

PaVeDyS

Parametric Verification of Dynamic Distributed Systems

VERIMAG, Grenoble (Radu Iosif, PI)

LABRI, Bordeaux (Igor Walukiewicz)

INRIA, Rennes (Nathalie Bertrand)

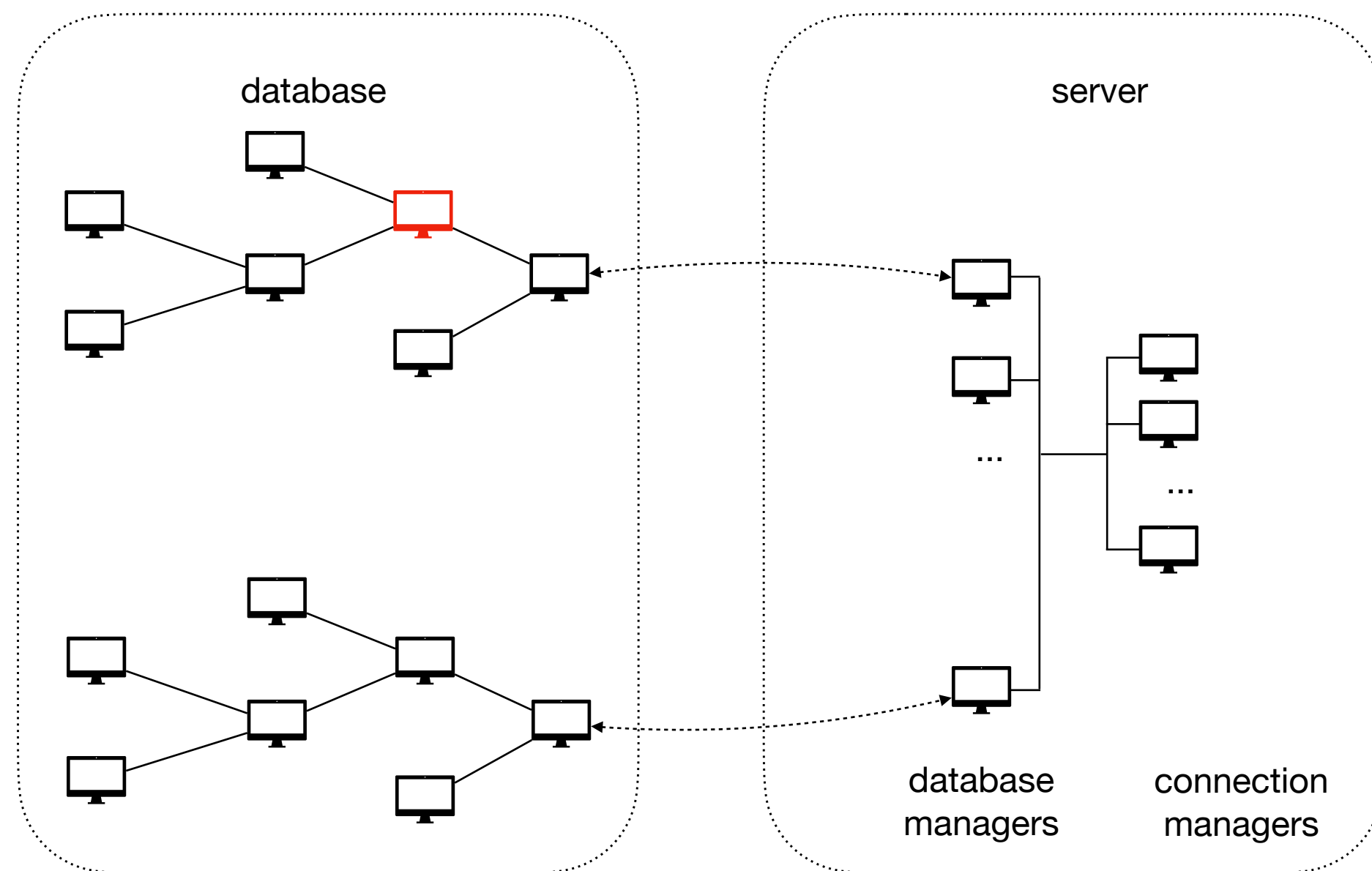
IRIF, Paris (Marie Fortin)

Project Goals

Automate the reasoning about **modern distributed systems** with **dynamically changing** networks of participants of **unbounded sizes**

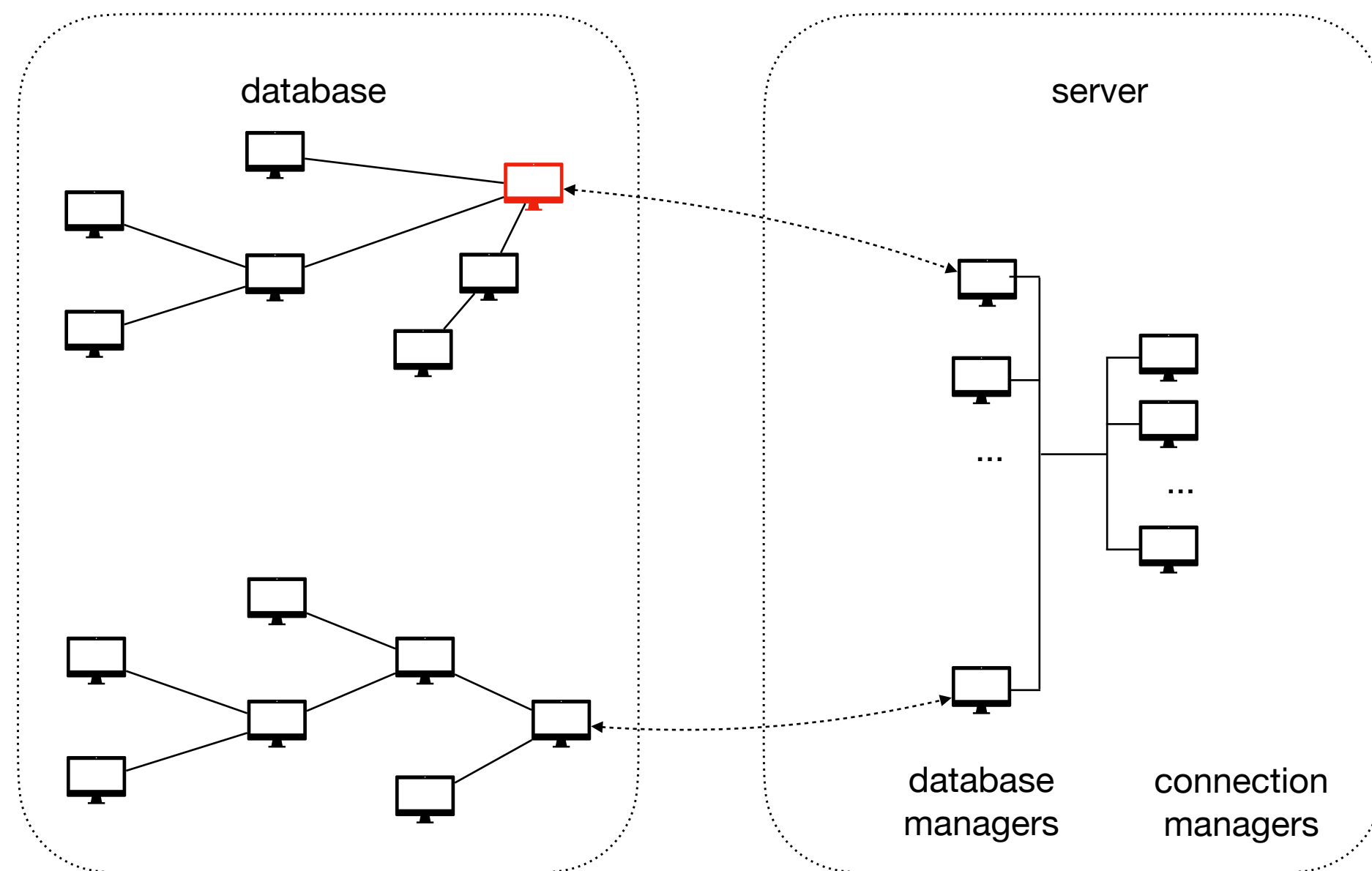
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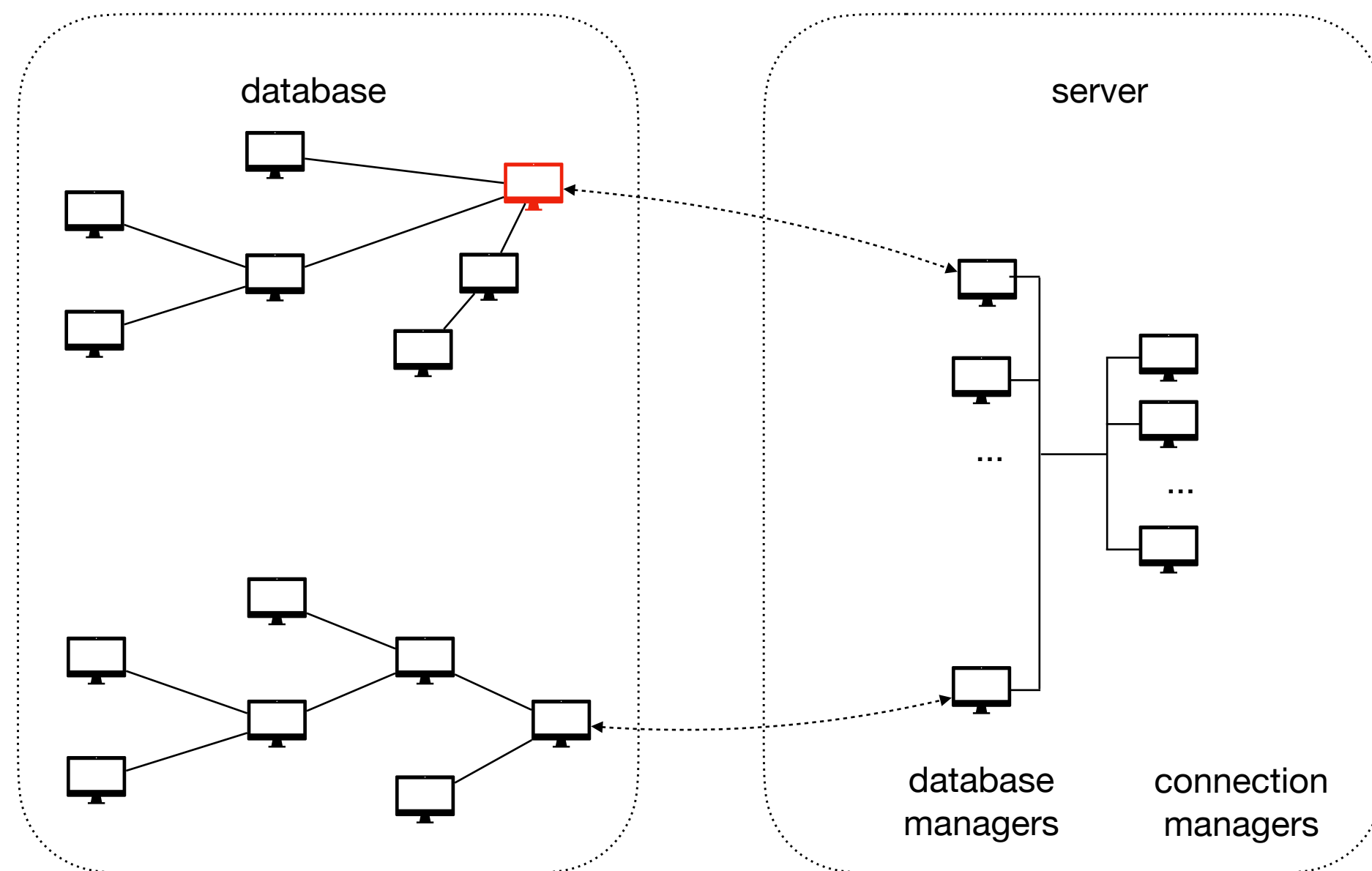
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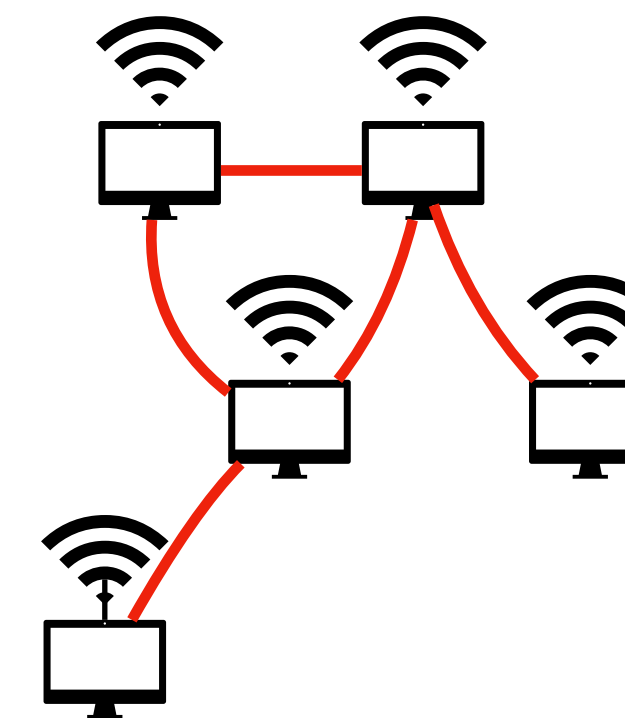
Internal Reconfiguration
Self-adapting Networks

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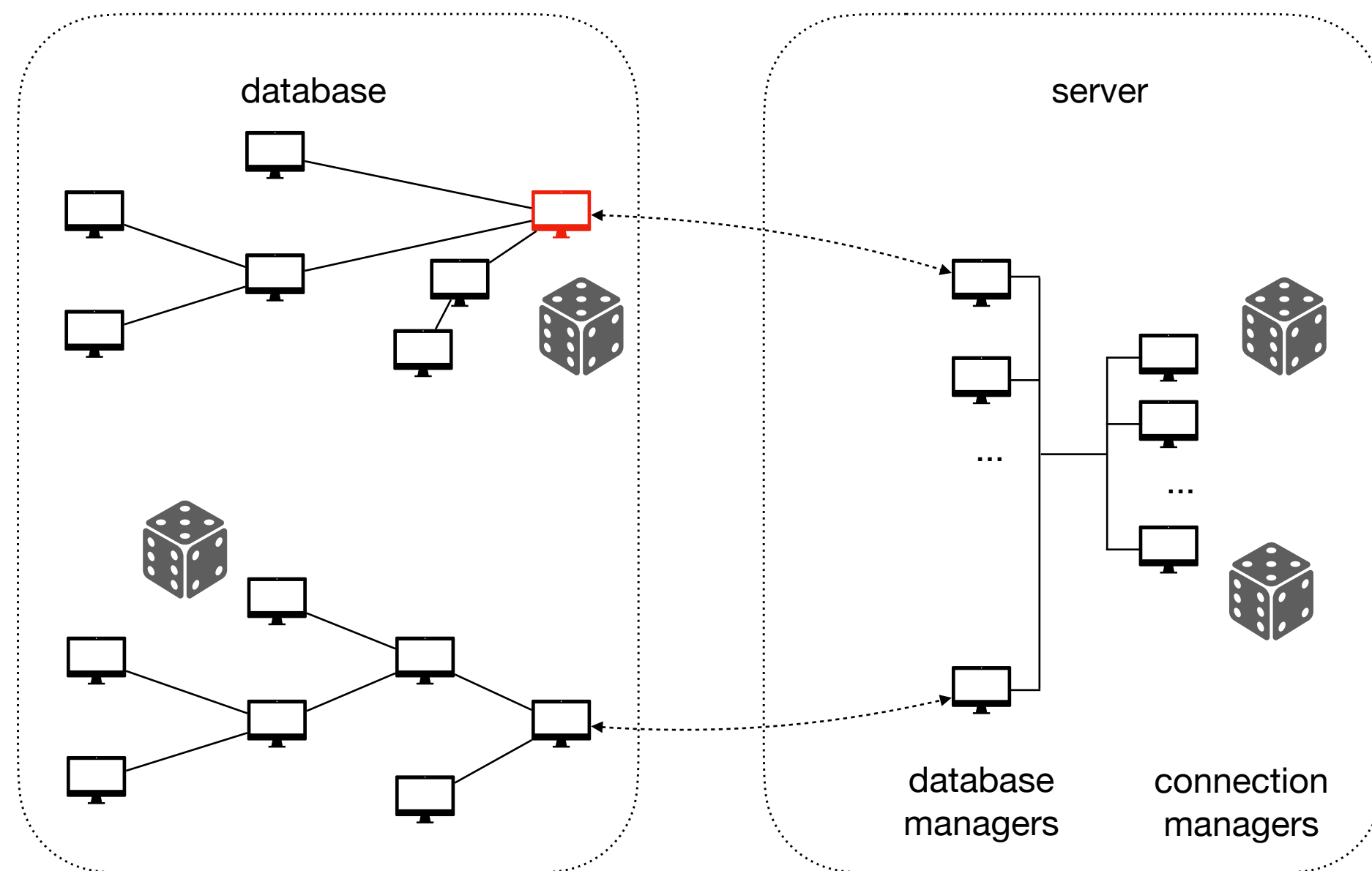
Internal Reconfiguration
Self-adapting Networks



External Reconfiguration
Mobile Networks

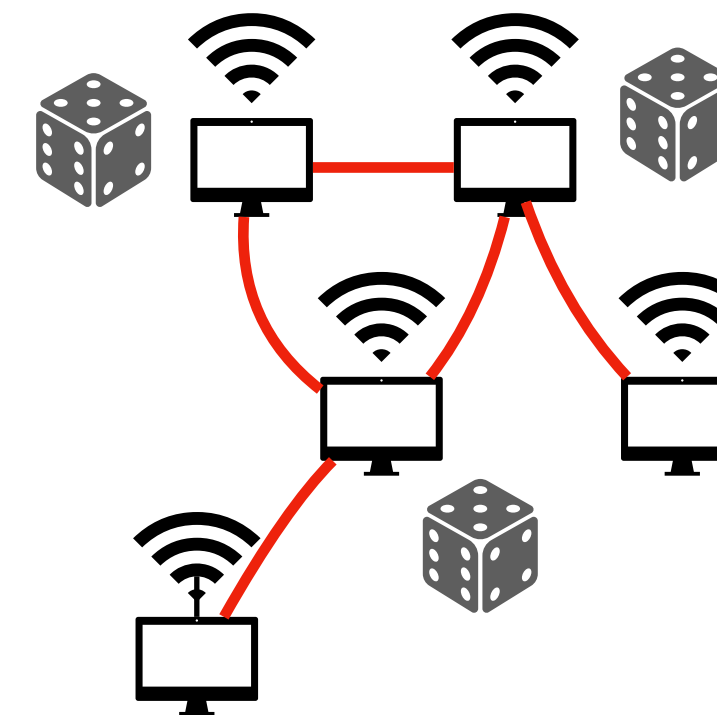
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Internal Reconfiguration
Self-adapting Networks

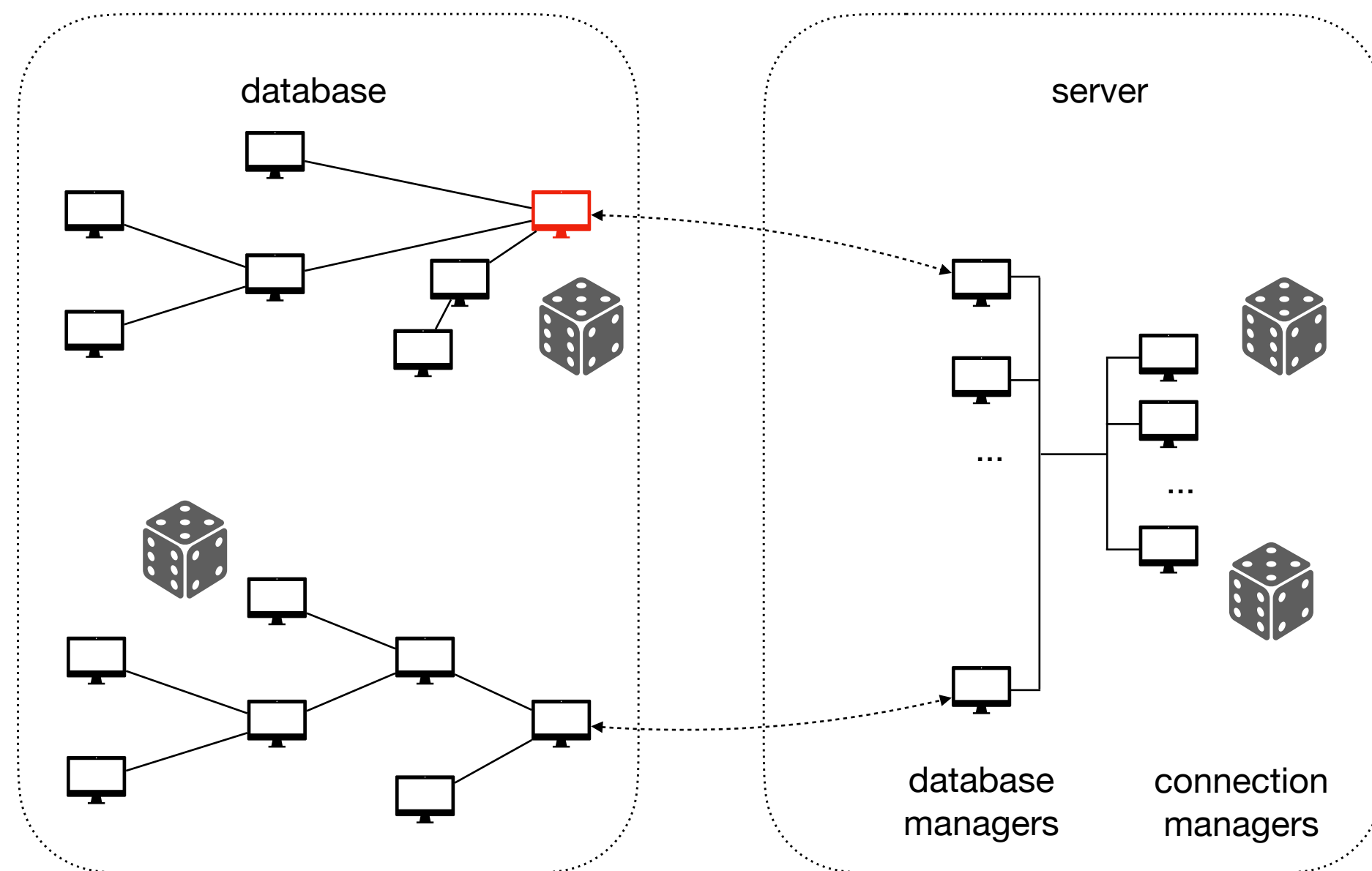
Randomized Behaviors
and Reconfiguration



External Reconfiguration
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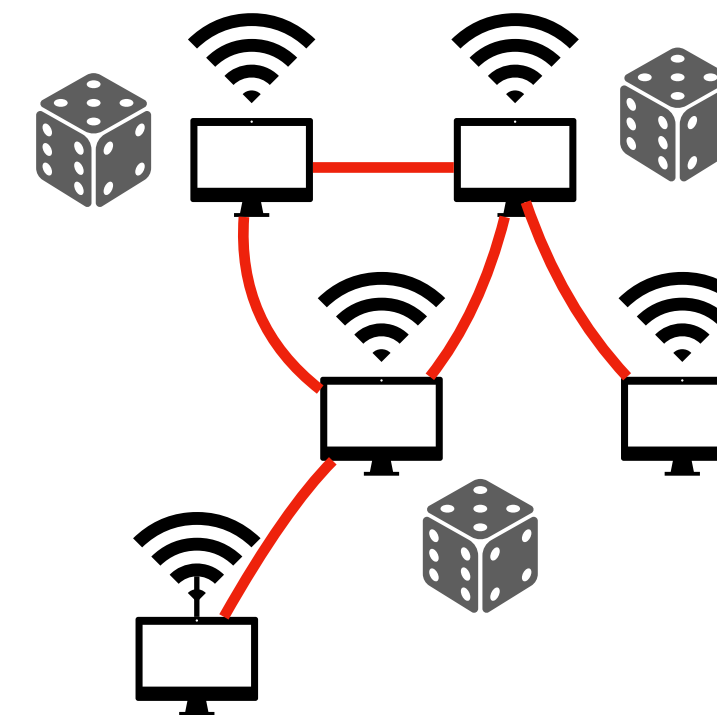
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Internal Reconfiguration
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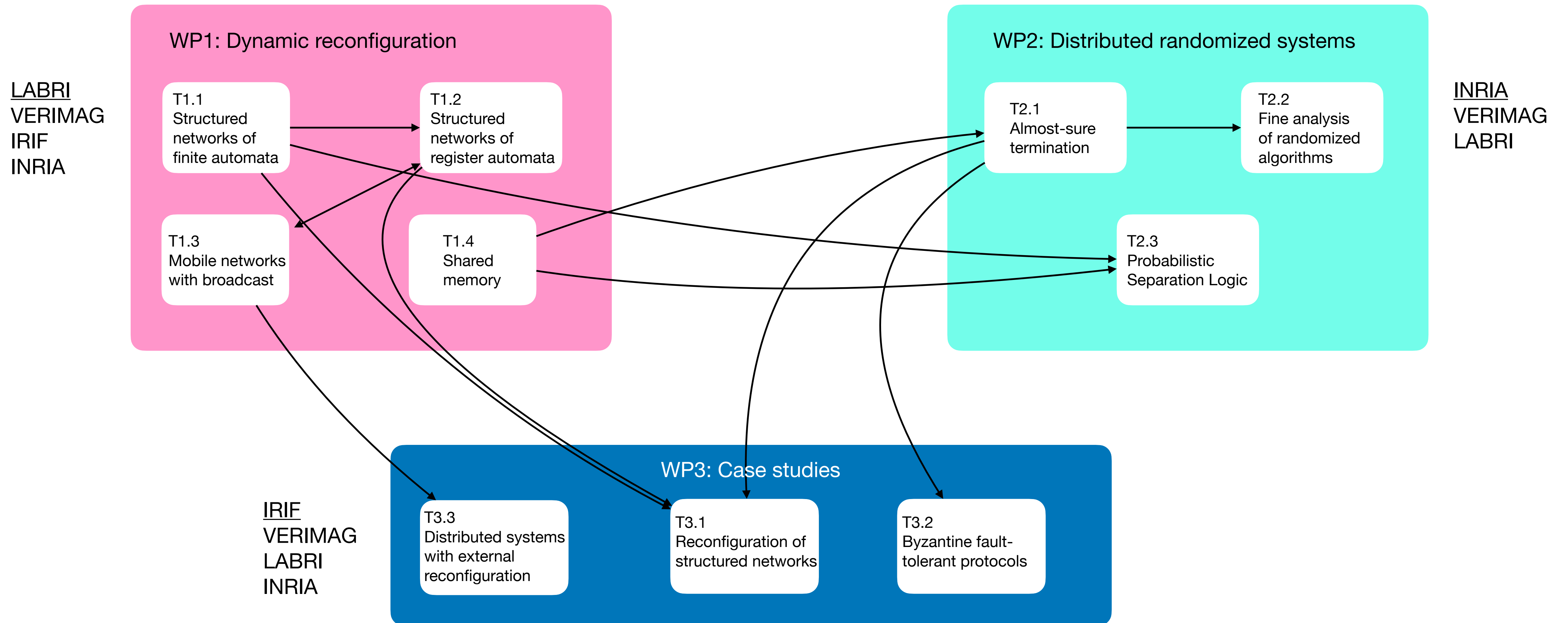
Randomized Behaviors
and Reconfiguration



External Reconfiguration
Mobile Networks

Rich Correctness Criteria
(e.g., convergence)

Project Organisation



Consortium : 300 p/m

- **VERIMAG**: Radu Iosif (**PI**), Marius Bozga, Karine Altisen, Lucas Bueri + 1 PhD (96p/m)
- **LABRI**: Igor Walukiewicz (**WP1**), Hugo Gimbert, Anca Muscholl, Mikhail Raskin, Corto Mascle (68 p/m)
- **INRIA**: Nathalie Bertrand (**WP2**), Thierry Jéron, Nicolas Markey, Ocan Sankur, Nicolas Waldburger + 1 PhD (92 p/m)
- **IRIF**: Marie Fortin (**WP3**), Ahmed Bouajjani, Lucie Guillou, Jeremy Ledent (44 p/m) + Arnaud Sangnier (Università di Genova)

Kick-off meeting: January 16th 2024 @ IRIF, Paris