

CGI GeoData360

Industrialise your Application

Our ability to observe the Earth has transformed in the past few years. Substantially more satellite imagery and a geospatial data explosion are fuelling big data-driven opportunities to better monitor and manage. CGI GeoData360 solves common technical challenges for those aiming to exploit these new opportunities.

Reliable monitoring solutions that can run efficiently at scale require substantial processing resources and more sophisticated data processing capabilities which can be complex and costly.

Cloud-based resources have enabled the deployment of new approaches that make full use of large, multi-tenant infrastructures. This enables solutions to benefit from massive quantities of processing resources that would otherwise be unattainable for individual users.

GeoData360 is CGI's production platform for Earth Observation (EO) and geospatial (Geo) services. GeoData360 is designed for long running, large scale production pipelines as a Platform-as-a-Service. It supports deep customisation and extension, enabling production workflows that consume EO and Geo data (to produce valuable business information) to run cost efficiently at scale.

What GeoData360 delivers:

- **Scalable** – dynamic, optimised use of infrastructure resources available from commercial cloud providers. Reduces elapsed processing times.
- **Portable** – deployable within different cloud environments (both public and private).
- **Operational** – designed for production enabling reliable, consistent performance for commercially viable services.
- **Geospatial++** – big data production capabilities applicable to services based on imagery and/or other geospatial data (climate data, meteorological data, points, lines, polygons etc.).
- **Secure** – designed to run securely in cloud infrastructures.
- **Cost effective** – applications use only the resources that are required.

GeoData360 solves the challenges related to provision of production-ready offerings: reliability, repeatability, traceability and monitoring. Our solution solves the scaling issues inherent in batch processing large volumes of bulky data and decoupling the algorithms from the underlying infrastructure.



EARTH OBSERVATION

Earth Observation data is fundamental to tackling many of today's issues relating to climate change, contributing to sustainable exploitation of the Earth's natural resources better and mitigating the impact of the natural environment on our businesses and infrastructure.

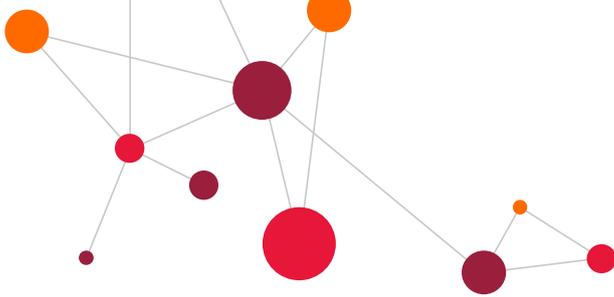
Imagery acquired from satellites can be used to monitor and manage. Application examples include: oil spill response, resilience for utilities infrastructures, intelligent crop production and land management. Users of such data are extremely diverse - from scientists to governments, meteorologists, forecasters, insurers, geologists, planners, oil & gas companies, utilities and defence.

This is where CGI can help. We have substantial capabilities in data processing and developing data-enabled services. We help turn Earth Observation data into information you can trust and act upon.

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Features of GeoData360:

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CGI is already using GeoData360 as enabling technology on EO and non-EO initiatives, benefitting from:

- **Granularity** – containerisation at the level of the individual processing step. Increased flexibility, more efficient testing and implementation, improved optimisation potential for dynamic scaling.
- **Standardisation** – centralised repository of standardised processing steps enabling efficient re-use for rapid prototyping.
- **Orchestration and automation** – linking process steps into complete processing workflows. Required to enable granular approach. Reduces operational costs.
- **Dynamic scaling** – for processing resources and for storage. Pay only for the resources that are required.
- **Inbuilt monitoring** – graphical feedback providing transparency on system performance. Necessary to maintain system control for highly automated workflows.
- **Data access** – efficient access to online archives. The raw material for any processing workflow.
- **Security** – access control and protection for third Party Intellectual Property. Secures system and shields third Party Intellectual Property.

Which GeoData360?

- Platform-as-a-Service:
 - Work with CGI to industrialise your application.
 - Include GeoData360 as the production platform solution in your development initiative.
- Platform-as-a-Product: a stand-alone platform solution that can be operated by a third Party.

ABOUT CGI

Founded in 1976, CGI is among the largest independent IT and business consulting services firms in the world. With approximately 77,500 consultants and professionals across the globe, CGI delivers an end-to-end portfolio of capabilities, from strategic IT and business consulting to systems integration, managed IT and business process services and intellectual property solutions.

Our first space project was in the 1970s and since then we have been working with clients to get the most value possible from their space assets. CGI delivers secure, mission-critical space systems including data processing and exploitation, satellite communications, robotics, command and control, ground segment engineering, navigation and situational awareness.

For more information about CGI, visit cgi-group.co.uk, or email us at enquiry.UK@cgi.com.

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