

We take a new perspective on Space

The promise of space. Space technology offers solutions to many of the most pressing problems our planet faces. It monitors the planet's health, recording global warming, coastal erosion, deforestation, ice sheet shrinkage, El Nino. And it plays a vital part in weather forecasting.

Space-based systems provide communication and positioning technologies in remote areas and for people and goods on the move – on ships and planes, in disaster areas, in deserts and on mountains and in rural areas of the developed world without terrestrial communication.

Satellites support armed forces in remote places, enabling command and control, delivering information services, and navigating with pinpoint precision. They bring television to homes across the globe and are central to the search for life on other planets and for the origins of the universe.

SOFTWARE INTENSIVE

Space systems are increasingly sophisticated and rely on software-based intelligence to ensure success. The software must work first time and be:

- Secure, despite the broadcast nature of satellite communication.
- Able to cope with complex technical operations, such as satellite control, earth imaging, significant data processing, radio propagation and orbital mechanics.
- Ultra-reliable – once launched, satellites have to work un-maintained for ten years or more.
- Delivered on time, eliminating the risk of costly launch delays.

MISSION-CRITICAL SUPPORT

For decades, we've consistently and successfully delivered mission-critical management and control systems for space programmes. We understand the space business and help our clients build competitive advantage through the development of new, secure and cost-effective solutions. We've been involved in space projects for 40 years – we began our first space project for the forerunner of the European Space agency (ESA) in 1970, and continue to work closely with ESA on a wide range of projects.

Our client list is a Who's Who of the European space industry, including the European Commission, Space Agencies, Eumetsat, Eutelsat, Inmarsat, SES, EADS Astrium and Thales Alenia Space. Our in-depth space sector knowledge and our contribution to major technical advances ensure that we contribute to many of the world's most prestigious space programmes, including Cassini-Huygens, Galileo, Copernicus, Inmarsat 4, MSG, MTG, MTSAT, Rosetta, Skynet 5 and XMM-Newton.

KEY BENEFITS

- A leader in mission critical software systems for the space industry
- We work on the major European navigation, communication and earth observation programmes and are specialists in space security and ground control systems.
- 40 years' experience of the space business coupled with commercial and technical expertise
- A reputation for resilient, secure and highly cost-effective programmes.
- Our highly qualified people bring years of specialist knowledge and experience to space projects
- Our software has supported the missions of more than 200 satellites.
- We share innovative uses of space and satellite technology with commercial organisations to help them solve their business problems effectively.

"CGI is an important player on Galileo CGI's ability to combine leading security capability with the implementation of complex technical systems is central to the success of Galileo."

European Space Agency (ESA)

For example, we:

- Delivered the Galileo satellite constellation control facility that will control all Galileo's 30 satellites – Europe's strategically important satellite navigation system
- Provided the flight software for the Huygens probe which successfully landed on Titan, Saturn's largest moon.
- Delivered systems that produce weather satellite images and data for Europe, Africa, the Pacific and the Indian Oceans, covering a population of over 3 billion people.
- Supply systems that validate GPS navigation messages, ensuring their safe use by the aviation industry.

SERVING THE SPACE INDUSTRY

We develop and implement secure, cutting-edge space systems:

- **Monitor and control systems** - technology that reliably and cost-effectively manages space assets.
- **Satellite applications and services** - that extract information from satellite data, including weather, navigation, telecommunication and geographical survey data. Our systems meet the highest safety critical standards, operating reliably around-the-clock, resolving the toughest technical issues and enabling clients to achieve maximum performance from their space assets.
- **Business management systems** - enterprise applications enable space companies to run their businesses. We can outsource these systems, helping clients to reduce bottom line costs and risks.
- **Telecoms and broadcasting systems** – we work for 6 of the top 10 global telecom service providers and have developed some of the world's most advanced systems for satellite network and service management, billing, messaging and subscriber management. We apply this telecoms expertise to satellite-based services.
- **Ground segment prime contractor** - the ground infrastructure of space programmes has complex software-intensive systems which we design and manage, ensuring deployment on time and to budget.

WHY WORK WITH CGI?

Our people bring years of specialist knowledge and experience to space projects coupled with technical and security excellence in IT system development and integration and a proven track record in outsourcing provision. We can help create a business case for investment, drawing on our market and technology trends knowledge and space mission concepts.

To meet your commercial requirements, we also work with specialists from across our business, including experts in commercial telecoms, intelligent transport systems, security, environmental regulation, geographical information and digital mapping services. For example, we are the prime software contractor within the EADS Astrium secure communications team for the UK Ministry of Defence's Skynet 5 programme. Our commercial telecom experience provides over one million lines of software code integrated with 40 commercial products to enable the team to deliver the right services to the armed forces.

ABOUT CGI

With over 69,000 professionals in 40 countries, CGI fosters local accountability for client success while bringing global delivery capabilities to clients' front doors.

Founded in 1976, CGI applies a disciplined delivery approach that has achieved an industry-leading track record of on-time, on-budget projects.

For over 40 years we have worked in the Space industry delivering complex, mission-critical space systems. Our solutions are secure, often in complex technical environments, proven to work first time, every time, ultra-reliable and delivered on time to avoid costly delays.

We work on the major European navigation, communication and earth observation programmes and are specialists in space security and ground control systems. We share innovative uses of space and satellite technology with commercial organisations to help them solve their business problems effectively. Our software has supported the missions of more than 200 satellites.

Our high-quality business consulting, systems integration and outsourcing services help clients leverage current investments while adopting new technology and business strategies that achieve top and bottom line results.

As a demonstration of our commitment, our average client satisfaction score for the past 10 years has measured consistently higher than 9 out of 10.

For more information about CGI, visit www.cgi.com or email: info@cgi.com.