ZIVARO
BRILLIANCE

CASE STUDY:
Zivaro Plans, Builds and Manages an AWS-Hosted Solution for the National Levee Database (NLD)

THE CHALLENGES:

The National Levee Database (NLD) is a congressionally authorized index documenting information regarding the locations, conditions, and risks of United States levees. The US Army Corps of Engineers (USACE) oversees the database. They own and operate over 600 dams and levees, and more than 12,000 miles of commercial inland navigation channels. USACE also maintain harbors and wetlands, supporting military construction to protect our environment and quality of life. Channels managed by the US Army Corps of Engineers are critical for our nation's safety.

The NLD contains information of approximately 8,000 levee systems; 6,000 contain only location data while 2,000 contain detailed information regarding the condition and risks of the levees. Levee database content is not limited to referencing levees owned and operated by USACE. Information is included in the database referencing levees owned and operated by; tribes, states, municipalities, levee boards, and private entities.

USACE needed a cloud-based solution that included attributes of all of our nation's levees relevant to; flood fighting, design, construction, operations, maintenance, repair, and inspection.

Zivaro serves as USACE's strategic partner to design, deploy, and manage the NLD.

$ Secure and cost-effective database solution hosted on AWS

⚙ Automation and platform services reduce costs and time-to-mission

📅 Access to real-time data from various sources

⚙ AWS ensures DoD SRG and DISA STIG-compliance

Zivaro and AWS ensure the **safe and secure management** of our nation's waterways.

THE SOLUTION:

USACE chose AWS to host its National Levee Database. It's the best-performing, most secure, and cost-efficient solution available. Deploying the NLD on AWS is one component of a larger USACE initiative to modernize their applications to take advantage of automation and platform services that reduce costs and time-to-mission.

The NLD provides up-to-date locations and characteristics of levee systems relevant when responding to natural disasters and floods. System usage spikes before, during, and after natural disasters. Due to its highly-variable and unpredictable usage patterns, the database can't operate in a legacy data center environment.

Today, AWS securely hosts the application. It complies with DoD SRG and STIG requirements - AWS provides a secure, accredited baseline to meet these requirements.

THE OUTCOMES SPEAK FOR THEMSELVES.

The database includes attributes of levees and floodwalls relevant to flood fighting, design, construction, operation, maintenance, repair, and inspection. Because the locations and characteristics of levees can be viewed on a map with real-time data from sources like stream gauges and weather radar, the database is useful for many public agencies and individuals, including flood plain managers, emergency management agencies, levee system sponsors, and people who live or work behind a levee.

Zivaro's NLD refresh gives data managers more tools to keep the information updated. The database also now has an improved dashboard that makes finding and interpreting levee information easier than ever.