SOAP vs REST vs GraphQL vs RPC

ALEX XU

MAR 23, 2022
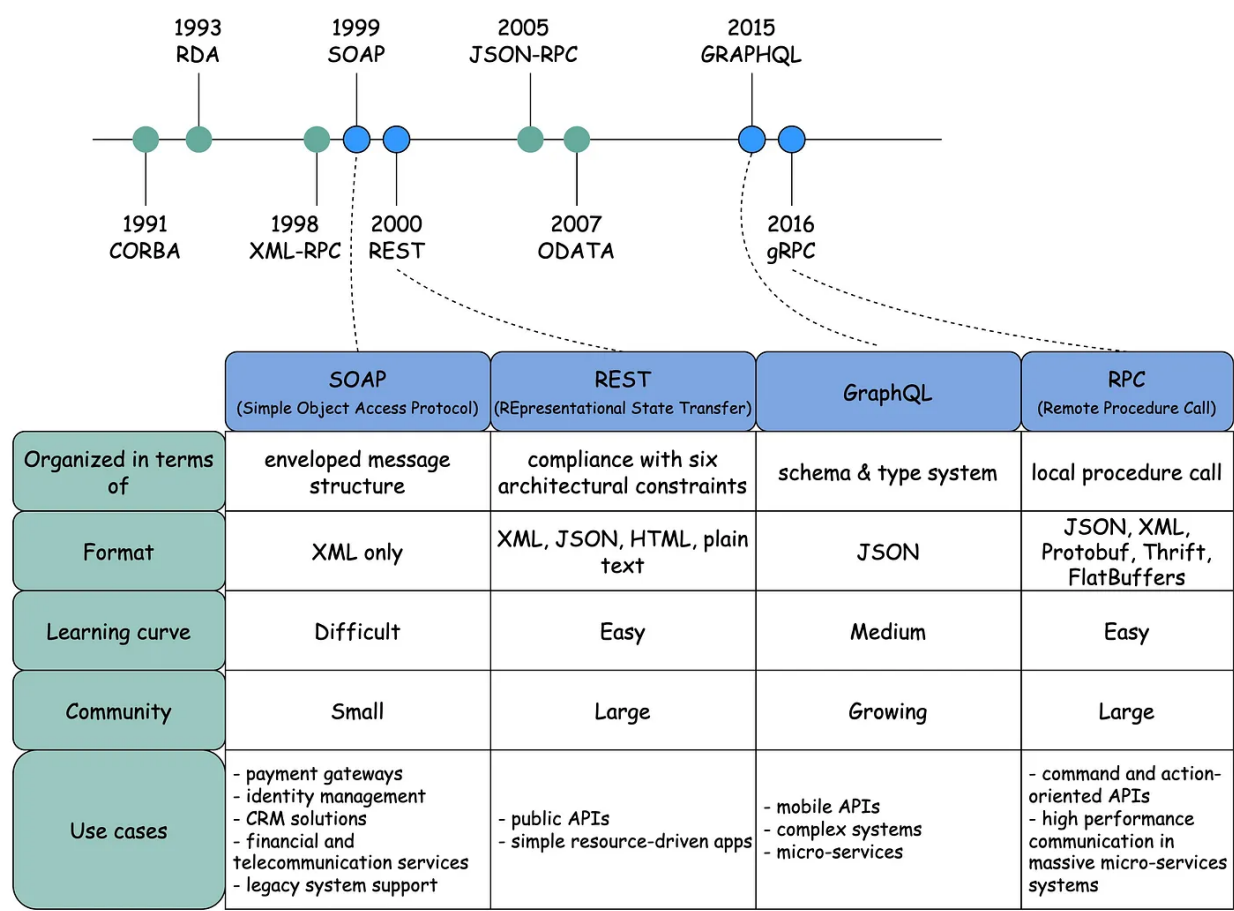
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SOAP vs REST vs GraphQL vs RPC.

API Architectural Styles Comparison

Source: altexsoft

	SOAP (Simple Object Access Protocol)	REST (REpresentational State Transfer)	GraphQL	RPC (Remote Procedure Call)
Organized in terms of	enveloped message structure	compliance with six architectural constraints	schema & type system	local procedure call
Format	XML only	XML, JSON, HTML, plain text	JSON	JSON, XML, Protobuf, Thrift, FlatBuffers
Learning curve	Difficult	Easy	Medium	Easy
Community	Small	Large	Growing	Large
Use cases	- payment gateways - identity management - CRM solutions - financial and telecommunication services - legacy system support	- public APIs - simple resource-driven apps	- mobile APIs - complex systems - micro-services	- command and action-oriented APIs - high performance communication in massive micro-services systems

The diagram below illustrates the API timeline and API styles comparison.

Over time, different API architectural styles are released. Each of them has its own patterns of standardizing data exchange.

You can check out the use cases of each style in the diagram.

Source: https://lnkd.in/gFgi33RY I combined a few diagrams together. The credit all goes to AltexSoft.

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Pritpal   Apr 29, 2022

Link is broken

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