exactEarth & Esri
Monitoring the World’s Oceans
Joint Value Proposition

exactEarth supplies the most comprehensive information on the movement of the world’s shipping.

Esri supplies the world’s leading GIS (Geographic Information System) for geospatial analysis and planning.

Seamlessly integrated, exactEarth and Esri provide the complete solution to map, model, and understand the world’s oceans and our interaction with, and impact on, this most important of ecosystems.

Our ability to understand and model change in this dynamic landscape is rapidly growing as improved methods of measurement and detection, such as exactEarth’s space-based AIS systems (Automatic Identification System), join with advanced tools from Esri that now go beyond just the display of marine data and enter the world of complex simulation modeling.

Together, exactEarth and Esri represent the very forefront of new research concepts and methods to aid in the surveillance, understanding and preservation of our Oceans.
exactEarth Data for Esri Users

effectAIS

effectAIS is a global vessel monitoring and tracking data service based on world leading Satellite AIS (S-AIS) detection technology. This data enhances maritime domain awareness for government authorities and selected commercial organisations around the world, with superior detection capability, secure distribution of information and unparalleled quality of service.

effectAIS is fully compatible across the Esri family of GIS products, providing a rich and seamless interface for information on the world’s shipping. Whether it be loading data into your geo-database for analysis, accessing data on-demand across the internet or receiving a streaming feed for operational management, effectAIS is designed to provide a flexible choice of access to the premium source of data on global ship movements and behaviours.

effectAIS is made available in 3 main ways for Esri users:
- **Streaming feed**—through Tracking Server or its replacement GeoEvent Processor for Server, with access through ArcGIS online being investigated
- **Historical Archive**—available in a variety of formats for import into your SDE/Geodatabase
- **On-demand**—web mapping and web feature services across the internet for use with Esri JAVA API websites, ArcGIS Online

and with a free add-in for ArcMap users provide full filtering and query capabilities

**exactAIS Geospatial Web Services™**

exactAIS Geospatial Web Services (GWS) delivers maritime vessel information, derived from Satellite and Terrestrial AIS sources, directly into any geospatial platform of choice. exactEarth now offers a web services solution that allows instant access to exactAIS data in an on-demand environment.

**Features and Benefits**
- Interoperability – ability to seamlessly integrate exactAIS with existing geospatial platforms with little to no time or effort (Esri ArcGIS for Desktop, ArcGIS Explorer)
- Removes the complexity of processing AIS messages
- Provides the ability to create custom data views using filters
- Improved efficiency: instead of spending money (and time) setting up and managing AIS database environments, allow exactEarth to ‘host’ the data and serve you on-demand
- On-demand data: get what you want, when you want it – and only pay for what you get

This new way to view exactEarth’s industry-leading AIS data is the most efficient, accessible way to obtain the complete maritime picture for your area of interest. These data can be accessed when desired, and integrated effortlessly with any geospatial platforms - removing barriers to full data integration.
Esri Solutions

ArcGIS for Server

ArcGIS for Server gives the fine-grain control needed to provide secure, reliable GIS services to every web, mobile, and desktop application in an organization. ArcGIS for Server is a GIS services power plant; it is centralized management of all services for mapping, imagery, globes, geocoding, geodata management, and more. ArcGIS for Server delivers powerful GIS functionality, such as web editing, network analysis, and schematics, as well as modeling, statistical, and other geo-analytic tools. ArcGIS for Server responds to the demand for maps and GIS tools. Users can quickly scale their GIS system to accommodate spikes in demand, as well as grow capacity. GIS servers can be added and removed as needed within the user’s infrastructure, in virtualized environments, and in the cloud. ArcGIS for Server (with the GeoEvent Processor for ArcGIS extension) can also incorporate real-time data into user’s GIS applications; it can connect to common sensors and feeds and includes a set of real-time filters and analytical capabilities. This allows users to efficiently detect and respond to the most important events, locations, and thresholds for operations.

GeoEvent Processor for ArcGIS Server

ArcGIS for Server, with the GeoEvent Processor for ArcGIS extension, can incorporate real-time data into the user’s GIS applications; it can connect to common sensors and feeds and includes a set of real-time filters and analytical capabilities. This allows the user to efficiently detect and respond to the most important events, locations, and thresholds for operations.

This extension allows users to connect with virtually any type of streaming data and automatically alert personnel when specified conditions occur—all in real time. GeoEvent Processor changes everyday geographic information system (GIS) applications into frontline decision applications, helping to respond faster and with remarkable accuracy whenever and wherever change happens.

With this extension, users can connect to any sensor (includes connectors for common sensors including in-vehicle GPS devices, mobile devices, and social media providers), process and filter real-time data (can accommodate multiple streams of data flowing continuously through filters and processing steps, allowing detection and focus on the most important events, locations, and thresholds), and monitor assets, update maps, and alert key personnel (track most valuable assets on a map and alert key personnel, update the map, and append the database when locations change or critical thresholds are met).

ArcGIS Online

ArcGIS Online allows users to quickly create interactive maps and apps and share them. Ready-to-use apps are available with ArcGIS Online, allowing users to seamlessly integrate information with GIS, monitor events, activities, and assets through interactive dashboard, map and enrich business data, discover and share maps, and create engaging map stories to share. There is also access to ready-to-use maps on hundreds of topics, which can be combined with the user’s data. Powerful analytics permit users to use different relationships to gain greater understanding and make better decisions on different topics. These ready-to-use capabilities work with maps and apps. ArcGIS Marketplace is available through ArcGIS Online; this is a one-stop destination for apps and data provided by authorized Esri partners, distributors, and Esri.
exactEarth, based in Cambridge, Ontario, is a data services company providing the most advanced location-based information on maritime traffic available today. exactEarth offers highly secure data subscription services for the delivery of vessel information ready for easy integration into operational maritime, C2 or geospatial intelligence systems for enhanced maritime domain awareness and operational maritime support.

The exactAIS data service is based on highly reliable equipment and includes an extensive customer support organisation for data monitoring, delivery and integration. In addition, exactEarth archives all AIS data which provides a unique ability to offer valuable historical data products and information to customers.

As the primary source for Satellite AIS data delivery, exactEarth has over 100 global customers on five continents ranging from port authorities to national governments, coast guards, safety administrations and Navies. exactEarth satellite AIS data service is integrated as a critical element providing enhanced maritime domain awareness for improved vessel management and scheduling, environmental protection, search and rescue operations, and defence and border securing applications.

Esri

Esri develops geographic information systems (GIS) solutions that function as an integral component in nearly every type of organization.

On any given day, more than a million people around the world use Esri's GIS to improve the way their organizations conduct business. Esri gives GIS users what they need by listening closely and incorporating their feedback and recommended improvements. Esri also hosts the largest GIS industry event in the world, publishes two of the most widely circulated periodicals in the industry, and operates the leading GIS book publisher.

Esri software is used by more than 350,000 organizations worldwide including most U.S. federal agencies and national mapping agencies, 45 of the top 50 petroleum companies, all 50 U.S. state health departments, most forestry companies, more than 24,000 state and local governments, and many others in dozens of industries.

As a company with the mission to inspire and enable people to positively impact their future through a deeper, geographic, understanding of the changing world around them, Esri recognizes that this understanding must involve a strong commitment to the oceans.

The Esri Oceans GIS Initiative has been motivated in great part by the need to provide effective mapping tools and techniques to respond to recent disasters. It is also motivated by a sincere desire to assist in the implementation of the US National Ocean Policy, for which GIS provides a crucial decision-support engine. To support a better understanding of our oceans, Esri is focused on improving and expanding their products, tools, services, partnerships and connections with the broader ocean community.