

Utilizing GeoEvent Server to Affectively Identify Risk

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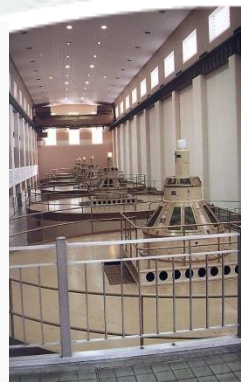
Geographer

USACE, Nashville District



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Climatic Data

According to the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center, between 1980 and 2013 there were 151 weather events where damages “reached or exceeded \$1 billion”. In 2013 alone there were over \$7 billion in damages and 109 deaths related to severe weather outbreaks (NOAA, 2014).



Flood Risk Management

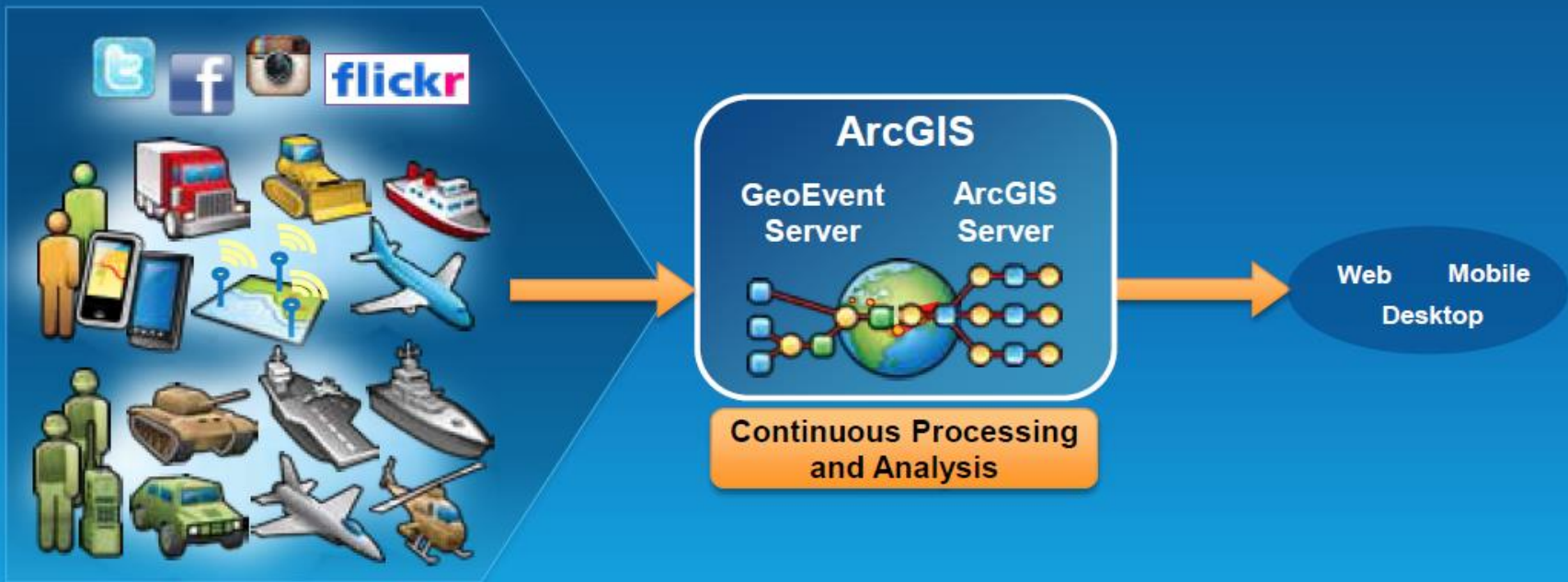
One of the primary missions of the U.S. Army Corps of Engineers is to support flood risk management activities of communities in both urban and rural areas throughout the United States.



ArcGIS GeoEvent Processor for Server

Enabling Real-Time GIS

- Integrates and exploits streaming data
 - receive real-time streaming data
 - perform continuous processing and analysis on streaming data
 - sends resulting output events to destinations

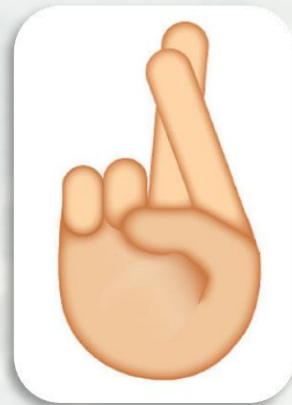


Practical Applications

- Service is used to better identify, communicate, and manage risks from flood hazards within the district in response to the devastating flooding in 2010.
- Traditional floodplain maps are based on model simulation of probabilistic storm events, such as a 100-year storm event.
- This provides actual storm-specific rainfall and stream/flood information based on a system of measurement stations (i.e. gauges) located throughout the district.
- The system integrates existing gauges maintained by the USACE and other agencies resulting in an overall network.
- The goal is to reduce the loss of life and flood-related property damage by providing emergency managers and the public with more timely, detailed, and accurate information.
- The system utilizes multiple technologies to collect and feed real-time data to GIS servers for dissemination.



Live Demo



Questions



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