

# Microsoft Power BI Embedded

## **Bring data to life inside your app**

**Enrich your app user's experience:  
Deliver intelligent, interactive data visuals  
directly in your app for a fraction of the cost and time.**

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## Delivering intuitive data insights in the context of your app

Business intelligence (BI) no longer lives at the end of the value chain reflecting past events to high-level executives. Today it belongs at the heart of business process – in the moments where decisions are being made and new workflows are being created – and it belongs to **everyone**. Your customers rely on you to help them make their jobs easier, faster, and better by building apps with embedded BI that provide actionable insights and trigger new workflows in the context of their everyday business.

Your customers want BI at their fingertips embedded in the apps they're already using for business processes they already perform. Whether it's big data, relational data, data locked up on-premises or streaming through the cloud, your customers want solutions that transcend technology barriers and blend data into a picture they understand at a glance – on the device in their hand.

In the past, you might have built an in-house solution or installed third-party software to develop data visuals. Given the advancement of analytic capabilities and explosion of data sources that we now face, however, your on-premises custom-coded BI solutions are hard pressed to keep up with your customers' growing business demands and yours. You need the flexibility, portability, and cutting-edge capabilities only the cloud can deliver.

By choosing a cloud-based data visualization solution, you can ensure you're delivering the type of experiences and the insights that your customers demand to keep you and your customers moving at the speed of business.

## Embedding stunning visuals that wow your customers

Customers want to get to actionable insights quickly. In a world where the average attention span continues to shrink<sup>1</sup>, this means your apps must answer questions at a glance and offer users a way to dig into the data without requiring them to export and analyze offline. The most successful applications today include data visualizations that are as beautiful and relevant as they are intelligent and robust. You can transform your customer's experience of data and compel even the most attention-deprived to linger and engage by delivering fully interactive visual analysis in the context of your app.

<sup>1</sup><http://www.statisticbrain.com/attention-span-statistics/>

### Intelligent apps break BI free from IT silos

A cashier in a store uses a point of sale app to garner contextual insights about how to improve the shopping experience for the customer across the counter.



Healthcare professionals use patient data embedded in a charting app to explore the patient's history and pinpoint the best starting place for their conversation.



A bank offers customers insights into their portfolio through an app that allows them to model and analyze different investment scenarios and then emails investment information based on the customer's interaction with the model.



Today's technology, backed by the power and portability of the cloud, opens up a world of possibilities that not only drives customers toward valuable insights but helps you set yourself apart and enhance your expertise. By applying your unique data lens to business questions at hand, you can help customers determine the best shape for their answers and embed them directly into your app.

*"One of the guiding principles of Nintex Hawkeye is beautiful communication. This is more than just aesthetics. Communicating verbose and complex data must be done in a way that is easy to consume."*

**Alain Gentilhomme**  
CTO, Nintex

While data visuals increase the value of applications to customers, they also imply a natural tier of interactivity and analysis that you may choose to monetize. No matter how you look at it, embedding data visuals into your apps improves the value for everyone.

## Choosing a data visualization solution that meets your needs

Many application developers still prefer to build their own data visualization solutions while others use third-party traditional software. Given the heavy investments in time, infrastructure, and upkeep that are required to support both methods, neither of them enable the functionality, flexibility, and cost structure that you need to stay competitive.

You need a modern solution that you can tailor to meet your needs, deploys in minutes from anywhere, requires zero new infrastructure, and keeps you plugged into the latest technologies and capabilities.

### The evolution of embedded reporting: From app info to app action, an end user's perspective

Queries that support the data visual respond to user requests and yield contextual insights

**Free-flow exploration**

Pre-set parameters enable users to see different views of their data

**On-demand reporting**

Underlying data can be exported and analyzed offline

**Data exports**

Static images and graphs offer one slice of data in time

**Pictures**

# You need a cloud-based data visualization solution

Like everything else you do, choosing a data visualization solution is not as straight forward as it first may seem. You will want to carefully consider how the solution's technology and business factors may influence your apps and your business.

## Technology considerations:

### Can I create visually compelling analytics?

The first question you need to ask is whether or not the visuals are stunning and meaningful. If they don't captivate you, they're not going to hook your attention-challenged audience either.

### Will my app users to be able to interact with the data?

App users want to be able to slice and dice the underlying data to answer their own unique questions in the context of the app – no export required.

### What is the extent of change inside my app?

New and existing apps shouldn't require major overhauls in design to include data visuals. You need an API-based deployment model that, at most, requires a few lines of code.

### Does the technology require additional hardware or software footprint for customers?

Ideally, your solution will require no new infrastructure and will be truly embedded so that it doesn't leave a hardware or software footprint in your app.

### Will the solution scale to meet growing demand?

Your company is growing fast and you need to keep up with demand. Your solution platform must be able to scale seamlessly so you don't have to worry about falling behind.

### Are the visuals customizable? Can they meet my app user's unique needs?

Every app you build has unique requirements which you pride yourself on rising to the challenge to meet or exceed. Your data visuals must be flexible enough to dovetail into your custom designs and enhance the overall experience of your app.

### Will my customer's data be safe? What advanced security capabilities can I use?

Security questions run deep and often don't get the attention they deserve because, truthfully, good security is hard to do. You need to be able to assure your customers their data can be protected by enterprise-grade security and that you can control access to it by user.

### How does the company plan to support and enhance the solution down the road?

It's important that the data visualization service you rely on keeps pace with your rate of innovation to help you continuously deliver value to customers by triggering new ideas and providing relevant enhancements throughout an app's lifecycle.

### What other tools and resources can I easily leverage in addition to data visualization?

Plugging into a smart data visualization service to build your apps is good. However, plugging into a smart data visualization service that can open up opportunities to integrate other cutting-edge capabilities like predictive analytics or real-time analytics into your apps is game changing.

## Business considerations:

### What will my total cost of ownership be?

Building in-house solutions used to offer more advantages than disadvantages, but today the tables are tipping. In order to embed interactive data visuals in your apps using an in-house solution that offers capabilities equivalent to third-party services, your TCO is likely to grow unchecked year over year. Using a cloud-based solution allows you to stay current and keep costs predictable.

### How quickly can I create and embed visuals in my app?

Customers need solutions today. You need to increase your time to market, and you can by forgoing a custom build or third-party software installation and using a cloud-based solution instead.

### How difficult is the product to license?

Whichever solution you choose, it has to be easy to use from day one and produce results in minutes. That means no complicated licensing agreements or lengthy installations. You need to be able to pay for what you use, when you use it, wherever you need it – at no risk to you.

### How stable and credible is the company overall?

You need someone who you can partner with, who will be around for the long haul. Someone who can provide stability, credibility, and peace of mind for your app.

## Bring data to life with Microsoft Power BI Embedded

When it comes to building and maintaining a modern data visualization platform, Microsoft's heavy investments in infrastructure, innovation, and expertise can help you deliver to every customer's timeline – yesterday. Microsoft Power BI Embedded allows you to embed fully interactive, stunning data visualizations inside your app to bring your customer's data to life.

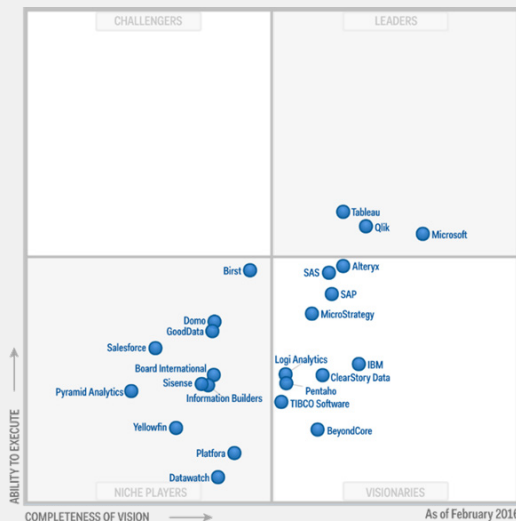
Microsoft offers BI solutions that you know you can trust because we're more than just a vendor; we're a customer too. Positioned in the leaders' quadrant of Gartner's Magic Quadrant for Business Intelligence over the past eight consecutive years, Microsoft has one of the most mature BI and analytics portfolio in the industry which has grown, in part, due to our own evolving requirements. Through our enterprise products, such as Dynamics AX and Dynamics CRM, we have garnered extensive experience embedding BI reporting and data visualizations into core business apps. This firsthand knowledge has directed the engineering behind Power BI Embedded to allow for deep integration with business processes, business intelligence, advanced analytics, and scalable cloud technologies – all critical aspects of your total data visualization solution that very few technology companies can match in terms of technical research and investments.

Built on Microsoft Azure, the world's leading public cloud offering, Power BI Embedded offers unparalleled scalability, reliability, and security. As your application grows, you can scale automatically while remaining in complete control of your costs through the pay-as-you-go pricing model of Azure.

Microsoft Power BI Embedded connects you to a wealth of Azure services that you can use to enrich your apps and data analysis even beyond visualizations – services such as Machine Learning and the Cortana Intelligence Suite. Plus, the ongoing engineering investments Microsoft continues to make in Azure and Power BI means your options and services will only expand over time.

With Power BI Embedded, you can choose from a broad range of modern data visualizations out of the box, leverage a community of pre-configured visuals, or easily build custom visualizations to meet the unique needs of your app. Whichever option you select, Power BI Embedded offers users an equally rich and immersive native experience on any device – desktop or mobile – and ensures data visualizations are always up to date with the unique DirectQuery capability. Unlike competitive services, Power BI Embedded utilizes a consumption-based pricing model, so you only pay for what app users consume and you never assume large, up-front financial risks to use it.

## Magic Quadrant for BI and Analytics Platforms<sup>2</sup>



### A leader 8 years running

For the eighth consecutive year, Gartner has positioned Microsoft as a Leader in the Magic Quadrant for Business Intelligence. And for the first time, Microsoft is placed furthest in completeness of vision within the Leaders quadrant.

*“Power BI Embedded allows us to decouple our visualization and analytical capabilities from our core engineering effort. This means we have a cross functional team from our Product Management, User Experience and User Assistance all contributing to our Power BI Embedded visualizations, and delivering them to our customers as soon as they are ready. **Integrating Power BI Embedded was extremely fast and easy.** We were able to take our existing investments in the Power BI ecosystem and seamlessly integrate into our app within days, not months.”*

**Alain Gentilhomme**  
CTO, Nintex

*“The new embedded capability will help SOLOMO expand our Event Performance and Marketing Attribution reporting services and bring rich location-based analytics to our customers **70% faster** so they can make decisions that increase marketing ROI more effectively. Power BI Embedded provides us the capability to create and publish dynamic reports into our customer’s SOLOMO Insight Portals with the **ability to control security** for access to the information for the right marketing decision-maker.”*

**Liz Eversoll**  
CEO, SOLOMO

*“Power BI Embedded allows us to take advantage of the power, ease-of-use and rich out-of-the-box visualizations right within our own SaaS offering. The integration is dead-simple and **the customer doesn’t need to have their own Power BI license or workspace.** Going with Power BI Embedded for this project was an easy choice to make.”*

**Paul Olenick**  
Director of Product Strategy, AvePoint

*“Using Microsoft Power BI Embedded, we were able to significantly extend our existing analytics. Power BI Embedded reports gives us **rich out-of-the-box visuals**, sitting side-by-side with Highspot’s built-in reports, providing sales and marketing teams with an industry leading 360-degree perspective on the effectiveness of their sales enablement initiatives.”*

**Robert Wahbe**  
CEO, Highspot

*“Data visualization is an exciting component of technology that many end users want, but is hard to deliver. By putting Power BI Embedded in Nintex Hawkeye, we make it **easy for our partners to provide this highly desired capability**, helping them have value-based conversations about process optimization with their customers as well as with new parts of the business.”*

**Alain Gentilhomme**  
CTO, Nintex

*“Power BI provides a **rich immersive experience** for Integrate users, allowing them to visualize and analyze data in one place, simply and intuitively. Using Power BI, Integrate delivers a scalable and cost efficient solution that meets the ever-growing BI demands of users.”*

**Paul Maher**  
CTO, Milliman Integrate

*“Power BI Embedded allows us to decouple our visualization and analytical capabilities from our core engineering effort. This means we have a cross functional team from our Product Management, User Experience and User Assistance all contributing to our Power BI Embedded visualizations, and delivering them to our customers as soon as they are ready. **Integrating Power BI Embedded was extremely fast and easy.** We were able to take our existing investments in the Power BI ecosystem and seamlessly integrate into our app within days, not months.”*

**Alain Gentilhomme**  
CTO, Nintex

<sup>2</sup>Gartner “Magic Quadrant for Business Intelligence and Analytics Platforms,” by Rita Sallam and Josh Parenteau, February 23, 2015

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# Create. Embed. Deploy.

## Three easy steps to transform your app user's data experience

### Create reports

Without writing any code, your team can easily author interactive reports using the free Power BI Desktop application. The freeform, drag-and-drop canvas for building visuals helps your team quickly explore all types of data to build visualizations your customers want. Power BI Desktop offers a broad range of modern Power BI data visualizations out of the box; or you can create custom visuals using open technologies like D3 and Web GL; or you can use a template from the custom visuals gallery, a published collection of open-sourced code created by the fast-growing community of Power BI users.

Once you've built your report, DirectQuery, a unique capability of Microsoft Azure, automatically sends the query to the data source so there's no need to move it. No matter how big or spread out the data may be your embedded visualizations stay up to date and fresh.

#### Create your data reports with:

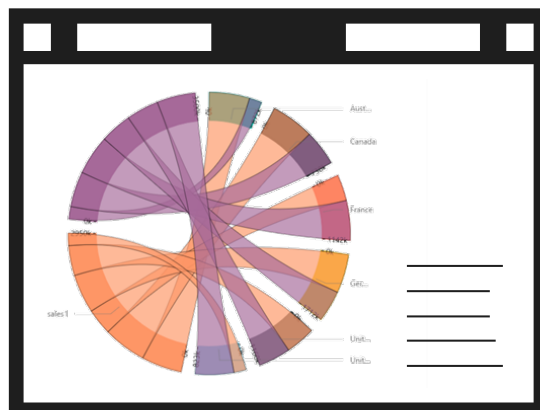
- Free powerful desktop tool
- Drag and drop controls
- D3, Web GL, or OpenSource customizations
- Always up-to-date data query capabilities
- Role-based security access

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Your data



Power BI Desktop



Your app



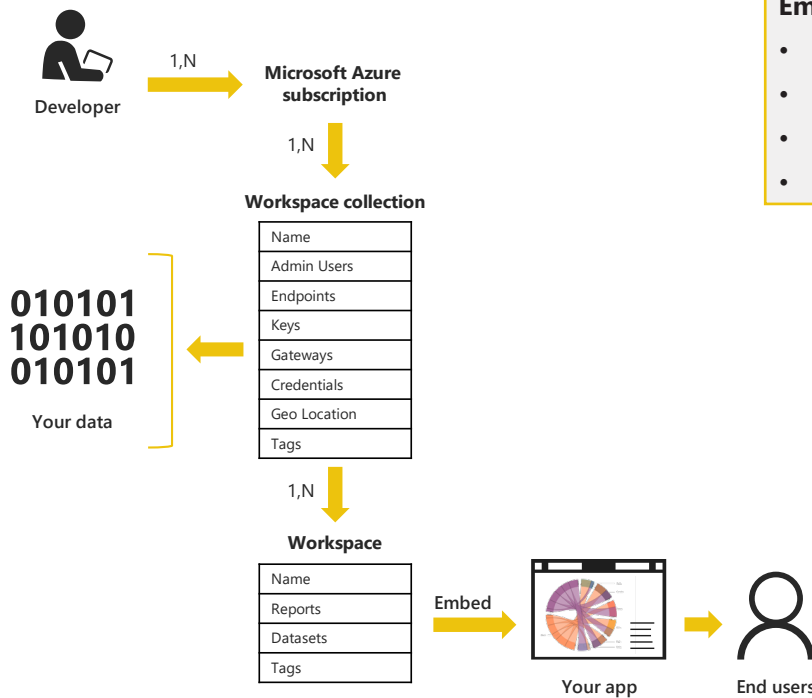
# 2

## Embed visual

Your team can easily embed the interactive visuals they create in Power BI Desktop into your applications – no redesign required – using the REST APIs and the Power BI SDK available for Power BI Embedded.

The Power BI REST APIs enumerate datasets and reports, provision datasets and reports, embed reports, and set connection strings and credentials programmatically.

Visualizations render in HTML5, across any device, to ensure consistent high-fidelity data experiences for your app customers. Furthermore, Power BI Embedded reduces the friction of data authentication and authorization by relying on app tokens passed through the APIs instead of explicit end-user authentication, so app users don't have to jump through hoops to access the information they want.



### Embed your visuals with:

- Rest API-based implementation
- HTML5 for perfect rendering
- SDKs for developers
- A native authentication experience in the app



## Get up and running fast with Power BI Embedded

You can get started with Power BI Embedded for free at no risk to you. Download the free Power BI Desktop tool and start building stunning visualizations today. The simple drag and drop canvas makes it intuitive to use and quick to learn. You can also access instructional documentation, video tutorials, SDKs for developers, and best practice guidelines from the Power BI Embedded home page. Embedded visuals are billed directly to your existing Azure subscription. New to Azure? Sign up for free and receive \$200 in Azure credit.

**Get started here:**

<https://azure.microsoft.com/en-us/services/power-bi-embedded/>