Charged to innovate. Driven to solve.
Since our founding over forty years ago as a manufacturer of land seismic equipment, ION has evolved to become a leading provider of advanced, integrated geophysical solutions that help oil & gas companies and seismic contractors overcome their greatest imaging and operational challenges.

PROVEN INNOVATORS.
ION has a rich history of innovation. We were the first to commercialize cableless acquisition technology using digital sensors, and the first to make streamer steering technology available industry wide. Our streamer positioning systems and command and control software are the industry standards aboard marine seismic vessels. We were at the forefront of multicomponent, wide azimuth acquisition and processing, and were the first to commercialize reverse time migration. Moreover, since 2002, our BasinSPANS® seismic data libraries have provided E&P companies a superior alternative to traditional 2D spec data.

UNIQUE BUSINESS MODEL.
ION is a technology company driven to develop and apply proven, innovative technologies and services to help our clients find and produce hydrocarbons, safely and efficiently. Our strategy is to participate in all aspects of the geophysical cycle – planning, acquisition, processing, and interpretation – while providing the highest value at every stage. Rather than investing in our own crews, we utilize third-party contractors for data acquisition in new venture projects. This allows us to use our capital for investing in our greatest assets – our people and technologies.

ONE COMPANY. ONE MISSION.
From our beginnings as a manufacturing company, we have dramatically expanded both our portfolio of offerings and our global footprint. Operating from over twenty locations across all of the key petroleum centers around the world, we bring together some of the brightest minds in the business. While we’ve grown through acquisition of leading brands, such as GX Technology, Concept Systems, DigiCOURSE, and Sensor, we are one company with a singular mission. ION. Charged to innovate. Driven to solve.
Unlocking Unconventional Reservoirs

Over the last ten years, unconventional reservoirs have emerged to take center stage in the global E&P sector. Engineering techniques, such as hydraulic fracture stimulation, horizontal drilling, and steam-assisted gravity drainage, are enabling operators to extract maximum value from these reservoirs. As such, operators today are increasingly using seismic to understand and predict the geologic drivers behind productive wells to optimize drilling plans and better design stimulation programs.

Since 2003, our GX Technology (GXT) group has processed over 200 projects in shale plays, employing advanced imaging technologies, such as our proprietary Azimuthal Velocity Analysis (AZIM™) and multicomponent, full-wave processing. In total, GXT has delivered more than 17,000 square miles of 3D seismic data across virtually all the major North American shale plays. Our Reservoir Solutions team of experienced geoscientists and engineers offers a wide range of interpretation solutions, ranging from simultaneous inversions and fracture mapping to fully integrated interpretations including selection of optimized well locations.

Where legacy seismic data does not exist or is not sufficient to meet an oil & gas company’s imaging objectives, we offer the expertise of ION’s GeoVentures group. They provide start-to-finish survey program management that extends from feasibility studies and survey design and planning, to data acquisition, processing, and interpretation, for both proprietary surveys and our ResSCAN 3D multi-client programs.

Conquering Challenging Environments

ION specializes in helping oil companies and seismic contractors acquire the highest-quality images in some of the world’s most challenging E&P environments. When operators needed seismic data in the icy waters of the Arctic, where no modern seismic existed, they turned to ION. We responded to the challenge by creating and employing new technologies that enabled data acquisition under the ice. GXT then designed and pioneered processing techniques to attenuate noise from various sources, including the ice. As a result, we were able to acquire data further north than ever before and to dramatically extend the traditional data acquisition season.

Whether you are seeking to acquire frontier data in the icy Beaufort Sea, running a high-channel-count survey in the harsh deserts of the Middle East, planning a survey in highly obstructed shallow water, or planning an integrated land and transition zone survey, we have the technologies and expertise to help capture the data you need, safely and efficiently.
Mastering Complex Geologies

Obtaining accurate images of the subsurface under and around salt, through basalt, or in complex carbonate reservoirs requires going beyond conventional seismic methods.

ION is uniquely qualified to help oil & gas companies and contractors overcome the operational and imaging challenges posed by complex geologies. Our GXT group is unrivaled for imaging complex salt bodies. Since commercially introducing reverse time migration (RTM) in 2005, we’ve increased our compute power to deliver the fastest RTM code in the industry, and have applied our advanced RTM technique to over 100 projects worldwide, including in the Gulf of Mexico, the North Sea, the South Atlantic basin, and offshore West Africa.

Exploring New Frontiers

As demand for hydrocarbons continues to increase around the globe, expanding exploration has become critical. To provide oil & gas companies with new information, insights, and prospect generation opportunities for under-explored or unexplored frontier basins, ION created BasinSPANS.

BasinSPANS are basin-wide seismic data libraries that are acquired and imaged using the most advanced geological and geophysical technology available. SPANS are custom designed to provide critical insight into the geologic evolution, deep basin architecture, and depositional and structural history of a petroleum system. Since delivering GulfSPAN in 2002, we have amassed over 250,000 km of high-resolution, depth-migrated data across virtually all the major offshore basins in the world.

Exploiting Mature Reservoirs

Since 1980, the number of new field discoveries has been declining. In the midst of this decline, sustained high oil prices are improving reservoir economics, providing E&P companies with further incentive to get the most out of existing fields. To maximize production, oil companies are increasingly turning to 4D seismic to detect subtle changes and fluid movements in their reservoirs, informing appraisal, production, and EOR programs, and locating bypassed hydrocarbons.

ION’s Concept Systems expert staff has developed software and services that optimize the entire marine towed streamer 4D planning and acquisition workflow and has been involved in the design and management of over 100 4D surveys. Our marine acquisition technologies have helped the E&P industry execute some of the most complex survey geometries, including numerous wide azimuth and multi-azimuth programs around the world.
Charged to innovate. Driven to solve.

ION Geophysical Corporation is a leading provider of geophysical technology, services, and solutions for the global oil & gas industry. ION’s offerings are designed to allow E&P operators to obtain higher resolution images of the subsurface to reduce the risk of exploration and reservoir development, and to enable seismic contractors to acquire geophysical data safely and efficiently.