SOA Governance Essentials

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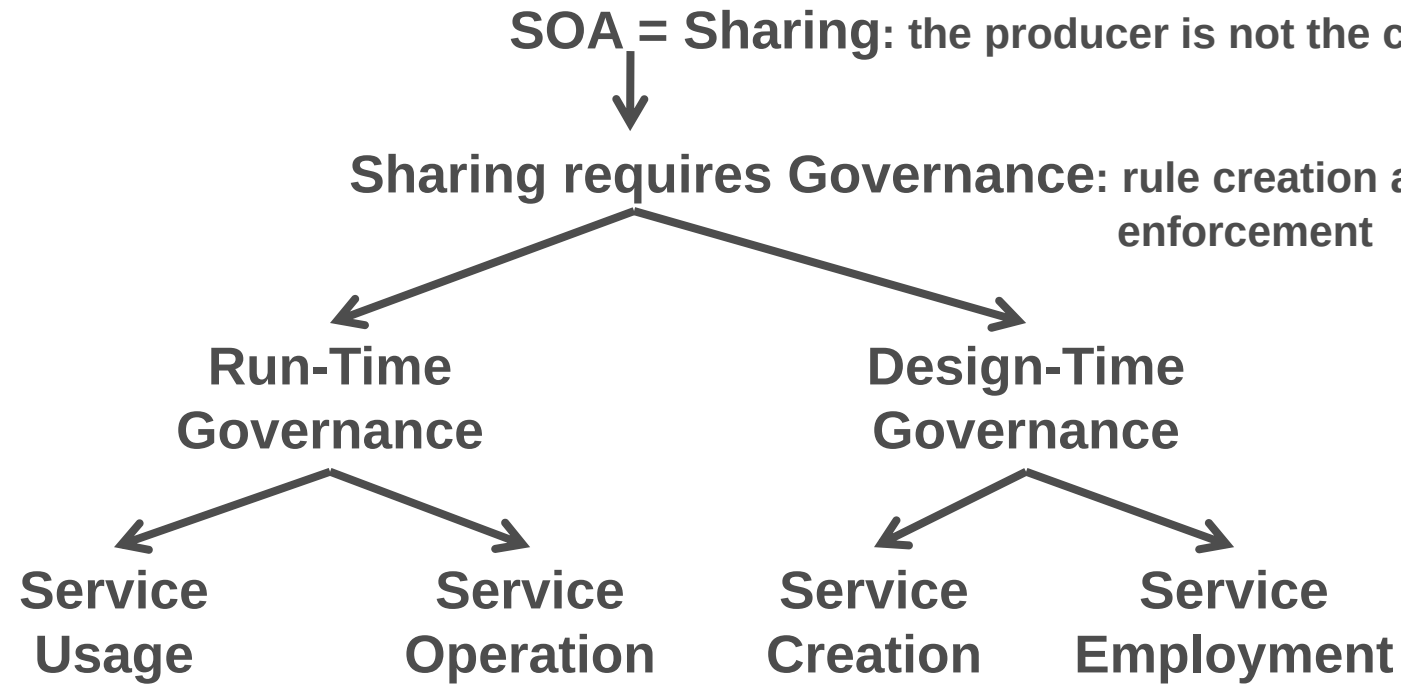
Principal Software Architect

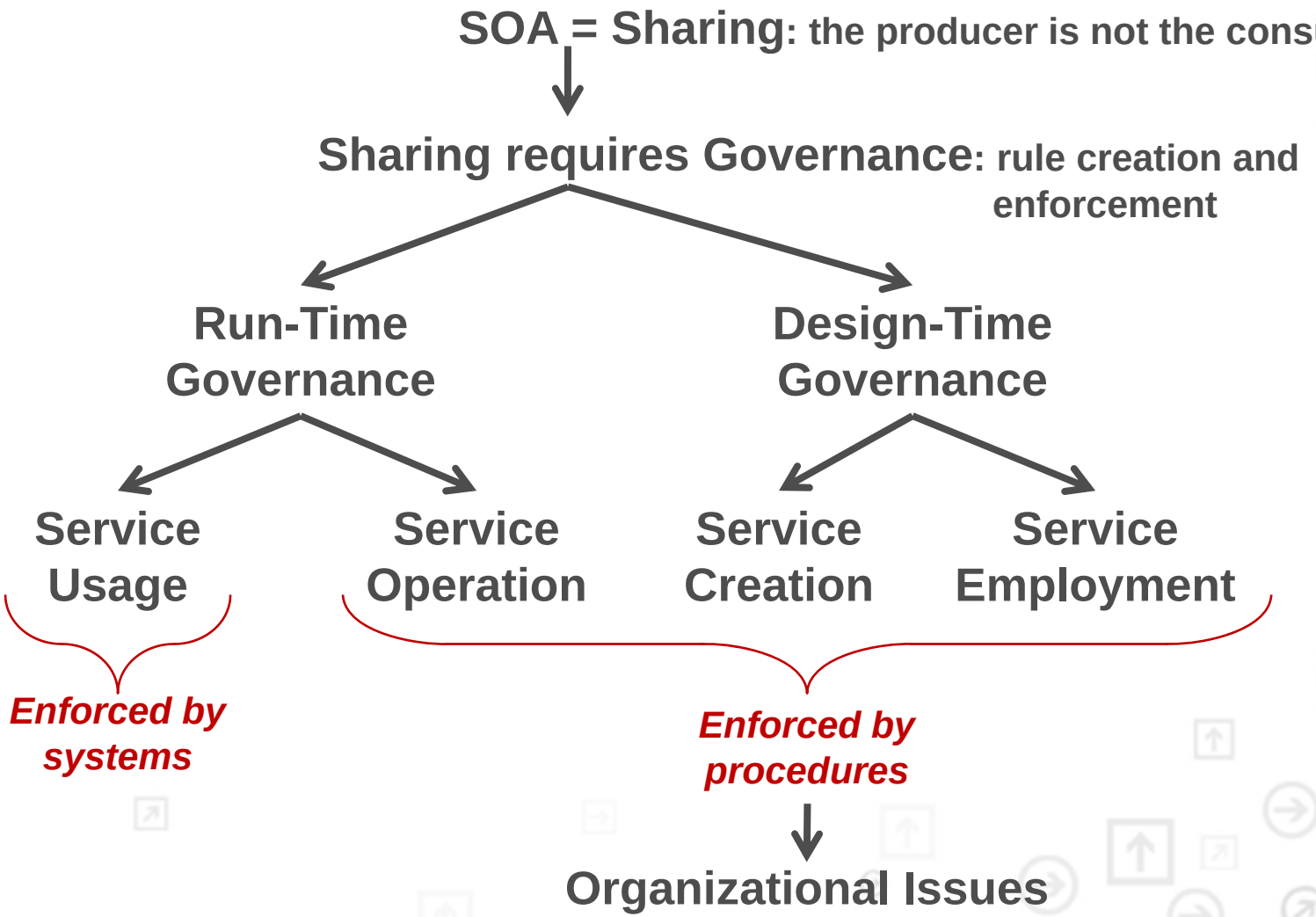
Agenda

- SOA Governance Overview
- Run-Time Governance
- Design-Time Governance
- Organizational Issues
- Summary

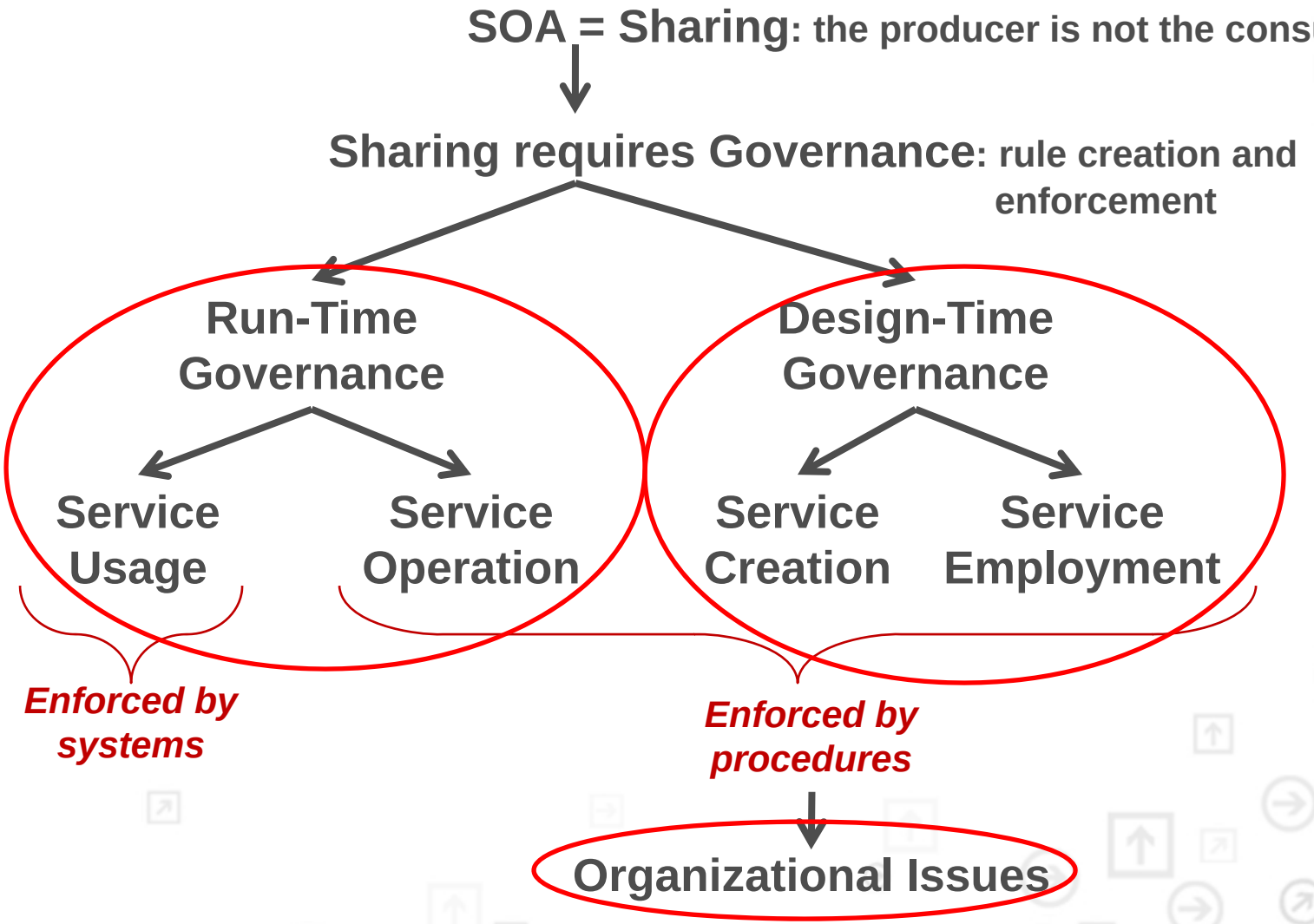
SOA Governance Overview



SOA Governance Overview



SOA Governance Overview



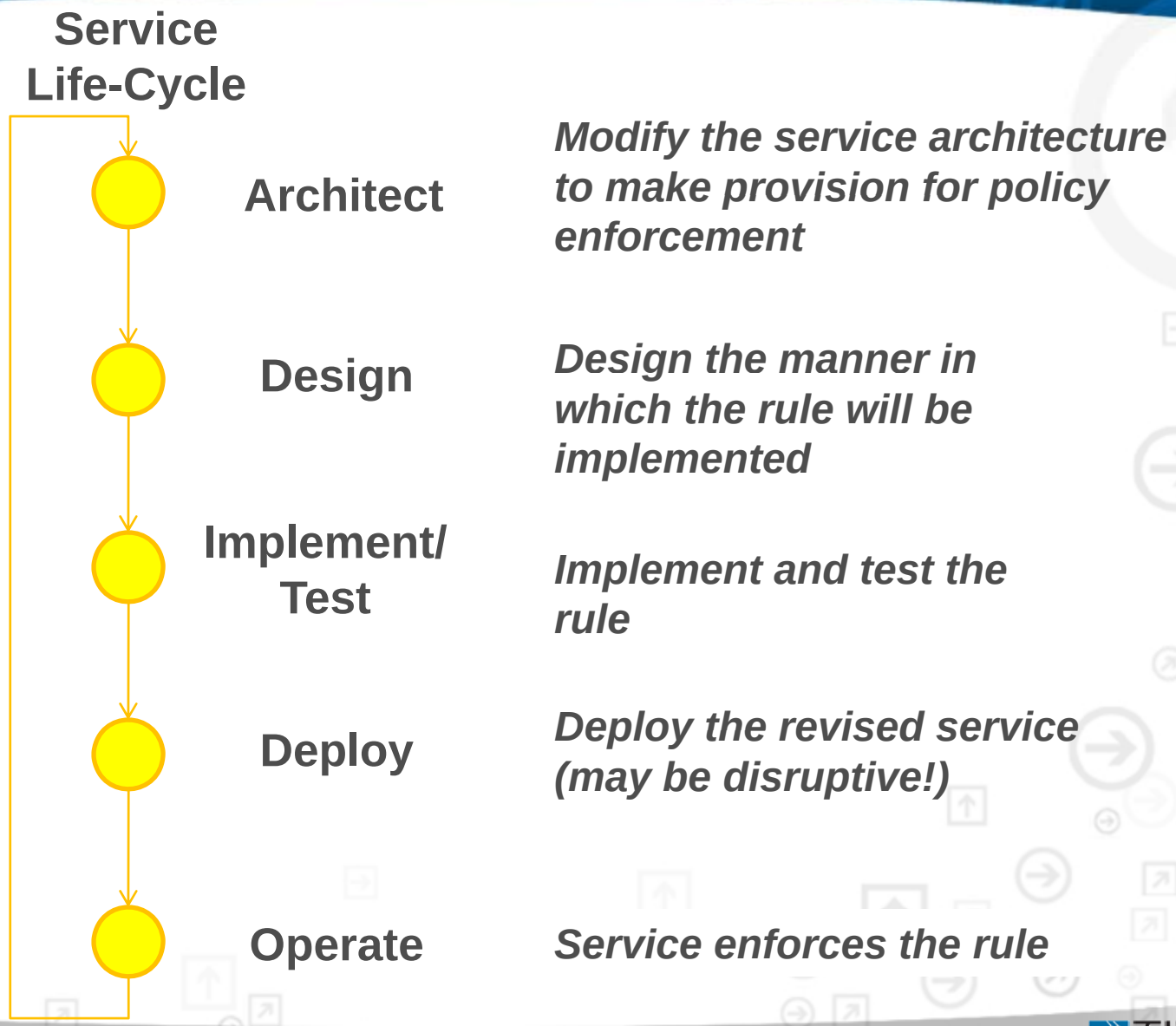
Run-Time Governance

Typical Types of Run-Time Rules

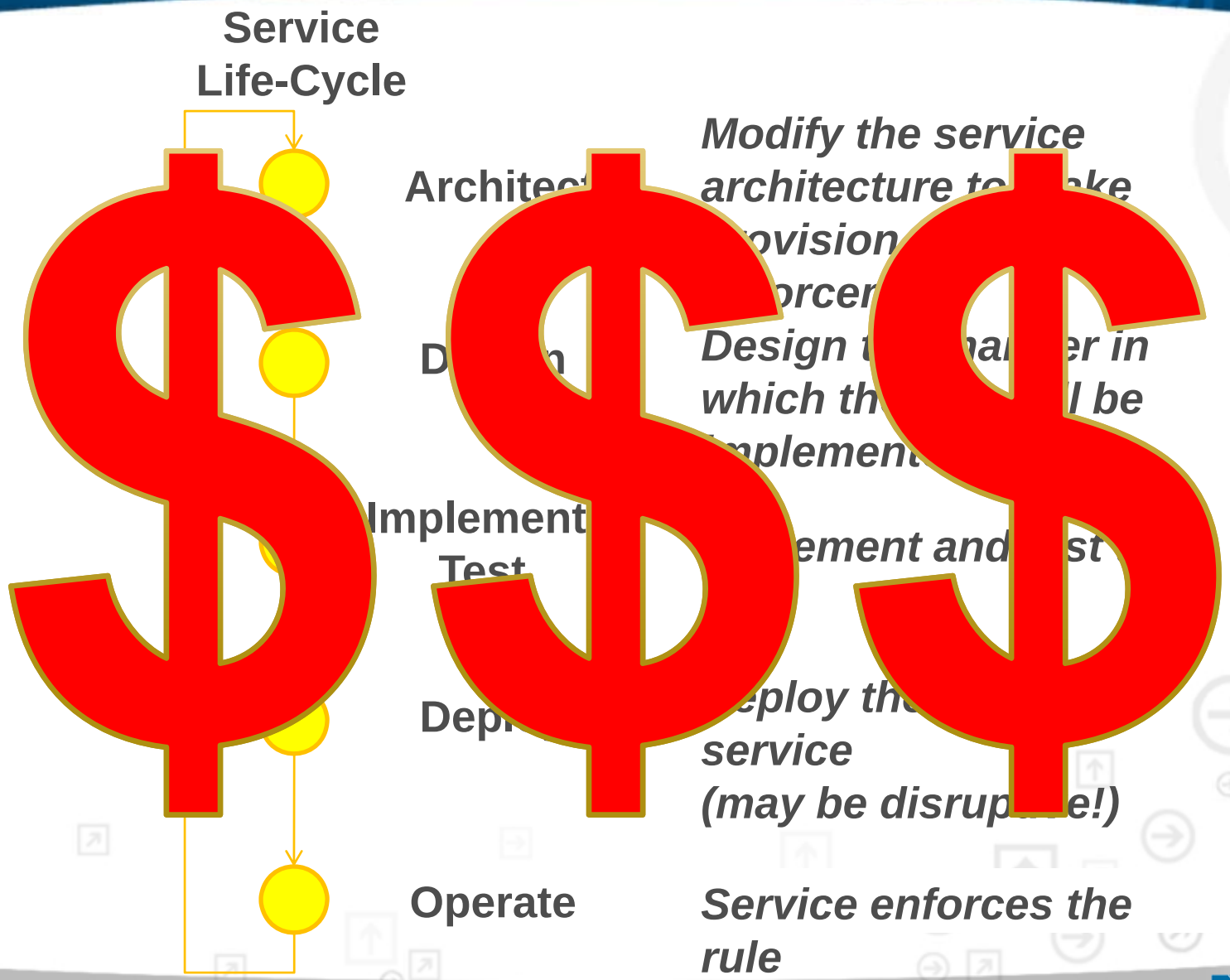
- **Access control**
  - Authentication
  - Authorization
- **Encryption**
- **Digital signatures**
- **Data filtering**
- **Logging**
- **Statistics gathering**
  - Invocation rate
  - Response times

The list is open-ended!

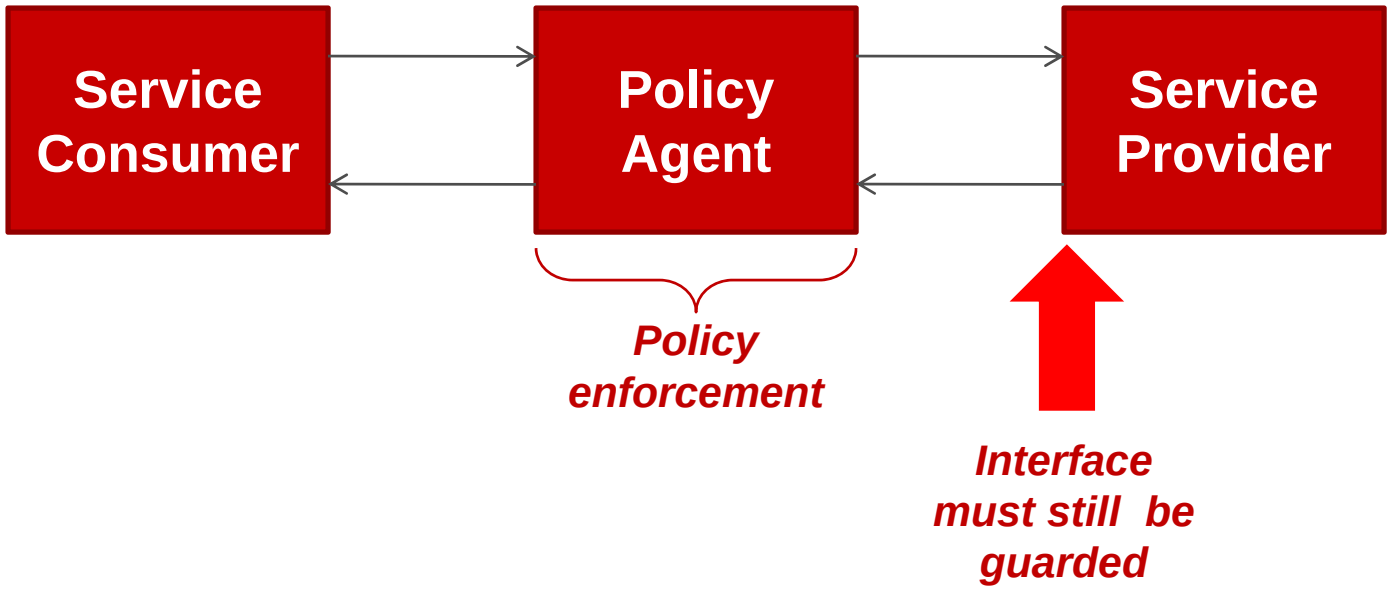
It Is Possible to Enforce Policies Within the Service



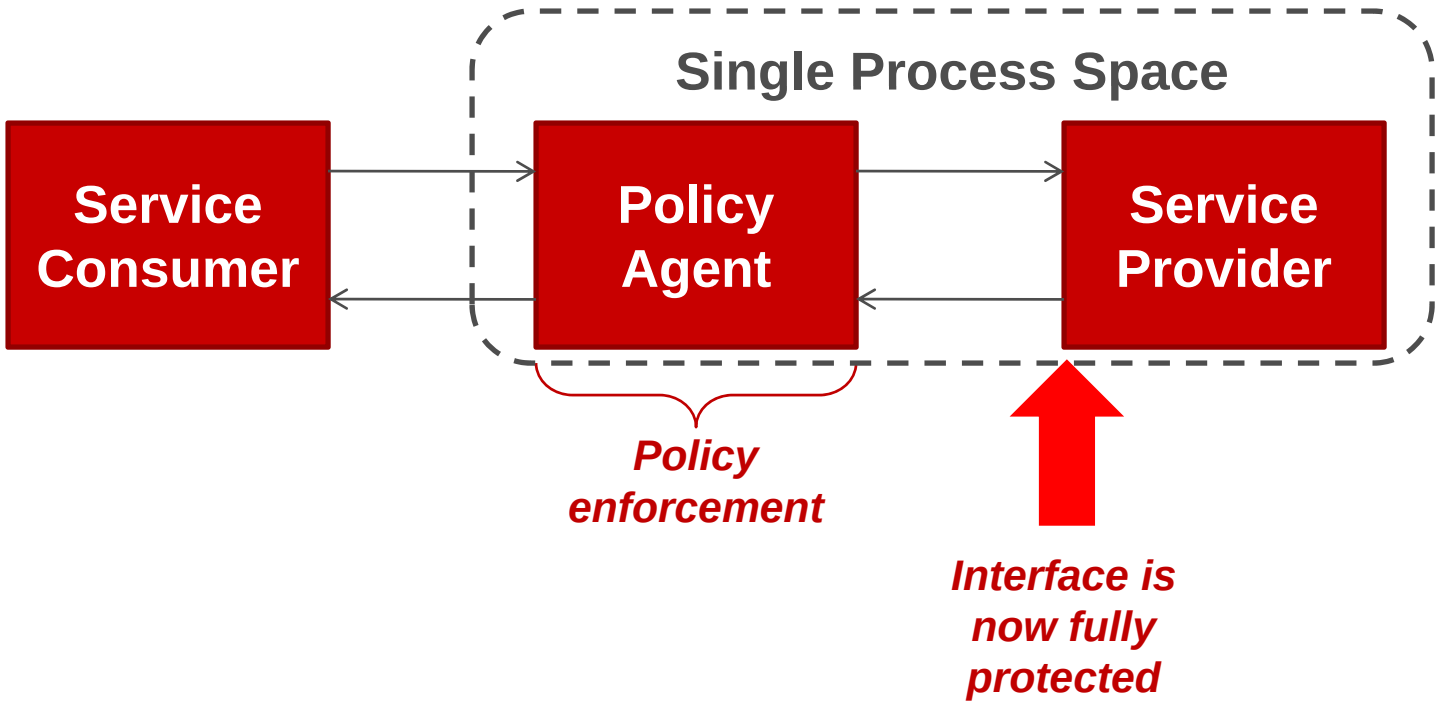
Enforcing Policies Within the Service Is Expensive!



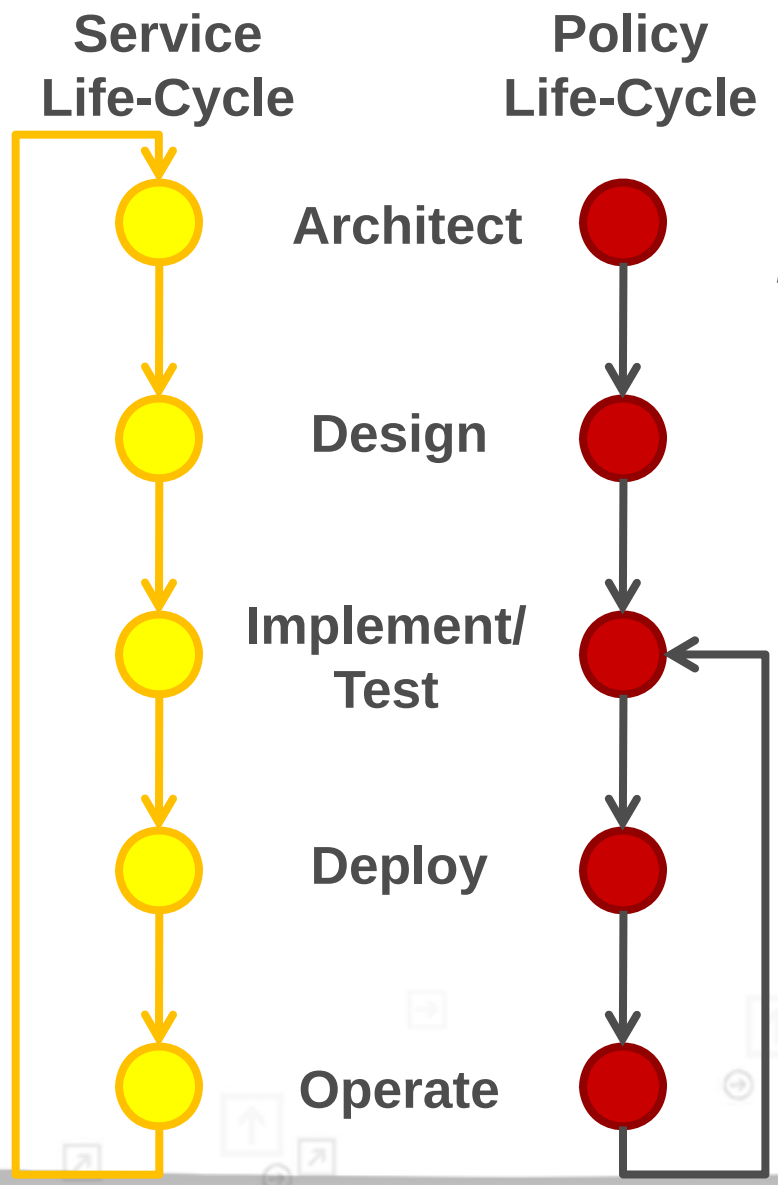
Solution: Separate Policy Enforcement From Service



Solution: Separate Policy Enforcement From Service



Enforcing Policies with a Policy Agent



Put the infrastructure in place to use Policy Agents

Select or create the template for the type of rule you need

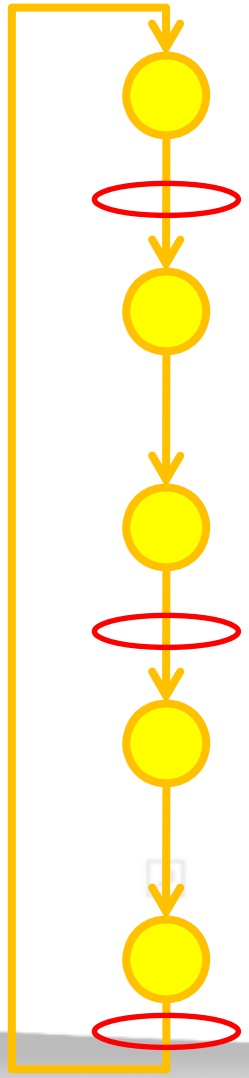
Configure the rule

Associate the rule with the services it governs

Policy Agent enforces the rule

Design-Time Governance

Governance During Service Development



Architect

- ***Will the service fit multiple usages?***
- ***Will the interface remain stable over time?***

Design

Implement/ Test

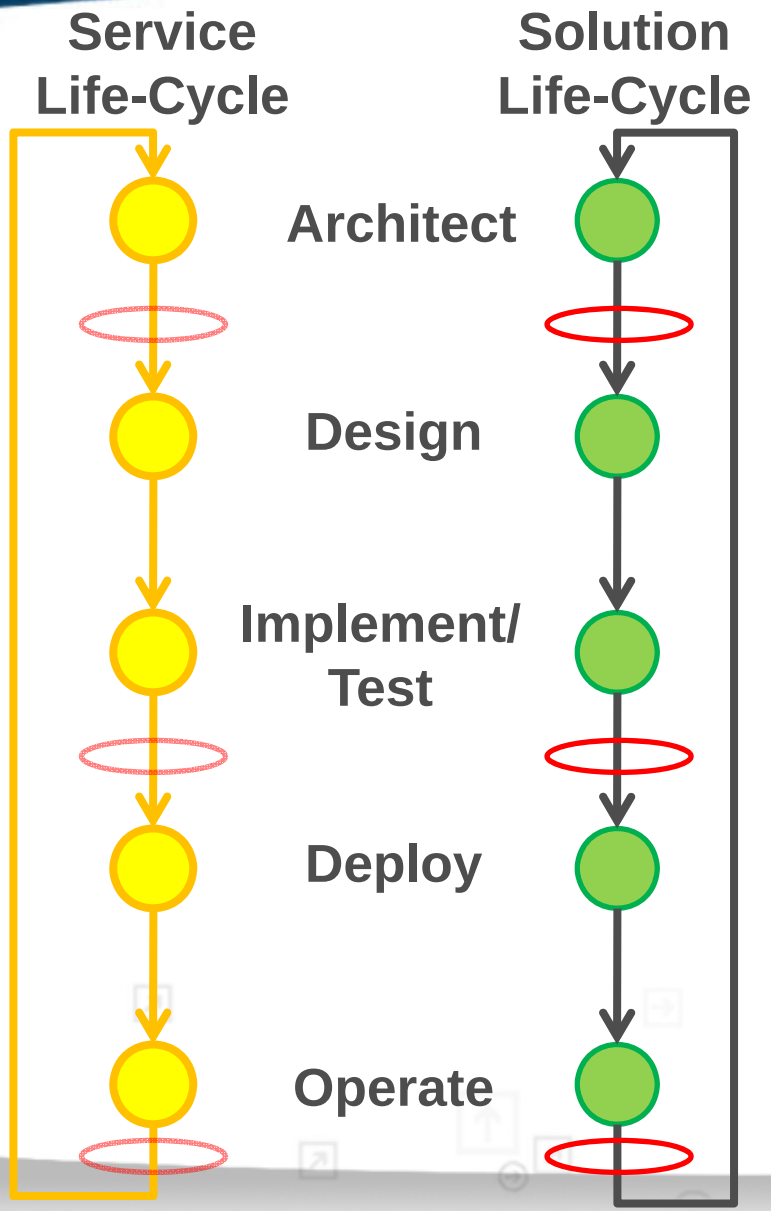
- ***Is the testing adequate?***
- ***Is the documentation adequate?***

Deploy

Operate

- ***Manage service operation (start/stop)***
- ***Manage service versioning***

Governance During Solution Development



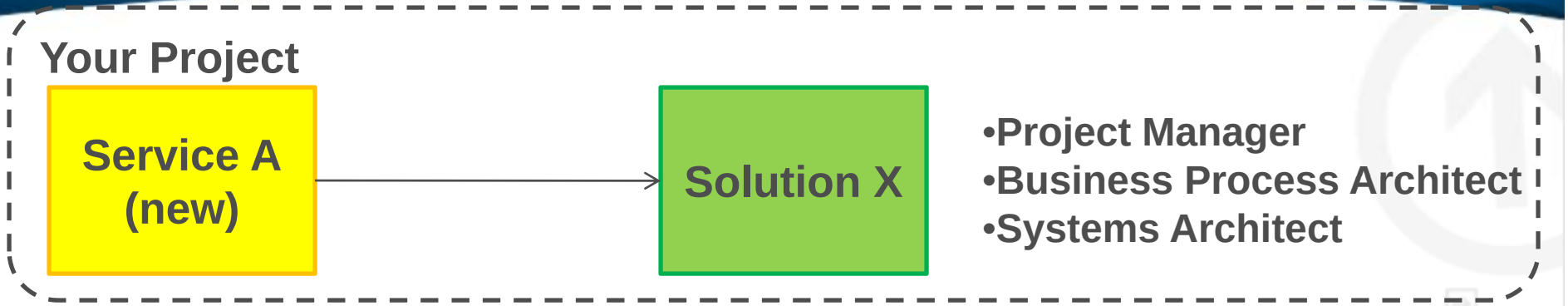
- ***Are existing services being used?***
- ***Are new services being built appropriately?***

- ***Has service capacity planning been done?***
- ***Have policies been put in place for service access?***

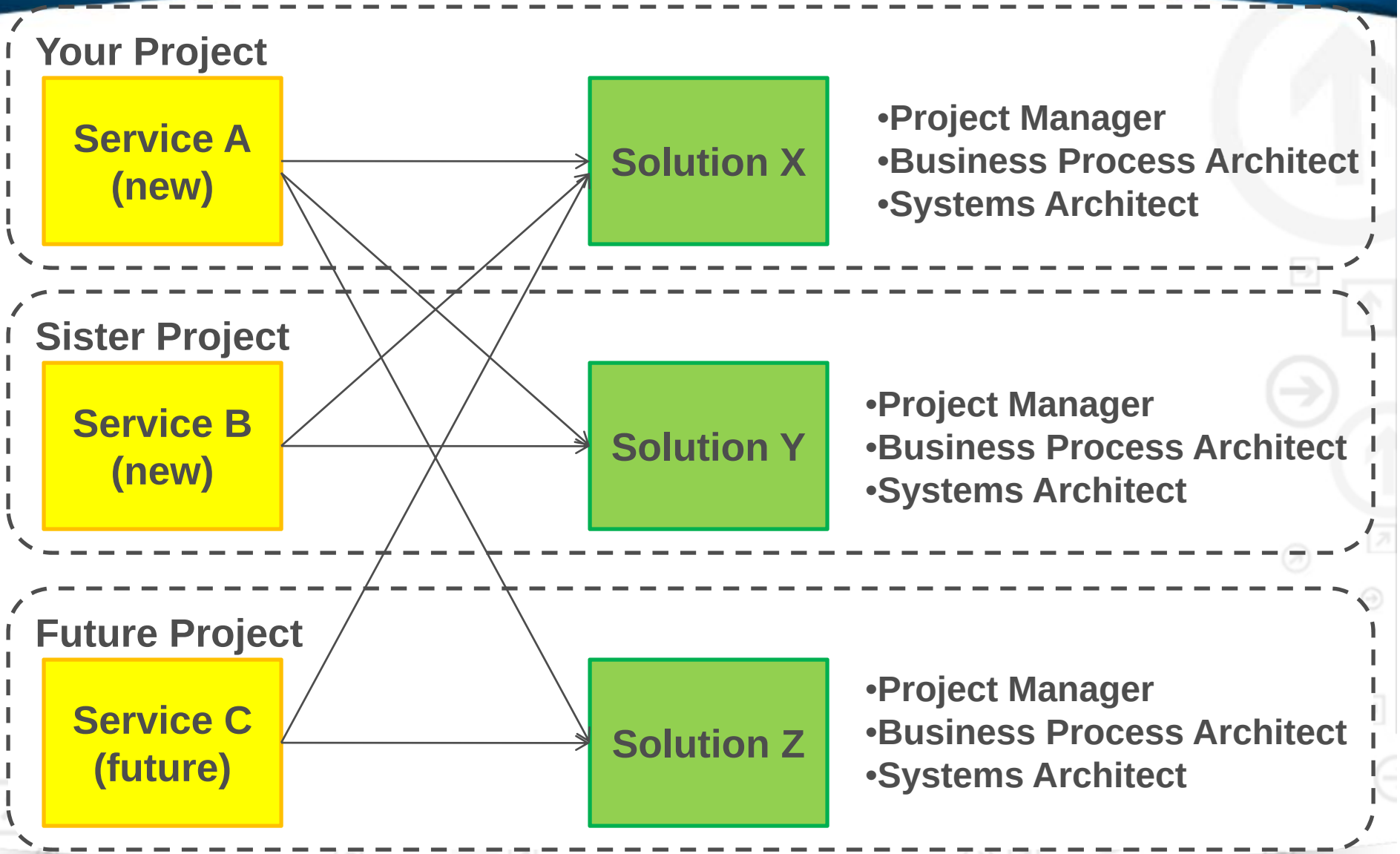
- ***Coordinate with service operation***
- ***Track service versioning***

Organizational Issues

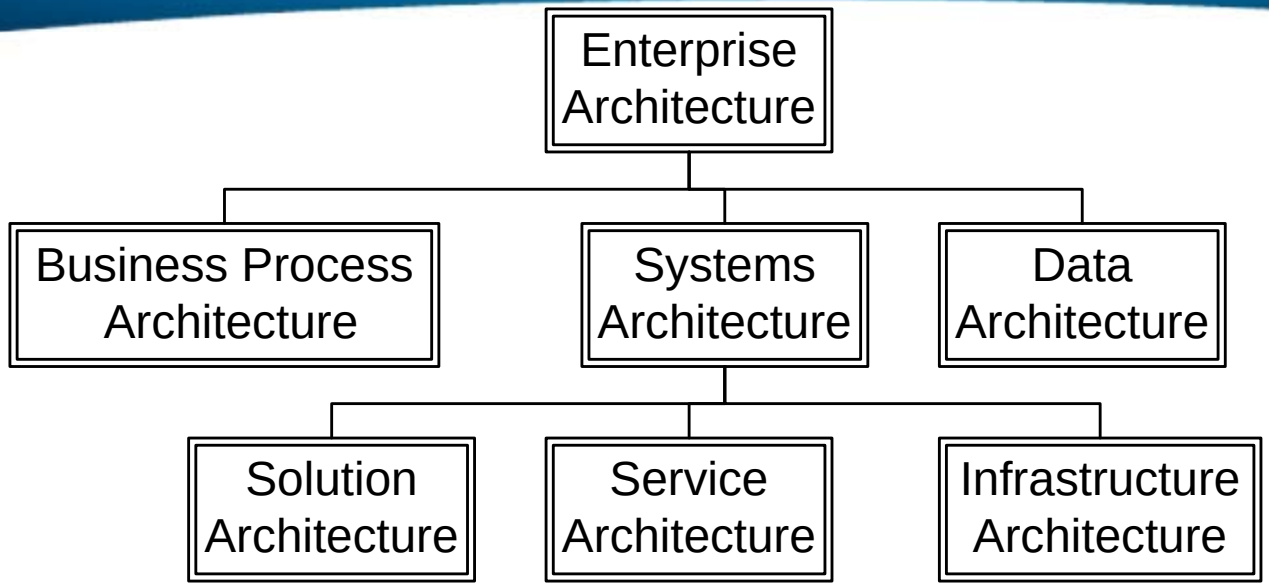
Who Manages Intra-Project Dependencies?



Who Manages Inter-Project Dependencies?



Enterprise Architecture Scope



- **Evaluate service opportunities**
  - Participate in service specification
- **Provide technical coordination between projects**
- **Provide look-ahead technical guidance (future projects)**

Common Architecture Issues

- **Project level**
  - There is no architect (i.e. nobody responsible for overall business process and systems architecture)
  - The architect has no authority
    - The project manager may ignore the advice
  - Architecture is treated as an after-the-fact review
    - Too late to make substantial changes
- **Enterprise Level**
  - No participation in actual projects
    - No opportunity to guide them towards common goals
    - No opportunity to recognize issues in standards and best practices
  - No authority
    - Projects do as they please
  - Project participation is at a review level
    - Too late to make substantial changes

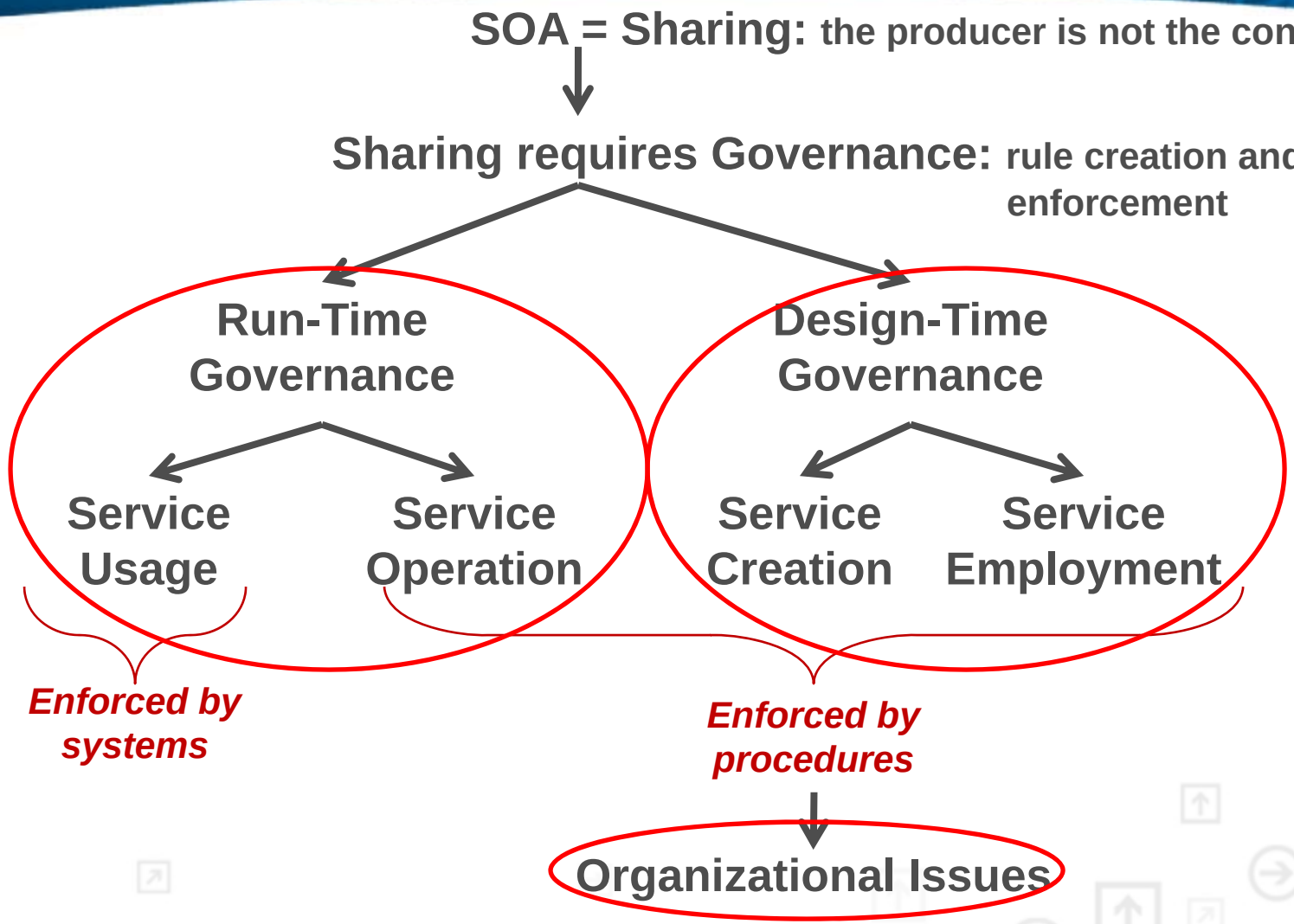
Put All Architecture Under One Roof

Business Executive Sponsor

- Total Architecture Management
  - Enterprise Projects
    - Project Manager
      - Business Process Architect
      - Systems Architect
    - Project Manager
      - Business Process Architect
      - Systems Architect
    - Project Manager
      - Business Process Architect
      - Systems Architect
  - Enterprise Architecture
    - Business Process Architecture
    - Systems Architecture
      - Solution Architecture
      - Service Architecture
      - Infrastructure Architecture
    - Data Architecture

Summary

SOA Governance Overview



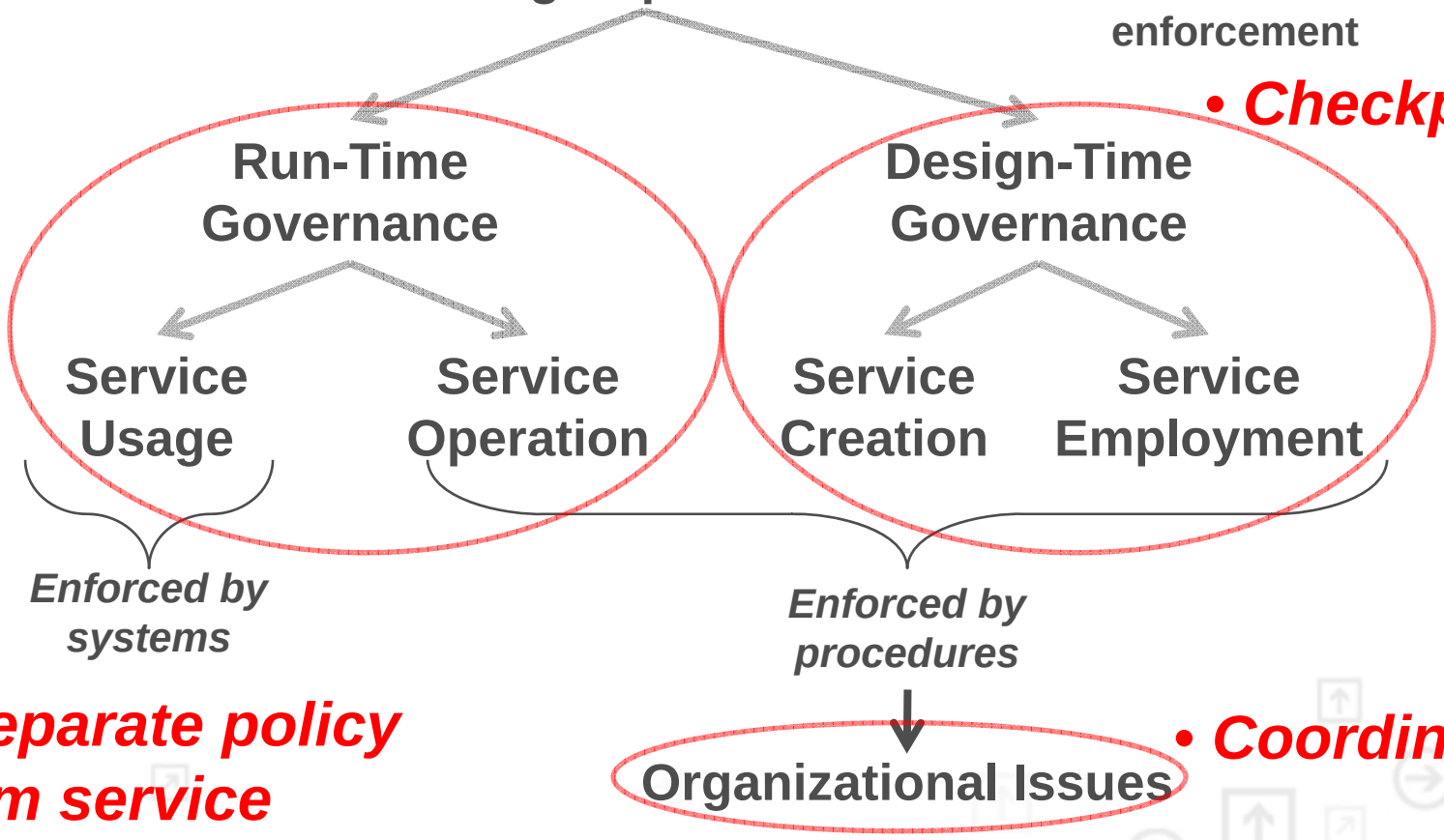
SOA Governance Overview

- ***Reuse***
- ***Isolation***

SOA = Sharing: the producer is not the consumer

Sharing requires Governance: rule creation and enforcement

- ***Checkpoints***



- ***Separate policy from service***
- ***Coordination***

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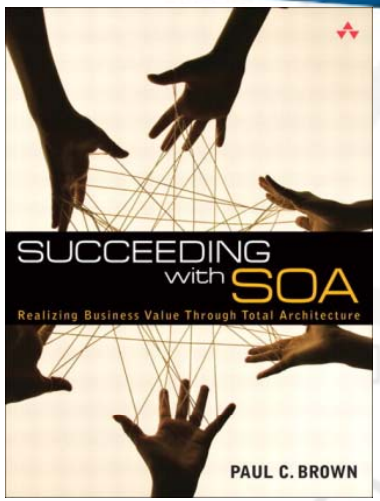
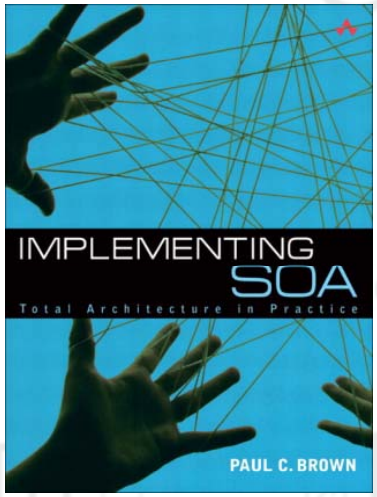
For More Information…

- **Succeeding with SOA**
  - The business and organizational perspective
  - For:
    - CIO, COO, CEO, CTO
    - Managers
    - Enterprise and project architects



- **Implementing SOA**
  - Creating the total architecture
  - For
    - Enterprise and project architects
    - CTOs



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