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Facilities Council

APEL and the New Benchmark

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Grid Deployment Board, 14 April 2021

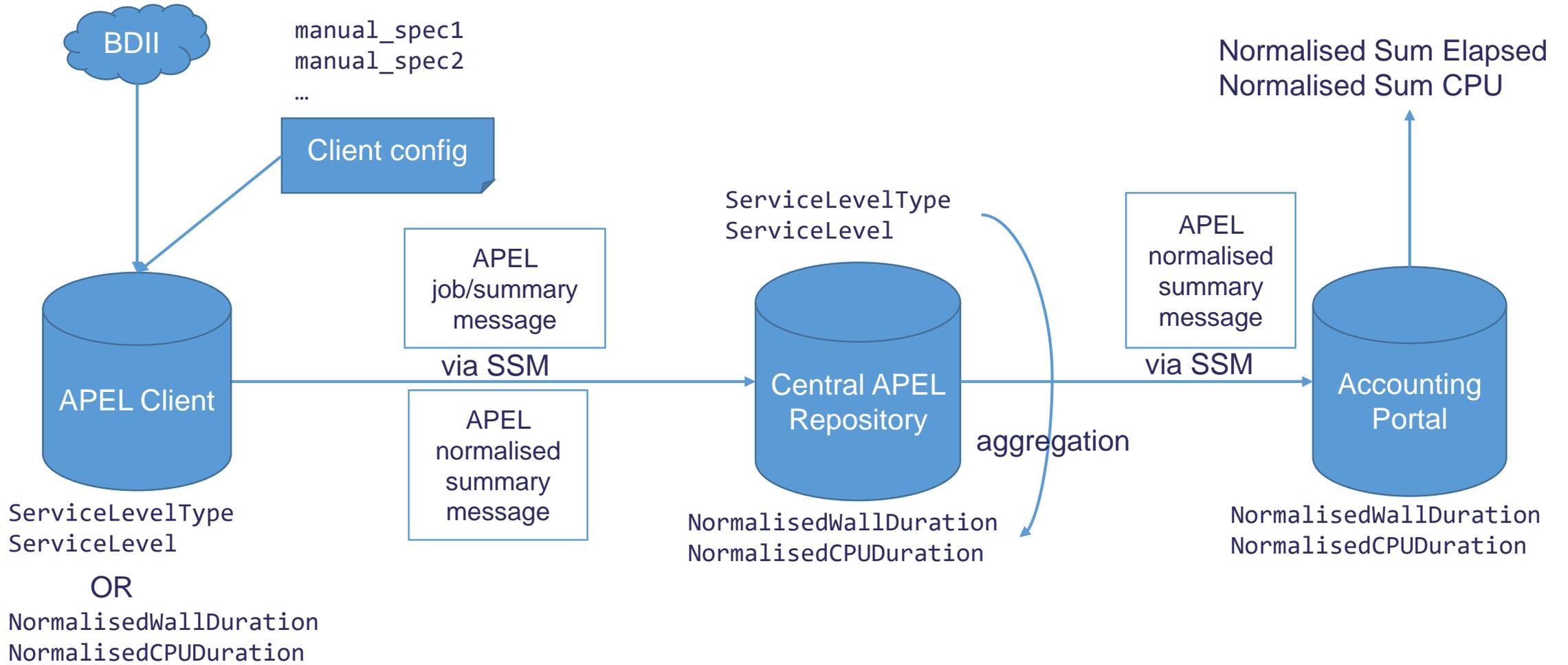


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Existing workflow

- 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 locally to the accounting client
- Sites apply a 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 in clients and Repository, either instead of or alongside the existing benchmarks
- Optionally:
 - Ability to display the benchmarks in the Accounting Portal

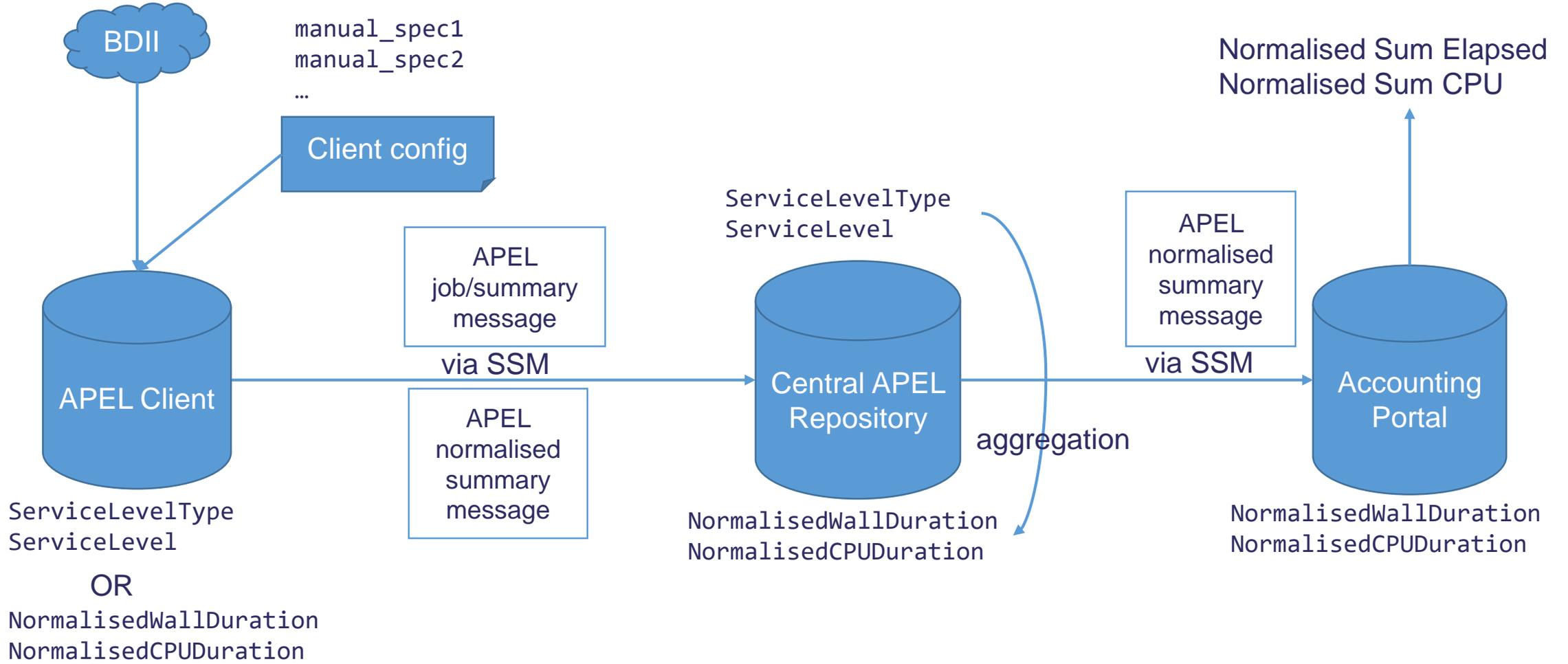
Options

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
- Additional
 - Changes to Portal and workflow between Repository and Portal, to show benchmarks

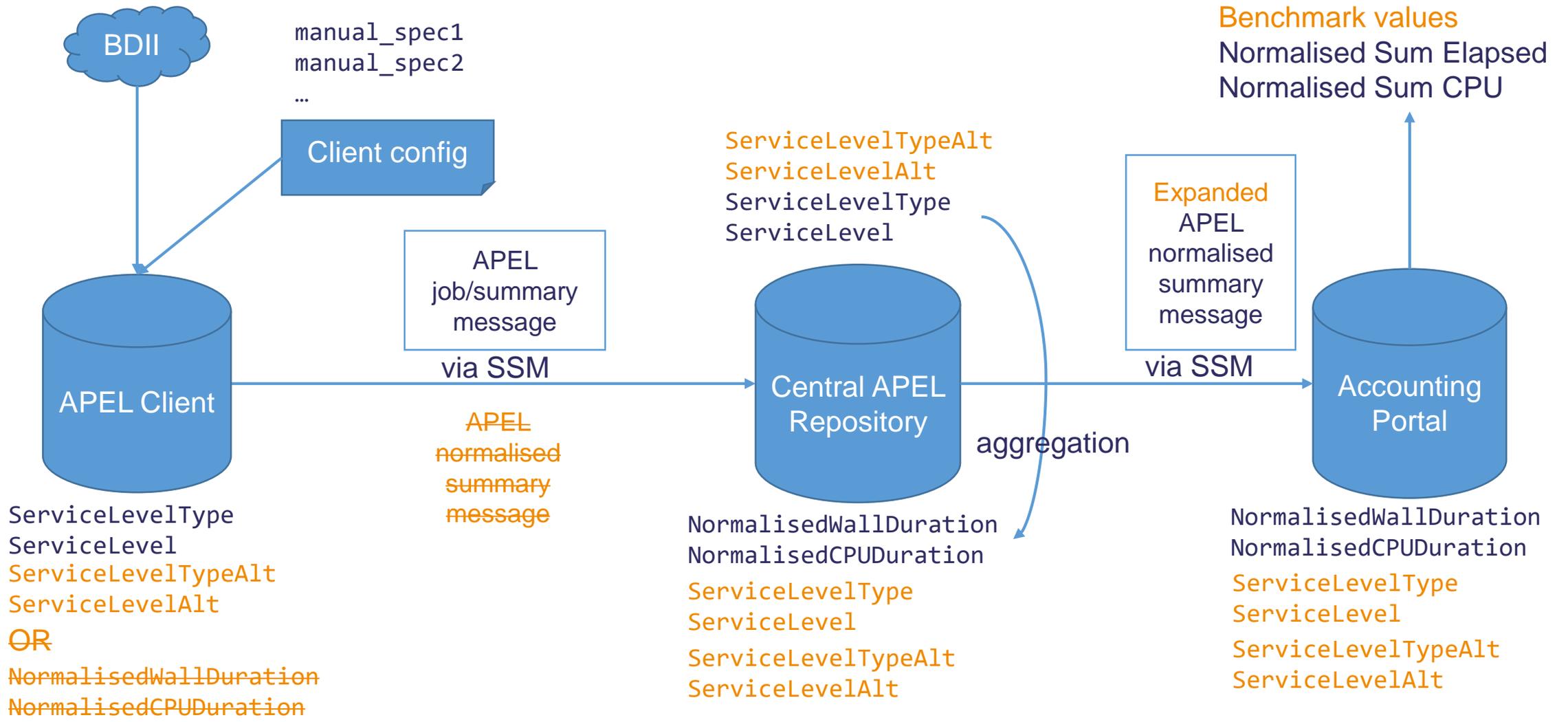
Preferred Option

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
 - Additional
 - 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
 - Includes changes to accounting clients, Repository, schemas, and record formats.
 - This work can potentially be extended to include support for GPU accounting at the same time

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Next Steps

- More detailed design work
- Effort estimates



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Thank you