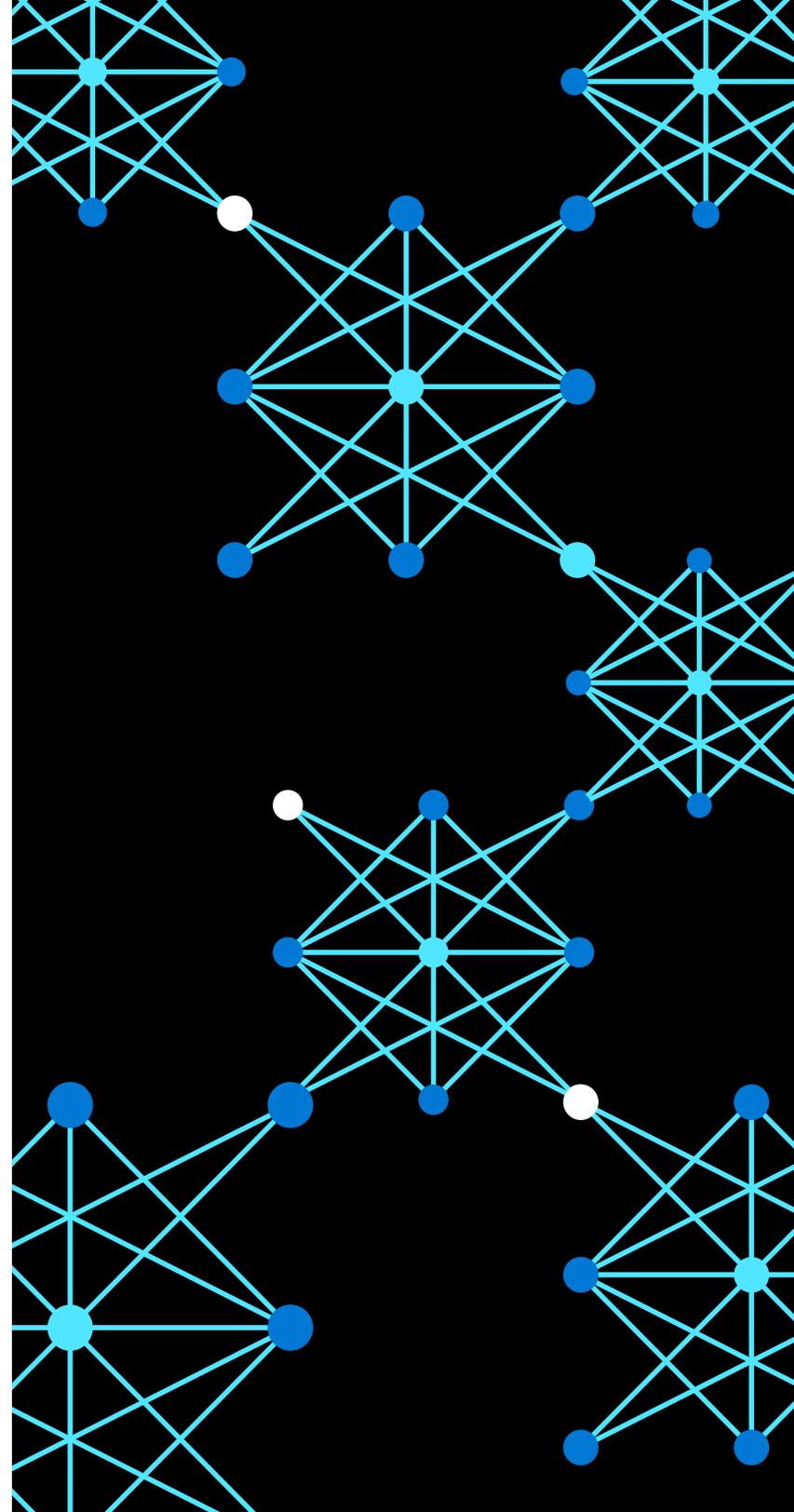


Three Ways Analytics Can Help: Respond, Adapt, and Save

Understand how analytics and AI can
help move your business forward



Contents

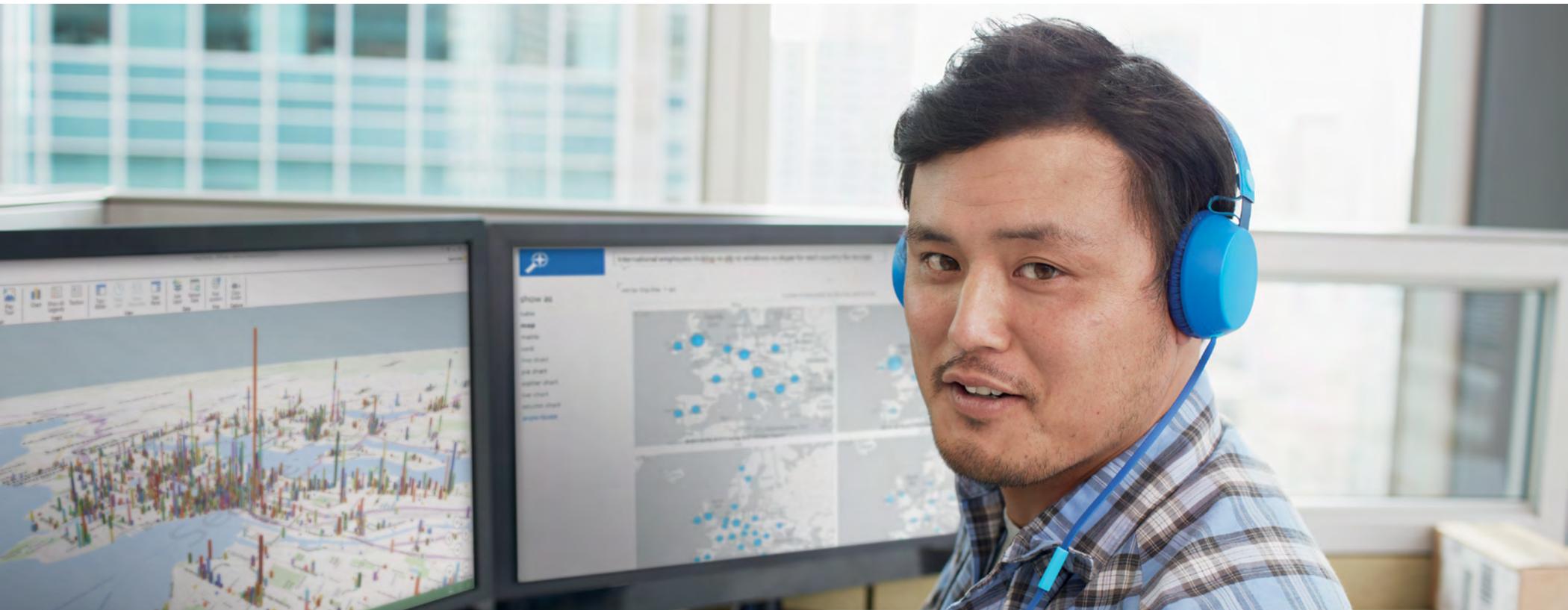
Introduction	3
Respond	4
Reports and dashboards	5
Business intelligence	5
Augmented intelligence	6
Machine learning	6
Data science	7
Adapt	8
The new analytics platform	9
Innovation and analytics	10
Save	11
Cost effectiveness	11
Benefits for your team	11
Recovery starts today	12

Introduction

COVID-19 has brought new economic challenges for companies worldwide. As businesses adapt to different ways of working and changes in customer behavior, they need data and clarity to plan their next steps. Analytics can help them navigate the way forward.

Proven analytics technologies have a strong track record of enabling more dynamic and exploratory responses that can guide businesses through difficult times. **Microsoft Azure Synapse Analytics** is one such technology. With the benefit of years of analytics experience, Microsoft is ready to deliver the next generation of insight, immediacy, and power at a time when you need it most.

Analytics enable you to respond intelligently and effectively, adapt to the current business landscape, and save on costs.



Respond

Business intelligence and analytics, in a form that executives can understand and analyze, is crucial to your COVID-19 response. Dashboards and visualizations that worked for your business in the past, may now be a source of frustration for your C-suite. A consequence of remote working is that executives who relied on middle managers or business analysts for information and updates must now engage with business data directly.

Your business can respond to this unprecedented situation with the help of various analytics technologies:



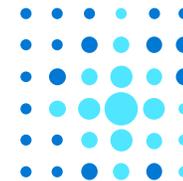
Reports and dashboards



Business intelligence



Augmented intelligence



Machine learning



Data science



Reports and dashboards

Every business uses a range of reports that are updated daily, weekly, monthly, quarterly, etc. Many are in a standard tabular format, typically to conform with regulatory standards. Although these conventional views of your business provide a system of record, they are often insufficient for analysis.

Dashboards, such as those you build with Power BI, can prove much more useful, especially those that feature well-designed visualizations of the key metrics that your business needs to track. For example, an increase in order processing time will probably be recorded in your reports, but executives could easily overlook it. A dashboard, however, can draw their attention to it with an appropriate chart, color, formatting, or even a pop-up alert or message.

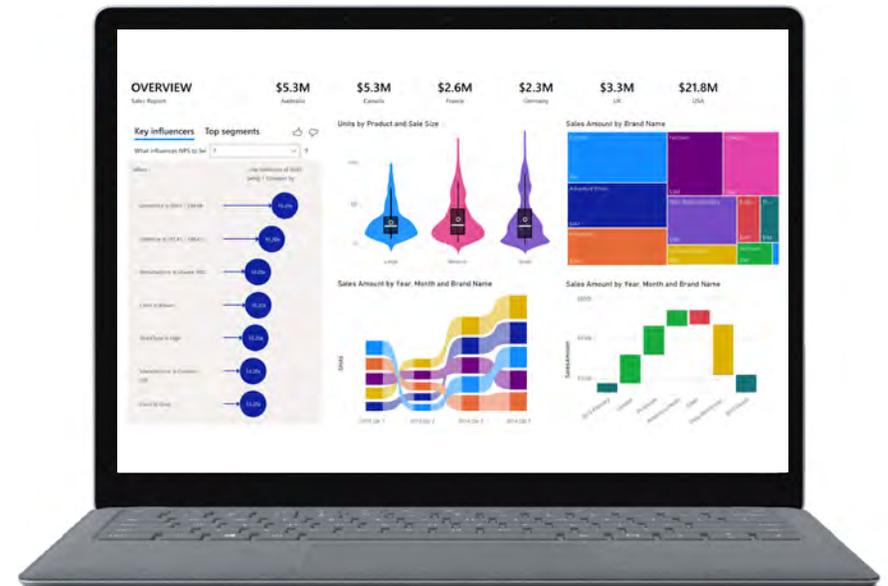
Dashboards can help executives monitor important aspects of your changing business without requiring them to examine data in detail.



Business intelligence

A significant data point in a dashboard signals the need to examine the data further. Executives might need to go deeper into the information, or widen their view to make comparisons across departments or geographies. Dashboards can help, but they are better suited to responding to events that are anticipated and can be planned for.

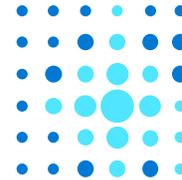
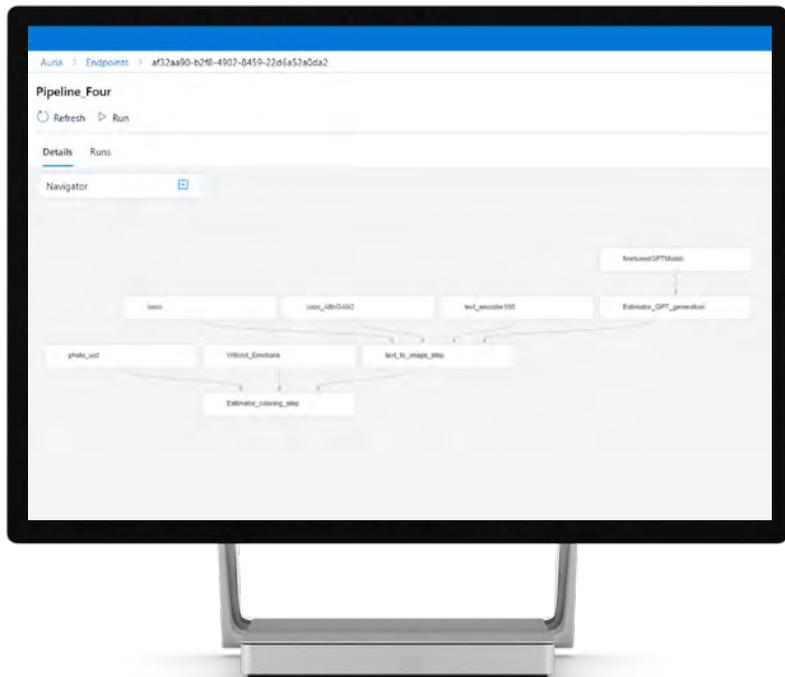
With COVID-19, there is less socialization and interaction between employees. As a result, executives are waking up to just how little direct engagement they have with the data that drives their businesses. Self-service business intelligence tools like Power BI can empower executives to do at least some of their own analysis.





Augmented intelligence

Even with self-service tools, you can't expect executives to become expert analysts overnight. However, there are ways you can bring expertise to them. One approach is called augmented intelligence. This type of analytics is not a replacement for personal insight, but augmented intelligence can enhance your team's human abilities to make, explore, and share discoveries. Power BI is a pioneer when it comes to bringing augmented intelligence into business intelligence. Users can explore root cause analysis with smart visualizations, or query data using natural language.



Machine learning

Human beings and machine intelligence excel at quite different tasks. Machine learning can work at a scale and speed that makes it powerful for analyzing complicated processes, while humans live intuitive and empathetic lives, developing the ability to understand complex problems. Data science may tell you all the complicated ways in which supply chains, production, and sales are impacted by COVID-19, but human insight, working with the same data, can connect seemingly unrelated impacts. Your business can learn how market sentiment, employee morale, and the challenges of working remotely will make an impact, which will shape your response.

Another advance is **automated machine learning**, in which artificial intelligence can assist data scientists and business users alike by building advanced analytic models for them. Many businesses—especially those without a specialized team—will find this an impactful first step toward the hot topic of data science.

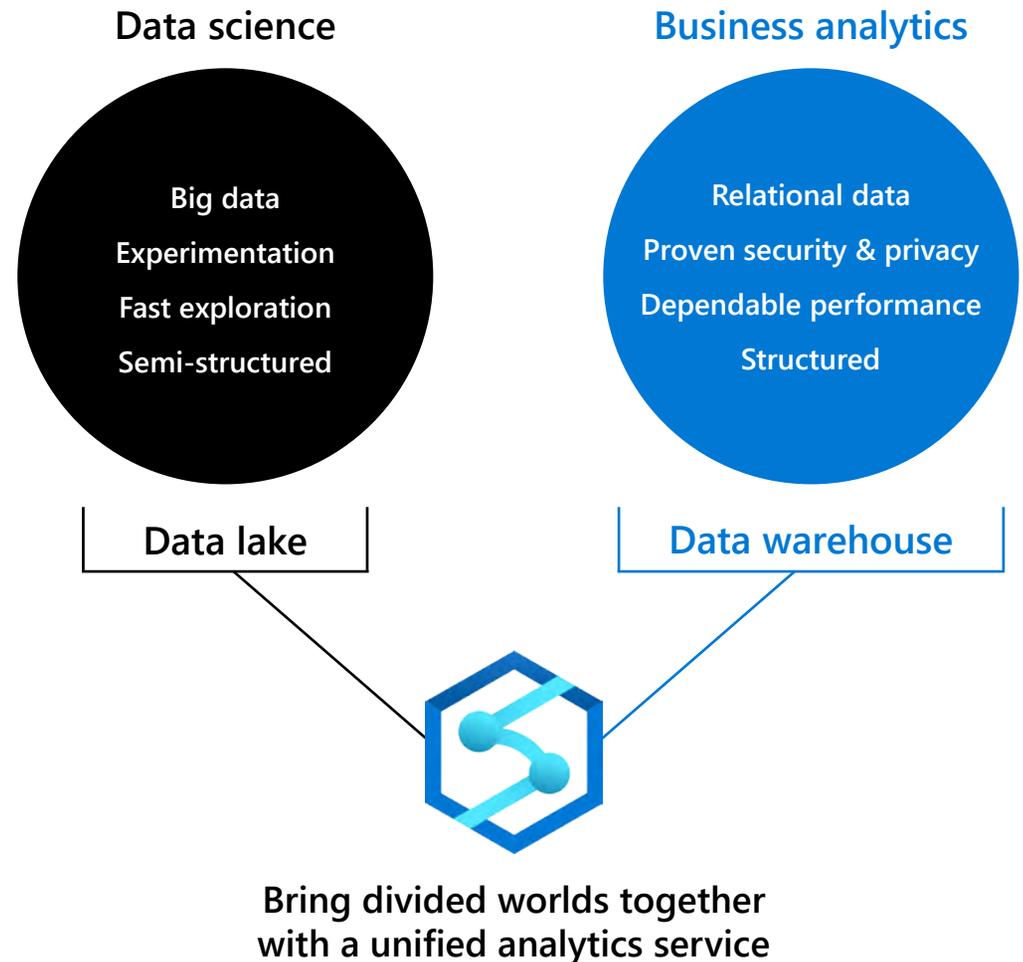


Data science

Data science enables automated insight with a depth and scale beyond the abilities of human analysts. Advanced analytics used to be under the domain of large enterprises, but today even small businesses need scalable insight about their online presence, e-commerce platforms, and social media interactions.

Data science differs from business intelligence in several important ways. For example, a data scientist is mostly concerned with running experiments to see what discoveries can be made using data. If the experiments yield interesting results—perhaps a way of predicting successful products or detecting patterns of fraud—the data scientist may simply present their findings. But more often, they will put their experimental model into production where the rules they found in experiments will apply to millions of new transactions, products, customers, and other real-time sources of data.

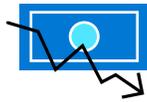
Another significant difference is that data scientists tend to work with raw data rather than data that has been cleaned and transformed for business needs. For example, a sales dashboard probably includes data that has been integrated and consolidated from multiple sources, removing duplicates or abandoned transactions. But a data scientist may be interested in raw data to find patterns and create processes that make future sales more efficient.



Adapt

Adapting in an uncertain climate requires more than just hiring smart people and giving them access to data; you also need an analytics platform that serves data scientists, business intelligence users, and executives alike.

History has shown that during times of crisis, analytics platforms are launched to new levels of importance.



1997

Asian economic crisis



2007-8

Global financial crisis



1990

Oil price shock



2000

Recession and the dotcom crash



2020

COVID-19

Each recent, global economic event has marked a turning point in the use of analytics:

- The widespread recession following the oil price shock in 1990 saw data warehousing become a mainstream practice for large enterprises.
- In response to the Asian economic crisis of 1997, the recession of 2000, and the dotcom crash, business intelligence vendors evolved their products faster than ever before to provide new insights and help build a better future.
- The Global Financial Crisis of 2007-08 saw first-generation business intelligence companies overtaken by newly dominant self-service technologies, including visualization and in-memory analytics.



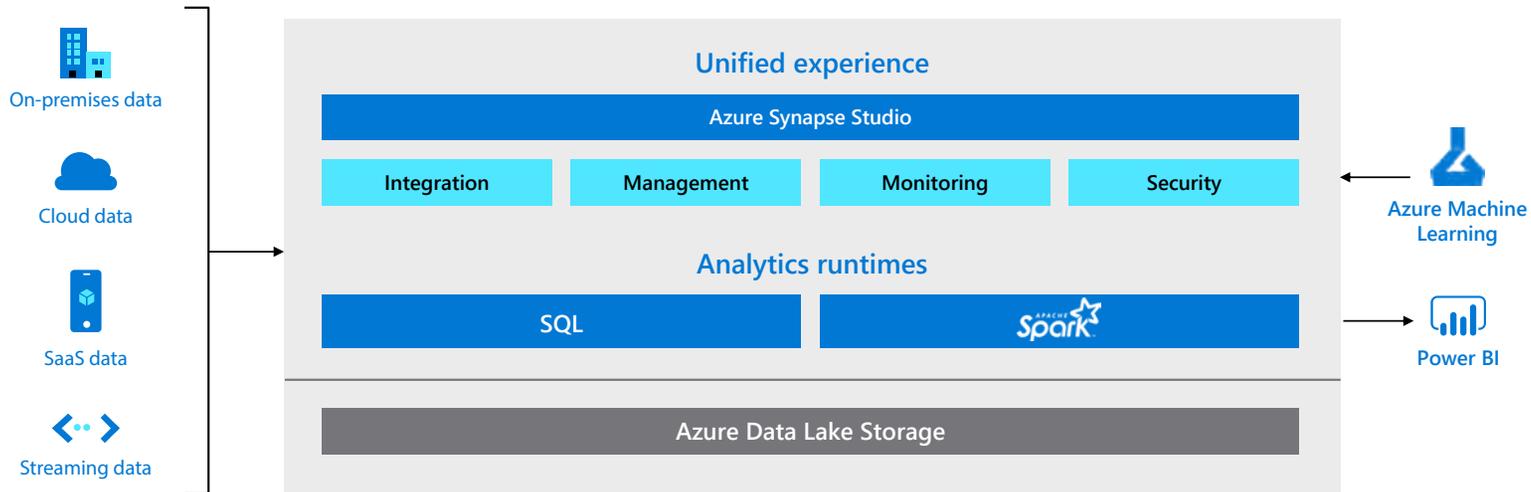
The new analytics platform

Since the 1990s, the primary source of business insight has been the data warehouse. Often described as a single version of the truth, the data warehouse integrates business data from many sources into a single enterprise model, which describes how the various aspects of the business should relate to each other and interact. A lot of work needs to go into designing the model and loading the data regularly to keep it updated. Today, the data warehouse remains unmatched in its ability to deliver consistent, well-governed data for reports and dashboards.

However, your business may have numerous temporary, external, or ad-hoc data sets that are unlikely to be consolidated in the data warehouse. Business intelligence models will provide more help in these cases—for example, planning and monitoring a specific campaign or modeling a short-term project budget.

Let's not forget big data. For the traditional data warehouse professional, the biggest change in data architecture has been the growing maturity of the data lake as an enterprise data store. Data in the lake remains in its raw state, which, as we discussed earlier, is critical for data science.

Tech-smart business users have fresh and innovative ideas they need to explore with agility. The process of building centralized models to support all these initiatives often proves too cumbersome. Azure Synapse uniquely brings all these capabilities together with common security, shared governance, integrated performance management, and a single administration console.



Innovation and analytics

It's one thing to produce analytics better than before. It's quite another to produce analytics in new ways.

Whether using natural language, augmented intelligence, or automated ML, Azure Synapse and Power BI enable a new community of business users to explore and discover data, all with excellent security and governance.

In the modern enterprise, innovation emerges more from the collaboration of a diverse team, than from a lonely genius in the lab. To collaborate effectively across a diverse team, you need to support many different users and use cases with consistent, well-governed data. For example, data scientists tend to write scripts in Python or Scala, while database developers work in SQL. BI users leverage Power BI DAX expressions and Excel.

Having all your analytics resources integrated, secured, and delivered in the cloud, with global support, enables highly distributed teams to collaborate synchronously or asynchronously on complex and large-scale problems. With the Microsoft Teams integration, all the key conversations, workgroup threads, and live meetings occur all in one place, driven by your data.



Save

As you adapt to new ways of working, costs may be at the forefront of your considerations. Azure Synapse offers unlimited analytics on a limited budget—enabling you to save. The storage, computing power, and resources you need are available seamlessly as you add more data, perform more complex analyses, and build an organization driven by business intelligence and insight.

Cost effectiveness

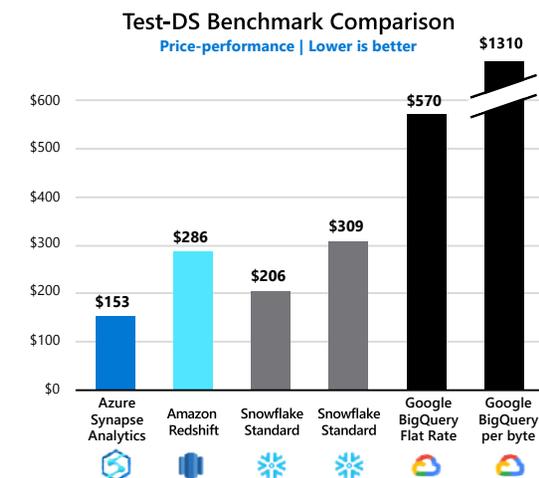
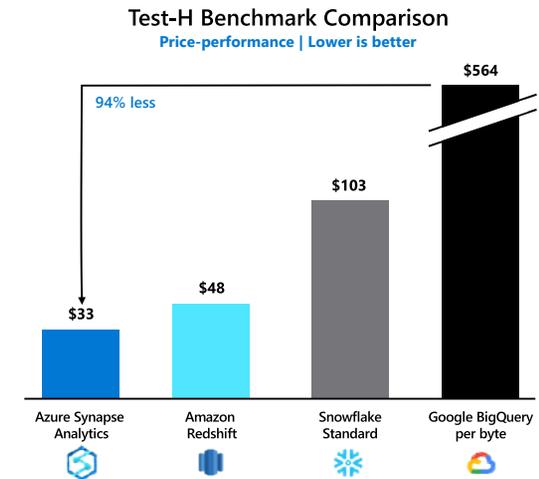
According to [research from GigaOm](#), Azure Synapse has the best price-performance ratio on the market. Perhaps more importantly, the architecture doesn't impose new costs if you need to react to unexpected scenarios like COVID-19.

Whether you're running large-scale data warehouse queries with SQL, data science experiments with Apache Spark, or complex data integrations and orchestrations, Azure Synapse enables you to monitor and govern the resources being used. The architecture scales all these activities over shared data sets, but you don't face the financial or operational cost of adding new clusters.

Benefits for your team

This advanced technology may sound daunting, but, in fact, you almost certainly have the skills in-house today to set up and run Azure Synapse. Data scientists will find the Apache Spark environment not only familiar, but incredibly productive. Business intelligence users will benefit from seamless integration with Power BI. And SQL administrators will recognize and appreciate the integrated management functions in Azure Synapse. Finally, best-in-class security is deeply integrated with Azure Active Directory and network management.

Manage your costs and save money with the flexibility of Azure Synapse.



* "GigaOm Analytics Field Test-H Benchmark Report" January 2019;
"GigaOm Analytics Field Test-DS Benchmark Report" April 2019



Recovery starts today

How do we limit the damage and start to recover?

Moving forward requires leadership, a clear vision, and emotional intelligence, but it also requires an analytical approach.

Power BI is an extraordinary resource that will support every decision maker in your business as they engage directly with data. They can explore, report, and communicate with a greater impact than ever before, whether they are tasked with monitoring your business, investigating issues, developing innovative insights, or building data-driven apps for collaboration.

The Azure Synapse platform supports Power BI users with unlimited data and compute resources. Azure Synapse also delivers a continuum of analytics that are relevant to everyone, from the operational business user to the most strategic executive and most technical data scientist. Too often, the use cases in your business may feel poles apart. Azure Synapse brings together all your analytics scenarios for a comprehensive view of your data.

The way you respond, adapt, and save today defines your business strategy for tomorrow. Azure Synapse can't tell you how to manage your business, but it can handle the complexity and scale of your analyses with speed, simplicity, and economy.

Visit [Azure Synapse Analytics](#) to see how quickly and easily analytics can set your business on the road to recovery from the impact of COVID-19. If you have questions or need help, [request a call from a sales specialist](#).