



WEB-APIs DRIVING DIGITAL INNOVATION

Infosys[®]

Web-APIs driving digital innovation

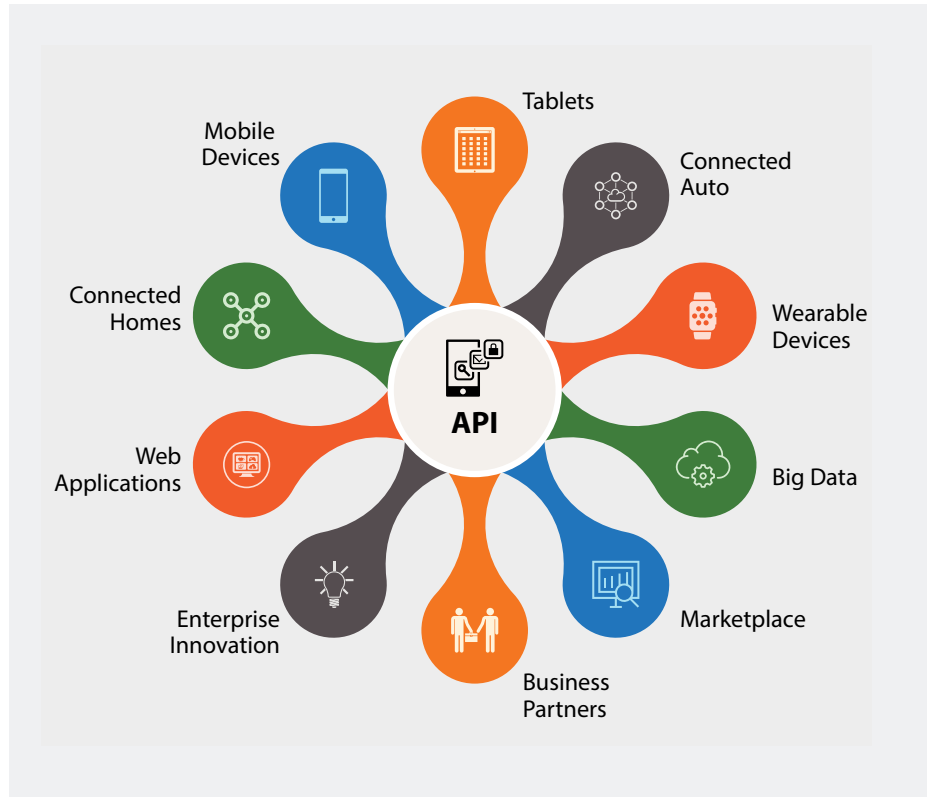
The five themes defining today's digital spectrum are social, mobile, analytics, cloud, and the internet of things, collectively called SMACIOT. Each technology theme can be described at length, but there is a common thread that links all these themes and surrounding entities. We call this as "API" (Application Programming Interface) in general and "Web-API" for web oriented digital APIs.

Digital is about leveraging the right technology to address the opportunities offered across SMACIOT in innovative ways. Enterprise APIs are a very critical catalyst for driving this innovation as they enable collaboration between SMACIOT technologies across channel barriers. They not only fuel growth, but also give enterprises a competitive edge by making an enterprise nimble to change, and keep ahead of the curve.

Importance of Web-APIs

Simply put, Web-APIs are the medium to make a company's digital assets consumable to any channel, which has a current or latent need. It helps companies to make the best out of the 'Digital Core', which has been

developed over multiple years of effort and billions of dollars of investment. It helps create a wrapper of sorts around this Digital Core to make it more nimble by exposing the core functionalities in a more granular manner.



Why API Management?

An enterprise would generally have hundreds of digital assets for exposing as APIs. Once they finalize the initial set of APIs, the demand for more APIs typically increases exponentially. Thus, it is crucial to lay a

strong foundation for managing these APIs to leverage their full potential, and to scale them up with demand. API management products provide a strong platform, which addresses the various aspects of

managing the APIs. These platforms offer pre-built sets of functionalities, which can be quickly configured to achieve most generic requirements from an API management perspective.

Requirements	Out-of-the-box functionalities offered by an API Management Platform
API Life Cycle Management	<ul style="list-style-type: none"> Life Cycle Management of APIs from inception to implementation to retirement Versioning (how different versions of the same API can be provided to cater to rapidly changing business and customer needs)
API Development	<ul style="list-style-type: none"> Rapidly discover and expose back-end data and services as APIs to app developers and consumers Develop API proxies using easy-to-use UIs with drag, drop, and configure capabilities Test and debug APIs through in-built consoles Auto generation of API documentation and SDKs for multiple languages
API Access Control	<ul style="list-style-type: none"> Define usage quota and limits by application Traffic Throttling and Shaping (keep enterprise systems stable and available for users of APIs) Content Routing and Blocking
API Security	<ul style="list-style-type: none"> Protection against Denial Of Service and hacker attacks Use of open standards for federal identification and authentication using OAuth and SAML API-key generation and management Digital signatures, message envelopes, and encryption
API Mediation and Performance	<ul style="list-style-type: none"> Paging, caching, and message enrichment Transform, route, and mediate (SOAP < - > REST and XML < - > JSON) Message parsing, validation, translation, and enrichment Service aggregation, virtualization, refactoring, and process simulation
API Monitoring	<ul style="list-style-type: none"> Monitor SLA and Quality of service Problem Identification including guidance in debugging API Usage Tracking & Trend analysis (a key metric that helps propel or retire a function) Audit trails
API Socialization	<ul style="list-style-type: none"> Self-registration and subscription Access to documents based on the level of authorization Blog, ratings, and comments Incident ticket management Social media integration (followers and RSS feeds) Promote and test services
API Monetization	<ul style="list-style-type: none"> Define different plans and charges for API usage Track API usage Integrate with billing and invoicing systems

Infosys Advantage

Dedicated Competency Center

Infosys has a dedicated Competency Center involved in executing API management projects, building skills on API management, and creating thought leadership in API management space. The Competency Center has experts across multiple leading products in the API management space. Dedicated in-house labs on different leading products in the market are maintained by the center to gain deep expertise on different products. The Competency Center also works closely with experts from different domains to develop domain-specific solutions.

Strong partnership with leading product vendors

We hold strong partnerships with leading API product vendors and collaborate with them to evangelize usage of APIs, develop




industry-specific solutions, influence product roadmaps, and team up to provide our clients robust and scalable solutions.


Our teams are engaged in helping clients implement API management programs leveraging leading API products.





Extensive repository of artifacts, tools, accelerators and POVs

We have leveraged our rich experience to develop many tools and accelerators for API management programs. These help reduce time-to-market, improve quality of delivery, and automate repetitive tasks.

 Templates	Name	Technology
	API product evaluation framework	Generic
	API architecture document	Generic
	API design document	Generic

 Methodologies	Name	Technology
	API adoption	Generic
	API life cycle management	Generic
	API environment administration and monitoring*	Generic

 Tools	Name	Technology
	Framework for distributed caching	Axway, Apigee
	Global policies for metering and traffic shaping	Axway, Apigee
	Framework for creation and tracking expiry of SSL certificates	Generic
	API logging framework	Apigee
	Unit test automation	Apigee
	Global policies for exception handling	CA Layer7

 Use case solutions and frameworks	Name	Description	Technology
	API framework for SAP	Framework for exposing enterprise SAP services utilizing an API platform	Apigee
	Information aggregation framework	Framework using Apigee for aggregating information from multiple external sources and providing as APIs to internal applications	Apigee
	Product and price comparison	Framework for using APIs to perform product and price comparison across different companies	Apigee
	Dispute management	Solution to use an API layer on top of BPM to allow customers to easily raise and manage disputes across multiple channels	IBM
	OAuth setup	Framework to implement different OAuth scenarios	IBM

API Management Engagements



Client:
Telecom provider in Australia

API Services:
Product Evaluation,
Architecture Consulting,
Implementation, Support

Technology:
Axway Vordel



Client:
Multinational telecom
company in Germany

API Services:
Development, Support
Operations

Technology:
Apigee Edge



Client:
Multinational clothing and
accessories retailer based in
USA

API Services:
Product Evaluation, POC,
Design, Implementation

Technology:
Mulesoft



Client:
Luxury department store
chain in USA

API Services:
Product Evaluation, Strategy,
Architecture Consulting,
Implementation

Technology:
IBM API Manager



Client:
Satellite service provider and
broadcaster based in USA

API Services:
Implementation, Support,
DevOps

Technology:
Apigee Edge



Client:
US-based multinational financial
and payment services provider

API Services:
DevOps, Administration,
Strategy, Architecture
Consulting

Technology:
Apigee Edge





Client:
US-based multinational
beverage corporation

API Services:
DevOps, Administration

Technology:
Apigee Edge



Client:
Retail department store
chain in USA

API Services:
Strategy, Architecture
Consulting,
Implementation, Support

Technology:
Apigee Edge



Client:
Financial data and
document services provider
based in USA

API Services:
Architecture and strategy
consulting, Implementation

Technology:
Oracle API Gateway



Client:
US-based global money
transfer company

API Services:
Architecture Consulting,
Implementation, Support

Technology:
CA Layer 7



Client:
Insurance provider in USA

API Services:
Administration,
Implementation, Support

Technology:
CA Layer 7



Client:
UK-based multinational
banking and financial
services provider

API Services: Product
Evaluation, Architecture
Consulting, Implementation

Technology:
Axway Vordel





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