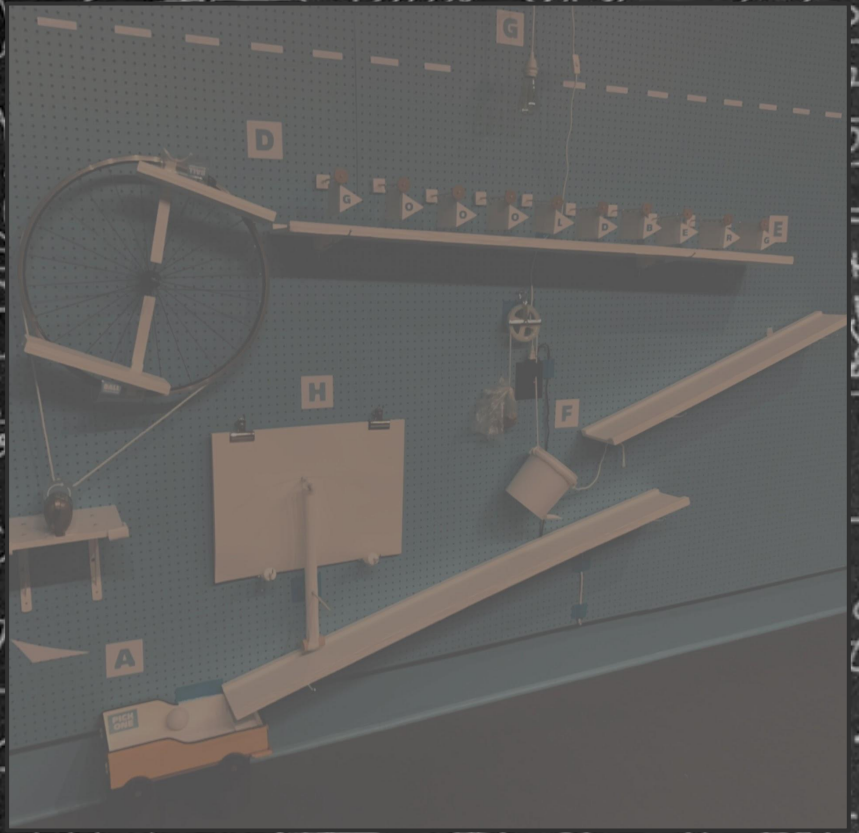
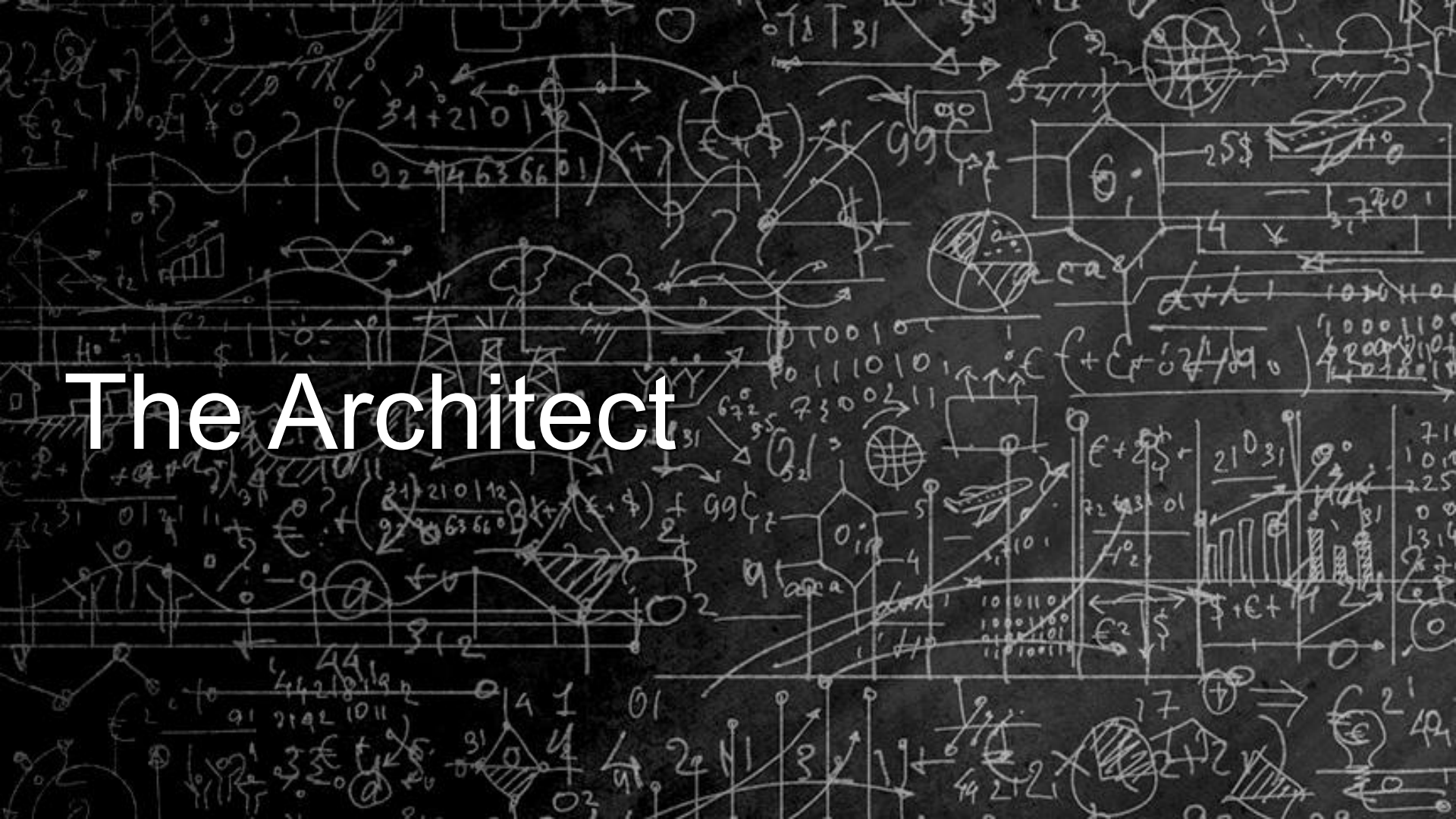
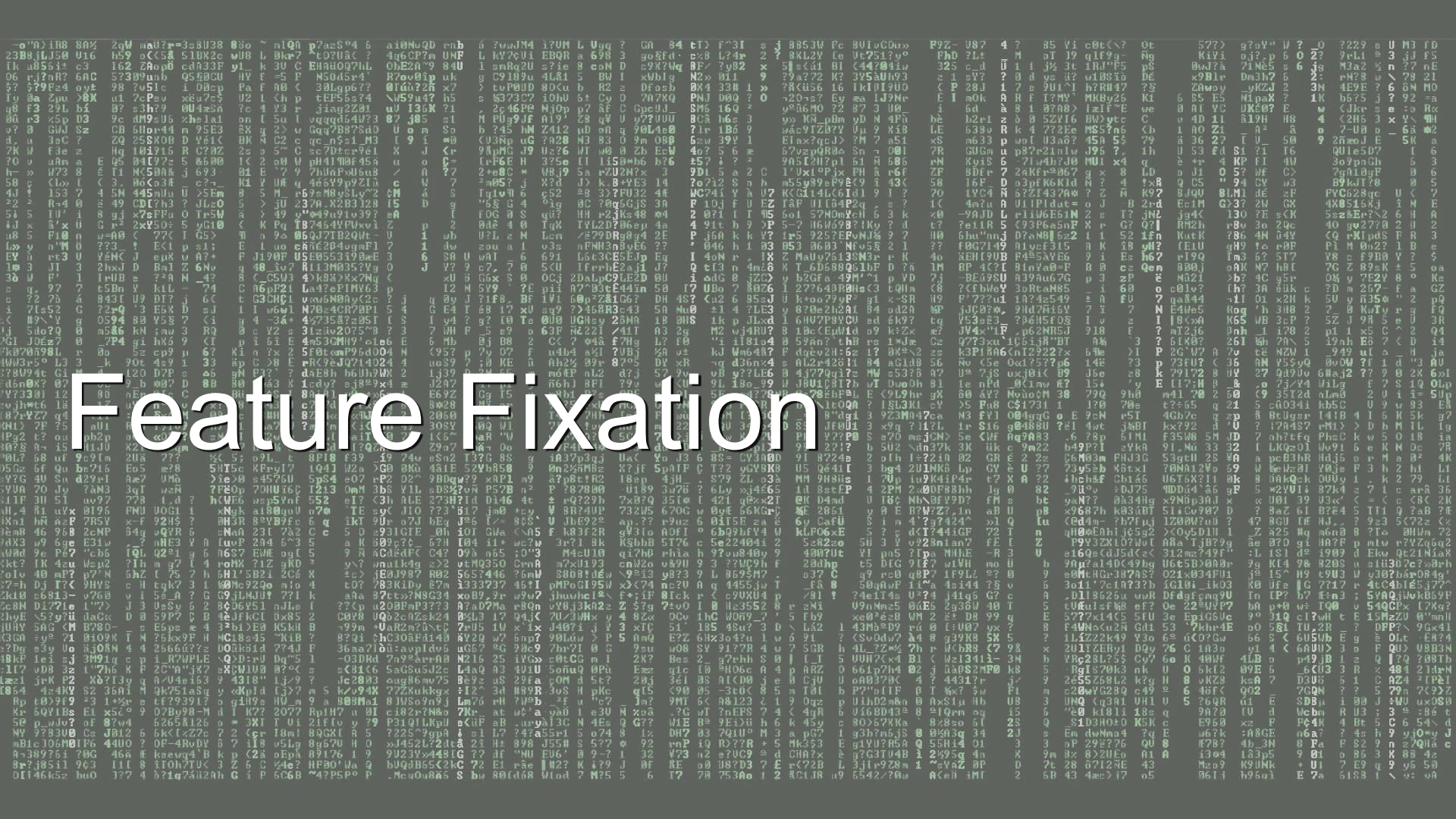
Software Architecture As Complexity Containment

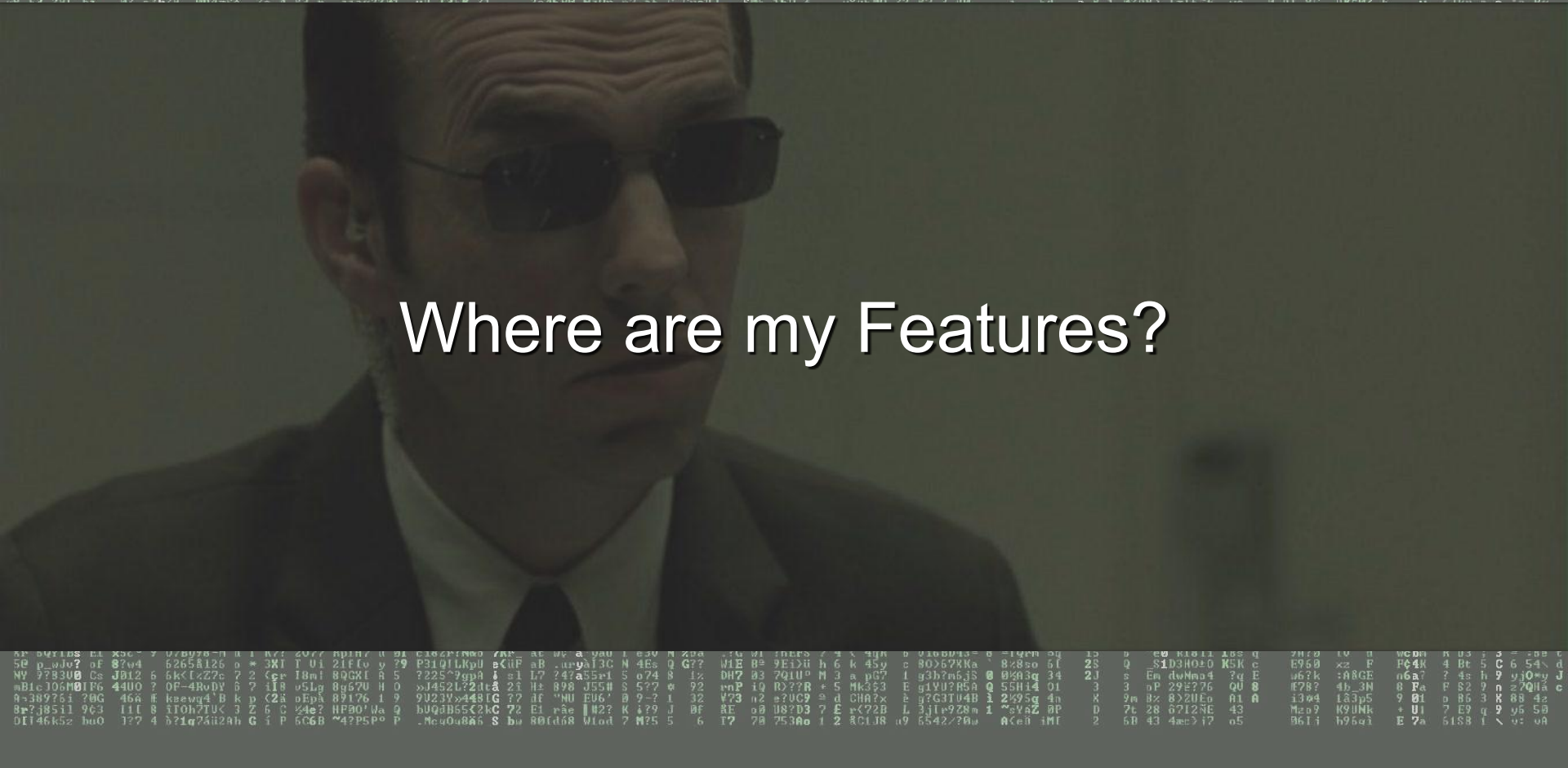


About Me

- Software Architect @ Trimble
- Host @ SE Radio
- .NET developer since 2001
- IDesign Architect - idesign.net


The Architect


Feature Fixation


Where are my Features?

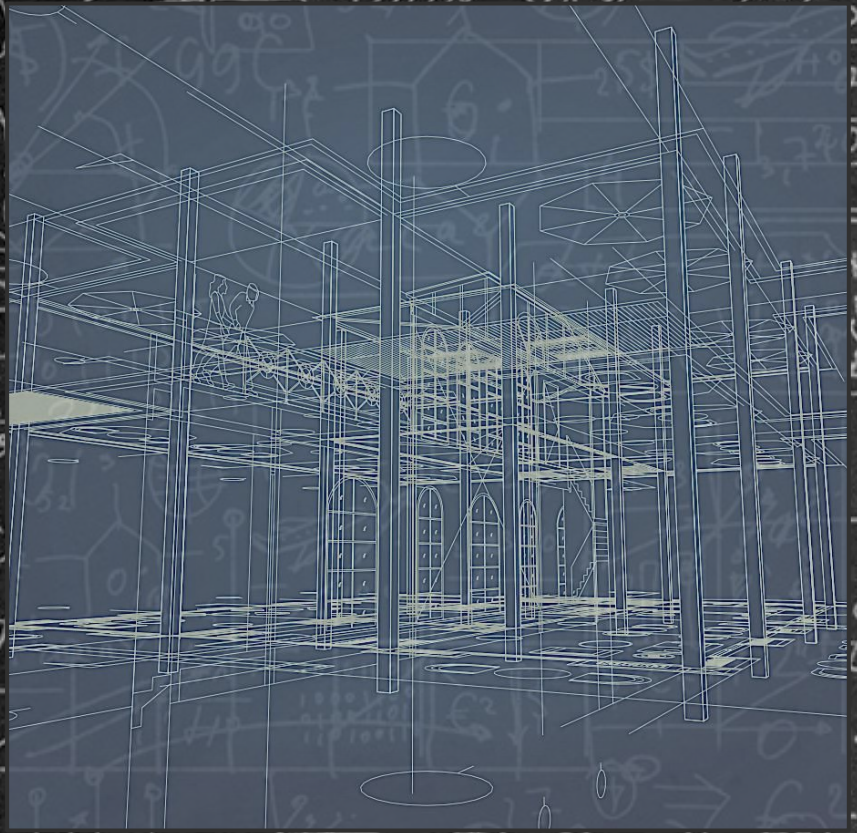
The Matrix?

When Projects go Horribly, Horribly Wrong

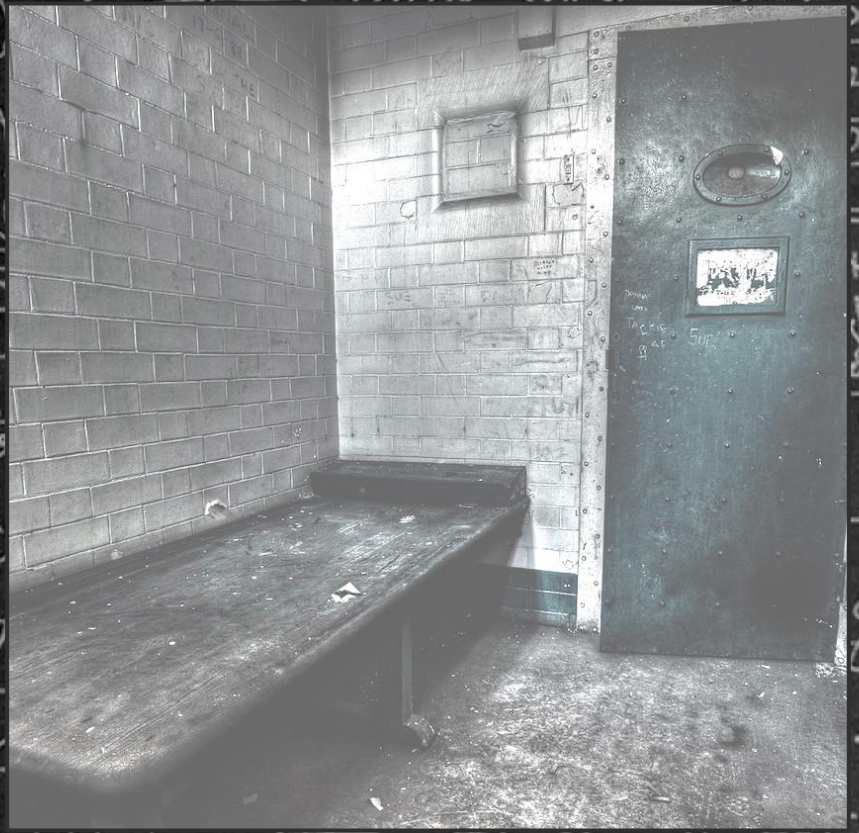
Sources of Complexity

- Technological Complexity
- Integration Complexity
- Organizational Complexity
- Operational Complexity
- Market Complexity

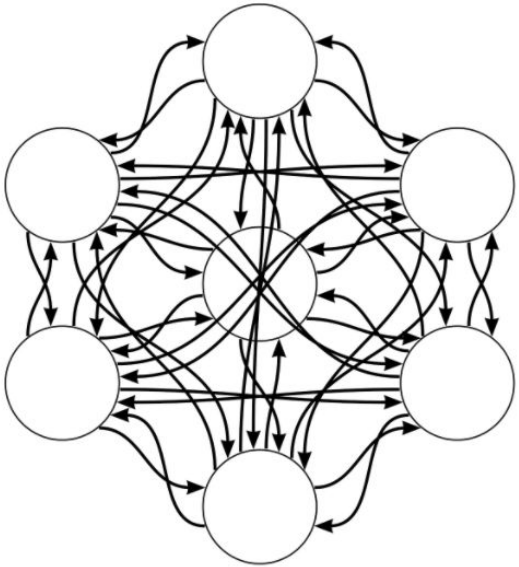
Containing Complexity



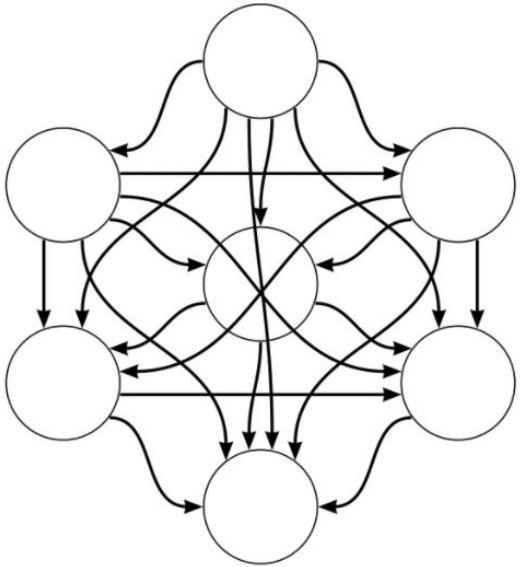
Contain
Complexity or
It will
Contain You



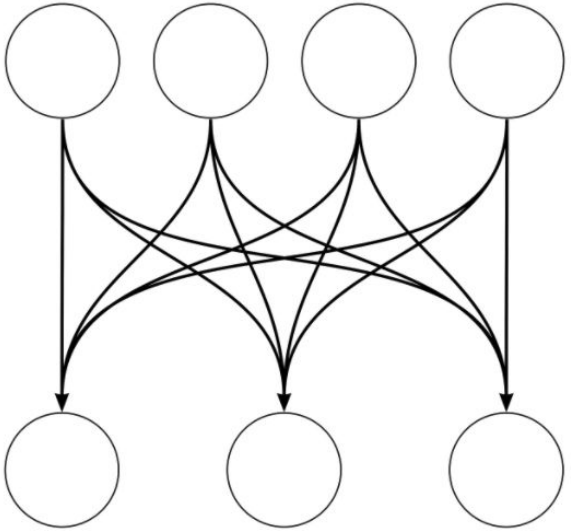
Complexity Kills



7 Nodes - No Constraints



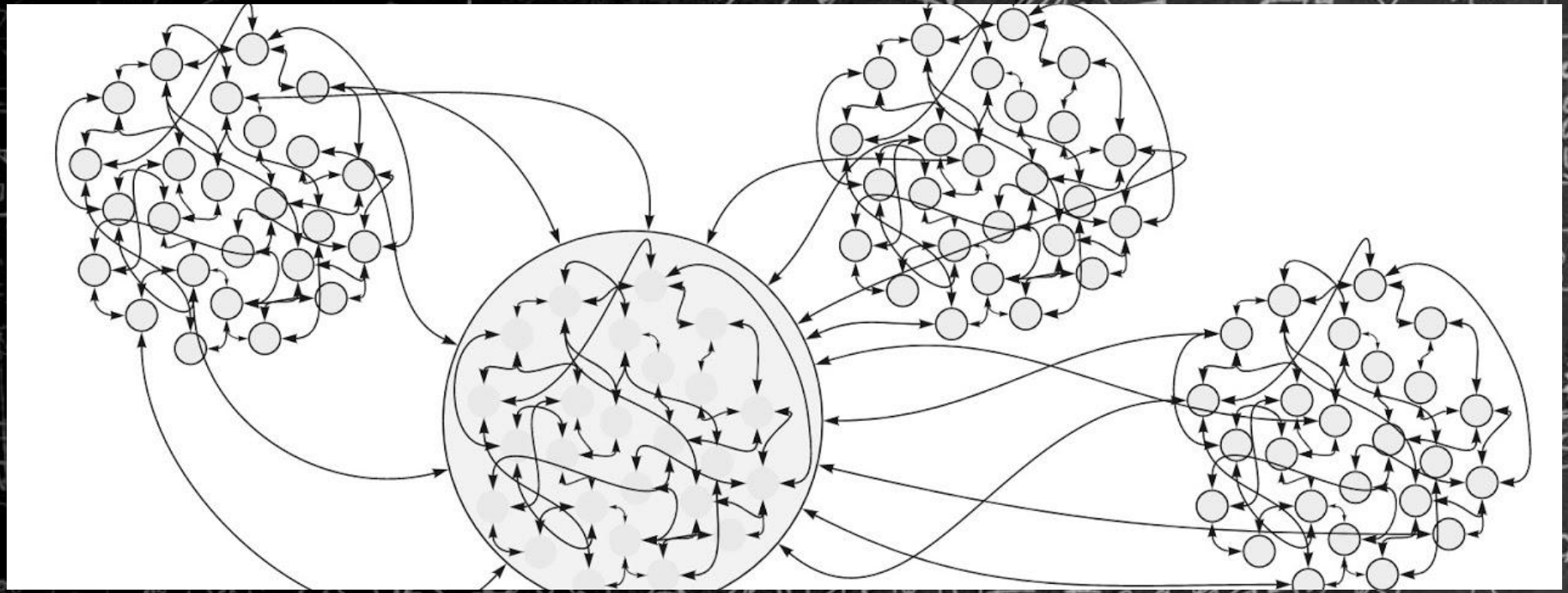
7 Nodes - Acyclic



7 Nodes - Layered

Complexity Kills

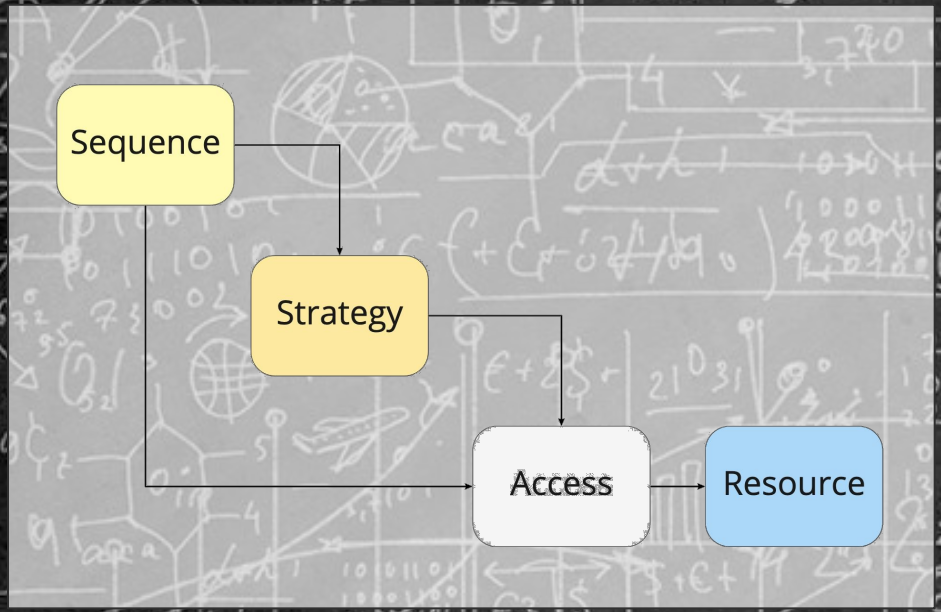
Complexity Kills



Complexity Containment Strategies

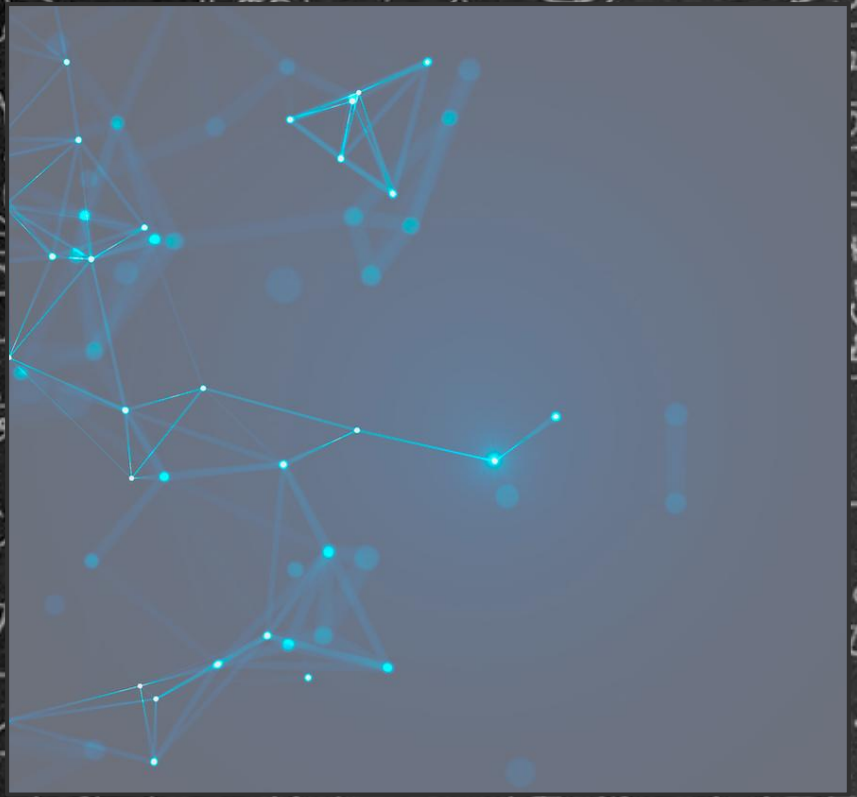
- Identify Capabilities
- Enforce Constraints
- Clarify Communication
- Commit to Vigilance

Identify Capabilities



Enforce Constraints

Clarify Communication



Commit to Vigilance

What Now?

Software Architecture As Complexity Containment

jeffdoolittle.com

Righting Software
By Juval Löwy
rightingsoftware.org

Exploring Requirements
Gause & Weinberg