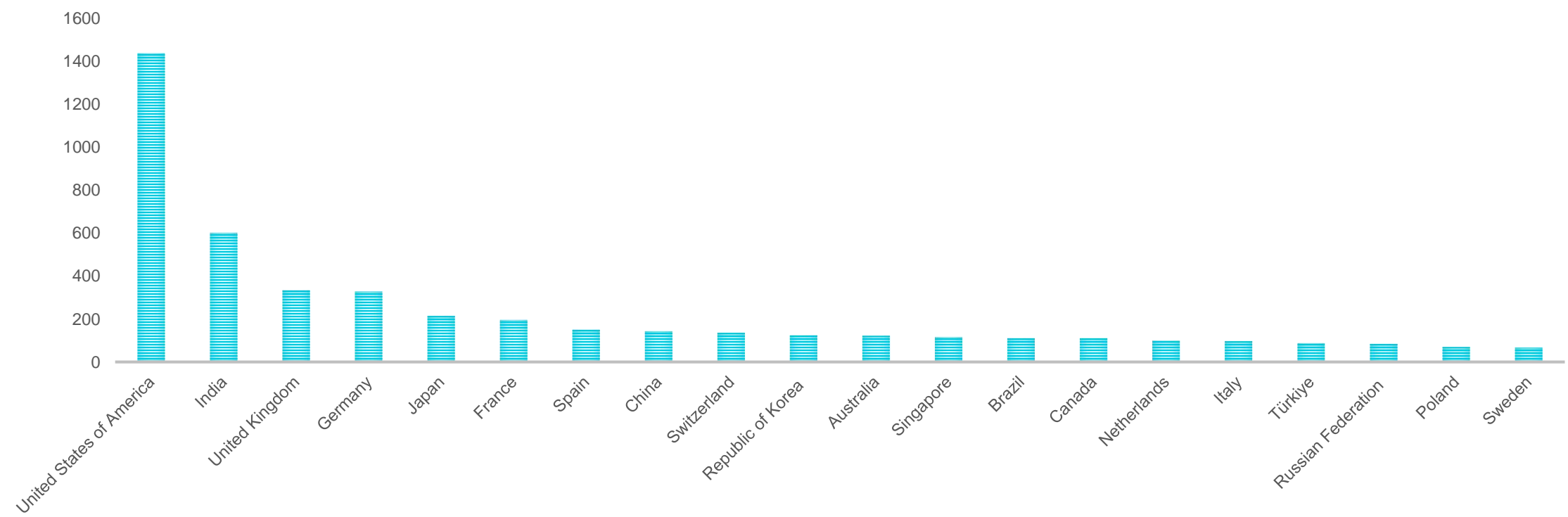


API Catalog Statistics

(September 15, 2024 to October 31, 2025)

Unique visitors were recorded from 120 countries worldwide, reflecting a diverse global audience. The graph highlights the top 20 countries with the highest number of visitors.

Unique visitors by country




Future Plan

- Incorporate more APIs from IP offices
- Promote APIs listed in the catalog to increase usage and visibility
- Expand the catalog to include APIs from IP industry
- Improve the **API crawler feature** for better accuracy and coverage
 - **AI technologies** to automate gathering and indexing APIs





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