

# Accelerating digital transformation with IBM API Connect

*Securely unlock enterprise data and services for the digital economy with an integrated API foundation*



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## Highlights

- Create, run, manage and secure new or existing application programming interfaces (APIs) and microservices
  - Simplify discovery of enterprise systems of record for automated API creation
  - Provide self-service access for internal and third-party developers through a market-leading gateway
  - Ensure security and governance across the API lifecycle
  - Unify management of Node.js and Java microservice applications
  - Increase flexibility with hybrid cloud deployment
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Today's leading enterprises are undergoing a digital transformation. They are diving into the API economy, in which businesses provide services—and the services of partners—when and where customers want them. They are connecting existing enterprise applications, data and services to new channels of personalized customer engagement. These transformations are driven by:

- Consumers' thirst for compelling, omni-channel brand experiences
- Enterprise leaders' desire to connect internal groups of developers across lines of businesses to increase reuse of digital assets and accelerate time to innovation
- Incumbent businesses' need to compete against new entrants that are offering enhanced experiences—in today's markets, if you're not disrupting, you're being disrupted

In this environment, APIs are essential. They act as the digital glue that links services, applications and systems together to create compelling customer experiences. APIs make it quick and cost-effective to create the interfaces between back-end systems and front-end applications so new digital services can get to market sooner, and organizations can rapidly open new revenue channels and expand market reach.

However, APIs and the related microservice-based applications they feed into must be created, run, managed and secured across their lifecycle. Each stage poses a challenge that organizations must address to ensure success in the API economy.



## Simplify your journey into the API economy

Organizations can address the challenges of the API lifecycle (Figure 1) and drive digital transformation with the integrated IBM® API Connect solution. Designed for organizations looking to streamline and accelerate their journey into the API economy, API Connect is a comprehensive management solution that addresses all four aspects of the API lifecycle: create, run, manage and secure. This makes API Connect far more cost-effective than limited point solutions that focus on just a few lifecycle phases and can end up collectively costing more as organizations piece components together.

Standout capabilities in API Connect include:

- **An end-to-end integrated experience across the API lifecycle**, including API and microservice creation, that can reduce costs and simplify application development
- **Automated API creation and discovery** from systems of record for fast time to market
- **Self-service access to APIs** to speed discovery and consumption by developers, while providing security and governance controls for IT operations
- **Unified management and administration of Node.js and Java** plus support for multiple development languages and frameworks to enhance developer productivity and reduce dependence on central IT
- **Hybrid cloud licensing** for seamless platform flexibility and lower cost of ownership

### The role of microservices

In the API economy, developers build APIs in support of new applications that use loosely coupled services. Each service has a particular function that can be independently scaled or maintained without affecting the other coupled services. This is known as a *microservice architecture*. To succeed in the API economy, businesses are creating growing numbers of both APIs and microservices at an increasing rate. Managing these elements consistently is critical as enterprises scale their programs and extend their products and services from a handful of APIs to hundreds or thousands.

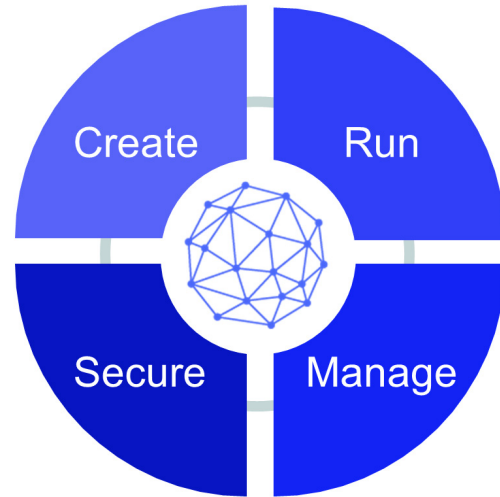


Figure 1. API lifecycle supported by IBM API Connect.

### Create APIs in minutes

Organizations can create high-quality, scalable and secure APIs for enterprise systems such as application servers, databases, enterprise service buses (ESBs) and mainframes in minutes. Intuitive tooling allows developers to visually compose APIs, connect them to data, deploy them securely, and monitor and troubleshoot them. By building up a library of reusable APIs, the organization can speed new application development and ongoing application evolution.

### Quickly run APIs and microservices

With API Connect, developers can take advantage of integrated tooling to build, debug and deploy APIs and microservices using the Node.js or Java skills they already have. The unified management console helps developers be more productive; they can also iterate new ideas faster to drive the continuous improvement an organization's leadership team desires.

### Manage APIs with ease

The IT department can use API Connect to create and manage self-service portals that empower internal and external developers to quickly discover and consume APIs and securely access enterprise data. They can also control access to APIs and set usage limits to protect the system of record against usage spikes. Administrators and developers can

maintain version control of APIs to ensure existing applications using an older API version remain unaffected.

### Readily secure APIs and microservices

With API Connect, administrators hold security and governance control over APIs and the microservice applications that are deployed as part of the API lifecycle. IT can set and enforce API policies to secure back-end information assets and comply with governance and regulatory mandates.

### Deliver key benefits across the organization

API Connect promotes visibility and consistency among development, IT operations and line-of-business (LoB) teams, helping the organization better align technology strategy with business strategy. Here are some advantages of using API Connect across all divisions of an organization.

### Fast results and better application quality for developers

Developers can easily discover existing APIs and back-end data sources and create new APIs faster using model-driven tools. These unique automated API creation capabilities help developers quickly unlock the value of the organization's technology and information assets and shorten time to market for innovative revenue-generating applications. In addition, integration between API Connect and the IBM MobileFirst™ platform gives developers an open, comprehensive foundation to develop, test, secure and manage mobile applications.

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### Support for Node.js: What it means for you

Node.js is an emerging open standard for creating, deploying and scaling APIs that connect mobile, Internet of Things (IoT) and web applications to enterprise data and services. Node.js is based on JavaScript, which is familiar to many developers from their work building the front ends of modern applications. API Connect uses open source frameworks for Node.js such as Express.js and the LoopBack® framework from StrongLoop, an IBM company, to speed the creation of APIs with Node.js.

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### Simplicity and reduced risk for IT managers and architects

API Connect allows IT managers to expose selected information assets to developers through configuration features in the solution's self-service portal. API policies are enforced through an integrated gateway to ensure access and usage are in line with enterprise requirements.

### New revenue and extended brand reach for business analysts

Business analysts can use advanced analytics included with API Connect to determine which APIs are having the most impact. Analysts can also determine which APIs to monetize directly by charging third-party developers to use them.

### Innovation and growth for LoB managers

Using customer and competitive insights from the built-in analytics, LoB managers can better manage their market initiatives. They can create new business models that monetize existing information assets, grow the customer base, cultivate new partnership opportunities and help the company compete in the API economy.

### Flexibility and cost savings in a hybrid deployment for CIOs

API Connect provides seamless portability between on-premises and cloud services—for example, pushing an API from on-premises development environments to off-premises staging and production environments. This flexibility enables organizations to avoid the expense and complexity of multiple licensing arrangements for hybrid hosting.

### Choose from flexible offerings that grow with your needs

API Connect is available in three offerings with flexible licensing so organizations can start small and easily scale to meet growing demands. Available as on-premises or software-as-a-service (SaaS), API Connect offers three subscription licenses based on API calls per month:

- **API Connect Essentials** is a no-charge offering targeted for developers. It provides a complete foundation to create, run, manage and secure APIs and microservices, plus up to 50,000 API calls per month.



- **API Connect Professional** is designed for departmental use. It includes high-availability support, analytics, Node.js and Java run times, an integrated micro-gateway, and up to 5 million API calls per month.
- **API Connect Enterprise** is intended for enterprise use. It provides multi-data center high-availability capabilities, advanced analytics, Node.js and Java run times, an advanced gateway, and up to 25 million API calls per month.

Add-on subscriptions are available to increase the number of API calls per month or increase the amount of Node.js or Java run times used across the API lifecycle. Alternative licensing options are available upon request.

## Why IBM?

The API economy is the source of much of today's innovation as companies adopt new ways of managing their information assets and technology and adjust the ways they interact with partners and customers. Business leaders now have a dynamic environment in which they can transform their organizations; build new ecosystems; and monetize core assets, services and products.

To position itself strategically for the future, an organization needs to lay the foundation for a cognitive business as part of its overall digital transformation. API Connect is the only comprehensive solution that addresses all stages of the API lifecycle, no matter where you are in your journey. As part of the integrated portfolio of IBM products, services and tools, it helps companies achieve all the benefits of the API economy and become cognitive enterprises.

## For more information

To learn more about IBM API Connect, contact your IBM representative or IBM Business Partner, or visit: [ibm.biz/apiconnect](http://ibm.biz/apiconnect)

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