

# EUROPEAN MIDDLEWARE INITIATIVE

## APEL CLIENT FUNCTIONAL DESCRIPTION

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## DOCUMENT CHANGE LOG

Version	Date	Comment	Author
2.1	25/04/2013	Add SLURM parser.	Will Rogers
2.0	13/02/2013	Rewritten for new APEL implementation in EMI3.	Will Rogers
1.0.1	16/05/2012	Added EMI funding notice, reviewed	Will Rogers
1.0.0	07/04/2011	First version	Cristina del Cano Novales

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## 1. INTRODUCTION

### 1.1. PURPOSE

APEL (Accounting Processor for Event Logs) is a tool that gathers CPU accounting information by parsing batch system and blah accounting log files and inserting the data into a local MySQL database. APEL then publishes the data into a centralised repository.

### 1.2. DEFINITIONS AND ACRONYMS

APEL: Accounting Processor for Event Logs

CE: Computing Element – the APEL log parser is installed as part of this service.

LRMS: Local Resource Management System – batch system used to manage computing jobs.

STOMP [1]: Text-based messaging protocol supported by various message brokers.

SSM: Secure STOMP Messenger – a simple program used to send files using STOMP.

## 2. OVERALL DESCRIPTION

The APEL client has two components: the APEL parsers and APEL publisher.

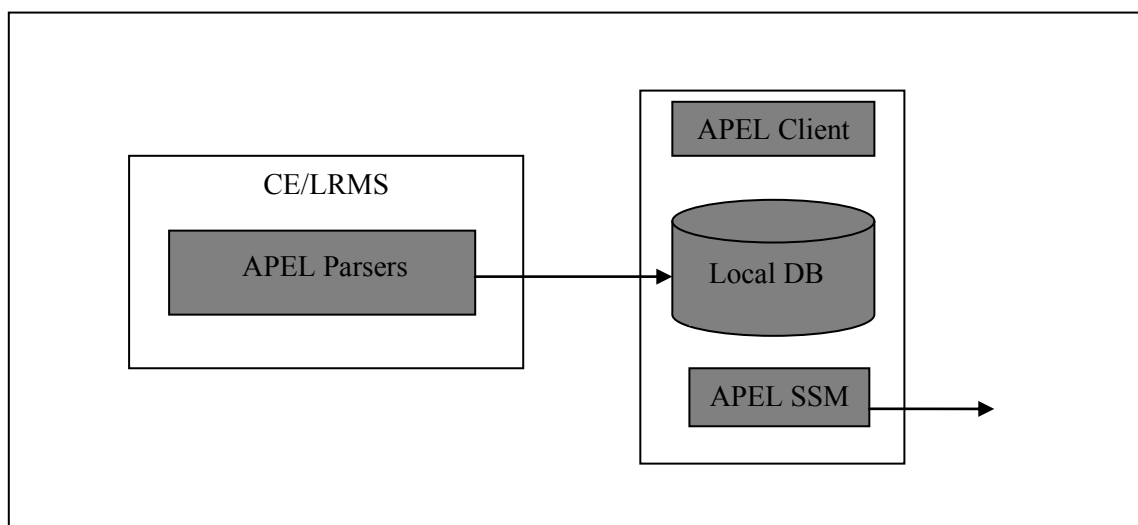
The APEL parsers interpret log files to extract job information. Specifically, processing the log files produced by a batch system (PBS, LSF, SGE or SLURM) and the blahd/grid-jobmap accounting log files, which are produced by a CE. Extracted data is stored within a local MySQL database on the APEL publisher machine.

‘APEL Publisher’ is used to describe both the APEL client and APEL SSM.

The client makes LDAP queries of the BDII or CE to obtain the CPU performance figures for the worker node clusters. It then generates accounting records derived from the parsed logging data and stores the records in the local database. It writes the accounting data to the local filesystem so that it can be sent to the central server by SSM.

SSM reads files containing accounting data from the filesystem, and then sends it, using the configured message brokers, to the central APEL repository, where the information is aggregated.

## 3. ARCHITECTURE



#### 4. REFERENCES

[1] <http://stomp.codehaus.org/>