

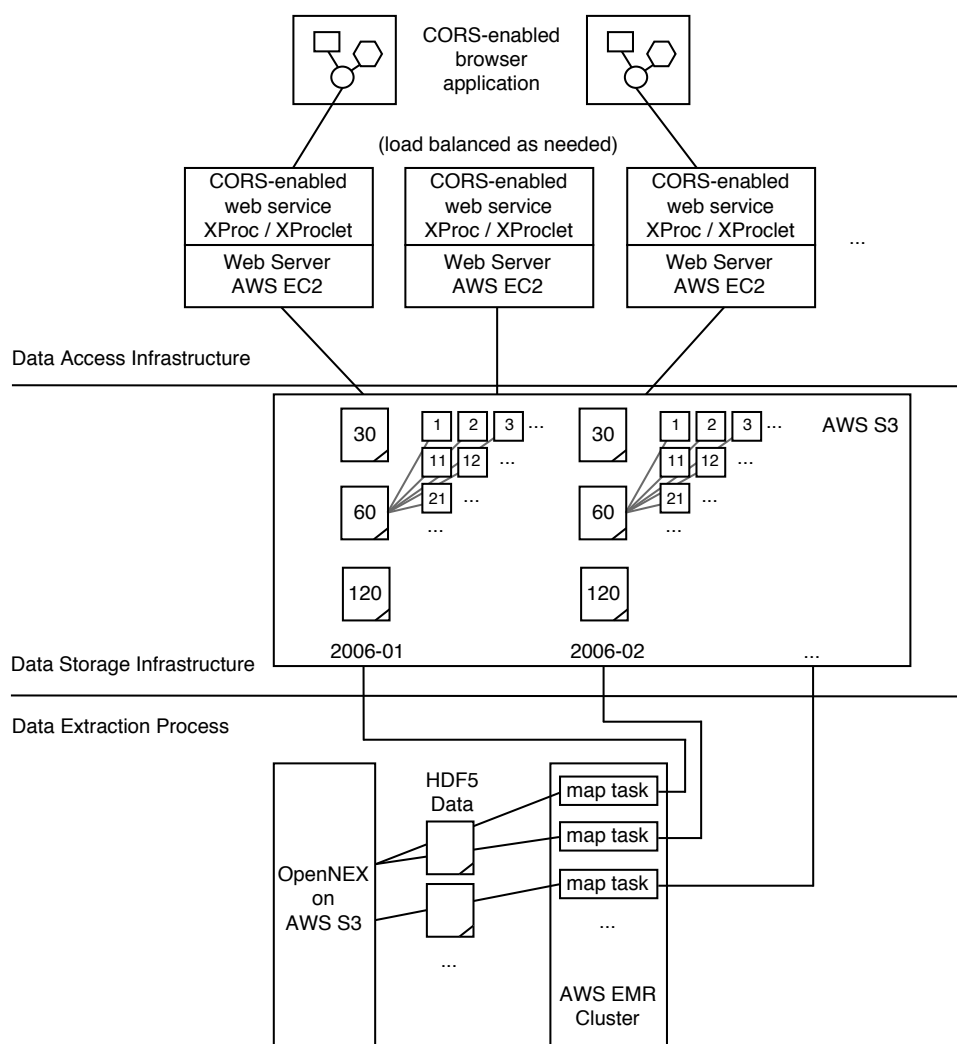
OpenNEX on the Web

1 Overview

The Open Web Platform (OWP) [1] is a platform of shared behaviors, expected by publishers and authors, and a nexus for innovation, consolidation, and cost efficiencies focused on those things that happen within the actions of the Web browser. Our solution exposes the OpenNEX data so that interested parties (e.g., citizen scientists) are capable of utilizing the OWP to communicate their interpretations through interactive visualizations or computations; helping bridge the gaps between professional scientists and the public at large.

Our solution involves transforming the OpenNEX NEX-DCP30 [2] climate projections into Web sized data resources native to the Web. Utilizing the AWS infratructure, it transforms and hosts the data in various ways to enable the browser to be a platform for interacting with the climate data.

We demonstrate the result by showing browser-based applications (see <http://data.pantabular.org/opennex/explore/>). We use off-the-shelf libraries [3] commonly used within the Web community for map-based applications to show how our system facilitates the use of climate data.



Bibliography

- [1] *"The future of applications: W3C TAG perspectives"*, Henry S. Thompson, School of Informatics, University of Edinburgh, 2011-03-28, W3C Technical Architecture Group ; see also http://www.w3.org/2001/tag/doc/IAB_Prague_2011_slides.html
- [2] *"New downscaled climate projections suitable for resource management in the U.S. Eos"* Trasher, B., Xiong, J., Wang, W., Melton, F., Michaelis, A., and R. Nemani, 2013. , Transactions American Geophysical Union (in review).
- [3] *"Leaflet"*, Vladimir Agafonkin ; see also <http://leafletjs.com>