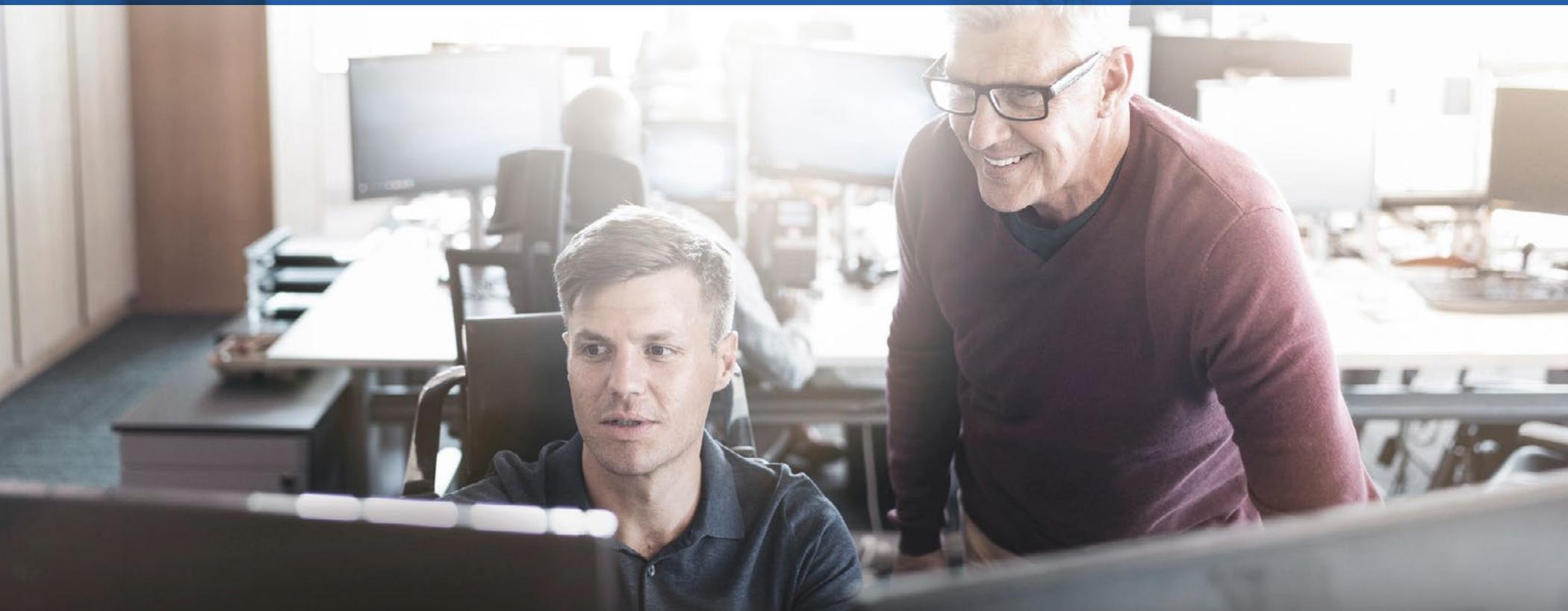




9 WAYS TO UNLOCK THE VALUE OF YOUR APPLICATIONS WITH APIs

Rocket API eBook



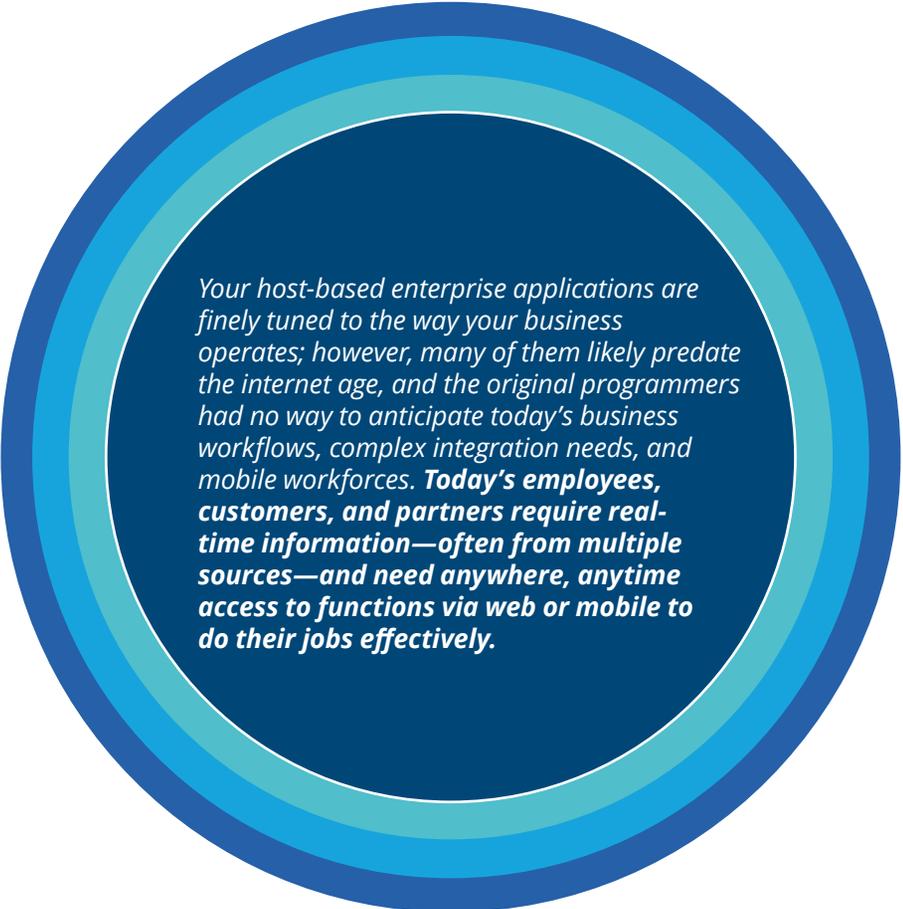
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01 | INTRODUCTION



Your host-based enterprise applications are finely tuned to the way your business operates; however, many of them likely predate the internet age, and the original programmers had no way to anticipate today's business workflows, complex integration needs, and mobile workforces. **Today's employees, customers, and partners require real-time information—often from multiple sources—and need anywhere, anytime access to functions via web or mobile to do their jobs effectively.**

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Host-based enterprise applications were often built to protect transactional data from outside access. As a result, users are forced to try to find data on multiple systems, and they often end up with information from production data extracts that may be hours (or even days) old.

SOME COMMON BUSINESS NEEDS FOR APIS

- *Providing users with the ability to search for up-to-date product information from outside your company network*
- *Quickly researching a customer's status or orders for customer service and call routing purposes*
- *Merging data from disparate applications into one centralized source for an enterprise view of business activity*
- *Building KPI dashboards that give executives real-time snapshots of sales, service levels, margins, etc.*

Many companies try to replace the host functionality by building it on another platform—an expensive and time-consuming effort that increases the risk of project failure, expense overruns, and delays. But that's not the only option. Instead of expensive application replacement, it's possible to unlock the value built in to your existing enterprise applications by using application programming interfaces (APIs) that expose these core functions via web services.

By API-enabling your enterprise applications, you can put the API economy to work for you: updating business workflows to match mobile and web usage, performing real-time analytics on your enterprise data, integrating internal or third-party applications to deliver user experiences that match your business workflows, and even charging for access to your valuable codebase.

02 / **MOBILE ACCESS**

Employees in the field—and in the office—don’t want to be tied to a computer, and terminal emulation isn’t the best solution for some applications, particularly when mobile access is required. Salespeople, service representatives, claims adjusters, and many others need anytime, anywhere access on their mobile devices to do their jobs well. However, workflow requirements for small screens often require major application behavior modifications to ensure the best user experience. Creating the user interface (UI) is generally the easy part, but integrating the mobile UI with the back-end system can be very hard.

New API tools provide the integration layer so that you can tie your mobile UI to the core application—even when the mobile workflow is significantly different from the desktop workflow. You can quickly generate services around the functions you need, and then build your new mobile user interface using whatever technology works best: Node.js, Python, Go...you name it!



TIE YOUR CORE APPLICATION TO YOUR MOBILE UI



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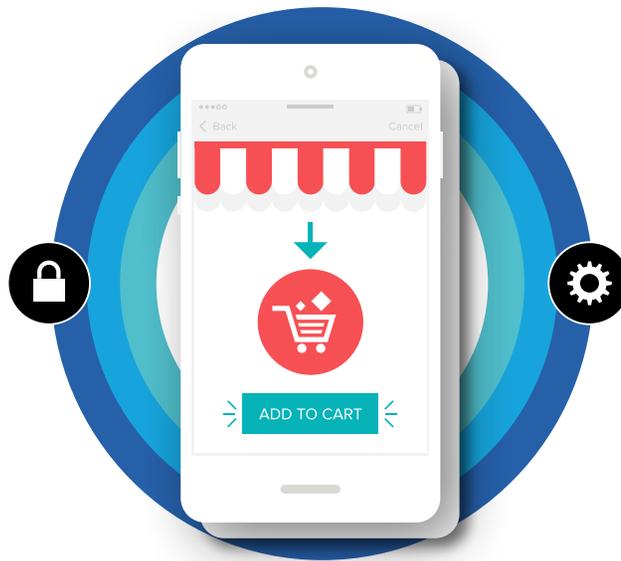
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03 / WEB ENABLEMENT

Today's users demand the convenience and ease of use provided by web-based applications. In addition, many IT organizations want to lower costs and administrative burdens by replacing PCs and local applications with inexpensive hardware—tablets, for example—running open source operating systems and web apps. Yet providing web access to host-based systems can be risky. How do you ensure that the security of your core applications is maintained? How do you synchronize changes between your core application and the web user interface?

Using API tools, you can create a services layer between the UI and core application that manages the security and operation of the application. Since services are based on screen interactions, your existing security system still controls access to the application functions and data. And the loose coupling of web services with the web UI means that you can often change the application or the interface without affecting the functionality on the other side.

If you do change the application in a way that requires a change to the interface, the services layer can be automatically updated and regenerated based on the new underlying screen interaction.



**CREATE A SERVICES LAYER THAT
MANAGES THE SECURITY & OPERATION
OF YOUR APPLICATION**

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04 / APPLICATION INTEGRATION

Many core applications have modules that were built at different times, for different purposes, but must now work together to support the current needs of the business. For example, when calling on a customer, a salesperson might need to check the inventory system to see if an item is available, check an accounts receivable application to see if the customer has available credit, and finally enter the order information to see what discounts might apply for this customer—all to create a single price quote. Depending on where the information resides, this may require the salesperson to switch between systems, enter the same information multiple times, and perform multiple lookups to get the necessary data. Meanwhile, the customer waits and waits.

API tools can expose these functions as services, and then tie them together into a new mobile workflow. The salesperson enters the inventory query and the customer information only once, through a single mobile UI. The system then uses the underlying services to access the necessary application functions, and then aggregate the required data to generate the price quote and take the order, making the process faster and easier for both the customer and the salesperson.

CONSOLIDATE APPLICATIONS INTO A SINGLE MOBILE UI TO SPEED PROCESSES AND TRANSACTIONS



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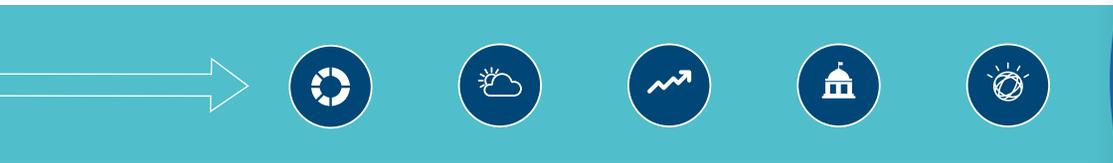
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05 / ANALYTICS

Leading organizations recognize that they need rapid access to real-time data and analytics to support decision-making. Executives must know how the business is operating right now, not earlier today or last week. The old extract, transform, and load (ETL) model does not suffice, because data might be hours or even days old before it's available for analysis.

New API tools can create services around production database queries, providing real-time access to business information that can feed dashboard engines or advanced machine learning systems like IBM Watson. For example, Macy's is testing a new

mobile service in which shoppers can ask Watson—in natural language—questions about a store's products, services, and facilities. APIs can also be used to grab data from outside sources such as weather services, currency and stock market databases, and government agencies, and then feed that information into your analytics engines. You can then correlate your business cycles with patterns in the financial markets, the weather, or virtually any other factor that affects your organization's success.



REAL-TIME ACCESS TO BUSINESS INFORMATION CAN FEED DASHBOARD ENGINES OR ADVANCED MACHINE LEARNING SYSTEMS LIKE IBM WATSON

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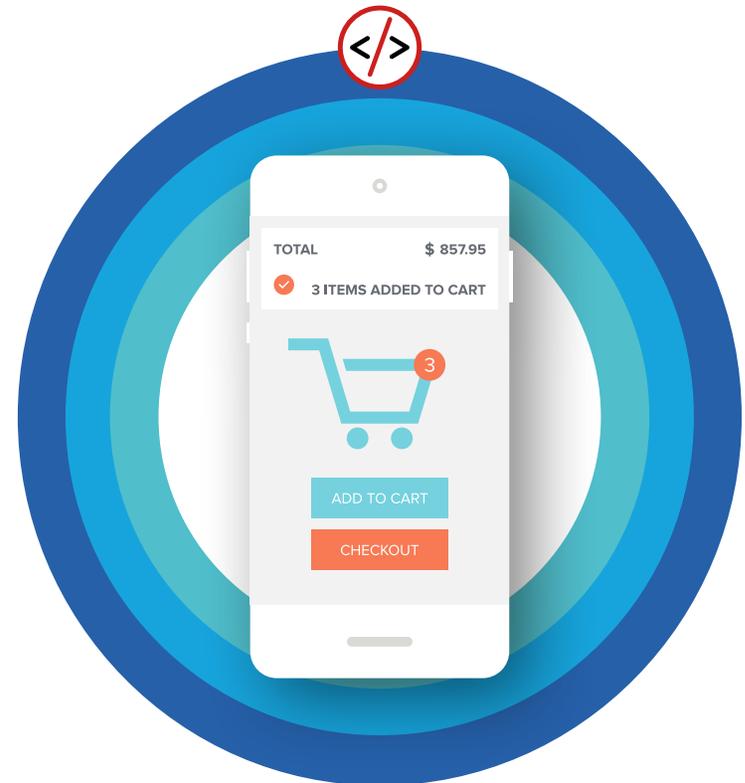
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06 / APPLICATION INTEGRATION WITHOUT SOURCE CODE

For many business professionals, part of the job entails going back and forth between third-party and home-grown applications. Providing mobile access, integrating applications, and changing workflows can be challenging in these environments because software vendors don't typically provide source code. Without the source, it's virtually impossible to expose application functionality for APIs. Even if source code is available, customers are usually hesitant to make modifications because it's risky, carries support implications, and can create code integration challenges when new releases are available.

New API tools create services from screen interactions and require no code changes. It's even possible to incorporate cloud-based applications, since screen logic is also captured. You can service-enable your vendor applications even if you have no access to the source code itself, opening up new opportunities for both internal and external users. In many cases, access to previously unavailable data from a particular sector, application, or government entity can remove barriers to new markets.

SERVICE-ENABLE YOUR VENDOR APPLICATIONS WITHOUT ANY CODE CHANGES



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07 | SERVICE DESK AUTOMATION

Service desk staff often access many different systems to answer customer questions. For these departments, time is money. Multiple logins and duplicate searches across disparate systems are time-consuming and inefficient, and often require extensive training. Slower service can lead to unhappy customers—and the risk of customer attrition.

With API-enabled support systems, service desk staff can log in to one system instead of many, and conduct one search that spans all the relevant systems to return the needed information. Companies that have implemented this kind of solution experience significant improvements in response time and quality of service, and a vast decrease in the training required to get service desk workers up to speed. Faster service means happier customers and more revenue opportunities.



**LOG IN TO ONE SYSTEM,
AND ACCESS THE
INFORMATION OF MANY**

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08 / **LOOSE COUPLING & BIMODAL APP DEVELOPMENT**

For many host-based applications, modifications and upgrades are implemented slowly to ensure that the underlying systems continue to run without hiccups. These systems are often large, complex, and interrelated. System updates tend to be comprehensive, and they require extensive testing. In contrast, web and mobile development teams often use an agile process, delivering frequent, incremental updates to these applications. Gartner defines the process of keeping these parallel efforts in sync as bimodal development.

When new business workflows require functionality changes in both the host-based and web-based spheres—and across development modes—it’s vital to ensure that these different development cycles don’t result in application errors or failures. The stakes are high, because such failures—particularly in critical systems—can have crippling effects on the organization.

New API tools make it possible to loosely couple host-based and modern applications, ensuring that asynchronous modifications to either side do not result in failed functionality. Since the interface is integrated at the services layer rather than implicitly within the application code, changes can occur in one environment without requiring changes in the other. As a result, critical applications can be kept current more easily to accommodate the evolving needs of your users.

API TOOLS ENSURE YOUR DIFFERENT DEVELOPMENT CYCLES DON'T RESULT IN ERRORS OR FAILURES



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09 / SERVICES MANAGEMENT

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**STAY UP-TO-DATE
ON WHICH SERVICES
PROVIDE THE MOST VALUE
AND WHICH CAN BE
DISCONTINUED**



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10 / MONETIZING HOST-BASED APIS

Your host applications provide you with tremendous business value, and they can do the same for your partners and customers. Monetizing this value can be a challenge for two reasons:

- ***It's difficult to access business value contained in your host applications because they were not built to share information.***
- ***There is no built-in monitoring to determine comparative workflow usage to determine who pays, and how much.***

New API tools make it easy to create and share APIs with partners and customers, and also help you determine value and monetize your host-based assets where appropriate. You can monitor usage, identify who uses your APIs, and see how much they're used. Armed with this information, you can begin to create correlations between usage and value, developing pricing models that enable you to create a new revenue stream from the investment you've made in your enterprise applications.

DEVELOP PRICING MODELS THAT CREATE NEW REVENUE STREAMS



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11 / CONCLUSION

Instead of expensive application replacement, Rocket API makes it easy to unlock the value built in to your existing enterprise applications by exposing these core functions via web services. Service-enabling your enterprise applications enables you to:

Update business workflows to match mobile and web usage

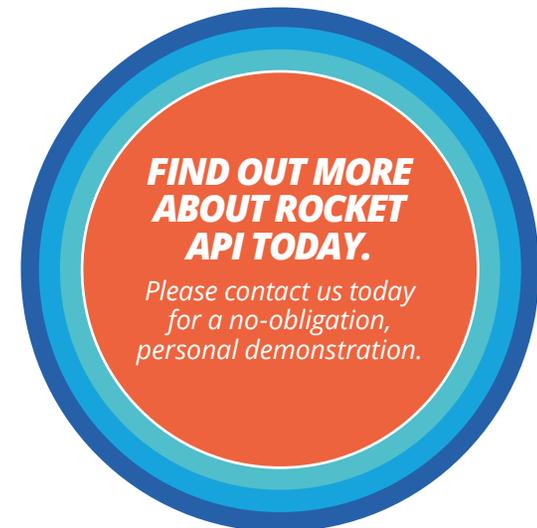
Perform analytics on your enterprise data

Integrate internal or third-party applications to create user experiences that match your business workflows

Open up your host-based application functionality to the benefits of the API economy

Since Rocket API enables you to do all of this without changing a line of the core application code, it significantly reduces your costs and risks compared to alternatives such as replacement. And unlike other API solutions, Rocket API also uses built-in intelligence to ensure that codebase changes do not break the connection between your API source and the applications that use the APIs. As a result, developers can modernize their host-based applications without the time, expense, or risk associated with other options.

Whether you want to create the latest in mobile or web interfaces, provide integrations between host-based applications, update business workflows, get access to data for analytics, or automate the testing of your applications, Rocket API can help.



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Rocket Software (www.rocketsoftware.com) is a technology company that helps organizations in the IBM ecosystem build solutions that meet today's needs while extending the value of their technology investments for the future. Thousands of companies depend on Rocket to solve their most challenging business problems by helping them run their existing infrastructure and data, as well as extend those assets to take advantage of cloud, mobile, analytics, and other future innovations. Founded in 1990, Rocket is based in Waltham, Massachusetts with locations in Europe, Asia, and Australia.

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