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# APEL and the New Benchmark

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HEP-SCORE Task Force, 3 March 2021

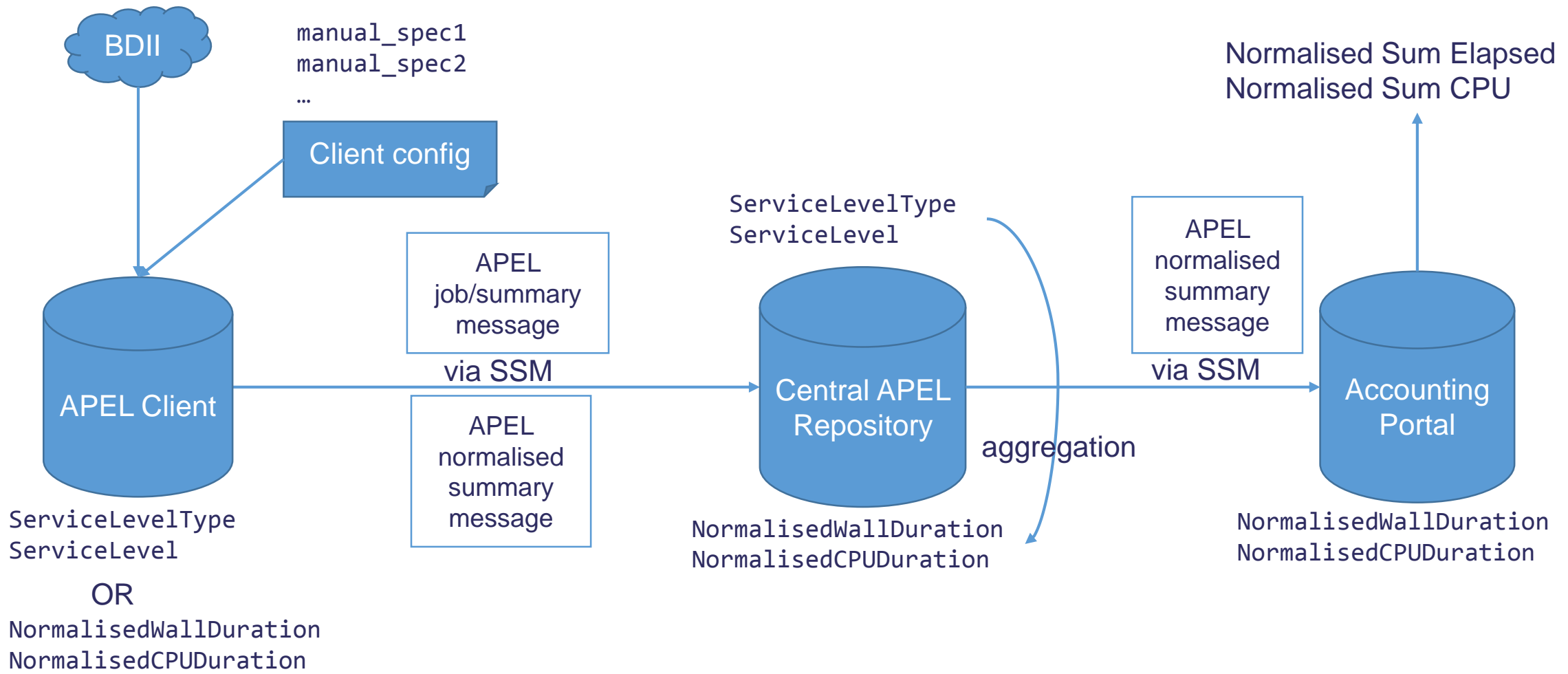


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# Existing workflow

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

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# What's needed

- Must have:
  - Support for the new benchmark metrics, either instead of or alongside the existing benchmarks
- Optionally:
  - Ability to display the benchmarks in the Accounting Portal
  - Exclude the benchmark from the accounting record, have a separate path for it to reach the Repository and a way to include it when aggregated or displayed.

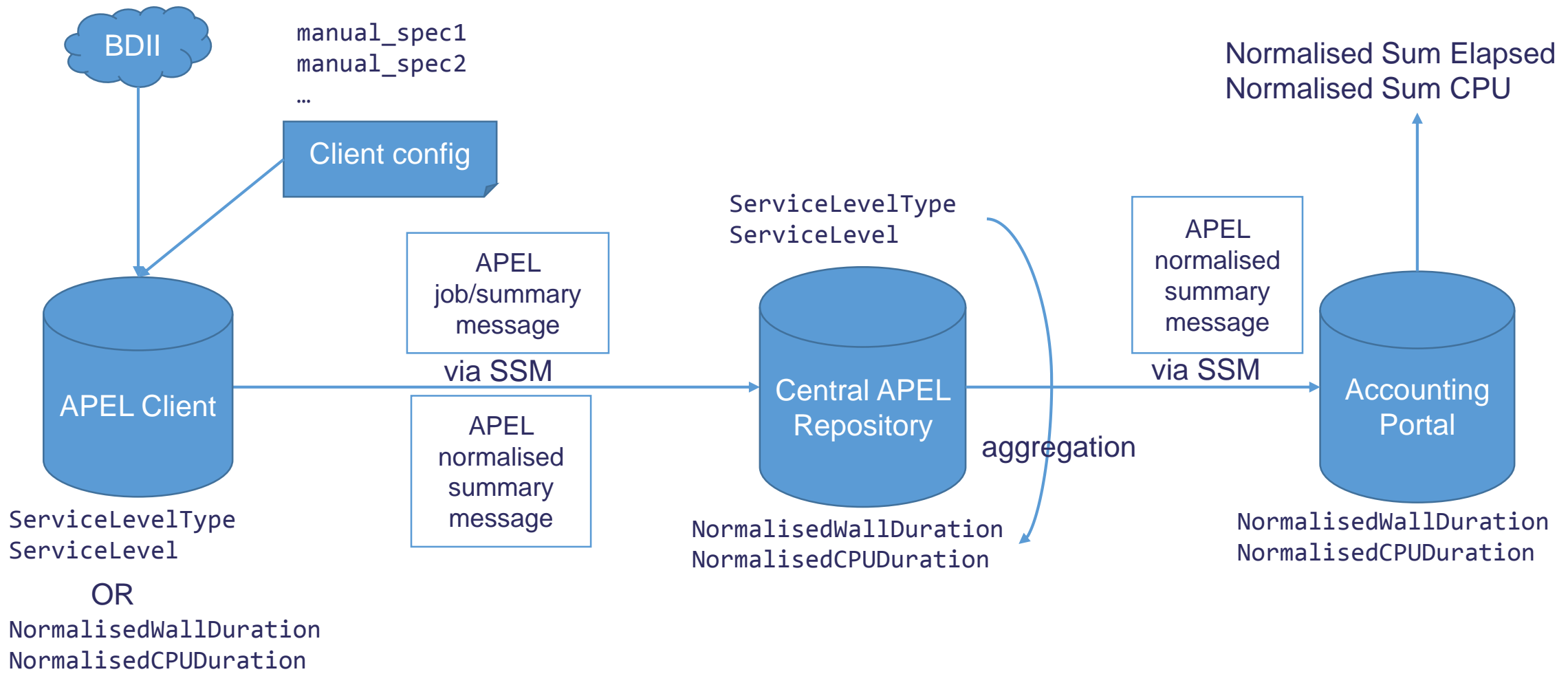
# Options

1. Add “HEP-SCORE20” as an alternative option to HEP-SPEC06 (and SPECint 2000)
  - Done before for Si2k to HS06
  - No changes required in Portal, minimal changes to APEL s/w and schemas
2. Add field for additional benchmark in records and Repository
  - Allows direct comparisons to be made between old and new benchmarks
  - Requires additional record fields and schema changes
3. Delay inclusion of benchmarks
  - Relies on Repository being able to pull in complete set of benchmarks for every site
- Other
  - Changes to Portal and workflow between Repository and Portal, to show benchmarks

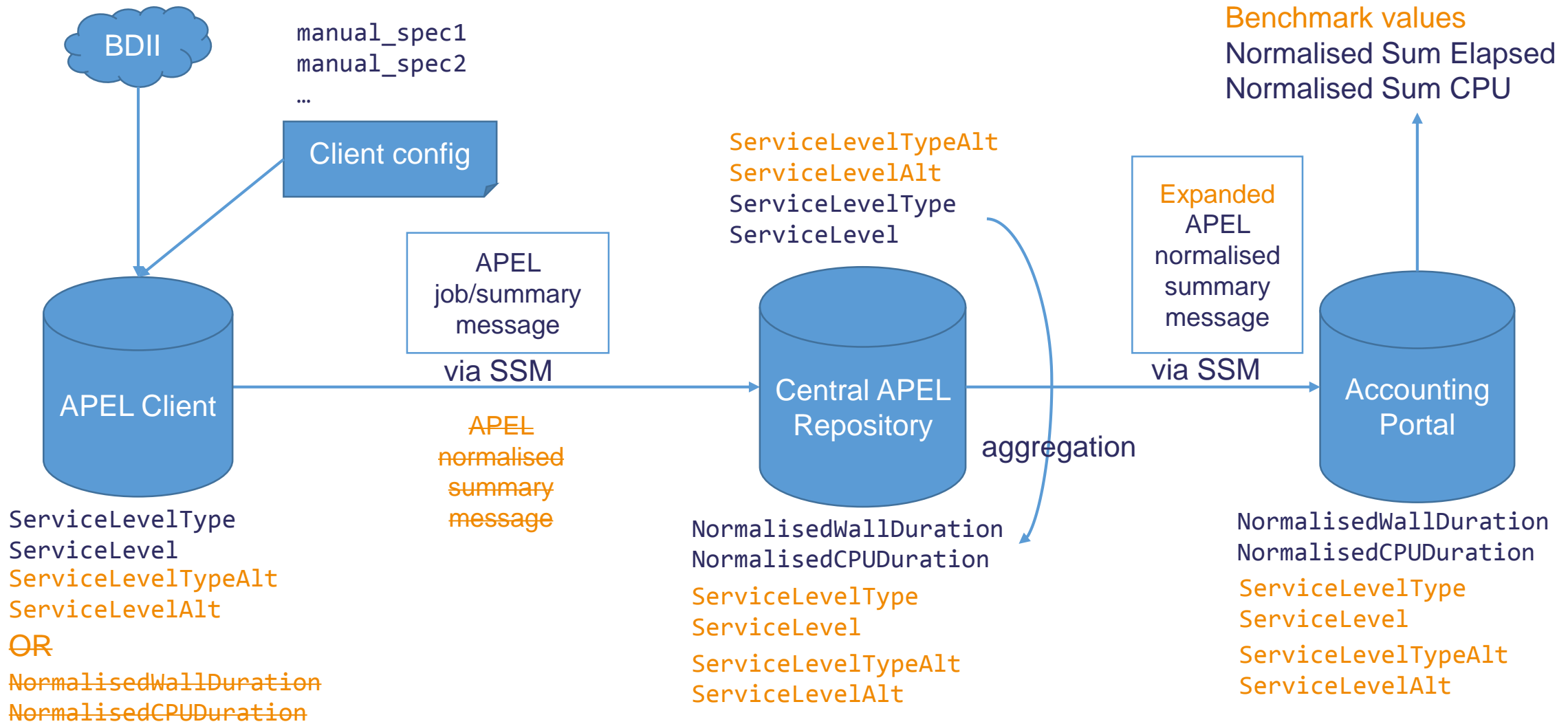
# Favoured Options

2. Add field for additional benchmark in records and Repository
  - Allows direct comparisons to be made between old and new benchmarks
  - Requires additional record fields and schema changes
- Other
  - Changes to Portal and workflow between Repository and Portal, to show benchmarks
- Will require sites sending normalised summaries to revert to plain summaries so aggregations can be done for both benchmarks
- This work can potentially be extended to include support for GPU accounting at the same time

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# Next Steps

- Create a more detailed high-level design
- Estimate effort and time to implement changes to Accounting Repository, Portal and records
- Liaise with WLCG and EGI to understand time required to update publishing systems



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**Thank you**