CGI GeoData360

On-boarding-as-a-Service

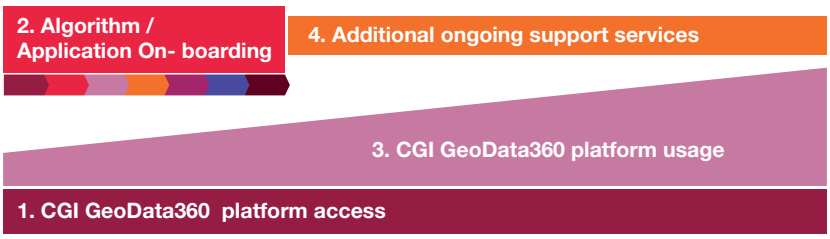
What is CGI GeoData360?

GeoData360 is CGI's production platform for Earth Observation (EO) and geospatial (Geo) services. It is designed for long running, large scale production pipelines for automating the conversion of raw data feeds into valuable information products to be used as business resources.

It supports deep customization and extension, allowing you to deploy your own algorithms to consume either EO or non-EO data and produce valuable business information while running cost efficiently at scale.

GeoData360 Offering

CGI GeoData360 is a dynamic and flexible environment, therefore, the applications users may want to deploy and how they want to use CGI GeoData360 vary considerably. To support this, on-boarding services are granular to allow a high degree of flexibility depending on your specific needs. The following gives an overview of the full CGI GeoData360 offering.



1. **CGI GeoData360 platform access –** access to the core platform – including cloud hosting, product licences, platform upgrades, platform support, and membership of the CGI GeoData360 user forum.
2. **Algorithm / Application On-boarding –** support to allow the on-boarding and optimisation of your algorithm / application onto the GeoData360 platform. Ranging from on-boarding-as-a-service to DIY on-boarding.
3. **CGI GeoData360 platform usage –** based on the consumption of underlying platform infrastructure – variable based on usage.
4. **Additional ongoing support services –** Application maintenance for fixing bugs or updating to maintain compatibility with dependent software - Application evolution to providing functional enhancement or algorithm performance enhancement.

Earth observation as a business resource

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 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.

Application On-boarding

CGI offers On-boarding-as-a-Service to ensure your processing algorithms are deployed at the levels of operation, speed and automation you require. The fundamental advantages of CGI GeoData360 streamline this process and the ongoing utility of your application.

On-boarding as a Service

CGI GeoData360 is **designed for production**.

CGI GeoData360 is **Portable**.

Set up –
Covers the deployment of a new CGI GeoData360 instance to the host client's application, including a dedicated Git repository with a Gerrit review interface.

CGI GeoData360 is designed for big data in **EO imagery** or **Geospatial data**.

CGI GeoData360 has a focus on **re-usability**.

Workflow analysis and decomposition –
CGI works with you to understand your current processing workflow and your objectives for production. Distinct workflows and workflow steps are identified for processing applied to EO datasets.

CGI GeoData360 takes a **granular approach to containerization**.

Process step containerisation –
The algorithms defined as processing steps are encapsulated in Docker containers. A specification file is used to define memory, input, output and parameter requirements and allows GeoData360 to manage the handling of processing steps and resource allocation in the host Cloud environment.

CGI GeoData360's **autoscaling** is **cost-effective**.

Workflow orchestration -
A specification file is defined describing process steps to be chained together. This is key to the creation of instances of individual process steps, management of virtual resources in the Cloud and the orchestration of the processing and data transfer.

CGI GeoData360's **inbuilt monitoring**.

Workflow Optimisation –
Once a workflow is deployed, the real-world performance is assessed and the workflow is modified if a performance problem or excessive resource utilisation is identified.

CGI GeoData360's **automation** enables the creation of complex long running services with low operational costs.

Set up systematic processing –
A systematic processing schedule can be set up for you so that your application runs, unsupervised, on a regular basis and/or when new input data becomes available.

About CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. We are insights-driven and outcomes-based to help accelerate returns on your investments. Across 21 industry sectors in 400 locations worldwide, our 76,000 professionals provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

We are an IT Systems Integrator working to advise, build and operate bespoke, technically complex, mission-critical information systems. Bringing innovation to our clients using proven and emerging technologies, agile delivery processes and our expertise across space, defence, intelligence, aerospace and maritime, all underpinned by our end-to-end cyber capability.

For more information about CGI, visit cgi.com/uk/space, or email us at enquiry.UK@cgi.com

© 2021 CGI Inc.