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Using Graphs for Impact Analysis and Legacy Software Modernization

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Impact Analysis

What is it? And what happens if you get it wrong?

Source: Giphy.com

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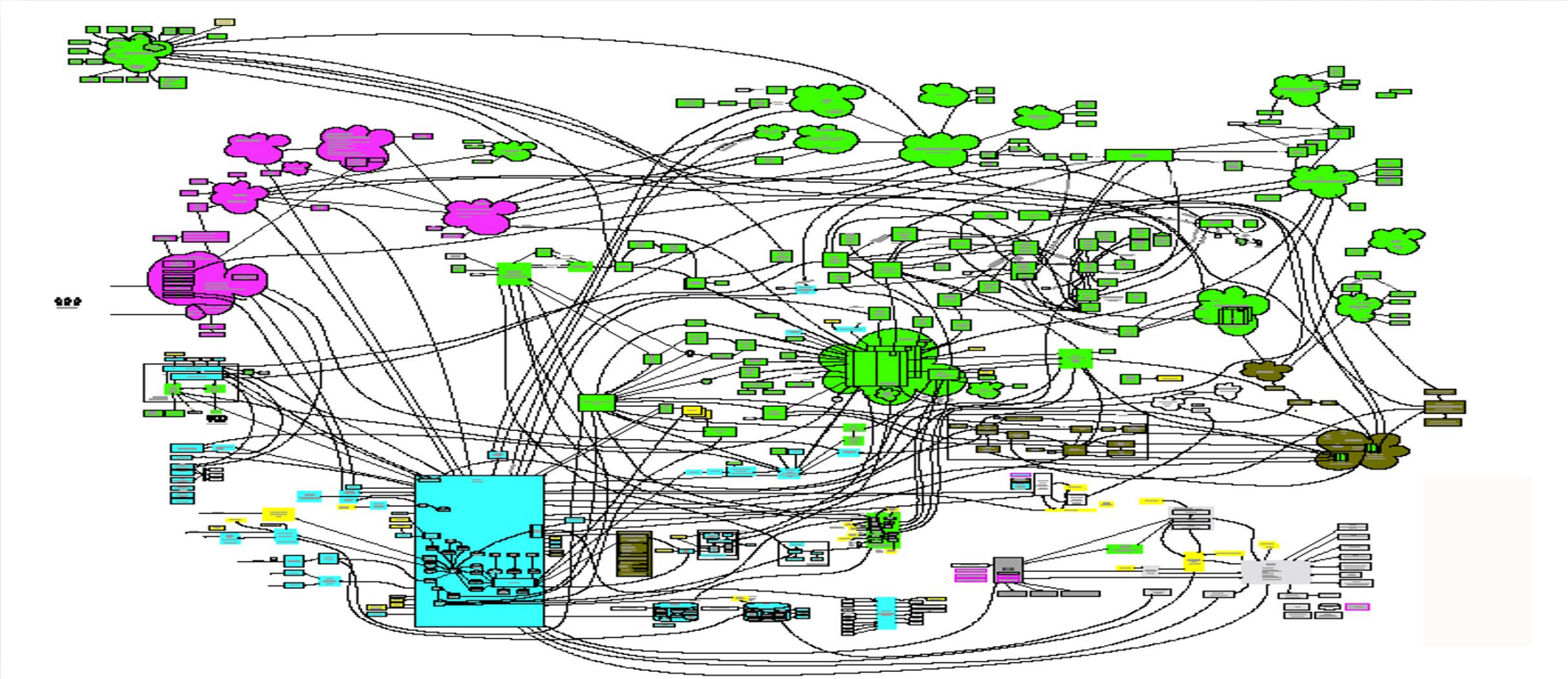
Impact Analysis

Typical IT environment



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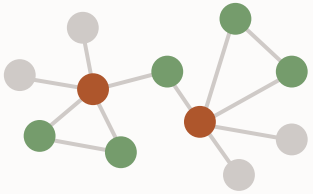
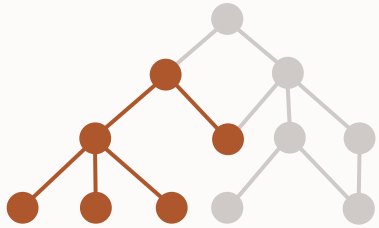
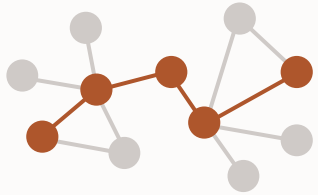
Why Graph Technologies?



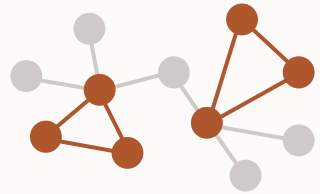
Networks



Hierarchies



Paths



Patterns

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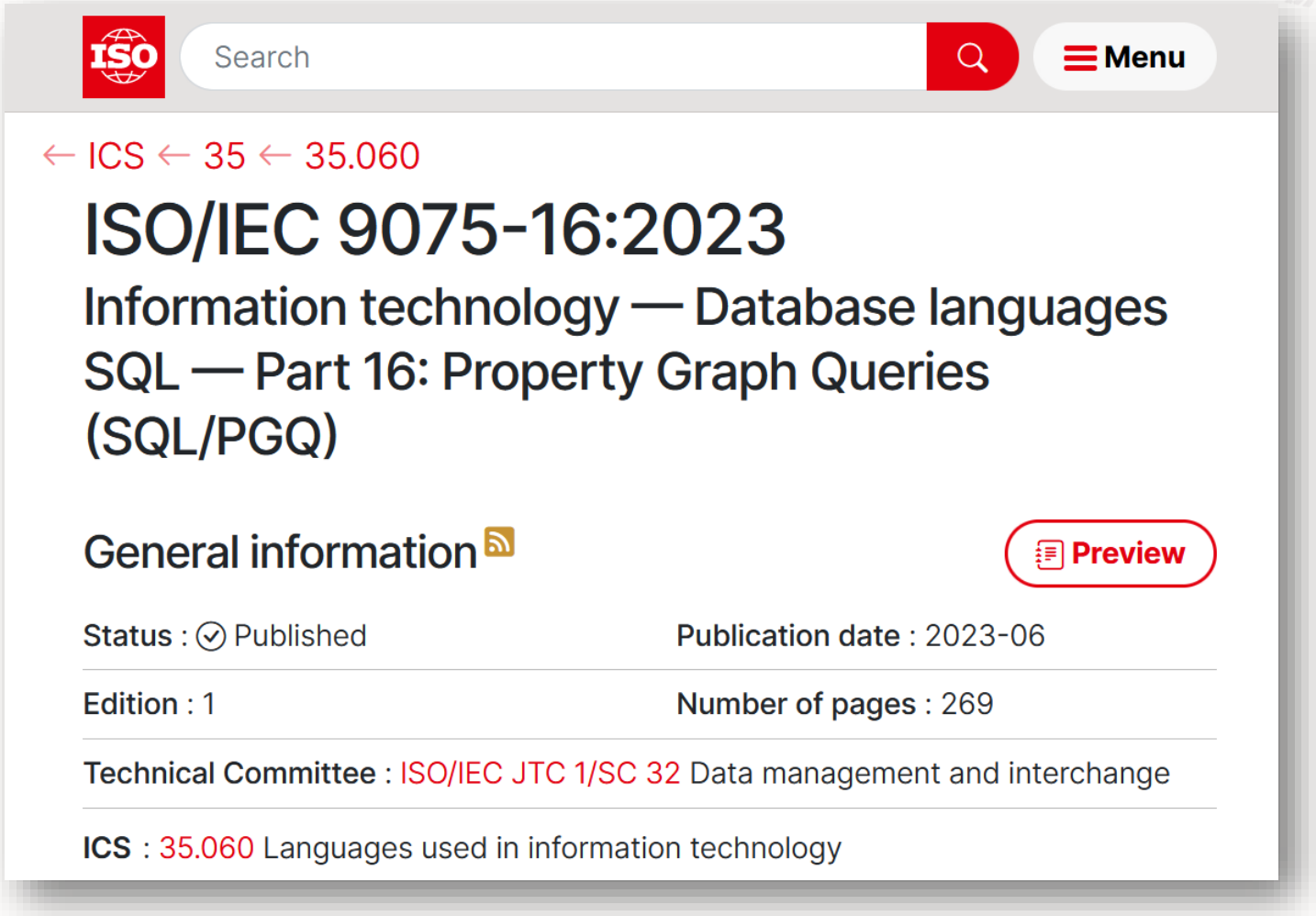
Property Graph Queries are part of SQL now

SQL:2023 includes SQL/PGQ



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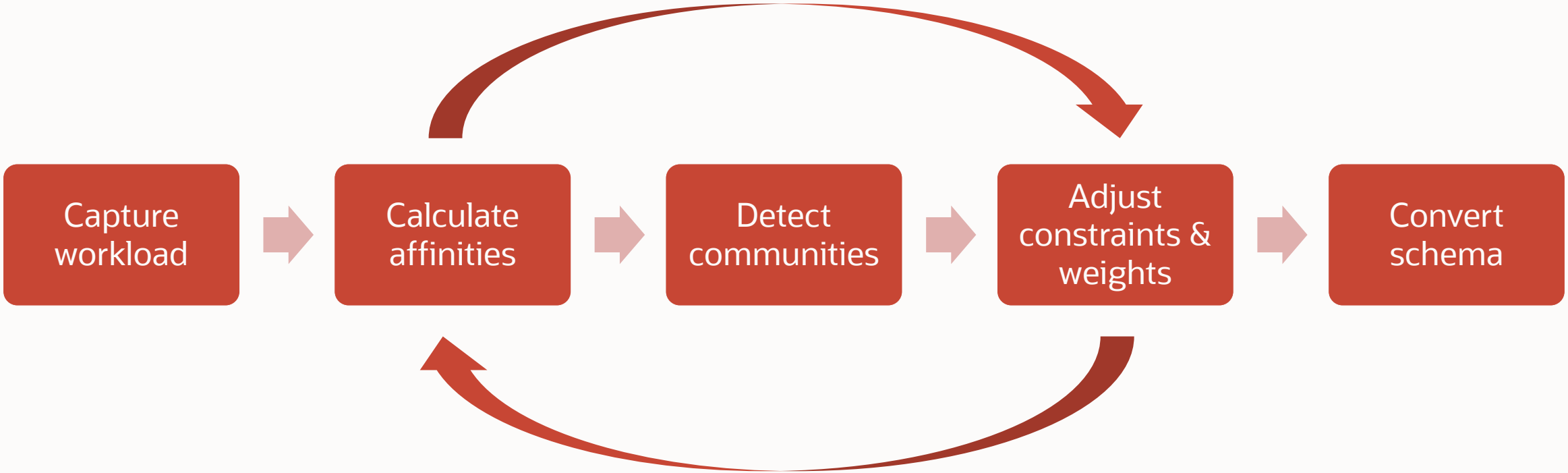
Using graphs for legacy software modernization

Identify candidates for microservices



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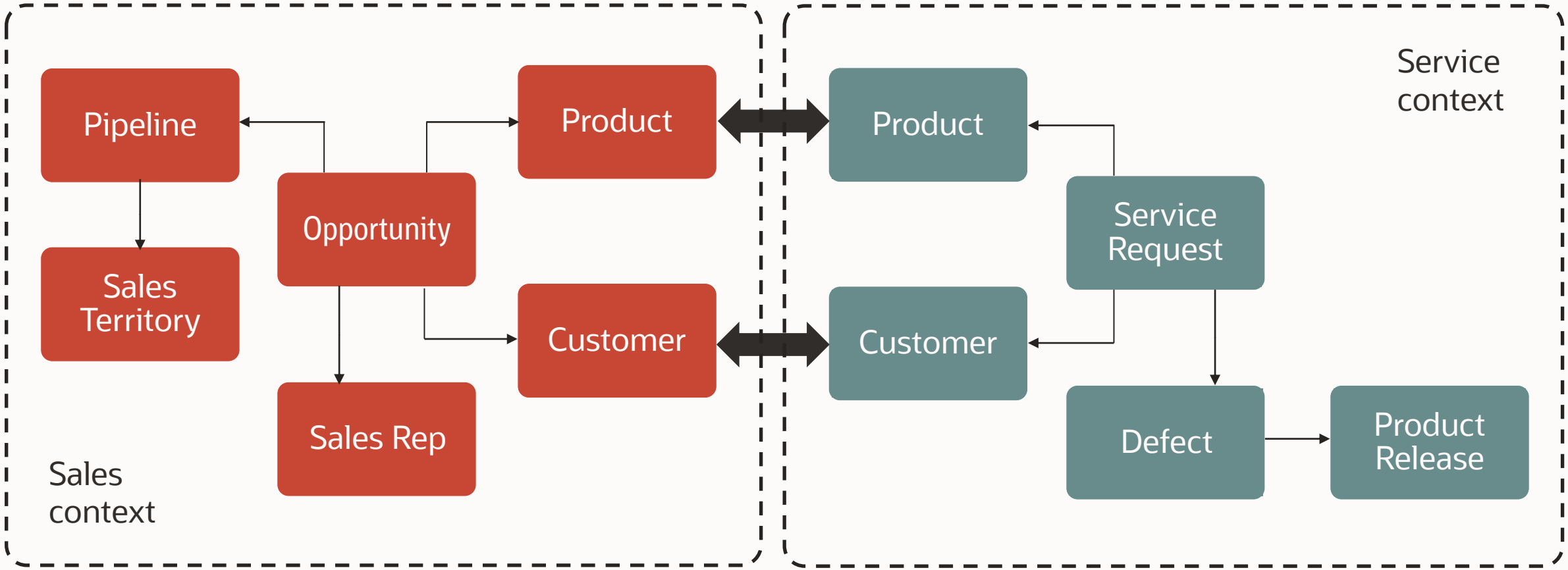
Bounded contexts

Community detection determines logical units



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More graphs in software infrastructure

Graph analysis can be relevant in many cases

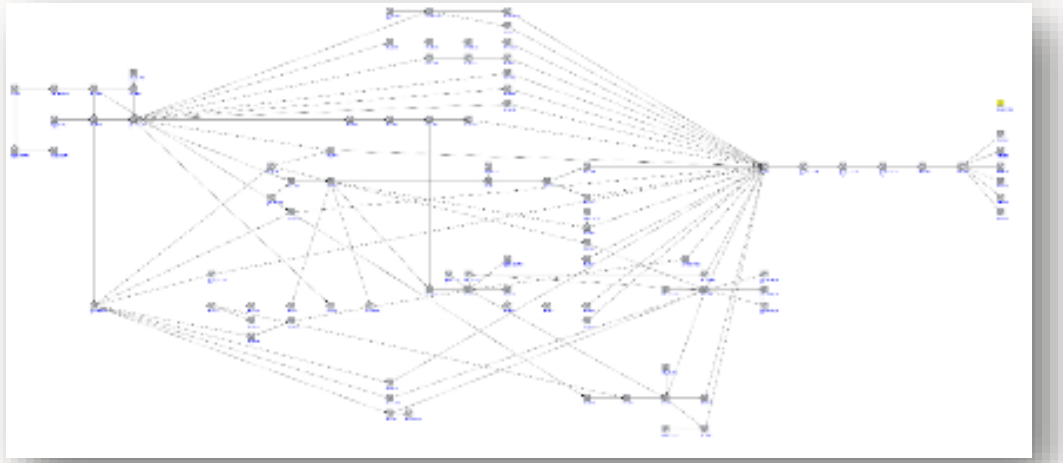
Perform impact analysis on

- Software architecture
- Code
- Rules
- Roles and privileges
- Workflows
- Data lineage
- IT architecture
- IP network
- …

Or detect anti-patterns, improve governance, and more

- All using graph queries or graph algorithms

Using graphs as a communication tool



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Thank you!

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Additional Resources

Oracle Graph Resources

- Product Page:
  - www.oracle.com/database/graph
- Oracle LiveLabs
  - bit.ly/GraphLiveLabs
- Blog: Examples, tips and tricks
  - bit.ly/OracleGraphBlog
  - medium.com/tag/oracle-graph/latest
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  - youtube.com/c/OracleSpatialandGraph

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