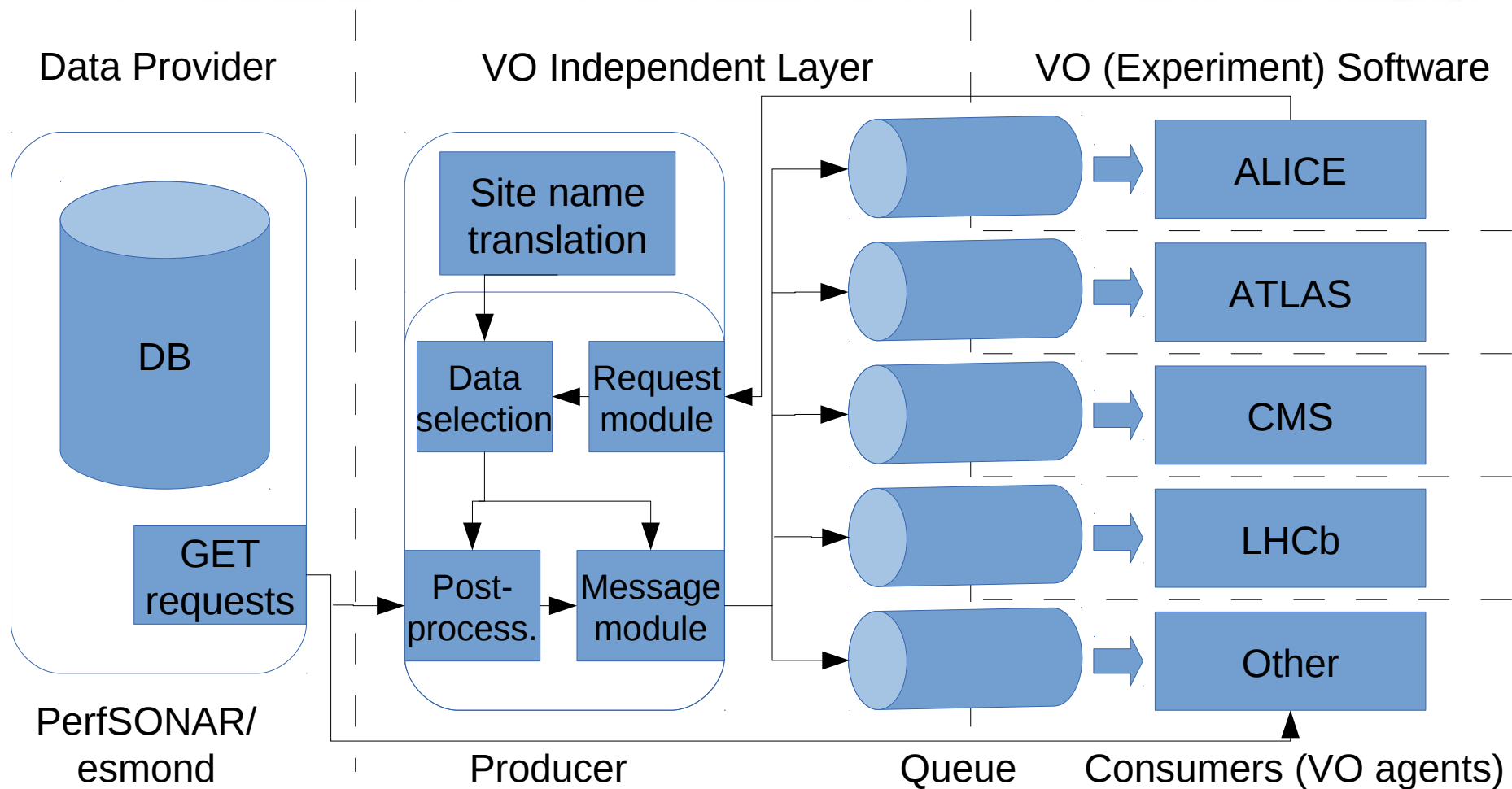


# Experiments Interface to perfSONAR/esmond

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# Architecture Overview Diagram



# Architecture Overview

## Components

### ■ Data provider

- perfSONAR + esmond (raw data, summaries)

### ■ Producer (manager, VO independent)

- Prepares messages (data selection) as requested by VOs

### ■ Queue

- Stores messages for further processing by VO software
- One queue per VO (ActiveMQ or something similar)

### ■ Consumers (VO software)

- Fetch data and process it according to VOs' needs

### **Carried out on a daily/weekly basis:**

- Update the list of participating sites (for each VO)
- Translate „VO Site Names” to „EGI/OSG Site Names”
- Obtain IP addresses of perfSONAR instances (GOCDDB/OIM)

### **Carried out on an hourly/'as needed'/'... basis:**

- Get high level requests for all VOs and fill the „sites mesh” (all-to-all, masked by existing sonar instances)
- For each no-empty cell in the sites mesh select required data (prepare an esmond link) and attach it to a message(s)
- Send messages to VO's queues

# Producer

## Some details

### ■ Site names translation (OSG ↔ VO ↔ EGI ↔ WLCG)

- Three possible implementations:
  - Files (VO is responsible to update it regularly)
  - Plug-ins (Producer will ask different „name sources” for an up-to-date mappings)
  - External mapping service
- Sources: BDII, GOCDB, OIM, VO software (e.g. AGIS, DIRAC Configuration System)
- Some level of administration included (name override, mask)

## ■ Requests

- Static (cron like?) and/or dynamic?
- Request queue (common interface for VOs)?
- Different requests depending on the tier level?
- We would like to know what data (data aggregations) are different VOs interested in?

## ■ Examples

- Every 2 hours, LHCb needs an average throughput between T2-D sites
- Every 10 minutes, CMS needs an output from ping (all participating sites)

# Producer

## Some details

### ■ Message content

- Site names (VO, EGI/OSG)
- Either metadata (esmond link) or raw/post-processed data included
- Request type (consumer needs to know what to do)
- VO customisations
- Feedback link, ...

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[www.cis.gov.pl](http://www.cis.gov.pl)

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Thank you for  
your attention