NSDI CAP GRANT 2009

Category 2: Behind the Portal - Use of GOS Map and Data Services

The Coeur d'Alene Tribe, North Carolina Department of Environment and Natural Resources, and US Environmental Protection Agency GOS Integration Project

Project Plan

V1.0

5/12/09

Change History

Version	Date	Description of Changes
1.0	5-12-09	Initial draft by Brian Welde
1.1	<date>	

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Project Overview (cont'd)

- Purpose
  - More efficient and timelier access to information improves business
  - Superfund remediation is a geographic issue that affects multiple parties
    - Coeur d'Alene Tribe
    - North Carolina Department of Environment and Natural Resources (NCDENR)
    - Environmental Protection Agency (EPA)
  - Geospatial One Stop (GOS) can be improved through a suite of reusable and customizable search components that augment existing capabilities

Project Overview (Cont'd)

US EPA SUPERFUND HAZARDOUS WASTE SITES (FGDC) / ETAT.SUPERFUND_2005(ISO) - Mozilla Firefox

http://www.geodata.gov/E-FW/DiscoveryServlet?uuid={1CAE378B-82B7-41CB-BBC9-0F0A095AE8FE}&xmltransform=metadata_to_html_

geodata.gov
U.S. MAPS & DATA

Your One Stop for Federal, State & Local Geographic Data

US EPA SUPERFUND HAZARDOUS WASTE SITES

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Content Description
Abstract: This dataset contains point locations for U.S. hazardous waste sites on the National Priority List (NPL) of EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). These sites are also known as Superfund Sites.
Purpose: The National Priorities List (NPL) is a published list of U.S. hazardous waste sites that are eligible for extensive, long-term cleanup under the Superfund program. Congress established the Superfund Program in 1980 to clean up waste sites. Superfund is administered by the U.S. Environmental Protection Agency (EPA) in cooperation with individual states and tribal governments. Superfund locates, investigates and cleans up hazardous-waste sites throughout the country. Superfund cleanups are complex and require the skills of experts in science, engineering, public health, management, law, community relations and other fields. Potentially Responsible Parties (PRPs) who contributed to the pollution are contacted and involved in the cleanup. Members of the community and potential owners are informed of the process and invited to comment. All interested parties, including EPA, are called stakeholders. Superfund's ultimate goal is to protect you and your environment from the effects of hazardous wastes. This boundary information was developed as one component of the Office of Emergency and Remedial Response (OERR) National Priority List Site Coordinate Quality Assurance and Digitizing project undertaken in 1992 with the EPA's Environmental Photographic Interpretation Center (EPIC).

Done

Project Overview (cont'd)

- Relevant geospatial data obtained from GOS for superfund remediation
  - Land use and management
  - LIDAR
  - Orthophotography
  - Agriculture
  - Facility data
  - Hydrography
  - Other critical information

Project Overview (cont'd)

- Goals
  - Offer users a customizable GOS experience
  - Develop a reusable suite of GOS search components
  - Interface with varying front end tools
  - Input parameters to include keywords, data content type, geographic extent
  - Allow users to specify how output is presented
  - Include means for automated metadata harvesting to improve GOS content
  - Complement or extend existing GOS functionality

Project Overview (cont'd)

- Outcomes
  - A reusable search API
  - Interface with the GOS CSW interface (and other catalogs if desired)
  - Support retrieval of both ISO 19115/19139 and FGDC CSDGM metadata records
  - Support for automated metadata harvesting to GOS
  - Allow users to specify input and output parameters
  - Allow visualization within front end client tools
  - Development of an automated GeoRSS feed that can support subscriptions
  - Documentation and training materials for using components
  - Modular and open-source software that can be modified and re-deployed by other NSDI users and providers

Project Personnel and Roles

- Jessica Zichichi – Project Manager
  - Schedule and Budgeting
  - Requirements Definition
  - Reporting

  Office: (774)206-5549
  jzichichi@innovateteam.com
- Ayhan Ergul – Lead Technical Architect
  - Web-services development
  - Design engineering

  Office: (703) 879-4800
  Cell: (781) 985-6920
  aergul@innovateteam.com
- John Sievel – Application Developer
  - API development
  - UI programming

  Office: (703) 879-4800
  jsievel@innovateteam.com

Project Personnel and Roles (cont'd)

- Frank Roberts – Project Lead
  - Couer d'Alene Tribe Project Management
  - Requirements Definition
  - Reporting
- Jason Trook – Subject Matter Expert
  - Deployment Support
  - Testing
  - Design engineering

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Plummer ID 83851
http://gis.cdatribe-nsn.gov/

Project Personnel and Roles (cont'd)

- Julia Harrel – Project Lead
  - NC DENR Project Management
  - Requirements Definition
  - Design Engineering
  - Reporting
- Shannon McDonald – Subject Matter Expert
  - Deployment Support
  - Testing

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Information Technology Services Division
NC DENR
julia.harrell@ncdenr.gov
Phone: (919)715-0363

Project Personnel and Roles (cont'd)

- Lee Kyle – Project Lead
  - EPA Project Management
  - Requirements Definition
  - Design Engineering
  - Reporting

Information Services and Support Branch
Information Exchange and Services Division
Office of Information Collection
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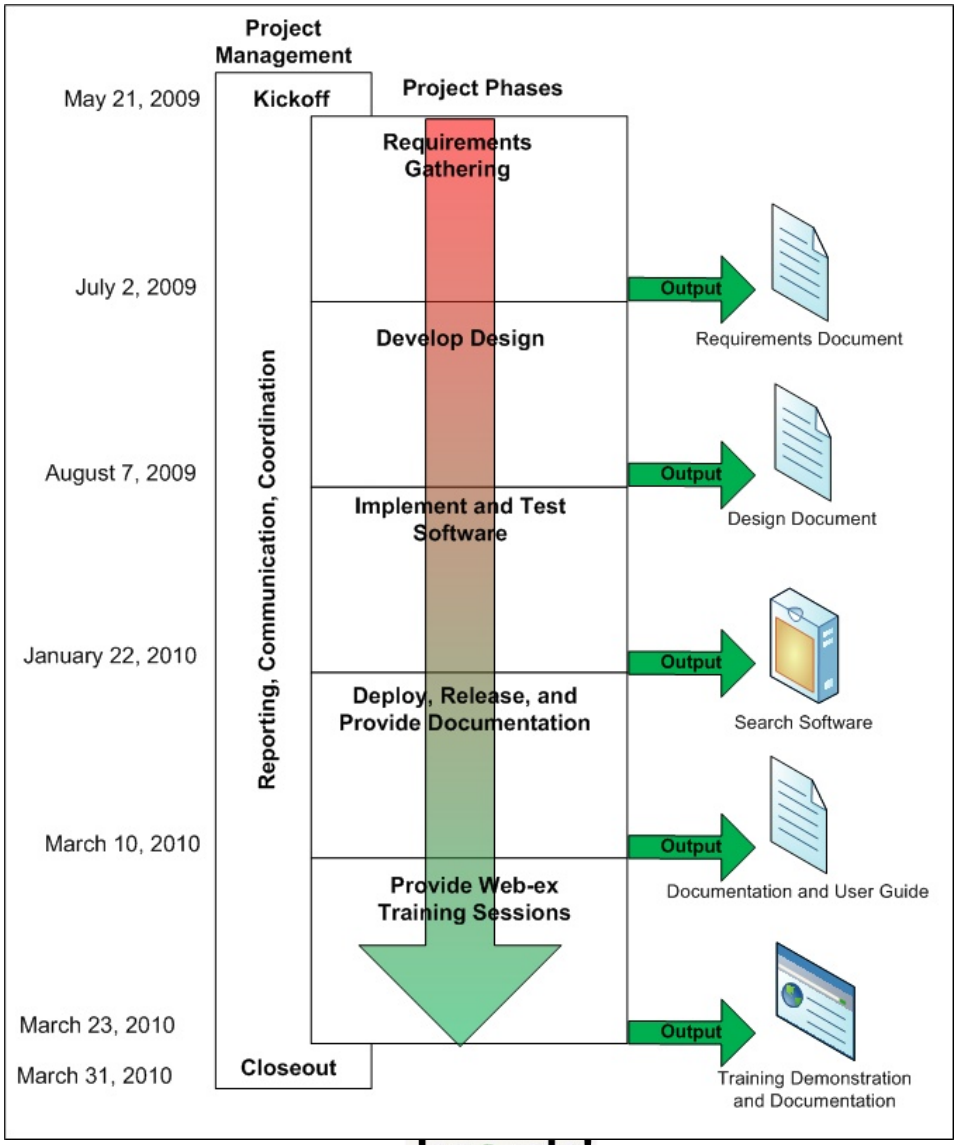
Washington, DC
kyle.lee@epa.gov
http://www.epa.gov

Project Phases Overview

- Project management
- Requirements gathering
- Develop design
- Implement and test software
- Deploy, release, and provide documentation
- Provide web-ex training sessions

Project Phases Overview (cont'd)



Project Management

- Reporting
  - Financial
  - Project summary
- Schedule adherence
- Budget adherence
- Risk management
- Project communications

Requirements Gathering

- Establish initial requirements matrix & use cases
- Send to team for review
- Hold project kick-off meeting and review initial requirements
- Revise requirements based on feedback
- Hold final review meeting with stakeholders and make any changes
- Deliver requirements document

Requirements Gathering (cont'd)

- Establish initial requirements matrix & use cases
  - EPA Manager Accesses Coeur d'Alene Tribe Data Through Preferred KML Client Tools
  - NCDENR Personnel are Informed of Updates to EPA Facility Data
  - Coeur d'Alene Tribe Manager Integrates GOS Search into existing web site or application
  - EPA Personnel Accesses Couer d'Alene Tribe services through desktop tools

GOS Search Requirements

Develop Design

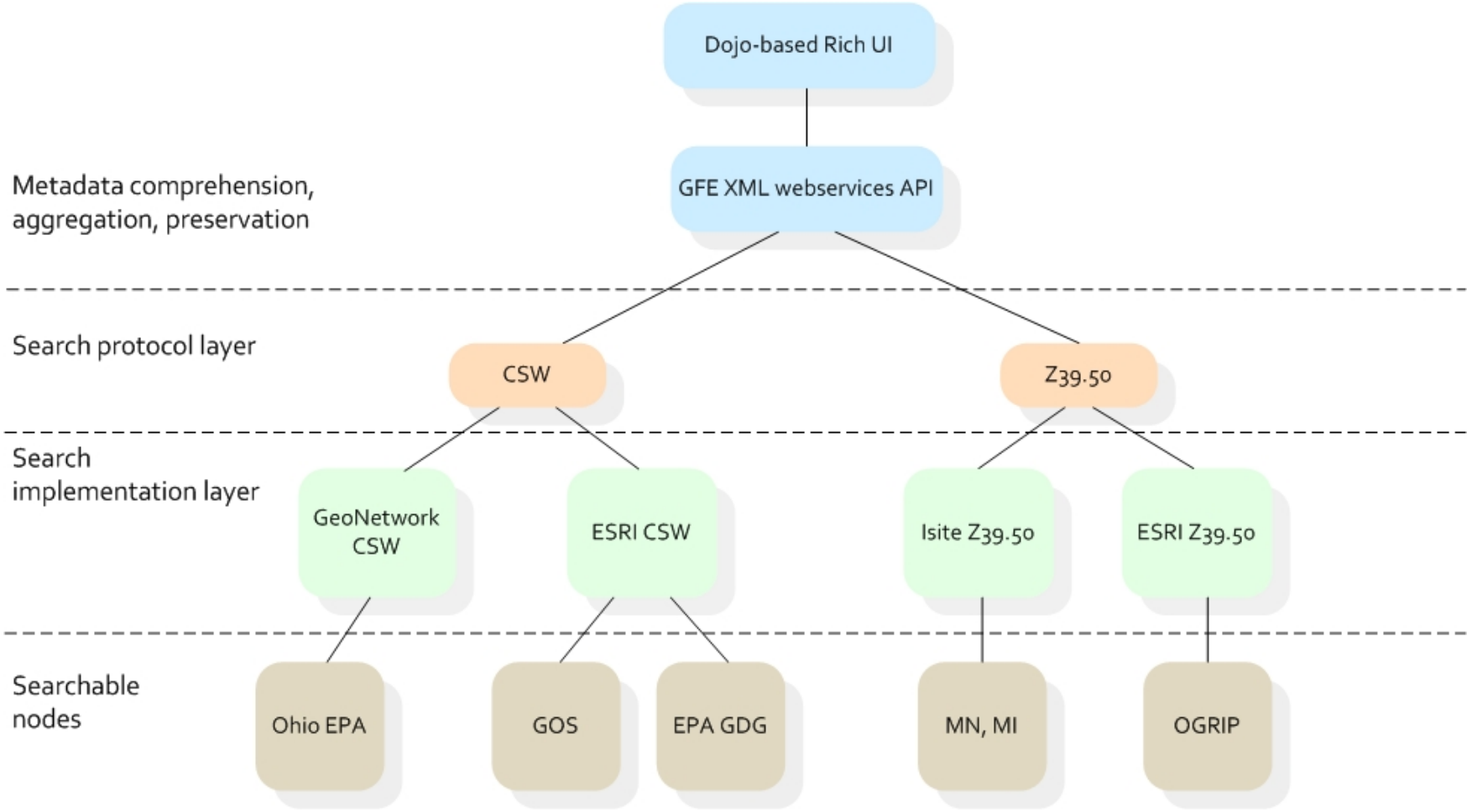
- Develop draft design document
- Distribute to team for review
- Hold design review meeting
- Revise design based on feedback
- Hold final review with stakeholders and make final changes
- Deliver design document

Develop Design (cont'd)

- Design is based on EPA's GeoFinder for the Environment (GFE)
  - Federated metadata search application
  - Originally developed in 2005 to introduce geospatial capabilities to the Central Data Exchange (CDX)
  - Evolution from z39.50 specific search behind CDX nodes to a more flexible architecture
  - CAP grant will further this evolution

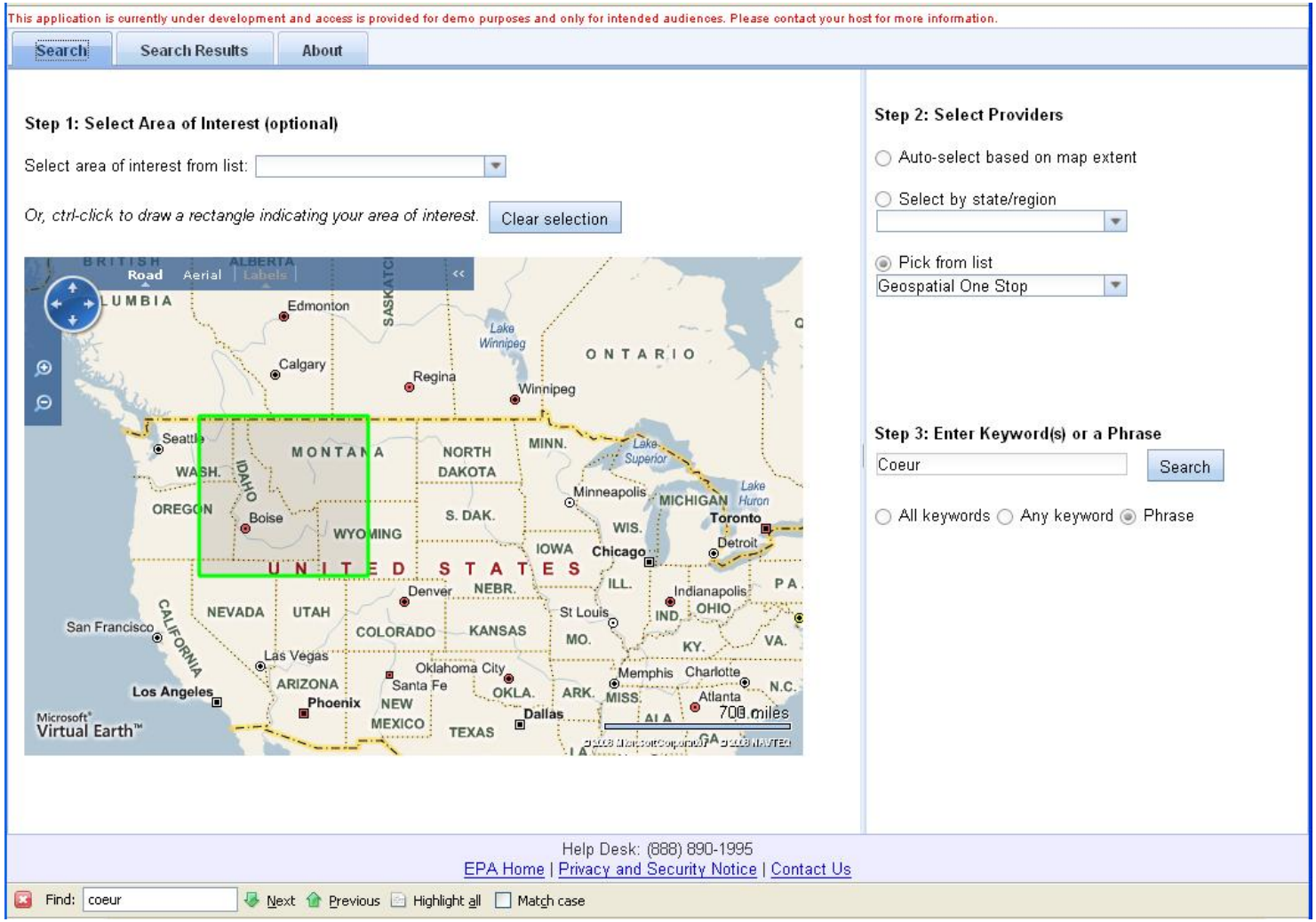
Develop Design (cont'd)

Existing architecture



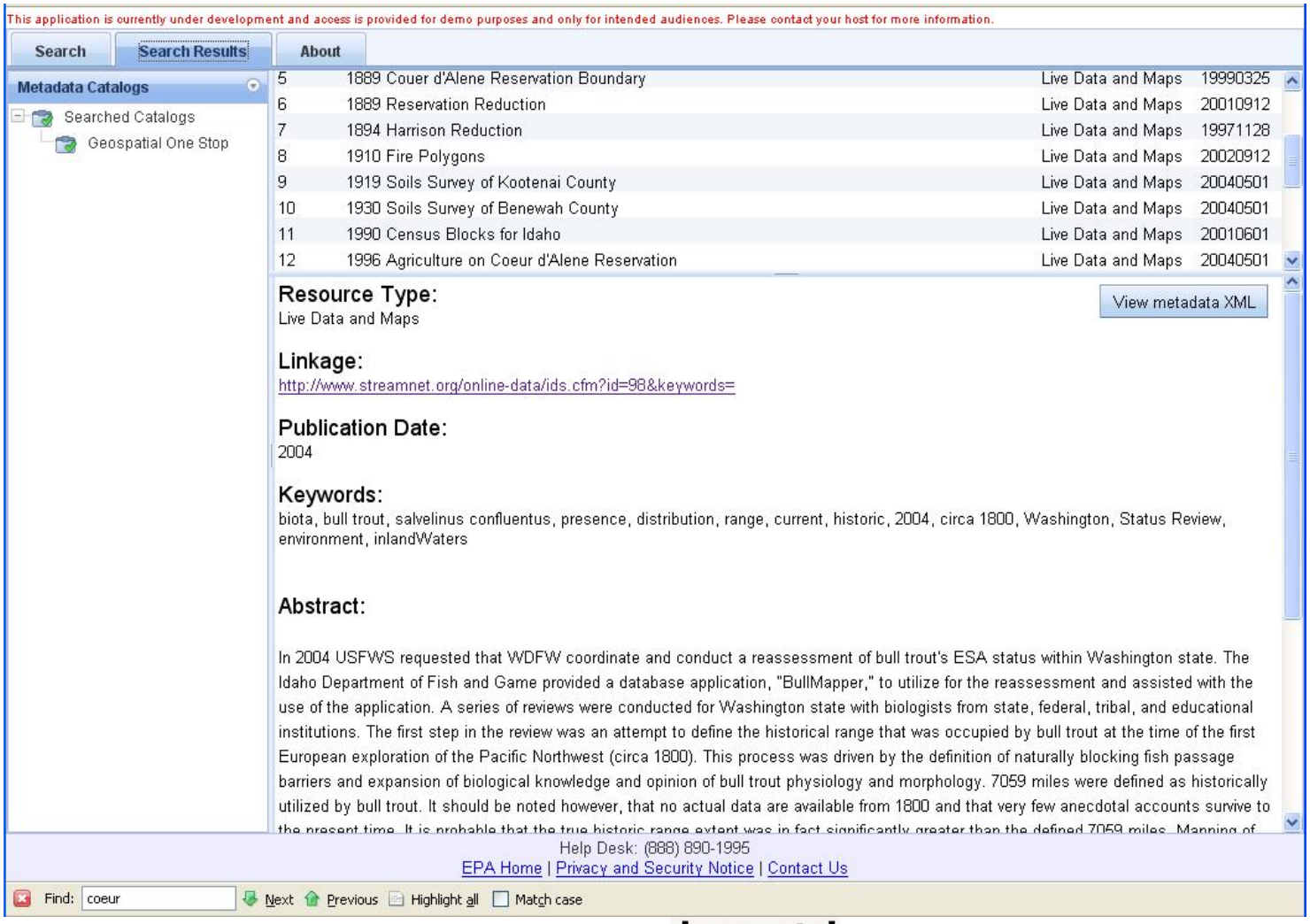
Develop Design (cont'd)

Existing search interface



Develop Design (cont'd)

Existing search results interface

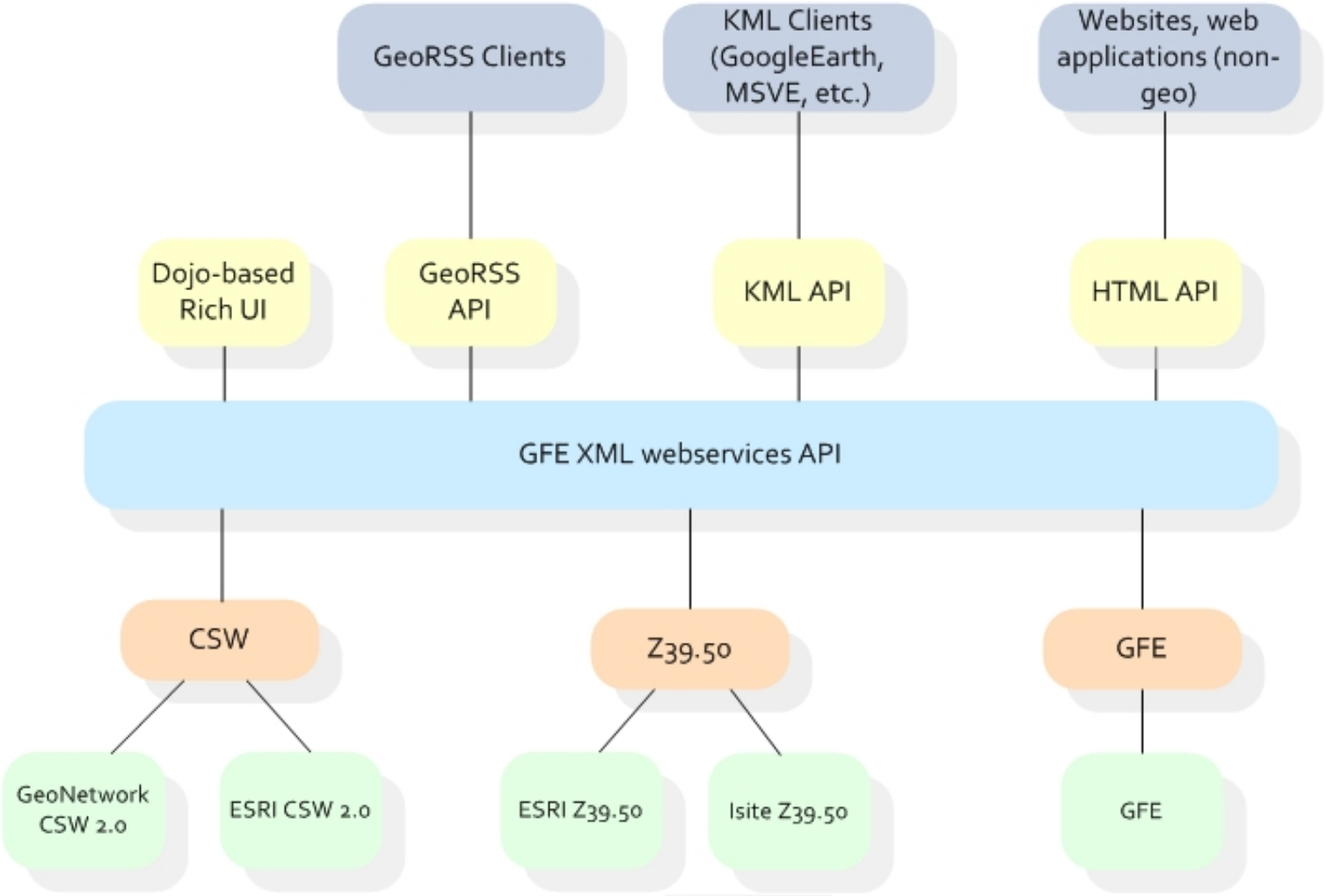


Develop Design (cont'd)

- CAP grant funding supports the modification of GFE to include:
  - Keyhole markup API
  - GeoRSS API
  - HTML/DHTML API
  - Layering
  - Web map context download
  - Modular, open source software instead of an EPA centric product

Develop Design (cont'd)

Target architecture



Implement and Test Software

- Develop initial prototype
  - Development server with periodic team reviews of new functions
- Demonstrate prototype
  - Consolidate comments from Tribe, NC DENR, EPA
- Revise and update based on feedback
- Test
  - Independent tests by Tribe, NC DENR, EPA
  - Consolidate test comments
- Finalize

Deploy, Release, and Provide Documentation

- Deploy on servers
  - Tribe, NC DENR, EPA
- Test
  - Tribe, NC DENR, EPA
  - Consolidate test results and apply fixes
- Deliver software documentation and user guide

Provide Web-ex Training Sessions

- Send announcement for training sessions
- Prepare for web-ex training sessions
- Post materials to websites
- Conduct first training Web-ex session
- Conduct second training Web-ex session

Project Deliverables

- Requirements document
- Software design document
- Documentation and user guide
- Training demonstration and documentation
- Interim status report
- Final status report
- Financial reports
- GOS search software

Project Schedule

- Milestones
  - Use cases identified (in progress)
  - Requirements defined, documented, delivered (active - 7/2/09)
  - Design specifications defined, documented, delivered (8/7/09)
  - Interim project status report (10/1/09)
  - Initial software prototype developed (10/23/09)
  - Software finalized (1/22/10)
  - Deploy software (2/12/10)
  - Deliver software documentation (3/10/10)
  - First training session (3/17/10)
  - Second training session (3/24/10)
  - Final project summary report (3/31/10)

Project Budget

Summary

Task	Billable Hrs	Donated Hrs
Project Management	56	66
Requirements Gathering	31	58
Develop Design	48	108
Implement and Test Software	189	213
Deploy, Release, and Provide Documentation	48	97
Provide Web-ex Training Sessions	23	44.5
TOTAL	395	586.5