



WIPO API Day 2023

WIPO Approach to API First Strategy

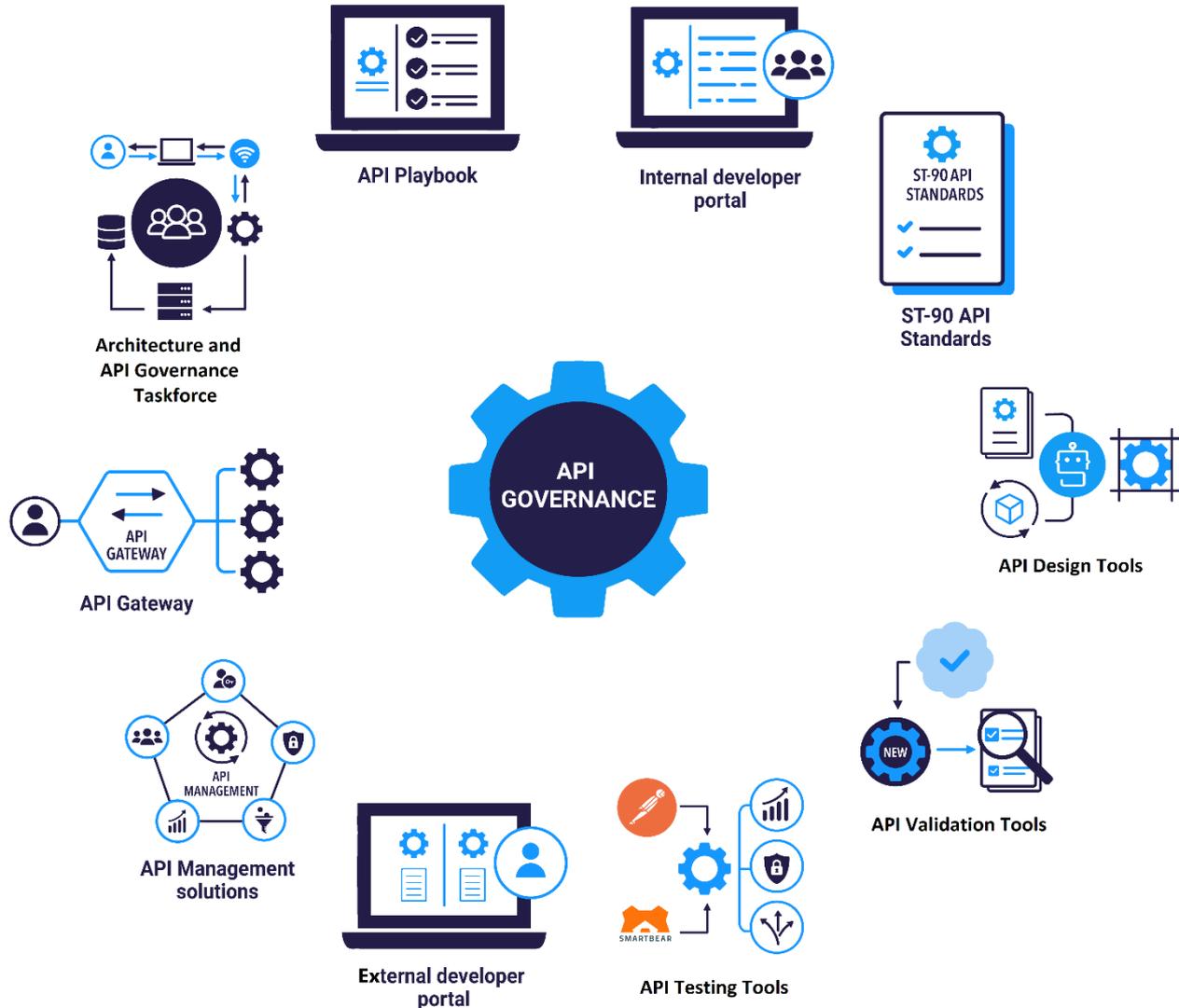
WIPO
13th June 2023

API strategy goals

WIPO has identified multiple benefits from moving to API-enabled architectures and an API management solution:

- Increase WIPO visibility and presence on the market
 - Spur innovation
 - Create new business opportunities by enabling B2B and B2C integrations based on open and WIPO standards
 - Minimise cost and time to the market with API first approach, minimise duplication and foster reuse
- Strengthen API governance
 - Provide consistent enforcement of information security policy
 - Have consistent and high quality digital services that meet the business and customer's need
 - Enable API standardization and harmonization across WIPO's API ecosystem
- Help WIPO teams to implement APIs
 - Clear and light API governance processes
 - Right tools for the right job
 - Better collaboration between teams

Elements of WIPO strategy



Work in progress on most of the parts with continuous focus on early feedback.

Playbook

The playbook defines common rules and provides guidance.

Includes:

- Definition of the WIPO API First process and its application in two main scenarios:
 - External facing APIs
 - Internal APIs between applications
- Reference to mandatory WIPO standards
- Usage of the selected and approved tools
- References to API best practices

Focus: _____ on agility, reusability and simplicity.

Challenges: _____ it should help rather than put an extra burden on implementation

Status: _____ draft, pending feedback and approval

API management solution and gateway

Main front door into WIPO APIs

Includes:

- API definitions, routing, transformations, integration
- Authentication, authorisation, thread detection, mediation, delegated admin, etc.
- Monetisation, throttling, subscriptions
- Hybrid deployment and integration with cloud and on-premises APIs
- Centralised monitoring, logs, alerts
- Optional: integration capabilities
- Optional: portals and tools

Focus: _____ on balanced realization of the key requirements

Challenges: _____ priorities of various functional and non-functional features
balanced selection based on WIPO needs

Status: _____ RFP ongoing

External developer portal

External facing, business focused portal

Includes:

- Publishing of the available APIs
- Business cases, benefits and stories
- Detailed API documentation, including examples
- Sandpit for real life tests
- Ability to subscribe and self service
- WIPO branding

Focus: _____ on business value and everything to start using APIs for integrations

Challenges: _____ right balance between business and developers views
security and sandpit
capturing and presenting information

Status: _____ conceptual design and options (pending RFP)

API design tools

Tools to design, reuse, validate compliance to WIPO standards and collaborate

Includes:

- Design, import/export, documentation, collaboration, mocking, etc.
- Ability to reuse elements of data models
- Ability to validate against WIPO ST.90 and other standards
- Access control and integration with WIPO security

Focus: _____ on security and usability

Challenges: _____ support and customization for WIPO specific standards usability

Status: _____ pilot Stoplight with early adopters, pending feedback and approval

get the recorded requests for document retrievals from OS INTERNAL

https://das.wipo.int:{port} /das-api/v1/requests/retrievals Path Params

GET POST PUT PATCH DELETE HEAD OPTIONS TRACE

+ Security + Header + Query Param + Cookie

Security

bearerAuth

Query Params

requestAckId	string	Description...	🔗	🔍	🗑️
documentKindCategory	string	Description...	🔗	🔍	🗑️
documentNumber	string	Description...	🔗	🔍	🗑️
documentDate	string	Description...	🔗	🔍	🗑️

+ Add Body

+ Response 200 303 400 401 500

401

Authentication is missing or invalid

API design tools – ST.90 validation

The screenshot displays an API design tool interface for 'account-rest-service'. A modal dialog box titled 'RSG-79' is open, providing a rule description and a 'Good usage' example in JSON. The background shows a list of 20+ errors, with the first one being 'value' property type must be object.

RSG-79

A Web API MUST support returning the number of items in a collection.

Good usage:

```

responses:
  '200':
    description: User objects
    content:
      application/json:
        schema:
          type: object
          properties:

```

18 of 224 messages

Status: many ST.90 rules are configured in Stoplight and pilot projects try using it for compliance validation. Feedback is being captured.

Testing tools

Tools to test API producers end to end

Includes:

- Easy definition and support for Open API specification
- Support for complex end to end scenarios
- Support for authentication mechanisms used at WIPO
- Manual execution by developers
- Automated execution from CI/CD pipelines
- Reporting on results

Focus: _____ on usability and low impact on development

Challenges: _____ ability to maintain tests to reflect changes
support for security

Status: _____ evaluation of Katalon studio for API testing in progress
considering other options (e.g. Postman)

Internal developer portal

A service catalogue for internal discovery, collaboration and reuse.

Includes:

- Customisation for WIPO needs and use cases
- Essential list of metadata (inventory) to be published by the API providers as Open API specification attributes
- CI/CD tools for automated consolidation of the API definitions from project resources and publishing to the portal

Focus: _____ on usability and low impact on development

Challenges: _____ it should be useful and require low effort from development
synchronised with enterprise architecture reference data

Status: _____ backstage.io open source product was selected and approved
work in progress for moving into production



Q&A