CASE STUDY

Product solution for: PEMEX SICORI

DigitalGlobe™

Improved decision making with DigitalGlobe imagery

For years, PEMEX's internal GIS databases often contained outdated and low-resolution visual information on their nationwide infrastructure and its surroundings. Due to technology infrastructure limitations, often only paper maps were available to end users in the field. PEMEX also struggled with duplication of effort and spending when different departments independently purchased imagery for the same locations in Mexico.

Situational complexities

With nationwide exploration, production, refining, and distribution operations to manage, access to accurate information on field assets and their surrounding environments is vital to success. SICORI, PEMEX's internal organization responsible for providing geospatial services, ensures that PEMEX's thousands of employees have the spatial information they need to monitor, plan, and protect PEMEX's infrastructure as well as the communities and natural areas surrounding it.

Limited interoperability between data sources and various software platforms necessitated an increasing drive toward open standards. SICORI recognized this as a need for a more modern technology infrastructure. This prompted an initiative to move PEMEX toward this goal by introducing a more robust and open system, but a limited amount of earth imagery data existed inside this new framework.

Company information

PEMEX is one of the world's leading providers of oil and petrochemicals and is a key driver in Mexico's growing economy.

PEMEX®

CASE STUDY

PEMEX SICORI

An investment in the future

SICORI decided to invest in a centralized service that could deliver detailed imagery directly into a variety of desktop and web-based mapping applications via a web services platform. They subscribed to national online imagery through a WMS form of DigitalGlobe's services for mapping software. Cloud Services provides an online subscription to a vast library of high-resolution imagery collected from DigitalGlobe's constellation of satellites and aerial networks. The service provides high-resolution 60 cm imagery of most of Mexico regularly refreshed with new images as part of DigitalGlobe's strategic content collection planning. SICORI made their subscription available to PEMEX project management, mapping, and planning staff via internal professional software such as CADCorp®, ESRI®, and Autodesk® software.

Improved access

SICORI also integrated the service into a new web based mapping application accessible to thousands of employees in the field and in business management positions. This implementation, built on the open source NASA World Wind 3D visualization platform, tied several different databases of PEMEX vector and raster geospatial information into one viewer, enabling easy access across departments. For increased performance inside this application, SICORI chose to cache imagery tiles from the DigitalGlobe Web Mapping Service into a mosaic that could be delivered internally by a central server to allow smoother performance for angular views and virtual flyover simulations.

"Thousands of our field and management staff were able to view the area simulatanously, in their preferred software platform, for a more unified and rapid response."

GUILLERMO CRUZ, INFORMATION MANAGEMENT LEADER, SICORI

INDUSTRIES

- Civil government
- Oil & gas
- Telecom/utilities

USES

- Asset monitoring
- Damage assessment
- Land management and mapping
- Facilities planning
- Emergency management

PRODUCTS USED

- Cloud services WMS
- Standard imagery

Challenge	Fully leverage available satellite technology to deliver detailed imagery directly to a variety of desktop and web-based mapping applications.
Solution	Utilize the vast and centralized high-resolution imagery service of DigitalGlobe to increase efficiency, eliminate redundancy, and reduce expense for PEMEX project management, mapping, and planning staff.
Results	The 60 cm resolution imagery provided extensive detail of facilities and nearby structures, roads, natural features, and its high spatial accuracy ensured proper alignment with PEMEX's various vector data sets.

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