



## **The Advanced Cooperative Arctic Data and Information Service (ACADIS)**

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The Advanced Cooperative Arctic Data and Information Service (ACADIS) is a joint effort by the National Snow and Ice Data Center (NSIDC), the University Corporation for Atmospheric Research (UCAR), UNIDATA, and the National Center for Atmospheric Research (NCAR). Its purpose is to provide data support, preservation and access services for all projects funded by NSF's Arctic Science Program (ARC). ACADIS is also being eyed for its potential to support the multi-agency SEARCH (Study of Environmental Arctic Change) effort. The challenge for ACADIS is the large number of projects (over 400) and diverse, multidisciplinary datasets (currently numbering over 900) that it must provide services for. ACADIS is evolving from three separate data management systems having Arctic data which includes field data, model output, global weather observations, remote sensing and social science data. These systems evolved independently and were originally designed for different purposes. Furthermore, the communities accessing these data have different needs and follow different standards and protocols. To meet the challenge of providing a common discovery mechanism for all these data a metadata brokering solution was implemented. This presentation will describe the installation and customization of GI-Cat, a brokering service developed at the Italian National Research Council. The integration of the CISL, EOL and NSIDC catalogs, as well as the THREDDS server provided by the Norwegian Meteorological Institute (NMI), was accomplished using GI-Cat. Search results are accessed via the OpenSearch interface of GI-Cat and presented with rankings based on keyword matches. This creation of this system was accomplished on a timescale of months instead of the years of developer time that would have been required if it had been built from scratch.