

# Harnessing APIs and Platforms

How Connected Data Drives Application Intelligence



**IBM**

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## Executive Summary

To keep pace in a rapidly evolving marketplace, organizations must innovate faster than ever. Companies today are making their services and data available through web APIs to internal and external developers, creating higher value and new ecosystems. In this paper, we'll discuss the transformational effect APIs have had in the marketplace at large, the data they're capable of uncovering, and how companies are applying that data to create intelligent APIs to drive business.

***“We will look back on this time and look at data as a natural resource that powered the 21<sup>st</sup> century.”***

**- Ginni Rometty, IBM CEO**

# From Data to Intelligence

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## Introduction

APIs were traditionally only used by developers to create system-to-system communication and take complex or tedious processes and reduce them to a few lines of code.

APIs are no longer relegated to the realm of developers and IT architects. Now, more than ever, executives and decision makers within organizations need to understand the immense opportunities that APIs present for their businesses innovate and stay relevant.

## From Data to API

While APIs have a broad range of uses—including distributing products, facilitating ecosystems, making business processes more efficient, and transforming real world tasks into digital experiences—the value of an API centers on creating, analyzing, and monetizing data.

Data provides insight, which is a powerful asset. It illuminates opportunities for companies to address customer concerns, identify unmet needs in the marketplace, or improve existing benefits of a product or service. When a company looks at its assets and expertise through the lens of its data, it will likely uncover new and previously unknowable business opportunities.

Enterprises have systems of record, systems of engagement, historical files, and industry knowledge. They can combine these deep data stores with transaction systems to gain unique insights, like customer preferences and needs gaps, and get a powerful baseline for opportunities to monetize that information by creating an API. That API can then be used to make platforms that enhance existing business models or disrupt and create new ones.

Simon Wardley, researcher for the Leading Edge Forum, [notes](#)<sup>1</sup> that APIs can also act as significant, “future sensing engines.” So, the more prevalent an API becomes, with an increased number of higher-value systems powered by that API, the more a company can understand about the direction of the market, based on the consumption metrics associated with that API.

## The Rise of Web APIs

Web APIs are taking API capabilities to a new level. They’re transforming the way business is done, which is having far-reaching impacts in nearly every industry. Web APIs are enabling new business models, creating new channels for revenue, and facilitating new ways for B2B and B2C brand interaction.

As web APIs become increasingly common, their networks more powerful, and their code more stable and mature, they are facilitating the creation of higher-value systems on top of them, with data at the core.

Take Uber, for example. The company is changing traditional business models to models of overall connectivity and delivery. The Uber app connects passengers (or people wanting a sandwich delivered) with drivers for hire.

The company is creating even more connectivity, data, and value by opening its APIs to allow other companies to embed elements of Uber into their apps.

Dozens of companies—like the Breathometer app—are using Uber APIs within their own products. The Breathometer app can determine the blood alcohol content of its user, allowing that user to know when he or she may be too intoxicated to drive. By integrating the Uber API into its application, the company is providing its users with an easy way to find a quick, safe ride home.

When Uber opened its APIs, it opened an avenue to extend its brand and easily partner with other businesses.

## API to Platform & Intelligence

*“[In platforms] feedback loops from the individual supply and demand nodes to the central platform work in real time, benefiting all connected nodes much faster. These are network effects of learning. The more the nodes are connected and active, the faster the platform learns from their actions and disseminates such learning to other nodes.”*

– Platform Revolution<sup>2</sup>

Just as data drives API creation, APIs drive platforms. Platforms and their nodes are governed by networks and the signals within them.

We see this play out in the media and entertainment industry, where there’s been a shift from “filter, then publish” to “publish, then filter.” The traditional role of editors and managers was to determine what content the market would respond to and then make investments in production, publication, and marketing.

However, intelligence—gained through platforms and their APIs—is changing that model. As the Internet dramatically reduced the cost associated with bringing content for purchase to market, traditional models began to gravitate toward greater efficiency. In the today’s market, it’s easy to bring a piece of content to the Internet, and then rely on automated analytics (via API) and signals in the network determine its success and promotion.

For example, an author pens a novel and the publisher sells it on Amazon. As the book gains popularity on Amazon, it gets promoted and targeted to more and more people who are likely to purchase it. This allows the publisher to invest production and marketing resources as demand grows, as opposed to forecasting the success of the novel.

Other examples of APIs using intelligence and driving content visibility to likely buyers:

- If a piece of content is popular within your network on Facebook, it shows up on your newsfeed automatically.
- Across any number of social sites, popular content is seen more and more via retweets, reblogs, upvotes, daps, 5-star ratings, and any number of other indicators of interest and value.

## Making It All Work

When we examine the lifecycle of development and innovation, a platform and API-centric strategy creates a virtuous cycle of feedback and growth. Internally accessible APIs drive speed and agility by eliminating manual hand-offs and providing self-service access to valuable data and processes.

A select group of these APIs can then be published as external web APIs, either to partners or the general public—facilitating the creation of higher-value systems on top of them as well as ecosystems around them that deliver greater business value to end-users.

Development platforms like IBM Bluemix, Microsoft Azure, and AWS provide tools that allow you to create or extend your own APIs, breaking your workloads out of the boxes that previously confined them and connecting them to services that make them smarter, more accessible, and more scalable.

Finally, the data gathered from across a distributed network can enable the creation of new intelligence that can be distributed throughout the network and used to inform the creation of ensuing apps, services, and APIs.

### Getting Started with APIs

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#### IBM API Management on Bluemix

Accelerate your entry into the API Economy with the ability to quickly orchestrate and design new APIs, secure, publish, and manage existing APIs, and gain business insight with analytics about the usage of APIs. Learn about IBM API Management for Bluemix at [ibm.co/bluemixapi](http://ibm.co/bluemixapi).

#### Ready, Set, Connect

Unlock your apps and data on cloud with IBM's new Connect series. Now you have the power to unlock billions of dollars in value when you connect your on-premises IBM middleware apps and data to the cloud. Start now. Access these capabilities with the tools you already own at [ibm.co/connectapi](http://ibm.co/connectapi).

#### Watson Developer Cloud

Discover APIs from Watson Developer Cloud that can help you solve complex problems by analyzing images and video to gain insights from text, language, vision, speech, and data. View all services to see all the Watson APIs available now on Bluemix at [ibm.co/watsonapi](http://ibm.co/watsonapi).

## More Reading

[Getting started with the Bluemix API Management Service](#)  
[Announcing IBM API Connect on Bluemix](#)  
[API Harmony – the matchmaker of APIs and developers](#)  
[Navigating the API Economy with IBM Bluemix](#)

*To learn more about IBM Cloud or Bluemix, visit [ibm.com/cloud](http://ibm.com/cloud). If you'd like to speak with one of our cloud experts directly, email [ibm.co/emailapi](mailto:ibm.co/emailapi) or call 844.95.CLOUD.*

## References

<sup>1</sup> <http://blog.gardeviance.org/2014/03/understanding-ecosystems-part-i-of-ii.html>

<sup>2</sup> <http://platformthinkinglabs.com>

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