Contribution ID : 58

The Role of Open Source Software in Canada's National Forest Information System

Thursday 14 Sep 2006 at 15:00 (00h30')

In 2000 forest ministers of Canada's federal, provincial and territorial governments initiated the development of Canada's National Forest Information System (NFIS Canada) to respond to national and international reporting commitments on sustainable forest management.

The development and application of open source software has allowed NFIS Canada to deploy a Canada wide web-based Open Geospatial Consortium (OGC) compliant distributed interoperable infrastructure at a very modest cost. The adoption of open source solutions as one of its business models was driven by the requirement that NFIS Canada (1) be based on international standards, (2) be vendor neutral, (3) minimize licensing costs, (4) minimize impact on partner business practices and (5) support common services delivered over a common interoperable distributed infrastructure. In support of its open source business model NFIS Canada has been a participant in the development of the OGC compliant version of University of Minnesota (UMN) MapServer and Chameleon. NFIS is cooperating with Canada's National Land and Water Information Service (NLWIS) in the specifications and development of Geolinked Data Access Service (GDAS) and a web based generalized statistical summary reporting system (GSSRS). NFIS has led the development of the data domain service (DDS), the distributed spatial analysis architecture (DSAA), the distributed access control system (DACS) and is currently working on a number of services that will be open sourced. In addition NFIS Canada is using PostGIS, Postgress, Ka-Map, WikiCalc and other open source products and it is distributing an open source OGC compliant ?SDI-in-a-Box? based on MapServer and Chameleon.

NFIS currently supports an infrastructure serving 14 jurisdictions and comprised of 20 nodes located in 16 cities located across Canada with 2 enterprise level computing arrays, 2 help centres and 5 development teams. The continued expansion of the infrastructure will be primarily based on open source solutions.

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Session classification : Session 4 : Development

Track classification : OGC

Type : Conference