Interactive Large-Scale Data and Graph Analytics

Conclusion

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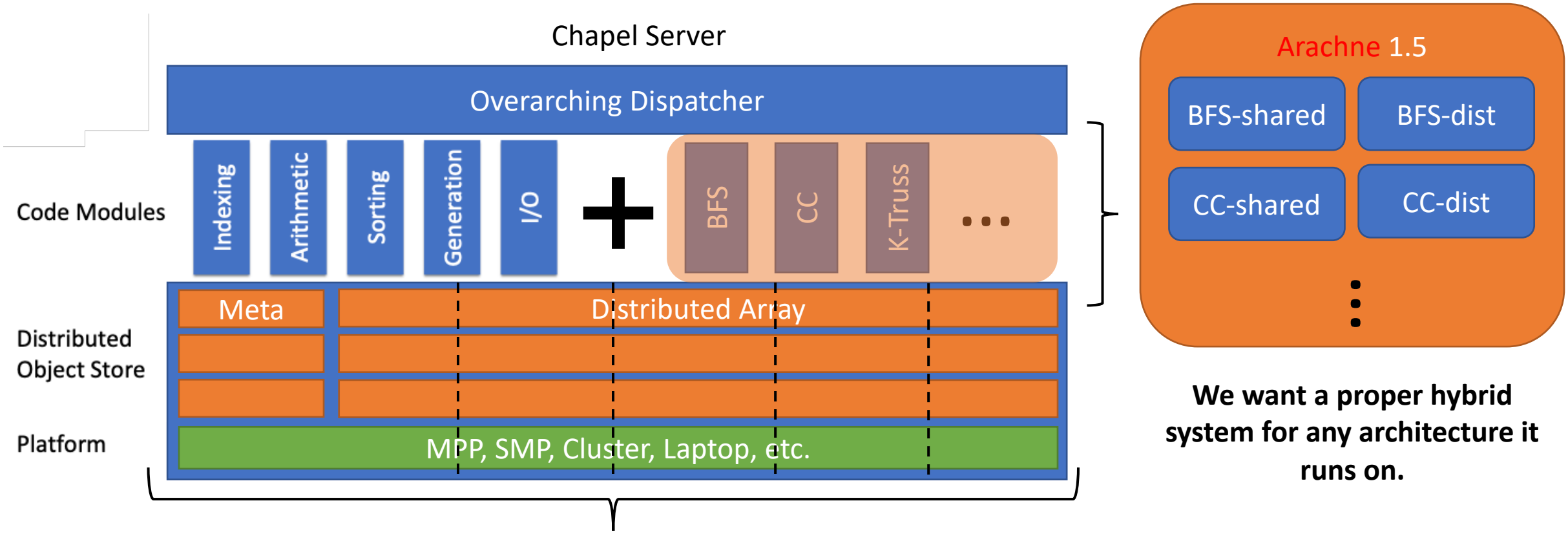
Scaling Arachne from SMPs to MPPs & Clusters



We want a proper hybrid system for any architecture it runs on.

MPPs (massively parallel processors) and Clusters → communication is a huge bottleneck
SMPs (symmetric multiprocessing)→ cannot achieve the scalability we want

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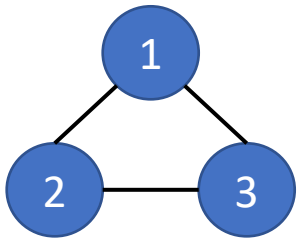
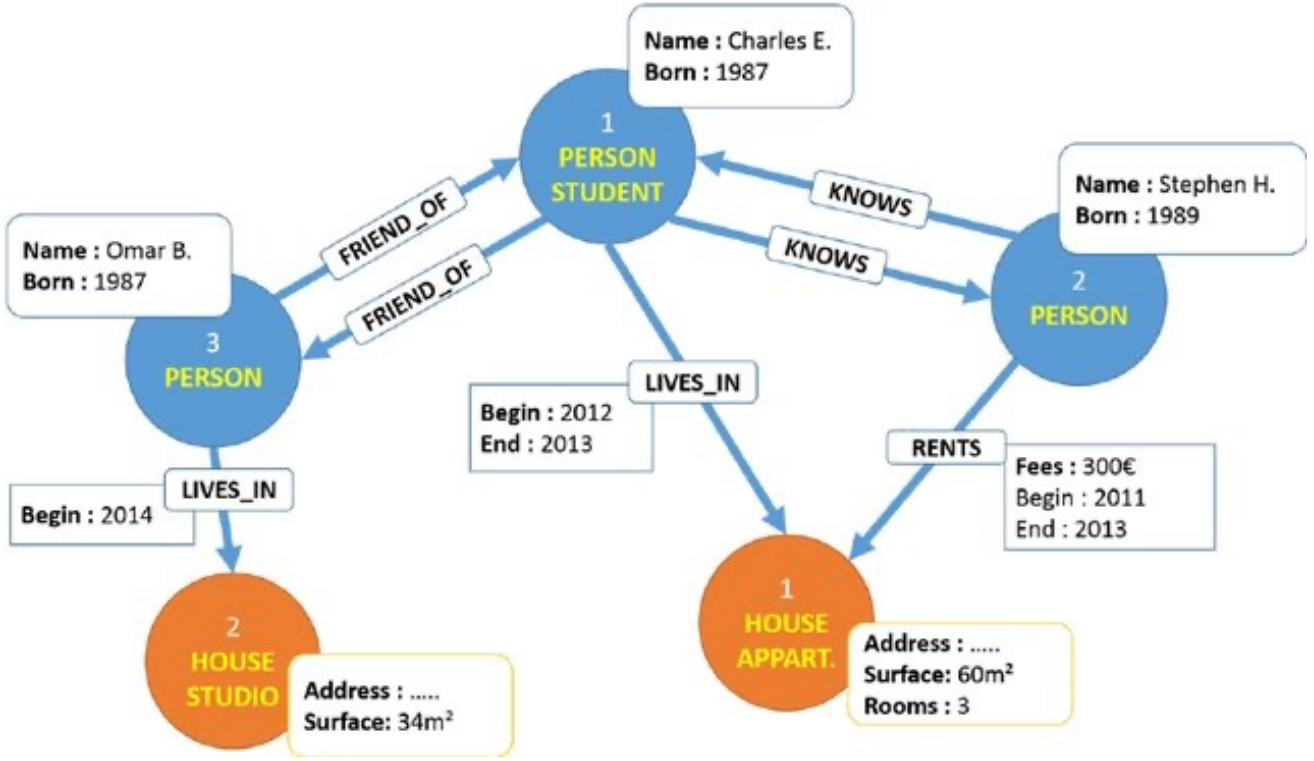
Enhancing Arachne (2.0) for Property Graphs



simple graphs



property graphs [Bouhali, Laurent, 2015]

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Conclusion

- We have shown the usability of Arkouda for large-scale data analysis.
- We have shown proof of concept of Arachne through breadth-first search, truss analytics, connected components, etc.
- We have outlined our goals of fleshing out Arachne to be a hybrid solution for (property) graph analysis scaling from SMPs to MPPs and clusters
- We have outlined the blueprint for the future of Arachne.

Thank You ☺
Questions?