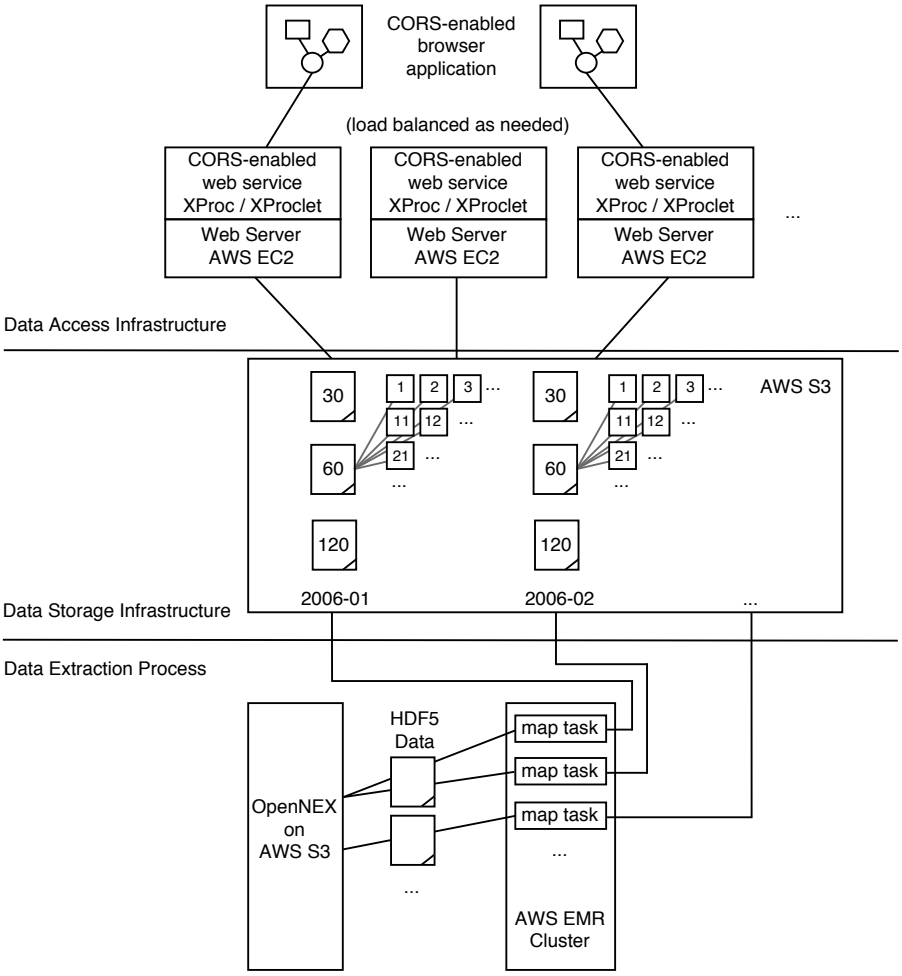
OpenNEX on the Web

1 Overview



The Open Web Platform (OWP) [1] is the name for an expanded understanding of the modern Web browser: now a delivery platform for a wide range of applications, implemented on top of standardized behaviors, exploited by publishers and authors: a nexus for innovation, consolidation, and cost efficiencies. When data resources are available on the Web, OWP tools enable interested parties, ranging from domain specialists to citizen scientists, to deliver them in easily understood forms, such as interactive visualizations, helping to bridge the gap between professional scientists and the public at large.

Our approach to the OpenNEX challenge focussed on expanding the impact of OpenNEX by making the OpenNEX data available for easy access and use via the OWP, thus enabling the power of the network effect: not *one* app, but an enhanced opportunity for *many* people to develop *many* apps quickly and easily.

Utilizing a range of components of the AWS infrastructure, we have delivered not only a substantial sample of OpenNEX data, served in forms which enable the browser to be a platform for interacting with climate data, but we have also constructed several browser-based applications which do just that (see). We use off-the-shelf open source libraries (e.g. [3], [4]), commonly used within the Web community for map-based applications, to show how our system facilitates the presentation and 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

[4] "*OpenStreetMap*" ; see also http://www.openstreetmap.org/