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
API design tools – ST.90 validation

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