The INTERMAGNET web service

INTERMAGNET has designed a web service for access to INTERMAGNET data (see Discussion Document 28) and created a test implementation of the web service, which is currently hosted at Natural Resources Canada / Geological Survey of Canada (GSC). For technical reasons GSC are not able to host the web service permanently. We are looking for a new host from amongst INTERMAGNET members. The INTERMAGNET web service can only be delivered from a web server that has local access to INTERMAGNET's real-time data store, so the data store will also need to move to the new host. The INTERMAGNET ftp service for access to the data store will also need to move to the new host.

The INTERMAGNET web site will remain at GSC (and will be a major customer of the web service in order to allow users access to data via the current data download application - http://www.intermagnet.org/data-donnee/download-eng.php). The INTERMAGNET URL (www.intermagnet.org) will continue to point to web servers at GSC. The data access application on the web site will also remain hosted at GSC, but will need to be rewritten to take account of the move of the data archive to a new host. It may be that in the interim there is a need for the data archive to be 'mirrored' at GSC to allow this application to continue working (it's a very important application for INTERMAGNET).

In order to allow more than one institute to work on the web service, we would like to see potential hosts offer remote administrative (i.e. ssh) access to the machine(s) which run the service. It would also be beneficial to the community if the service were to be run on a resilient platform.

A potential host would need to be able to offer computer(s) with these facilities:

- Disk space to hold the data store which is currently 300Gb, but expected to grow sharply as more 1-second data is deposited. A realistic minimum is 1Tb.
- Backup and security of the data store – INTERMAGNET does not have another copy of this data
- OS is a question of choice for the institute concerned, be we recommend Linux for compatibility with required software and because this is likely to fit the skills within INTERMAGNET
- RSYNC server to receive incoming data from GINS
- RYSNC client to mirror the archive to GSC while the web site data access application is being re-written
- Web server software (recommended: Python CGI or Apache (httpd) with PHP)
- FTP access to the data store
- Web service (http) access to the data store to INTERMAGNET's specification (Discussion Document 28)
- Ssh access to allow remote management of the machine (for a limited number of INTERMAGNET officers)
- In the future access using https (replacing http) and sftp (replacing ftp) will be required
- Ideally with resilience to failure of individual components