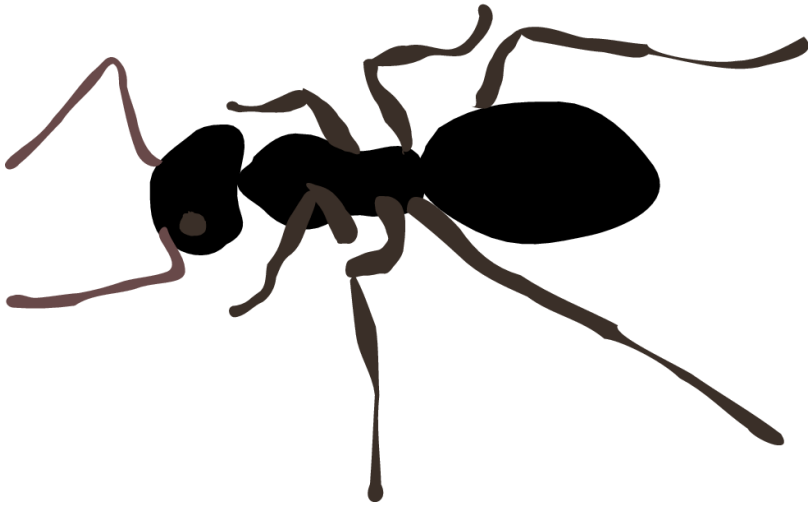
Freie Universität Berlin

digipolis

A Self-Organized Semantic Storage Service

Hannes Mühleisen, Anne Augustin, Tilman Walther,
Marko Harasic, Kia Teymourian, Robert Tolksdorf



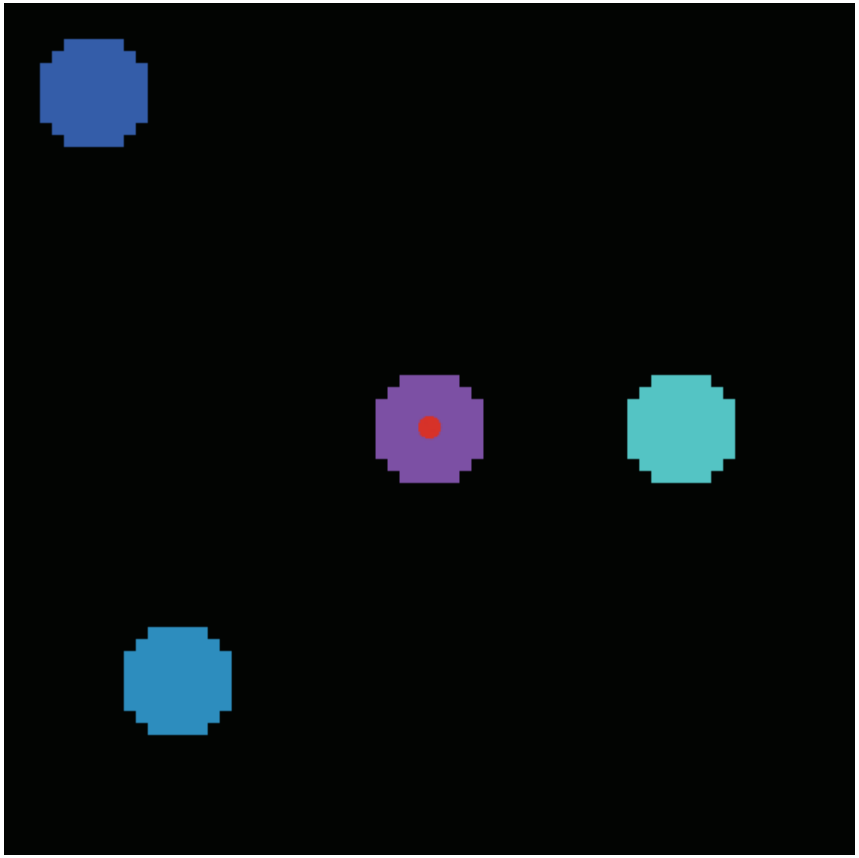
Freie Universität Berlin
Department of Mathematics and Computer Science
Institute for Computer Science
Networked Information Systems

- Semantic applications rely on a central semantic store
- The amount of data that these stores have to handle will rise exeedingly in the near future

Properties of Semantic Storage Services

	Scalability	Adaptability	Robustness	Correctness
Stand-Alone	low	**high**	low	**high**
Federated	**high**	**high**	fair	**high**
Distributed	**high**	fair	fair	**high**
Swarm-Based	**high**	**high**	**high**	fair

Foraging Ants



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Foraging Ants

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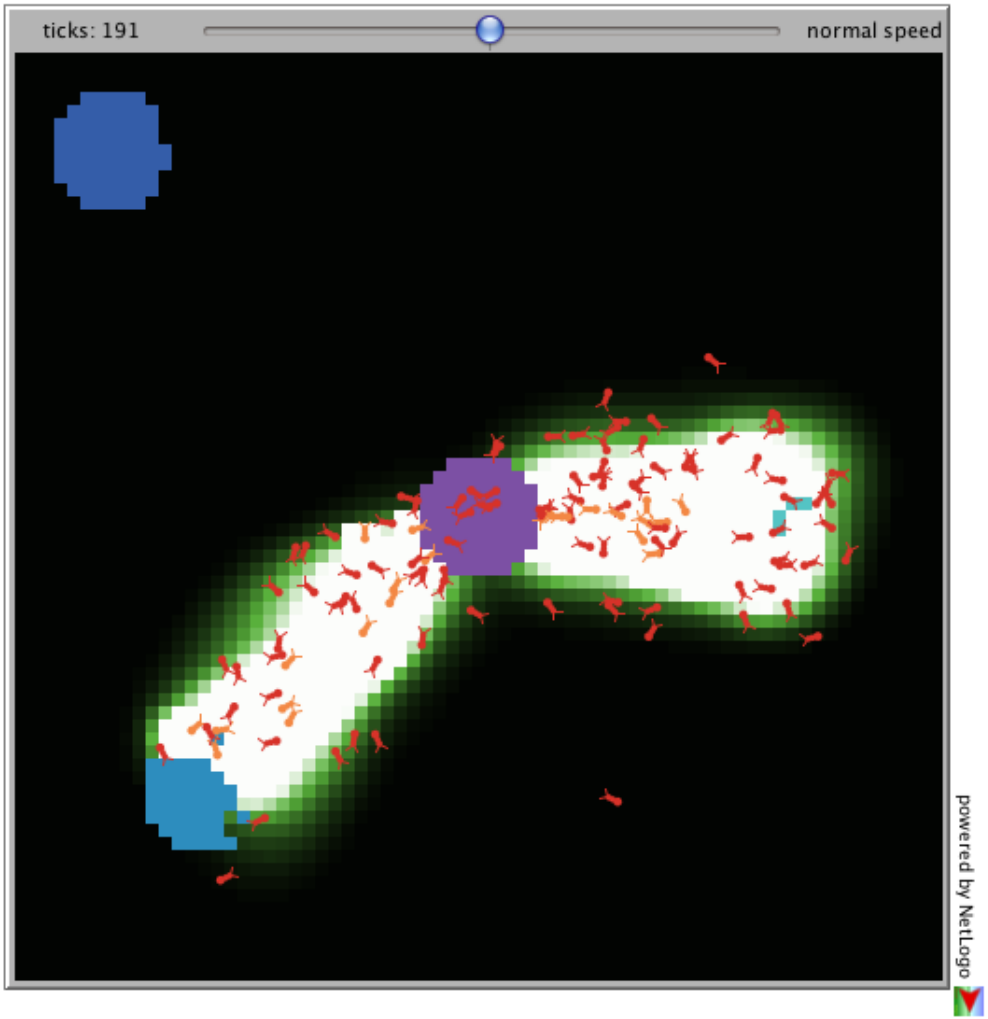

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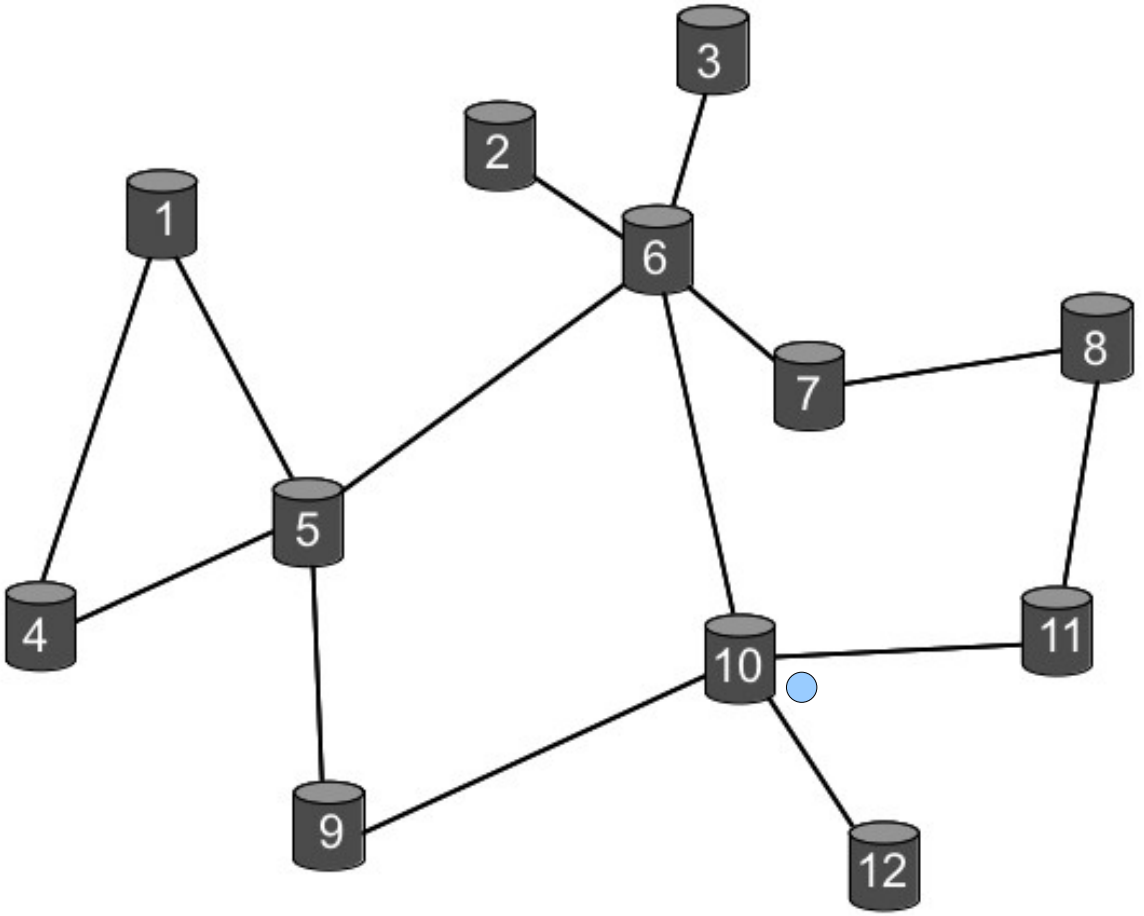
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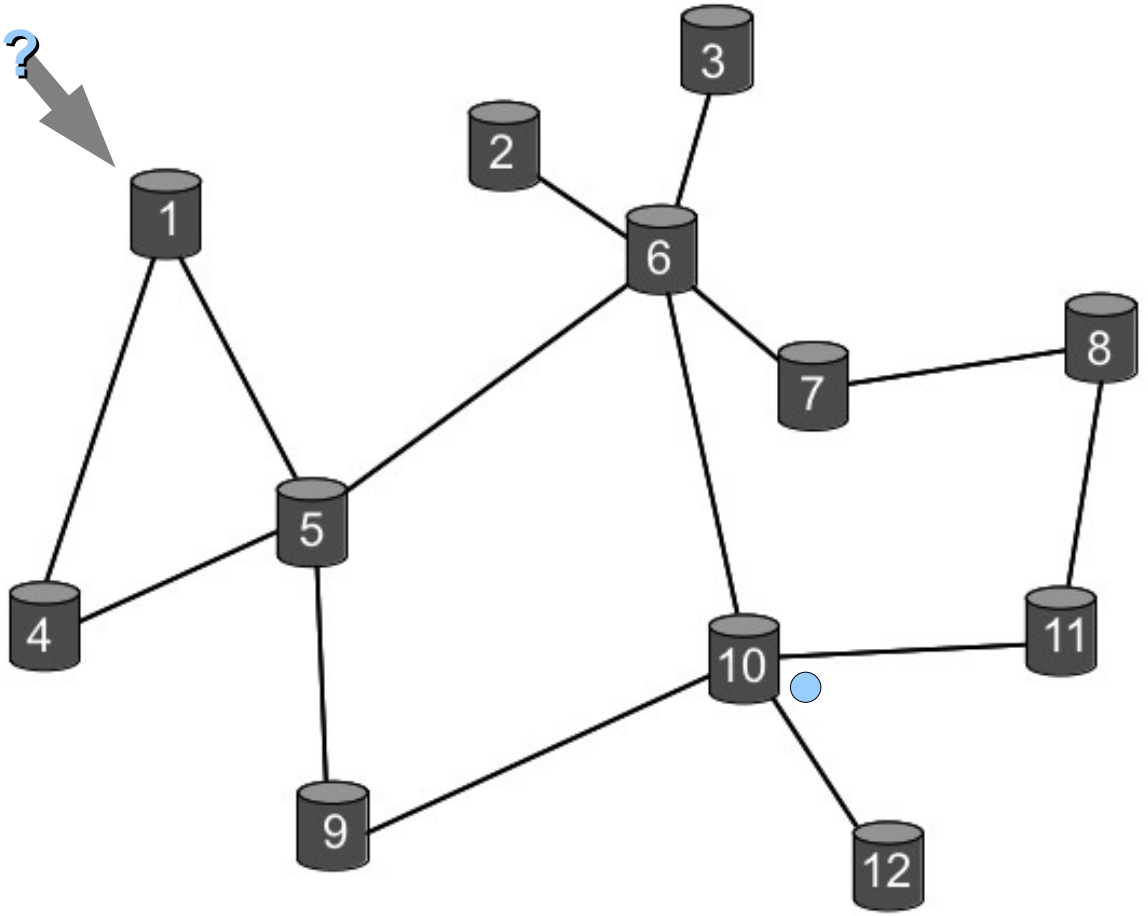
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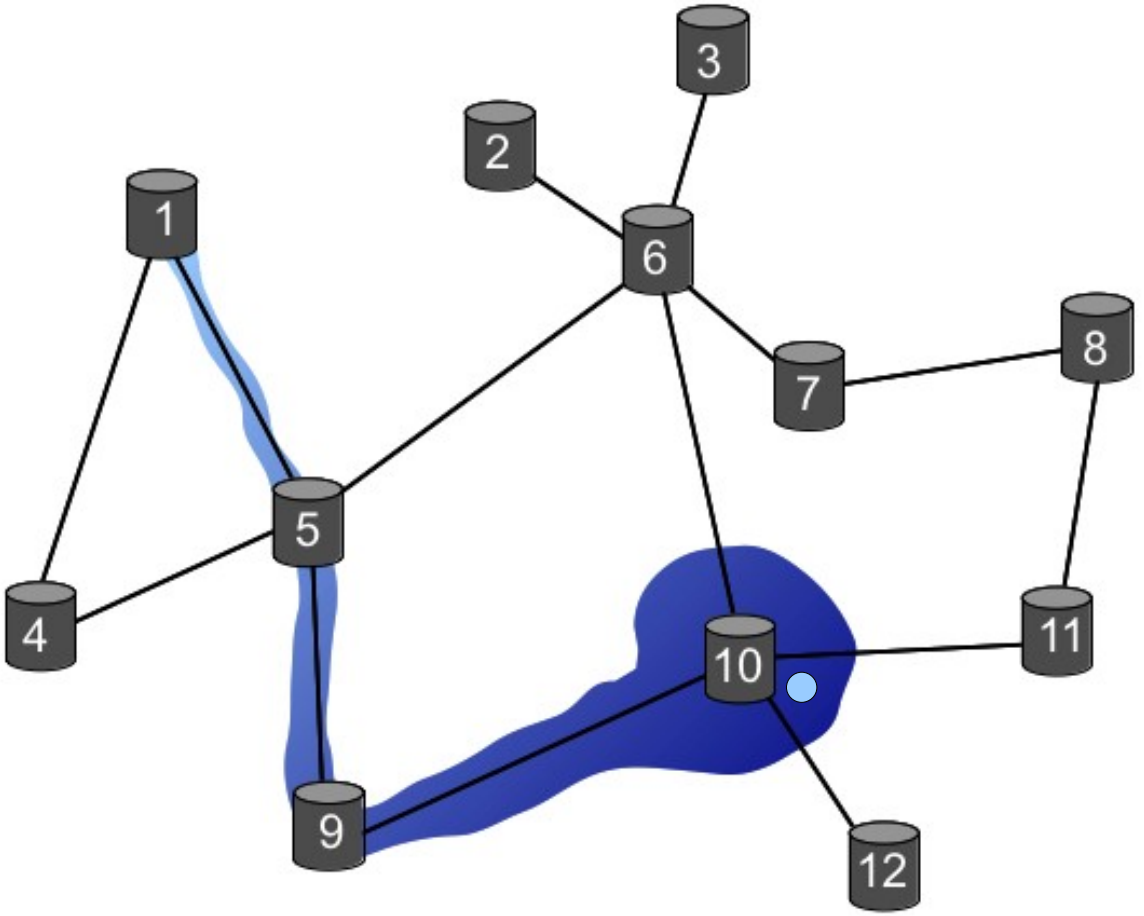
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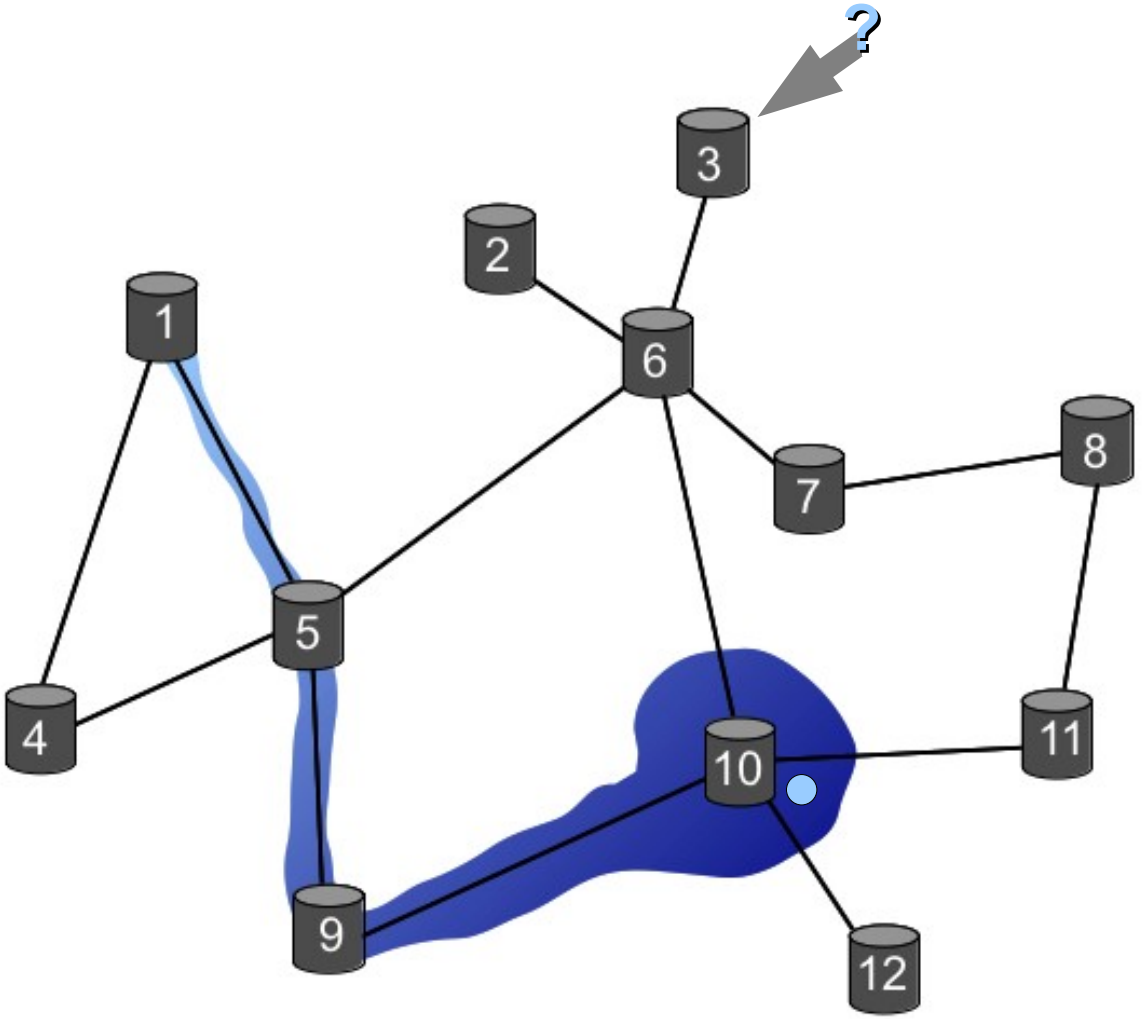
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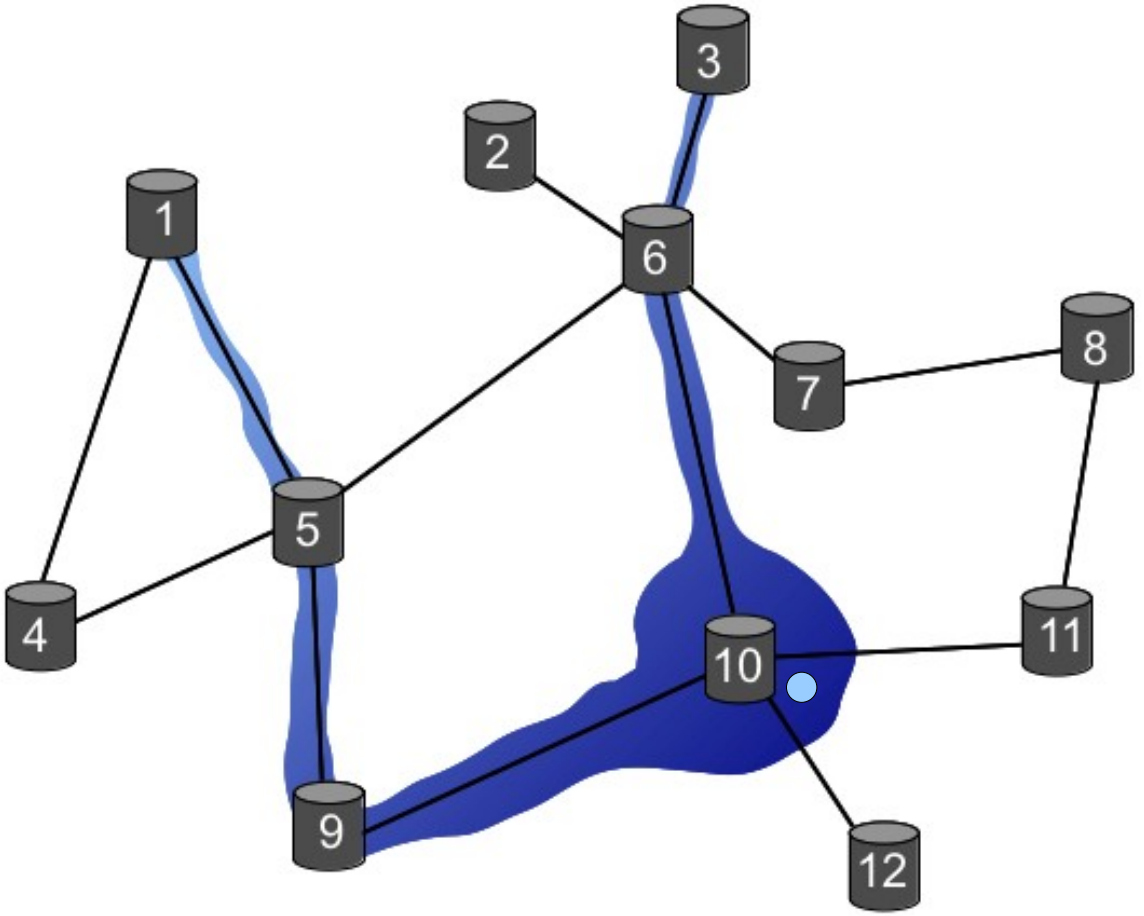
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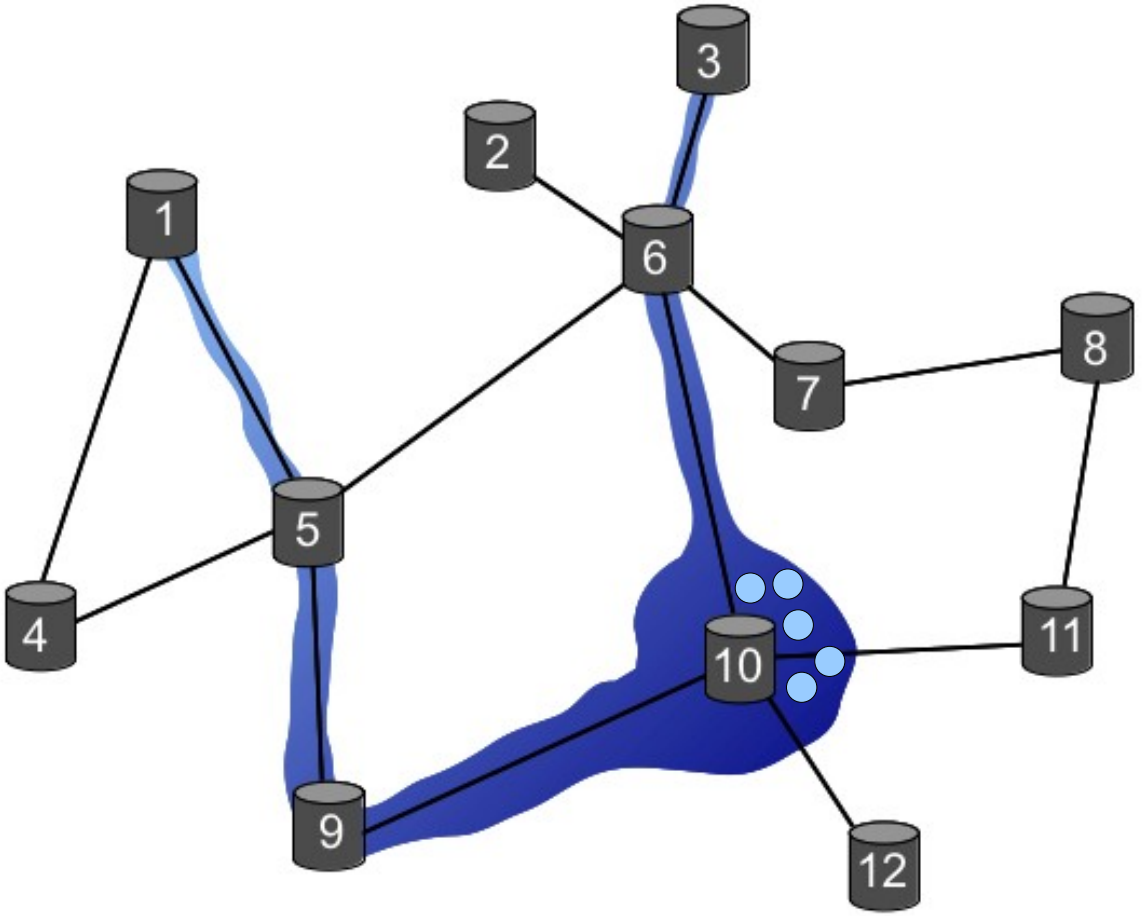
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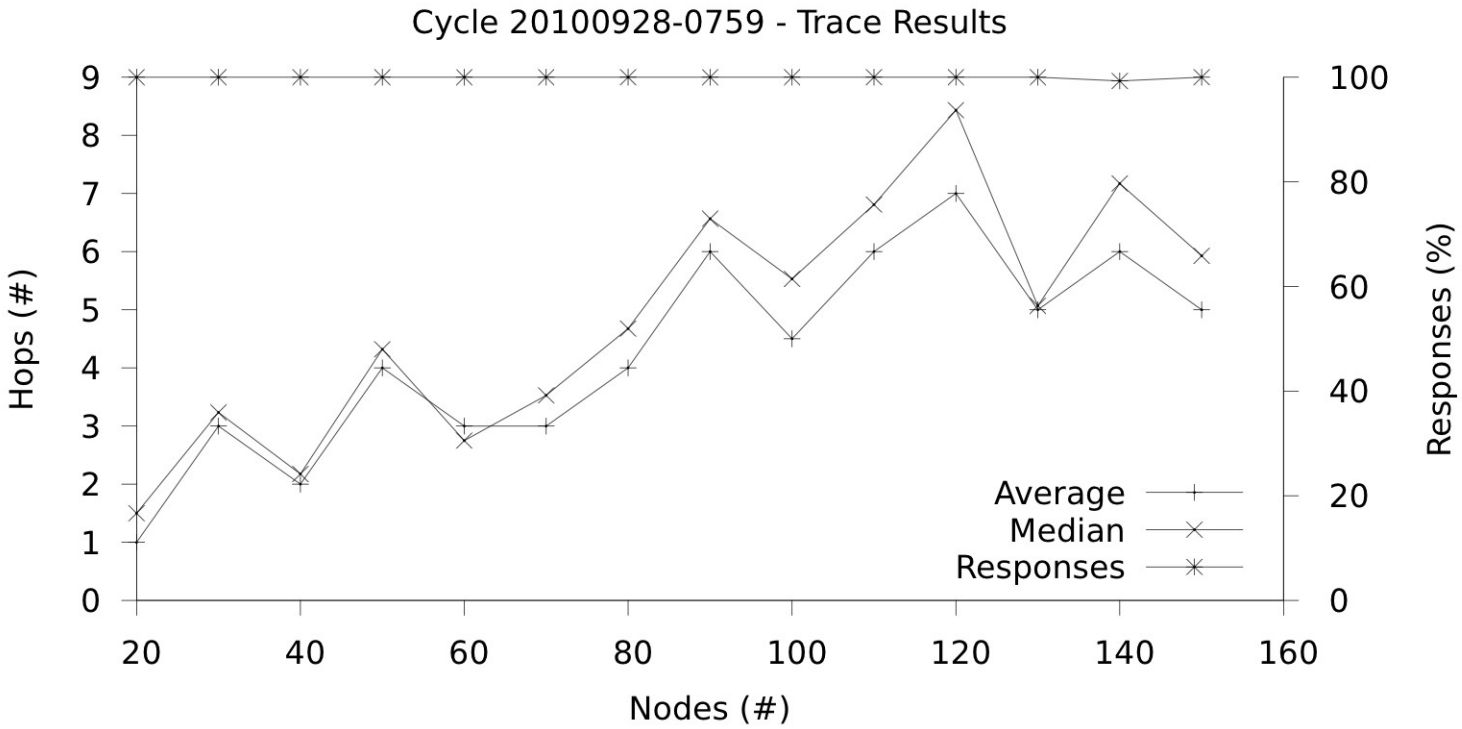
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Responses (%)
Nodes (#)
Average
Median
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140
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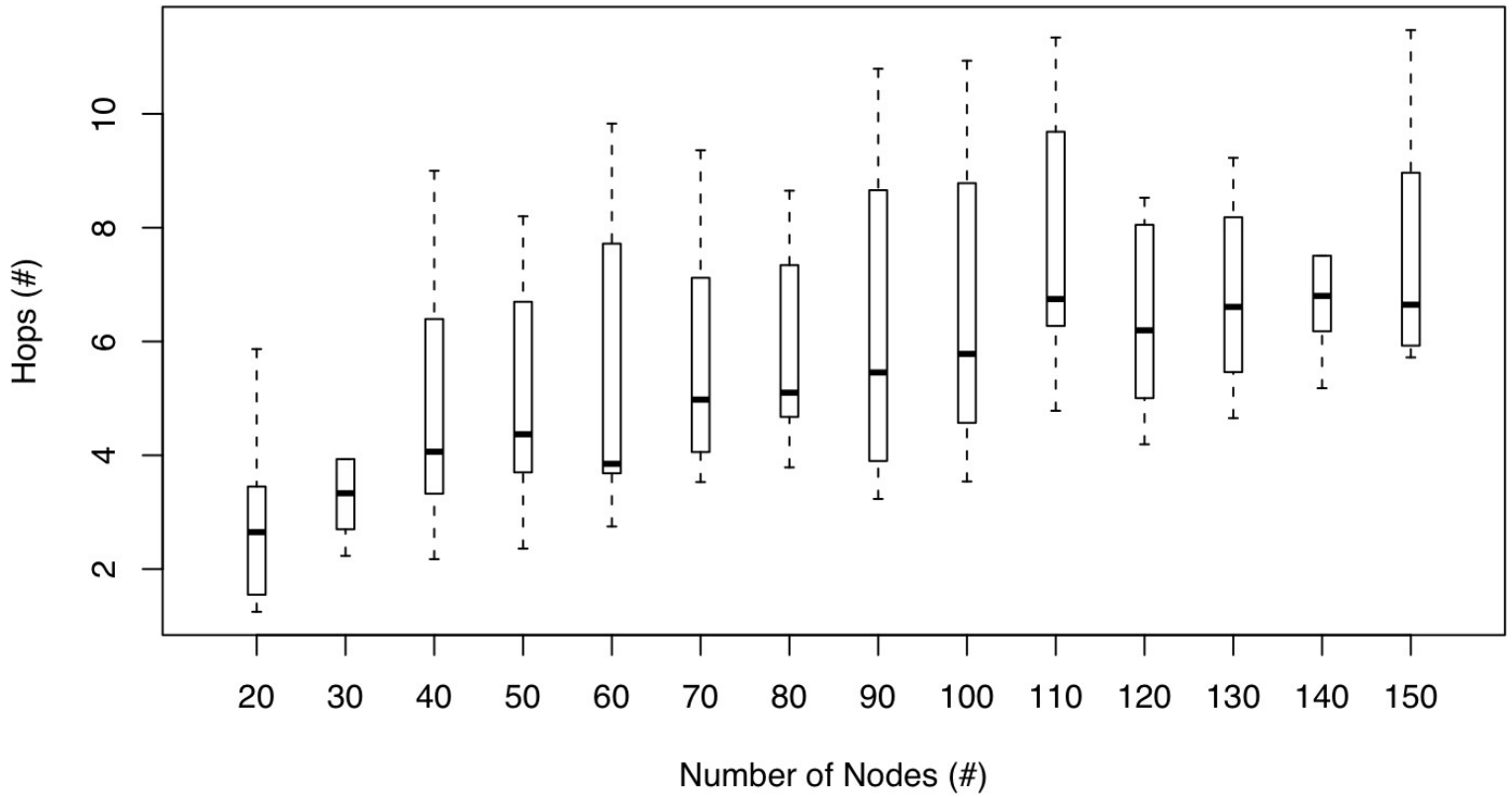
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Number of Nodes (#)

Thank You!