The ATLAS community runs daily more than 600k jobs on the GRID. The number of ATLAS jobs is growing every year and a scalable, robust monitoring system is required to follow distributed job processing and to quickly detect and resolve possible problems. The Experiment Dashboard provides a common job monitoring solution, which is shared by ATLAS and CMS experiments. This includes an accounting portal as well as real-time monitoring of production and user analysis jobs. Usage of Dashboard-based job monitoring applications will decrease load on the PanDA database, which can then be used solely for operations. Aggregation of the task/job metrics from different sources provides complete view of job processing activity in ATLAS scope.

**Dashboard Job Monitoring data flow**

**User interface**
- Provides user centric view. Depending on the application the user interface is implemented using either Experiment Dashboard or hBrowse visualization frameworks.

**Web Application layer**
- Provides HTTP entry point to the data and serves information in different formats (JSON, XML, CSV).
- Data source is fully decoupled from the user interface.
- Serialized data could be consumed by third-party clients.

**Database**
- Combines information from PanDA job processing DB, Production system DB and monitoring information from jobs submitted through GANGA to WMS or local batch systems.
- Scheduled procedures aggregate data for high-level overviews.
- Both read and write access to the database pass through data access abstraction method (DAO).

**Collectors**
- Fetch data via SQL calls (Prodsys DB, Panda DB) or HTTPS requests, and store it in the central Dashboard Data repository (ORACLE).

### Historical Views
- Accounting-style UI. Job processing monitoring metrics as a function of time, resource utilization information.
- Users: site admins, VO computing managers, Management perspective.
- Serves to understand the nature of the infrastructure inefficiencies, reasons of failures.
- Helps to resolve and predict problems.

### Production Task Monitor
- Interface to monitor production tasks.
- Users: production managers, shifters. Shifters perspective.
- Task-oriented view of a production activity.
- Provides an easy way to detect inefficiencies and/or delays in executing production tasks.

### Analysis Task Monitor
- Monitoring tool for analysis users.
- Collects and exposes a user-centric set of the information to the user regarding submitted tasks.
- Users: analysis users and user support.
- Monitoring on the task and individual job level.