



CMCC Data Distribution Centre

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The CMCC Data Distribution Centre (DDC) is the primary entry point (web gateway) to the CMCC. It is a Data Grid Portal providing a ubiquitous and pervasive way to ease data publishing, climate metadata search, datasets discovery, metadata annotation, data access, data aggregation, sub-setting, etc. The grid portal security model includes the use of HTTPS protocol for secure communication with the client (based on X509v3 certificates that must be loaded into the browser) and secure cookies to establish and maintain user sessions. The CMCC DDC is now in a pre-production phase and it is currently used only by internal users (CMCC researchers and climate scientists). The most important component already available in the CMCC DDC is the Search Engine which allows users to perform, through web interfaces, distributed search and discovery activities by introducing one or more of the following search criteria: horizontal extent (which can be specified by interacting with a geographic map), vertical extent, temporal extent, keywords, topics, creation date, etc. By means of this page the user submits the first step of the query process on the metadata DB, then, she can choose one or more datasets retrieving and displaying the complete XML metadata description (from the browser). This way, the second step of the query process is carried out by accessing to a specific XML document of the metadata DB. Finally, through the web interface, the user can access to and download (partially or totally) the data stored on the storage device accessing to OPeNDAP servers and to other available grid storage interfaces. Requests concerning datasets stored in deep storage will be served asynchronously.