

MyOSG Architecture

by Grid Operations Center



Overview

MyOSG VM instance (myosg.grid.iu.edu) runs following services

MyOSG Interface

- Written in PHP 5.1.6 (RHEL5)
- Using Zend Framework 1.7.3
- jQuery 1.3.1

RSV Prosess

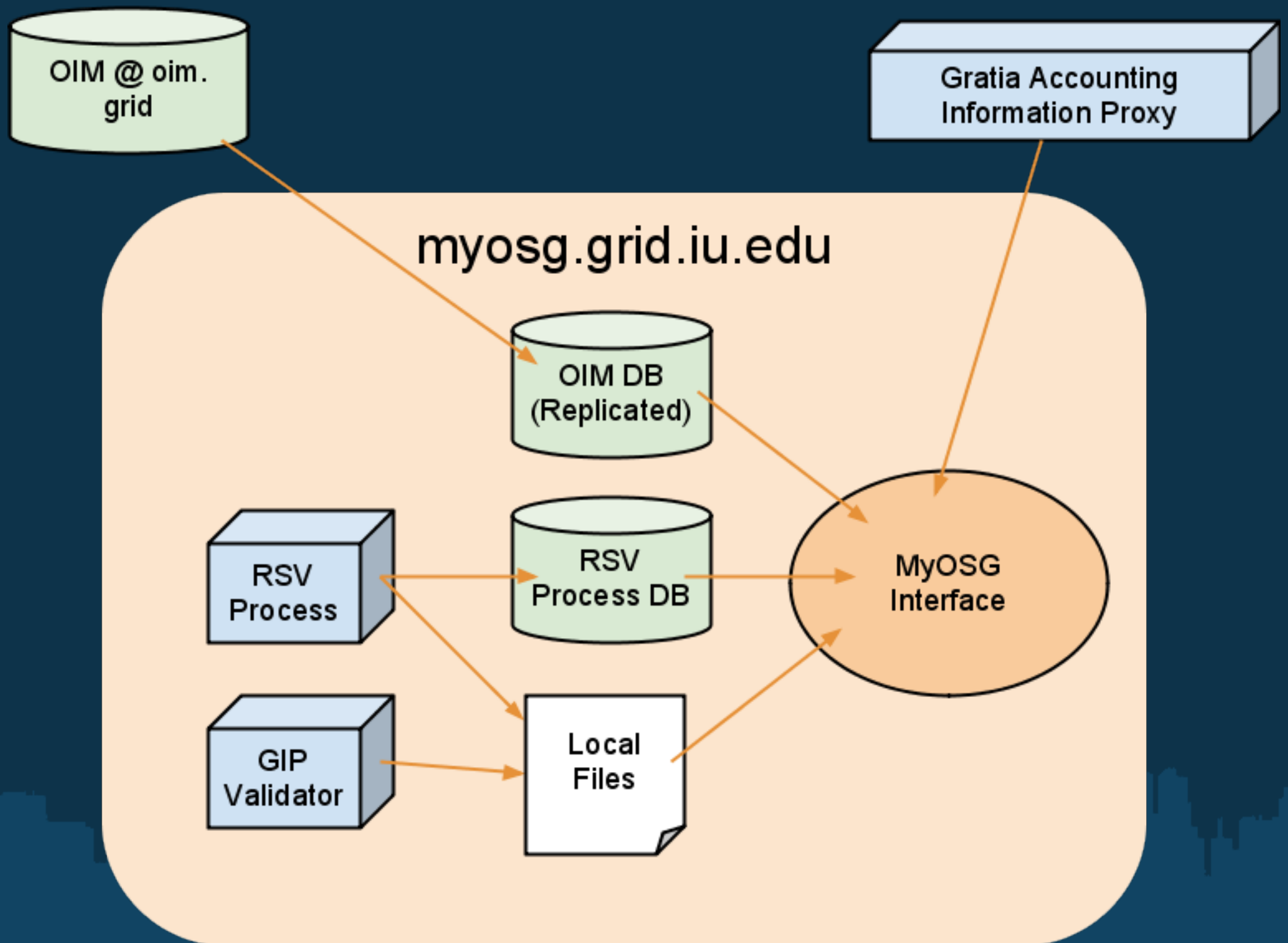
- Written in Java5

GIP Validator

- Python (Code not maintained by GOC)

MySQL

- Hosts RSVProcess-DB and OIM-DB (Replicated)



MyOSG Interface

This is the front end for MyOSG written in PHP. Accesses various information sources (XML, DB, HTTP, etc..) both from local (RSV, GIP) and remote (Gratia) locations, and presents the information in a uniform way.

Uses Zend Framework for MVC and jQuery for user interface.

<http://www.zend.com/en/>

<http://jquery.com/>

RSV Process

Java application that is executed via cron on MyOSG VM to do following:

1. Pull RSV metric records from Gratia RSV collector DB (rsv.grid.iu.edu)
2. Convert Resource Name, Service Name, etc.. to OIM database index (compress & clean the data)
3. Pull data from step 2) in batch, and recalculate the overall status changes by merging data in current batch & already existing data.
4. Stores any service and resource status changes to DB called "rsvprocess". Also generate various "current status" XML to /tmp directory.
5. Run other processes that analyze / aggregate data from RSV probes (VO Matrix, Resource ENV XML, etc..) used by MyOSG views

GIP Validator

Python code that Tony Tiradani from Fermilab/CMS developed.

Executed via cron on MyOSG VM instance.

Pulls GIP data from BDII, and runs set of tests; Creates XML file containing the test results on local disk.

MySQL- Hosts following DB instances

oim (Replicated)

- Replication slave updates this DB instance from oim.grid.iu.edu master.
- MyOSG interface and RSVProcess access this instance for topology information

rsvprocess

- RSVProcess stores all processed data to this database.
- As of MyOSG v1.6, Metric Detail is no longer stored here.
 - In MyOSG 1.7, metric detail may again be stored in rsvprocess or in a table separate from any Gratia DB tables.
- MyOSG interface access this database for RSV related pages.