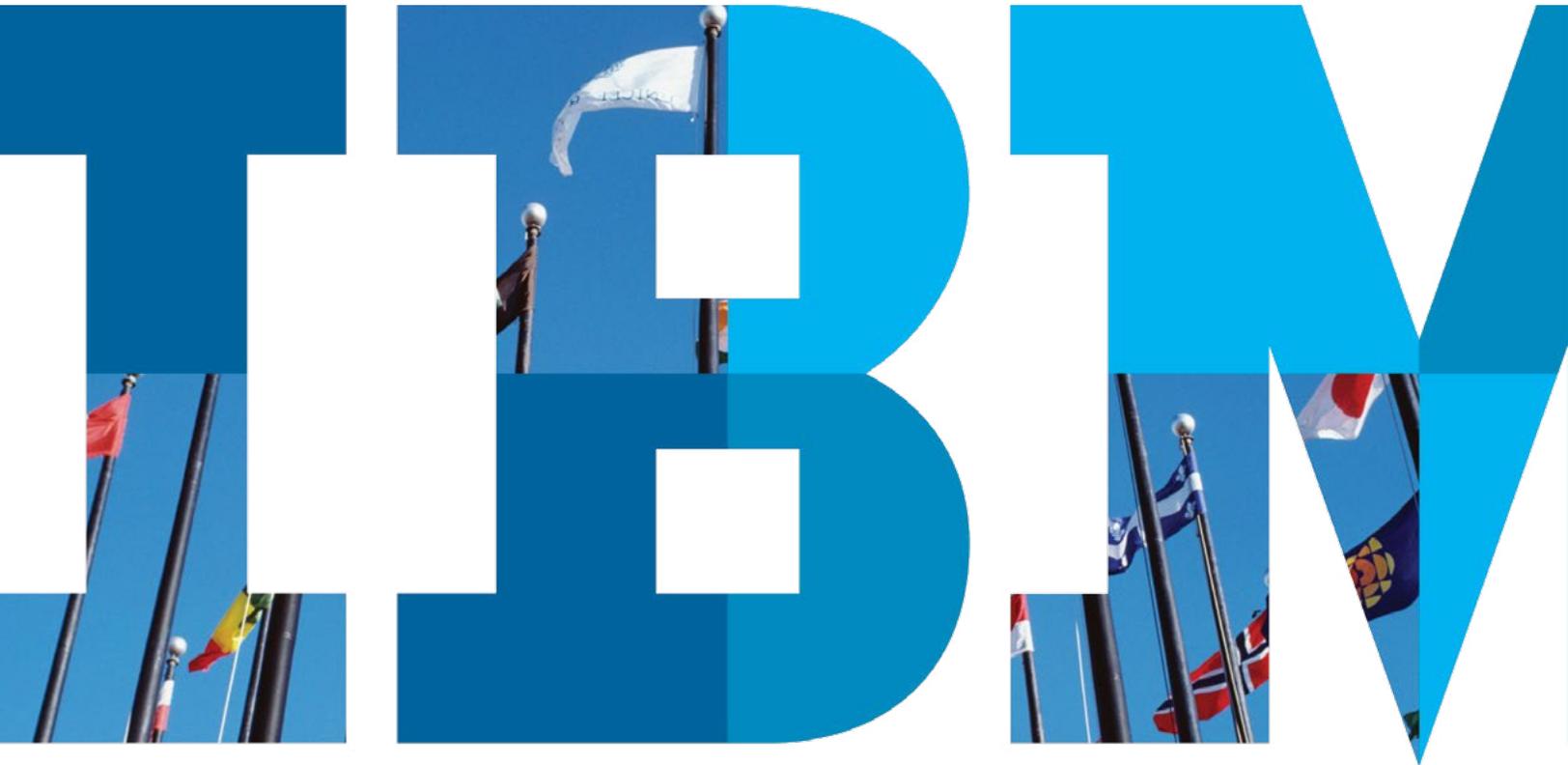


Identifying API use cases: Government



Executive summary

Many government agencies are planning their journey and participation in the API economy. One of the most common questions from organizations starting the journey is about the potential use cases within their industry. This paper focuses on several objectives:

- Identifying the common business drivers for API initiatives
- Describing an API identification methodology
- Supplying industry-specific examples using the methodology
- Discussing the current state of regulatory requirements and industry standards
- Providing recommendations for starting an API initiative

Determining an API economy strategy and planning a roadmap offer significant benefits, including:

- Consolidating and standardizing common APIs—or simply business services—within an organization
- Lowering cost of operations by having a central repository and index of enterprise business services such as “retrieve tax return status”
- Accelerating digital projects and improving time to market with safe, quick access to business services by both internal and external parties
- Identifying a partnership ecosystem—especially outside your own industry—for formulating new value-add products and services to be more competitive
- Defining new business models for monetization purposes such as the mobile marketplace; that is, curating your agency’s business capabilities aggregated with your partners’ business capabilities to provide a diverse range of related or complementary services

This paper is intended for business and IT leadership in the public sector interested in jump-starting API initiatives by learning about industry use cases.

What is a business API?



Application programming interface (API) is a very old term that has been used to describe technical interfaces for software programs where one software program calls another through its API. Often, these APIs were extremely complicated and not really meant for wide consumption. A few other software programs inside the enterprise might use the API to invoke the program; a partner outside the company might use it as well, but with great difficulty.

This long-standing definition is not what’s getting organizations excited about an API economy. The excitement is instead around what is referred to as a *business API* or *web API* (although sometimes the additional qualifier is left off). These business or web APIs are easy-to-understand interfaces for a recognizable business asset—for example, a customer record, an account, a product catalog, a price, an order and so on.

A business API is a public persona for an organization that exposes defined assets, data or services for consumption by a selected audience of developers, either inside or outside your organization. Business APIs are simple for application developers to use, access, understand and invoke. And because a business API extends an organization and opens new markets, application developers can easily leverage, publicize and aggregate assets for broad-based consumption.

Common business drivers for API initiatives

Organizations that are executing successful API initiatives focus on one or more of four key drivers: speed, reach, Internet of Things (IoT) and domains.

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Speed (also known as two-speed IT, bimodal IT or multispeed IT): This driver focuses on allowing the business and IT organizations to run at different speeds. Traditional IT management of core systems of record can be changed at a certain rate. Trying to force rapid changes into core systems in the enterprise can result in outages or security exposures. Yet the business needs to react very quickly to new opportunities and competitive threats. It needs a higher rate of change than can be delivered by the controlled changes required to the systems of record. Using APIs, you can prepackage core system assets for consumption by the business to create new and innovative systems of engagement. This driver tends to be the first one that promotes API use in the enterprise.

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Reach: To reach and support new customers, you can make APIs available to other enterprises, such as partners who can generate additional value using assets from your agency. For example, an insurance company may use government sources for crime statistics, flood and earthquake history, and zoning data to enhance homeowner's insurance calculation services in its mobile app.

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Internet of Things or devices: In many industries, devices are used in conjunction with APIs to provide new and innovative solutions. This tends to happen in one of three ways:

1. A device sends data via API call, such as a highway or bridge toll auto-pay system that reports which cars passing the sensor should be charged the toll.
2. A device is sent a command via API call, such as panning a security camera in a different direction.
3. A device sends data through a non-API call using other technology such as MQTT—a high-volume messaging protocol and transport for telemetry devices—because not all data calls require an action. However, APIs can access the data inside the enterprise and look for or react to particular situations or events. For example, energy grid sensors transmit data to various organizations. Abnormal readings, fluctuations or outages could invoke an API to take appropriate action.

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Domains: Typically, domains refer to interactions across multiple lines of businesses or agencies. They can largely work independently, but benefit from sharing data. APIs allow the data to be shared in a controlled, secured manner. Domains can also be seen as physical locations. Organizations that have multiple locations, which may include cloud and on-premises data centers, sometimes use APIs as a method to secure and control the flow of data between locations. Considerations for regulatory and compliance constraints based on geographical and country specifications become evident.

Agencies often start with the requirement for speed. After initial success in this area, they address the other drivers. It is not uncommon for agencies to benefit from APIs across all four drivers.

API identification methodology

Who should identify the business APIs? Figure 1 details several roles in a high-level organizational structure. Note that multiple people may be in each role, and a single person may be assigned to multiple roles.

A key role in the structure is the API product manager. The person or people in this role own the success of the APIs and the API initiative. Tasks associated with the API product manager role include:

- Working with the domain owners to identify desired business APIs to bring to market
- Working with the API developer to drive the creation of the API
- Reporting to executives on metrics
- Defining the product characteristics of the API (monetization, rate limits, audience and so on)
- Communication

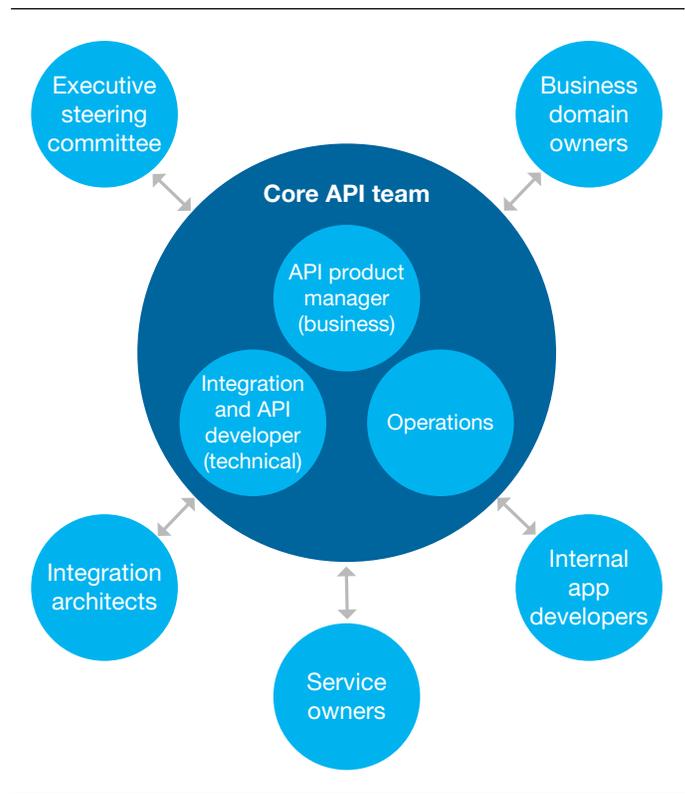


Figure 1. High-level organizational structure for an API development team.

Identifying good APIs is one of the most critical factors in achieving API initiative success. APIs must focus on the needs of the consumer and should be simple. Three questions lead to a good API:

- Who is the audience?
- What do they want?
- Under what terms and conditions are you willing to make the asset available?

Notice that none of these questions ask about or refer to the systems of record that will ultimately deliver the response to the API request. Many organizations incorrectly define their APIs by looking at what the systems of record do and adding an API in front of them. This approach may simplify the process for the API provider, but it does not meet the needs of the consumer.

When identifying a candidate API, the API product manager needs to understand the API user being targeted (question one). The second question is probably the most important of the three. Understanding what the audience is trying to accomplish can result in the best API. If the definition is focused on consumer need, then the interface is more likely to be useful to that audience and also more likely to stand up to change (versioning). The third question is related to the policies you want to have around the API. What security measures are required to allow the API to be used correctly? Are there rate limits that must be enforced?



“The business of APIs: Best practices” white paper provides additional information on organizational structure and several other important topics. [Download it here.](#)

Once you have answered these three questions, the API product manager and API developer must work together and potentially iterate to define the API. The API developer needs to map the proposed consumer interface for the API to the back-end system of record interfaces—and possibly to many other systems—to provide only the desired result back to the consumer. New business logic may need to be added at a microservice layer in front of the existing systems of record. If the existing systems do not completely address the requirement, the API developer may have to write additional code to add business logic to the existing environment.

Next, consider six categories in which APIs are often used, along with these top questions that can help identify potentially useful APIs in each area.

- **Internal developers (mobile)**
 - What data and transactions would your own mobile apps need?
 - Does generic data exist that is the same for all app users, such as office locations, tax rates and so on?

- Is there citizen-specific data that should be accessible through your app, such as social services benefit status?
- What features of the mobile device—for example, the GPS or the camera—might be useful in conjunction with your APIs?
- **Partners**
 - What data and transactions do you share among your current partners?
 - Is partner onboarding a long, difficult process?
 - Would self-registration of partners be of value—increasing the number of partners and broadening geographic coverage, for example?
- **Public**
 - What apps might others write that could use your data and transactions?
 - What information are you currently making available on your website?
 - What other industries or processes might also use your data? One example might be cross-agency sharing of data or private sector consumption of government information.
 - Think mashups: What other APIs might make sense with yours? Mapping? Social?
- **Social**
 - How do your systems interact with social media? Can you spot trends in social media and raise alerts or take action?
 - Can you use social media to gain insight on public sentiment about the services and support provided by your agency?
 - Can you do real-time analytics combining current constituent status, behavior and history with social interactions?
- **Devices**
 - Does your agency handle devices such as cars, appliances, sensors or meters?
 - What scenarios can apply to the device? For example, needing repair/supplies, needing to send status information, controlling device behavior or enabling interaction between the device and enterprise systems.
 - How are you positioned to integrate the next UI technology, such as wearables like smart clothing or augmented-reality glasses?
- **Data and analytics**
 - What data do you collect about your constituents? Would this data be of value to a larger audience inside the organization?
 - Can your data identify market segments that would be of interest to a non-related industry? For example, can it identify when there is a high volume of traffic in a particular region of the city?

Identifying API use cases in government



Now we will take a look at some examples that apply the API identification methodology to government and public-sector organizations.

Internal developer: Mobile app development

General information

General information is information that is not tailored to the specific customer using the app. Adding general information to mobile applications through APIs can create a more contextual, personalized user experience. Examples include food safety information from government agriculture agencies, health insurance marketplace options, or national and regional security alerts.

Other APIs can provide citizens with access to information, offerings and services at a municipal level. Citizens can report a situation—a crime, pothole, traffic concern and so on—to the appropriate agency through APIs and mobile apps.

Custom information and transactions

Custom information and transactions are tailored to the customer using the app. These APIs require additional security to help ensure appropriate access. APIs that fit this category may include a license status check from a motor vehicles agency or tax return status from the federal or state departments that handle taxation. At a municipal level, dashboards help agency leaders see what is and is not working in their area of control. Citizens can register interest in

specific topics and get information as organizations post items that match those topics. This process can be applied to local road closures, events and so on. Additionally, law enforcement can obtain real-time access to local information while on patrol.

Mobile advantages

Customers using an app on their mobile device can use the functions of the phone or tablet in conjunction with APIs provided by the agency. These device functions may include the camera, Global Positioning System (GPS) services, near-field communication (NFC) and digital wallet. For example, a mobile app user may employ an agency locator API to find nearby police stations, use the camera to report an issue and use the GPS to identify their location when calling emergency services. Another example is the US Federal Government [Mobile Apps Directory API](#), which provides developers with programmatic access to information on government agencies' mobile applications in both English and Spanish, helping to eliminate a potential language barrier.

In the education field, the combination of APIs and mobile technology can be especially effective. A college in South Korea has approximately 7,500 students in the college's 21 departments. Eighty-eight percent of the population in South Korea owns a smartphone,¹ and the college's students want to be able to access services from anywhere at any time. API technology sped mobile development cycles while reducing costs associated with the reduced cycle times, making it possible to easily connect to the college's various

databases, helping to reduce the development period and increase efficiency. APIs accelerated the mobile application development cycle, enabling the college to keep up with rapidly changing mobile platforms. They also decreased the cost of maintaining and upgrading the mobile application for multiple platforms and allowed students to look up test results and class schedules, for example, using almost any mobile device.

In addition to mobile scenarios, internal development efforts can focus on enabling communication. APIs allow an agency to cross-reference information with other agencies to help prevent unwanted situations, such as an incarcerated inmate receiving unemployment benefits. This approach can be particularly beneficial for combating fraud and benefits eligibility within social services. Local social services can use APIs to check applicants' eligibility with other state services, and possibly federal services.

Partnering



APIs can make it easy to use government services or information. Agencies such as Homeland Security and Federal Emergency Management Agency (FEMA) that handle emergency situations need to coordinate with other agencies for ambulance, emergency, food supply, fire, hospital, housing, police and other services. Agencies can combine this activity

with information from social networks, traffic management and weather systems to provide the optimal response for each environment and situation.

All agencies and departments must exchange information and cooperate to be most effective. APIs that send status, issue requests and distribute analytics to coordinate the best actions can save lives. A unified dashboard can be created for leaders to direct activity and give orders through APIs to the mobile devices of the personnel supporting the response. Different types of emergencies need different types of support, and the ability to put together solutions quickly and integrate with local private sector suppliers quickly can benefit from an API approach.

Customs and travel agencies are also starting to embrace the value of APIs. As international travel has become more widespread, sharing requirements through a digital visa application can save time and benefit both travelers and governments. The [SimpleVisa API](#), for example, is an on-demand international travel authorization platform that can be integrated into business applications. The system works with countries that offer electronic visas or travel authorizations. The SimpleVisa API supports several features including requesting an authorization quote, creating an authorization and polling the API for the status of the authorization.

Public APIs



Private-sector developers can access government APIs to provide value to citizens and potentially earn some revenue, although monetizing APIs is not a common benefit in the government sector.

Examples include a business review app that combines social media APIs with APIs from the Department of Consumer Affairs to give users a more complete view of various reviews and customer complaints. A job finder app might match candidates with open positions listed by the US Department of Labor. Agencies can also use APIs to give school counselors access to government-related job listings and qualifications so they can advise students about required classes for different careers.

Many agencies have made public APIs available. Here are just a few samples offered in the public sector, as found on ProgrammableWeb:²

- **Cicero** enables matching of any address to its correct legislative district. Available legislative districts include local council districts in more than 100 cities and state and national districts in the US, Canada, UK, New Zealand and Australia. It also returns maps of each district and information about each elected official, and it can provide non-legislative district matching for census data, counties, school districts, watersheds and police districts.
- **National Terrorism Advisory System (NTAS) API Documentation** delivers alerts from a US Department of Homeland Security feed that contains structured data fields such as summary and details, location or region, duration, how to help and so on.

Check out IBM Bluemix for your API needs

If you are exploring the API economy and interested in public APIs, IBM offers the **IBM® Bluemix® platform as a service (PaaS)**. IBM handles the security, management, operations, scalability and performance for public agencies that place their APIs on its branded mobile marketplace hosted on the IBM Bluemix Cloud platform.

- **Consumer Financial Protection Bureau Open Tech Consumer Complaint Database API** allows applications to retrieve metadata about the data set and views, query for views matching specified search criteria or retrieve specific rows of data from the data set and views.
- **National Crime Victimization Survey API**, provided by the Bureau of Justice Statistics, collects detailed information about people victimized by certain types of crime. The data describes the frequency, characteristics and consequences of criminal victimization in the US.
- **Toronto Open311** offers customer service for the city government of Toronto, Canada. It allows citizens to call and report a pothole, order a new garbage bin, learn about programs at local community centers and more.
- **Cityworks** is a platform for managing and scheduling municipal services provided by city and local governments. It includes cloud-based functions for scheduling service calls, public maintenance and similar public service activities along with internal functions for city and county departments.

- **CitySDK Linked Data API** is a project that's designed to make exposing useful information to developers easier for cities. So far, the cities of Lisbon, Portugal; Helsinki, Finland; Lamia, Greece; Rome, Italy; and Amsterdam, the Netherlands, have joined the project. This last API shows basic geography, street-level mapping, public transportation and Amsterdam-specific infrastructure and transportation.
- **Open NY Daily Traffic on Metropolitan Transportation Authority (MTA) Bridges and Tunnels** provides access to a catalog of data on the vehicles that pass through all nine bridges operated each day by the MTA. It accounts for cars, buses, trucks and motorcycles, and the data set includes field types such as date, bridge name, number of vehicles that paid a cash toll per bridge and total vehicles per bridge.
- **Data.gov** contains more than 10,000 data sets of public APIs from US federal, state and local governments.
- **Airport Service**, an API provided by the Federal Aviation Administration, offers US airport status and delay information from the Air Traffic Control System Command Center (ATCSCC) as displayed on <http://fly.faa.gov>.
- **Team POPONG POODL** (POpong Open Data Library) is an API that allows users to retrieve legislative data from South Korea. The data includes information about the National Assembly's members, candidates and bills. Automated tools gather new and updated data from the National Assembly website every day. This data is distributed through the API for use in research and application development.

Social



You might already consume social APIs from companies such as Twitter or Facebook, mashing up this information with your own APIs. For example, you may act on Twitter feeds that reference a problem such as a motor vehicle accident or a pothole to address citizens' concerns.

Social APIs also help remove barriers between healthcare providers and other health-related government organizations by providing a holistic view of patient information ranging from physician records to insurance coverage. Cities can use social channels to offer programs that encourage overall wellness, such as smoking cessation, weight loss and so on. Social media APIs encourage app users to collaborate with personal networks and groups to support these positive lifestyle changes. Citizens can use APIs to track their weight loss toward a goal, and schools can use APIs to advertise events such as fundraising runs, health fairs and the like.

Here are a few more examples of how social media and APIs can be used to disseminate information:

- **DemocratieSpel** is a platform for civic engagement in the Netherlands that allows users to suggest and vote on democracy issues. The DemocratieSpel API enables developers to access and integrate the functionality of DemocratieSpel with other applications. Some example API methods include returning issues, voting on issues and listing users.

- **OPENPediatrics** is an internet- and social-networking-based learning solution led by doctors at Boston Children’s Hospital to help address a lack of expertise in global pediatric critical care. The doctors wanted to enable international experts to share their knowledge instantly with other caregivers around the world, providing equal access to best practices and the latest medical knowledge—even in remote areas of the world. Developed in IBM Labs in Cambridge, Massachusetts, OPENPediatrics trains medical professionals using a unique on-demand, interactive, digital and social learning experience, equipping them to perform lifesaving procedures and treatments for children who would not otherwise have access to intensive care. The content is supplied by experts at Boston Children’s Hospital and includes seminars from international expert clinicians.

Device integration and wearables



The Internet of Things (IoT) truly opens up the world around us. The connection of sensors, machines, processes and people helps drive better decisions, enhanced services, reduced costs and increased efficiencies in several ways:

- Automated safety and security monitoring through sensors and geofencing
- Traffic and public transportation management to help reduce congestion and environmental impact
- Reduced energy costs through smarter buildings
- Natural disaster monitoring and early warnings to help reduce property damage and loss of life
- Improved monitoring and management of healthcare and social services

Traffic and transportation management

Traffic management can benefit from devices that report on the flow of traffic. Traffic cameras that catch infractions can also use APIs to integrate with local law enforcement departments.

The European Commission estimates that road traffic congestion costs the European Union (EU) about 1 percent of its gross domestic product (GDP)—or EUR 100 billion—annually.³ Sensors on roads or mass-transit systems can report traffic status, which can be sent to citizens or vehicles to help calculate optimal routes. In the case of an accident or breakdown, vehicles can automatically notify public agencies about the incident; report the potential traffic impact; and call for medical, police and fire assistance.

Energy and utilities

The US Department of Energy and water supply agencies can use devices to monitor the electric grid, oil pipelines, water reservoirs and so on, and use APIs to capture data and act on abnormal situations. For example, sensors can report on problems with the water system (such as leaks) when they occur, helping to conserve water through quick response. Bidirectional communication between homes and the electric grid enables households to consume electricity when it is least expensive or supply excess solar-generated power back to the power company.

Healthcare and social services

How can we use wearable devices in a socially responsible manner? The world of healthcare and social services is rife with opportunity for the use of APIs. With the exception of the US and a few other countries, most nations treat healthcare as a government responsibility that consumes large amounts of government budgets.

APIs can be used in the delivery of telemedicine solutions that capture key patient data using cell phones, enabling ongoing compliance monitoring and alerting physicians in real time if a patient's in-home test results are not within parameters. This approach benefits both healthcare providers and private or governmental healthcare insurers.

Rather than requiring patients to visit their doctors' offices more often, in-home monitoring programs that use telemedicine let physicians closely follow patient compliance at home. Medical devices, such as blood pressure monitors, blood glucose monitors and scales can be linked to a cell phone, which automatically sends the patient's data to a diary database. There, based on the condition being managed, an algorithm compares expected results with actual values, and sends an immediate notification to the physician if the value exceeds a critical limit. This process allows the physician to react more quickly to modify the patient's treatment and avoid complications. Moreover, this approach can identify at-risk patients so they can be enrolled into a program to improve their care, which can further reduce healthcare costs.

Consider an accurate and adaptive approach to physical rehabilitation therapy for illness or injury using a radio-frequency identification (RFID)-based analytics solution. Medical case history applications are delivered (paperlessly) throughout a system through a wireless network solution. The solution monitors and analyzes when and where patients spend their time throughout the day, capturing details such as type and duration of rehabilitation, social activities and whether patients are with a caregiver or using rehabilitation equipment.

The solution intelligently interprets the behaviors of patient and healthcare providers, offering unprecedented insight into the everyday life of each patient within a hospital or skilled care environment. The rehabilitation team can now customize and calibrate rehabilitation paths for each patient and check for any organizational dysfunction. Management can optimize treatment plans and gain additional knowledge to define new rehabilitation protocols.

Hospitals now provide an extraordinary level of patient-centered and holistic patient care. In addition to direct patient and care provider benefits, API technology can transmit information about when assigned medical equipment is used. Along with promoting cost savings through accurate estimates of equipment needs, this information helps hospital staff measure the effectiveness of individual therapy plans, improve behavioral monitoring and optimize the organization of rehabilitation treatment plans through analytics-based insights. These insights provide a 360-degree profile of patient mobility, and helps reduce capital and operational expenditures by precisely tracking and accounting for all medical equipment.

Data and analytics



The huge amount of data collected by and available to public agencies is enabling analysts and workers to ask and answer a much-more varied and granular set of questions—if they can find and access the right data. APIs are opening up new pathways to information and insights, sparking innovative analytics.

Traffic data

Along with using APIs to distribute information about road conditions and congestion, as mentioned previously, businesses may want to use APIs to access this data to uncover new marketing opportunities—targeting offers to people stuck in traffic, for example. Infrastructure planning and zoning are also potential consumers of traffic data.

Population and demographic data

Government agencies can use APIs to make population and census data available to third-party developers, enabling them to access and use the data in their apps. This information can also be very useful in promoting transparency and citizen engagement. For example, the US Census Bureau launched the “[America’s Economy](#)” mobile app and the first-ever public API for developers. The API serves up both census and American Community Survey statistics for every neighborhood in the US. It gives economists, planners and policy-makers greater access to key indicators about the health of the US economy through their mobile devices.

This customer-centric approach combines numbers from the Census Bureau, US Bureau of Economic Analysis and US Bureau of Labor Statistics to create an enhanced view of the constantly changing economy and markets. It can be applied to any country’s government agencies that hold similar responsibilities.

Social programs and health services

APIs can enhance the way public agencies and health organizations support social programs for citizens. For example, there are about 700,000 social caseworkers in the US—and millions more around the world—who work in a face-to-face environment⁴ and would benefit from apps that use APIs to gather and present information. An API-powered mobile app could help social workers access any assistive systems and their data when supporting a citizen to check that he or she is in compliance with all requirements—speeding up service delivery and helping to reduce fraud. Workers can also use these systems to see other available options for responding to their citizens’ needs.

Using mobile devices and analytics, social workers can check their schedule; adjust it by risk factors, proximity or priority; and then record the visit using text, voice and a camera. All these tasks can be seamlessly uploaded to the back-end system, radically changing the way they work. This process can eliminate the 30 to 40 percent of their time that most caseworkers spend on administrative tasks,⁵ freeing them to spend more time with clients.

Consider this challenge: your city must ensure citizen safety and deliver necessary services, but needs to find a cost-effective way to know when its people need help. The following may apply in your city, which is likely representative of cities worldwide:

- Over 8 percent of the global population is over 65 years of age, and that number is growing⁶
- Medical advances mean people are living longer
- More elderly people are choosing to remain at home, even when they live alone

A mesh network of sensors can monitor home environments—temperature, carbon dioxide, water leaks and so forth—of elderly citizens living alone. Remote interaction with medical professionals from home helps reduce trips to the doctor. The entire system also depends on a little help from “angels”—relatives or friends of the user—who are alerted if there is a problem. This approach can become a new model of social and health services that operates on existing budgets and resources, even as the elderly population increases, because of the capability of APIs. Governments provide a technological, but still human, system of care through the remote angels so the user can be independent, but not feel isolated. And social service and health staff can concentrate on people who really need a physical presence to assist them, while those in the remote monitoring program maintain an excellent quality of life.

APIs and the digital city

IBM recently announced its eighth digital city, [TechStartup.in](#), in Bangalore, India. Prior cities included [TechBerlin](#) in Berlin, Germany; [Digital.NYC](#) in New York City; [#POAdigital](#) in Porto Alegre, Brazil; and several others around the world. All of these programs give developers access to city-specific resources via APIs. The purpose is to create a collaborative environment that fosters creativity for the developers in the community. As New York City Mayor Bill de Blasio said in his initial announcement of Digital NYC in October 2014, it is “a groundbreaking resource that will seamlessly connect members of the city’s tech hub to training, jobs and funding and make our city’s digital economy accessible to all New Yorkers.”⁷

Industry standards

As in the private sector, governments are starting to recognize the value of standards that either require or recommend APIs. In some cases, governments are issuing regulatory requirements for other industries to open up competition or drive open interfaces.

In the US federal government, the General Services Administration (GSA) released a set of API standards to help drive open data initiatives with consistent quality of service, while promoting innovation. The standards are managed by [18F](#), an office inside the GSA, and are intended to promote best practices for government APIs. These best practices are viewed as a living set of documents that can be improved over time. The API standards are available at the [GitHub](#) website.

The UK government has also established [recommendations for API standards](#) to help drive innovation and an API economy. And in Singapore, the government is putting together a [common user interaction layer](#) using APIs to hide the various back-end agencies and complexity users could encounter when trying to find the correct agency for their needs.

Other examples that demonstrate how governments are setting up regulatory requirements for other industries include [Payment Services Directive 2 \(PSD2\)](#) for banking in the EU and the [Meaningful Use](#) rule in healthcare in the US.

Closing thoughts and recommendations

Government agencies are becoming very active in the API economy, and open data initiatives comprise one of the unique drivers in the public sector. In addition, many

government API initiatives fall into the primary categories mentioned previously:

- Speeding new capabilities to market
- Allowing the use of government assets by third parties to provide useful new capabilities to the population
- Taking advantage of analytics to identify services that can be offered or to detect fraud
- Sharing assets across government agencies—that is, domains

If your organization has not begun strategizing and planning for business APIs, the time to do so is now. Do not wait until you know all the answers and have everything in place to get started. Plan stages for the rollout, and then move forward based on what you learn. If you have already begun your API initiative, look to build on your successes and quickly identify false starts. Explore additional drivers and use cases to obtain more value.

As we move into the API economy, huge opportunities exist for new and innovative solutions. IBM brings significant knowledge of the public sector and the API economy, and would like to partner with you on your API journey by sharing its expertise and experiences to help maximize the value for your organization.

To understand more about IBM and the API economy, visit the [IBM API Economy](#) website. Find out about [IBM API Connect™](#)—a complete foundation to create, run, manage and secure APIs—and download a [trial version](#).

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- ¹ “Spring 2015 Global Attitudes Survey,” Pew Research Center, www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies
- ² Examples of public APIs came from a keyword search for “government” on www.programmableweb.com. This information is not intended as a recommendation of these specific APIs, nor a statement about their capability or quality. ProgrammableWeb acts as a repository where any company can promote its public APIs. Consumers must evaluate the functionality and quality of any API and decide if it meets their needs before deploying.
- ³ European Commission, “Urban Mobility,” ec.europa.eu/transport/themes/urban/urban_mobility_en
- ⁴ Kanowitz, Stephanie, “Analytics powers app for social workers,” GCN magazine, Jan. 26, 2015, gcn.com/articles/2015/01/26/case-advice-app.aspx
- ⁵ Ibid.
- ⁶ The World Bank, “Population ages 65 and above (% of total),” data.worldbank.org/indicator/SP.POP.65UP.TO.ZS
- ⁷ “Mayor de Blasio Unveils Digital.NYC, First Ever All-Inclusive Online Hub for the City’s Tech Ecosystem,” Oct. 1, 2014, www1.nyc.gov/office-of-the-mayor/news/463-14/mayor-de-blasio-digital-nyc-first-ever-all-inclusive-online-hub-the-city-s-tech/#0



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