



Unlock your SAP data with the power of Google Cloud

How a modern data platform can optimize your
analytics and transform your organization

Pythian | eBook



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Take a new approach

Ask business leaders what's critical for driving growth and innovation, and most will rank current, accurate and easily accessible analytics high on their list of priorities. More than 80 percent of enterprises report a need to be more data-driven.¹

Ask those same leaders if they've achieved this goal, and most will share a similar list of frustrations and obstacles. Creating a scalable data platform to fuel a holistic view of the business is no small task.

Adopters of feature-rich enterprise resource planning (ERP) systems like SAP may face the steepest challenges. While these vast back-office systems excel at supporting day-to-day operations and capturing transactional data, their closed-ecosystem design often hinders fully-encompassing analytics. Achieving desired insights can require costly licensing, expert data engineers and cumbersome data integration. Those challenges often result in critical first-party data siloed in the SAP system, rather than connected with valuable third-party data from other sources like e-commerce and POS systems, financial platforms and IoT devices.

Fortunately, a Google Cloud environment can help you support all your analytics needs—and enhance analytics in your existing SAP environment. It's a modern approach that fuels real-time business insights and supports powerful machine learning capabilities.

¹IDC, "The Value of Big Query from Google Cloud for SAP Customers," August 2021

Extract more value from your SAP data

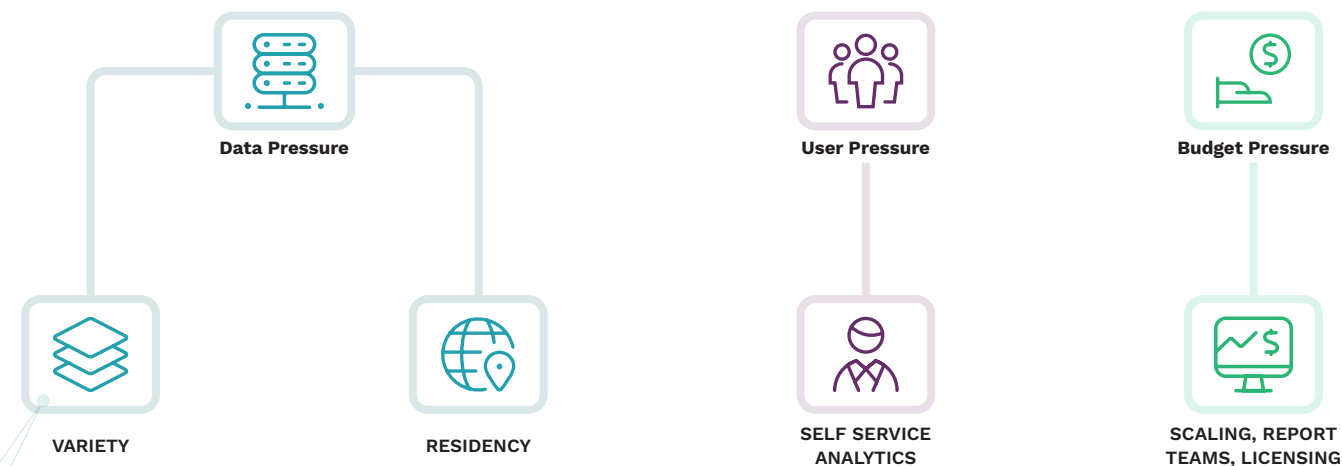
A number of factors are driving SAP users to investigate new options for analytics. These include the exponential growth of data sources, and a scarcity of highly skilled data professionals with talents beyond report writing, such as managing data governance, lineage, pipeline creation and even machine learning. Security concerns and the rising costs of on-premises infrastructure also contribute to many SAP users' desire for a faster, better way.

Both IT and business stakeholders are invested in new solutions. Access to real-time, consolidated and easily digestible analytics are no longer a luxury—they're now table stakes in highly competitive marketplaces.

Major enterprise platforms provide data that is critical for operations, but less optimized for transformational value. Businesses today want insights from across their operations, financials, employees and customers. They want more than just to combine data from numerous sources for stronger, near real-time insights and more than the ability to review historical trends and patterns—they want to tap into machine learning and artificial intelligence capabilities to predict future trends.

However, ERP users face issues in realizing this goal. Many SAP users find the platform's inflexible structure creates challenges in their ability to react to business and project priorities.

Businesses face numerous pressures to improve data access and insights



SAP Customer Needs by Industry



Retailers

Want to predict purchasing habits, drive engagement basket size, recency and frequency, increase margins radically, improve campaign accuracy.



Financial Services

Want to develop predictive trading recommendation engine based on historical market trends.



Manufacturers

Want machine analytics to drive production on manufacturing lines to reduce scrap, improve quality, reduce recalls and rise equipment effectiveness.



Heavy Equipment Manufacturers

Want to reduce downtime of key components while accelerating product development cycles.



CPG Organizations

Want insights on demand forecasting supply chain and trade promotion optimization.

Leverage the cloud to modernize your data estate

So, what options exist to move forward? Better data access and analytics begin with a different approach to your company's data estate.

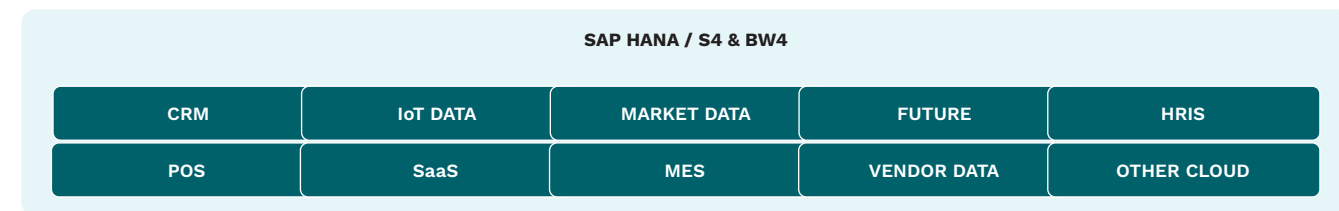
Historically, an enterprise platform like SAP housed the majority of a company's data. That first-party data powered operational excellence, and the platform handled most reporting and analytic needs.

Now, data spans a variety of sources and systems – including those outside the SAP platform. Businesses want to derive value from structured and unstructured data, in on-premises and cloud platforms, and through mobile apps and even IoT devices. The SAP system remains an important source of truth but should no longer anchor the company's data estate.

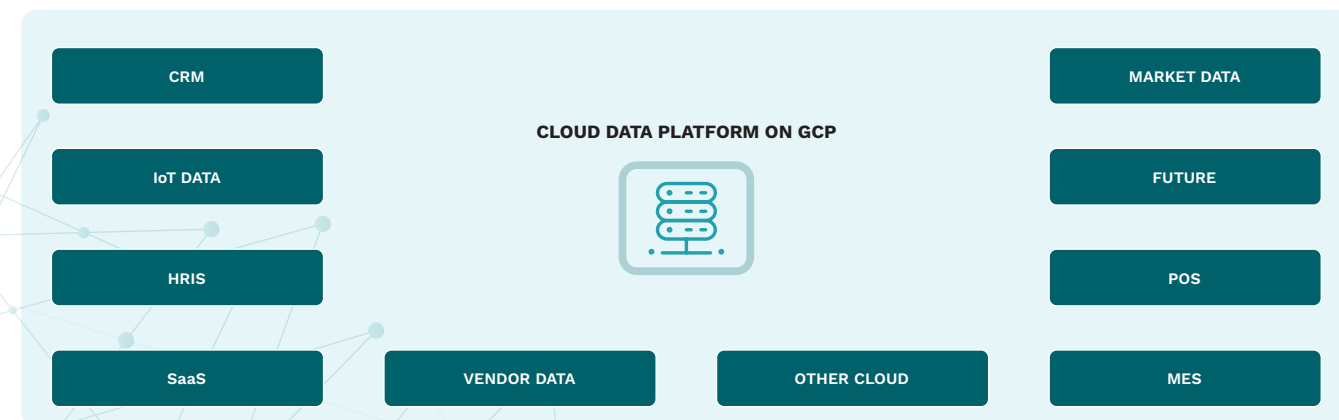
Instead, a modern cloud data platform, such as Google Cloud, bridges the gap between traditional back-office systems like SAP and numerous other third-party data sources. This new approach creates a single robust hub for information that's flexible, scalable and better equipped to serve a variety of business users and analytic needs. This is not to say that offerings like SAP Analytics Cloud are redundant, but in fact work to augment Google Cloud to provide an even more clear analytics picture.

Modernizing your SAP data estate requires a different approach

How major systems view data. All your data lives inside the platform and data hub.



How Pythian views data. Data sources are varied, siloed and everywhere. Cloud platforms like Google bring it all together.



Support more customer and user needs

Using a comprehensive cloud environment helps organizations with an SAP infrastructure meet both internal and external user needs.

As these examples show, businesses in every industry can benefit from high-performance analytics that combine operational data from the SAP system with third-party data from across the enterprise.

Common analytics use cases for SAP companies



Retailers want to predict purchasing habits, drive engagement basket size, recency and frequency, increase margins radically, improve campaign accuracy.



Financial services want to develop predictive trading recommendation engine based on historical market trends.



Heavy equipment manufacturers want to reduce downtime of key components while accelerating product development cycles.



CPG organizations want insights on demand forecasting supply chain and trade promotion optimization.



Manufacturers want machine analytics to drive production on manufacturing lines to reduce scrap, improve quality, reduce recalls and rise equipment effectiveness.

Typical user type and needs

User	Data engineers and data scientists	Power users	Casual users
Need	Access to raw data for exploration	Combine datasets to meet business needs	View specific reports and KPIs
Tools	<ul style="list-style-type: none"> • Dataflow • Notebooks • Python • Spark • SQL • TensorFlow 	<ul style="list-style-type: none"> • Data Studio • Excel • Looker • Power BI • SQL • Tableau 	<ul style="list-style-type: none"> • Dashboards • Reports

The business case for SAP and Google

While many cloud data platforms exist, Google delivers the best business value for SAP customers thanks to a longstanding relationship between the two companies.

Total cost of ownership (TCO) with Google Cloud saves businesses 10-30 percent compared to other hyperscale public clouds.¹

- Benefits of Google Cloud for SAP include:
- Lowest total cost of ownership in the market
- Best-in-class data and analytics, co-developed with SAP
- Flexible open-source, multi-cloud options
- Reduced operational risk and increased resiliency

As a serverless data platform, Google Cloud and BigQuery eliminate the infrastructure costs of a traditional data warehouse, as well as the resources required to manage and administer the platform. A recent IDC study shows that companies with SAP and Google will operate their data warehousing systems at 52 percent lower cost over three years—an average savings of more than \$5 million per organization.¹

Speed is another advantage. Google Cloud and BigQuery's nearly unlimited capacity accelerates platform performance to enable more responsive and impactful analytics. Organizations reported 63 percent faster query performance and 77 percent faster report delivery compared to their previous solution. Analytics teams were 20 percent more productive on average; data platform teams saw efficiency gains of 51 percent.¹

Finally, a Google environment helps companies tap into unstructured data to leverage key artificial intelligence and machine learning options like vision, translation and text-to-speech, as well as Google datasets and API management tools. These capabilities drive business innovation and growth for SAP users.

Business value from SAP and Google

323%
three-year return on investment (ROI)

77%
faster delivery of business reports

\$22.88 million
in revenue gains per year per organization

52%
lower three-year cost of data warehouse operations

20%
higher productivity among analytics teams

6.7%
higher productivity among line-of-business teams

51%
more efficient data platform teams

¹IDC, "The Value of Big Query from Google Cloud for SAP Customers," August 2021

Getting started with Pythian

Where does an SAP and Google engagement begin? Most organizations start with a data strategy, but that strategy doesn't need to encompass the entire enterprise. An incremental approach can quickly prove the value of an SAP and Google Cloud data platform.

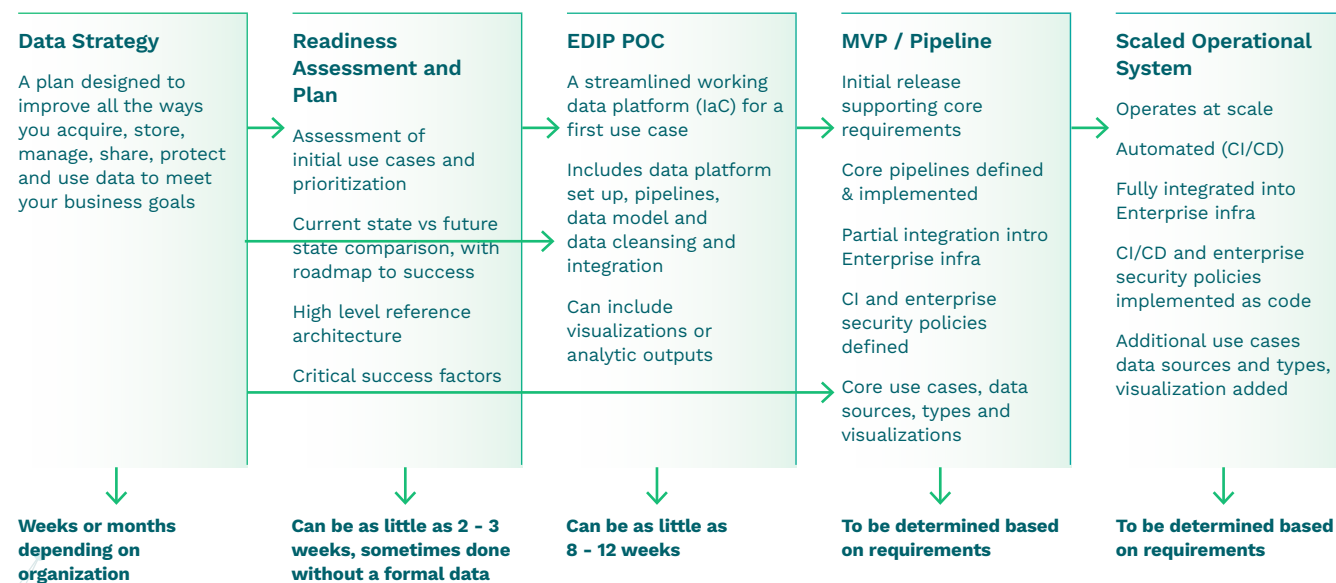
The good news is that Google Cloud and BigQuery give SAP users tremendous flexibility. You don't have to migrate your entire workload or integrate a specific set of data points; there are plenty of options to match each company's specific needs.

For example, choose a workload, a line of business, a specific business problem, or even an executive demanding stronger analytics. Then, iterate on that specific challenge and use case in a cloud environment. This creates rapid results that form the basis for a larger data strategy.

At Pythian, we follow this process as a typical journey for enterprise cloud analytics.

Enterprise Cloud Analytics

Typical journey for early stage enterprise



There are a number of ways to accelerate the journey, but it typically begins with a workshop or strategy session to prioritize challenges, identify key use cases and determine feasibility. In these sessions, it's all about figuring out how to connect your existing investments—including your SAP data—into Google Cloud for maximum benefit.

Depending on your goals, it's smart to undertake either a proof of concept (PoC) or development of a specific data pipeline. Working with Pythian, initial engagements typically only take a few weeks, in part due to our experience and expertise in both the SAP and Google spaces. We've already developed functional accelerators, identified patterns and created templates to speed up deployments, and we've worked with dozens of clients.

SAP to GCP Quick Start Offering

Enterprise Data Analytics QS Workshop for SAP	SAP to GCP EDP Proof of Concept	SAP to GCP Analytics Pipeline
Identify key challenges and use cases, understand your SAP and 3rd party technical stack including visualization tools, compliance and data policy requirements.	Demonstrates the power of a functioning customized SAP EDP POC for a single use case with your data on an enterprise grade analytics solution. Dashboarding / Visualization are optional.	Solves a specific data integration problem (SAP and 3rd party) implementing the core components of a scalable customized data pipeline for a single use case. Visualization are optional based on requirements.
Deliverables: Pythian recommended approach, core architecture, tooling recommendation, phases and scope of work.	Deliverables: Fully functional SAP EDP for a limited dataset running on your Google account with 60 days of support.	Deliverables: Deployed SAP to 3rd Party pipeline on GCP supporting your use case running on your Google account with support.
~ 2 weeks	8 - 12 weeks	7 - 11 weeks

With a PoC, Pythian works collaboratively to stand up a fully functional SAP data platform in Google Cloud. It's an enterprise-grade solution that demonstrates functionality. It gives your organization a chance to "kick the tires" and show stakeholders what's possible.

With a pipeline engagement, Pythian builds the specific integration between SAP and other third-party data sources to the Google Cloud data platform, based on a single use case. We have experience with a variety of connection tooling, which optimize your investment if you have a preferred application already in place.

At the end of either engagement, you're on track to expand and launch a powerful core analytics platform that will allow SAP users to achieve truly transformational business value.

Google Case Studies

Google has helped hundreds of SAP customers to innovate with enterprise data. Learn more about how a few SAP customers are leveraging Google Cloud for innovation by unlocking the value of data.

Japanese retailer strengthens demand forecasting with machine learning

Challenge:

Fast Retailing operates more than 800 clothing stores across Japan and is the parent company for brands like Uniqlo, GU and Theory. With lead times for its product assortments stretching up to a year, accurate demand forecasting can make or break customer satisfaction and brand success.

Solution:

Integrating their SAP data with Google Cloud enabled the company to leverage machine learning. Now, it can add near real-time data from non-SAP systems, such as search signals, supply chain factors and precision marketing data, for a tremendous impact on bottom line results.

Impact:

- Reduced error margins to ~2,000 SKUs
- Improved internal merchandising processes

“Our work with Google Cloud has gone well beyond demand forecasting; it’s fundamentally changed the way we work together.”

Tadashi Yanai,
Chairman/President/CEO
Fast Retailing Company, LTD

International spirit-maker improves business agility with Google Cloud

Challenge:

Data trapped in legacy systems made it difficult for Remy Cointreau, a leading international maker of cognacs and other spirits, to keep pace with market demands. The company needed a way to combine operational data with other third-party sources.

Solution:

Creating a hub in Google Cloud lets the company unify important SAP data with other sources to generate real-time analytics and fuel agile product development. During COVID-19, the move allowed Remy Cointreau to adjust operations as direct-to-consumer sales skyrocketed.

Impact:

- Fast-tracked responses to market demands
- Improved tracking accuracy and operational efficiency

“We can pull data in from multiple sources via integration and analyze it in a matter of days. We don’t need a three-month project to see value.”

Sebastien Huet,
Chief Technology Officer
Remy Cointreau

Convenience store chain centralizes and accelerates data insights

Challenge:

The iconic convenience store struggled to track patterns and predict performance across its more than 21,000 locations in Japan. Getting even basic store reporting took weeks—even months—as staff struggled to combine and rationalize sales data.

Solution:

With a Google Cloud platform in place, 7-Eleven can now dynamically absorb data from numerous systems of record, POS platforms and e-commerce systems. The new solution handles millions of transactions daily with vast scalability and analytic options.

Impact:

- Gained real-time analysis across 21,000 stores
- Accelerated pace of insights: under one minute from in-store purchase to central data analysis

“This is real innovation, and I must admit that I am quite surprised. As well as being able to solve existing issues, we also hope it will lead to new improvements and services that have been unimaginable up until now.”

Izuru Nishimura,
Executive Officer & Head of ICT Department
7-Eleven

About Pythian

Founded in 1997, Pythian is a leading global IT services company that helps organizations transform by leveraging the power of data, analytics and the cloud. With a spectrum of solutions ranging from infrastructure modernization and data enablement to application acceleration and business collaboration, Pythian delivers full-lifecycle consulting, professional services and managed services to create outstanding business outcomes. A Google Cloud Premier Partner with eight specializations—in Cloud Migration, Data Analytics, Machine Learning, Infrastructure, Application Development, IoT, Data Management and Work Transformation-Enterprise—and a certified Google Cloud Managed Service Provider, Pythian has delivered thousands of professional and managed services data and applications projects in the hybrid cloud world.

In 2020, Google awarded Pythian the [Google Cloud Specialization Partner of the Year for Data Management Award](#). The new award recognizes one partner with the Data Management Specialization that most helped its customers jump-start their business transformation by migrating and managing enterprise data more reliably and securely with Google Cloud.

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Offices

Ottawa, Canada New York City, USA Minneapolis, USA London, England Hyderabad, India

Pythian