Understanding
complex
systems
without simplifying them
Rita Sodt, Google

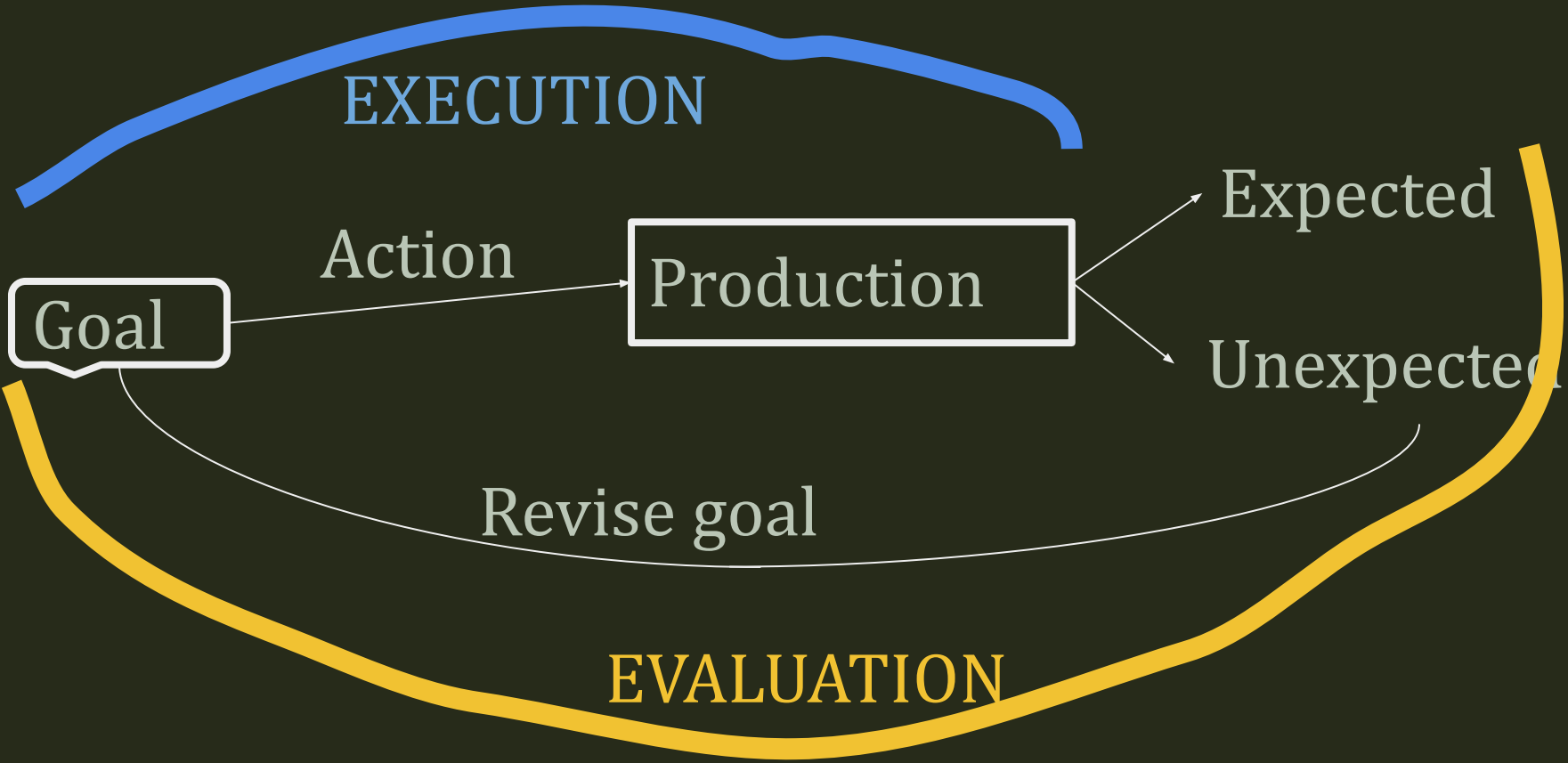
Complexity is not the problem

Ambiguity is

Simplicity does not solve ambiguity

Clarity does

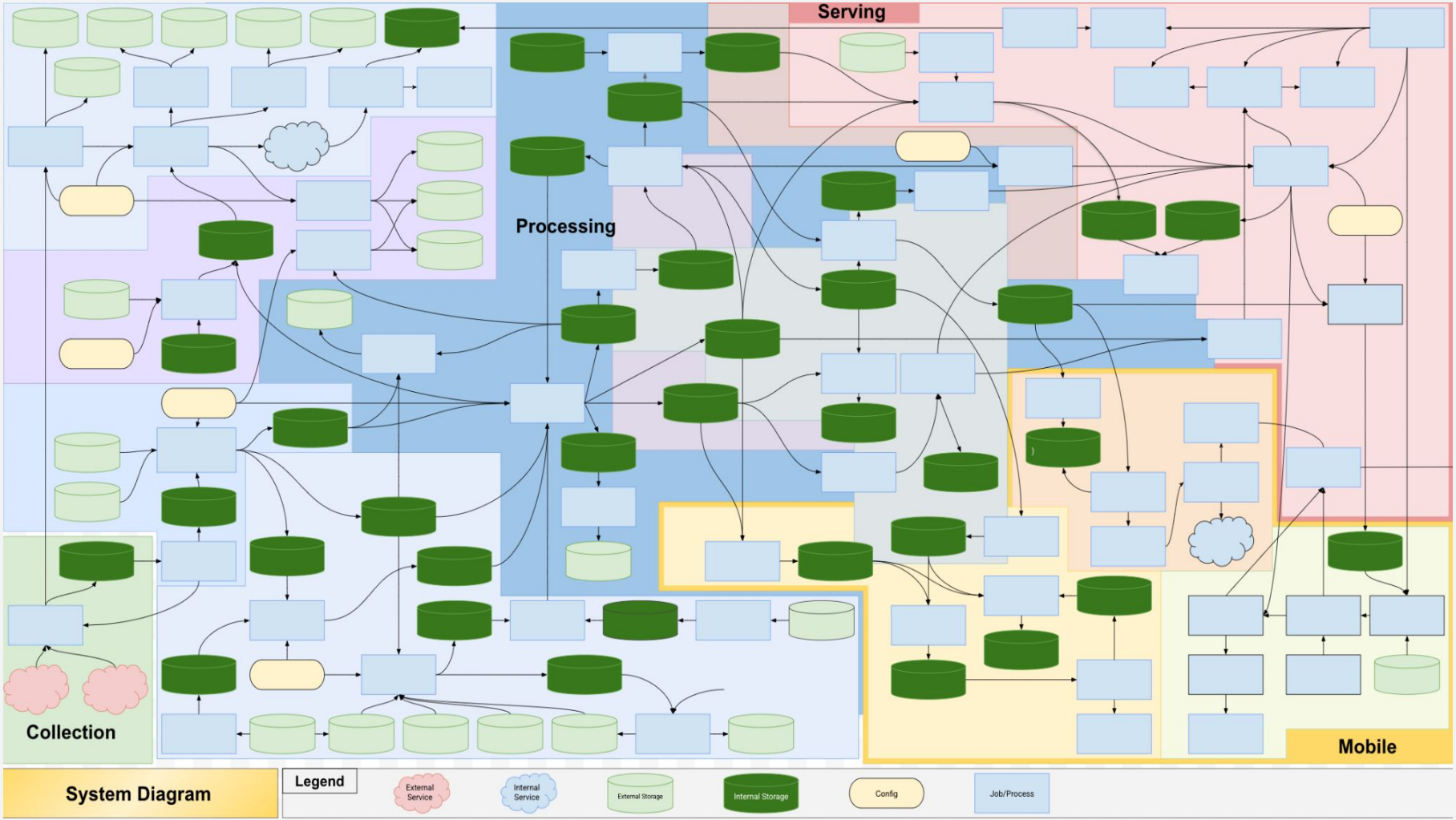
Norman's Execution - Evaluation Cycle

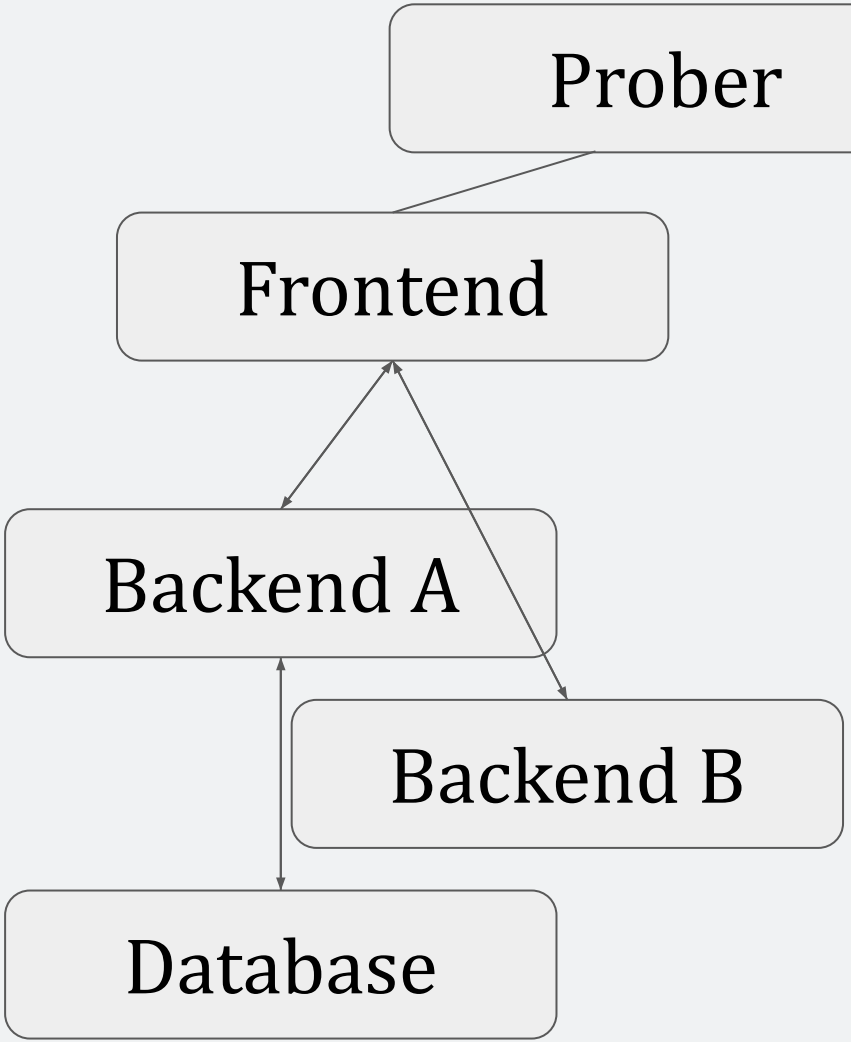


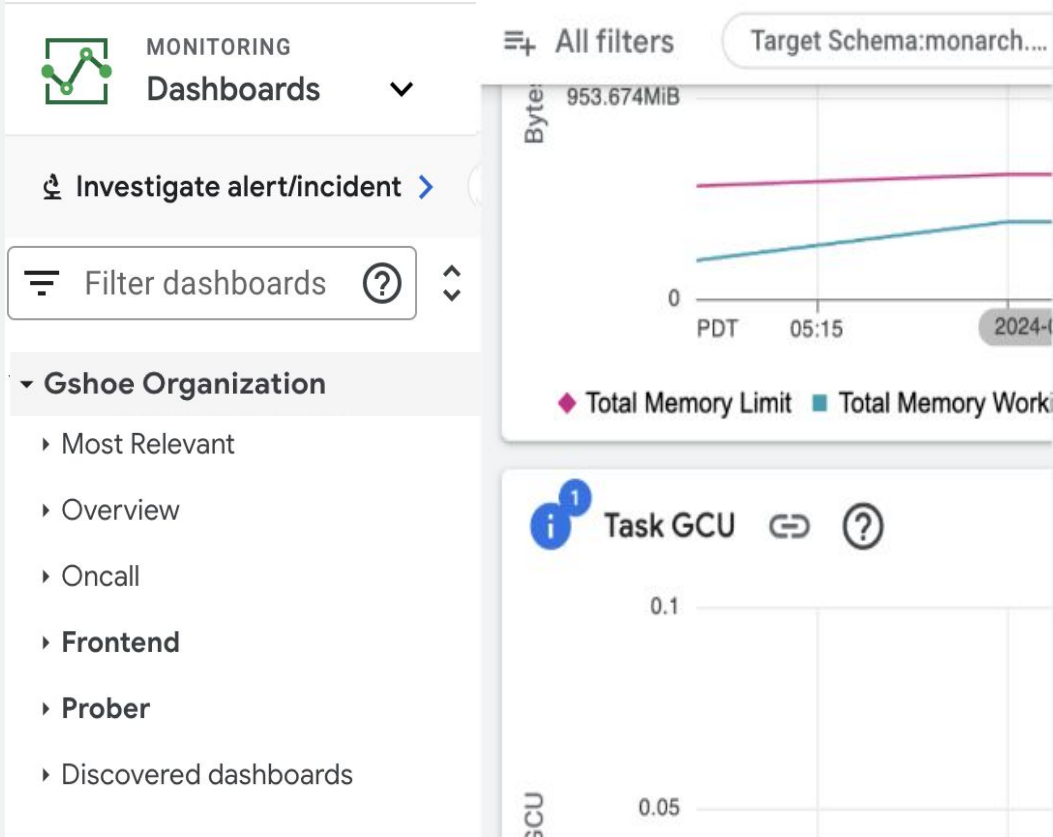
Cooper's Model Terminology

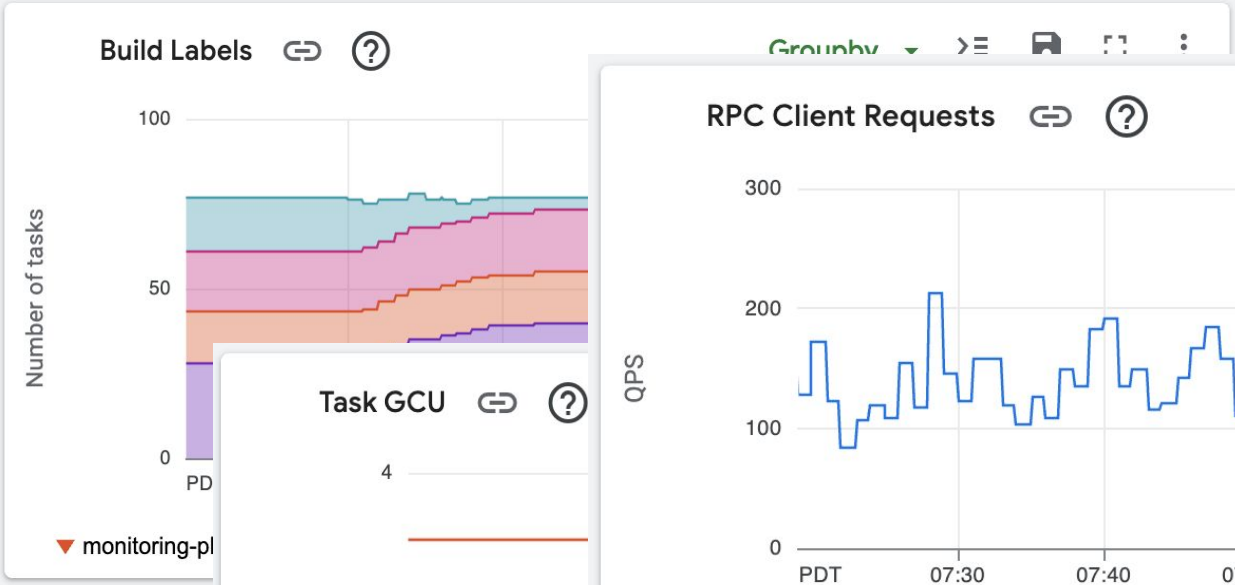
FROM BRENÉ BROWN

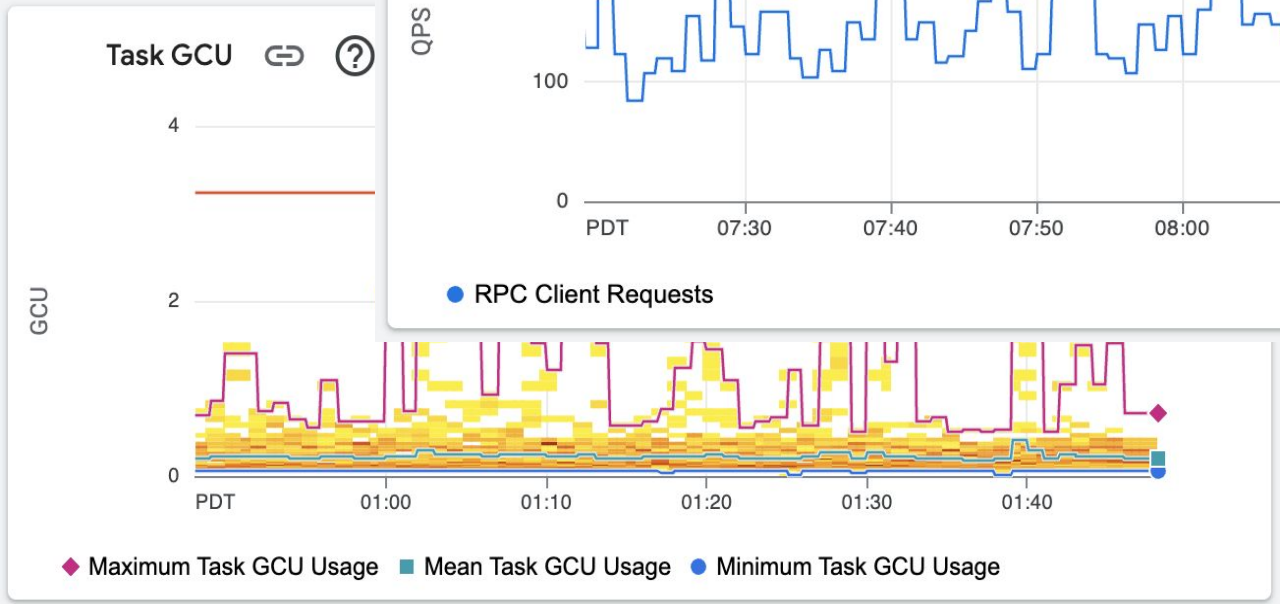
sketchplanations

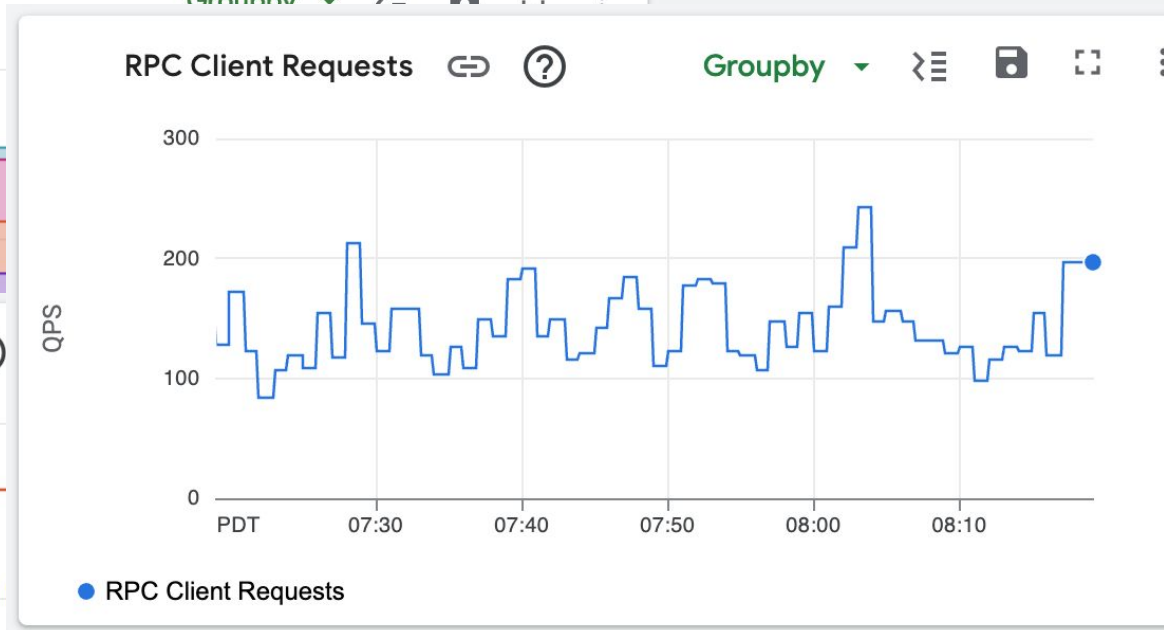

Serving
Processing
Collection
Mobile
System Diagram
Legend
External Service
Internal Service
External Storage
Internal Storage
Config
Job/Process

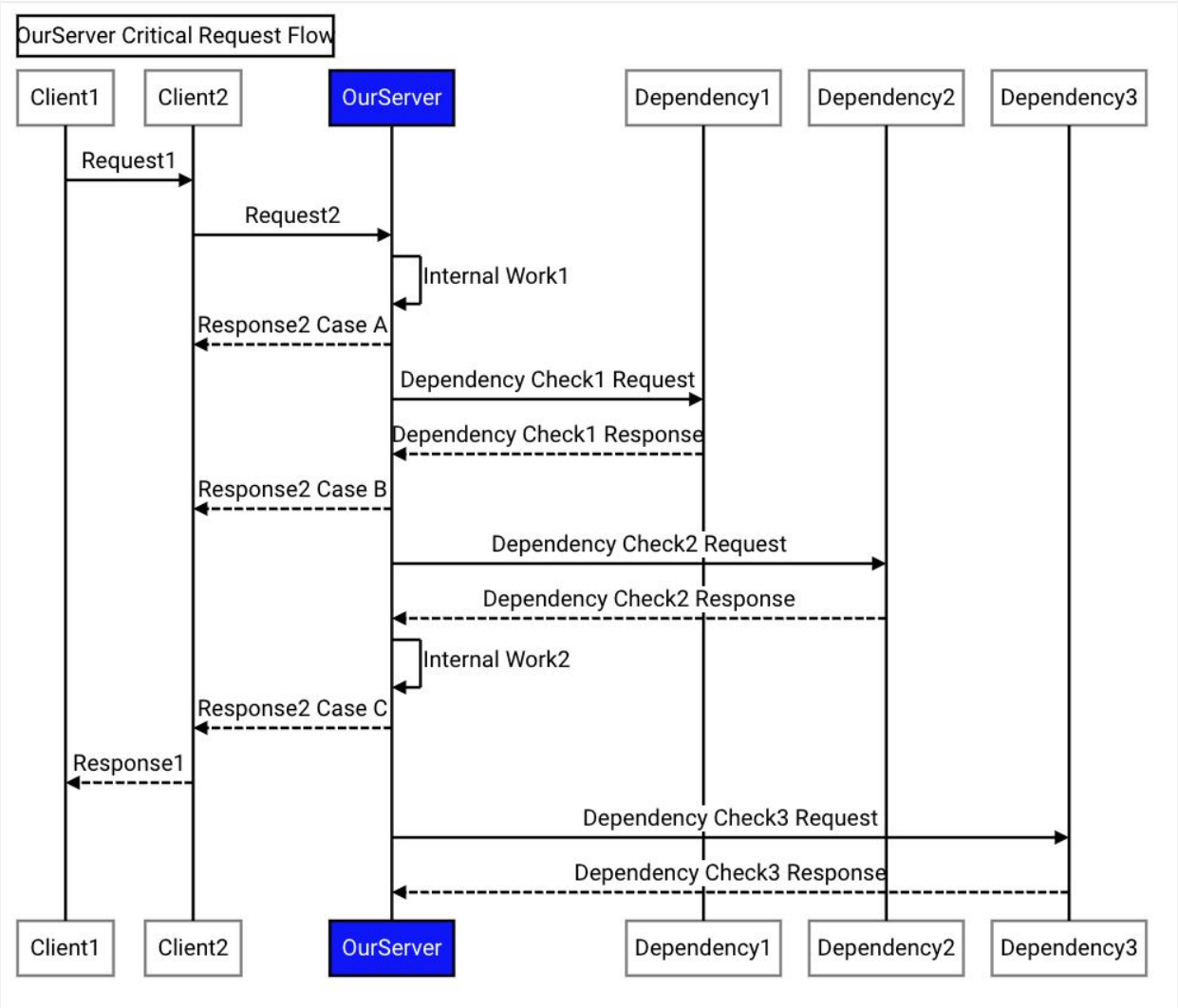

Prober
Frontend
Backend A
Backend B
Database

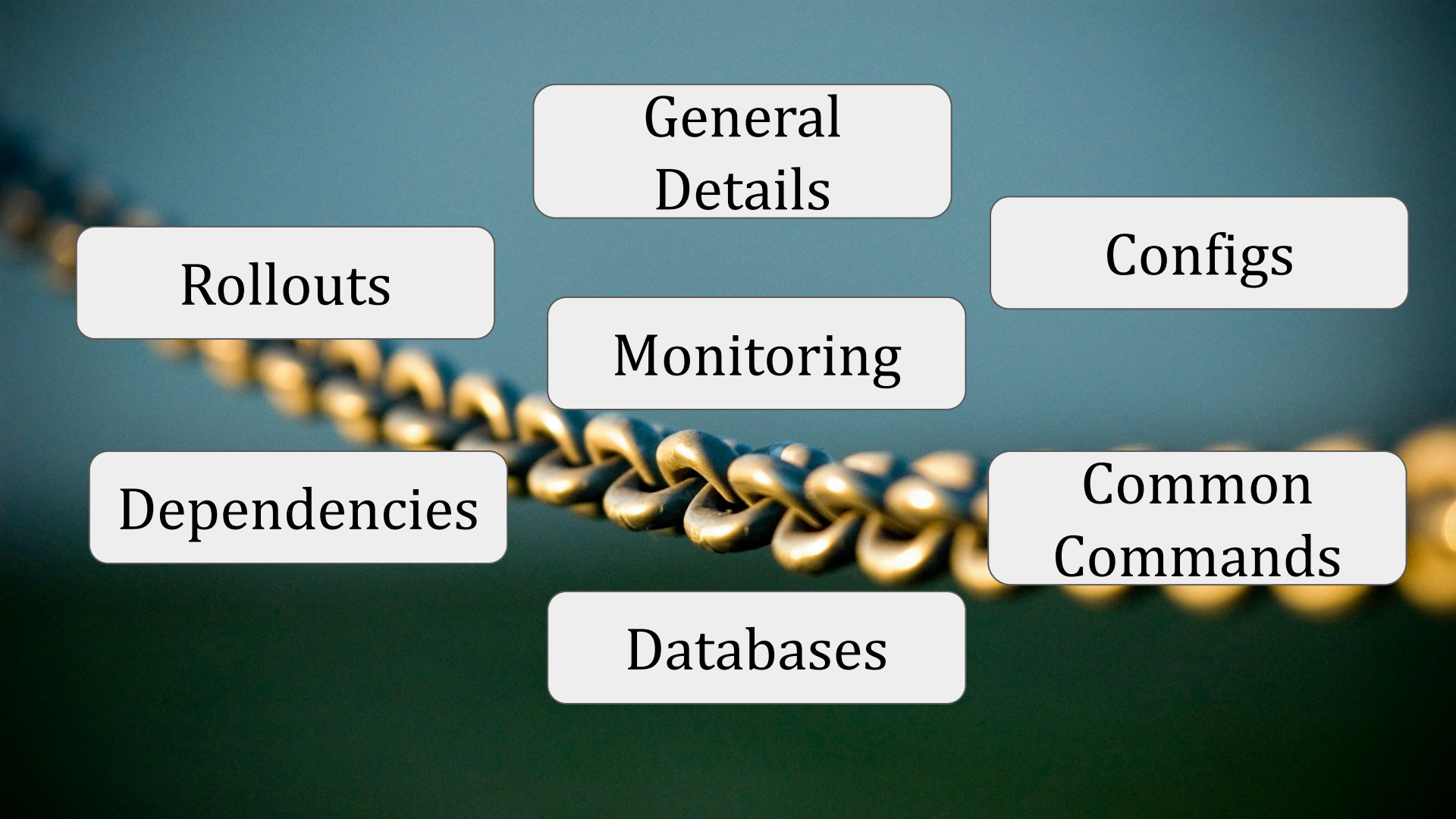

MONITORING
Dashboards
Investigate alert/incident
Filter dashboards
Gshoe Organization
Most Relevant
Overview
Oncall
Frontend
Prober
Discovered dashboards
All filters
Target Schema:monarch....
953.674MiB
0
PDT
05:15
Total Memory Limit
Task GCU
0.1
0.05


Build Labels
Groupby
100
50
0
Number of tasks
PD
monitoring-pl


Task GCU
4
2
0
GCU
PDT
01:00
01:10
01:20
01:30
01:40
Maximum Task GCU Usage
Mean Task GCU Usage
Minimum Task GCU Usage


RPC Client Requests
Groupby
300
200
100
0
QPS
PDT
07:30
07:40
07:50
08:00
08:10
RPC Client Requests


OurServer Critical Request Flow
Client1
Client2
OurServer
Dependency1
Dependency2
Dependency3
Request1
Request2
Internal Work1
Response2 Case A
Dependency Check1 Request
Dependency Check1 Response
Response2 Case B
Dependency Check2 Request
Dependency Check2 Response
Internal Work2
Response2 Case C
Response1
Dependency Check3 Request
Dependency Check3 Response
Client1
Client2
OurServer
Dependency1
Dependency2
Dependency3


General Details
Rollouts
Configs
Monitoring
Dependencies
Common Commands
Databases

Dashboards and diagrams for clarity!

Interactions & simple tasks

Complexity != Confusion