SIPAD-NG: a generic system for accessing scientific data
Application to oceanography products
Claire Pottier (1), Dominique Heulet (1)

(1) Centre National d’Etudes Spatialles (CNES)
18, Avenue Edouard Belin, 31401 Toulouse Cedex 9, France
EMail: claire.pottier@cnes.fr, dominique.heulet@cnes.fr

ABSTRACT

SIPAD-NG ("Système d’Information, de Préservation et d’Accès aux Données – Nouvelle Génération" – "Information System for Data Preservation and Access – New Generation") is a generic software system allowing web consultation of scientific data catalogs and access to these data. SIPAD-NG is an "on the shelf" software that can be used by Data Centres from any scientific domain. Currently, SIPAD-NG is operational for accessing data from CNES/CNRS Plasma Physics Data Centre, Mercator-Ocean and soon for CNES altimetry products and CNES/IFREMER SMOS products.

The SIPAD-NG kernel is composed of "basic services" that offer the standard functions of a data management system: mechanisms for searching for relevant data, data selection and ordering, long-term archiving, etc… These "basic services" provide interfaces that allow various types of "client applications" to use them: web servers, science processing software, remote applications, etc…

This architecture provides Data Centres with a software system that can be adapted to their needs and enhanced over time by: metadata catalog parameterization, customisation of the web server, adding of client applications and specific software.

We describe SIPAD-NG characteristics in terms of functionalities, architectural design and technological choices. An example of instantiation for Oceanography applications (Mercator-Ocean and altimetry) is detailed.