

Embedded analytics can be powerful for apps – but should you buy or build them?

Executive summary

Mobile and desktop applications generate huge amounts of data based on inputs from the user, as well as information passively collected. An app that is able to make use of this data in an interesting manner brings added value to the end user.

In a highly competitive market, this kind of “stickiness” is invaluable to app developers, and many are now providing such features as standard in their tools. But should independent software vendors (ISVs), systems integrators (SIs) or companies building internal apps build them in-house, or should they buy them from specialist providers? Let's explore:

The challenge of modern app development

SaaS models have changed the industry

The proliferation of software-as-a-service (SaaS) subscription-based business models has changed what people expect from ISVs and SIs and is forcing app developers to up the stakes of user experience. Cloud computing has revolutionized how people pay for software and has altered the relationship they have with vendors.



Today, users tend to pay a subscription on a regular basis and receive constant support and updates, resulting in consequences for development houses:



Retention is the measure by which success is defined

The industry's standard of success is measured by churn rate — the number of users who cancel their subscriptions, or simply stop using an app.



Customer satisfaction is more important than ever

Most ISVs and SIs embed analytics as a way of adding value and increasing customer satisfaction. They rarely charge a premium for these additional features, and need their deployment to be as economical as possible.



There is constant pressure to improve and differentiate the app to reduce churn

In an age of free trials where users often “try before they buy,” the apps that succeed will be those that are “stickier” — the ones that give users more value the more they use the app.

At the same time, these apps are also creating data, which presents a major opportunity for growth that's waiting to be realized.

The data opportunity

Individual apps collect large quantities of unstructured data on the back end. Every time a user interacts with your app, this information can be stored. But to be useful, this data needs to be converted from meaningless numbers to something users can understand. Embedded analytics tools can convert this information into visualizations that appear in the user interface.

The proliferation of generated data from apps and the need to continually add app value have caused app providers to explore embedded data visualizations as a means to retain customers, reduce churn, and differentiate.

Embedded Data Visualizations as a Solution

What are embedded data visualizations?

Embedded data visualizations make complex information comprehensible by presenting it visually. They collect the data that users generate via an embedded analytics processor, and then make it accessible in the form of maps, pie charts, picture and graphs. And because they're built into the application itself, embedded visualizations make it easier for the user to view data and gain insights real-time and in context, removing the need to navigate away from the app.

Customer benefits of embedded analytics

Embedding analytics provides end users with insights. Users expect their apps to help them work smarter and make better decisions. When the app offers this additional valuable content, it becomes "stickier," a useful part of their everyday life or work.



In the B2B market: A task management app shows the end user how they spend their time at the office. By providing embedded visualizations, this kind of app offers insights into how they could use their time better. For instance, a simple chart can tell them that they are spending over a third of their time in unproductive meetings.



In the consumer market: A consumer fitness app that tells someone how many calories they've burned today compared with yesterday is much more motivating. The more data is collected about the user, the more "sticky" the app becomes. Users become less likely to switch to another app because your app contains information collected over time that's useful for them to see – such as their long-term progress toward a fitness target.



Inside your own business applications: An integrated dashboard that pulls in data from your ERP and CRM systems gives users the information they need to make decisions quickly, without having to click through disparate applications.

Developer benefits of embedded analytics

Today's app developers are competing in a crowded market. With all this availability, end users have little patience for apps that fail to bring them any particular value. If an app provides only short-term worth, users are likely to uninstall it fast; this is as true in the enterprise app space as it is in the consumer market.

Users are keen for apps that continue to provide them with real, lasting value. Increasing numbers of developers are turning to embedded data visualizations as a means of providing this kind of value, differentiating their app and reducing churn.

Should you buy or build your analytics platform?

For app development houses whose tools collect data that could be useful for the end user to make decisions with, there is little excuse not to use embedded analytics and visualizations. However, is it better to build the data analytics machine yourself or buy a bolt-on solution from a third party?

Why should you build?



Small, fast projects

Creating analytics features in-house can be the best option when working on smaller projects with limited sets of requirements — especially if the development team in question has a relevant skillset and previous experience of developing embedded analytics and data visualizations.



Total control

Total control: One of the most convincing arguments for building is that it lets product managers remain fully in control over every aspect of their application: not just its functionality but the look and feel as well. By keeping all aspects of development in-house, product teams can control branding, user experience, and functionality. The loss of this control is one of the main disadvantages of buying.



Limitations of support services

Although most providers offer support services, these are not normally included in the price of the package, and are instead an add-on. However, in the majority of cases, such support services are in fact effectively a requirement to ensure the visualization is tailored to the use case and look and feel of the app.



Cost predictability

Standard price entry points for embedded start at anywhere from \$30K to \$75K per year. However, behind the upfront pricing structure, there are often multiple levels of service, as well as limits on usage and number of applications the embedded analytics can be used in. This can make pricing far less predictable.

Why should you buy?



Focus on core product

The main disadvantage of the “build” approach is that developers have to switch their focus away from working on the core product to create complex embedded analytics features. Buying saves time and money over training a development team that may lack previous embedded analytics experience, and eliminates the need for training where internal resources are simply not available.



High cost to build

There is a significant cost associated with building embedded analytics, which on average takes seven months to complete. The estimated average cost is as much as \$350k (based on average U.S. salaries).

This includes:

- 4 software developers for 7 months
- 1 QA professional for 7 months
- 2 UX/UI designers for 6 months
- 1 data scientist for 1 month



In-house support

Anything built in-house will have to be supported in-house. With the buy option, support will be provided by the third party, via the cloud, and ISVs will not have to allocate resources to fixing issues if and when they occur. As much as 90%¹ of the cost of software during its lifetime is tied to keeping it up and running. Maintenance costs can be significant.



Faster time to market






With average build-it-yourself times taking seven months or more, many product teams decide to buy a bolt-on analytics solution due to the need to release a product as quickly as possible. In a fiercely competitive SaaS market, and with CEOs demanding quick turnaround, buying a pre-built, off-the-shelf solution drastically improves time to market.

Source

¹ NCBI. 2013. Which factors affect software projects maintenance cost more? Available online: <https://www.ncbi.nlm.nih.gov/pubmed/23572866>

Deciding to buy? Key considerations when picking the right vendor

Today there is a huge market of vendors offering application development tools and services. Within this market, there are several firms providing specialist analytics and visualization tools. Choosing the right vendor is extremely important. So, how should you choose between these providers?

-  **Expertise** While we can assume any vendor pitching themselves as an embedded analytics provider will have good knowledge of this technology, it is worth digging deeper. Has the company received awards for its work? Are they well-established and respected in the community? Third-party review sites are helpful here.
-  **Range of visualizations available** Many vendors provide basic visualizations as part of their product listings (normally alongside many other generic offerings and widgets). However, in a market where your customers expect ever more powerful applications, you need to be able to update your apps with more powerful analytics. The specialism required to offer this sort of detailed insight will narrow down the field considerably.
-  **Cost predictability** How does the vendor's pricing model stack up against your budget? Obviously, you shouldn't really be paying any more than what it would cost you to simply build the visualization in-house, so an affordable vendor is essential. However, too often, overly complex pricing structures from vendors result in unpredictable costs, making ROI hard to judge.
-  **Security and transparency** How much do you trust the vendor? If you are collecting sensitive data about, say, your customers' health, you want to be sure that the vendor isn't also collecting that information covertly and selling it.
-  **Customization** How easy is it to customize the service? Is it easy for you to modify the look and feel of the analytics tool so it looks and feels like the rest of your app?

Choosing the right partner will allow you to deploy embedded analytics fast, empowering your end users and making your app stickier. By including powerful embedded analytics and visualizations, you can differentiate your app, keeping users engaged.

Introducing **Reveal Embedded**

Reveal Embedded from Infragistics provides organizations with the most powerful, flexible and predictably priced analytics tools on the market. Reveal Embedded provides developers with a wide range of highly customizable and easy-to-use embedded analytics tools and data visualizations, which end users can immediately understand. These tools make your app stickier and allow you to differentiate yourself from competitors.

Reveal Embedded offers one single and simple and affordable price point that enables you to reach an unlimited number of users per application. Our pricing structure is both affordable and transparent, which means you can predict exactly what you will be paying and therefore better calculate ROI. We believe in collaborating closely with our clients to ensure that their users' needs are met at all stages.

Our app support offers a range of ongoing support services with no additional costs, in conjunction with a friendly, 24-hour community that can answer any question on our forums.

We believe in collaborating closely with our clients to ensure that their users' needs are met at all stages. What's more, transparency is a key value for our business, and we never collect your customers' data.

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