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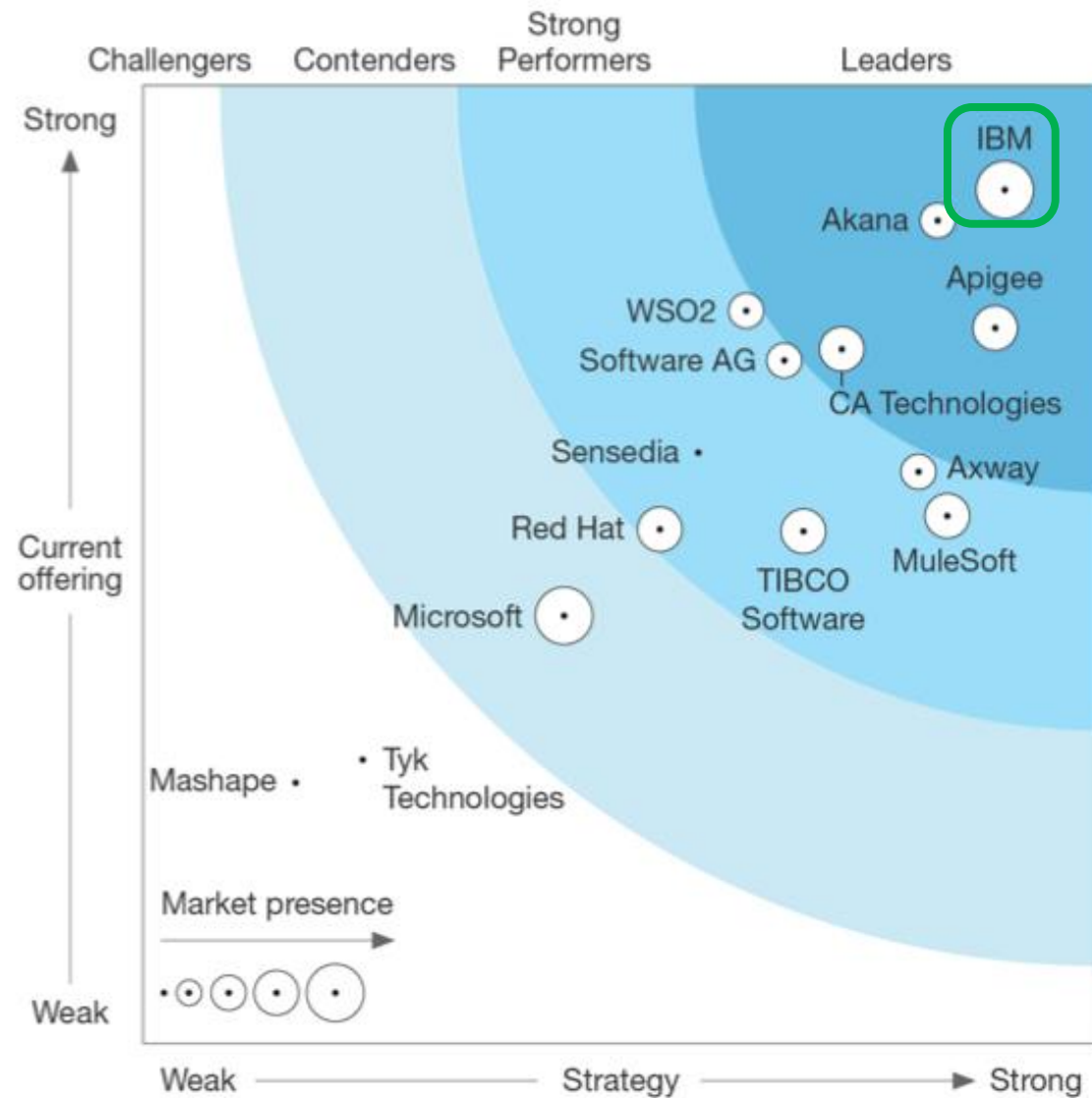
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# Agenda

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- |   |                                |            |
|---|--------------------------------|------------|
| 1 | Agile Roadmap Planning         | 05 minutes |
| 2 | Roadmap: API Connect & Gateway | 40 minutes |

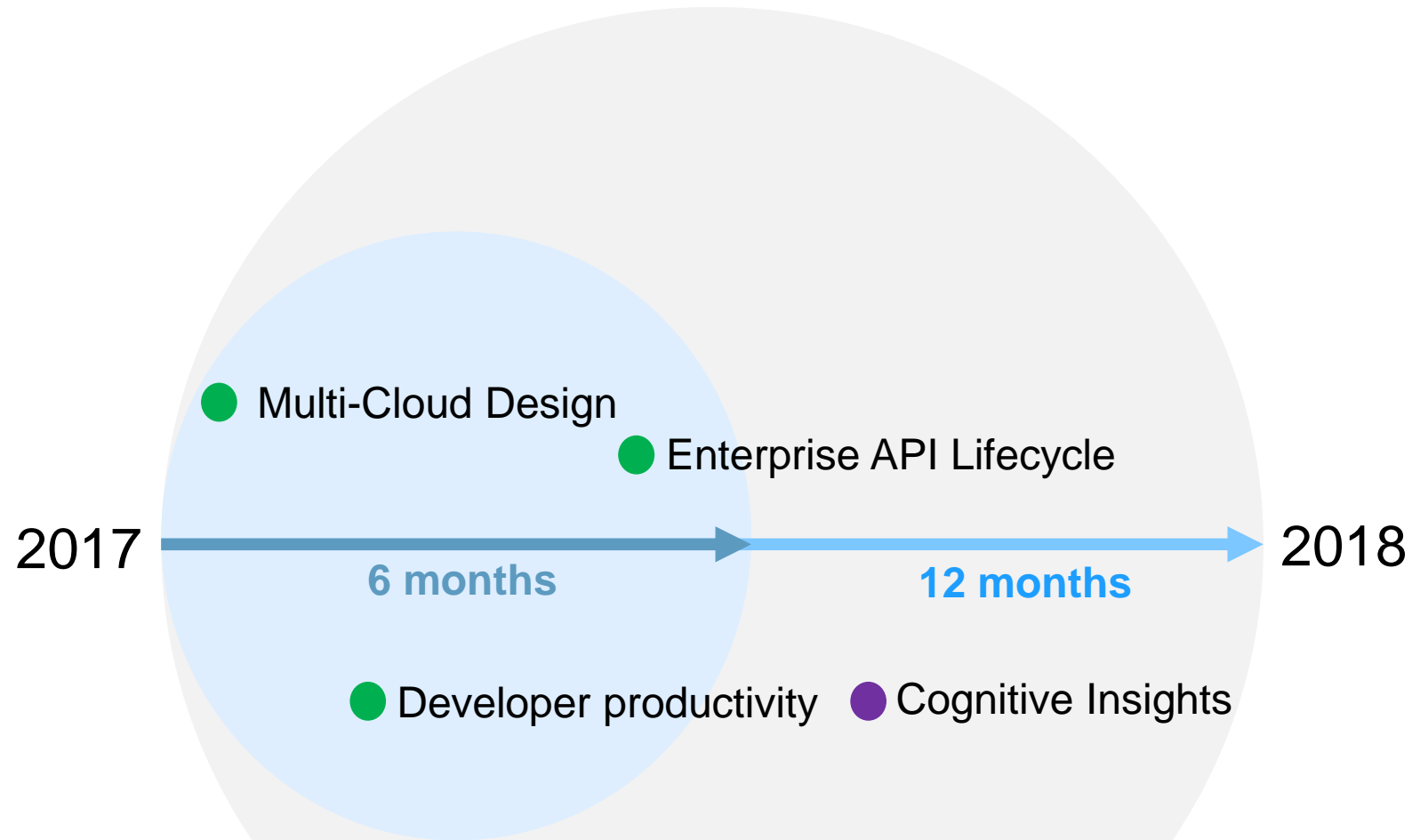
# IBM API Connect: Ranked #1 in API Management



View analyst reports from  
Forrester, IDC & Gartner:

[developer.ibm.com/apiconnect/](https://developer.ibm.com/apiconnect/)

# Agile Roadmap – Near Term & Mid-Longer Term



## 6 Months (near term)

- Firm Roadmap
- Development in Progress
- Continuous Stakeholder feedback

## 12 Months (mid-long term)

- Flexible Roadmap
- Design in Progress
- Continuous Stakeholder feedback

- 
- 1 Agile Roadmap Planning 05 minutes
  - 2
    - Roadmap: API Connect & Gateway 40 minutes

# API Connect & Gateways Strategic Priorities



## Multi-Cloud Design

Scalable & performant design for multi-cloud deployments, with simple licensing



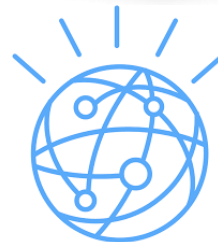
## Enterprise API Lifecycle

Syndication, analytics, monetization, runtime & performance enhancements



## Developer Productivity

Easy to use security controls for building & exposing APIs from serverless & traditional apps



## Cognitive Insights

API smarts embedded throughout the API lifecycle



# Multi-Cloud Design

# What's New: Multi-Cloud



- Hybrid entitlement to simplify use of IBM-managed and customer managed deployments with a single license
- Secure hybrid connectivity built-in from cloud to backends hosted anywhere, with a cloud friendly consumption model
- Hybrid deployment freedom to co-locate API Gateways with any backend, and controlled from Bluemix Dedicated
- Docker support for development with cloud choice
- Cloud Freedom via microservices-based architecture for multi-cloud choice (\*coming soon)
- Dedicated & Isolated API Connect with lower TCO on Bluemix Public

# Deploy API Connect on Amazon Web Services via VMware

- **Bring Your Own IBM Software and License ([BYOSL](#))** to deploy API Connect on Amazon Web Services via [VMware Cloud on AWS](#)
- **Customer-managed environment**, similar to on-premise deployments
- **Subscription or [PVU](#) licensing** provides flexibility allowing users to pay only for what they need and enables adoption of hybrid cloud deployments



IBM **API** Connect



vmware®



# Futures: Multi-Cloud Design

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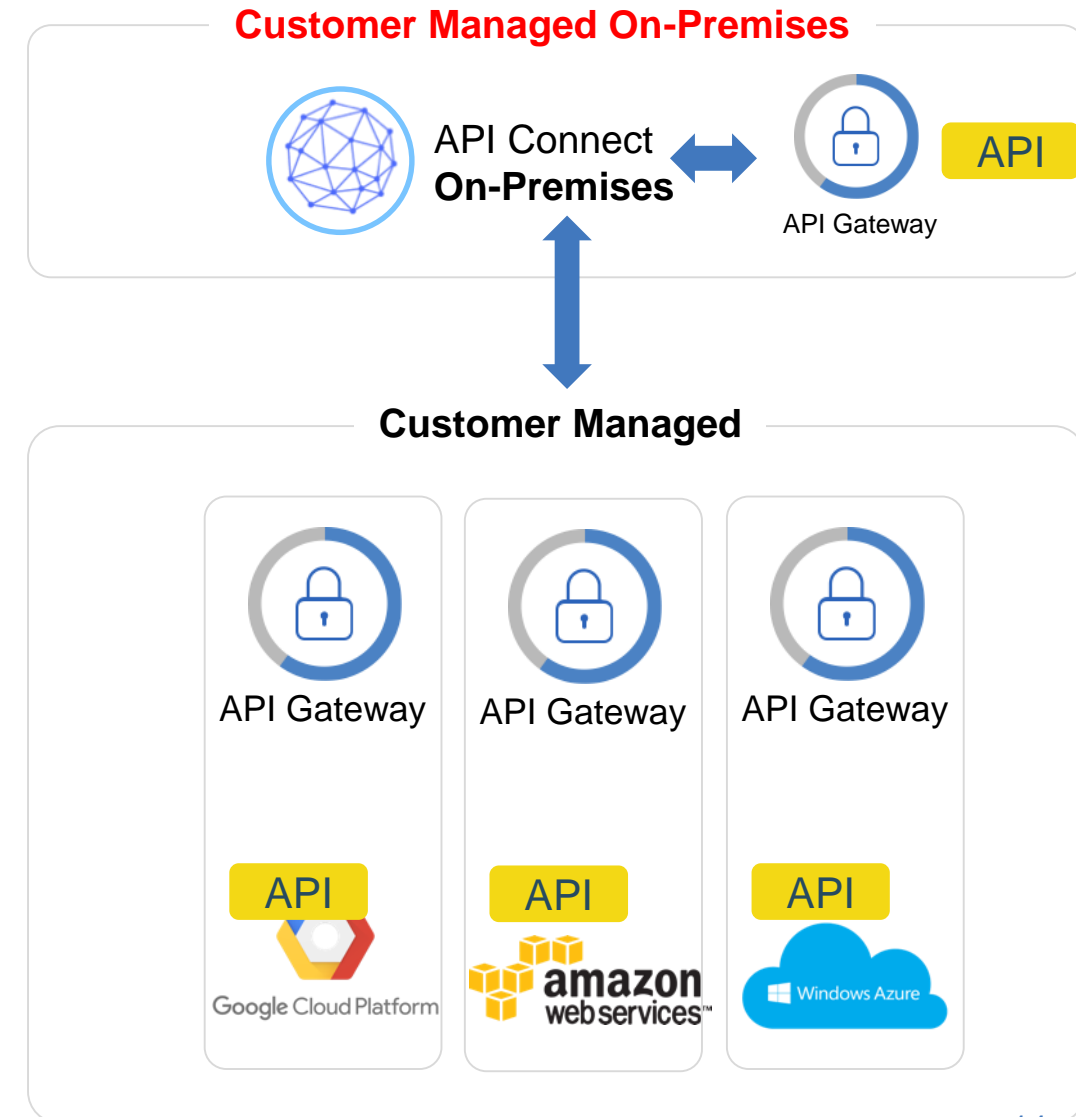


- Hybrid deployment freedom to manage API Gateway, co-located with any backend, from API Connect Reserved Instance
- Flexibility & Cloud Freedom to deploy and manage API Connect on 3<sup>rd</sup> party clouds with microservices-based design

# Hybrid Deployment – Your APIC with Co-located Gateways Anywhere

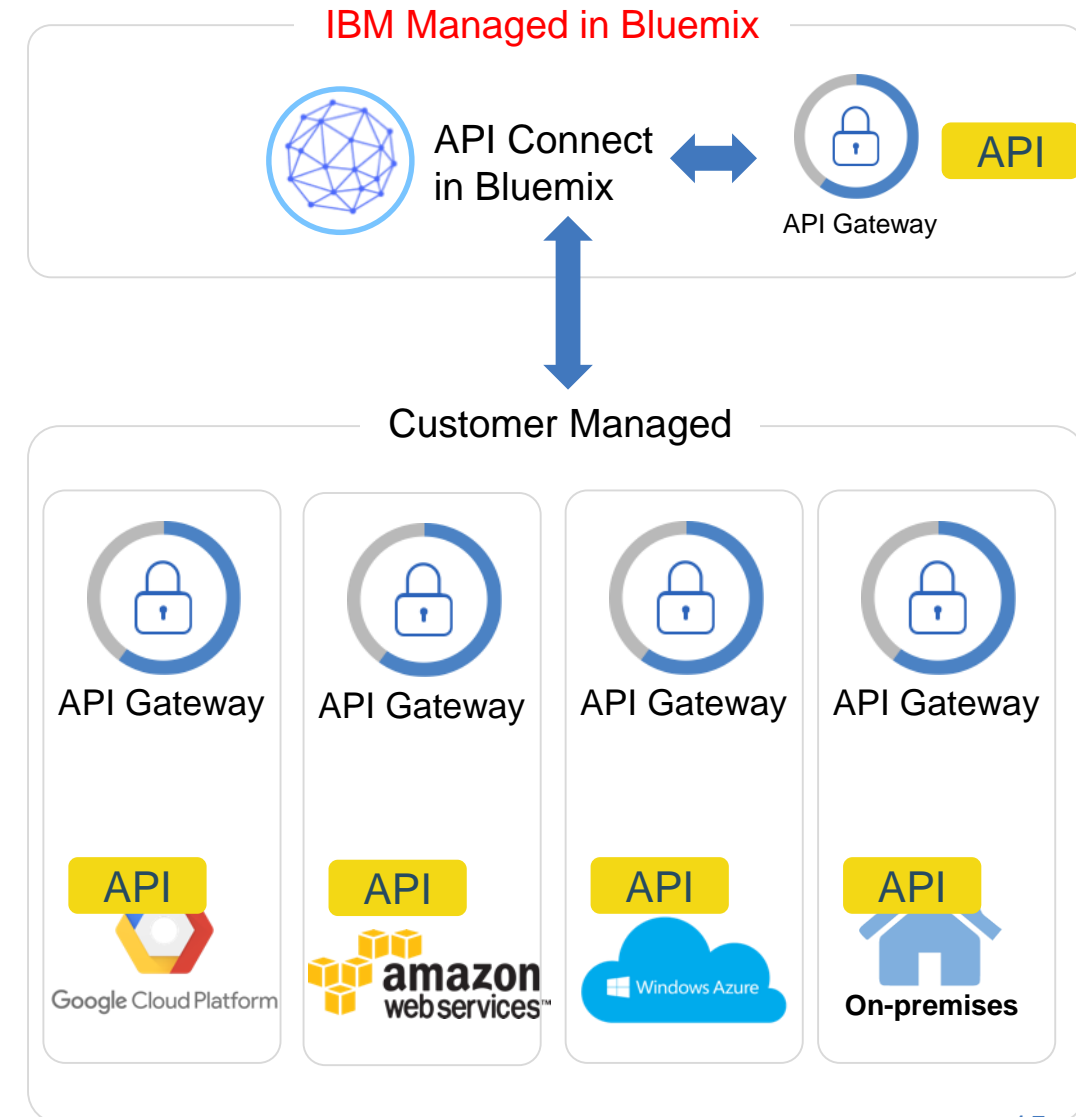
## Available Today

- Deploy API management, analytics and socialization developer portal on-premises for enhanced corporate control
- Co-locate DataPower API Gateway with backends on-premises and/or public clouds for greater flexibility and performance
- Speed deployment of co-located API Gateway and reduce risks with DataPower support for Docker



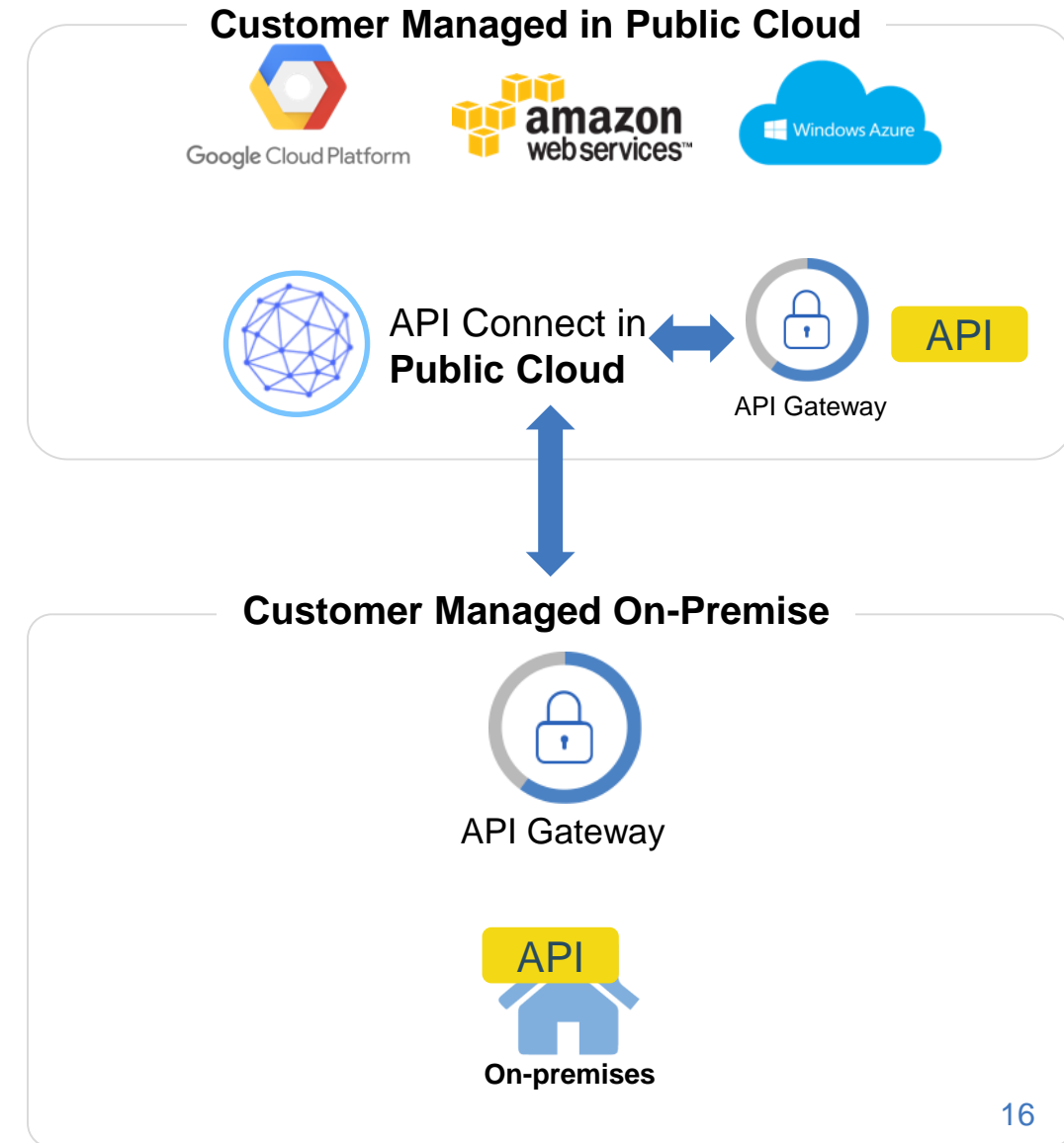
# Hybrid Deployment – Managed APIC with Co-located API Gateway Anywhere

- Utilize IBM managed API management, analytics and developer portal in Bluemix, with customer managed API gateways for ease of use & scalability
- Customer managed and IBM managed API Gateways seamlessly controlled by API Connect
- Co-locate DataPower API Gateway with backends on any cloud for greater flexibility and performance
- Speed deployment of co-located API Gateway and reduce risks with DataPower support for Docker
- **Available Today:** Bluemix Dedicated
- **Futures:** API Connect Reserved Instance



# Futures: Hybrid Deployment – Your APIC on Any Cloud (1 of 2)

- Deploy API management, analytics and socialization developer portal on public clouds for effective scalability
- Co-locate DataPower API Gateway with backends on public clouds and/or on-premises for greater flexibility and performance
- Speed deployment of co-located API Gateway and reduce risks with DataPower support for Docker



# Futures: Hybrid Deployment – Your APIC on Any Cloud (2 of 2)

- **Cloud-native**, microservices and Docker container based architecture provides enhanced scalability and operational management
- **Independently scale** each API Connect component(s) based on workload
- **Pluggable platform** with logging, notification and support for various user registries
- **DevOps enabled** with CLI & REST support
- **Deploy *components*** on any cloud, including running components on different cloud platforms
- **Target GA - 1Q'18**





# Enterprise API Lifecycle

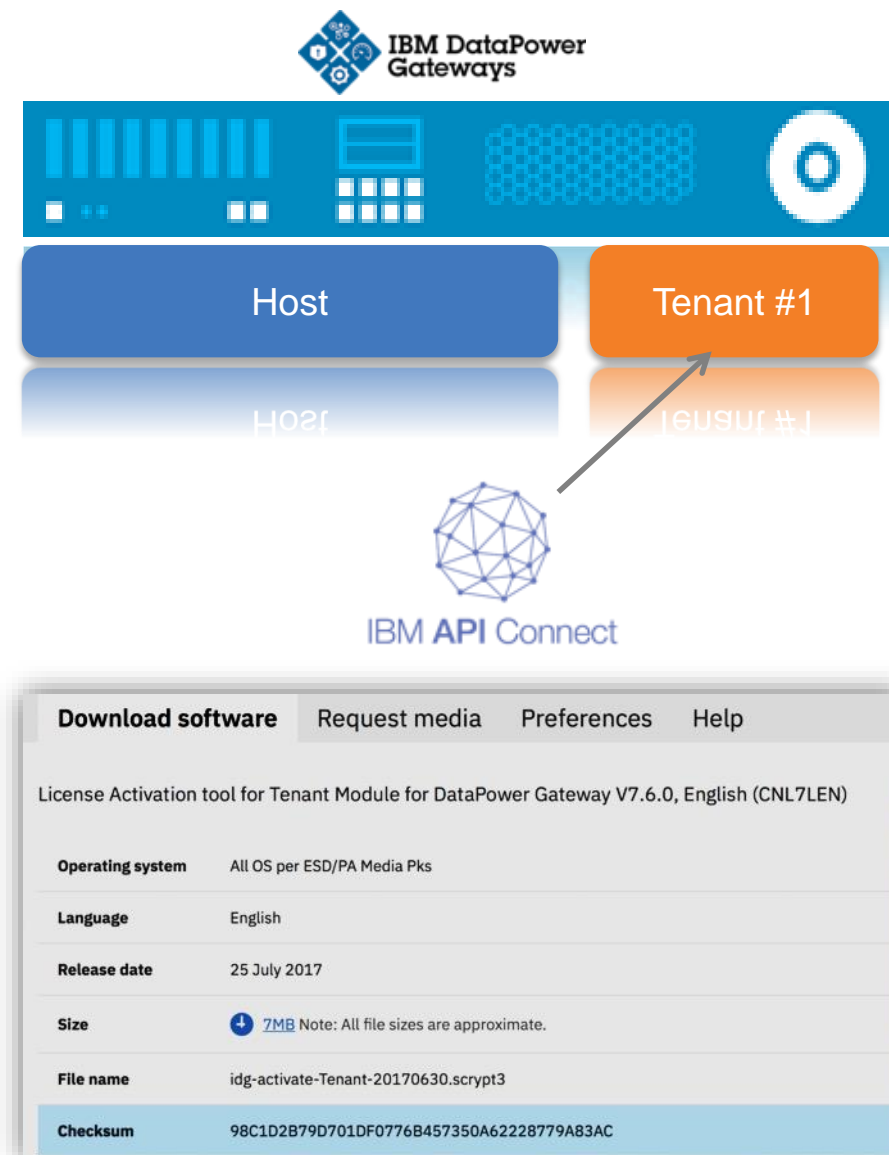
# What's New: Enterprise API Lifecycle



- Socialize APIs from **multiple LoBs** in a single internal or external corporate portal for developers, while preserving LoB specific control
- Docker orchestration for microservices runtime management to simplify alignment to corporate standards and speed time to value
- Multi-Language support and OpenAPI extensions for globalization and standards-based API customizations
- Real-time Analytics offload to third party tools for improved insight
- Monetization support to track & generate revenue via API program

# No-Charge Tenant with API Connect Enterprise

- **One tenant for no-charge** for API workloads on each DataPower Gateway physical appliance (Type 8436, aka 9006), managed by API Connect Enterprise
- **Encourage API Connect adoption** by allowing two-speed IT for traditional DataPower users
- **Independently apply firmware upgrades** to tenants running API or traditional workloads
- **Zero disruption to workloads** on neighboring tenants during firmware upgrade for a tenant
- **Activator available on Passport Advantage** to enable tenant isolation for API Connect Enterprise users



# First Class API Security With OpenID Connect

- **Accelerates market delivery of APIs** by enabling connectivity with identity solutions supporting OpenID Connect
- **Address EU [PSD2](#) and [OpenBanking](#)** requirements for authorization and authentication by leveraging [OpenID Connect support](#) within API Connect
- **Get a head start** with sample Open API OIDC template in API Connect and customize identity token generation
- **OIDC** is a framework built on top of OAuth 2.0, for identity providers to validate, assert user identities for Single Sign-On to web, mobile, and APIs,



OpenID®



Title

jwt-generate

Description

JSON Web Token (JWT)

idtoken

Runtime variable in which to place the generated JWT. If not set, the JWT is placed in the Authorization Header as a Bearer token.



JWT ID Claim

Indicates whether a JWT ID (jti) claim should be added to the JWT. If selected, the jti claim value will be a UUID.

Issuer Claim

iss.claim

Runtime variable from which the Issuer (iss) claim string can be retrieved. This claim represents the Principal that issued the JWT.

Subject Claim

oidc-credential

# IBM DataPower Operations Dashboard 1.0.5

## API Connect Integration

DPOD displays only APIC transactions and their analysis, and API specific dashboards for efficient troubleshooting and performance analysis

## Configuration Management

Manage your DataPower Secure back and synchronize\* configurations across gateways

## External APM Integration\*

Push aggregated data to external APM solutions or log aggregators

## Service URL Calls Dashboard

Immediately see the statistics of service URL calls for a quick analysis of the performance

## Improved Side Call Analysis

DPOD now offer latency analysis for calls to external resources within a transaction, for a quicker fine tuning

## HA Improvements

DPOD now supports limited Active/Active scenario giving more flexibility of use in these environments

IBM®  
APM  
splunk>

Service  
SQL LDAP HTTP

\*: Tech Preview

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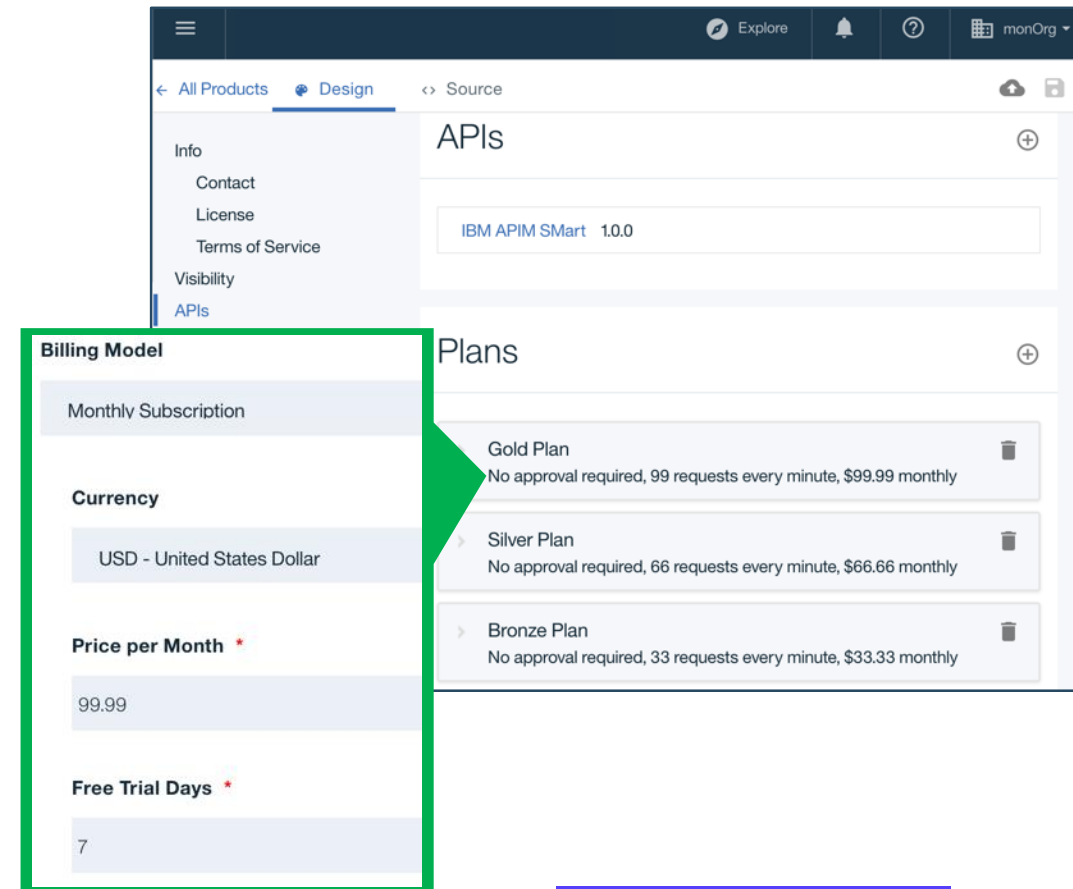
# Futures: Enterprise API Lifecycle

- Monetization support to track & generate revenue via API program
- Performant & Flexible new API Gateway, built on DataPower, with API workload isolation and new built-in policies
- Out of the box, simple drag and drop policies to decorate & secure APIs without any custom code
- Corporate & organizational standards enforcement for APIs across organizations via Global Policies
- Deep Transactional Insights for tracing & troubleshooting API Connect via DPOD & integration with APM tools



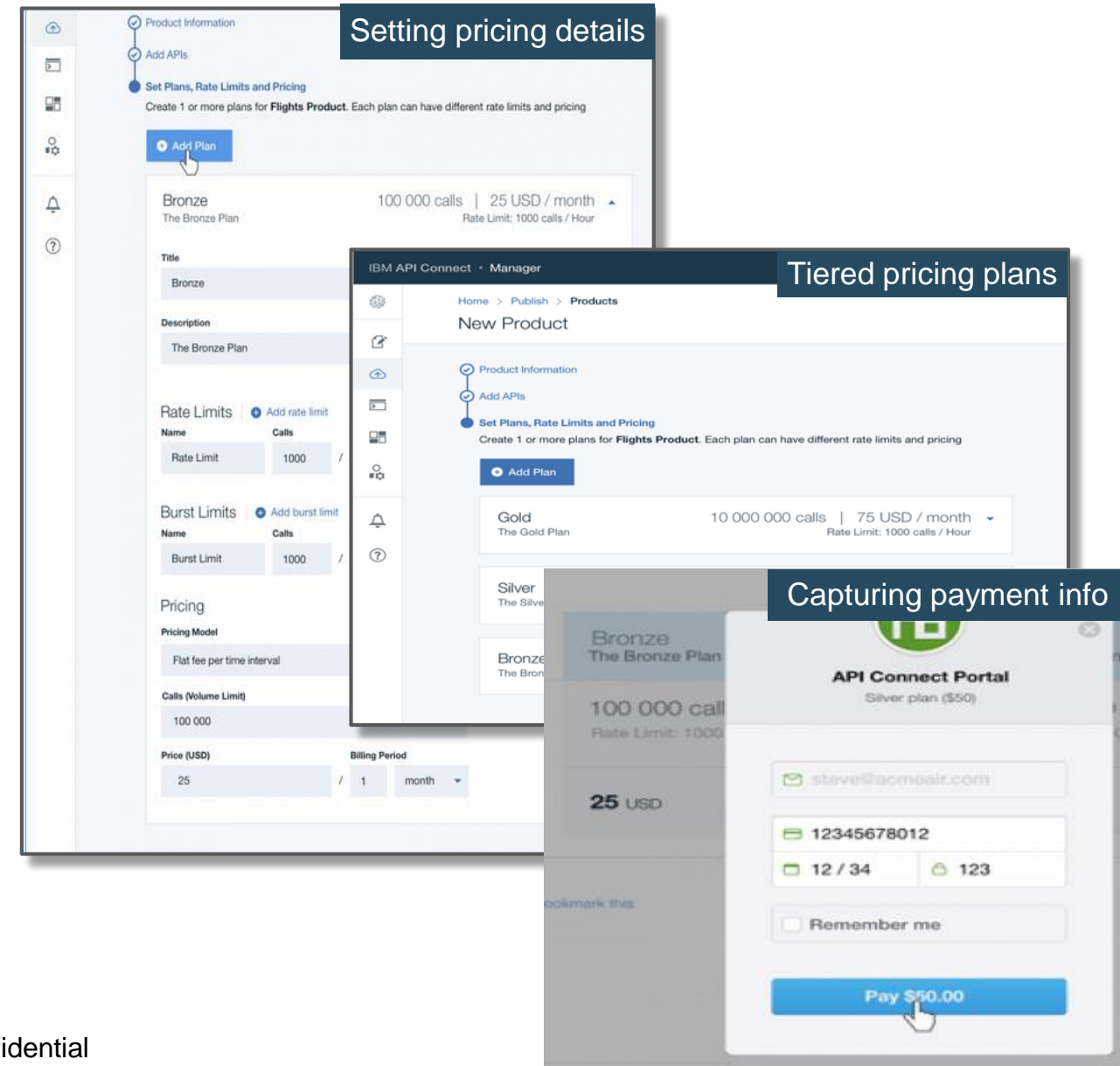
# API Monetization – Available Today

- **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



# Futures: Monetization Support to Track & Generate Revenue via APIs

- Intuitive user experience for creating monetized API plans, pricing details, usage tracking and billing for API product managers
- Support for tiered pricing, freemium and overage plans
- Rapid user onboarding and billing payment registration for API consumers
- Pluggable billing module to enable integration with your billing engine
- Integration with Zuora, IBM Payment Gateway, Amdocs etc

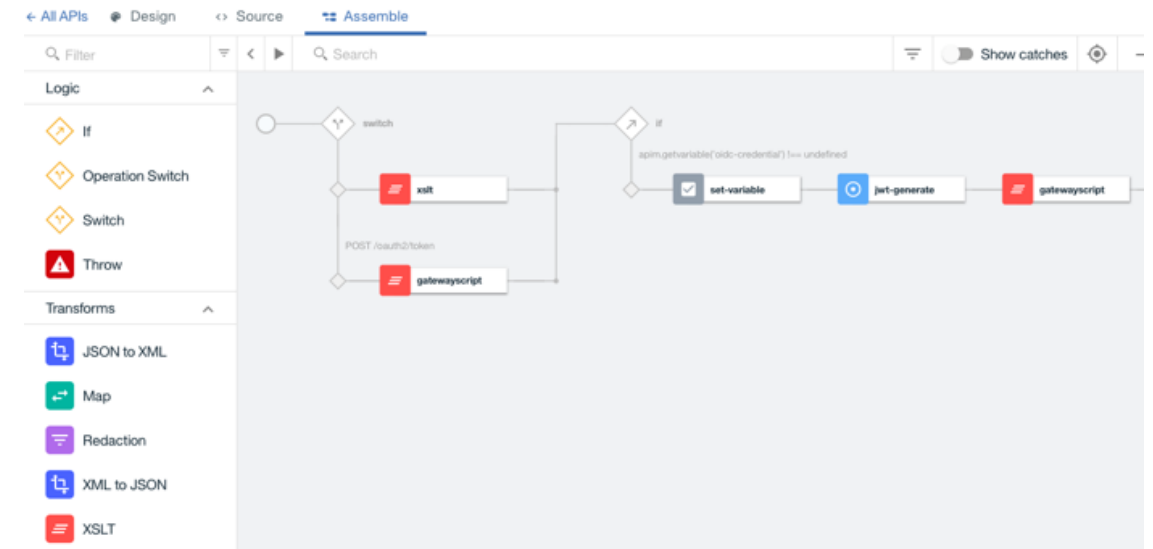
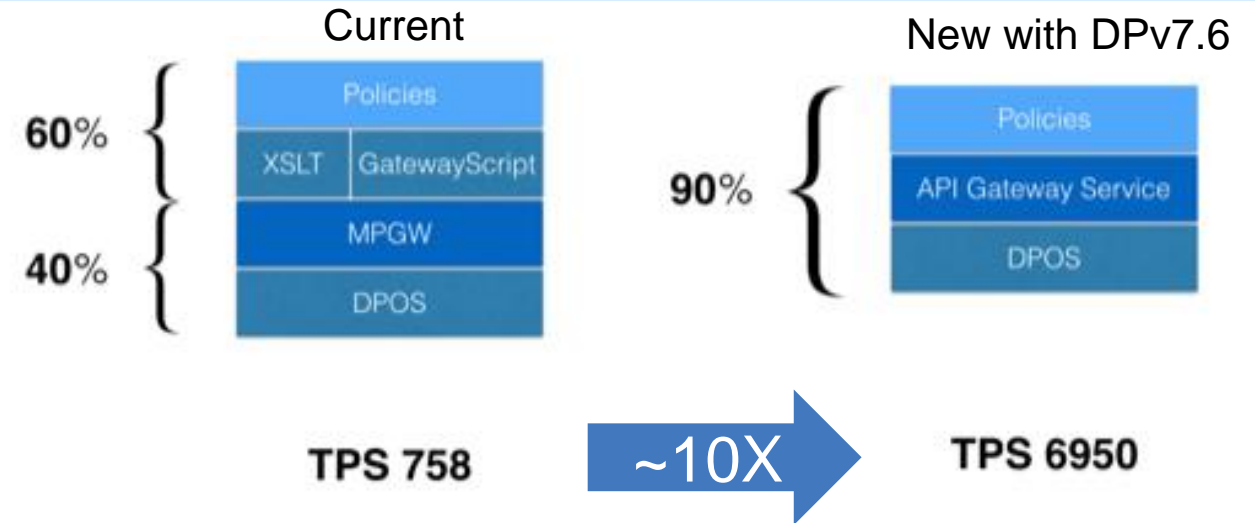


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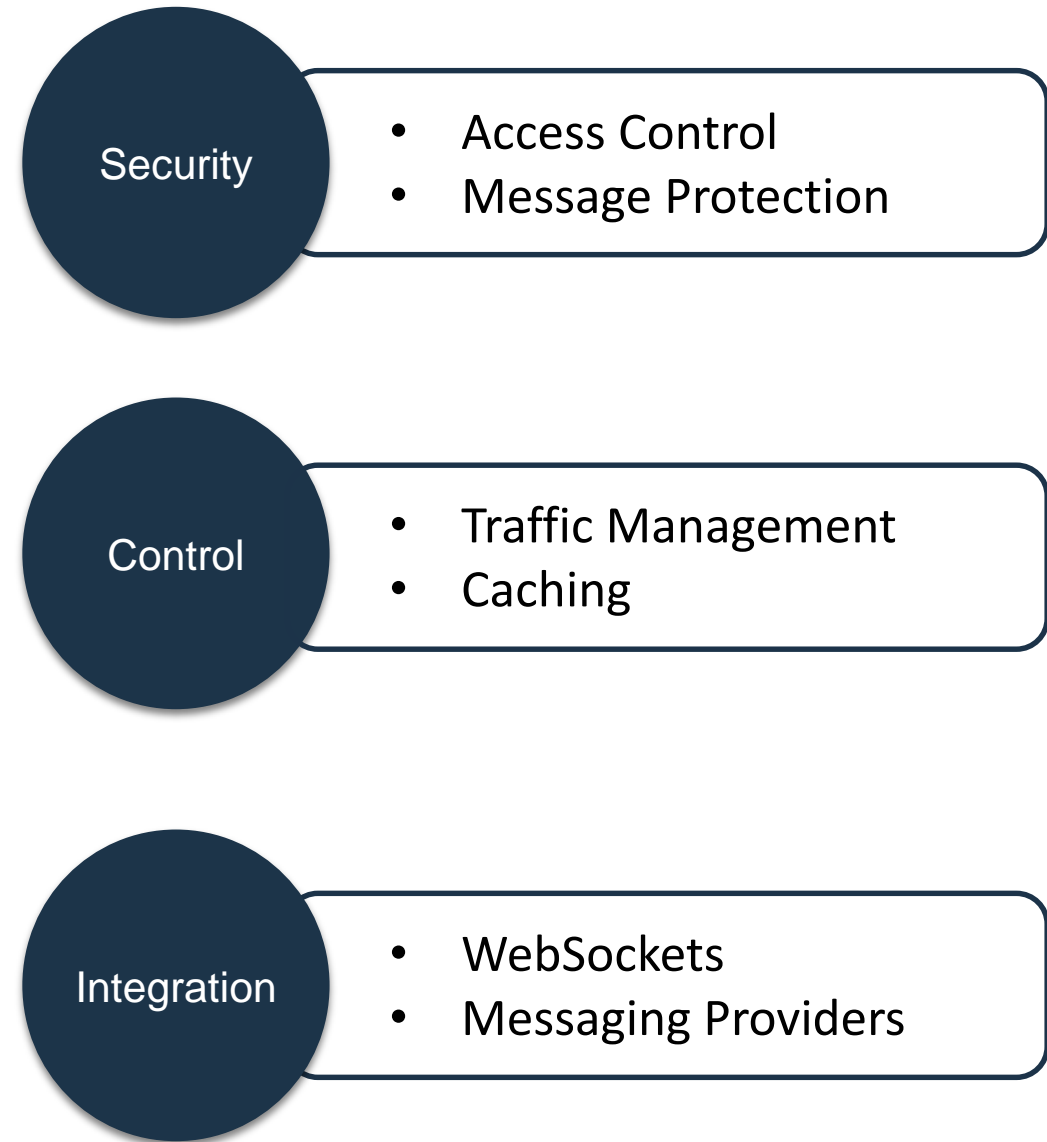
# Futures: Performant & Flexible new API Gateway, built on DataPower

- **10X increased performance** with natively built API Gateway with low-level optimizations within DataPower
- **Accelerated delivery of OOTB policies** for security, mediation and traffic management
- **Available as a Docker image (tech preview):** Available with APIC API Toolkit (5.0.7.2)
- **Benefit from & contribute** to the Github community [here](#)



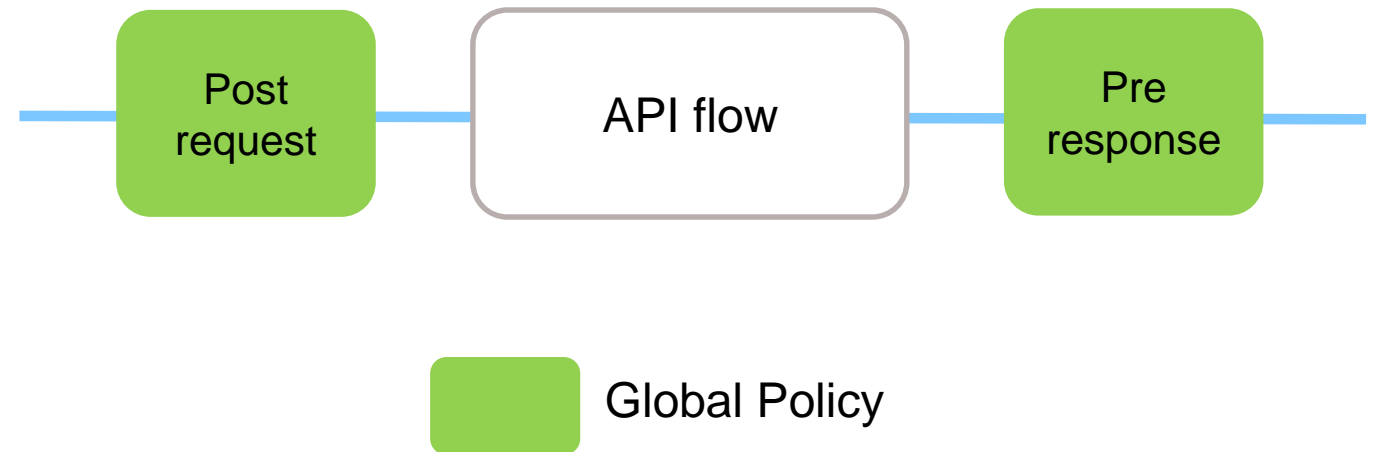
# Futures: Comprehensive policy set for securing and controlling APIs

- New built-in policies to protect digital assets, manage traffic, and optimize API delivery without requiring changes to backend systems
- Integrate Modern REST with traditional enterprise services to easily expose existing Systems of Record to new System of Interaction applications



# Futures: Enforce Organizational Standards for Enhanced Governance

- **Enforce corporate standards**, e.g. security and logging, with different personas across multiple API definitions
- **Global** assembly flows to enforce policies without changing individual API assembly definitions



# Futures: “Endpoint” Management

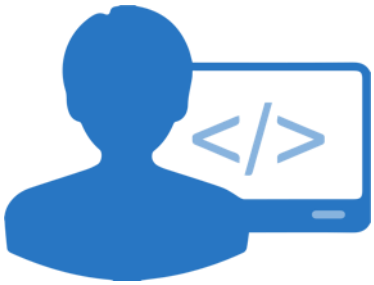
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- Virtually all aspects of “API” management are applicable to other entities, like Events, Messages, Process Flows, SaaS Services:
  - Create & Run the Event or Process Flow, etc
  - Manage who can use, how many times
  - Manage versions
  - Manage usage analytics to make smarter decisions
  - Secure use and connectivity
  - Secure to provide “shock absorber” to usage spikes
  - Etc..
- Opportunity to expand the market of API Connect, and “API Management” beyond APIs, to “any endpoint”

# Developer Productivity

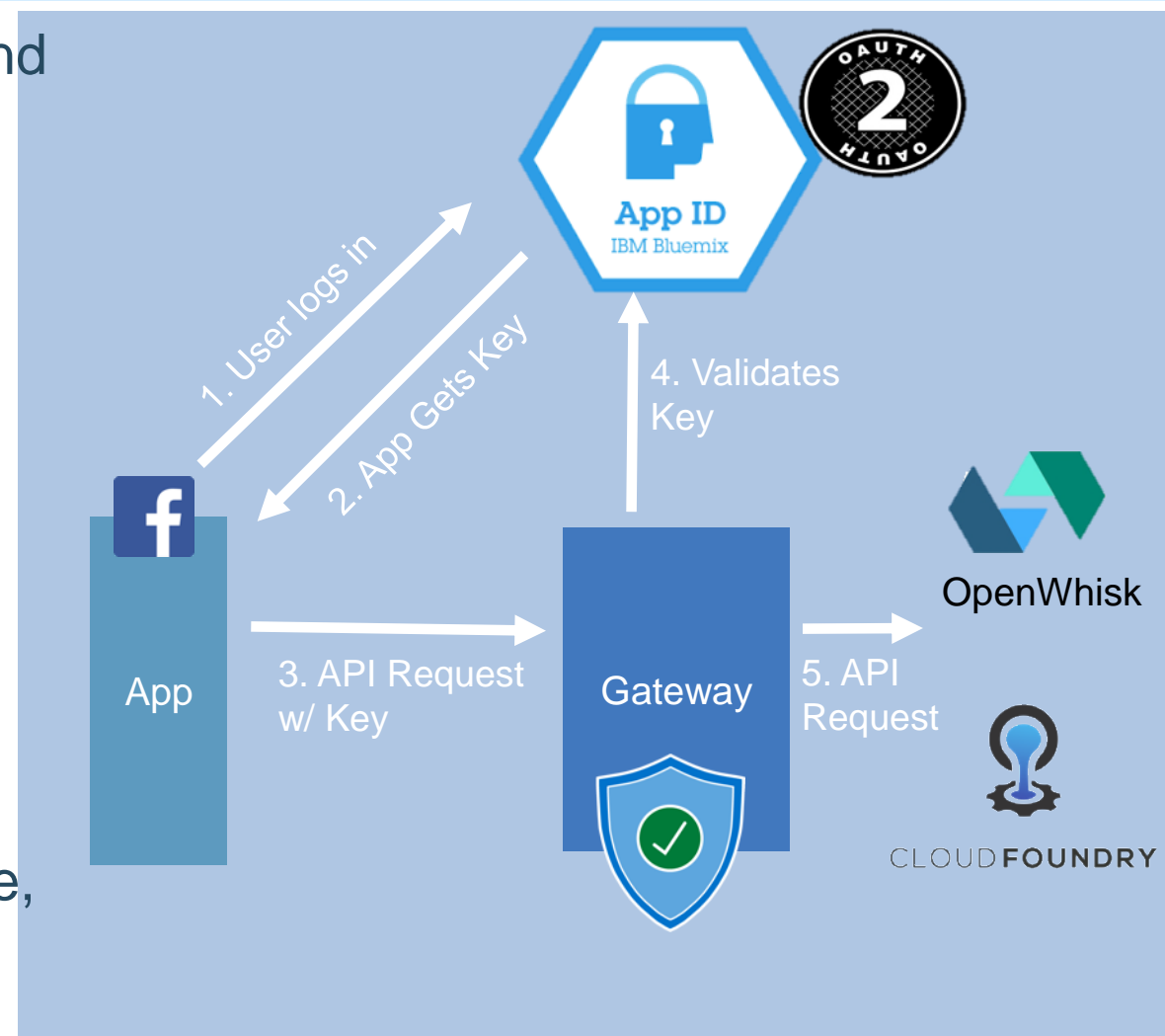
# What's New: Developer Productivity

- Built-in API Management in Bluemix to secure, control & analyze APIs for serverless & traditional apps, free & unlimited API calls for 2017
- DataPower integration with API toolkit for enhanced productivity
- Revamped NGINX & Node.js Microgateway, now open sourced for unlimited extensibility and ability to leverage communities
- SwaggerHub integration with auto-sync to speed API delivery
- In-app Chat with API experts for quick answers
- Built-in monitoring for Node.js microservices for simplified debugging

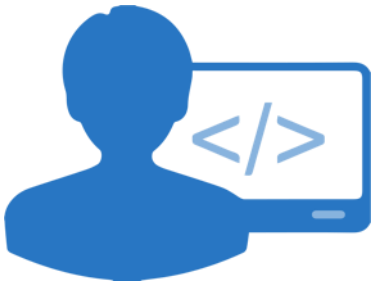


# AppID (Auth-aaS) Native Integration with APIs on Bluemix

- **First class social login integration** for mobile and web developers; without worry about OAuth complexities
- **Available on Bluemix for APIs** created by serverless (Openwhisk) and traditional (Cloud Foundry) apps. Create a powerful & production ready stack in minutes
- **Seamlessly integrate existing services** with Bluemix AppID in seconds without worrying about SDKs, APIs updates from social logins like Google, Facebook etc.



# Futures: Developer Productivity



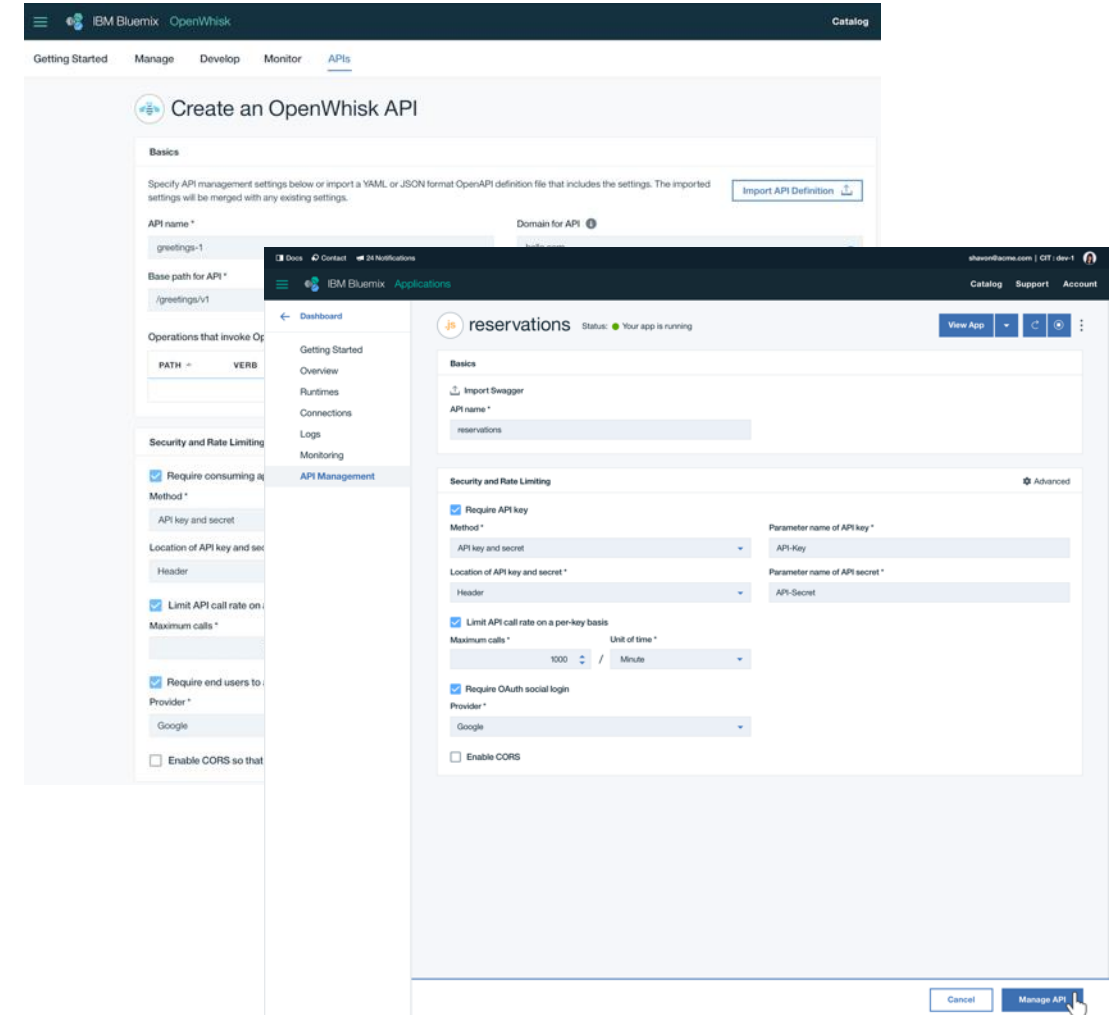
- App-First API Development on Bluemix to allow developers to quickly create APIs from microservice applications and seamlessly add API management features without any development disruption.
- Rapid API Development on-premise with a gateway-first approach to allow developers to quickly create, secure, manage & publish APIs
- Automated API creation in Swift for higher quality APIs
- Automatic, Rapid creation of Node.js micro services from API definition based on OpenAPI specification



# Built-in API Management in Bluemix to Secure, Control & Analyze APIs

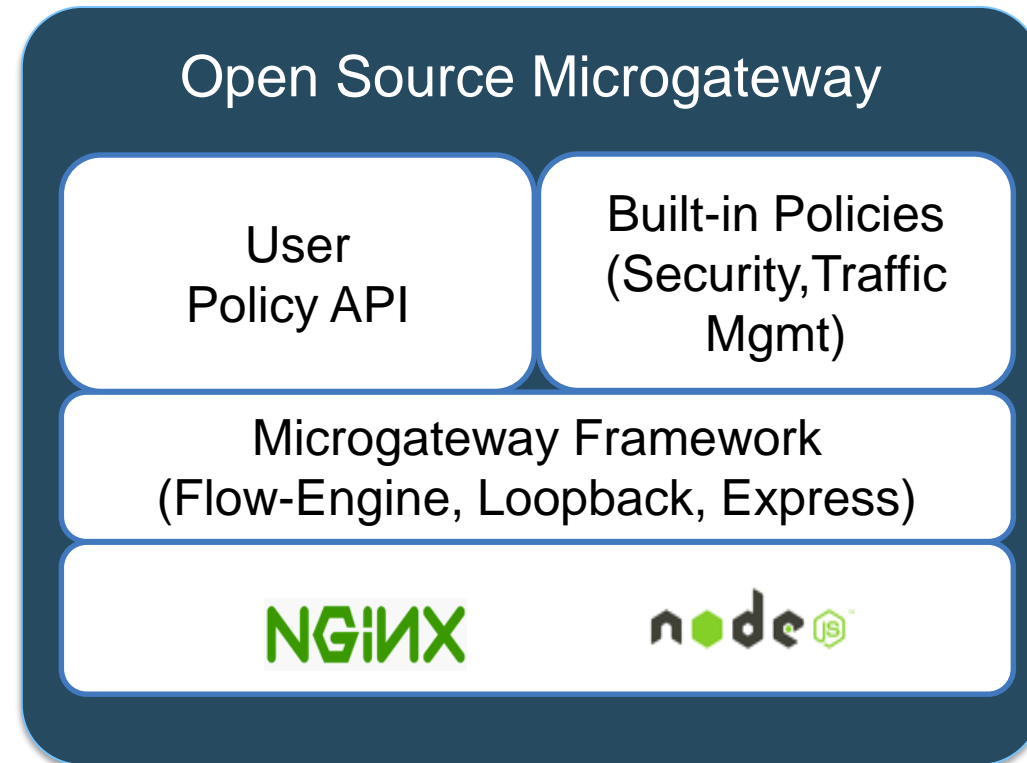
- Enables developers to easily expose APIs from serverless and traditional Cloud Foundry apps in Bluemix Public
- 10x faster to configure and use than alternative cloud API gateways/management
- Add basic API security (API key), rate limiting, OAuth 3rd party token validation, CORS & analytics functionality to apps in seconds
- **Futures:**
  - PayGO add-ons for advanced security, management, analytics & socialization functionality
  - Progressive disclosure to full API Connect functionality
  - Bluemix Dedicated & Local support

## Free & unlimited API calls for 2017!



# Revamped NGINX & Node.js Based Microgateway

- Evolution of API Connect Microgateway for developers, now open source
- Programmable and extensible framework to build your own gateway solution via JavaScript & Node.js modules
- Combines the performance & scalability of operations-friendly NGINX with flexibility & extensibility of developer-friendly Node.js
- Integrated NGINX reverse proxy
- Supports modern REST API Provider backends with basic set of built-in policies for security and rate limiting



<https://github.com/strongloop/microgateway>

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