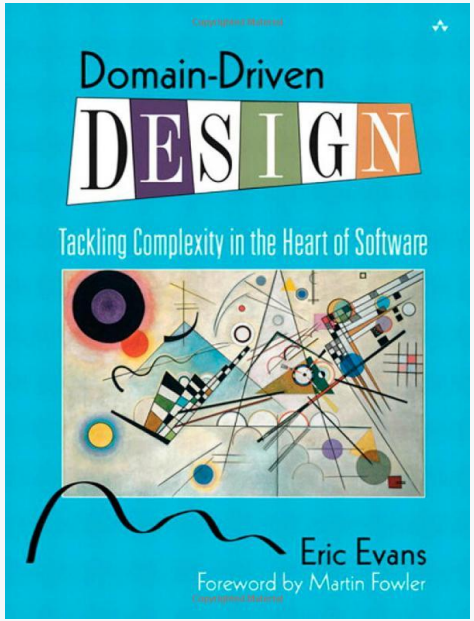
Chris Simon
@ChrisSimonAu

Learning to Love Domain Driven Design

A Tale of Two Products


Aurora Borealis
Corona
Revontulet
Northern Lights
Dunes
Pillars
Nainas
Diffuse
Arcs
Aksarnirq
Bands


Domain-Driven
DESIGN
Tackling Complexity in the Heart of Software
Eric Evans
Foreword by Martin Fowler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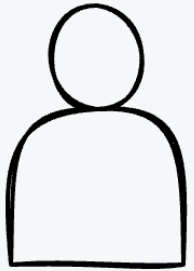
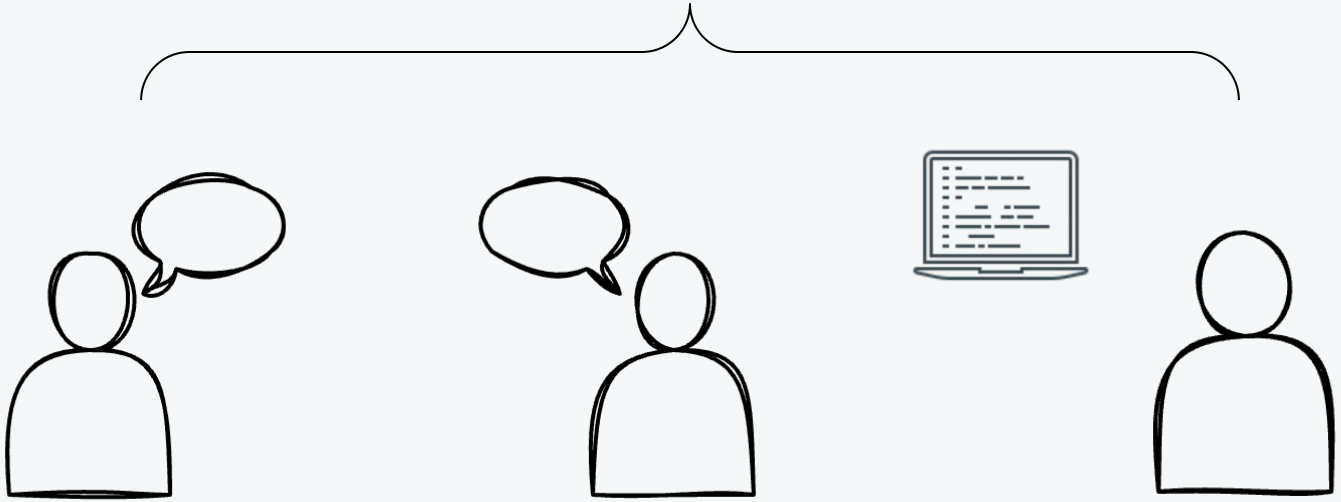
Domain Linguist
domainlanguage.com
Joined June 2009



Ubiquitous Language

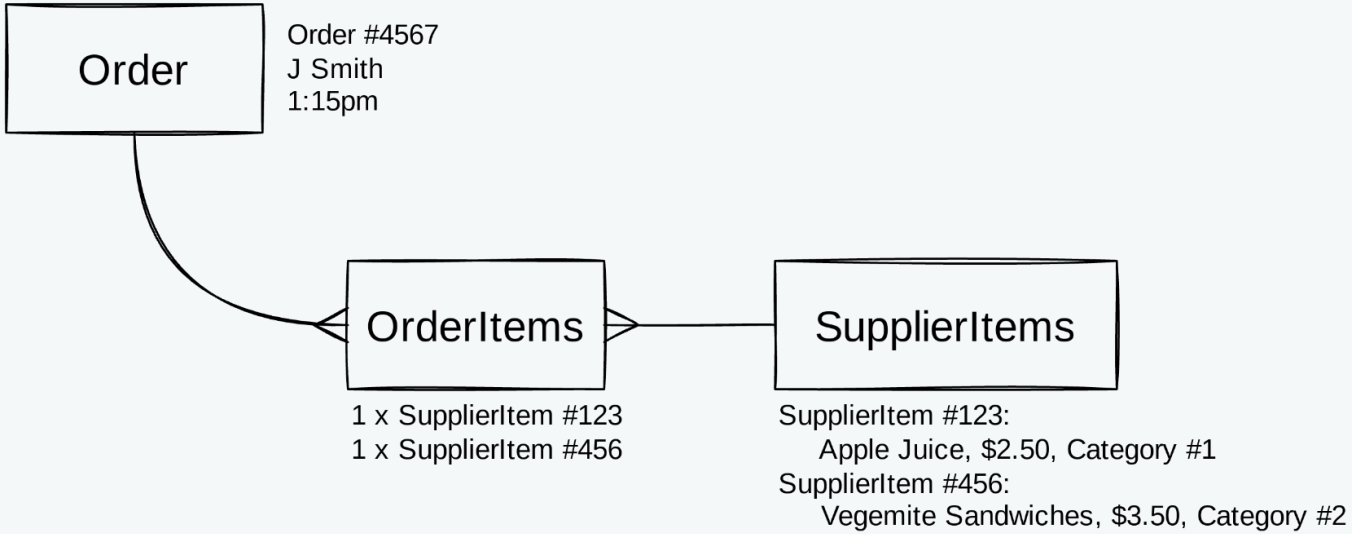


Did NOT use DDD

Tried to use DDD

1. Explicit is Better than Implicit
2. Co-create the Ubiquitous Language
3. Embrace Continuous Change

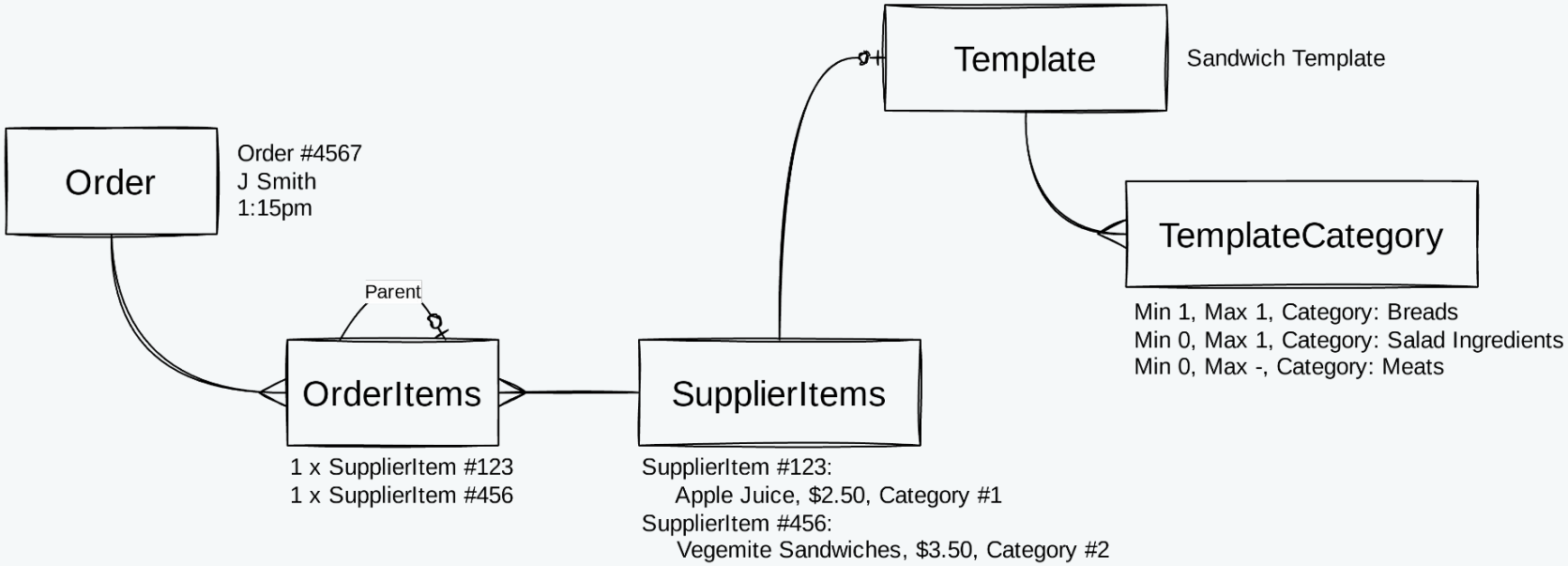
Explicit is Better than Implicit

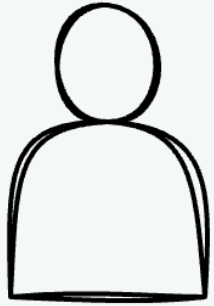

Order
Order #4567
J Smith
1:15pm
OrderItems
SupplierItems
1 x SupplierItem #123
1 x SupplierItem #456
SupplierItem #123:
Apple Juice, $2.50, Category #1
SupplierItem #456:
Vegemite Sandwiches, $3.50, Category #2

- Wholegrain bread
- Wholemeal bread
- Rye bread

- [ ] Lettuce
- [ ] Tomato
- [ ] Cucumber
- [ ] ...

???


Template
Sandwich Template
Order
Order #4567
J Smith
1:15pm
TemplateCategory
Parent
Min 1, Max 1, Category: Breads
Min 0, Max 1, Category: Salad Ingredients
Min 0, Max -, Category: Meats
OrderItems
SupplierItems
1 x SupplierItem #123
1 x SupplierItem #456
SupplierItem #123:
Apple Juice, $2.50, Category #1
SupplierItem #456:
Vegemite Sandwiches, $3.50, Category #2



Explicit Mental Model

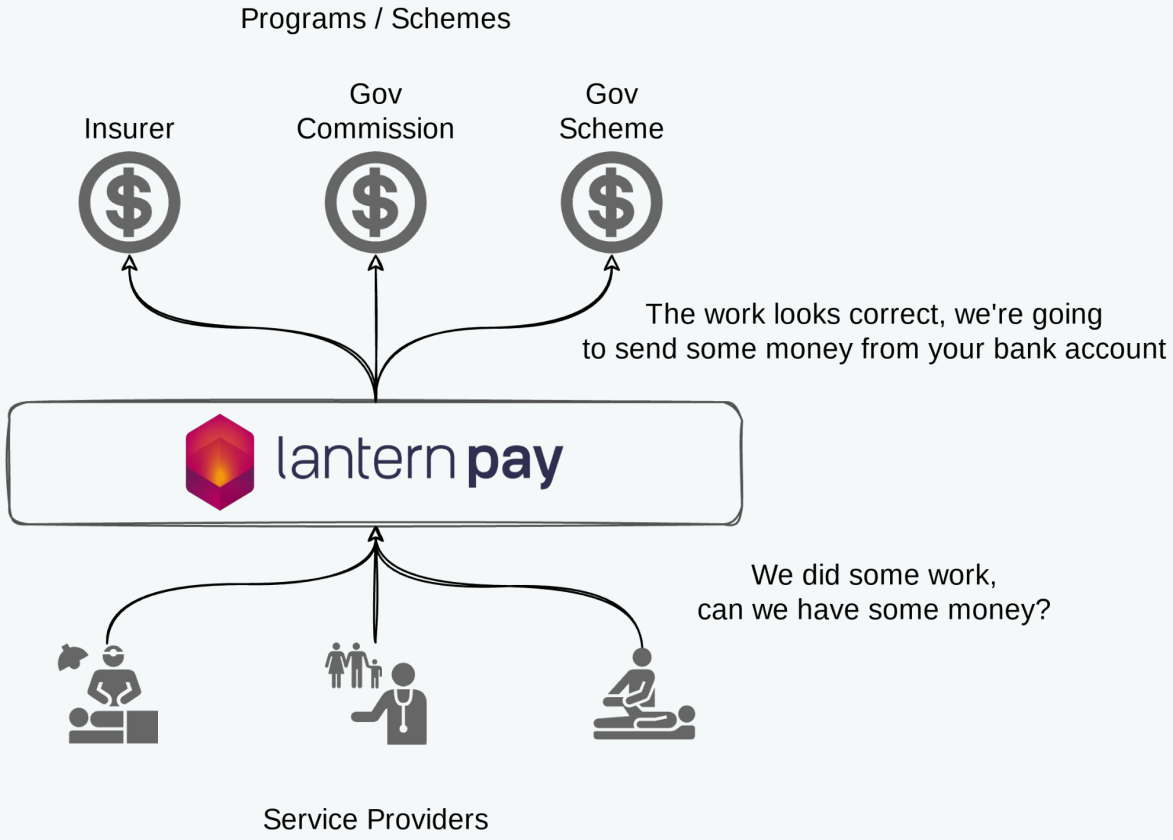
Implicit System Model

Explicit Mental Model

- The customer should be able to *choose* a type of bread

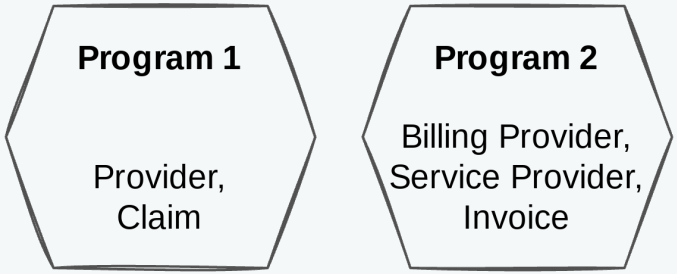
- They can have whatever *ingredients* they want on the sandwich but the *standard* sandwich comes with lettuce and tomato

Co-create the Ubiquitous Language

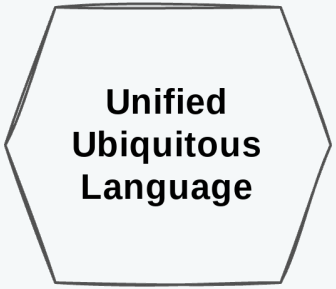

Programs / Schemes
Insurer
Gov Commission
Gov Scheme
The work looks correct, we're going to send some money from your bank account
lantern pay
We did some work, can we have some money?
Service Providers

Term	Program 1	Program 2
Service Provider	Organisation providing supports (goods or services)	The entity providing the service - an individual when a registered healthcare provider, an organisation otherwise
Claim	Claim for payment by a provider for providing a single support	A funding block for an individual associated with a specific injury/event
Billing Provider		The taxable entity providing the service. Is the same as the provider if the provider is an organisation
Invoice		Request for payment by a biller for providing a collection of supports.

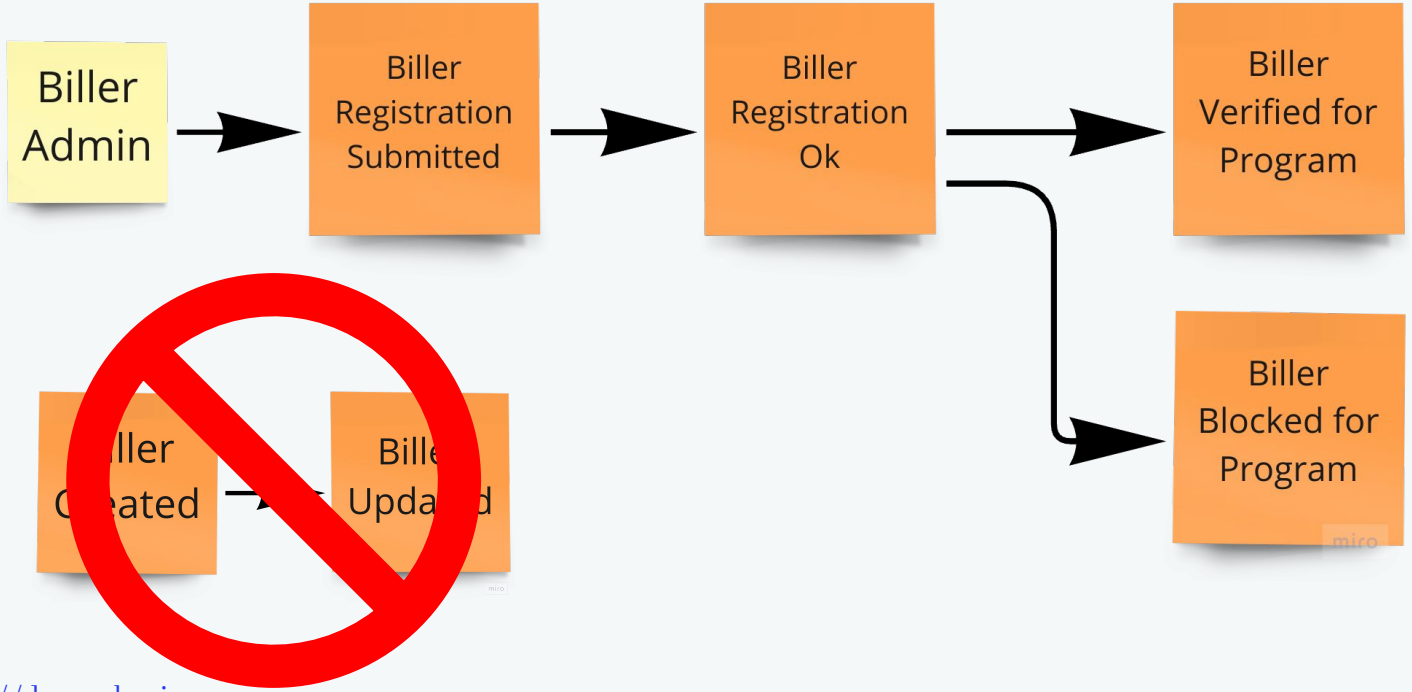
Option 1

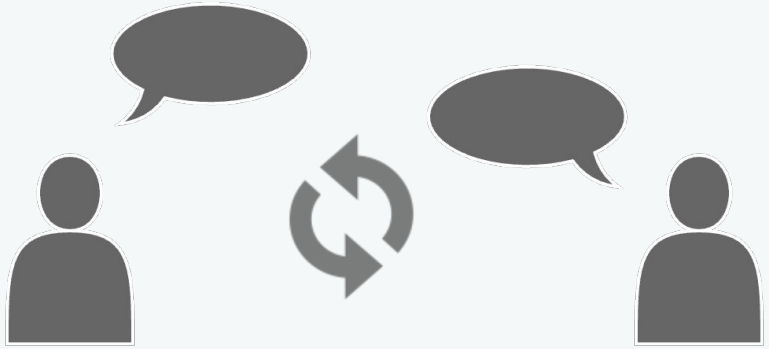


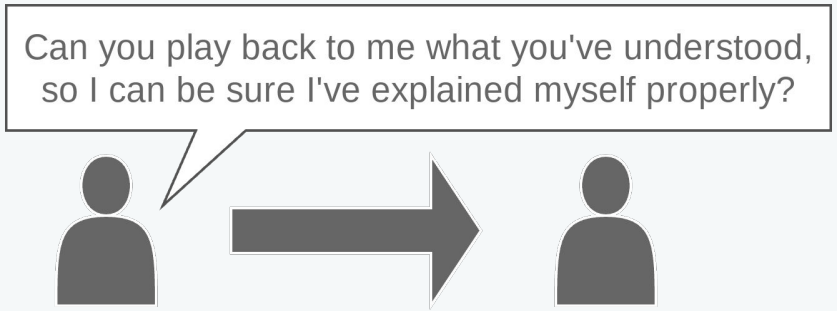
Option 2 ✔️?👀

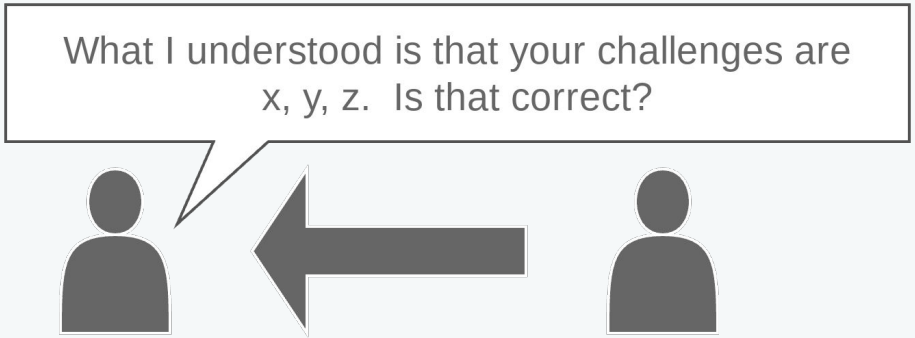


Term	Definition
Biller	The taxable entity providing the service. Is the same as the provider if the provider is an organisation
Provider	The entity providing the service - an individual when a registered healthcare provider, an organisation otherwise
Invoice	Collection of claims submitted at one time
Claim	Claim for payment by a provider for providing a single support


Biller Admin
Biller Registration Submitted
Biller Registration Ok
Biller Verified for Program
Biller Blocked for Program

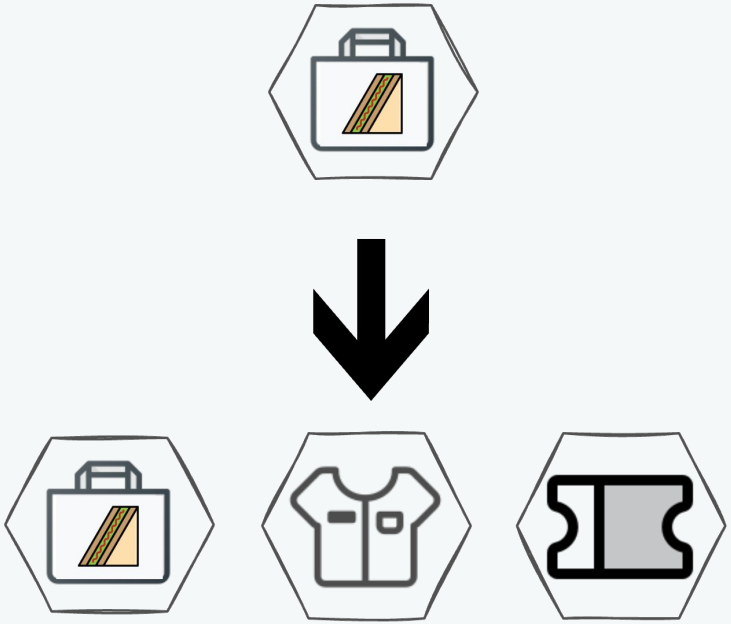



Can you play back to me what you've understood, so I can be sure I've explained myself properly?

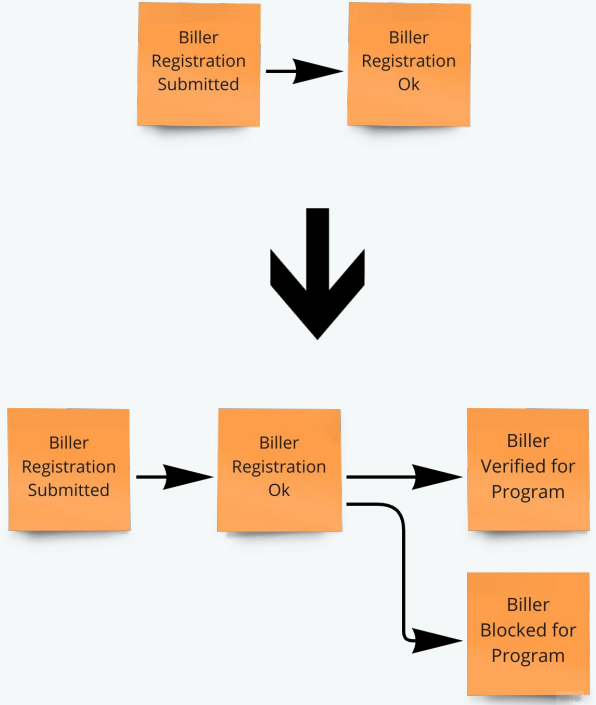

What I understood is that your challenges are x, y, z. Is that correct?

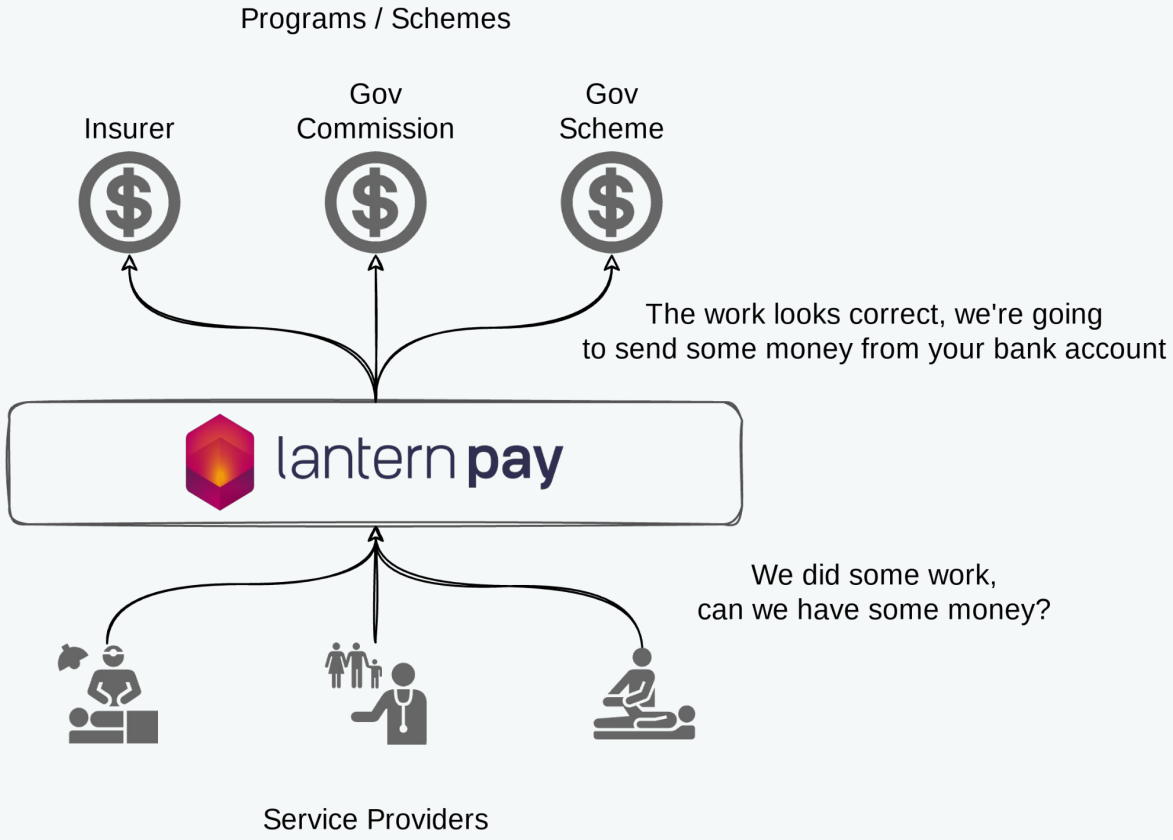
Embrace Continuous Change

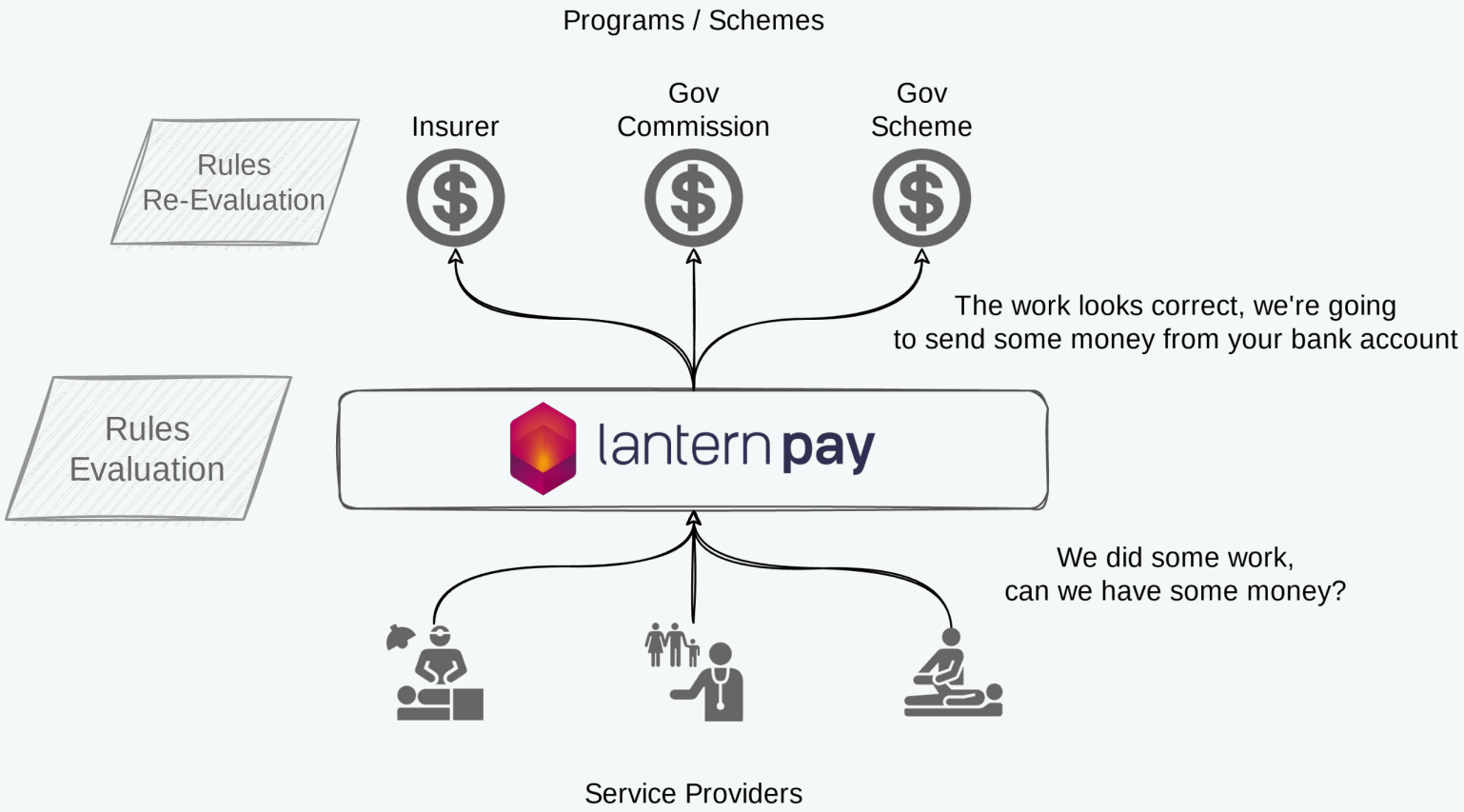
1. Domain Changes

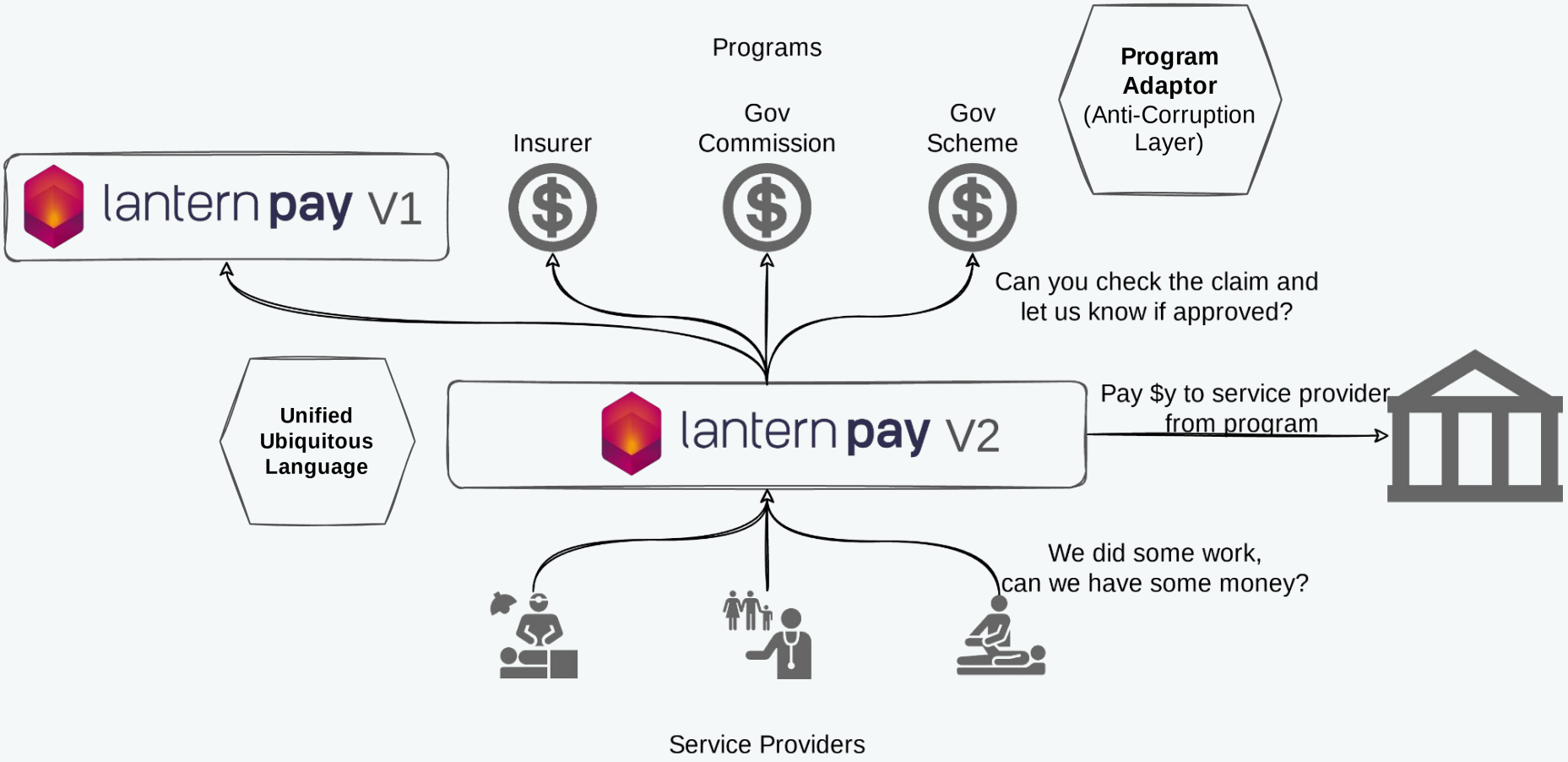


2. Understanding of the Domain Changes




Programs / Schemes
Insurer
Gov Commission
Gov Scheme
The work looks correct, we're going to send some money from your bank account
lantern pay
We did some work, can we have some money?
Service Providers


Programs / Schemes
Insurer
Gov Commission
Gov Scheme
Rules Re-Evaluation
The work looks correct, we're going to send some money from your bank account
Rules Evaluation
lantern pay
We did some work, can we have some money?
Service Providers


Programs
Program Adaptor (Anti-Corruption Layer)
Insurer
Gov Commission
Gov Scheme
lantern pay V1
Can you check the claim and let us know if approved?
Unified Ubiquitous Language
lantern pay V2
Pay $y to service provider from program
We did some work, can we have some money?
Service Providers

Conway's Law

The basic thesis of this article is that organizations which design systems (in the broad sense used here) are constrained to produce designs which are copies of the communication structures of these organizations.

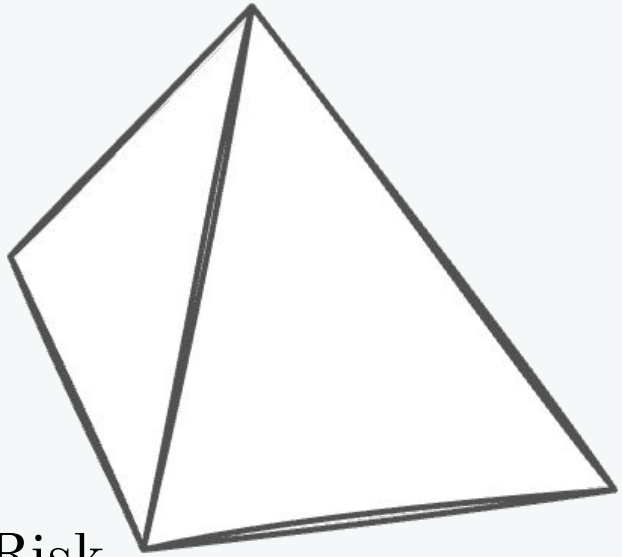
...

Because the design which occurs first is almost never the best possible, the prevailing system concept may need to change. Therefore, flexibility of organization is important to effective design.

- Mel Conway, 1968

Profit/Impact

📉 Cost



⚠️ Risk

📈 Revenue

Recap

1. Explicit is Better than Implicit
2. Co-create the Ubiquitous Language
3. Embrace Continuous Change

Contextive

Get on the same page.

https://contextive.tech

```yaml
# Inspired by https://www.dddcommunity.org/book/evans_2003/
contexts:
  - name: Cargo
    domainVisionStatement: To manage the routing of cargo through transportation legs
    paths:
    - CargoDemo
    terms:
    - name: Cargo
      definition: A unit of transportation that needs moving and delivery to its delivery location.
      examples:
        - Multiple Customers are involved with a Cargo, each playing a different role.
        - The Cargo delivery goal is specified.
    - name: Leg
      definition: The movement of a Cargo on a specific vessel from load location to unload location.
      examples:
        - Operations will need to contract handling work based on the expected times for each leg
        - For each leg we'd like to see the vessel voyage, the load and unload location, and time.
    - name: Policy
      definition: A set of rules that the routing service must follow when evaluating legs that confirm to the desired routing specification.
      examples:
        - We need to configure the set of policies that will apply for a specific customer.
    - name: Leg Magnitude Policy
      definition: A policy that helps the routing engine select the legs with the lowest magnitude.
      examples:
        - The leg magnitude policy is selecting the fastest leg, but we need it to select the cheapest leg.
```


CargoDemo > Cargo.cs
1


CargoDemo > readme.md
1

Current:

Coming Soon:

https://contextive.tech
https://github.com/dev-cycles/contextive

https://devcycles.io
https://twitter.com/ChrisSimonAu