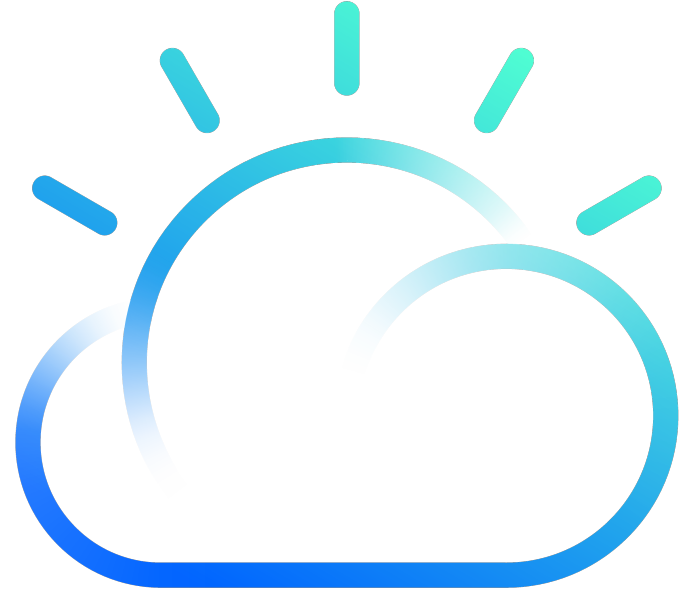


API Connect & Gateways 101

Product Overview



Please note

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice and at IBM's sole discretion.

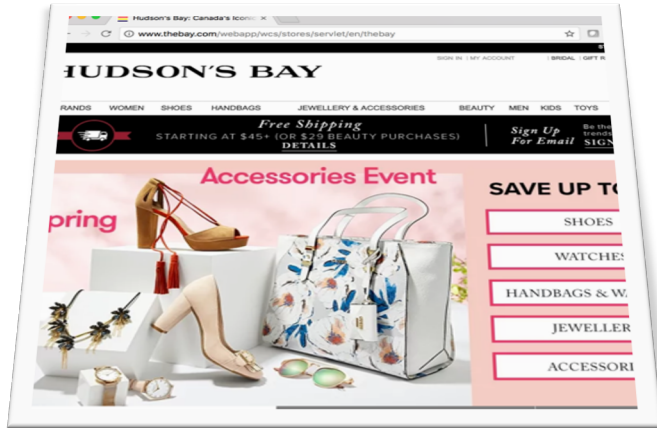
Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.

The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract.

The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

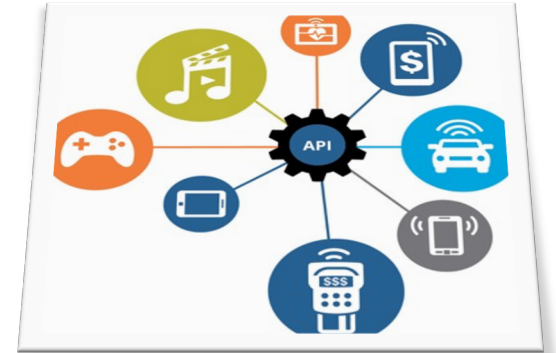
Web, Mobile & APIs – What Do They Have In Common?



Late 1990s



2000s



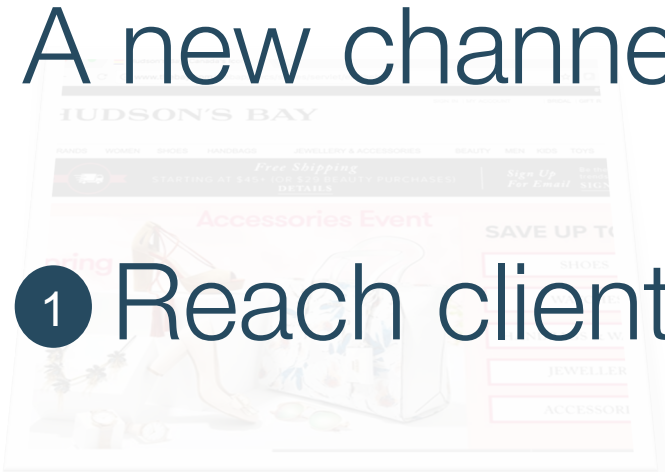
2015+

Web, Mobile & APIs Offer Organizations...

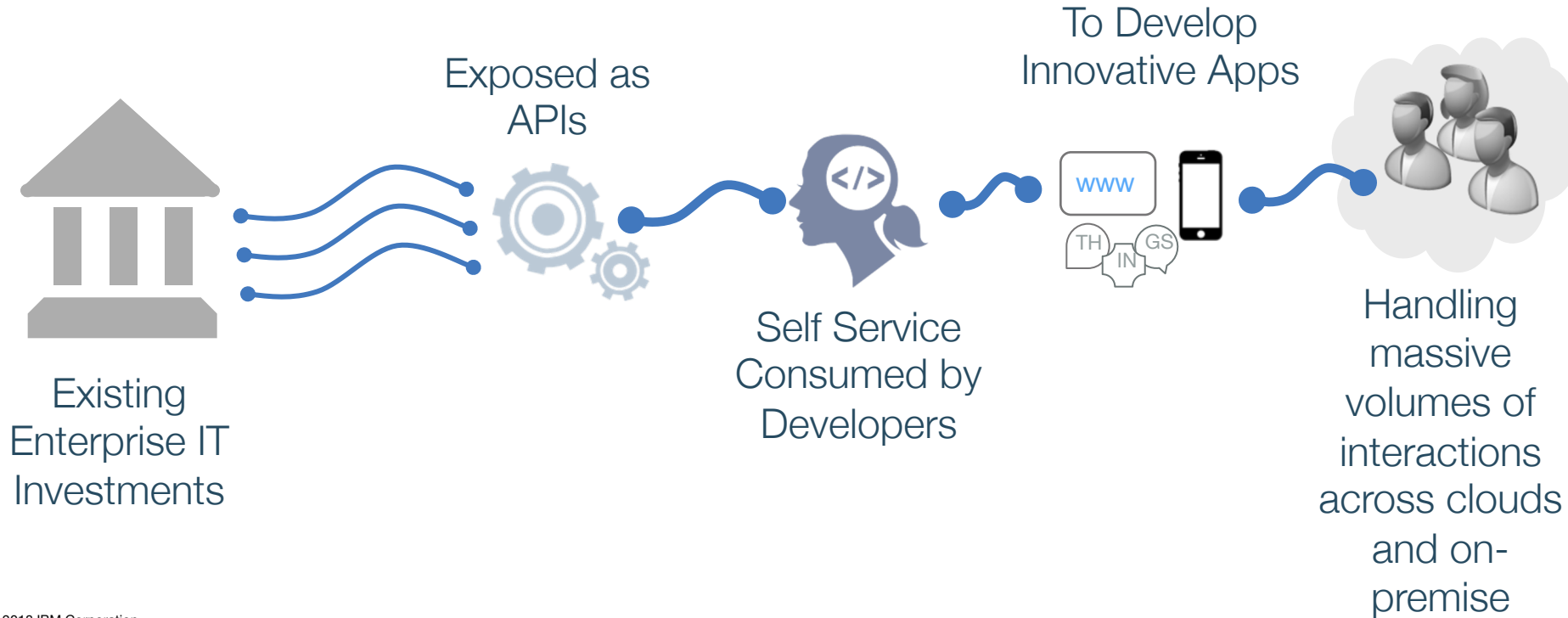
A new channel to:

1 Reach clients & partners

2 Enable new businesses models



Maturity in the API space means growth to massive scale



Key API Industry Usecase

1

Speed application development

and ongoing app evolution via a library of reusable APIs



2

Securely expose systems of record

apps and data to Mobile, Web, IoT, & cloud apps



3

Publish APIs to expand brand reach

and tap into broad developer & partner ecosystems to drive innovation



4

Enable new business

channels by monetizing data & algorithms



Disruption across Industries – Fueled by APIs

Industries

FinTech

Fintech Firm started innovating by offering hackathons and currently delivers over 300 business services internally and externally across most core lines of business.

HealthCare

HealthCare provider offers personalized healthcare by exposing APIs via secure platform called InterChange

Automobile

Car company offers connected car, improves driving experience, sells vehicle data to partners

Retail

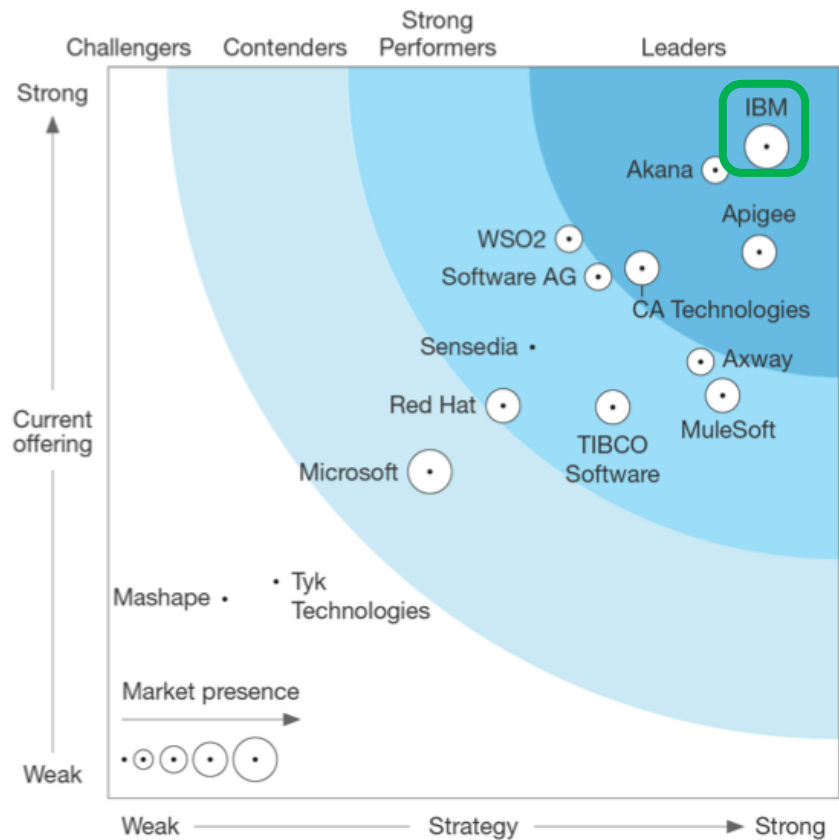
Retailer provides digital distribution channel for affiliate revenue from customer referrals via open API portal

Overview

#1 Market Leader



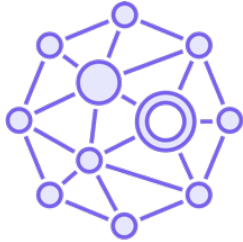
IBM API & Gateway Offering: Ranked #1



View analyst reports from
Forrester, IDC & Gartner:

developer.ibm.com/apiconnect/

What is IBM API Connect?



IBM API Connect

The Scalable Multi-Cloud API Platform

A complete, modern and intuitive API lifecycle platform to create, securely expose and manage APIs across clouds to power digital applications



Create

Automatically create and test APIs to expose data, microservices, enterprise applications and SaaS services.



Secure

Easily apply built-in and extensible policies to secure, control and mediate the delivery of APIs with unmatched scale.

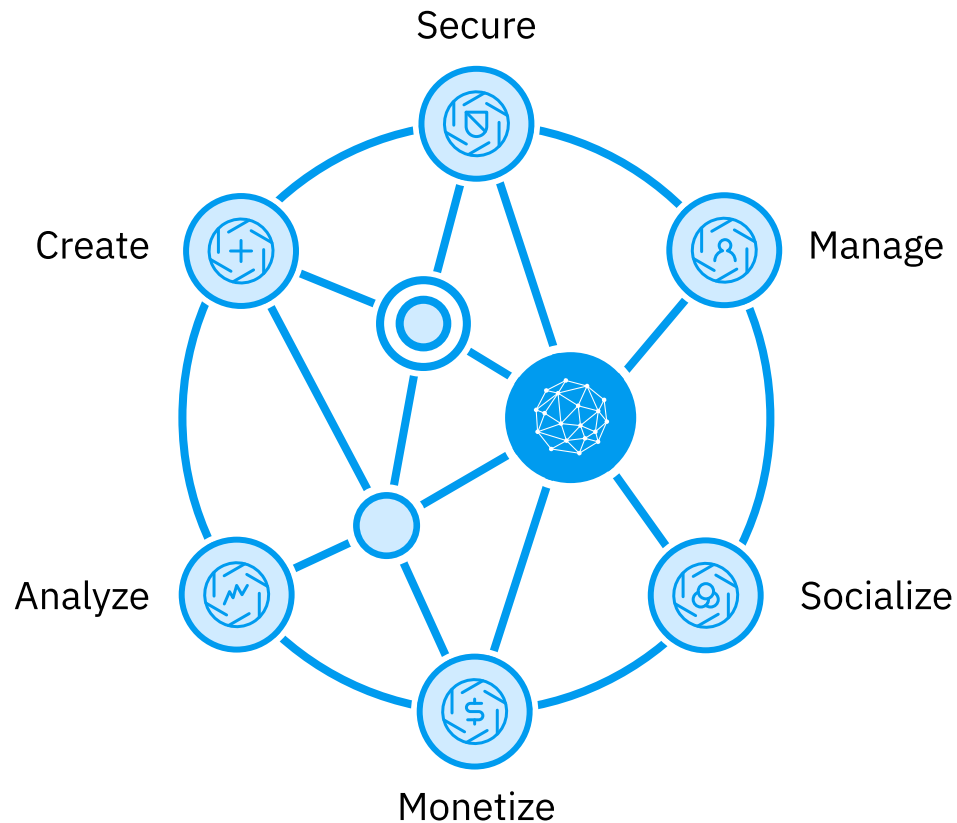


Manage

Rapidly publish, lifecycle govern, socialize, analyze, monitor and monetize APIs with built-in capabilities.

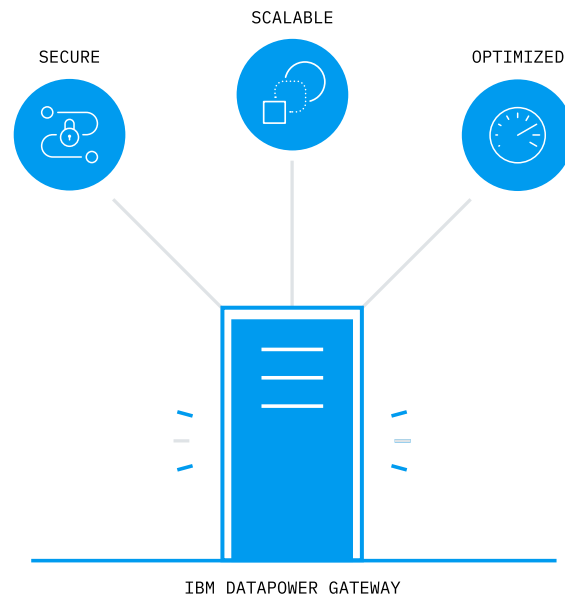
API Connect Key Capabilities

IBM **API** Connect



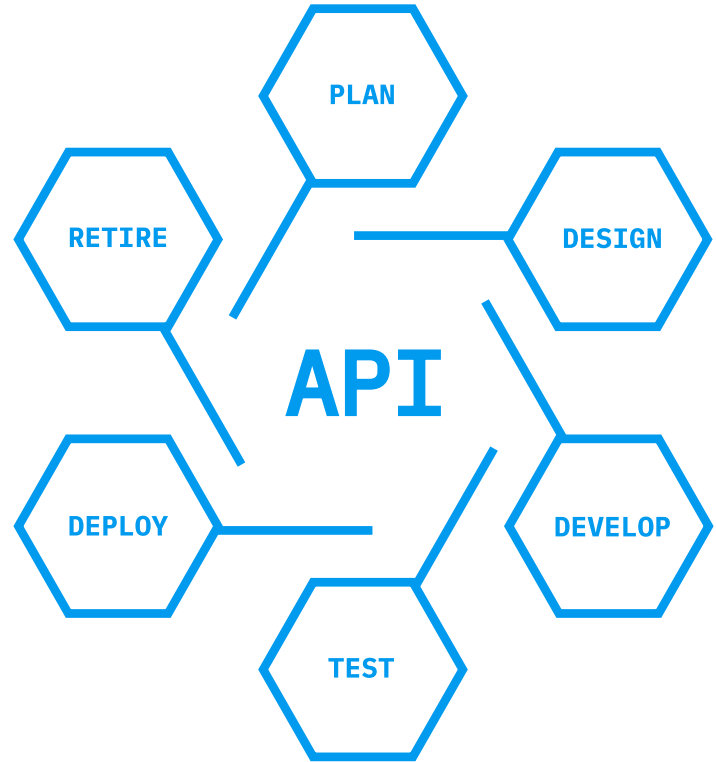
Enterprise Security and Control with Industry leading API Gateway

- **Secure to the core** with signed, encrypted gateway image without external software dependencies to minimize risk
- **Proven API security policies** at runtime to quickly protect services and data across multi-clouds
- **Performant & scalable architecture** to help meet SLAs and improve client user experience
- **Optimized drag & drop built-in policies** for security, traffic management & mediation to accelerate time to value
- **Flexible and extensible** to align with enterprise requirements and the need for custom policies
- **Workload tenant isolation** to optimize TCO and governance on a single appliance across multiple LOBs



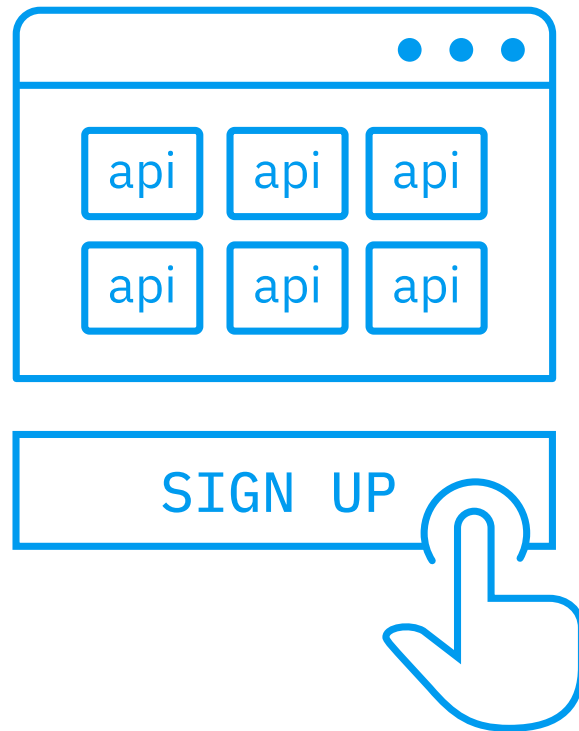
Manage APIs through the API Lifecycle

- **Define & Import REST or SOAP APIs** to enable clients to evolve their SOA tier
- **Package APIs into Products** and tailor them to target specific consumer markets
- **Publish and Promote** across different environments to align with DevOps practices
- **Manage and Control API Lifecycle and versioning** from staging to deprecation to meet corporate governance needs
- **Subscription and Community management** to grow go-to-market channels



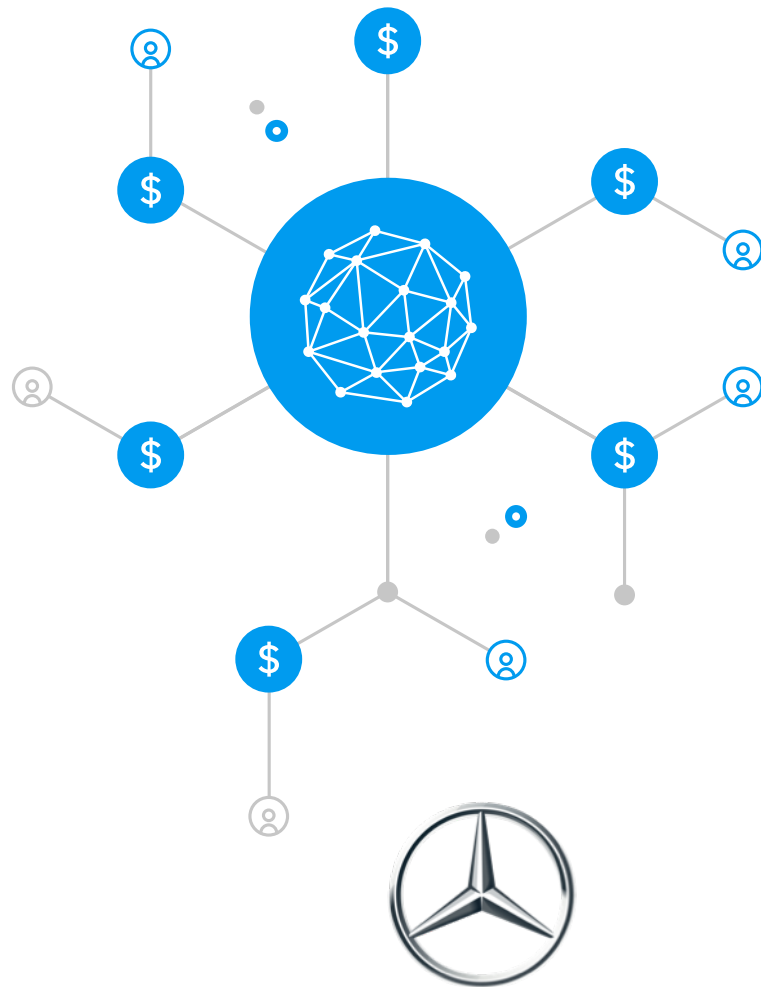
Socialize and Engage with API Consumers to drive adoption

- **Self-service, branded Portal** across multiple API provider lines of businesses within an organization to socialize APIs
- **Engage with API consumers** via community building features: blogs, forums, ratings etc.
- **Governance & autonomy** to each provider organization to manage their APIs, products, plans and multiple gateway endpoints independently within their 'Space'



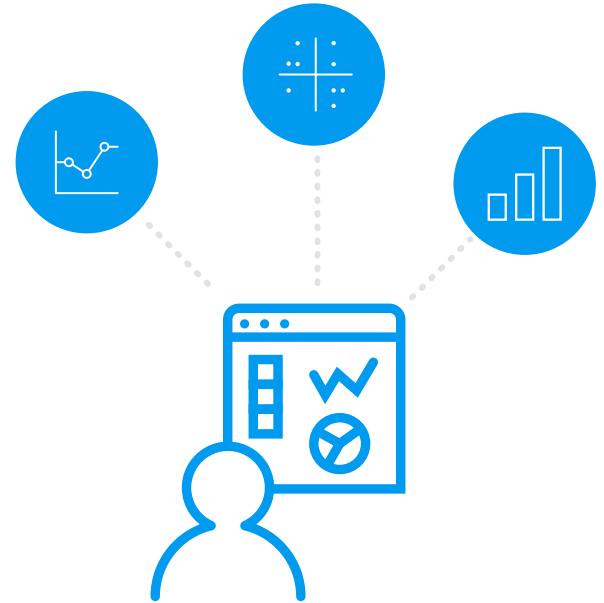
Monetize your API Calls

- **Modern approach & intuitive user experience** providing flexibility to define pricing details
- **Subscription pricing support** to enable recurring payments, popular in SaaS go-to-market strategies
- **Stripe integration OOTB** for smooth user-onboarding and payment collection
- **Analytics, customizable reports** for detailed insights into revenue, usage of monetized APIs
- **Offload API usage data** to existing enterprise tools to handle customized invoicing processes



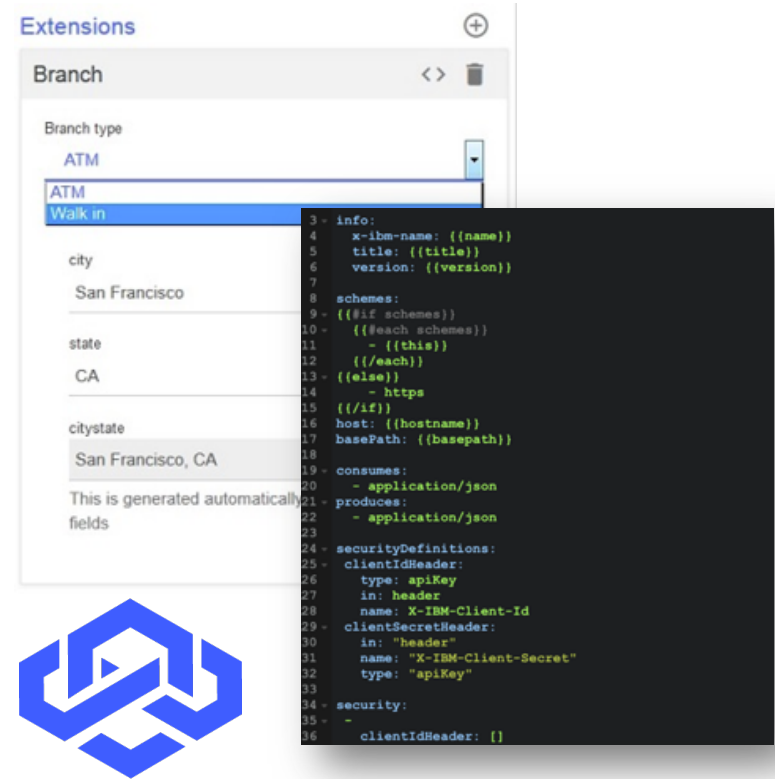
Gain Insights in to your API Business

- **Analyze API calls** to get visibility and understand API consumption
 - *Who & What is Driving my API Business?*
 - *Is my Product's packaging targeted? Or my plans appropriate ?*
 - *What are the response times of my APIs ?*
- **Drill down and build custom queries** for deeper analysis
- **Build custom dashboards** and share to address specific reporting and visualization needs
- **Offload usage data** to external systems like Splunk SAP etc.



Accelerate API Developer Productivity

- **Enforce corporate standards** through templates for API and API Product definitions
- **Simplify API categorization & search** through customer defined metadata
- **Control API Gateway behavior** based on the additional metadata
- **Integrated Loopback vNext Experience** for Interaction tier
- **Integrated with API Connect Toolkit** for simpler user experience to create APIs



The screenshot displays the LoopBack API Gateway interface. On the left, a 'Branch' configuration panel shows a dropdown menu with 'ATM' selected. Below the dropdown, a table lists metadata for the selected branch:

Property	Value
city	San Francisco
state	CA
citystate	San Francisco, CA

Below the table, it states 'This is generated automatically fields'. On the right, a code editor shows the generated OpenAPI specification:

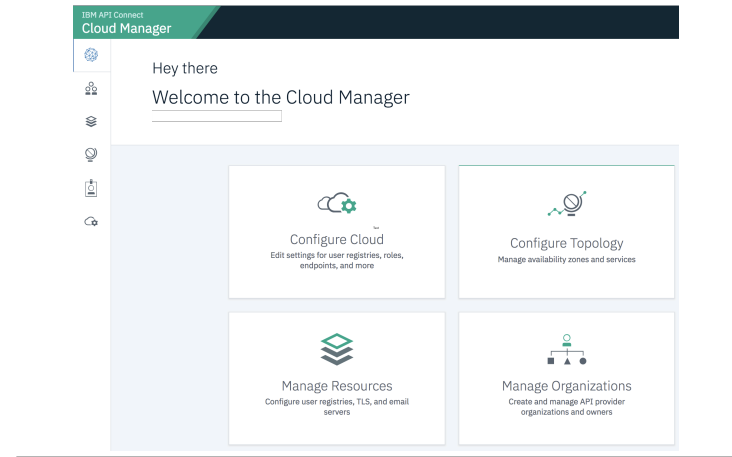
```
3- info:
4-   x-ibm-name: {{(name)}}
5-   title: {{(title)}}
6-   version: {{(version)}}
7-
8- schemes:
9-   {{#if schemes}}
10-    {{#each schemes}}
11-      - {{this}}
12-    {{/each}}
13-   {{else}}
14-     - https
15-   {{/if}}
16- host: {{(hostname)}}
17- basePath: {{(basepath)}}
18-
19- consumes:
20-   - application/json
21- produces:
22-   - application/json
23-
24- securityDefinitions:
25-   clientIdHeader:
26-     type: apiKey
27-     in: header
28-     name: X-IBM-Client-Id
29-   clientSecretHeader:
30-     in: "header"
31-     name: "X-IBM-Client-Secret"
32-     type: "apiKey"
33-
34- security:
35-   -
36-     clientIdHeader: []
```



LoopBack

API Connect V2018.x: Scale & Flexibility with Multi-Cloud Design

- **Multi-cloud API Connect managing distributed clustered API Gateways** co-located with provider backends on virtually any cloud
- **Container/Kubernetes & VMware support** for API Connect components to run virtually anywhere
- **Unmatched scalability and performance** through new container and microservices based design
- **Independently scale API Connect components** leveraging container orchestration tools



API Connect: Flexible licensing and deployment



Deployment

Deploy where it's most convenient for you

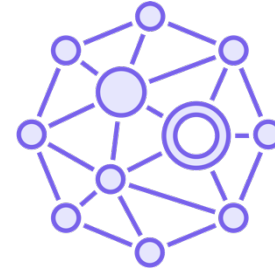
- Deploy on IBM Cloud
- Deploy to 3rd party clouds
- Deploy on-premises



Licensing

Pay only for what you need

- Subscription (API calls/month)
- Perpetual (per PVU, unlimited API calls)



IBM API Connect

Number of APIs & API Products	Unlimited
Number of API Application Developers	Unlimited
Cloud infrastructure on IBM Cloud	Included
Data transfer on IBM Cloud	Included

SaaS: API Connect Reserved Instance

The Opportunity

- Digital Transformations powered by API Economy projects
- Securely exposing systems of records on any cloud (AWS, Azure, IBM, ICp, on-prem, etc)
- Existing DataPower clients who have not yet purchased API Connect (i.e. ~1500 client WW)

Value Proposition

- **Scale:** Meet unexpected API traffic needs in seconds vs. months on-prem via internal IT teams
- **TCO:** Offload management of API platform to IBM experts
- **Performance:** Co-locate enterprise grade API Gateway with backends being exposed as APIs for lower latency and higher performance with included API Gateway licenses

Contact

- George Nealon, WW Sales, API Connect

API Connect Offerings

API Connect Essentials (aka Lite)	API Connect Enterprise
For Developers	For Departments & Cross Enterprise
No charge, with Forum support	Paid, with IBM support
50K API calls/mo	- PayGo: 100K API calls/mo & above - Subscription: 5 Million API calls/mo & above - Maximum flexibility with yearly call volume measurement (e.g. API calls / Yr)



- IBM Support
- Additional API calls
- HA requirements
- Advanced API Gateway Policies

Strategic Priorities 2018 And Beyond



Enterprise API Lifecycle

Testing, monitoring, plugability into third-party systems, advanced monetization



Intelligent Security

Advanced API threat protection, access control and prevention e.g. Bot detection, DDoS API attacks



Beyond Synchronous APIs

Event driven IT to enable new business applications via WebSockets, MQTT, AMQP, Webhooks



AI-Driven Insights

API smarts embedded throughout the API lifecycle

Resources:

- ibm.com/cloud/api-connect

- developer.ibm.com/apiconnect

Notices and disclaimers

© 2018 International Business Machines Corporation. No part of this document may be reproduced or transmitted in any form without written permission from IBM.

U.S. Government Users Restricted Rights – use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM.

Information in these presentations (including information relating to products that have not yet been announced by IBM) has been reviewed for accuracy as of the date of initial publication and could include unintentional technical or typographical errors. IBM shall have no responsibility to update this information. **This document is distributed “as is” without any warranty, either express or implied. In no event, shall IBM be liable for any damage arising from the use of this information, including but not limited to, loss of data, business interruption, loss of profit or loss of opportunity.** IBM products and services are warranted per the terms and conditions of the agreements under which they are provided.

IBM products are manufactured from new parts or new and used parts. In some cases, a product may not be new and may have been previously installed. Regardless, our warranty terms apply.”

Any statements regarding IBM's future direction, intent or product plans are subject to change or withdrawal without notice.

Performance data contained herein was generally obtained in a controlled, isolated environments. Customer examples are presented as illustrations of how those

customers have used IBM products and the results they may have achieved. Actual performance, cost, savings or other results in other operating environments may vary.

References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business.

Workshops, sessions and associated materials may have been prepared by independent session speakers, and do not necessarily reflect the views of IBM. All materials and discussions are provided for informational purposes only, and are neither intended to, nor shall constitute legal or other guidance or advice to any individual participant or their specific situation.

It is the customer’s responsibility to insure its own compliance with legal requirements and to obtain advice of competent legal counsel as to the identification and interpretation of any relevant laws and regulatory requirements that may affect the customer’s business and any actions the customer may need to take to comply with such laws. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the customer follows any law.

Notices and disclaimers continued

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products about this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products. IBM does not warrant the quality of any third-party products, or the ability of any such third-party products to interoperate with IBM's products. **IBM expressly disclaims all warranties, expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a purpose.**

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents, copyrights, trademarks or other intellectual property right.

IBM, the IBM logo, ibm.com and [names of other referenced IBM products and services used in the presentation] are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at: www.ibm.com/legal/copytrade.shtml.

