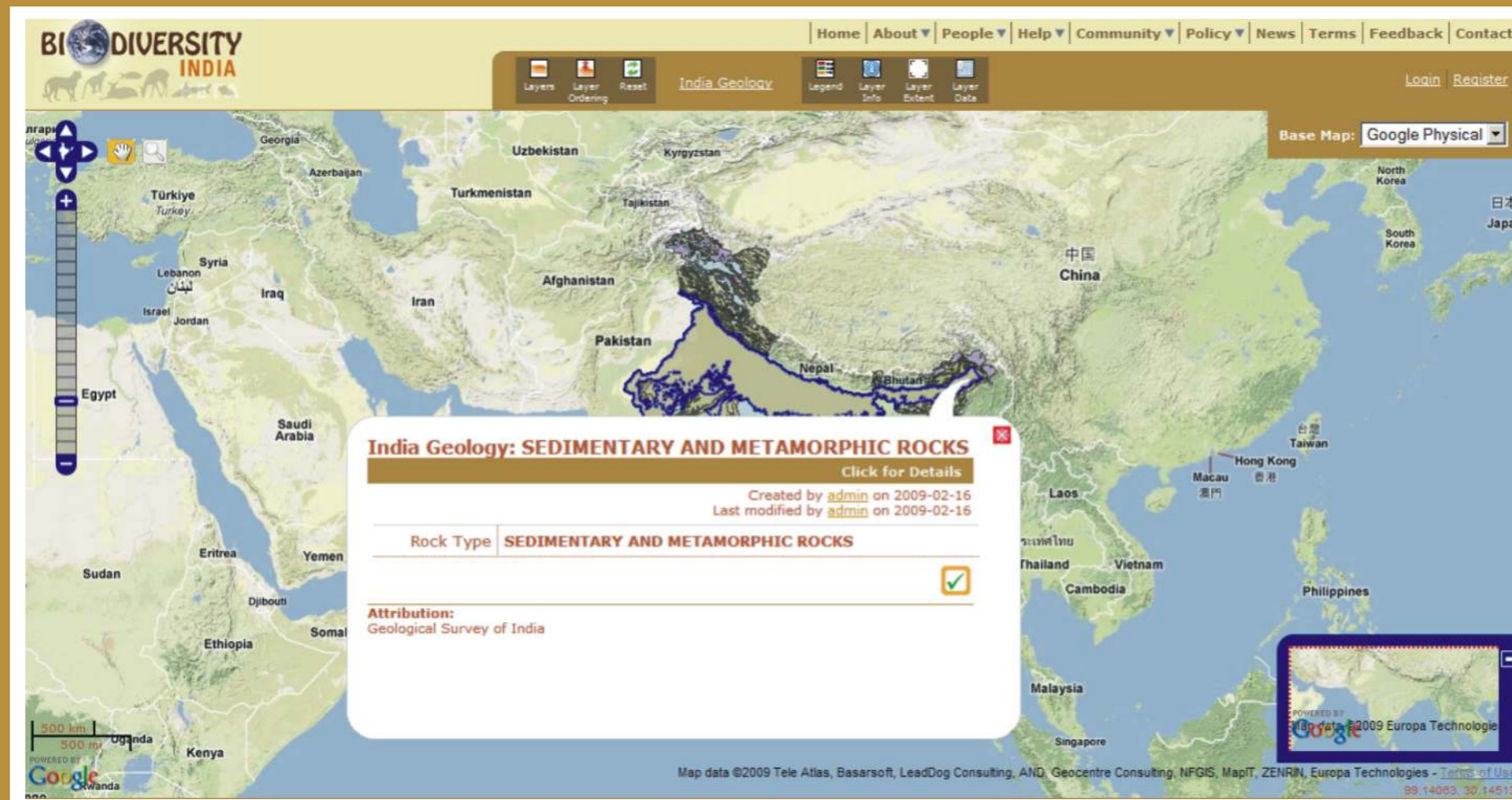


Building a Map-based Web Platform for Aggregating User Content

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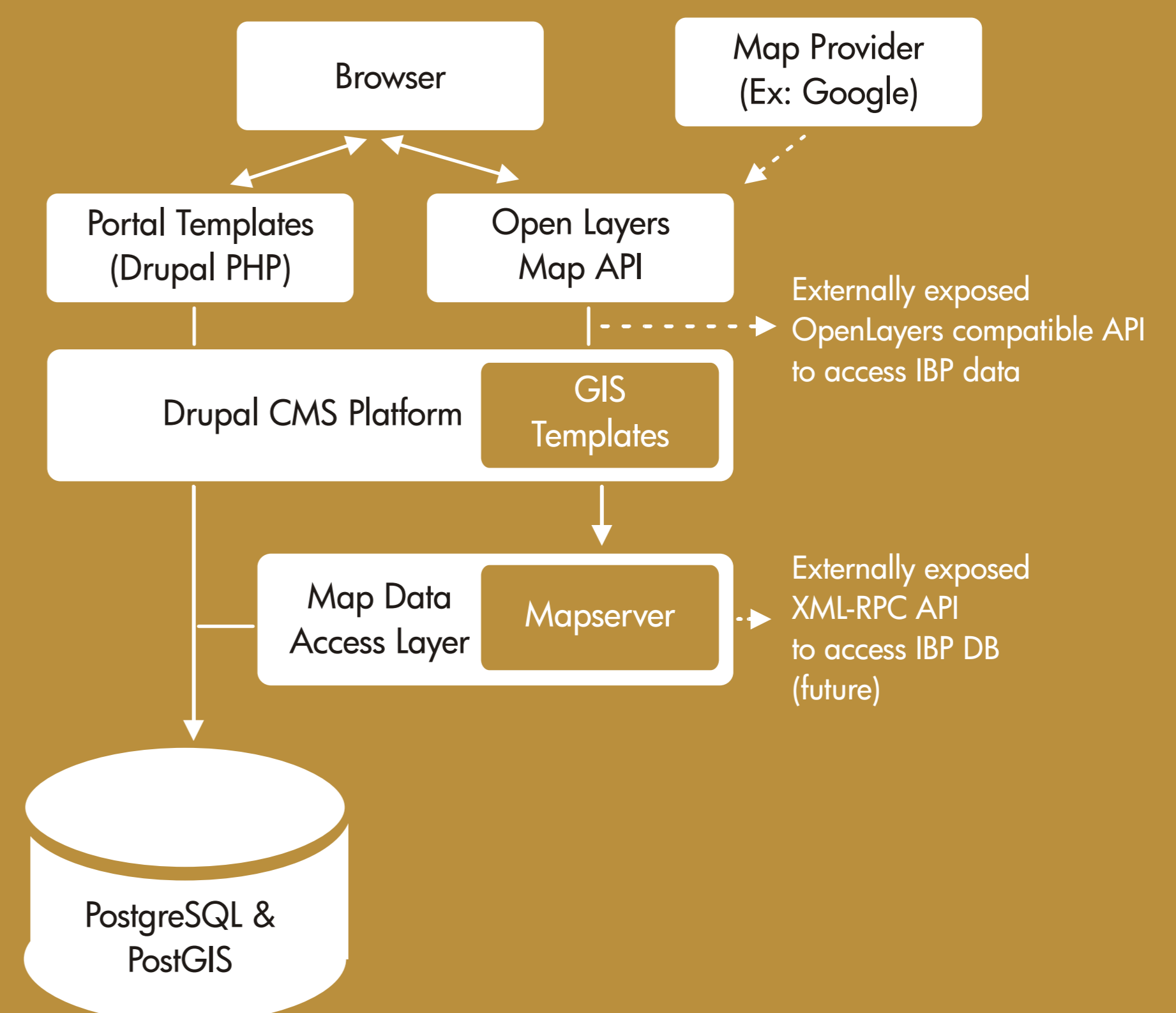
indiabiodiversity.org



Built on the MapLocator platform, the India Biodiversity Portal is a participative, map-based wiki focused on gathering, aggregating and serving biodiversity information

The MapLocator source code will be developed as an liberal open source project and will solicit active community participation

High Level Architecture



The Platform

- Generic map based platform for managing user content in a participatory manner
- A rapidly evolving work-in-progress, with weekly updates
- Web 2.0 Application in Perpetual Beta
- Rich geographical visualization
- Robust and scalable
- To be released as Open Source to the developer community
- Will be used in the ambitious Urban Atlas Project that will map twelve cities worldwide

The Technology

- Integrates various open source and custom components
- Postgres PostGIS Database engine to store geographical data along with attributes
- MapServer to fetch data from the database and serve polygon layer
- Open-Layers, a javascript library that fetches data from Internet map sites, our MapServer and our Postgres PostGIS database
- Drupal to manage access control through defined roles, and all content linked to maps and features

The Portal

- Platform for sharing and analyzing biodiversity
- Aimed at NGOs, Research Organizations, Students, Government and Informed Citizens
- System for validating data through a hierarchy of users - Administrator, Validator and Member for each layer
- Seeded with over a hundred layers, with curated data from a number of sources
- Theme and Geography based navigation
- Has verified and authenticated version alongside a 'bleeding edge' version of unauthenticated and freshly contributed data

Aggregation of user-generated content

- The platform has a framework for aggregating user-generated content in an effective and efficient manner.
- A structure to evolve a self-organizing system of content aggregation.
- User-generated content will be solicited on each layer of data.
- A role-based structure of Layer_Administrator, Layer_Validator, and Layer_member will validate the data online.

Future Steps

- Hold road shows to solicit participation
- Provide richer and better user experience and data visualization
- Leverage the semantic web by interaction with other portals
- Mature the platform to a product in the domain of web-mapping
- Create a brand and profile for the platform
- Develop a pluggable charting module and map composition with choropleth analysis.
- Develop a set of basic GIS analysis tools of overlay analysis, surface analysis, and buffering to aid citizen-science and democratize GIS.

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