

Interactive reporting. Visual discovery. Self-service analytics. Scalability and governance. All from a single, powerful, in-memory environment.

SAS® Visual Analytics on G-Cloud

Governments around the world are facing significant challenges. They need to improve benefits and services for their citizens while lowering costs. Combating fraud and improper payments is an escalating problem. Improving public safety and national security remains a high priority. Health care demands are skyrocketing as are health care costs.

Public Sector organisations produce, collect, and store an unprecedented amount of increasingly diverse data that could be used to help solve these problems. Traditional approaches to gathering insights from data are no longer adequate given the volume, velocity, and variety of data that today's governments must manage. It is becoming increasingly critical for the Public Sector to find new ways to transform data into useful information to drive actions.

Public Sector organisations all want to use this data and information anywhere, on any device, at any time, to collaborate and keep aligned to their goals. To do this, a modern data visualisation toolset is required. This toolset needs to satisfy the key requirements that support all users; is flexible, simple, and powerful; and allows information to be consumable anywhere.

With SAS Visual Analytics on G-Cloud, data scientists, statisticians and analysts can begin to solve these data and insight challenges. Users can collaborate and provide data visualisations for operational reporting into many parts of the Public Sector. For example:

- **Clinical trials and health** – users can analyse and monitor performance metrics as well as patients' enrolment, safety, and follow up; compare performance across health plans and national benchmarks; monitor medication adherence for patient cohorts over time; and monitor patient behaviour pre- and post- intervention to understand effectiveness.
- **Asset management** – users can report on the process of developing, operating, maintaining, upgrading, and disposing of assets in the most cost-effective manner (including costs, risks, and performance attributes).
- **Estate management** – users can provide insights into the operation, control and maintenance of real estate and physical property.
- **Energy usage** – users can track and monitor energy usage and trends across physical locations, jurisdictions or in line with performance and reduction objectives.

SAS Visual Analytics users can create simple reports through to extremely complex data visualisations and infographic dashboards. SAS Visual Analytics supports:

- **Location Analysis** – bringing data to life with demographic enrichment, automatic clusters, custom polygons, and more.
- **Custom Graphs** – extending content by using third-party graphs as if they were native graphs.
- **Ambient Analysis** – allowing business teams to grow their skills and create dashboards that are powered by advanced analytics.
- **More visuals out of the box** – there are many more visualisations to use to represent the data just the way you want to tell your story.
- **Open and extensible** – providing new APIs allowing users to call the elements of the dashboard and share it with consumers on other platforms, meaning users can create endless entry points into SAS Visual Analytics.

Why is SAS Visual Analytics important?

Users of all skill levels can visually explore data, use automated analysis, and create visualisations while tapping into powerful in-memory technologies for faster computations and discoveries. This self-service solution scales to an enterprise-wide level, putting data and analytics in the hands of more people. At the same time, governance capabilities help IT promote consistency and reuse.

What does SAS Visual Analytics do?

SAS Visual Analytics provides a modern, integrated environment for governed data discovery and exploration. Users, including those without advanced analytical skills, can examine and understand patterns, trends, and relationships in data. It is easy to create and share reports and dashboards that monitor business performance. Easy-to-use analytics and visualisations help everyone get insights from data to better solve complex business problems.

For whom is SAS Visual Analytics designed?

SAS Visual Analytics is designed for anyone in an organisation who wants to create, share, and collaborate on insights from data. That includes decision makers, business analysts, report creators and citizen data scientists. It also provides IT with an easy way to govern and manage data integrity and security.

Benefits

- **Understand and share what is happening with dynamic visuals.** Create interactive reports and dashboards by querying data in a self-service manner, then summarise and share key performance metrics via the web or mobile devices. Recipients can dynamically slice and dice to find answers or ask more questions as needed.
- **See the big picture and underlying connections.** Visually explore all relevant data – smartly, quickly, and easily. Interactive discovery lets you examine opportunities hiding in your data, while automated analysis highlights important relationships in data with easy-to-understand explanations. Business users can find out why something happened and identify critical drivers to make better decisions. The software discovers key relationships, outliers, clusters, trends and more, revealing insights that inspire action.
- **Drive business results with data-backed insights.** With easy-to-use predictive analytics, business users and analysts can assess possible outcomes and make better, data-driven decisions – without programming. Visualisations, smart algorithms, and automated analysis reduce the need for experimentation, and you avoid the risk of missing key insights.
- **Add geographical context to your analyses and visualisations.** Combine traditional business data with location data to understand the full picture. Location analytics adds the “where” dimension, so you can analyse data in new ways, understand location factors and identify location-specific opportunities.
- **Share and interact with insights when and where you want.** Executives and frontline staff can quickly interact and collaborate with reports, charts, and dashboards to better understand business performance, jointly interpret results and decide on the best actions. Content can be shared with others via the web and mobile devices.

Overview

Interactive data visualisations help everyone explore and better understand data. Adding analytics to visualisations uncovers insights buried in data, making it easy to spot patterns and trends that affect the bottom line.

You can quickly identify outliers that may influence product quality or customer churn and recognise highly correlated parameters in data. Identifying these relationships helps determine if findings are relevant or significant, so you can focus on areas that matter most.

SAS Visual Analytics is part of SAS Viya – an open, cloud-ready, in-memory platform that delivers everything users need for fast, accurate analytical results, all the time. With its fluid, scalable and fault-tolerant processing environment, this resilient platform addresses the complex analytical challenges of today with the ability to effortlessly scale into the future.

Alongside a scalable, in-memory engine, SAS Visual Analytics has an extremely easy-to-use interface. The combination of interactive data exploration, dashboards, reporting, and analytics helps business users find valuable insights without coding or the need for advanced data scientist skills.

Depending on different skill levels, roles and types of problems to solve, SAS Visual Analytics offers different visualisation and exploration techniques. Everyone can quickly assess probable outcomes and make smarter, better data-driven decisions.

Report creators, business analysts and even traditional consumers can quickly create and share visualisations and reports to gain new insights from data. IT teams are happy because it is easy to manage and administer the common SAS Viya environment. They can measure and monitor data, usage, scheduling and more to provide much needed governance.

Products included in SAS Visual Analytics

1. SAS® Visual Analytics

Visualise and discover relevant relationships in your data. Create and share interactive reports and dashboards, and use self-service analytics to quickly assess probable outcomes for smarter, more data-driven decisions.

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2. SAS® Information Governance

Capture and enrich metadata for files, tables and other information assets. SAS Information Catalog can be used as the repository of metadata, including information on entities, attributes, relationships and domains. It enables you to discover and document how data fits together, plus it provides a common vocabulary around data.

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3. SAS® for Microsoft 365

Use the power of SAS analytics and access data directly from Microsoft Excel, Microsoft Word, Microsoft PowerPoint and Microsoft Outlook with this component object model add-in. While the functionality varies among Microsoft applications, it's generally the same among Excel, PowerPoint and Word and enables you to run analyses, generate reports and share SAS content with other users at your site.

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4. SAS/ACCESS®

Providing data access to more of your data sources so you can make better decisions faster. These interfaces are out-of-the-box solutions that provide enterprise data access and integration between SAS and third-party databases. SAS/ACCESS interfaces enable your SAS solutions to read, write, and update data no matter what native databases or platforms you use.

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5. SAS® Data Preparation

This offering adds enhancements to the SAS Viya platform, including advanced data profiling features, data quality transformations for SAS® Data Studio and programming interfaces for data quality operations.

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6. SAS® Studio Analyst and SAS® Studio Engineer

Access data files, libraries and existing programs – or write new ones – with this developmental web application accessible through your browser. With SAS Studio, you can use predefined tasks to generate SAS code. When you run a program or task, the technology processes the SAS code on a SAS server, which can be a server in a cloud environment, in your local environment, or SAS installed on your local machine. After the code is processed, the results are returned to SAS Studio in your browser.

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Service Model

SAS is provided as Managed Cloud Software and includes software, hardware, and hosting services for a contracted period. This is an advantageous way to help Public Sector organisations get started with analytics and alleviate implementation problems. You load your data onto the SAS cloud environment or through the option of a SAS/ACCESS engine. SAS/ACCESS engines provide an automated way to seamlessly read, write and update access to data before building your analytics.

SAS runs a secure, cloud-based service on your behalf, giving you the benefits of our most advanced software and scalable platform architecture – managed and supported by our own experts.

- Each dedicated cloud software instance running SAS uses a predefined storage allowance to manage your data requirements and keep them secure and backed up. This solution is supported with ongoing management and administration. All these elements are backed by a 99 percent uptime warranty.
- SAS services are regularly reviewed and audited to ensure your data is secure and maintained according to national and international privacy legislation.
- Our teams know how to get the most from the SAS Platform. With experience acquired across public, financial, health care and commercial sectors, they are familiar with common regulatory compliance requirements.

Deployment options

This is primarily delivered as a SAS Managed Cloud service. In addition to the commercial bundles listed, non-standard offers are an option to meet specific customer requirements and to align to customer Cloud deployment strategies not met through SAS Managed Cloud. All non-standard options will be priced on application based on an equivalent pricing methodology. Further delivery options include:

- **On-site deployments** – Including distributed servers to meet growing data, increasing workloads and scalability requirements.
- Alternative Cloud deployments - Enterprise hosting; private or public cloud (e.g., BYOL in Amazon, Azure, or Google Cloud) or Platform as a Service such as Red Hat OpenShift.

In addition, our REST API provides customers an option to build or integrate external applications around SAS Viya.

Service Deliverables

The managed offerings include the following service deliverables:

- Commissioning and provisioning of the predefined hosted infrastructure, including compute, network, and storage.
- Preconfigured security and connectivity for users and data (based on the limits per tier).
- Pre-installed software.
- Ongoing support of any up-front service customisation that is implemented by SAS.
- Ongoing support with software administration and management.
- 99 percent uptime SLA.
- 30-minute incident response time for software availability issues.
- Data protection warranties and a documented data classification and handling process.
- Regularly scheduled backups.
- Patching and updates applied as part of the agreed SAS software release cadence.

Open to other programming languages

While SAS Visual Viya is designed primarily for business users who prefer a visual interface, it does include a programming interface for those who want to write their own SAS code.

And if your programmers prefer to work in other languages, like Python, R, Lua, or Java, that is OK too. They can call SAS Visual Analytics capabilities from their preferred programming environment. In addition, public REST APIs enable developers to easily add content created with SAS Visual Analytics to other applications.

SAS Workload Management

SAS Workload Management Provides a web-based tool for monitoring and managing resources, users, and jobs and serves as an interface for configuring and managing high-availability services and defining alerts when thresholds are exceeded.

SAS Job Flow Scheduler

The Job Flow Scheduling Service enables you to monitor and schedule jobs from a variety of sources in SAS Viya and to create and schedule job flows, which can contain multiple jobs and conditions.

SAS Cloud Data Exchange

SAS Cloud Data Exchange allows SAS Viya users to connect a database which could be either co-located at SAS Viya platform, other cloud environment or located at an on-premises data centre. SAS Cloud Data Exchange enables user to securely exchange on-premises data from behind a firewall to the SAS Viya platform in the cloud. All data transfer/exchange occurs on secured standard-based communications along with sophisticated authentication and authorisation.

Pricing

SAS Visual Analytics is priced on a user basis and as an annual hosted license fee payable in advance. Fees include a one-time implementation and on-boarding charge. Each environment includes 4TB of cloud storage. The pricing provided within the pricing section of the listing is for representational purposes and is based on users that are comprised of Analytics Viewers (for e.g., report consumers) and Analytics Developers. The Cloud infrastructure is sized based on the volume of data loaded into the system, the number of concurrent users accessing the system and the type of analytical workload that is running. During initial discussion, SAS system sizings will be made available for review and validation against requirements. Should requirements sit outside of these parameters, SAS and the customer will participate in a discovery exercise to identify and undertake the appropriate activity to re-size and recalculate costs based on the output of the exercise.

Additional analytics service such as model development, analysis, data engineering or reporting services are available via the SAS Cloud Support Service which is also available on G-Cloud.

Learn More

To learn more about SAS Visual Analytics please visit https://www.sas.com/en_gb/software/visual-analytics.html