MUNI FI

Laboratory of Service Systems

Service Modeling II

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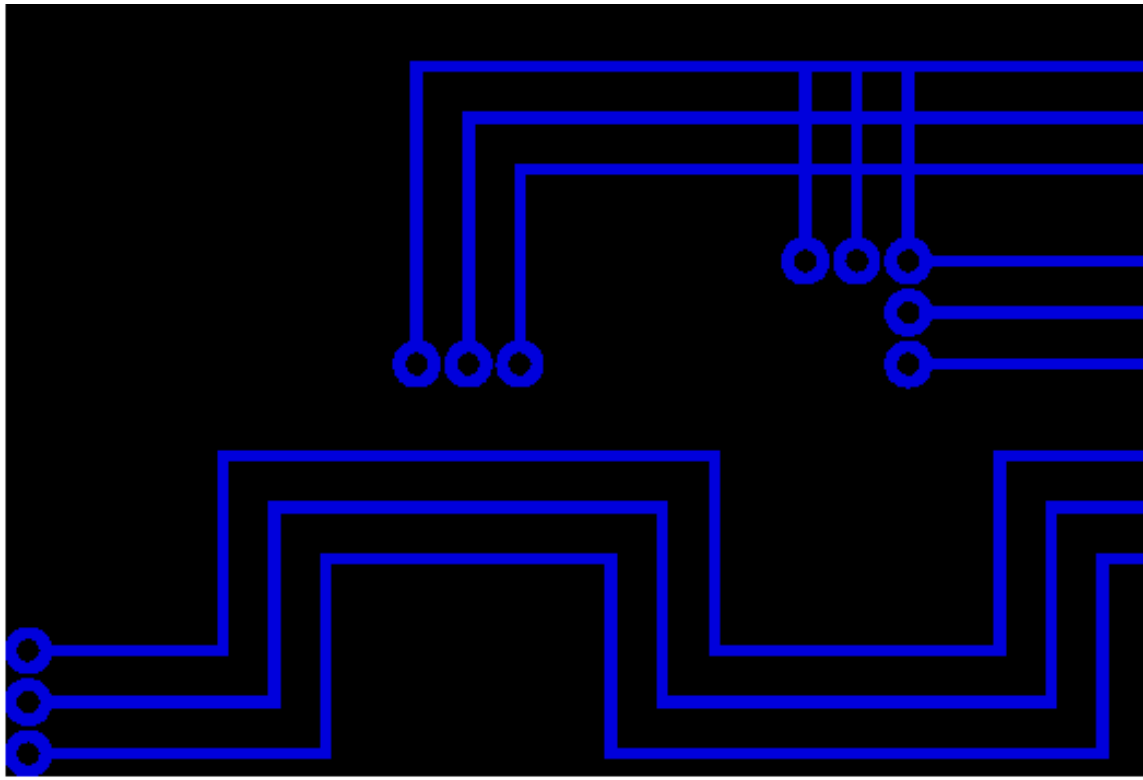

Why do we need diamonds?

We need to describe things

And their relations

In some given context

Then we need to organize/plan operations

And execute them in some time perspective

Our natural language is

- Redundant
- Ambiguous

4 diamonds

See	Recognize	Organize	Do
• Describing things (objects) and basic relations	• Adding context to relations	• How agents behave to recognized objects, what kind of operations we can do	• Executing planned operations and getting results

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See

We are projecting the seen object in our mind

It has

- Particular shape or form
- There can be some different varies of this object
- It can be used for some purposes
- Using this object is under some rules

There can be connections to other objects

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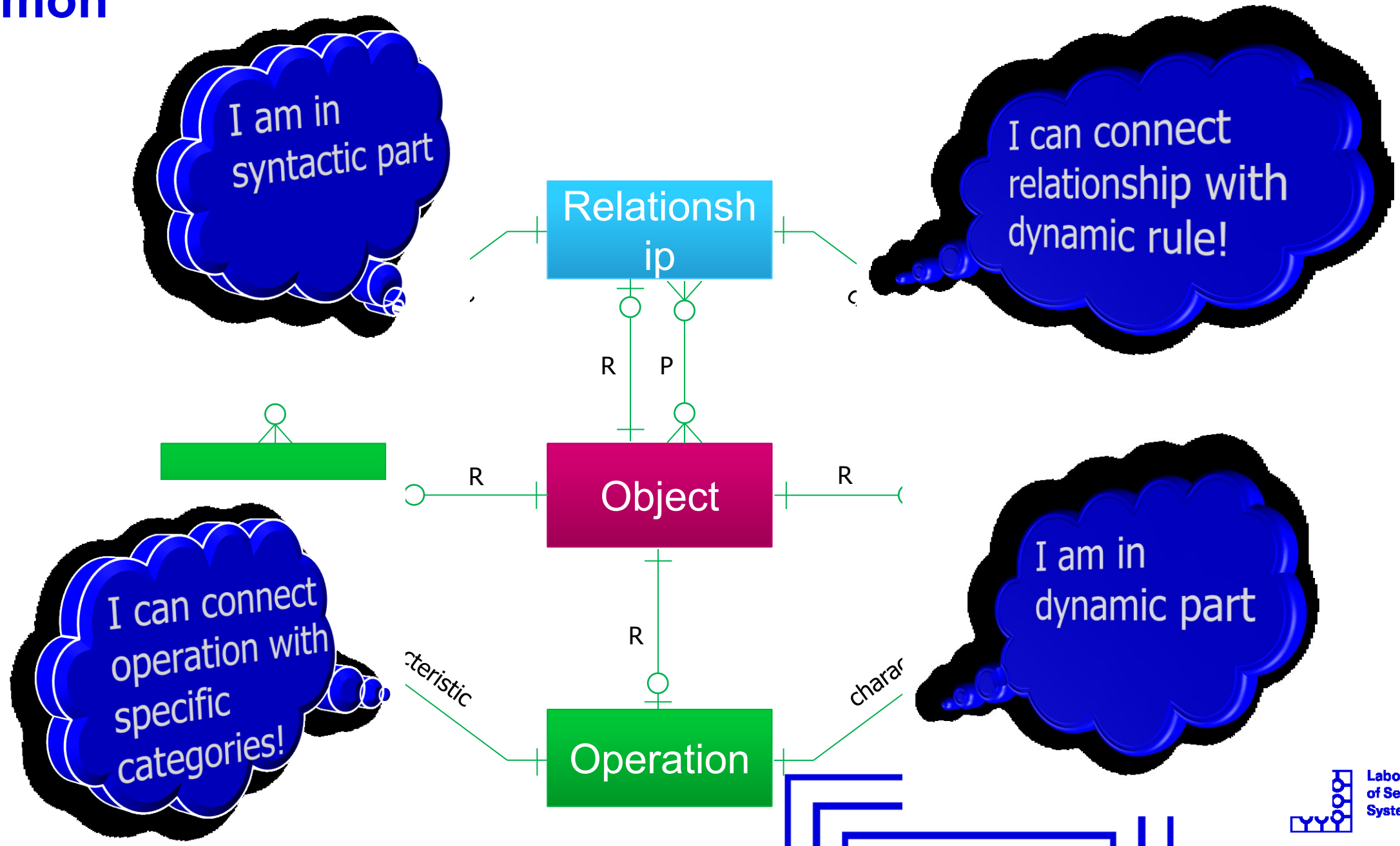
Diamond See



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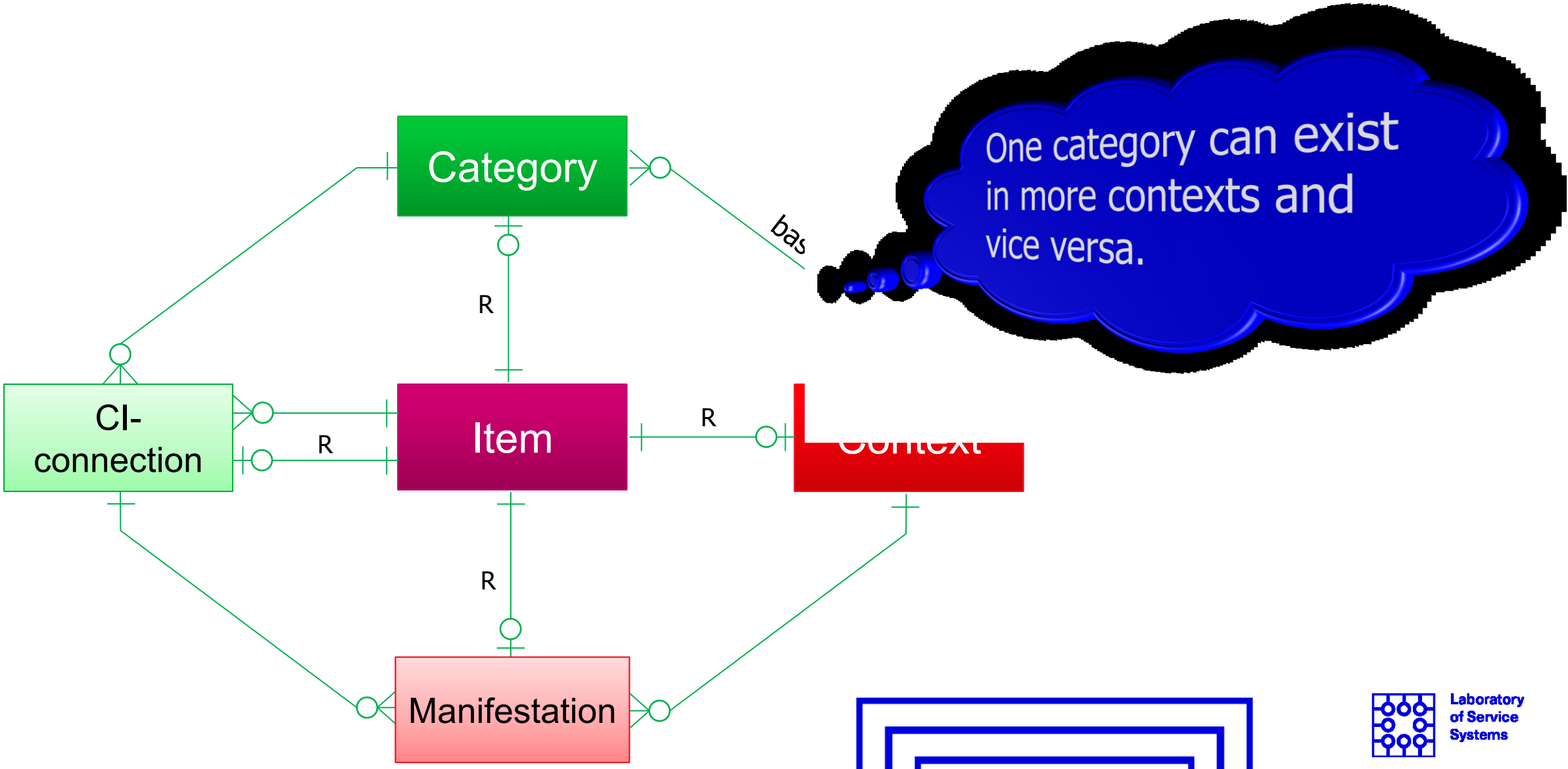
Diamond Recognize



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3rd diamond

Organizing diamond

How is your life / position / work organized

How can be some agent

member of some team

working on projects

educated or taught someone

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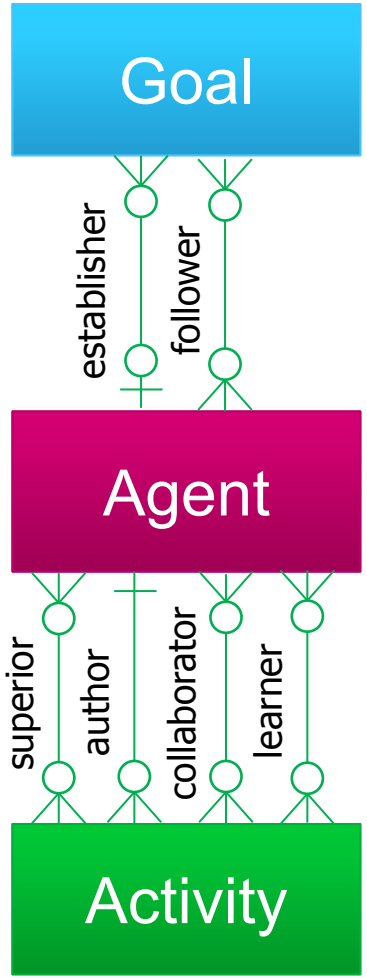
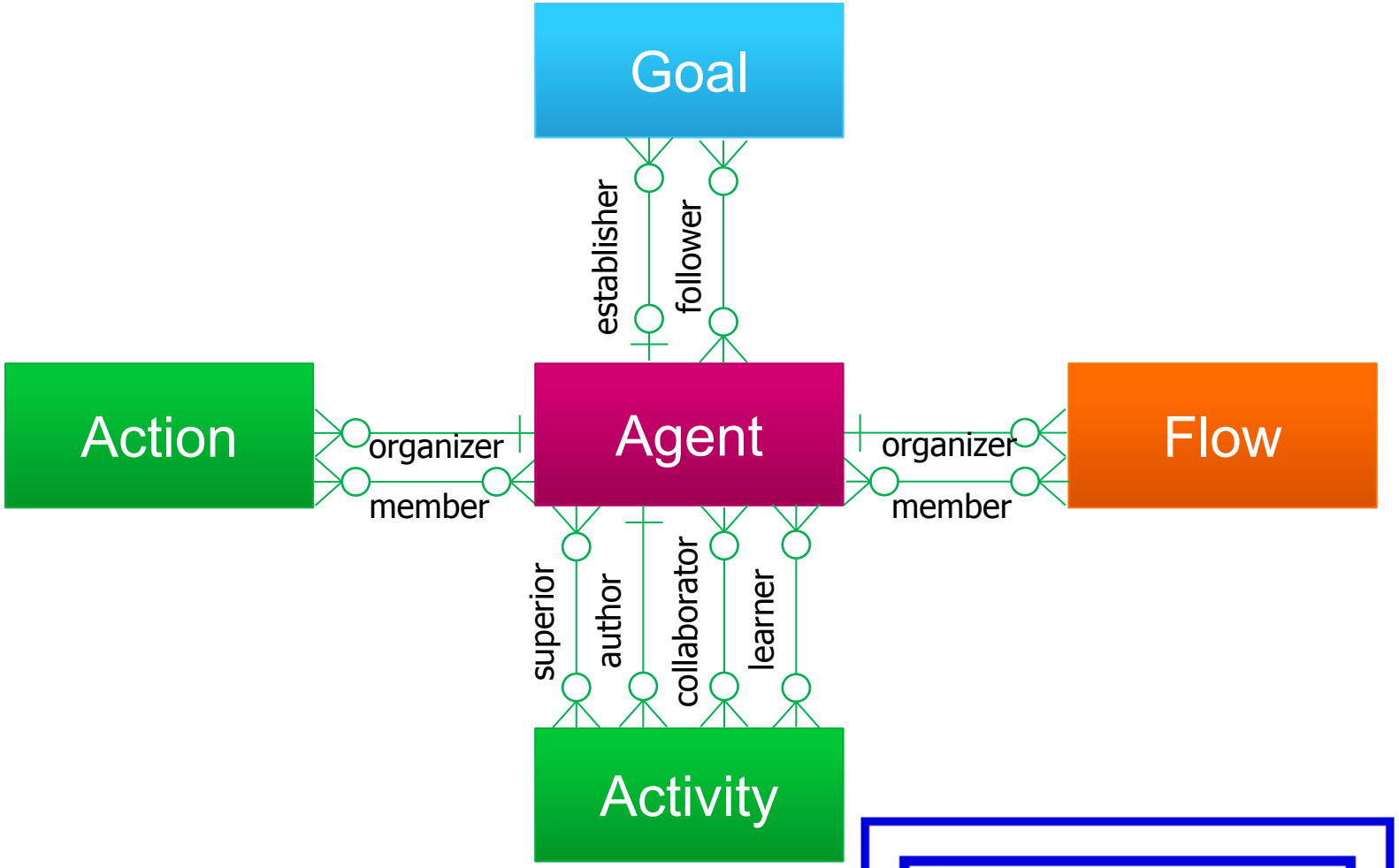
Diamond of Agent-Team Organization



Diamond of Agent-Team Organization



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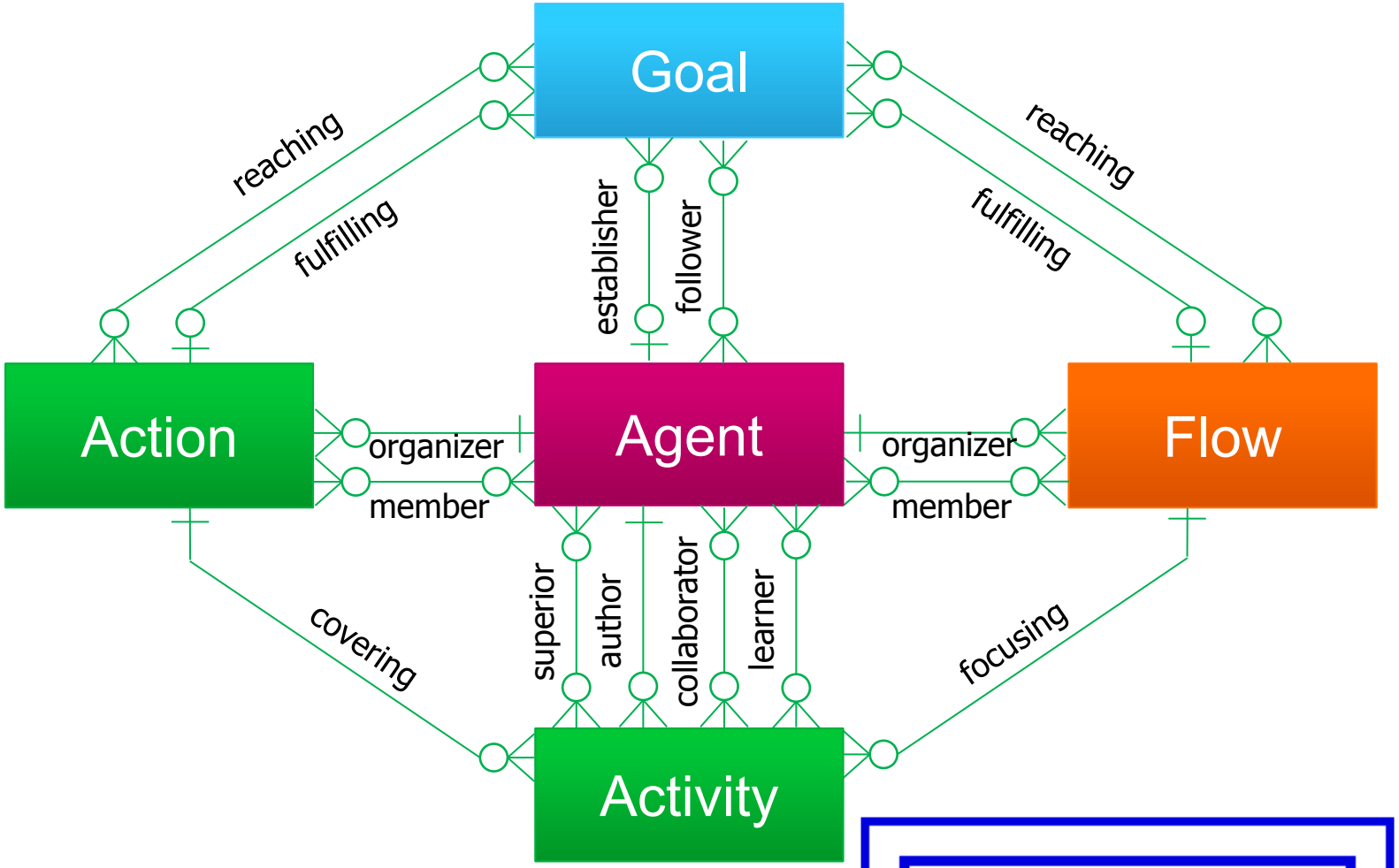
Diamond of Agent-Team Organization



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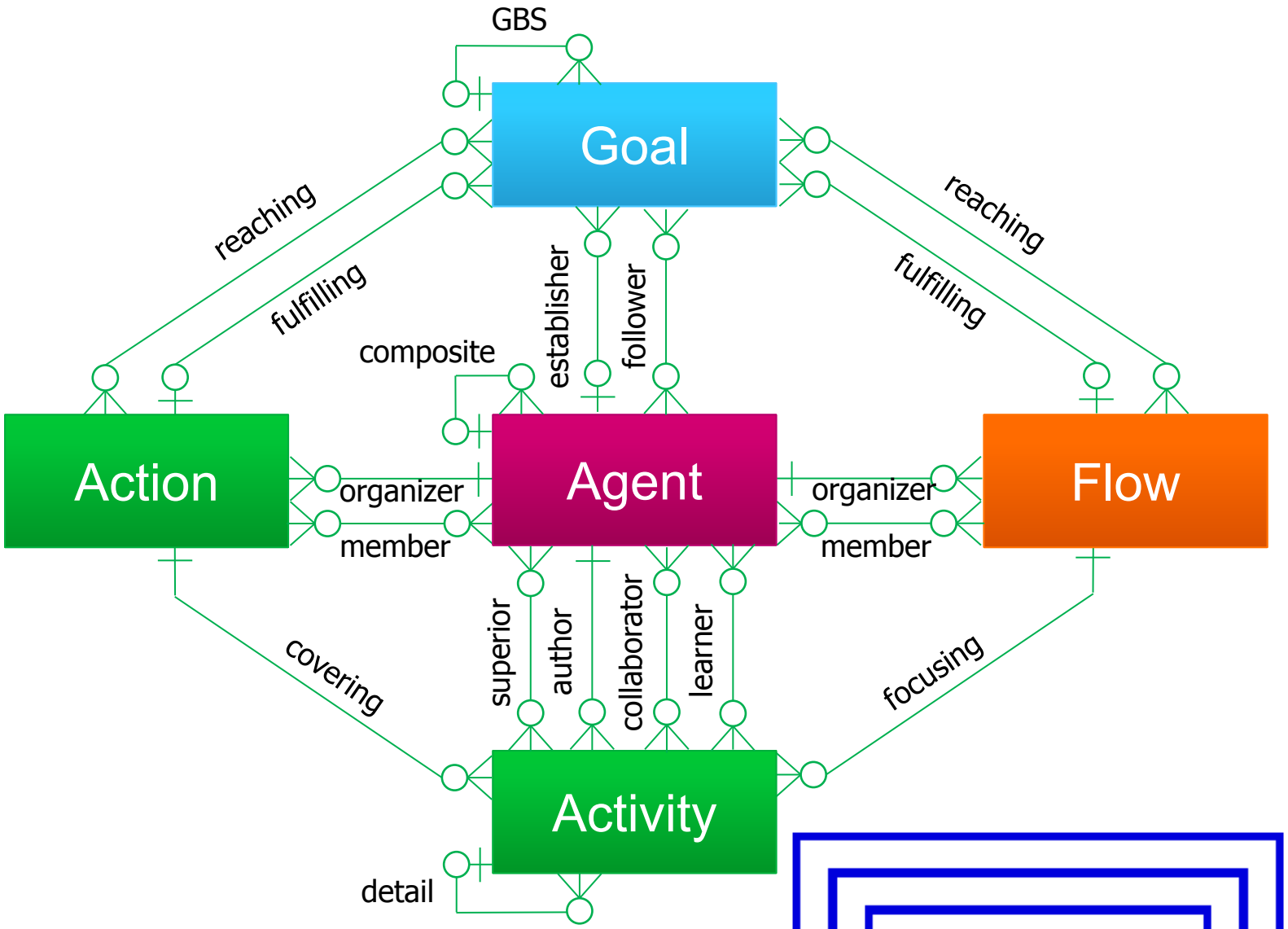
Diamond of Agent-Team Organization



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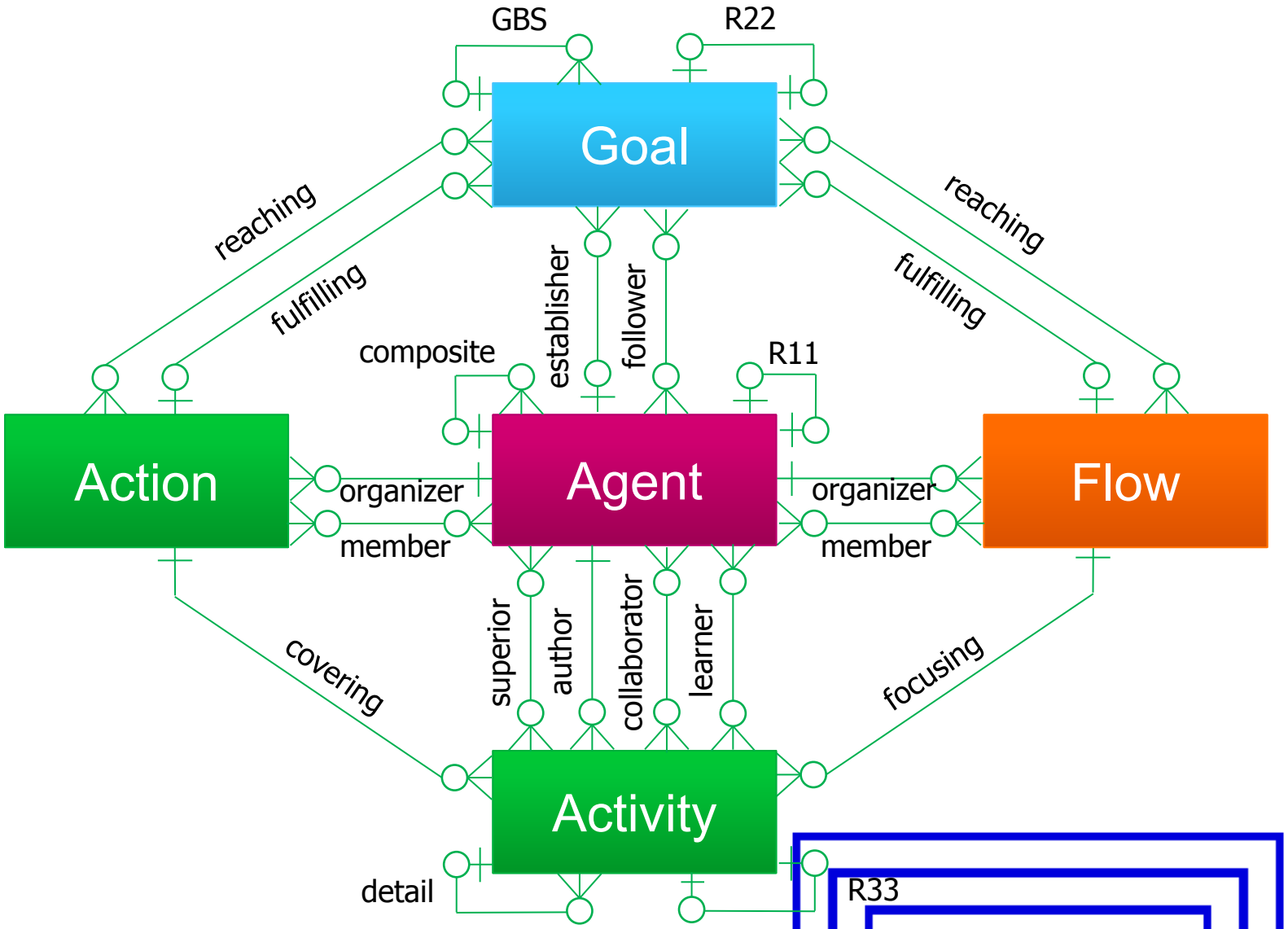
Diamond of Agent-Team Organization



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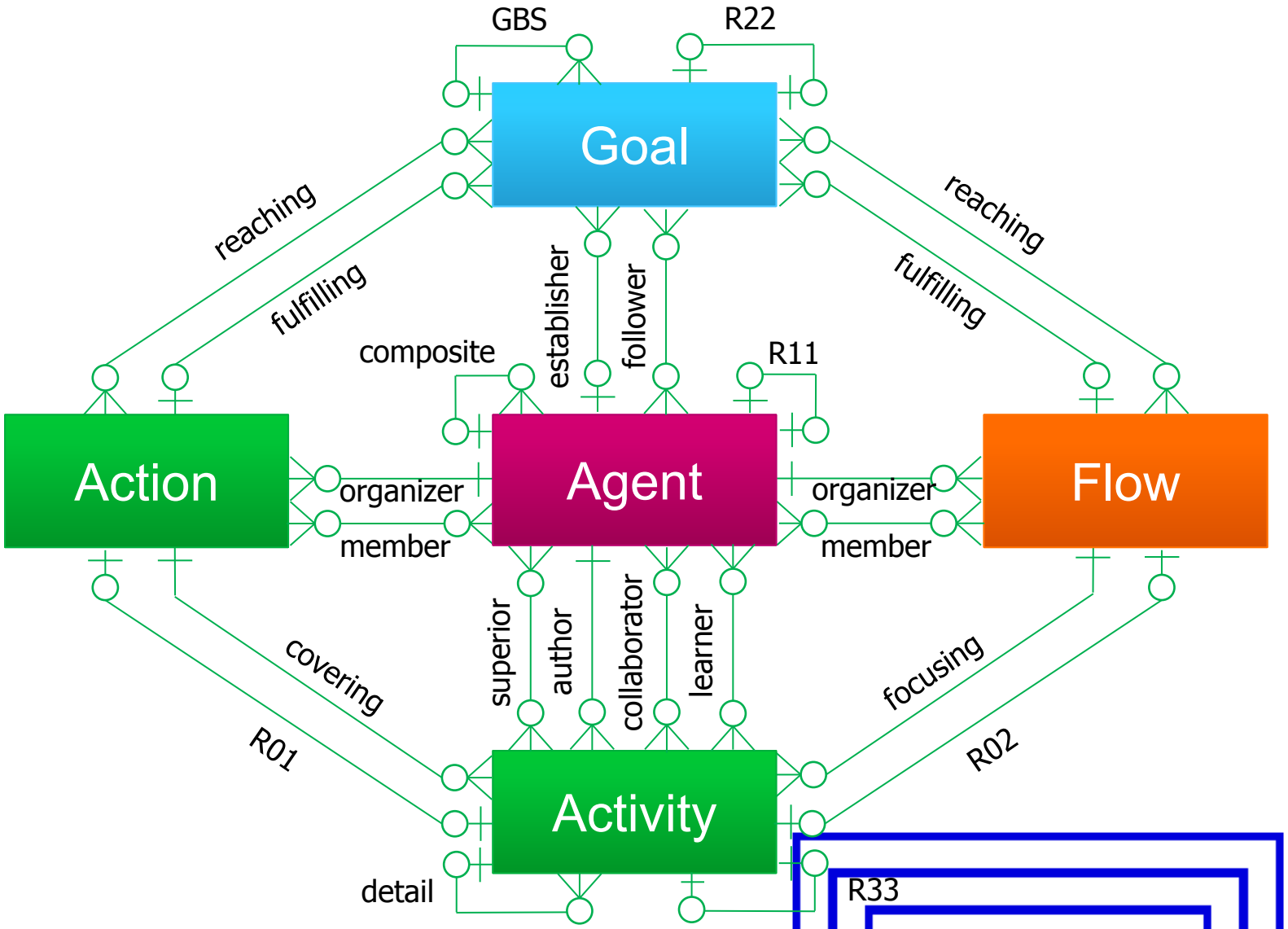
Diamond of Agent-Team Organization



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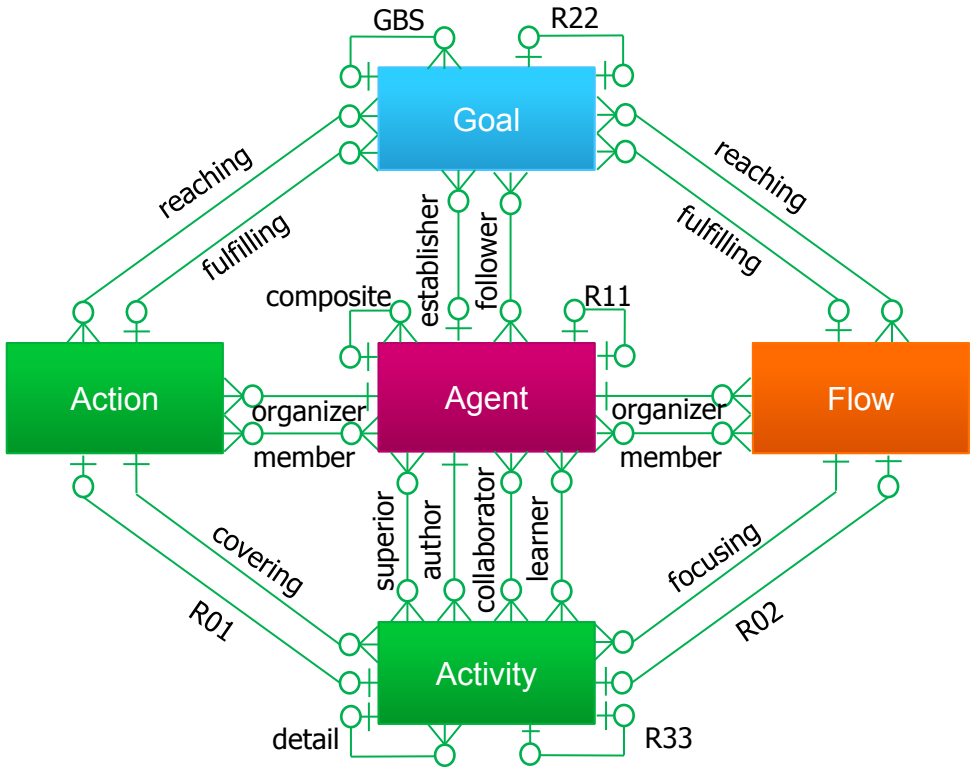
Diamond of Organization - Summary

- Matrix-based organization: Action vs. Flow
- Activity vs. Action / Flow
- R-edges



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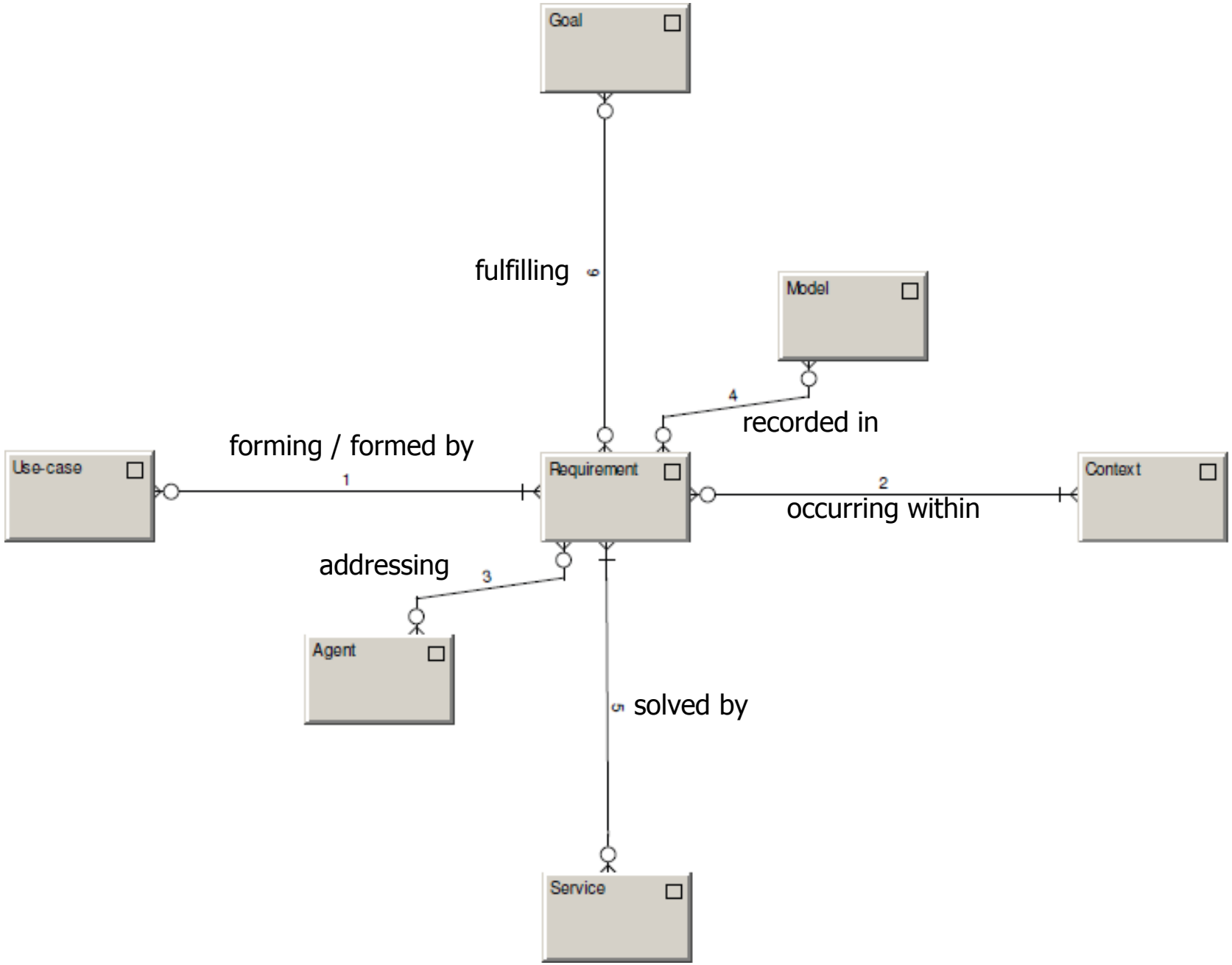
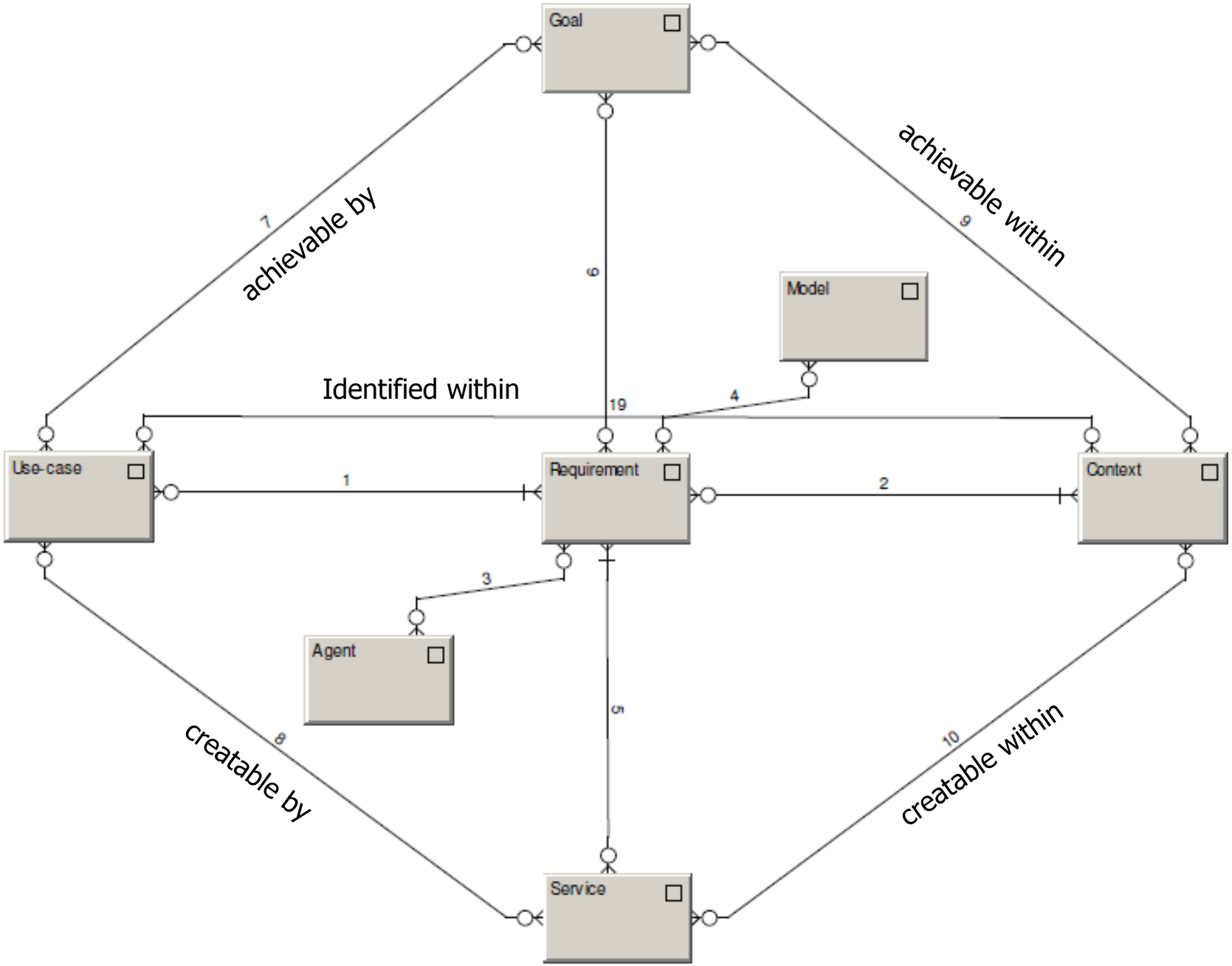
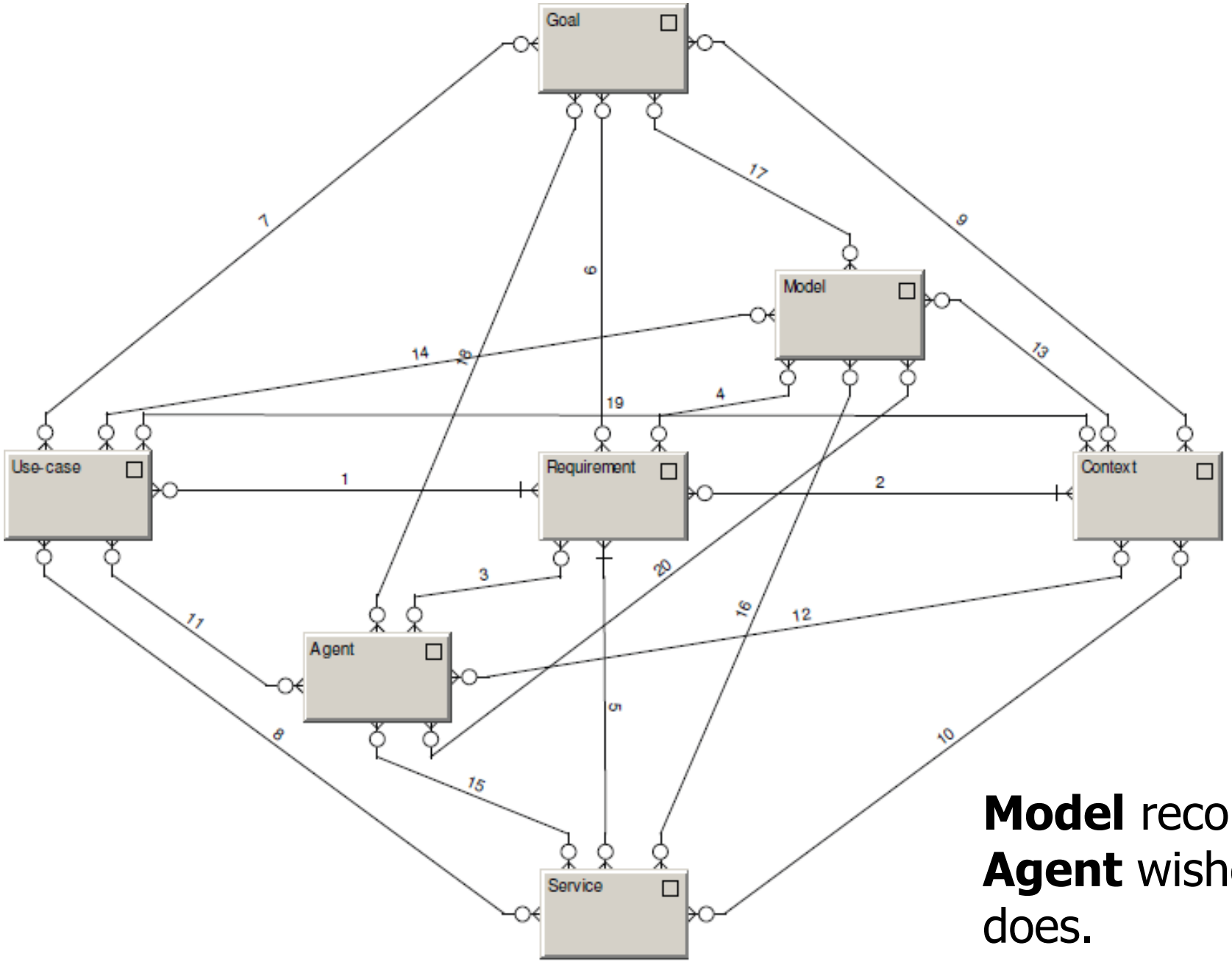
4th Diamond - DO

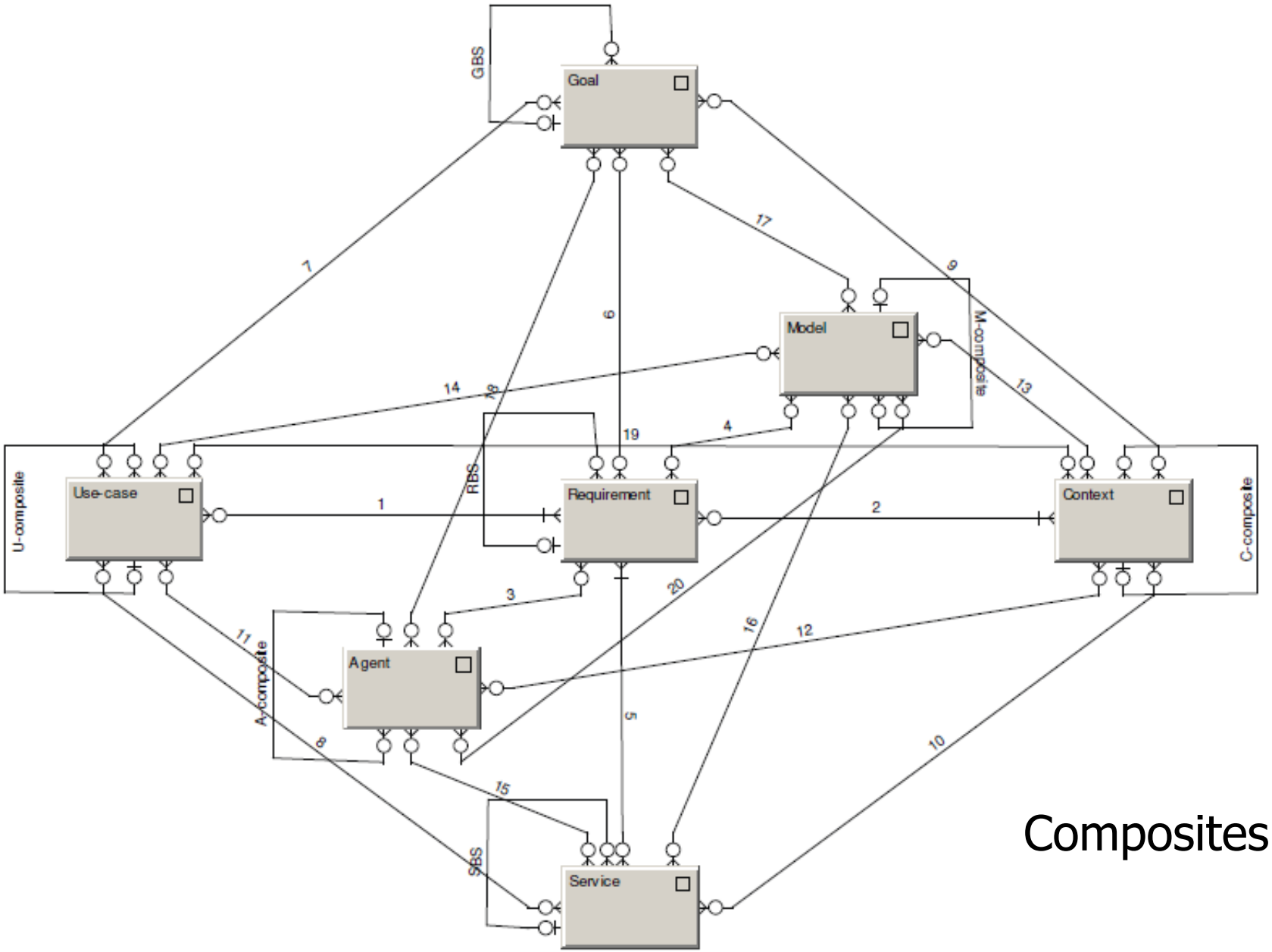
- Describing the service environemnt
- Illustrating how the service is provided
- Adding multicontextual view to service analysis
- Helping to compose and decompose the services


Goal
fulfilling
6
Model
4
recorded in
forming / formed by
Use-case
1
Requirement
2
occurring within
Context
addressing
3
Agent
5
solved by
Service


Goal
achievable by
achievable within
7
9
6
Model
Identified within
19
4
Use-case
1
Requirement
2
Context
3
Agent
creatable by
creatable within
8
5
10
Service



Model records.
Agent wishes, defines, does.


GBS
Goal
Model
M-composite
Use-case
RBS
Requirement
Context
U-composite
C-composite
Agent
A-composite
SBS
Service
1
2
3
4
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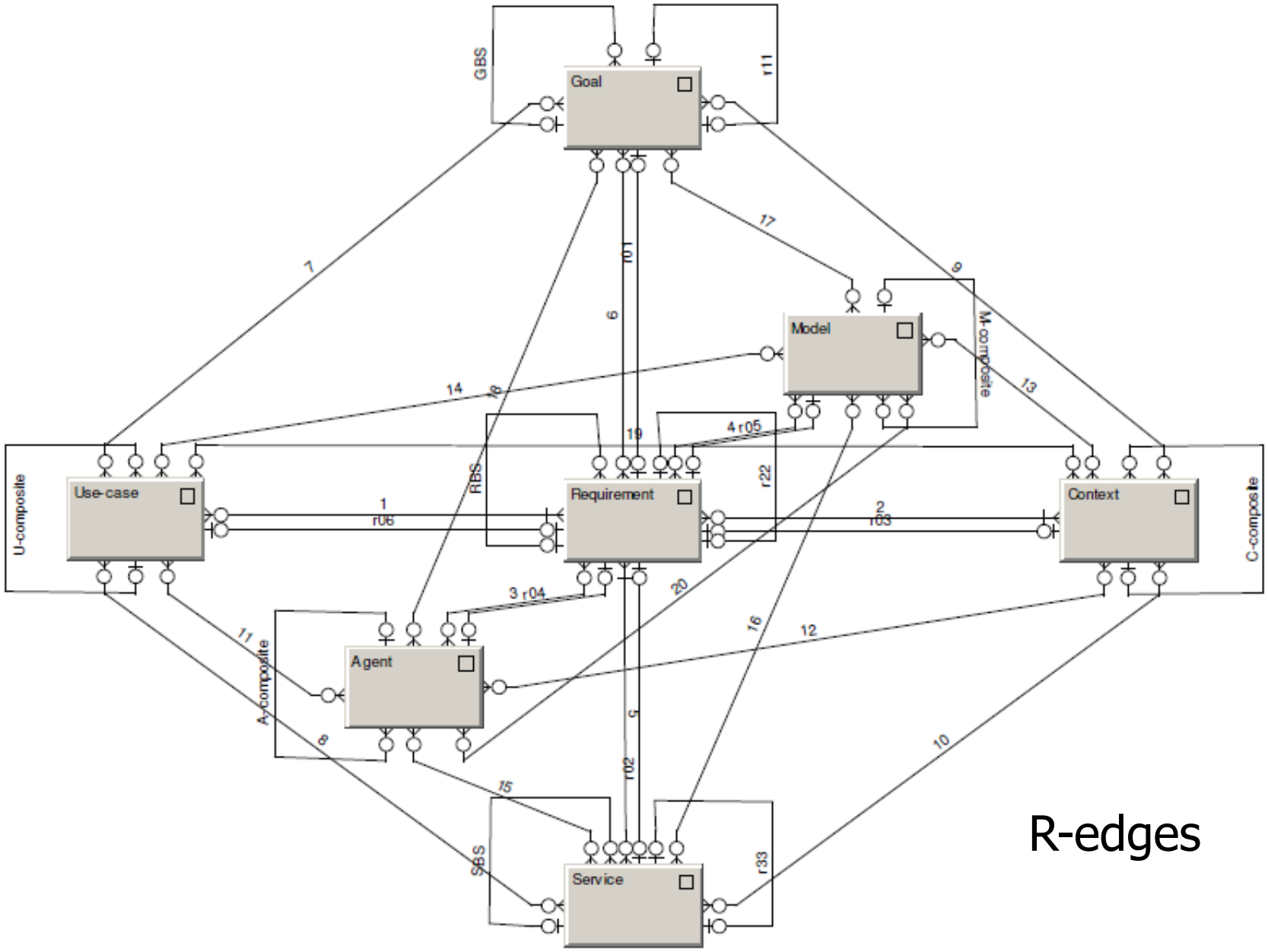
20

Composites


Goal
Model
Use-case
Requirement
Context
Agent
Service
GBS
RBS
SBS
U-composite
A-composite
M-composite
C-composite
r11
r01
r22
r06
r03
r04
r02
r33
1
2
3
4 r05
5
6
7
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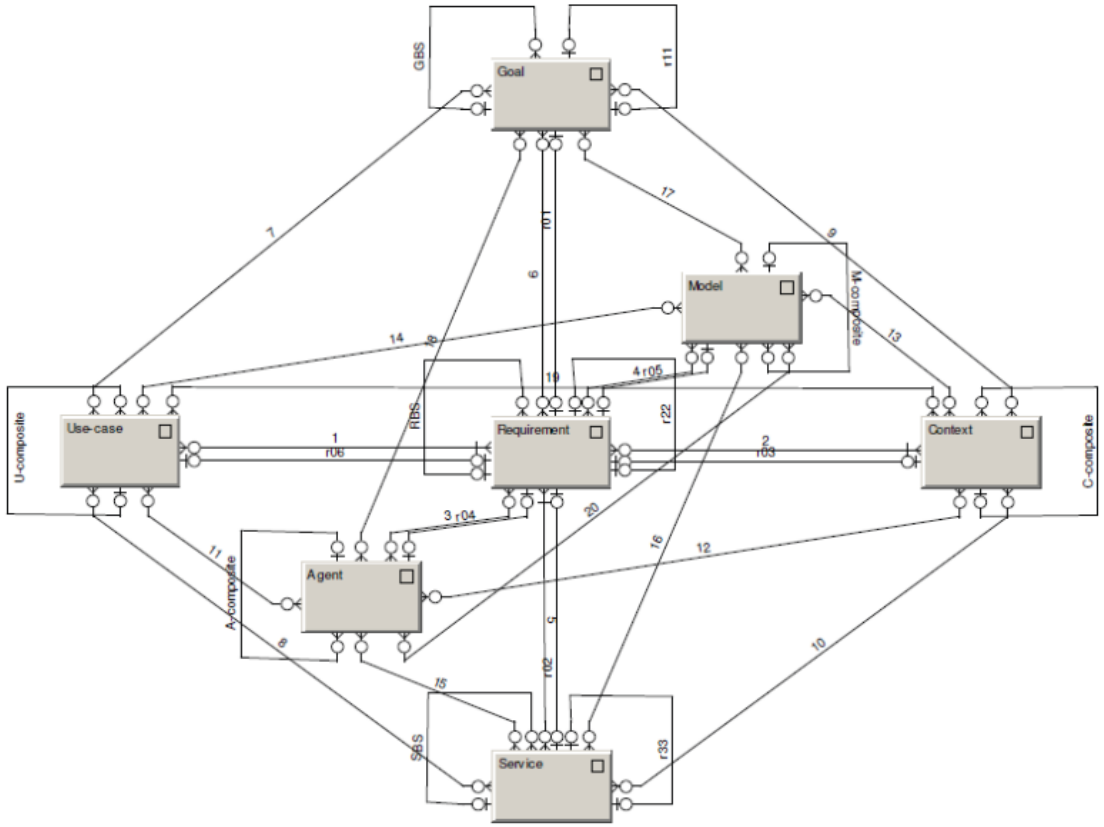
20

R-edges

Diamond of Predictive Behaviour

- Depicts the motivation of agents to DO
- Everything can be seen as a requirement
- Forming and being formed by behavioral patterns
- Models as a system memory



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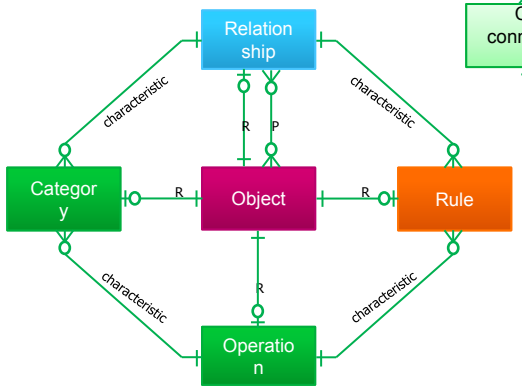
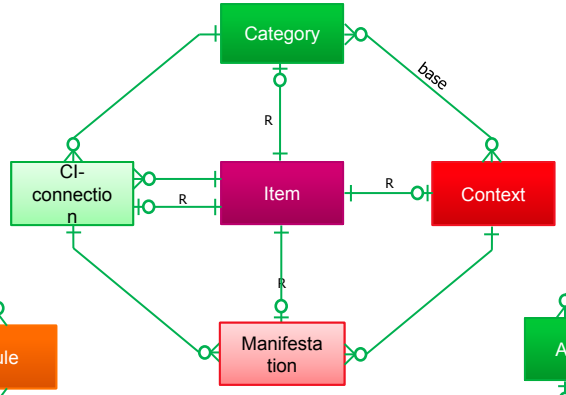
Diamond-Path Framework Overview

See → Recognize → Organize → Do

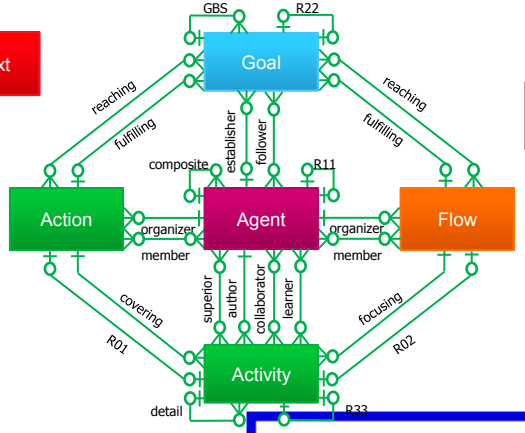
Attention Focussing



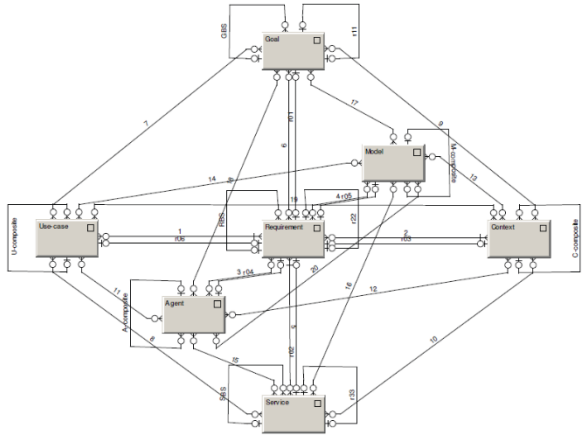
Cognitive Elements



Agent-Team Organization



Predictive Behaviour



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Reflection

- Do you find it interesting?
- And useful?
- Why has it remained a pure theoretical concept?
- Is it too complex?
- You will get the possibility to share your opinion!

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