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# APEL and the New Benchmark

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WLCG Accounting Task Force, 25 Nov 2021



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# Outline

1. Recent work
2. What's needed
3. Existing workflow
4. Planned changes
5. Next steps

# Recent work

- More detailed design document created setting out:
  - Requirements as I understand them
  - Additional fields in accounting messages
  - Changes to APEL client and server software
  - Repository schema changes
  - Outline of summarising/aggregation changes
  - Suggested testing and migration ordering
  - Remaining questions
- Initial review with Iván and Julia

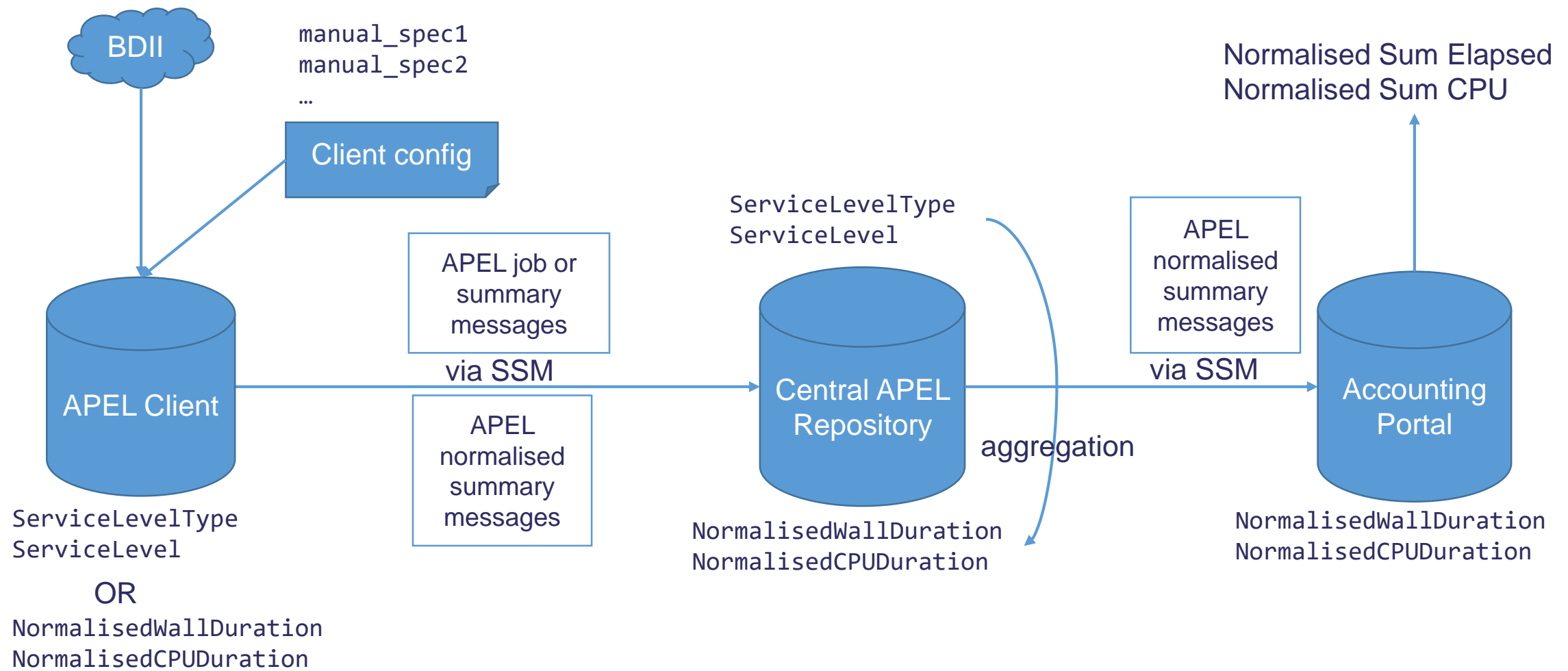
# What's needed

- Must have:
  - Support for the new benchmark metrics in clients and Repository alongside the existing benchmarks
  - Simplify any future changes in benchmark
  - Method to query which sites are publishing the new benchmark (to support decision making on timing of switchover)
- Nice to have:
  - Ability to display the benchmarks in the Accounting Portal
  - Method to set/record per-site per-cluster rough conversion factor between benchmarks

# Existing workflow

- Most sites include benchmarks as part of the APEL accounting records (job or summary)
- Many sites only provide final usage  $\times$  benchmark values in “normalised summaries”
- Benchmarks can be pulled in from BDIIs or set manually in local accounting client config
- Sites apply a scaling factor between execute nodes so that they can use a single benchmark per cluster

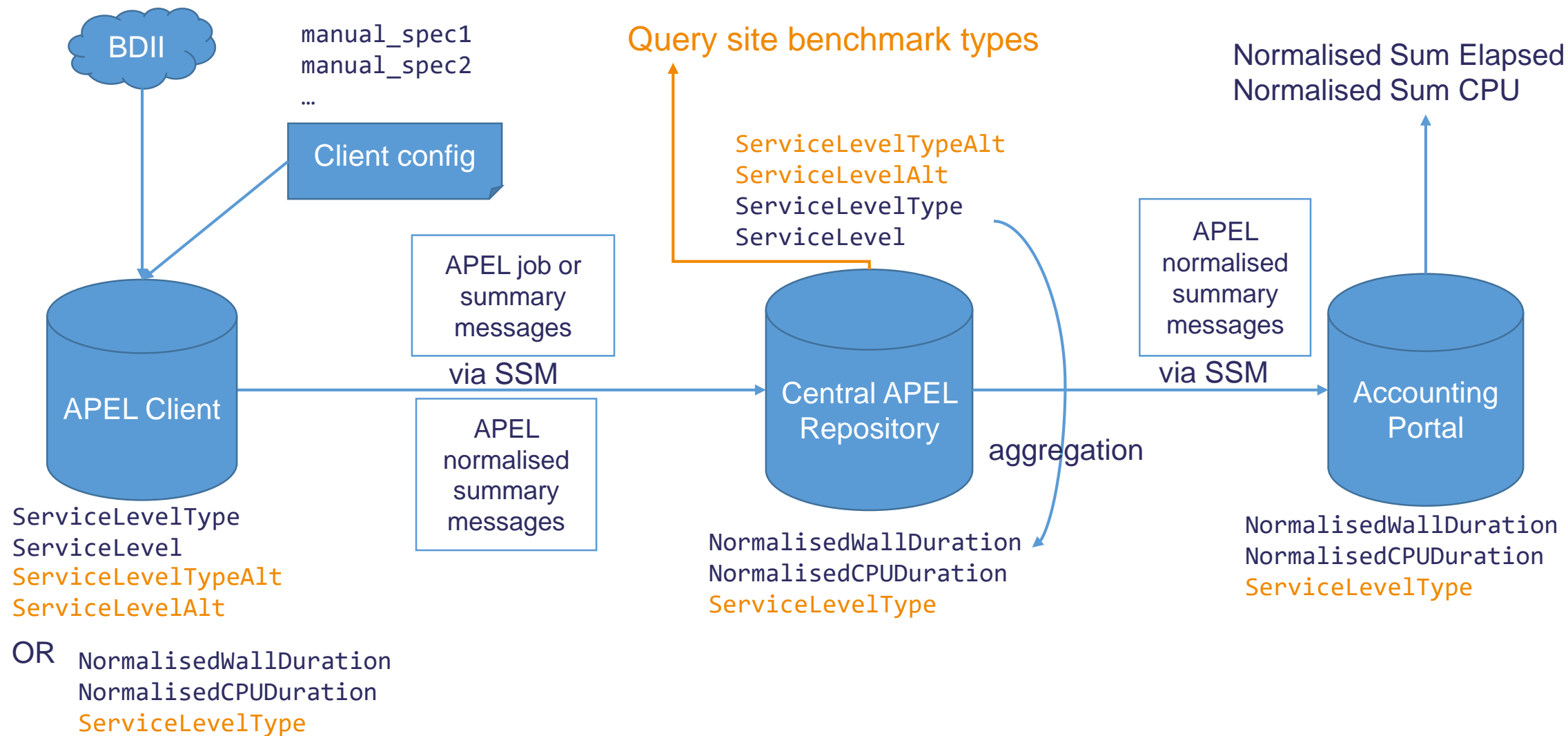
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# Planned changes

- Add fields for an additional benchmark value and benchmark type to job and summary records and Repository schema
  - Allows direct comparisons to be made between old and new benchmarks if both supplied
  - Requires additional record fields and schema changes
  - Includes changes to accounting clients and Repository
- Normalised accounting messages to (just?) include benchmark type that the records are normalised using
- Method to generate reports on which benchmarks sites are reporting
- Portal only displays data using the “official” benchmark (whichever one that happens to be at the time)

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# Next Steps

- Detailed design for handling normalised records
- Final design review
- Coordinate with HTCondor and ARC
- Start implementation



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# Thank you