



# ERDAS APOLLO SOLUTION SUPPORTS NEW MEXICO RGIS DATA CLEARINGHOUSE



Located in the southwestern United States, the State of New Mexico is the fifth-largest state by area, but one of the least densely populated. Its landscape ranges from wide, rose-colored deserts to broken mesas to high, snow-capped peaks and heavily forested mountain wildernesses. This diversity in terrain and ecosystem types—and in human dynamics—results in a large variety of and demand for geospatial data sets.

These demands make the New Mexico Resource Geographic Information System (NM RGIS; [rgis.unm.edu](http://rgis.unm.edu)) a crucial geospatial service for the state. RGIS is publicly accessible to and used by state agencies, local governments, tribal governments, universities, federal agencies, and private sector entities. RGIS, New Mexico's only geospatial data clearinghouse and one of the largest in the country, was created by the New Mexico Legislature in 1988, and has been hosted and managed by the Earth Data Analysis Center (EDAC) for the entire time.

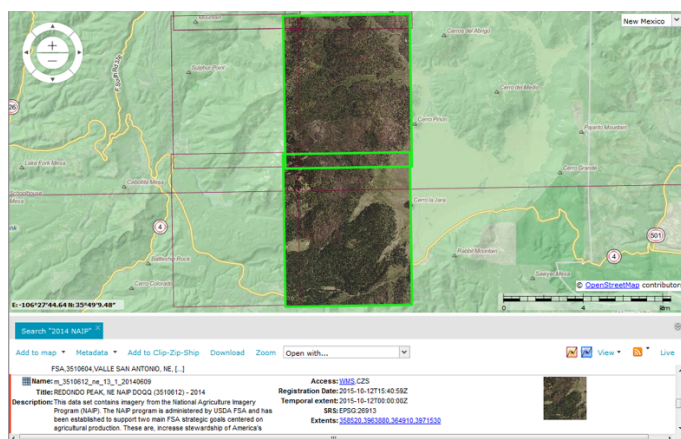


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EDAC was established at The University of New Mexico (UNM) in 1964 to transfer NASA space-based technology to the private and public sectors. EDAC is a center of expertise in the geospatial technologies, well known among federal agencies, state, local and tribal governments, professional societies, organizations, and advisory bodies nationally and internationally. They bridge UNM's academic units and the external communities via partnerships, by facilitating and stimulating collaborations, and by providing professional services. These partnerships include government agencies, private organizations, and regional universities.

As the organization with statutory responsibility for NM RGIS, EDAC designed and developed—and continues to develop and enhance—the RGIS Program and Clearinghouse. EDAC, with the UNM Bureau of Business and Economic Research (BBER), the RGIS partner for Census and socioeconomic data, steadily builds the RGIS data, information, and data-service offerings and technologies to meet the many needs of New Mexico's geospatial communities.



NM RGIS Data Portal: Add to Map (two DOQQ images)

## THE CHALLENGE

The New Mexico RGIS Clearinghouse is composed of thousands of vector and raster data sets and web data services, including political and administrative boundaries, place names and locations, current and historical census data, nearly 30 years of digital orthophotography, 80 years of historic aerial photography, satellite imagery, elevation data, transportation data, wildfire boundaries, and natural resources data. EDAC built an in-house solution to provide access to these data; however, the system was designed to be used by the geospatial community and for academic researchers. Over time the needs of the two communities diverged and EDAC recognized that it was time to reinvest into the RGIS geospatial community.

Selecting an efficient and responsive data management platform capable of providing Web Mapping Services (WMS) was crucial, given the increased volume and file sizes of the RGIS data. Moreover, with U.S. federal agencies transitioning to ISO Standards, EDAC needed to implement a solution that met the ISO standards while providing scalability and usability for the organization's future needs. Shirley Baros, EDAC's Executive Director and the person responsible for the RGIS Program, explained, "EDAC began acquiring and generating geospatial data over 20 years ago, and recently chose to move to an efficient, commercially available data management platform to meet the specific needs of the RGIS community of users. After careful deliberation, we selected ERDAS APOLLO."

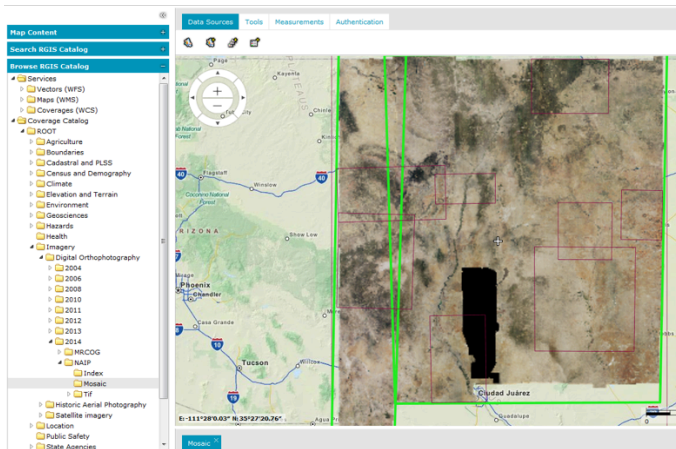
## THE SOLUTION

After exploring possible solutions to the challenges facing the NM RGIS team, EDAC believed the ERDAS APOLLO Data Management capabilities from Hexagon Geospatial could meet the new requirements and focus. ERDAS APOLLO provided EDAC the ability to build a centralized geospatial catalog of raster and file-based/database vector data sets, as well as data services and non-geospatial file types. These data can be accessed quickly through a geospatial fence or keyword search via a user-friendly web portal. The solution also offers GeoProcessing capabilities, as well as download and Clip-Zip-Ship features.



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NM RGIS Data Portal: New Mexico Statewide DOQQ Mosaic (MRCOG 2014)

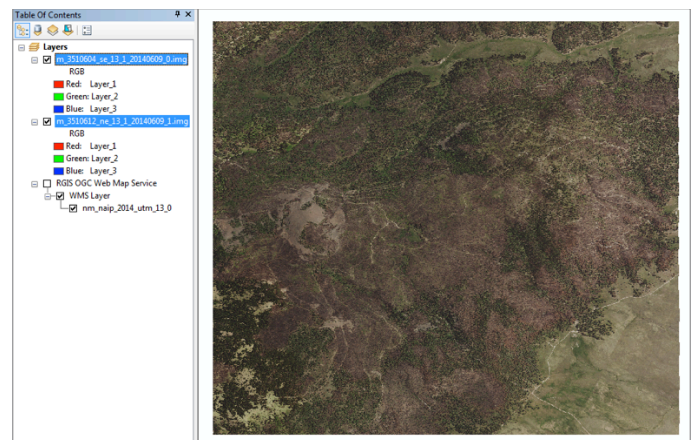
EDAC also added Web Mapping Services (WMS) for recently acquired LiDAR-derived data products to the ERDAS APOLLO-powered NM RGIS Data Clearinghouse. Together, EDAC and Hexagon Geospatial are expanding the LiDAR-cataloging capabilities of ERDAS APOLLO to include the LiDAR LAS files used by EDAC, adding strength to ERDAS APOLLO's role in big-data management.

"What makes the Hexagon Geospatial offering unique is the high-performance delivery of raster data through the fastest image delivery server solution currently on the market," notes John Savickas, IT Program Manager for EDAC. "It is also important that the solution be interoperable. ERDAS APOLLO offers OGC-compliant services (WMS, WMTS, WCS) and supports ESRI's GeoServices. And, we are using Hexagon Geospatial's ESRI plugin so users can search the RGIS catalog using ArcMap."

ERDAS APOLLO embraces OGC services as a primary, native implementation for accessing data, and it ensures the greatest interoperability and flexibility when combining ERDAS APOLLO into EDAC's current workflows. ERDAS APOLLO also offers a strong security model and an optimum solution for avoiding redundancy through its powerful raster styling engine.

By implementing ERDAS APOLLO, the NM RGIS Program is better able to achieve its mission to develop and expand geospatial data, geographic information, and the use of GIS technologies throughout New Mexico. It is now easier and more intuitive for state and local governments, educational institutions, nonprofit organizations, private businesses, and the public to access and use this comprehensive geospatial resource.

Shirley Baros adds, "We are excited to announce that we are currently working with university officials to explore the mechanism by which we can become a business partner with Hexagon Geospatial and can provide data migration consulting services to allow other Hexagon Geospatial customers a relatively easy implementation of their new ERDAS APOLLO data management system."



Desktop ArcGIS: Mapped area of interest, image downloaded from NM RGIS Data Portal CZS link

## ABOUT POWER PORTFOLIO

The Power Portfolio from Hexagon Geospatial combines the best photogrammetry, remote sensing, GIS and cartography technologies available. Flowing seamlessly from the desktop to server-based solutions, these technologies specialize in data organization, automated geoprocessing, spatial data infrastructure, workflow optimization, web editing, and web mapping.

The Provider Suite enables you to comprehensively manage and deliver volumes of geospatial and business data.



## ABOUT HEXAGON GEOSPATIAL

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