

A Letter to the Community

Dear ESGF User Community:

This letter is to announce that a large portion of the CMIP5 and other high profile data (such as CORDEX, Obs4MIPs, and ACME) are once again available from Earth System Grid Federation (ESGF) sites. This letter explains the problem that led to the overhaul of the ESGF, describes the modifications made to prevent future problems and improve the system, and provides instructions on how to re-register to download data from ESGF.

Many of you are aware that several months back, the ESGF node sites were hacked by outsiders. In response, the system was taken down and completely overhauled. We took this opportunity to upgrade the system in almost every respect. While ESGF cannot guarantee immunity from future dedicated hackers, the project has taken several steps to minimize the likelihood of a future security incident, and to recover much faster in case such an event should happen. At the same time, we have upgraded our infrastructure in many respects, to make it faster, more resilient, and more reliable.

To smoothly bring ESGF up to operational status, we devised a two-tier approach. The following tier 1 sites have become operational first:

Institution	ESGF node URL
PCMDI	http://pcmdi.llnl.gov
DKRZ	http://esgf-data.dkrz.de
CEDA	https://esgf-index1.ceda.ac.uk
IPSL	http://esgf-node.ipsl.upmc.fr
LIU	http://esg-dn1.nsc.liu.se
JPL	http://esgf-node.jpl.nasa.gov

Please note that some of the sites URLs have changed with the re-installation of ESGF. The PCMDI ESGF node, for example, is now <http://pcmdi.llnl.gov>.

While the above nodes are all operational, they are still in the process of republishing CMIP5 data. At present, over half of the data in the CMIP5 archive are available. We hope to bring the tier 2 data nodes online soon so that we can complete the repopulation of the CMIP5 archive.

As part of the overhaul, we enhanced the ESGF software stack in several ways, starting with a new front-end web interface through which users will search for and retrieve data. The new ESGF front-end now relies on the Earth system CoG software that enables projects to dedicate workspaces, network with other projects, and share and consolidate information within those networks. For more information on how to use CoG, please visit the CoG User Tutorials website: https://www.earthsystemcog.org/projects/cog/tutorials_web.

Briefly you will need to:

- Re-register with one of the ESGF nodes to obtain a new OpenID
- If you intend to download CMIP5 data, then you will need to click on the link provided to agree to the CMIP5 license of use (either “commercial” or “research”)
- Enter the “search” page and select and download data

We are also working on enabling much faster downloads of data sets to the user desktop or server by integrating the new CoG user interface with Globus. In the near future, users will be able to search for data on ESGF and easily stream the data results to their system. In addition, all data

sets are now accessible via OPeNDAP.

Finally, the global archive served by ESGF continues to grow. ESGF is now hosting several popular collections of model, observational and re-analysis data, including CORDEX, Obs4MIPs, CREATE-IP, and others. Soon we will start serving CMIP6 model output, which will be the data used in the next IPCC assessment report on climate change. We will also add the CMIP3 data (available now only by ftp) so that model output through at least 3 phases of CMIP will be available through the ESGF.

For more information on ESGF, check out our latest Annual Earth System Grid Federation Face-to-Face Conference Report at: http://esgf.llnl.gov/media/pdf/2015-ESGF_F2FConference_report_web.pdf. The report highlights ESGF key activities, use cases, services, roadmaps, and integration strategies for the climate community.

We thank all of the ESGF developers and data node managers who are engaged in this collective work to provide access to climate data. We also thank the user community for their patience in this endeavor. Together, we can ensure success for our community and build a better climate data infrastructure.

Best regards,

A handwritten signature in blue ink that reads "Dean N. Williams". The signature is written in a cursive, flowing style.

Dean N. Williams
ESGF Executive Committee, Chair
On behalf of the ESGF Executive Committee and Development Teams