## GIRO data infrastructure and services

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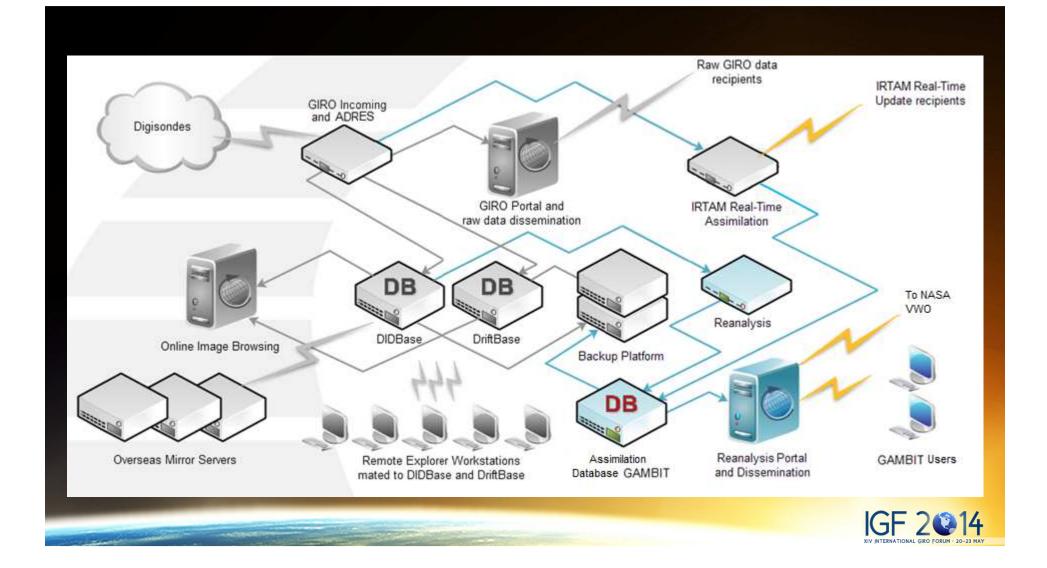
IGE 20

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## **GIRO** Incoming server. GiDispatcher

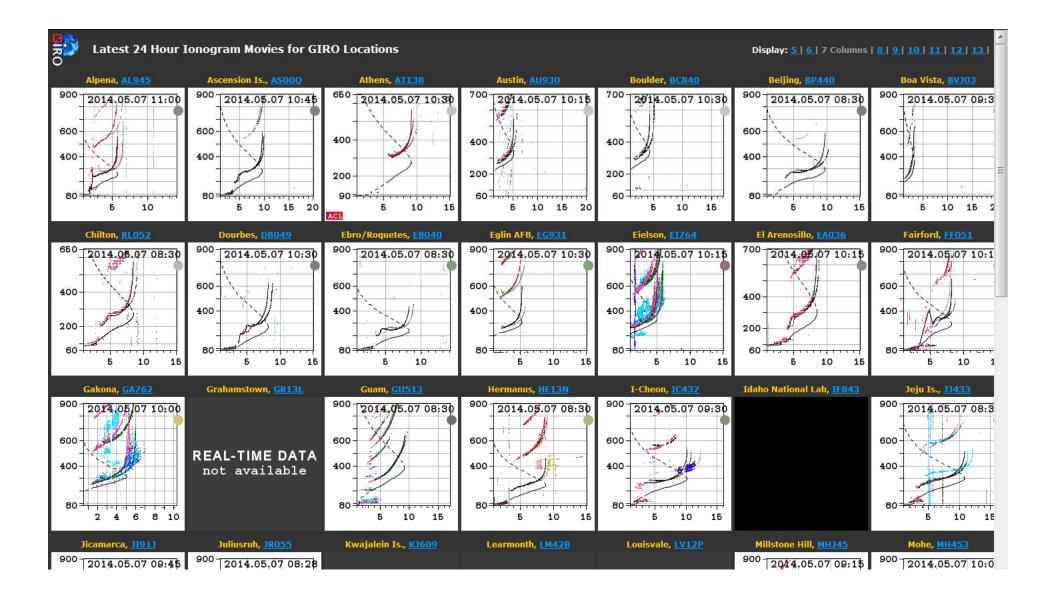
- lonograms, scaling, drift, skymap, and velocity data are uploaded to this server from Digisonde stations using ftp or sftp protocols. As a rule, each station has its own upload directory in GIRO Incoming server.
- Java application GiDispatcher uninterruptedly scans station's home directories, and does the following,
  - 1. Unzips files if necessary
  - 2. Copies ionogram and scaling files into special directory, **didb**, where another java application DIDB\_Fill will pick up them and load into DIDB database.
  - 3. Copies drift, skymap, and velocity files into special directory, **drift**, where another java application DriftFill will pick up them and load into DRIFT database.
  - 4. Also, for stations participating in 24-hour real-time animated presentaion, ionogram and scaling files are copied for special directory, where the special thread of GiDispatcher will asynchronously treat them, i.e. create small-size snapshot. Those snapshots are the bricks for animated-gif file.
  - 5. And last, it moves all files to CENTRAL repository buffer, which is big enough to keep data of 2-3 last years



# GIRO Incoming server. DIDB\_Fill/DriftFill

- Uninterruptedly scans its input directory, **didb**, for new ionogram, scaling files
- Loads found ionogram/scaling files into DIDB database and then deletes them
- If any error/exception occurred during reading file or inserting it into DIDB, moves this file into corresponding error-folder and continue scan input directory.'
- Logs all events into log-file.
- The same is applicable to java application **DriftFill** wich scans its own input directory, **drift**.





### GIRO Incoming server. Retro data

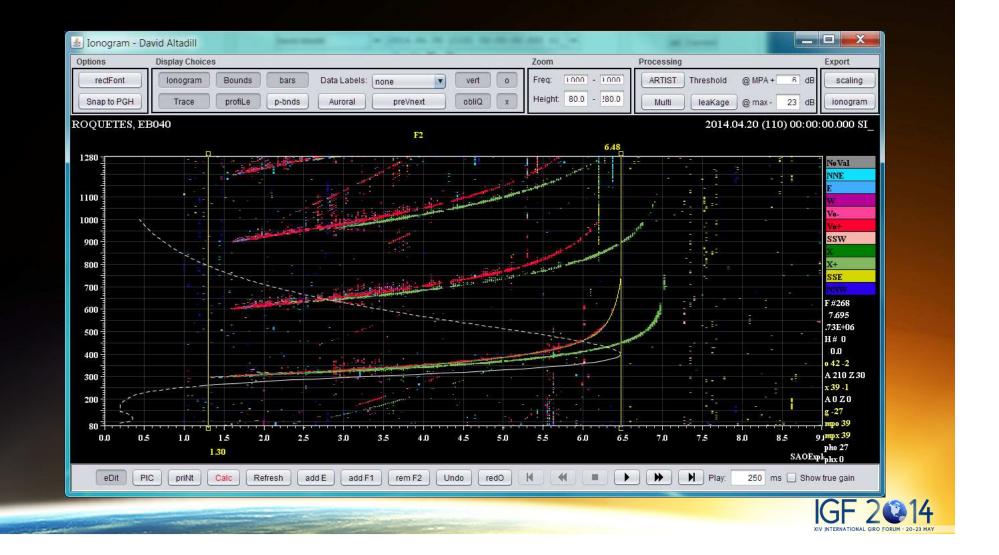
Additionally, 2 java-applications, which is instances of DIDB\_Fill, are scanning for ionogram and scaling data in its own input directories.

One of them is for retro data, that can pretty voluminous.

Another is manually scaled data.

We have several registered ionogram scalers, who voluntarily sclale there ionograms and upload scalings to our GIRO Incoming server, where its will be automatically pick up and inserted into DIDB database by fore mentioned application. Those manual scaling will be tagged with the name of these registered scaler.





#### GIRO Incoming server. DIDBReqPro.

This java application is the central software application of ADRES system. Often, other organizations need our manual scalings for some period of time and places, usually to validate/calibrate their sounding device. This is where ADRES system starts to work. It maintains these campaigns by accepting data-request from organization, sends request for manual scaling to participated scalers, and returns result to organizations. DIDBReqPro stands for DIDB Request Processing. It does it all. Runs two times per day.



