



Science & Technology
Facilities Council

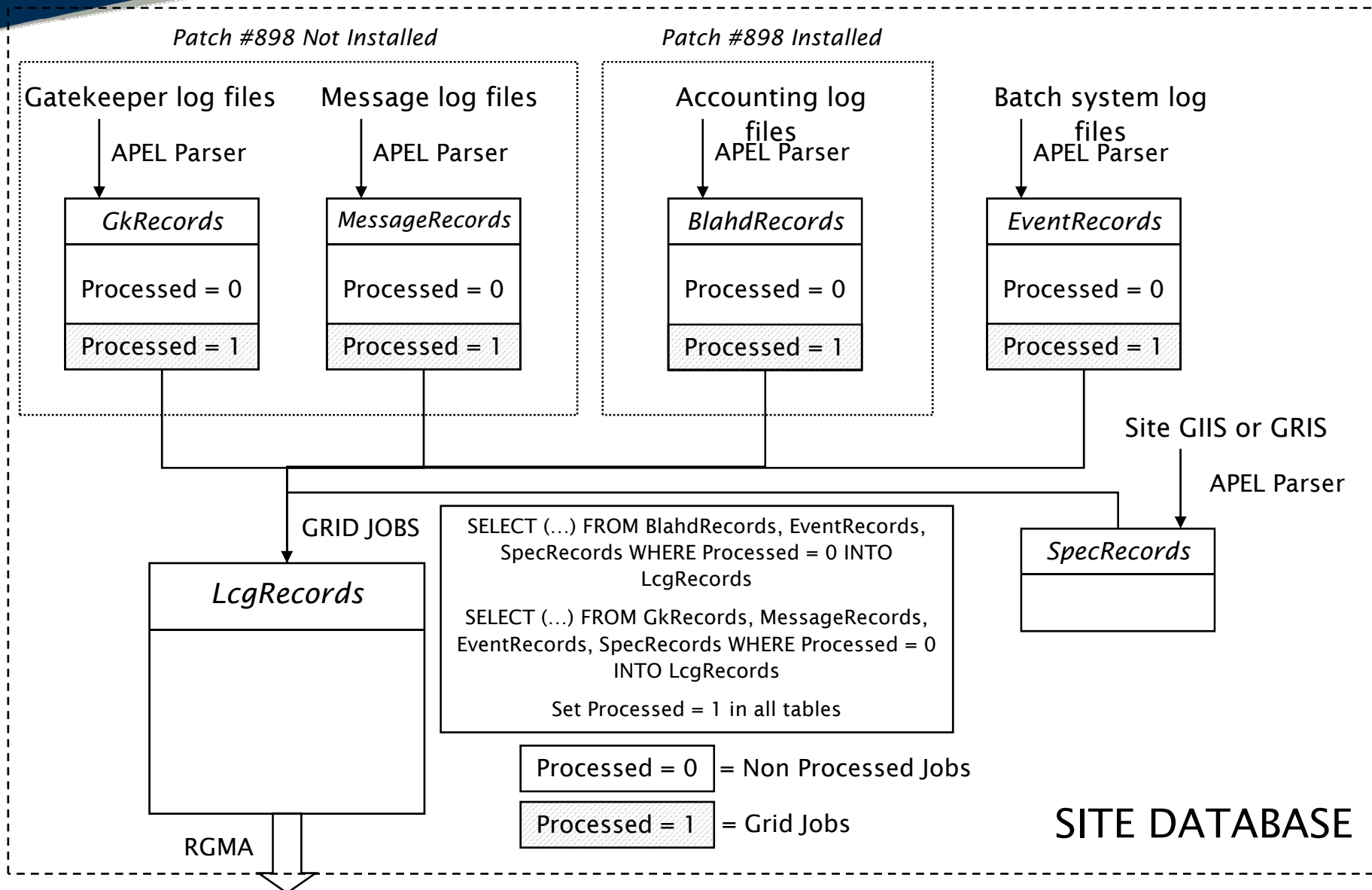
Local Job Accounting

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Background

- Currently, only grid jobs are published into GOC and available through Accounting Portal
- Repeated requests from sites for a local job accounting solution so that their local work is recognised externally
 - Some sites working on their own solution
- Tier1 report contains local job accounting information (added manually)
- VOs recognise some local work as appropriate and would like to see it in aggregation.



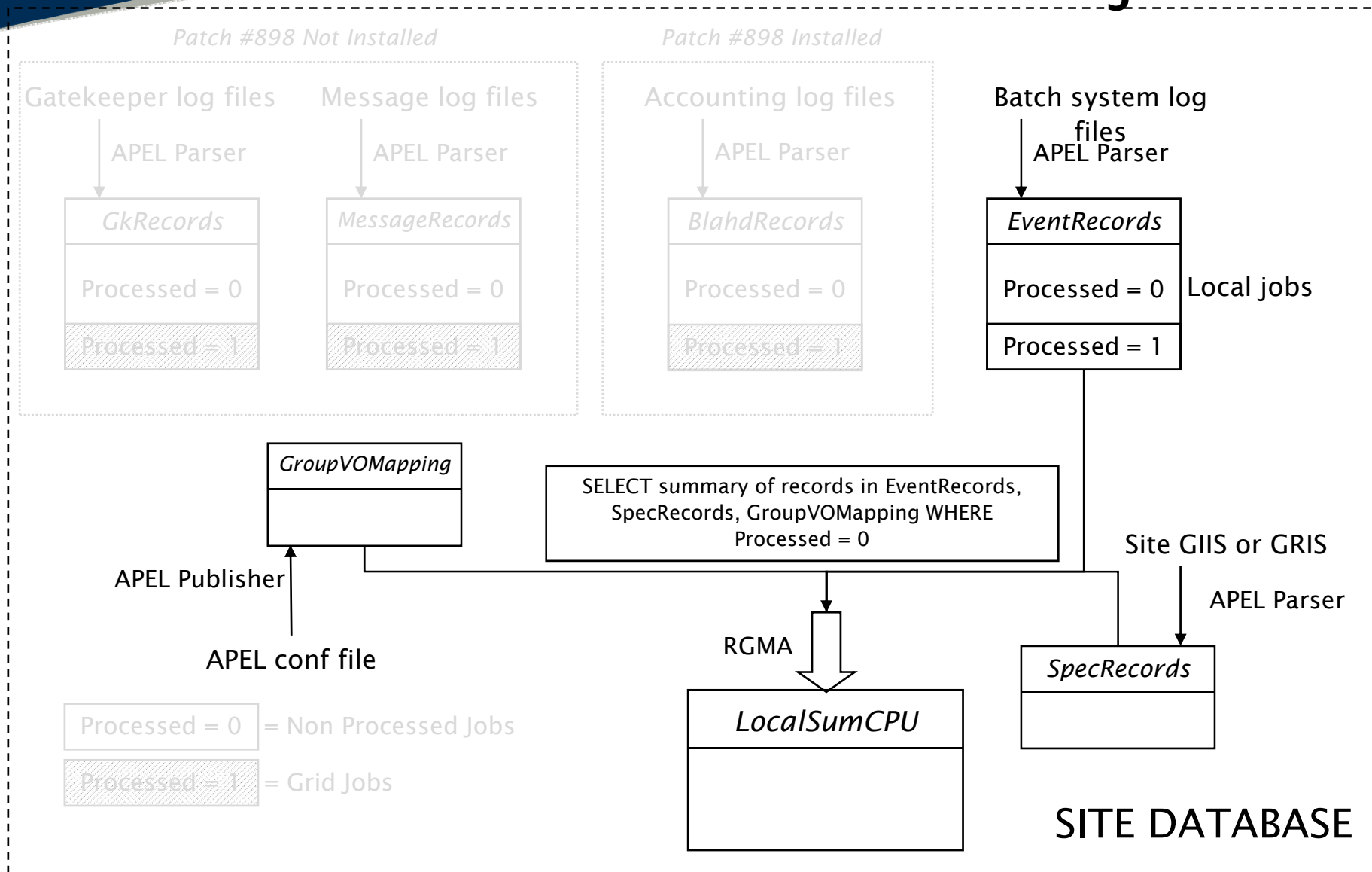


Current Process (only grid jobs)

- APEL publisher tries to join records with Processed = 0 from all the different tables.
- Records joined are inserted into LcgRecords.
- LcgRecords contains all the Accounting Records that have been/will be published to RGMA.
- Records selected are updated to Processed = 1 in all the tables.
- Records are published from LcgRecords to the Central Repository via RGMA.
- Records not joined keep Processed = 0.



Local jobs



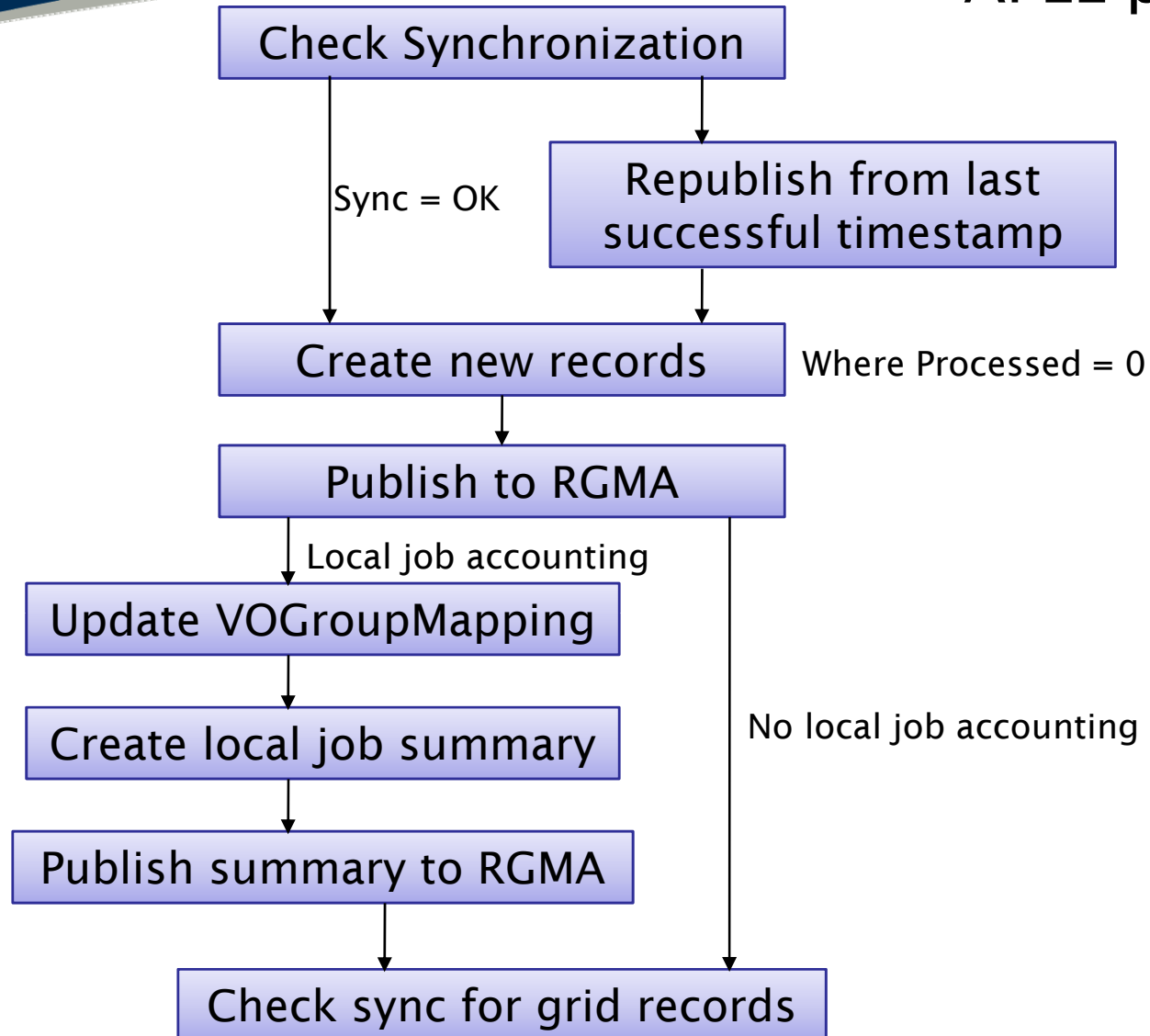


Local job accounting

- Local job records are defined as non-grid job records
- The records that haven't been joined after running APEL publisher (Processed = 0) will be considered as local job records
- The local groups in EventRecords are mapped into VOs through the GroupVOMapping table (obtained from configuration file)
 - Maps local unix groups of local jobs onto VOs
- The records are summarized in the same format than SumCPU, so they can easily be used by the Accounting Portal



APEL publisher





VO Group Mapping

- New section on APEL publisher configuration file

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Example config file that is typically used when deployed on the R-GMA MON Node. This config will run the
JoinProcessor to formulate the accounting records. Records are then streamed to the GOC. -->

<ApelConfiguration enableDebugLogging="yes">
  <SiteName>place your site name here</SiteName>
  <DBURL>jdbc:mysql://localhost:3306/accounting</DBURL>
  <DBUsername>no-default</DBUsername>
  <DBPassword>no-default</DBPassword>
  <!-- Number of records selected each time Modify this value if OutOfMemory error appears in the Publisher
approx 150000 records per 512Mb memory -->
  <Limit>300000</Limit>

  <!-- Examine APEL Schema //-->
  <DBProcessor inspectTables="yes"/>
  <!-- Publisher Options ===== publishGlobalUserName="yes" : encrypt UserDNs with a 1024-bit RSA
key : If "no", UserDNs are not published (default) <Republish>missing</Republish> : publish missing data
only (default) <Republish>all</Republish> : publish ALL accounting data in the database Gap Publisher :
publish data in a specified interval <Republish recordStart="2006-02-01" recordEnd="2006-04-
25">gap</Republish> --> <JoinProcessor publishGlobalUserName="no"> <Republish>missing</Republish>
</JoinProcessor>

  <GroupVOMapping>d0:dzero</GroupVOMapping>
  <GroupVOMapping>localatlas:atlas</GroupVOMapping>

</ApelConfiguration>
```




Accounting Portal

- New checkbox in Accounting Portal to show/hide Local Jobs from View
- New plots showing percentage of local jobs in VO/site/region



Issues

- Local accounting only an estimate
 - Site mis-configuration can lead to grid jobs accounted for as local jobs temporarily.
- No individual local job records will be published, only aggregated summaries.
- Two sites sharing resources could cause double-counting
 - How big an issue is this?
- Sites not using APEL need to implement their own solution but we will publish the spec.
- Need new flag/field to distinguish between local and grid jobs in summary
- Which SpecInt value should be used for local jobs?
- Assignment of work to VO is done by the site. The VO may not agree that this is appropriate work for their VO. This is also an issue for Grid work.