

CHEP – San Francisco, Oct. 10-14th 2016

The ATLAS Metadata Interface (AMI), a generic metadata framework



The ATLAS Metadata Interface (AMI) is a mature application of more than 15 years of existence. Mainly used by the ATLAS experiment at CERN, it consists of a very generic tool ecosystem for metadata aggregation and cataloguing.

What is AMI?

AMI is a generic framework to quickly design metadata-oriented applications. It provides facilities for aggregating and searching data with easy-to-use web interfaces and lightweight clients.

AMI Web framework

AMI provides a Web 2.0 framework.

Technologies:

- HTML5, CSS3
- JavaScript, jQuery
- Twitter Bootstrap



Main features:

- Components
- Applications and sub-applications
- Model-View-Controller (MVC) pattern
 - AMI commands (model)
 - Twig engine (view)
- Internal Content Management System (CMS)

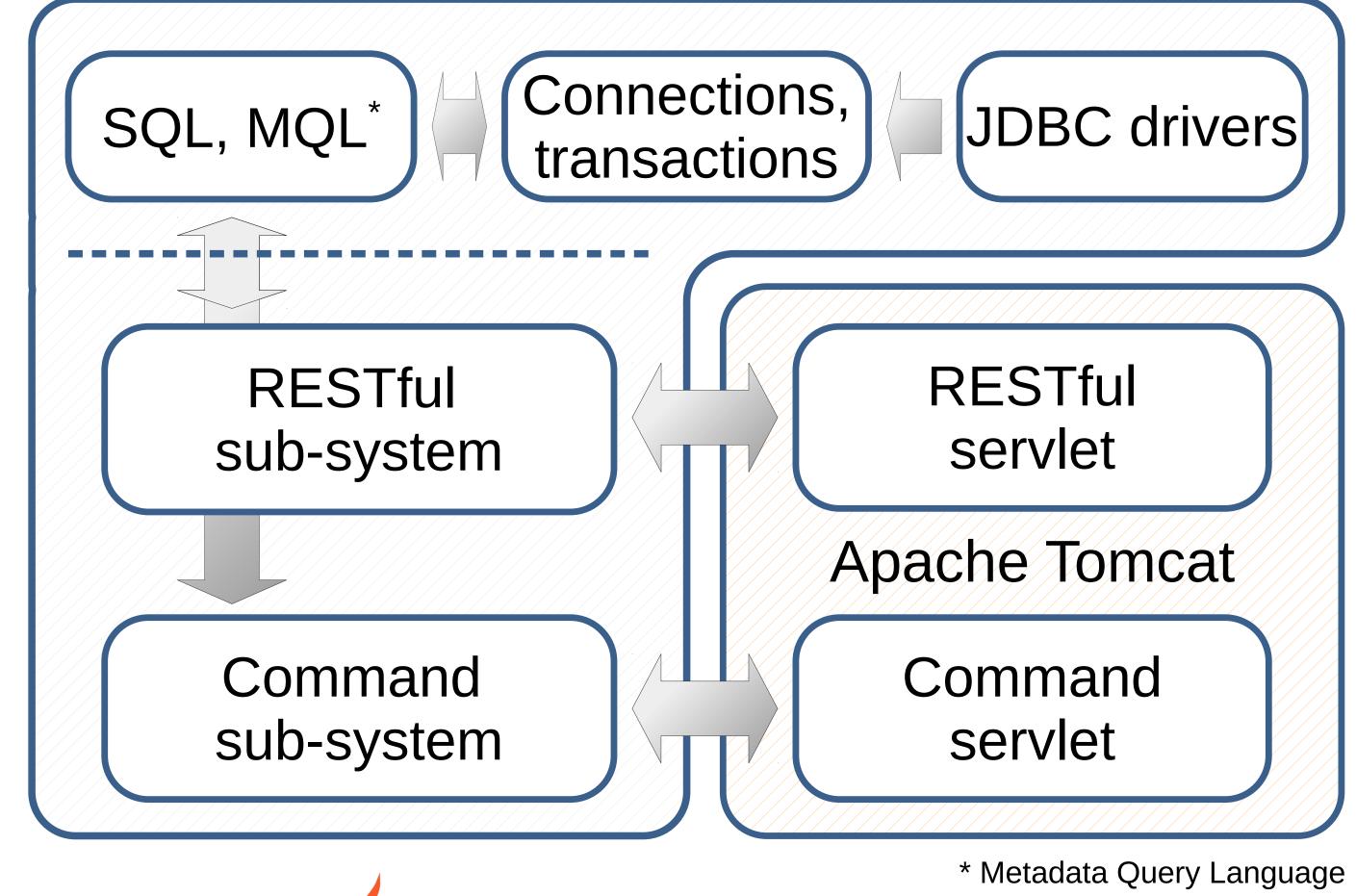
Main applications

- Advanced data display
- Customizable search engines:
 - Google-like search, hierarchical search
- Administation dashboard:
 - Users, commands, roles, tasks, infrastructure (cloud, Jenkins), monitoring

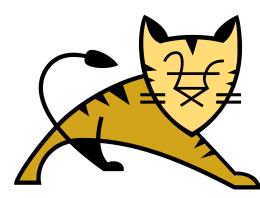
Official ATLAS applications

- Dataset Discovery: search for real and simulated data
- Tag Collector: software release management
- AMI-Tags: processing history for datasets

AMI Java framework







- Generic command system (via HTTPS)
- Distributed transaction engine (with JDBC)
- Authentication (certificates or credentials)
- Authorization (high role granularity)
- Task server (metadata aggregation)

