EDAC's Web-based Geospatial Applications and the Open Source Technologies Behind Them

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Overview

- Review of relevant standards and technologies

- Description of EDAC's implementations for three projects

  - Public Health Applications in Remote Sensing

  - Environmental Public Health Tracking Prototype

  - Antelope Management Information System

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Relevant Standards

- World Wide Web Consortium (W3C)

  - Hypertext Transfer Protocol - HTTP

  - Universal Resource Identifier - URI/URL

  - Extensible Markup Language - XML

  - Hypertext Markup Language - HTML/XHTML

  - Document Object Model - DOM

  - Cascading Style Sheets - CSS

  - Simple Objects Access Protocol - SOAP

Relevant Standards

- **Open Geospatial Consortium**

  - Geography Markup Language - GML

  - Web Map Services - WMS

  - Web Feature Services - WFS

  - Web Coverage Services - WCS

  - Simple Features Specification for SQL - SFS

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Employed Technologies

- GNU/Linux

- Apache Web Server

- Minnesota MapServer

- PostgreSQL/PostGIS

- GRASS

- R Statistical Programming Language

- Python, PHP, Perl

- Supporting libraries: GDAL, OGR, Proj
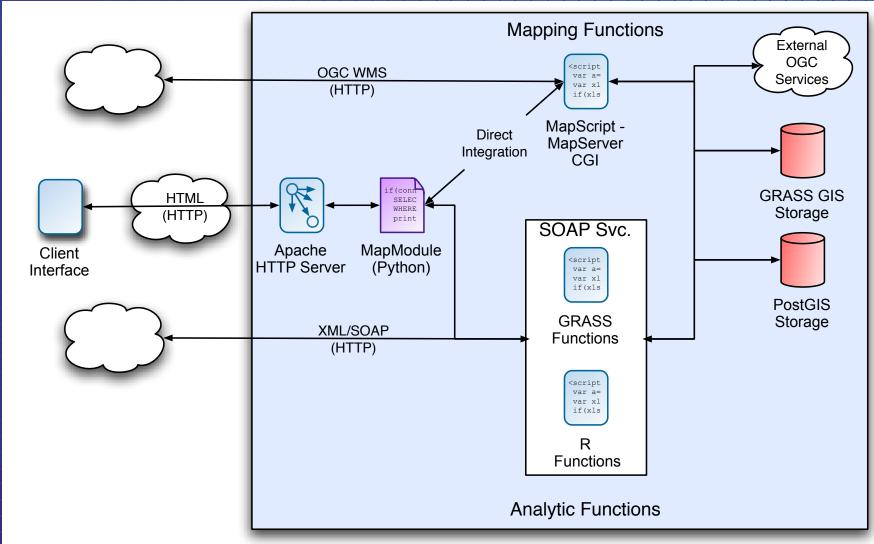
Applications

- Three web-based geospatial applications

  - Public Health Applications in Remote Sensing (NASA) - PHAIRS

  - Environmental Public Health Tracking Prototype (NM DOH/ CDC) - EPHT

  - Antelope Management Information System (NM DGF) - AMIS
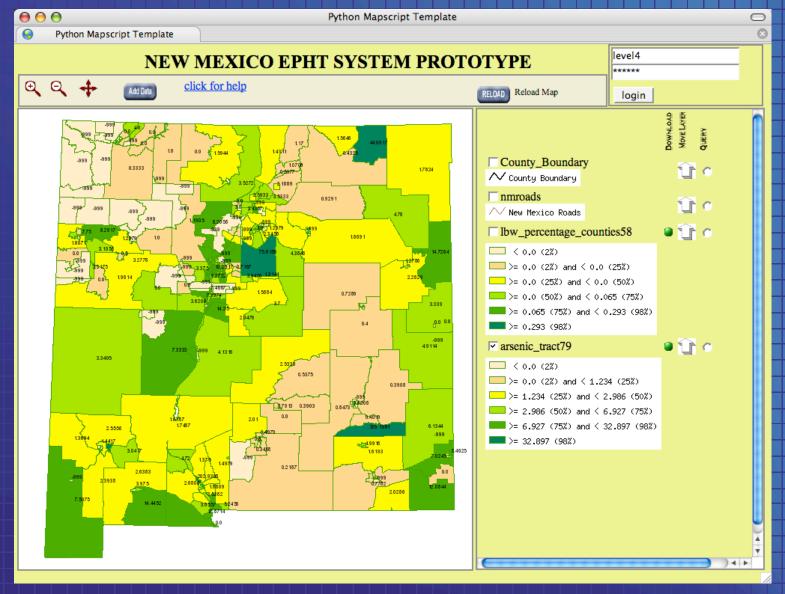
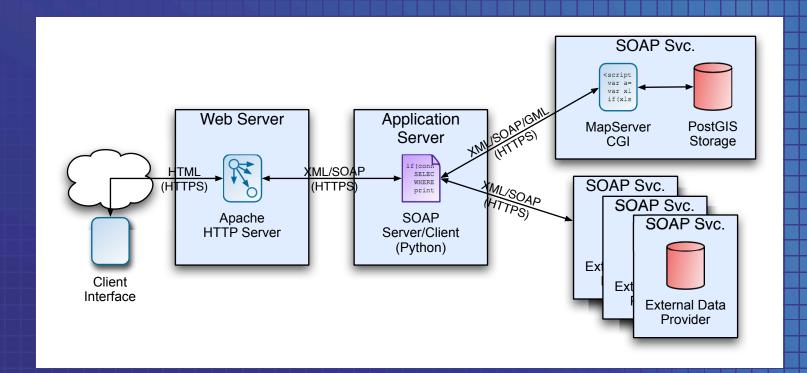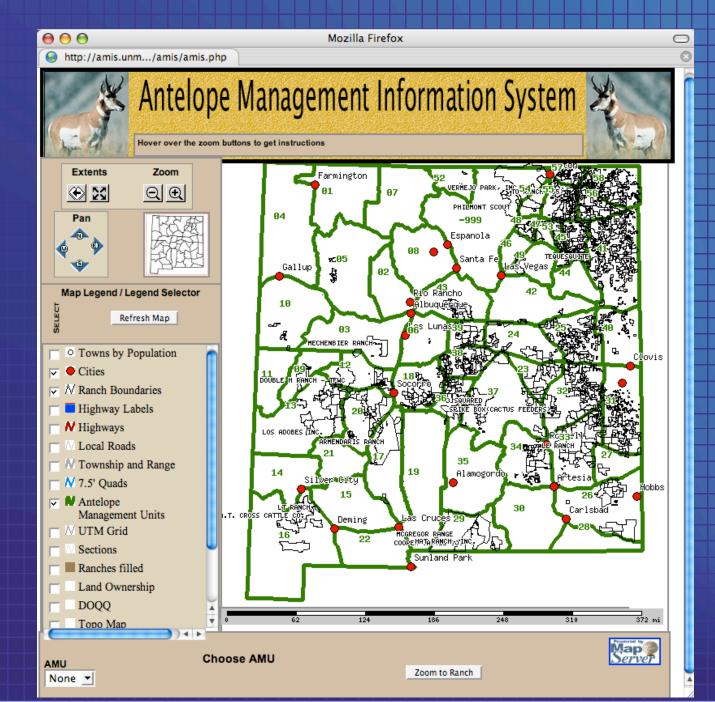# PHAIRS

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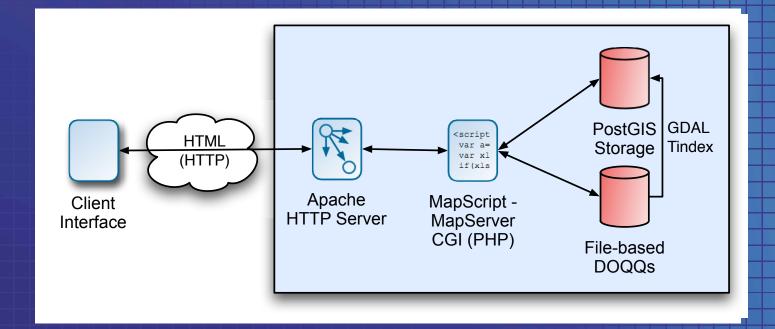# AMIS

Benefits of Open Source and Standards in these Projects

- Flexible development and deployment

- Strong support for interoperability standards

- Platform independence

- Stability

Summary

- Over the past three years EDAC has had great success in deploying Open Source-based Internet mapping applications based upon a suite of Internet and GIS standards

- These have ranged from interactive mapping applications to applications that expose sophisticated analytic and data management capabilities

- For more information contact

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