

An Analysis of RESTful APIs Offerings in the Industry (Summary)*

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1 Summary of the contribution

As distribution models of information systems are moving to XaaS paradigms, microservices architectures are rapidly emerging, having the RESTful principles as the API model of choice. In this context, the term of API Economy is being used to describe the increasing movement of the industries in order to take advantage of exposing their APIs as part of their service offering and expand its business model.

Currently, the industry is adopting standard specifications such as OpenAPI to model the APIs in a standard way following the RESTful principles; this shift has supported the proliferation of API execution platforms (API Gateways) that allow the XaaS to optimize their costs. However, from a business point of view, modeling offering plans of those APIs is mainly done ad-hoc (or in a platform-dependent way) since no standard model has been proposed. This lack of standardization hinders the creation of API governance tools in order to provide and automate the management of business models in the XaaS industry.

This work presents a systematic analysis of 69 XaaS in the industry that offer RESTful APIs as part of their business model. Specifically, we review in detail the plans that are part of the XaaS offerings, extracted from ProgrammableWeb and Mashape, that could be used as a first step to identify the requirements for the creation of an expressive governance model of realistic RESTful APIs. We found that there exists a wider expressibility in terms of API limitations when the API is not explicitly regulated by an API Gateway, such as Mashape. Additionally, we provide an open dataset in order to enable further analysis in this research line

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