

D1/D2 Databases for DC1

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Database Web Interface (U1/U3)

- _ One interface for both D1(event) and D2 (spacecraft data) Databases
- _ Basic search functionality (Note: D2 is only searched by time)
 - Choice of Database
 - Position – coordinates in RA/Dec
 - _ Retrieve events various shaped areas – circle, box, ellipse
 - _ Adjustable size of search area
 - _ Adjustable rotation of search area
 - Time – start and end time in MJD or UTC (Gregorian)
 - Energy – minimum and maximum energy in GeV

Query Processing 1: Queue Manager

- _ After submission, query is sent to the Queue Manager (QM) for scheduling and tracking.
- _ When the database is ready, the QM sends the query to the D1 and/or D2 server.
- _ The search is performed (details next) and preliminary results (filenames) returned to QM
- _ QM sends preliminary results to the Stager
- _ Stager formats the data and sends results to QM
- _ QM notifies Web page (U1/U3) of completion.

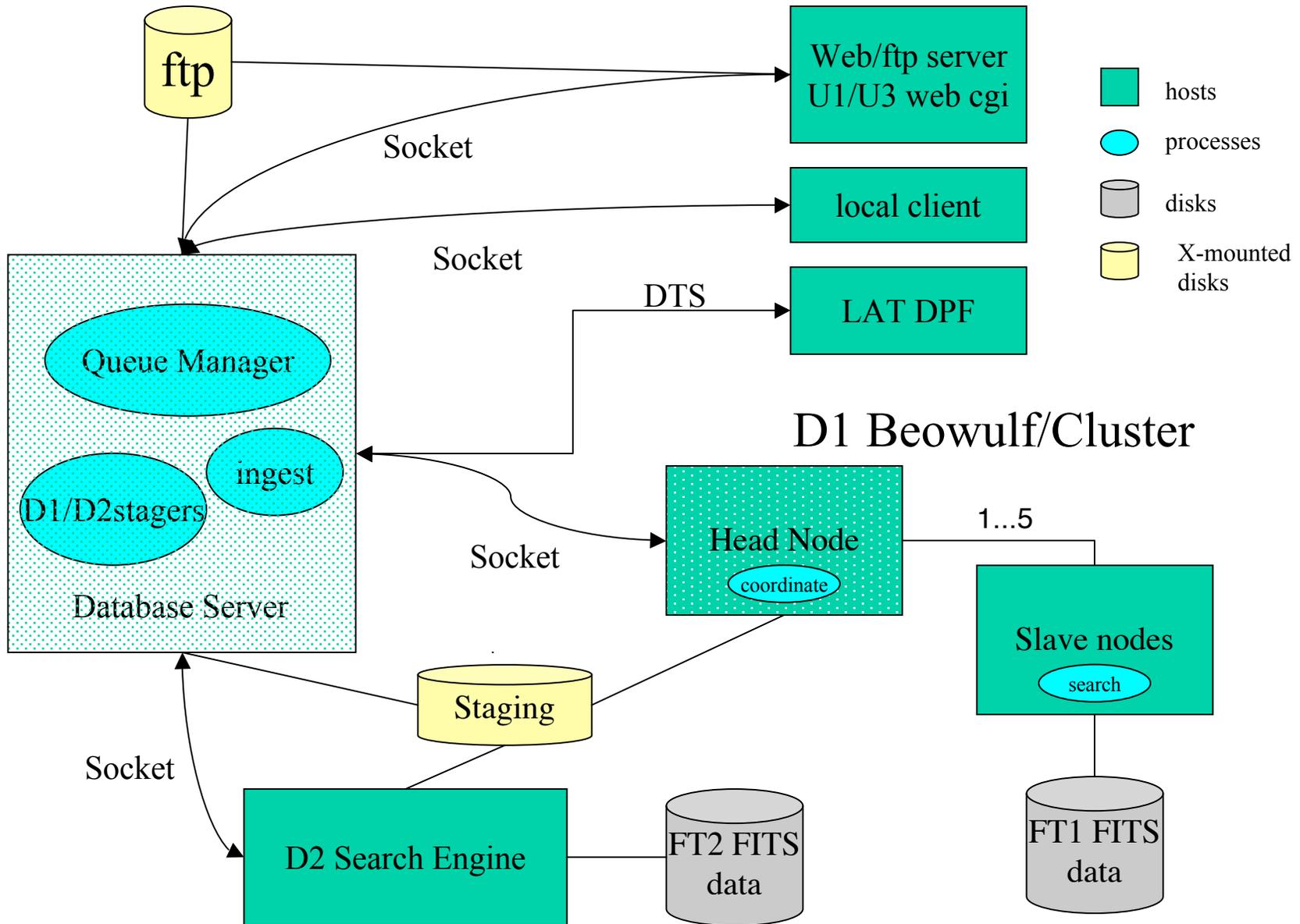
Query Processing 2: D1/D2 Search Engines

- _ Parses query request and extracts relevant keywords.
- _ Programs build lists of relevant internal files to search.
- _ For D1, which is a Linux cluster, file searching is parallelized.
- _ Results stored in files and filenames are sent to QM.

Query Processing 3: D1/D2 Stagers

- _ Stager given the output of the D1/D2 Search engine by the QM.
- _ Merge intermediate results files into a more manageable files in the GLAST FT1/FT2 format.
- _ Places the final files in the public FTP repository.
- _ Returns the correct URL for downloading the data to the QM (which forwards that information back to the web page).

Query Processing: Architecture



U1/U3 Web Results Page

File Edit View Go Bookmarks Tools Window Help

http://heasarcdev.gsfc.nasa.gov/cgi-bin/zband/D1WebQuery.cgi Search

Home Bookmarks Terra Soft Ho... YDL Home YDL.net Support Shop Products

GLAST Event

Your query was successful!

GLAST Event Data

/local/data/fafnir3/tstephen/data/repository/D1/U1WEB8101281831615542321610_results.fits

GLAST Spacecraft Data

/local/data/fafnir3/tstephen/data/repository/D2/U1WEB8101281831615542321610_D2_results.fits

These file(s) will remain on the public FTP server for approximately 30 days. Please retrieve them as soon as possible. For future reference, your query ID is **U1WEB8101281831615542321610**

Thank you!
-The GLAST SSC Team

Glast SSC D1 Web Interface

Done

Location of D1 Data



Location of D2 Data



Query ID string



Status

- _ Databases being tested at GSSC
- _ Web Pages being made to look more like other Search pages at HEASARC - plan to add other features (e.g. Simbad/NED lookup of sources)
- _ Beowulf currently being configured.
- _ Publicly accessible web page and ftp area being set up
- _ Should be working well before DC1.