

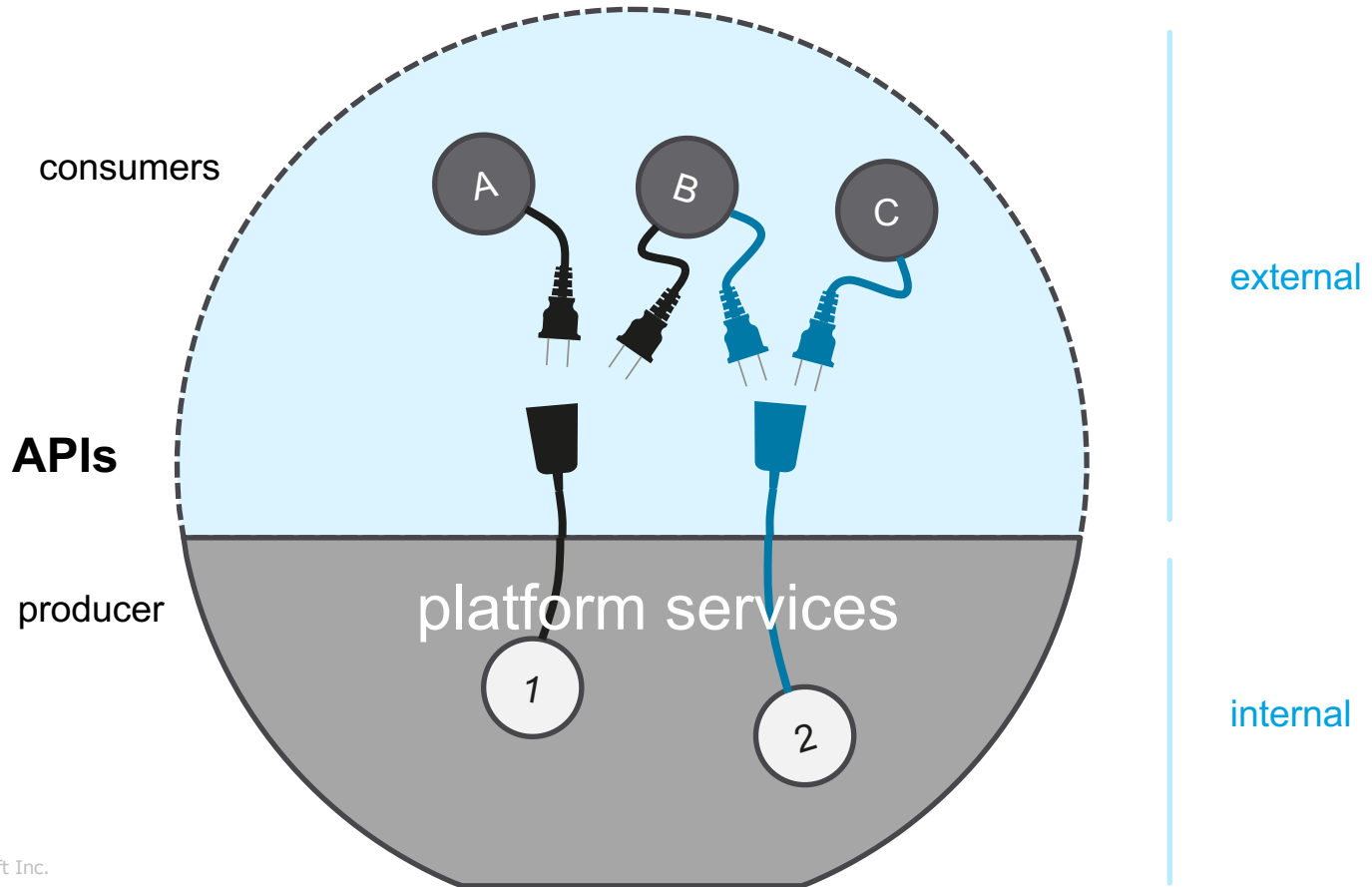


# A blueprint for digital platforms

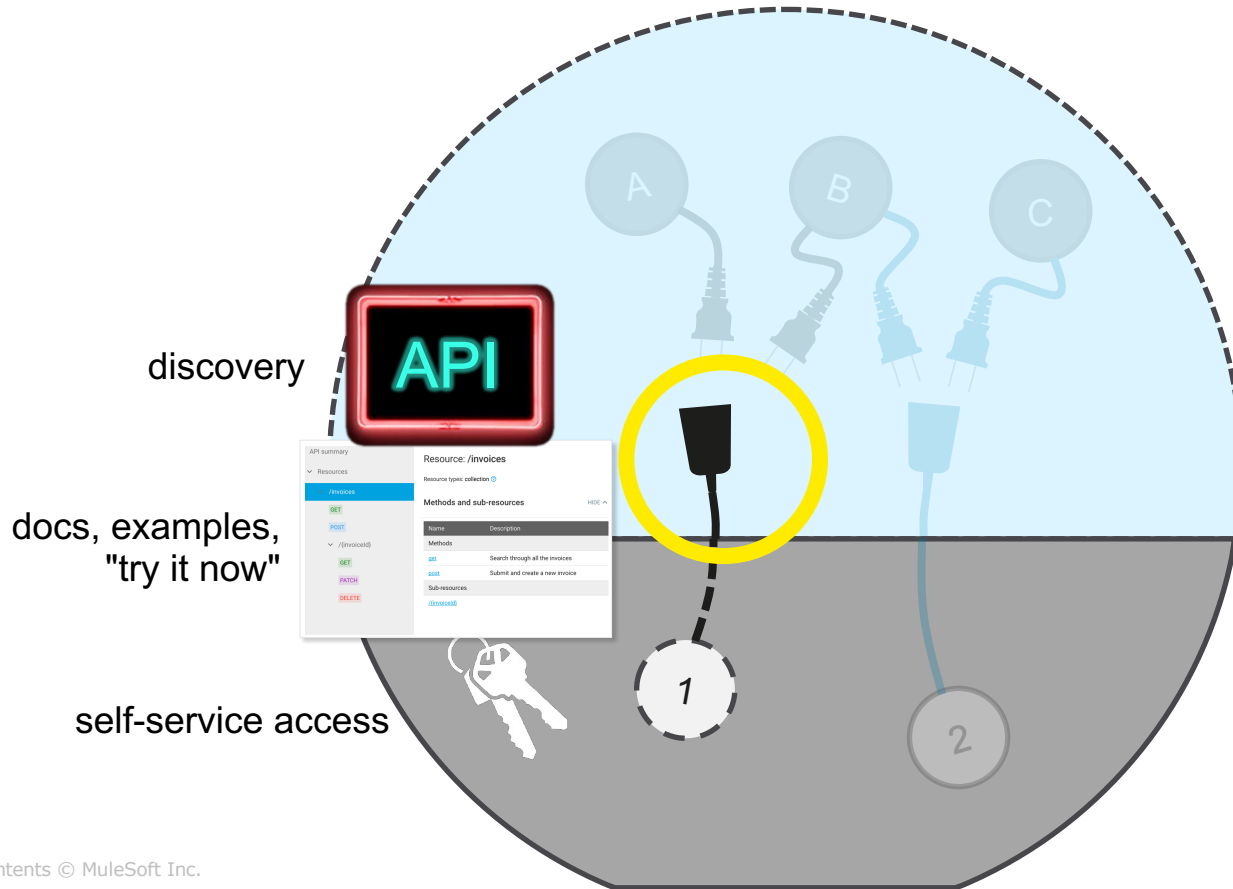
Uri Sarid, CTO, MuleSoft  
July 13, 2018

Twitter: @usarid @MuleSoft

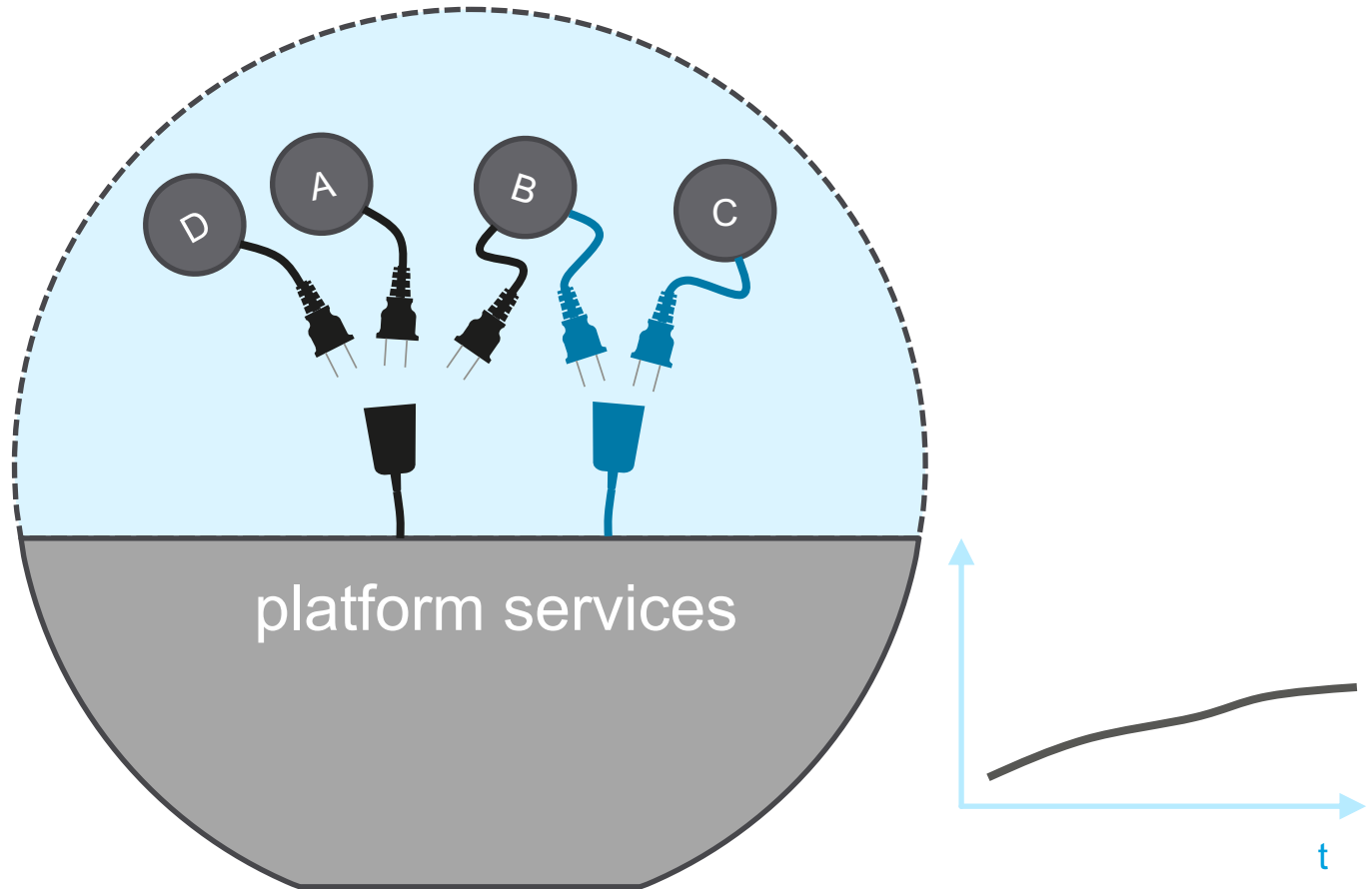
# Platform?



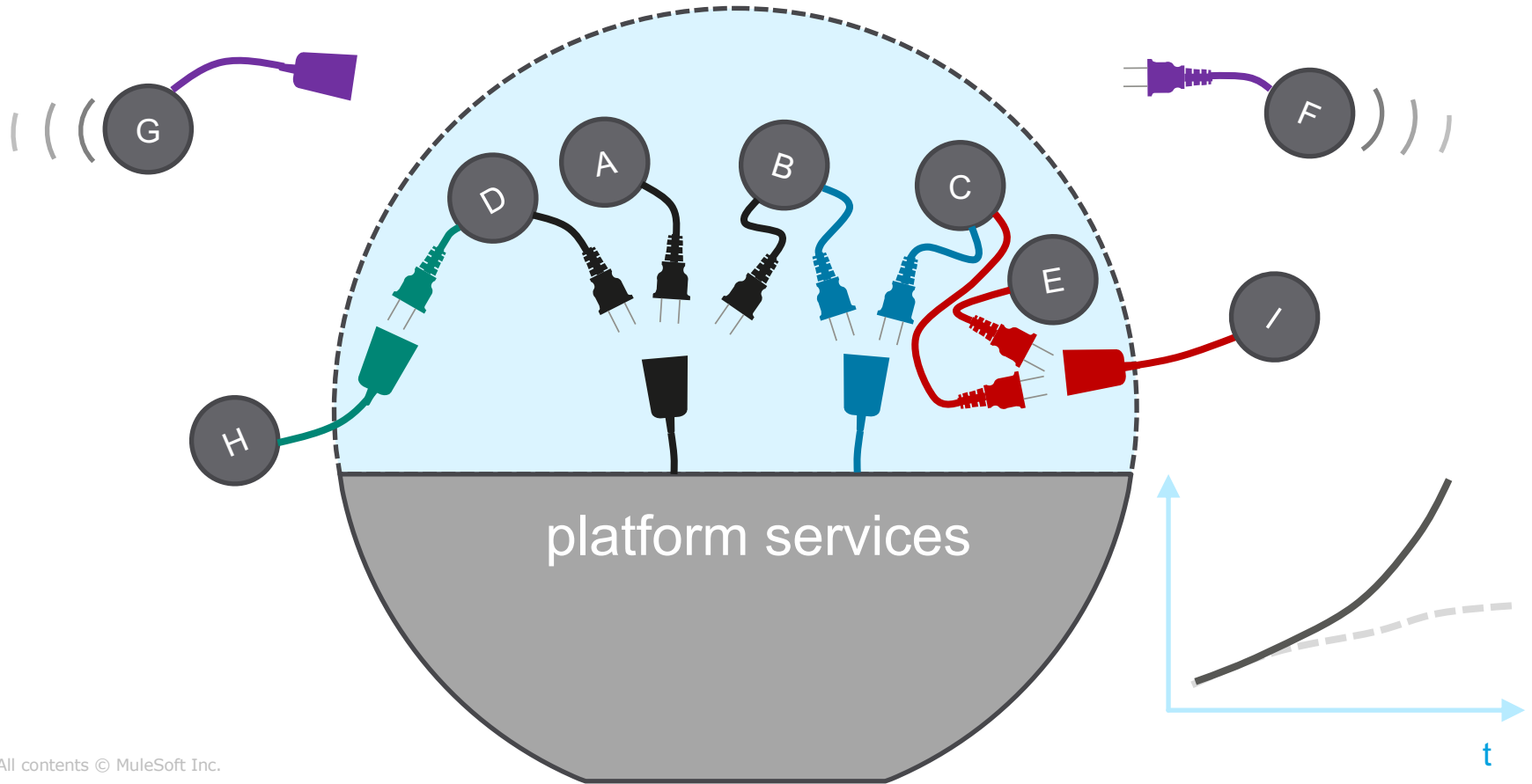
# Self-serve: API as a product



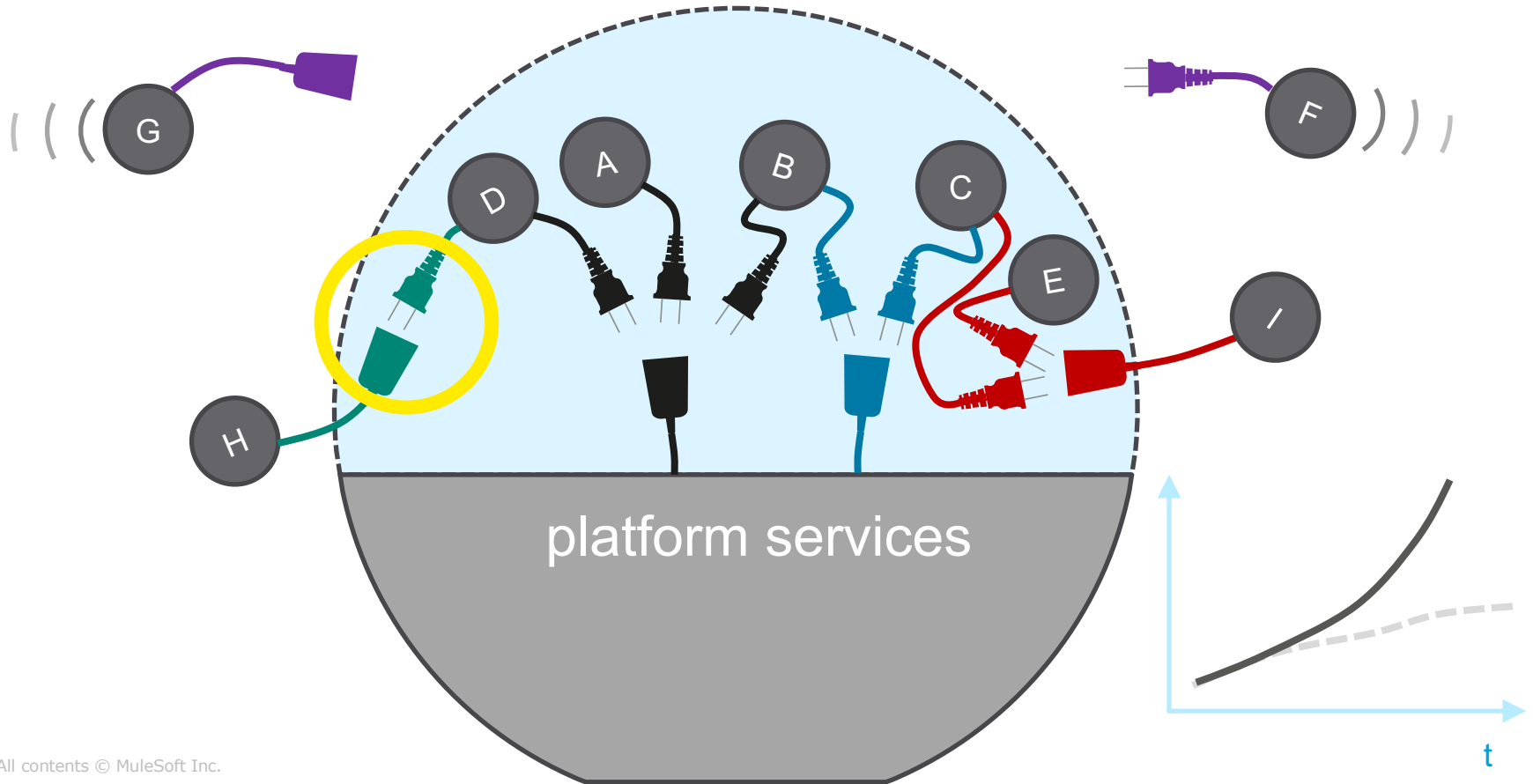
# Not a platform (by our definition)



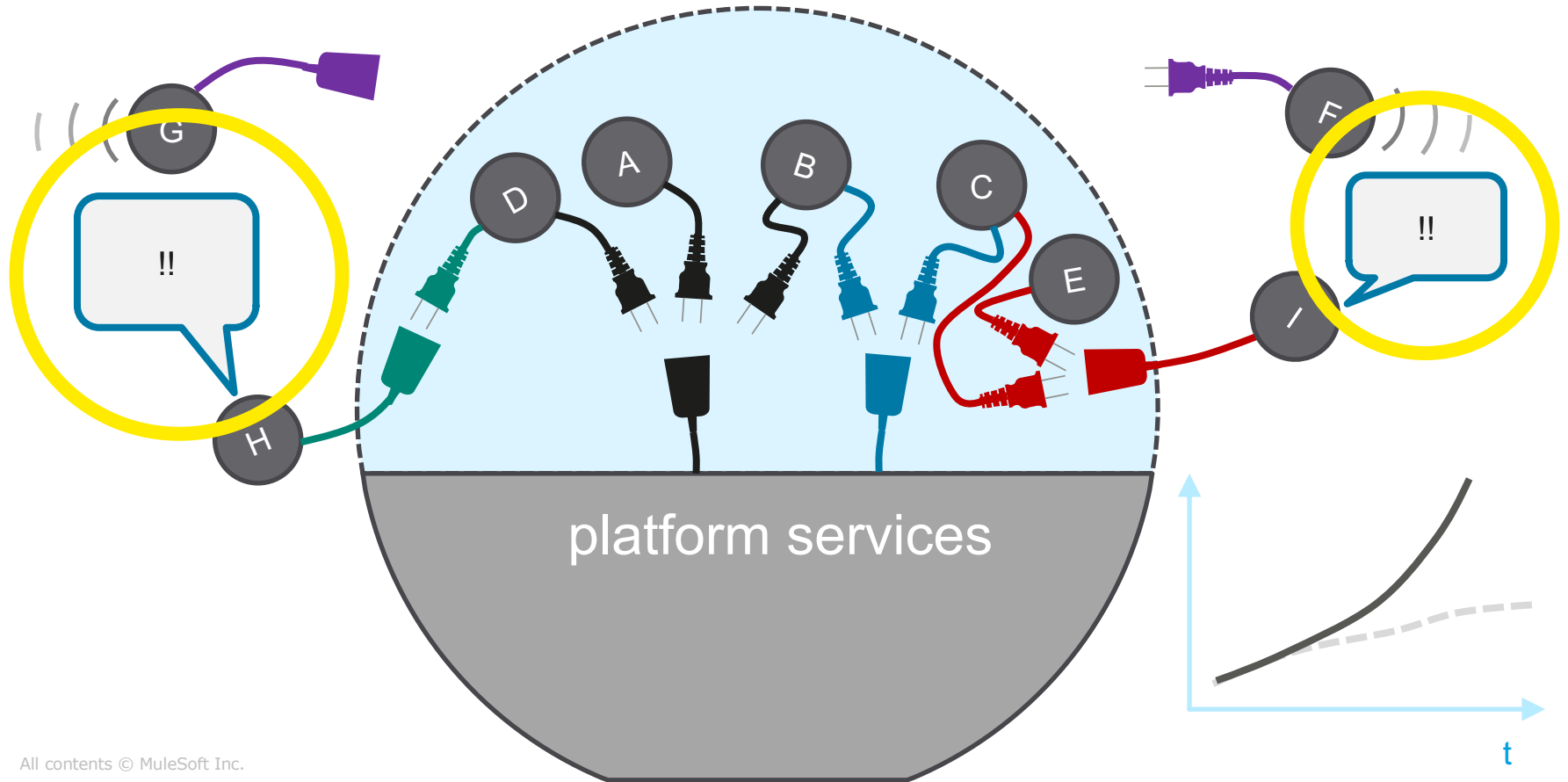
# True platforms accelerate via **network effects**



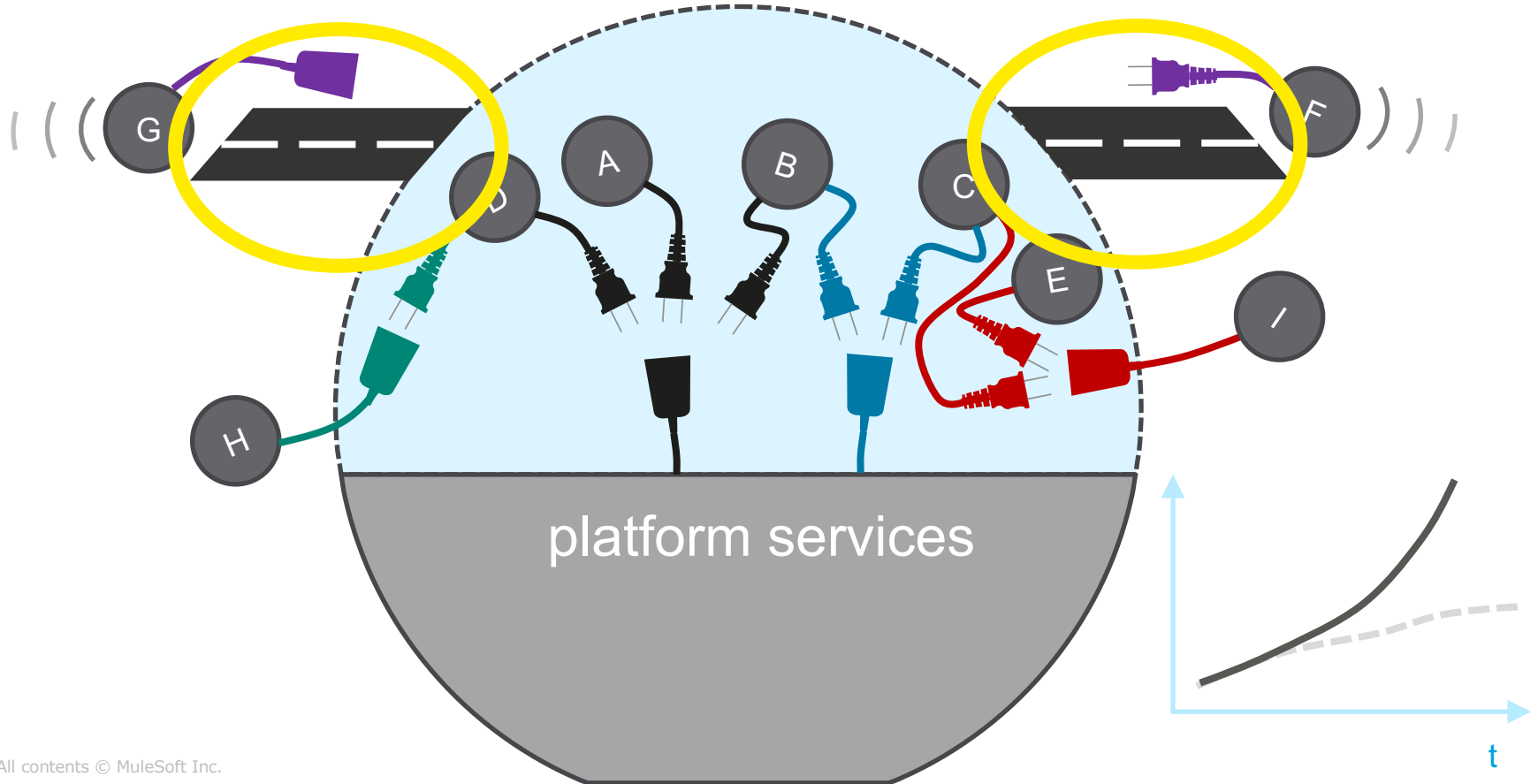
# 1. Compelling value proposition(s)



## 2. Ways to communicate the value

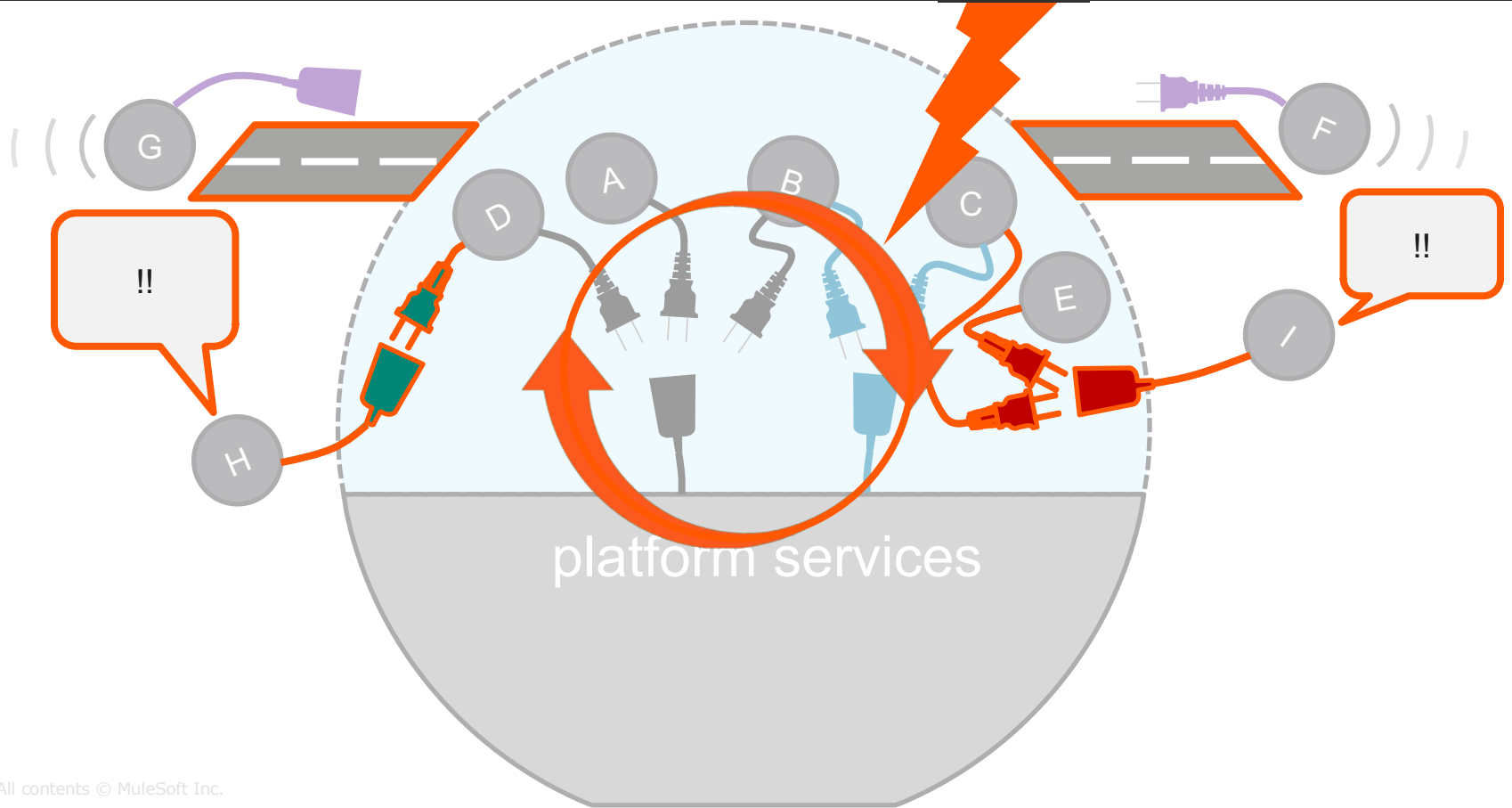


# 3. Paved roads to onboarding

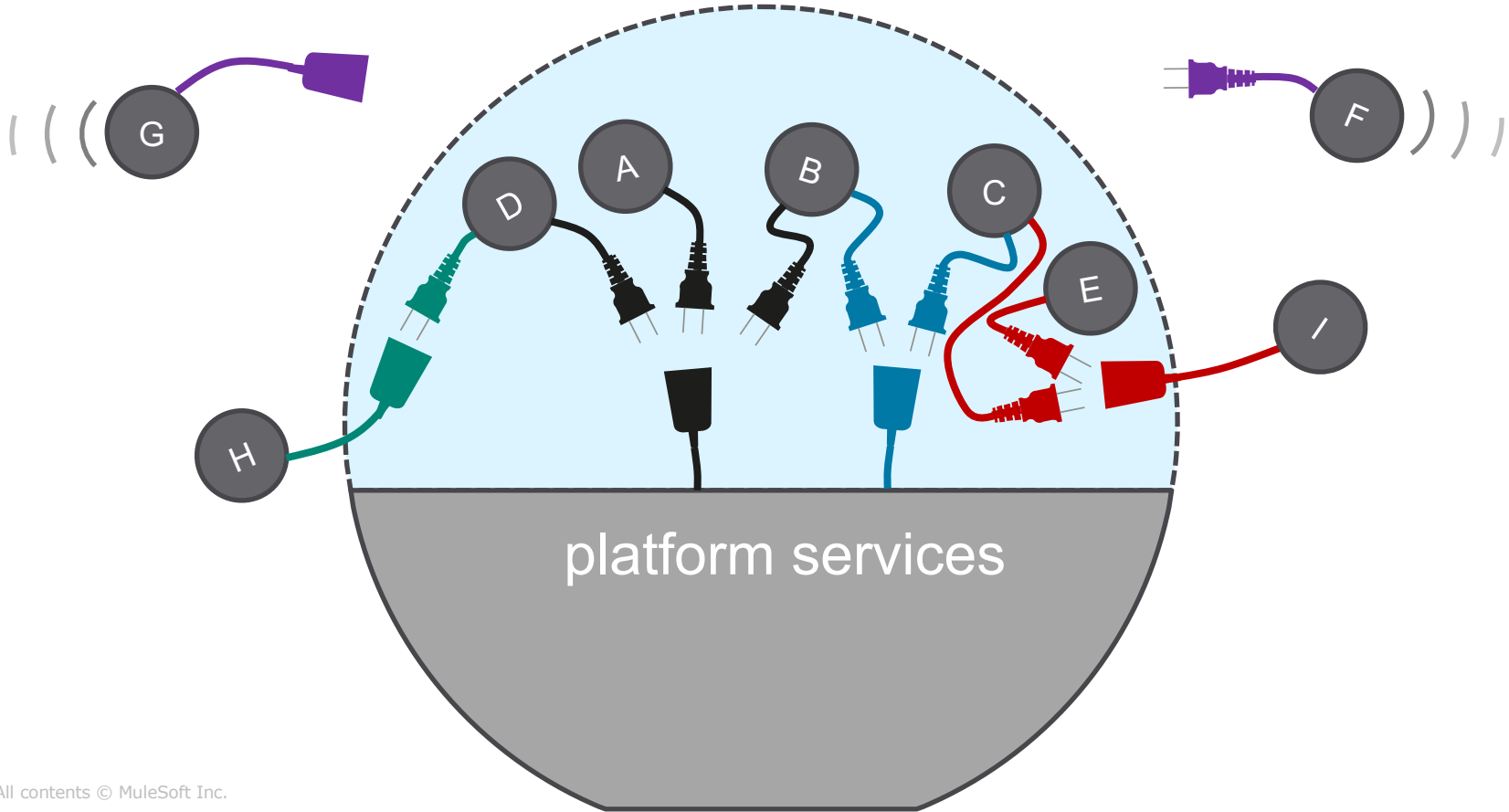




# 4. The spark to get the flywheel gain

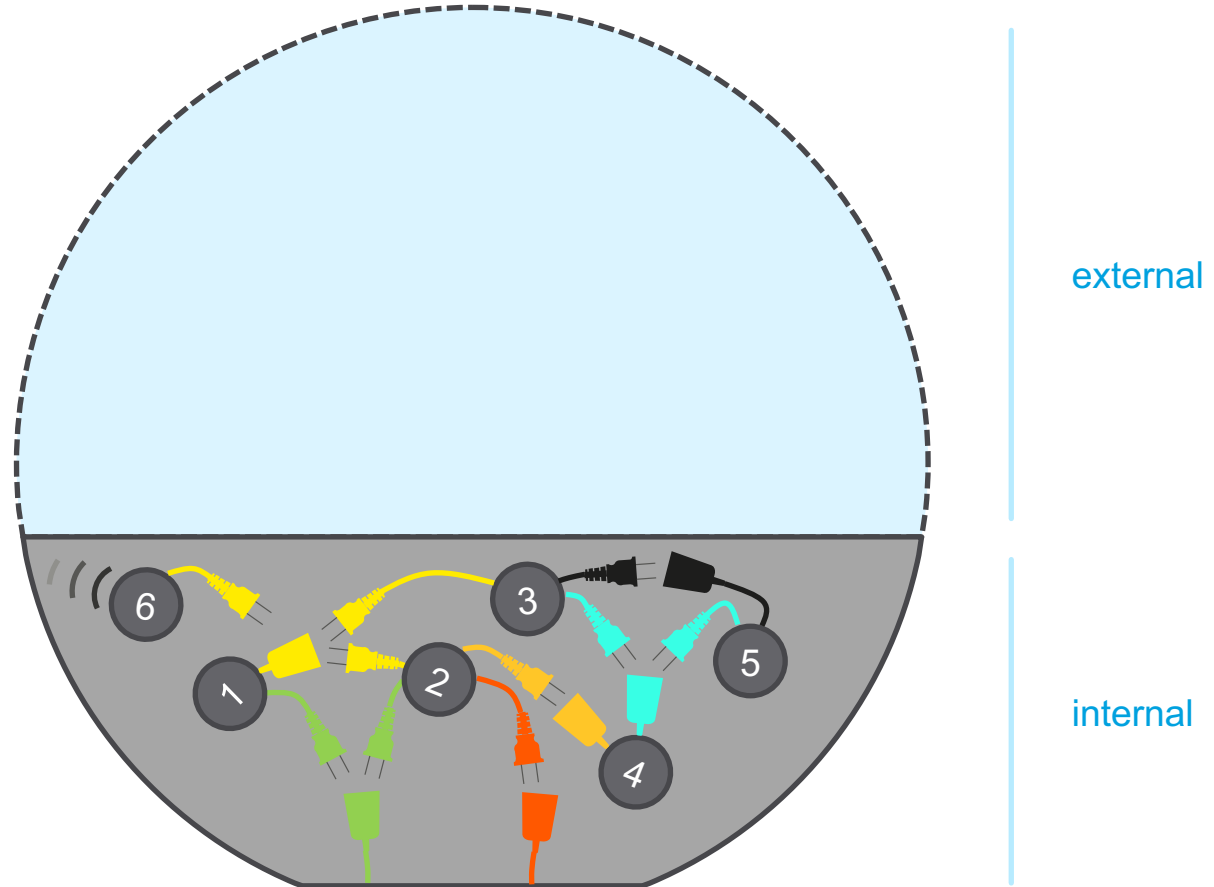


# Self-sustaining ecosystem; organic growth

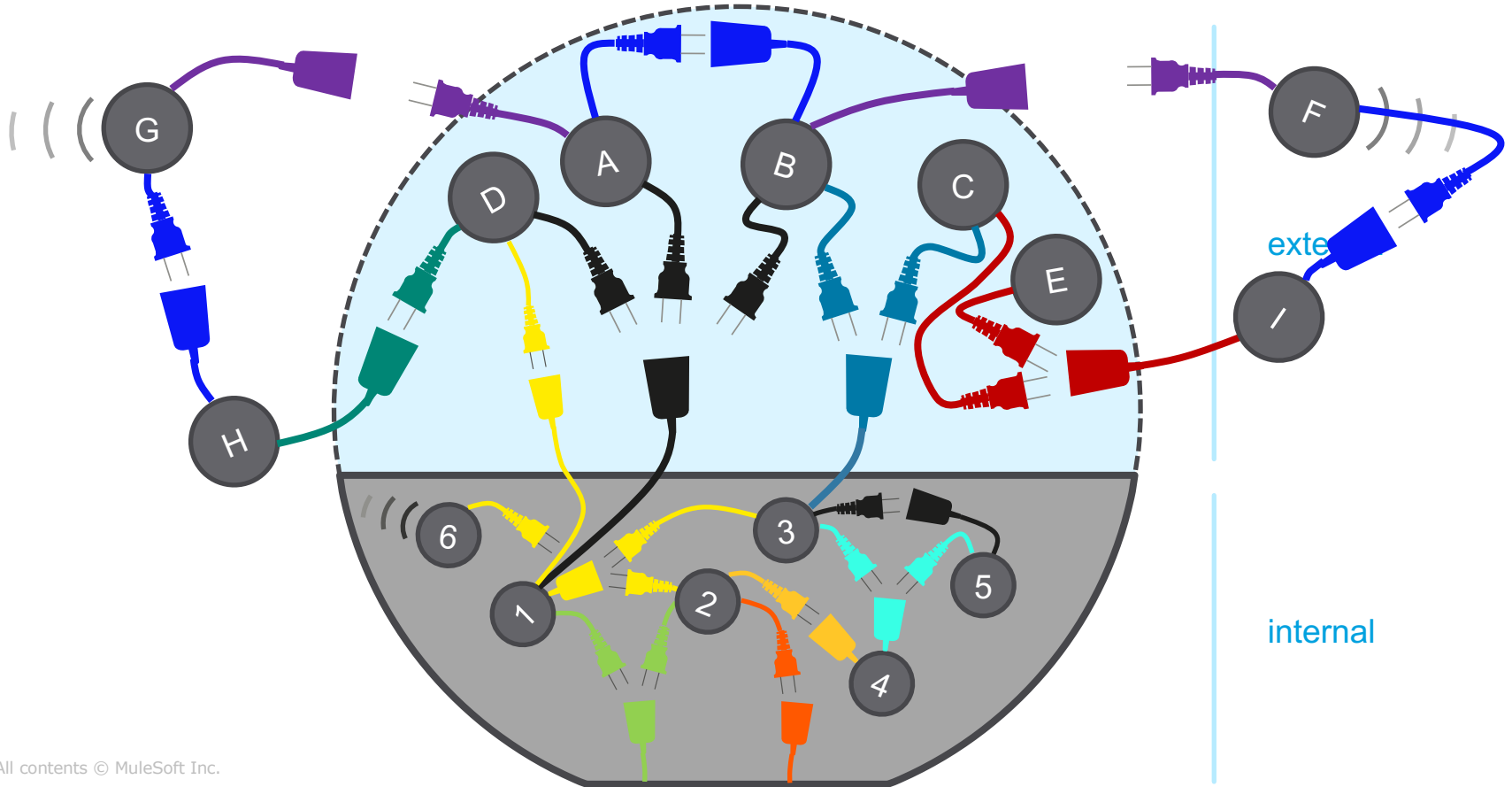




# Internal platform ecosystems



# Coupled internal + external platform ecosystems



# Platform companies



A digital restaurant platform for innovation and execution agility



Building a consumer-centric digital platform to connect with customers



An immersive content platform



A customer experience digital platform



An experience-focused global platform for car rental

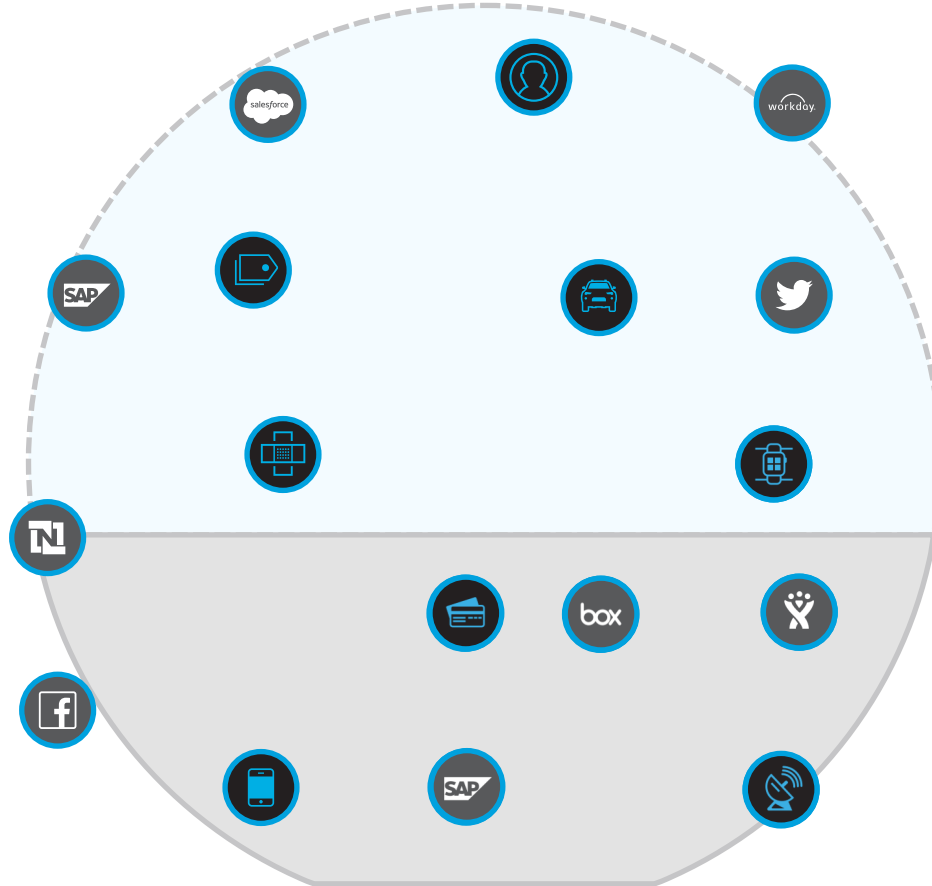


A platform of platforms

# How?

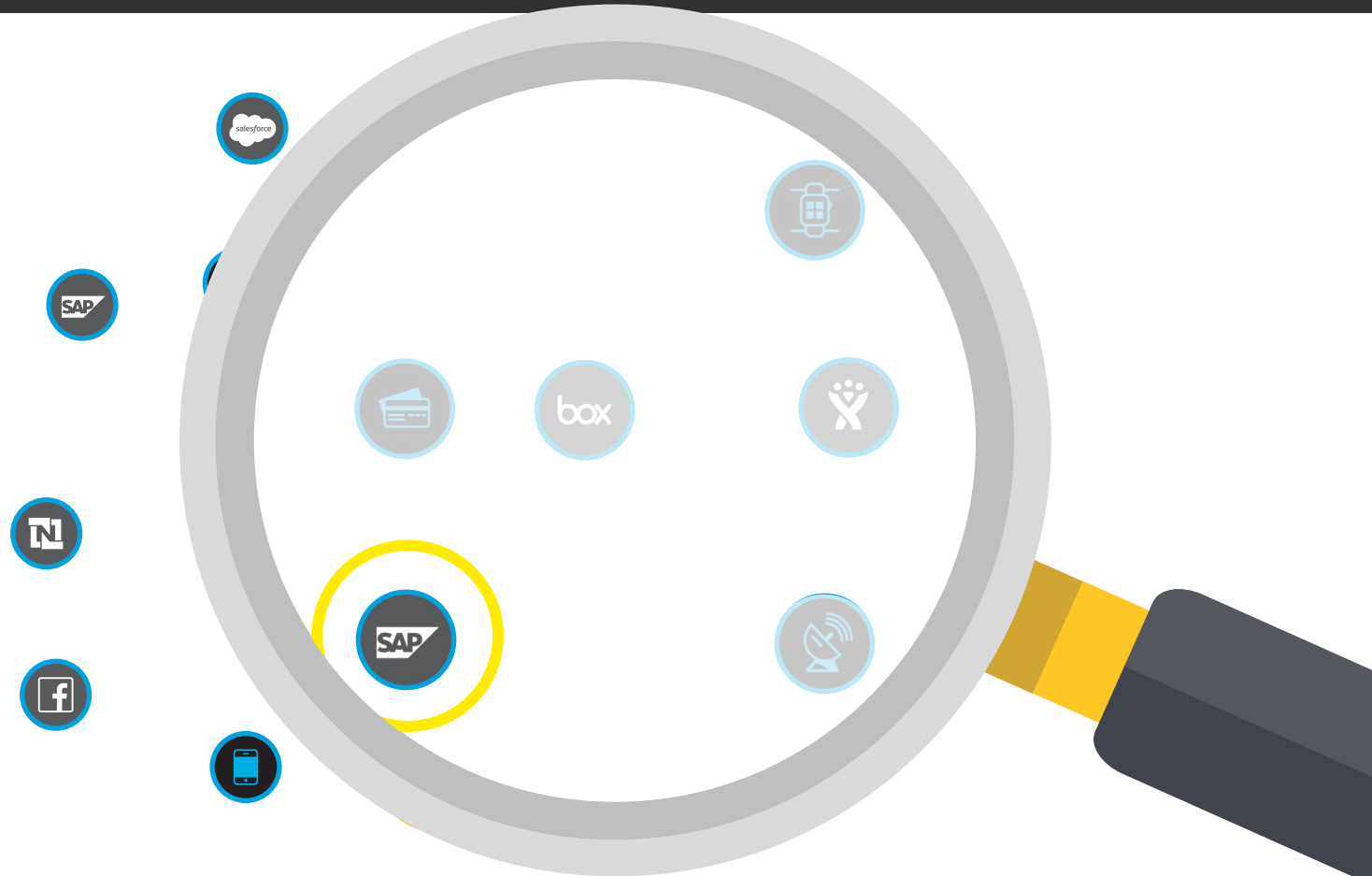


# How? Consider the application landscape...





# Example: offer a **supplier management** service

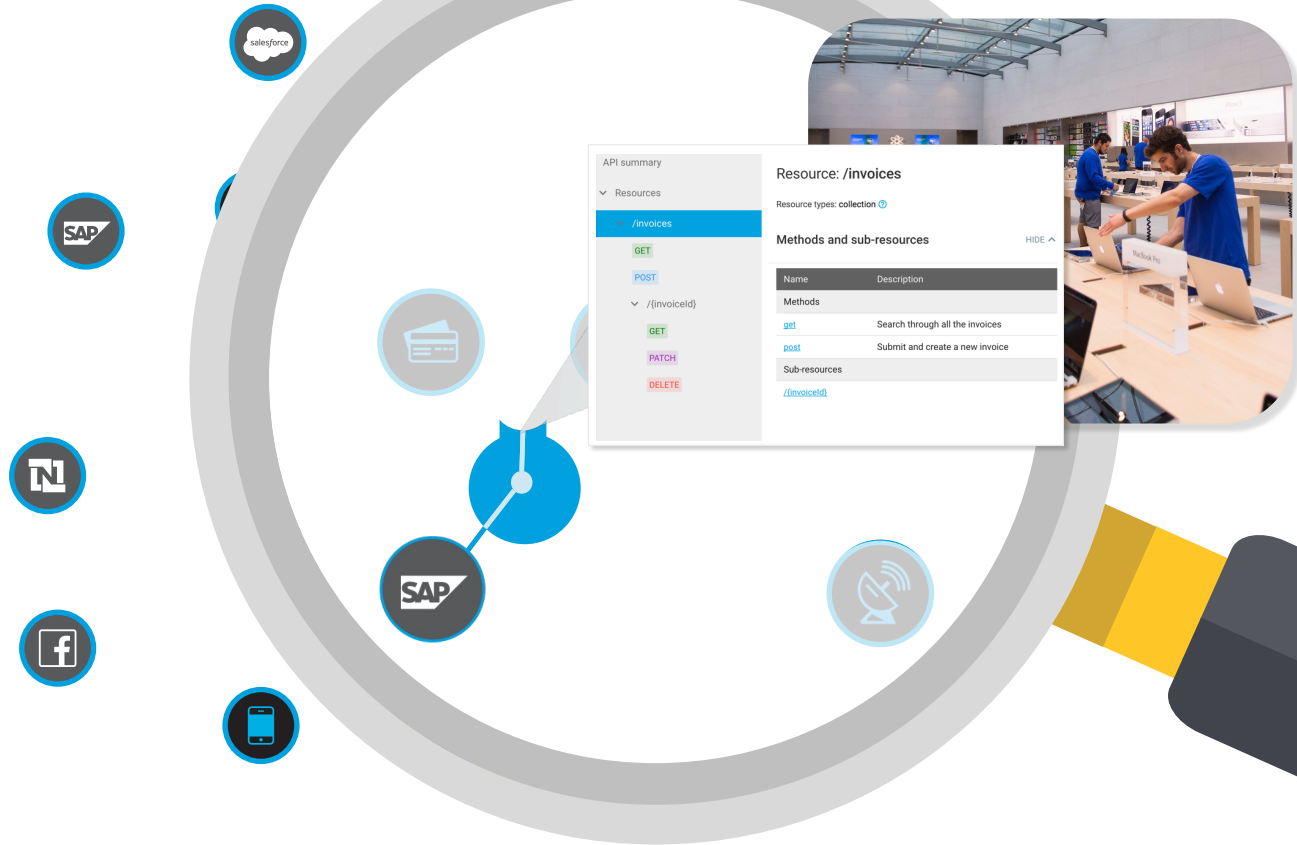




# ...design a consumer-oriented API



# Build that API



# The supplier management API product

API summary

Resources

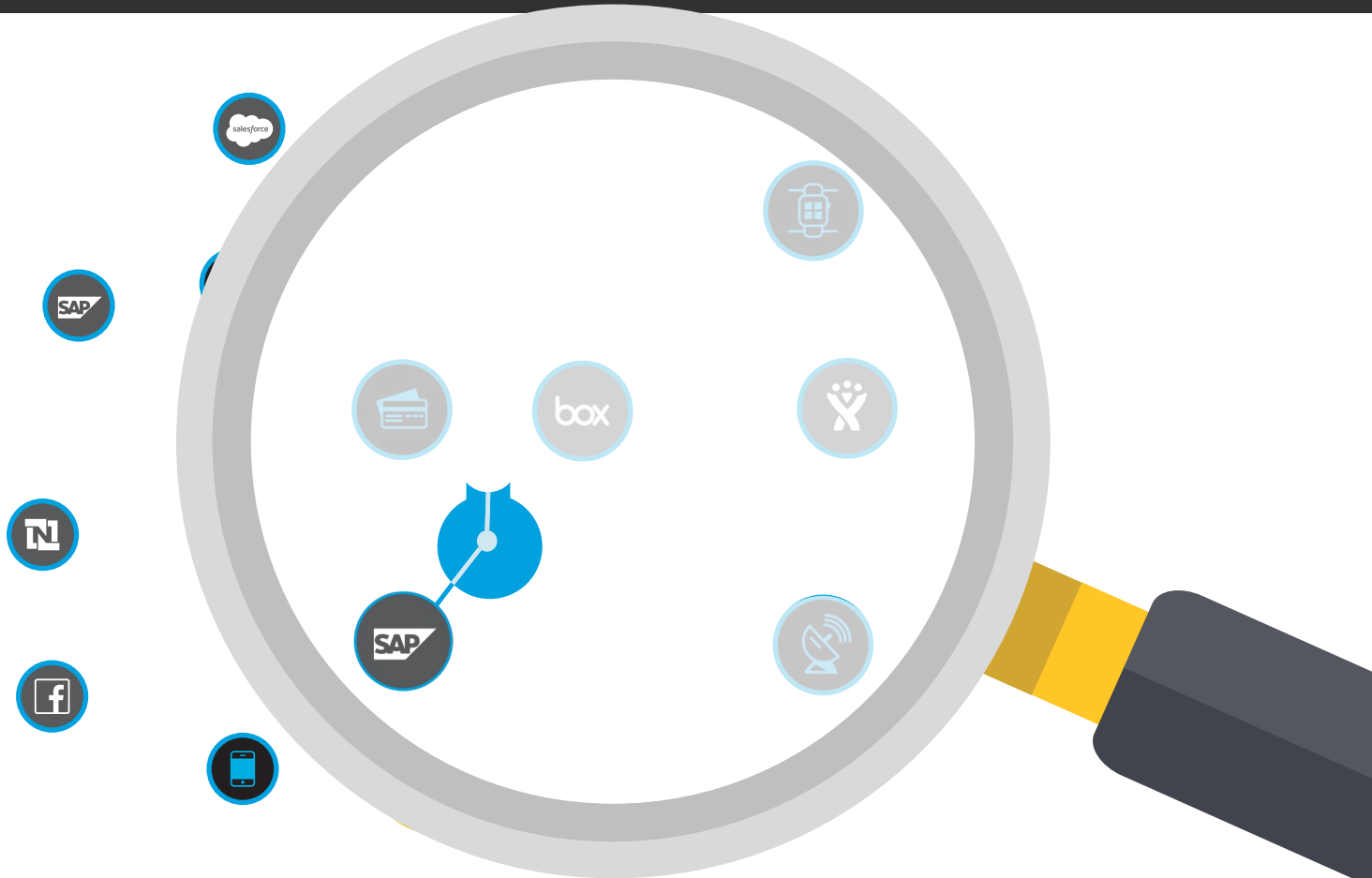
- invoices

Resource: /invoices

Resource type: collection

Methods and sub-resources

Name	Description
get	Search through all the invoices
post	Submit and create a new invoice
Sub-resources	
/invoiceid	



# How about a **richer** supplier management product?



# Build that richer supplier management API product



API summary

Resources

- /invoices
  - GET
  - POST
  - /invoiceid
    - GET
    - PATCH
    - DELETE
  - attachments
    - GET
    - POST
    - /attachmentid
      - GET
      - DELETE

Resource: /attachments

Resource type: collection

Methods and sub-resources

Name	Description
Methods	
get	Retrieve the documents attached to this invoice
post	Submit a new document as an attachment to this invoice

Sub-resources

/attachments

API summary

Resources

- /invoices
  - GET
  - POST
  - /invoiceid
    - GET
    - PATCH
    - DELETE
  - attachments
    - GET
    - POST
    - /attachmentid
      - GET
      - DELETE

Resource: /invoices

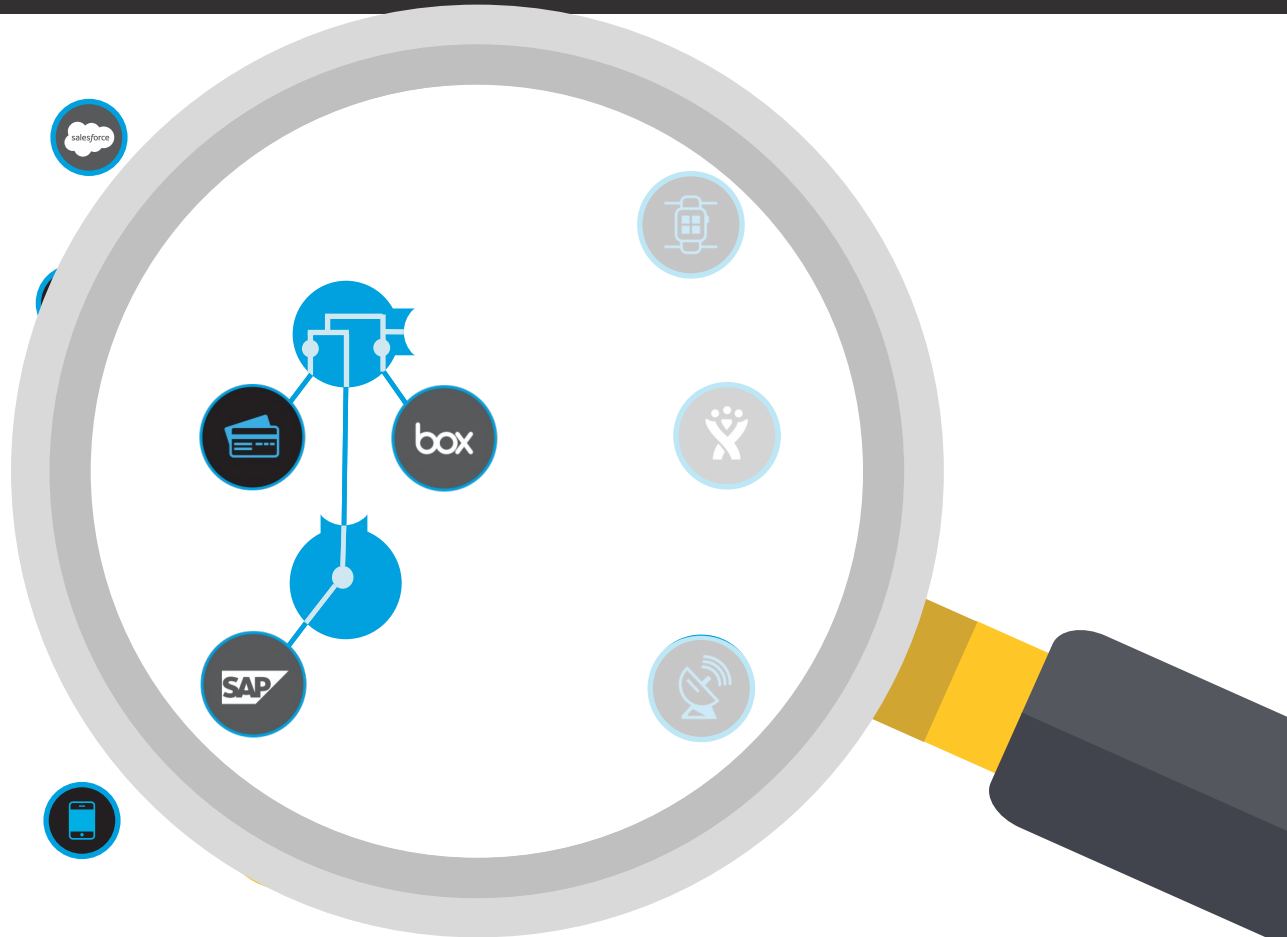
Resource type: collection

Methods and sub-resources

Name	Description
Methods	
get	Search through all the invoices
post	Submit and create a new invoice

Sub-resources

/invoiceid



# Innovate on these productized capabilities

API summary

Resources

- /invoices
  - GET
  - POST
  - /invoiceid
    - GET
    - PATCH
    - DELETE
  - attachments
    - GET
    - POST
    - /attachmentid
      - GET
      - DELETE

Resource: /attachments

Resource type: collection

Methods and sub-resources

Name	Description
Methods	
get	Remove the documents attached to this invoice
post	Submit a new document as an attachment to this invoice

Sub-resources

- /attachments

API summary

Resources

- /invoices
  - GET
  - POST
  - /invoiceid
    - GET
    - PATCH
    - DELETE

Resource: /invoices

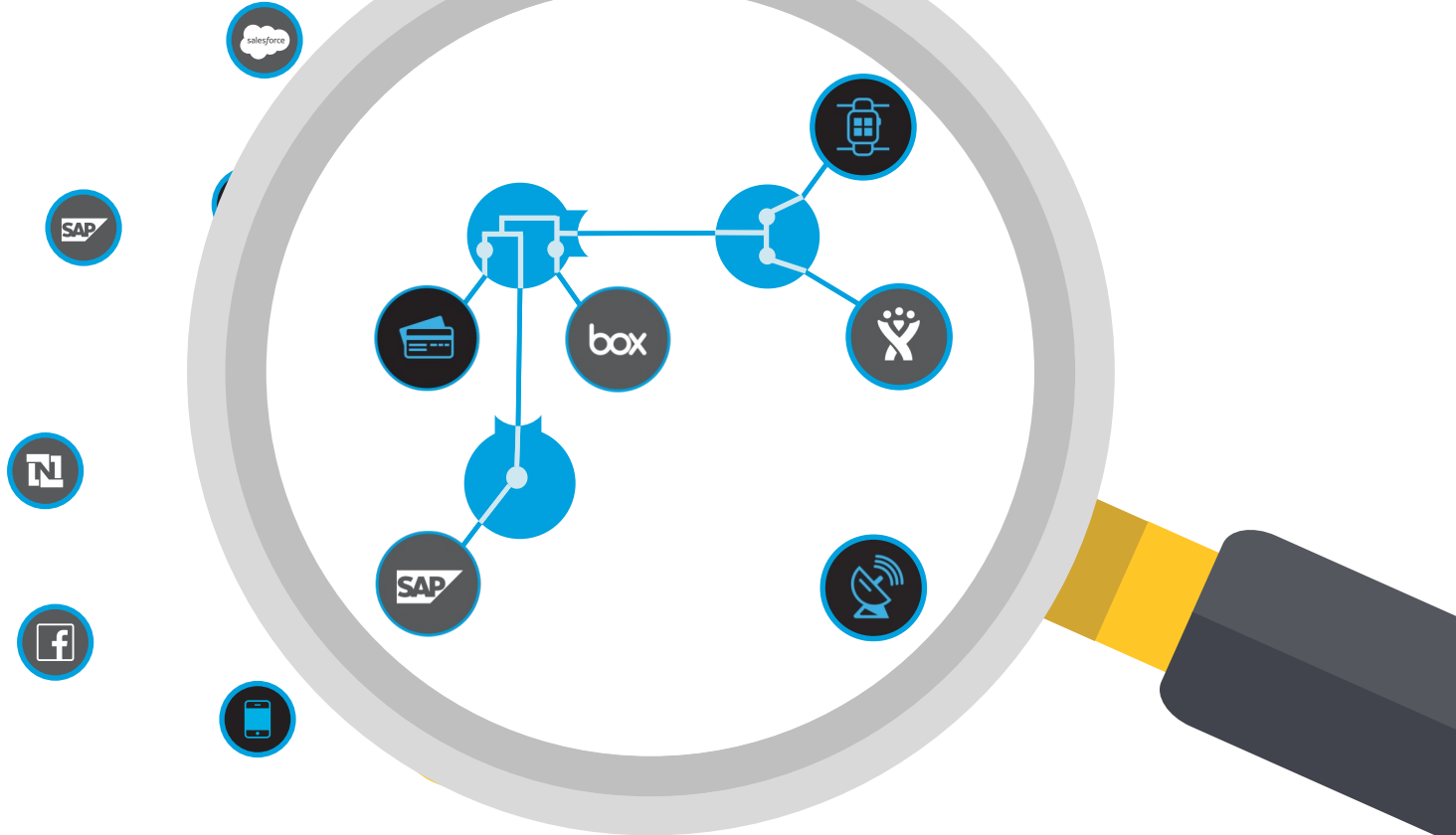
Resource type: collection

Methods and sub-resources

Name	Description
Methods	
get	Search through all the invoices
post	Submit and create a new invoice

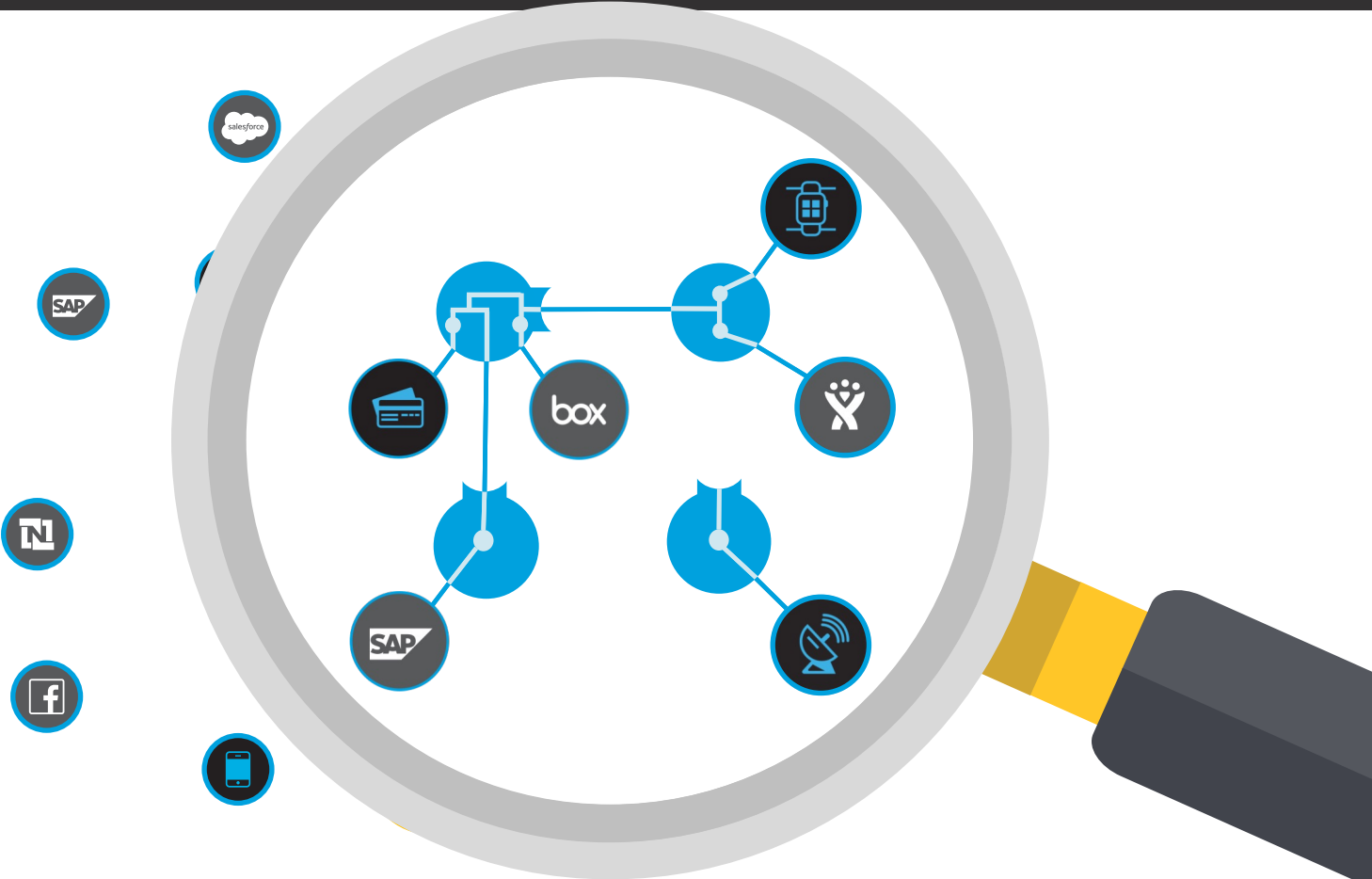
Sub-resources

- /invoiceid

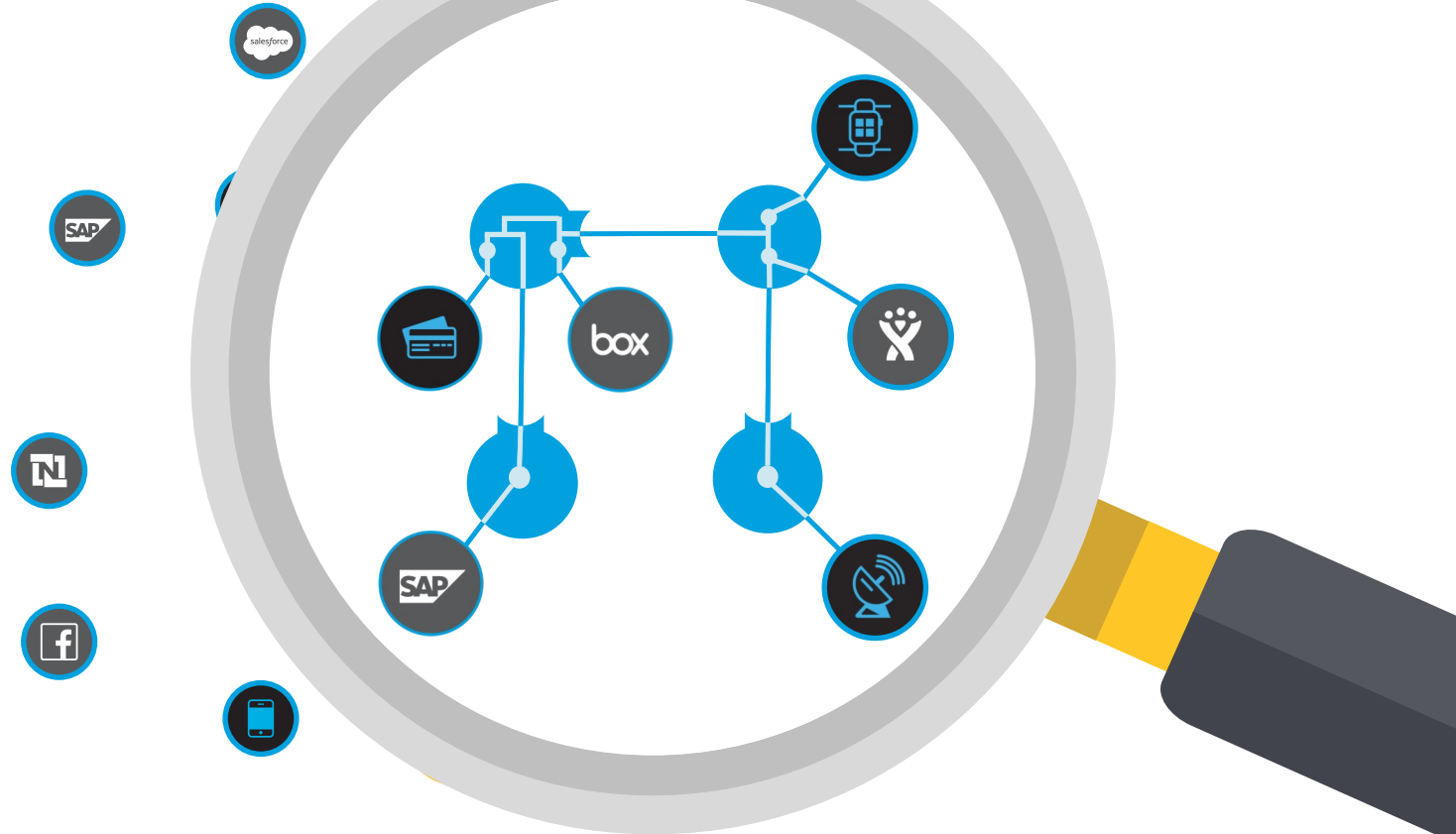




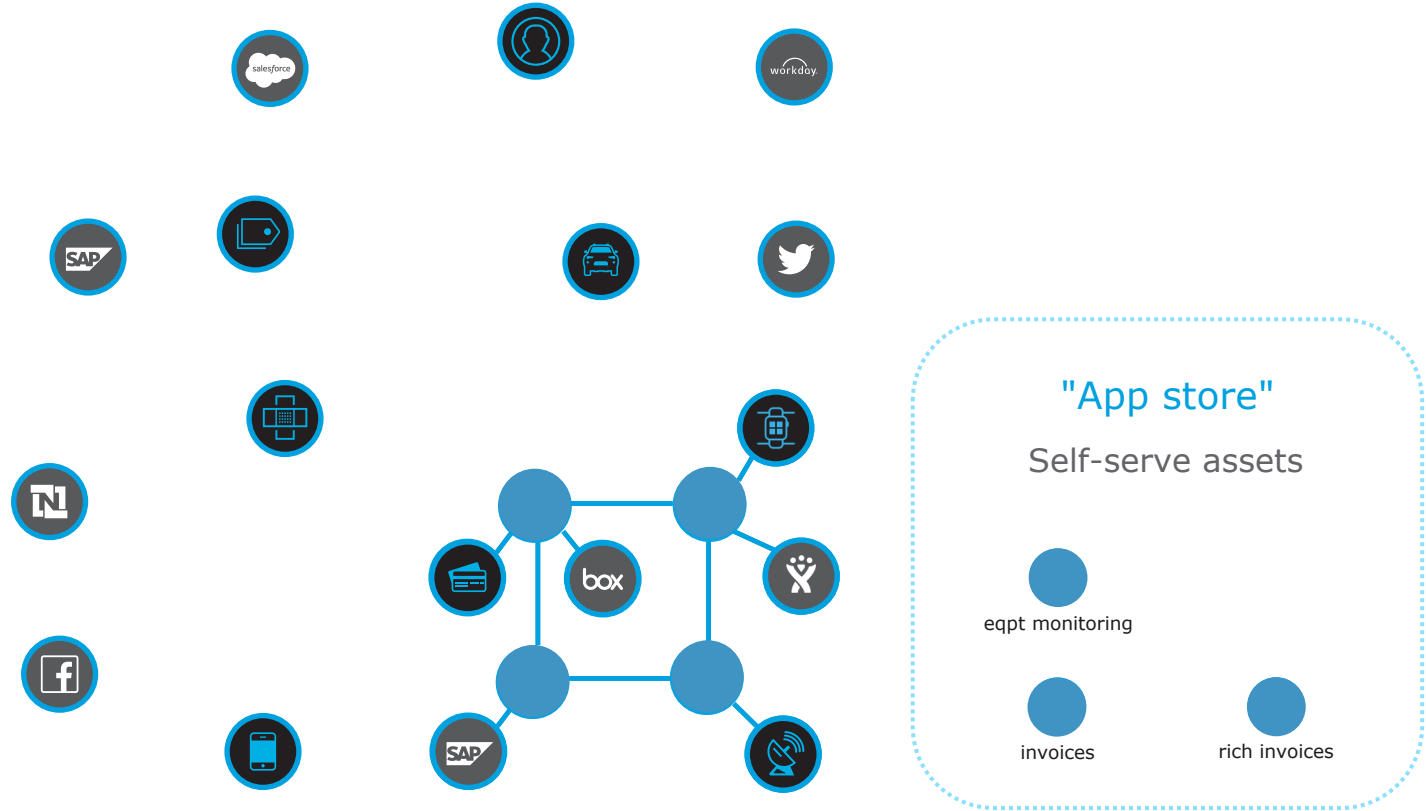
# Other producers are attracted



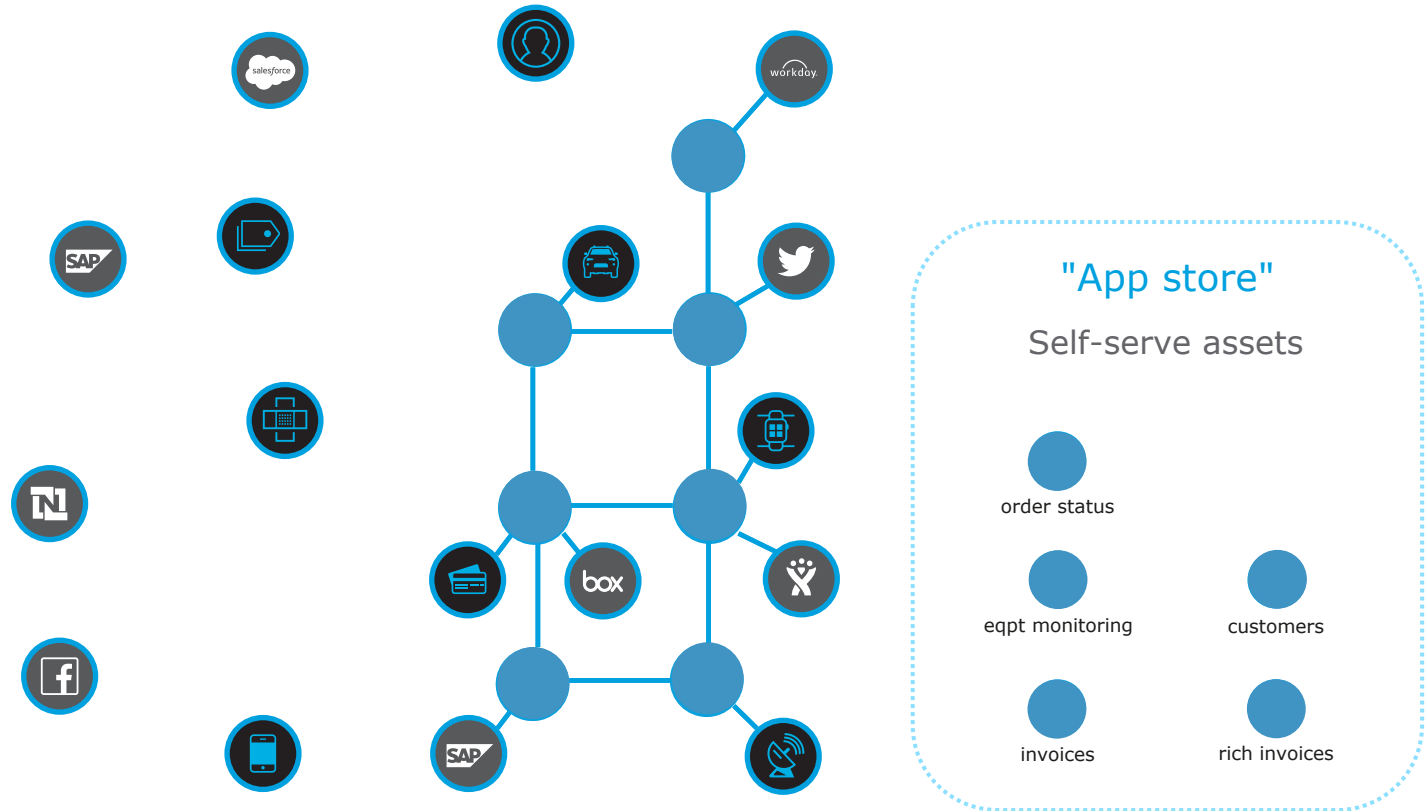
# New partnerships arise easily and independently



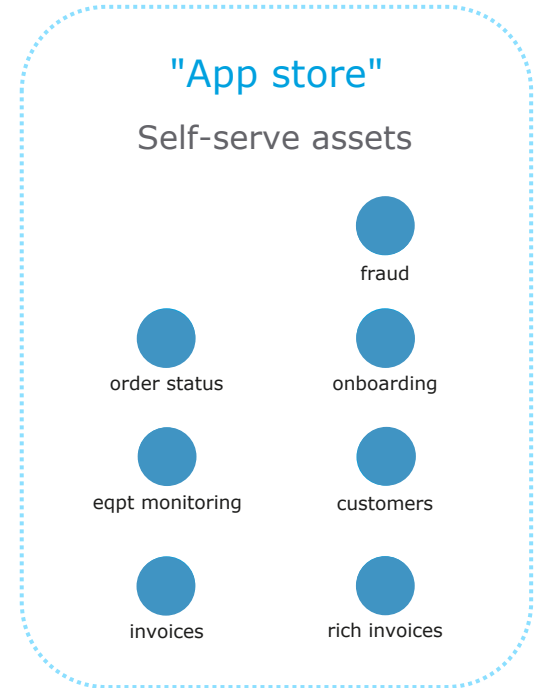
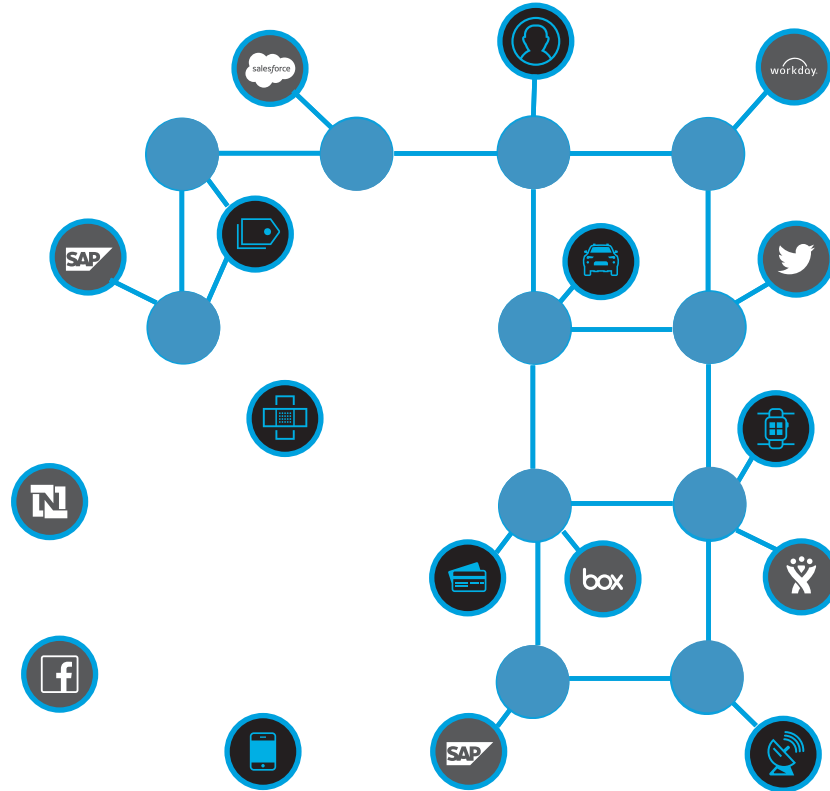
# Every project creates reusable building blocks



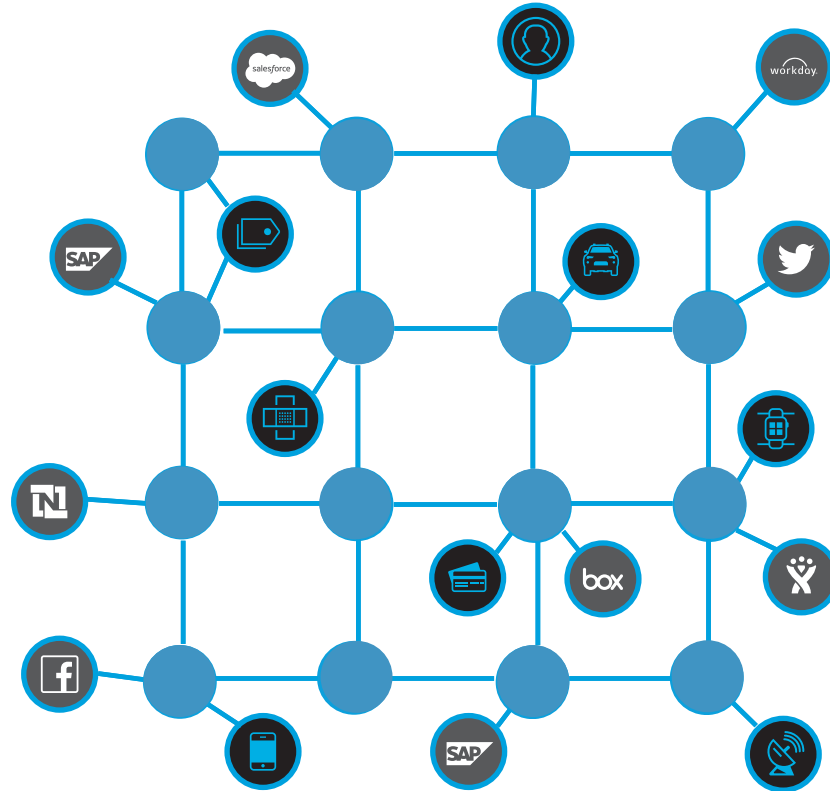
# New projects reuse the blocks and add more



# The pace accelerates and debt is retired



# The pace accelerates and debt is retired

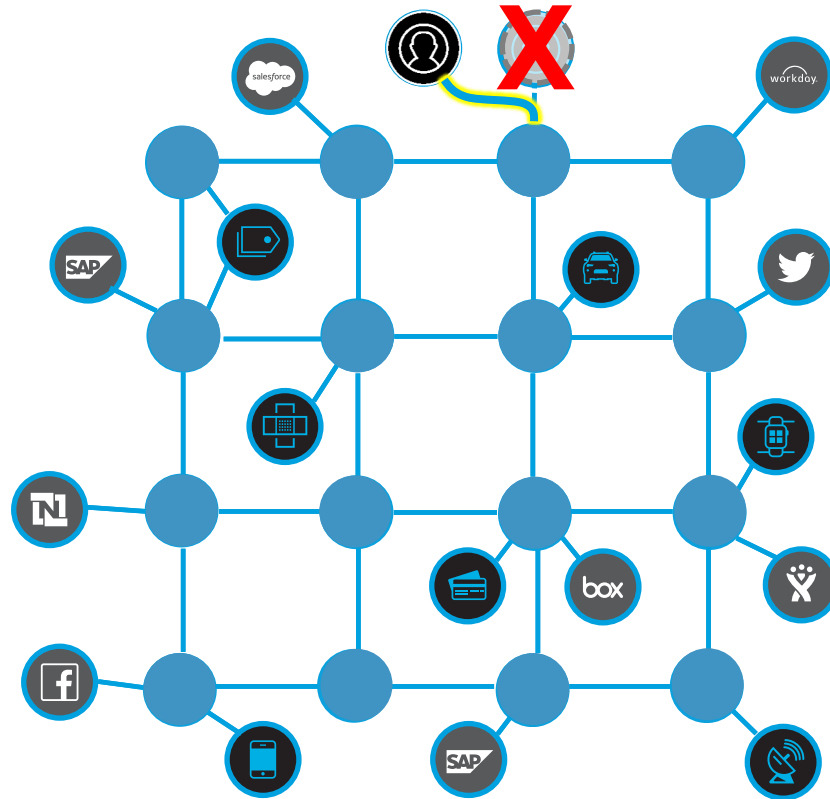


## "App store"

### Self-serve assets

- |   |   |
|---|---|
|  |  |
| credit check  | payments  |
|  |  |
| customer 360  | fraud   |
|  |  |
| order status  | onboarding  |
|  |  |
| eqpt monitoring   | customers   |
|  |  |
| invoices  | rich invoices   |

# The pace accelerates and debt is retired

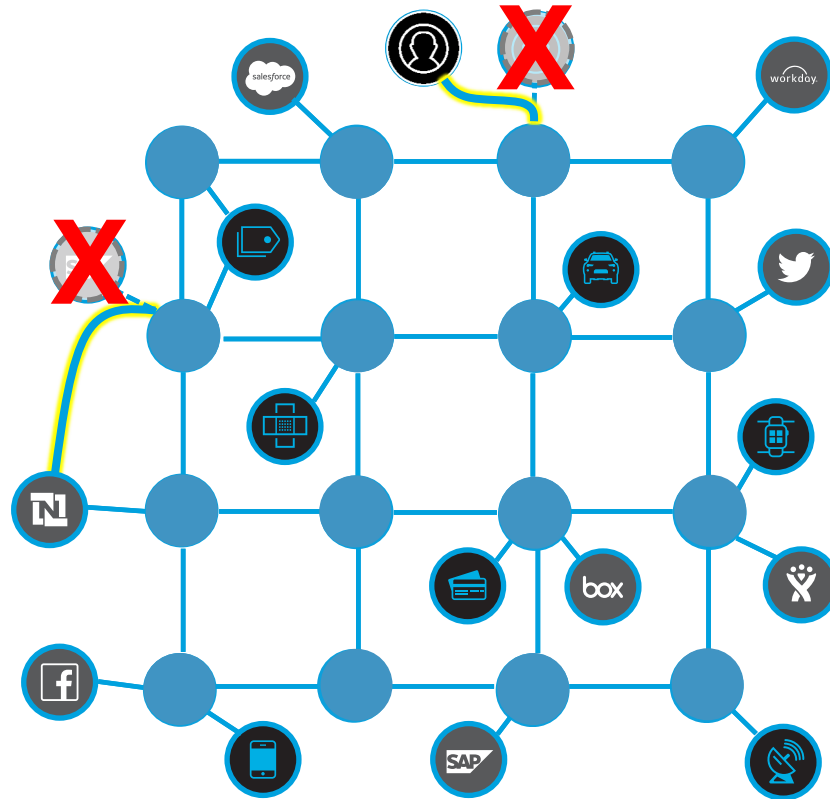


### "App store"

Self-serve assets

credit check	payments
customer 360	fraud
order status	onboarding
eqpt monitoring	customers
invoices	rich invoices

# The pace accelerates and debt is retired

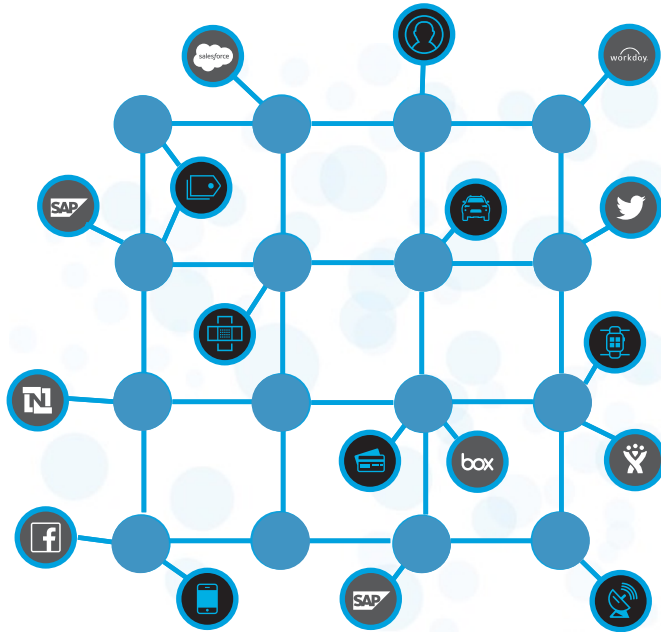


## "App store"

### Self-serve assets

- |                 |               |
|-----------------|---------------|
|                 |               |
| credit check    | payments      |
|                 |               |
| customer 360    | fraud         |
|                 |               |
| order status    | onboarding    |
|                 |               |
| eqpt monitoring | customers     |
|                 |               |
| invoices        | rich invoices |

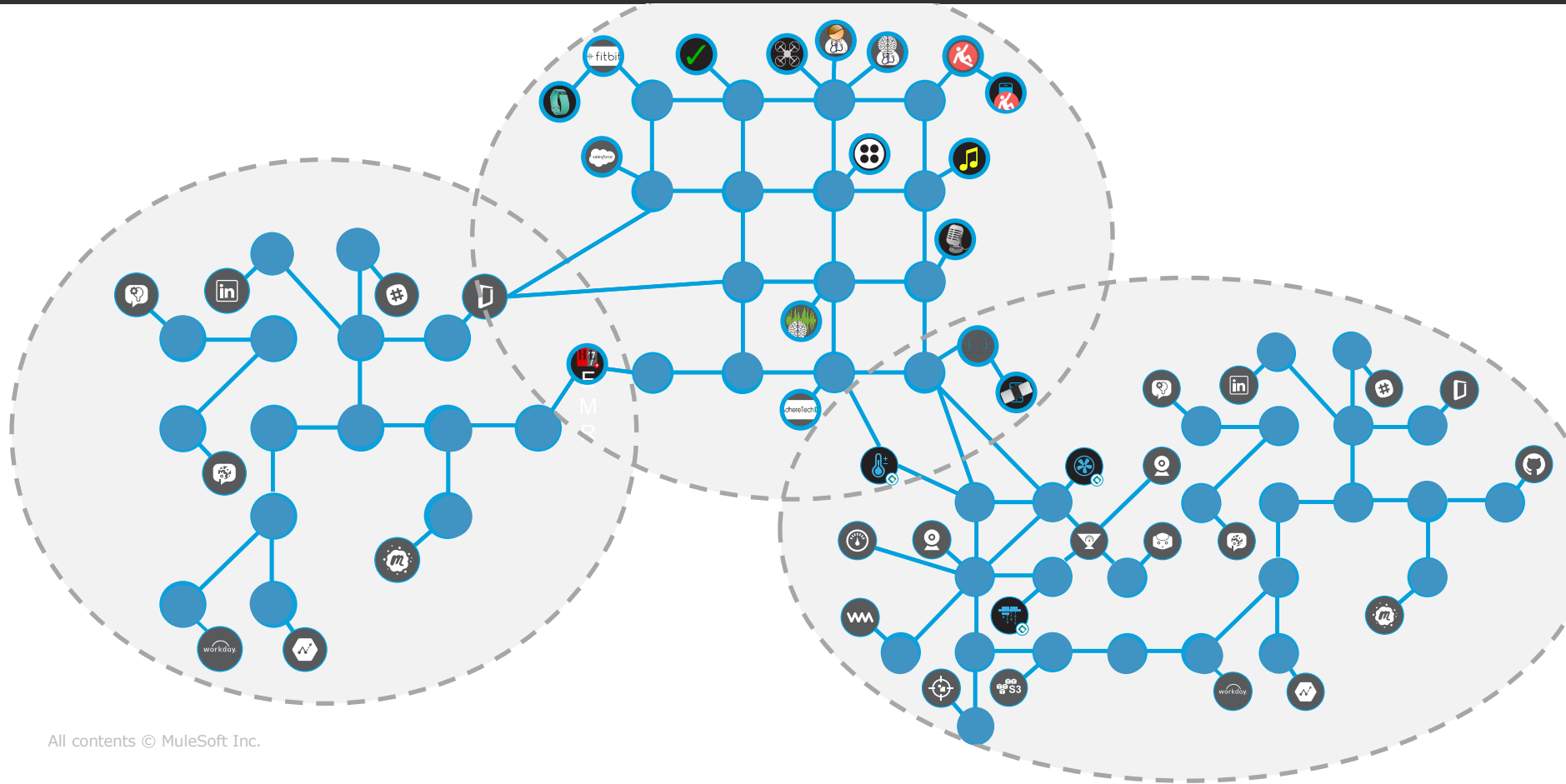




## An **application network**:

- Emerges bottoms-up via self-service
- Provides visibility, security and governability at every API node
- Is recomposable: it bends, not breaks – **built for change**

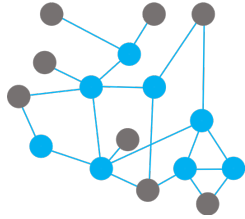
# Application networks are starting to converge







# Networks are also graphs



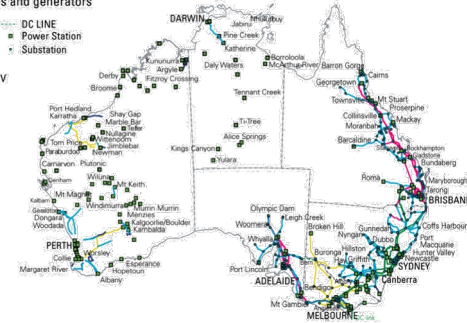
An Application Network Graph



A social network graph

Transmission lines and generators

- 500 kV DC LINE
- 330 kV Power Station
- 275 kV Substation
- 220 kV
- 132 / 110 kV
- 66 kV
- 33 / 22 kV

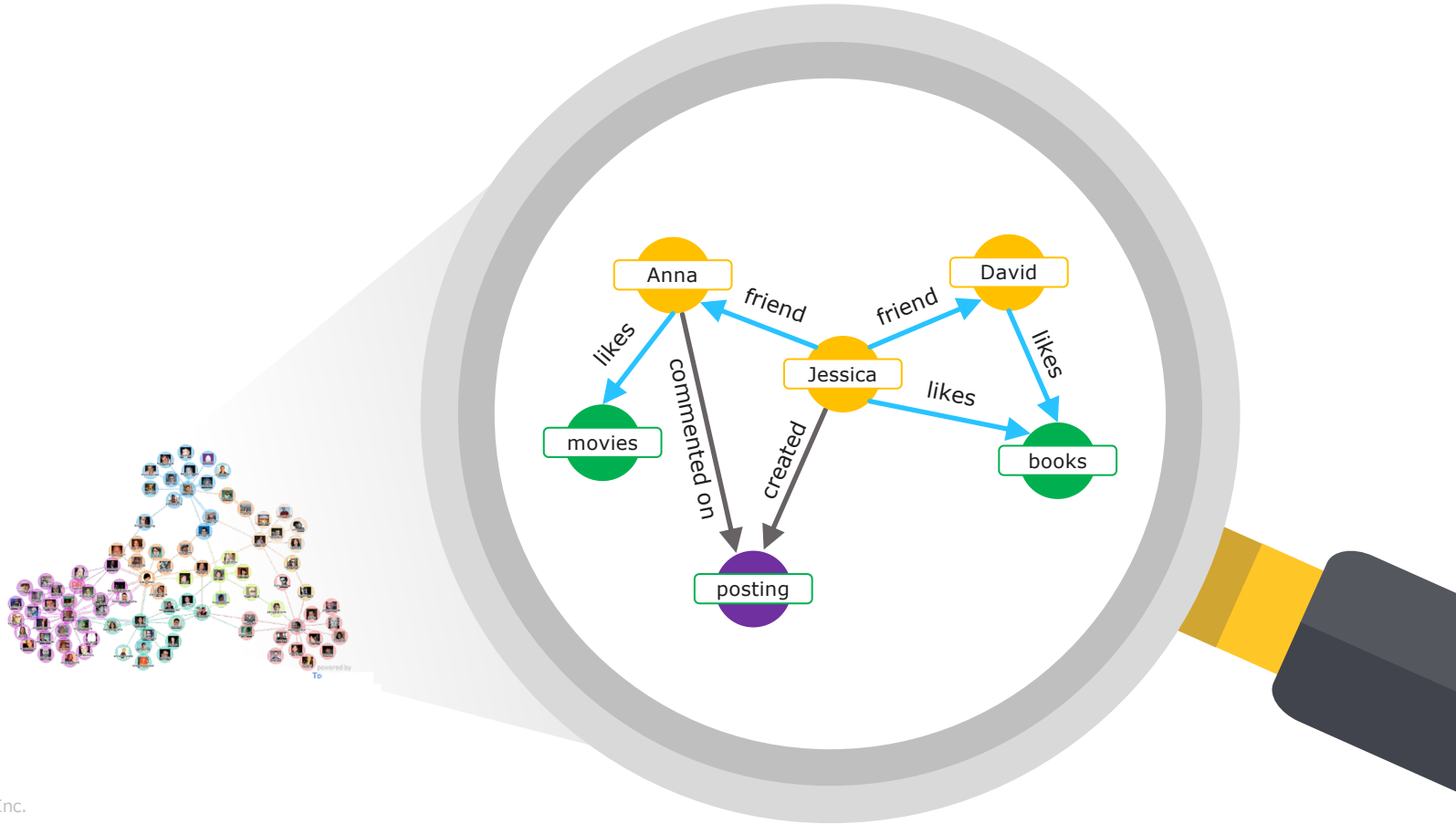


A power grid graph

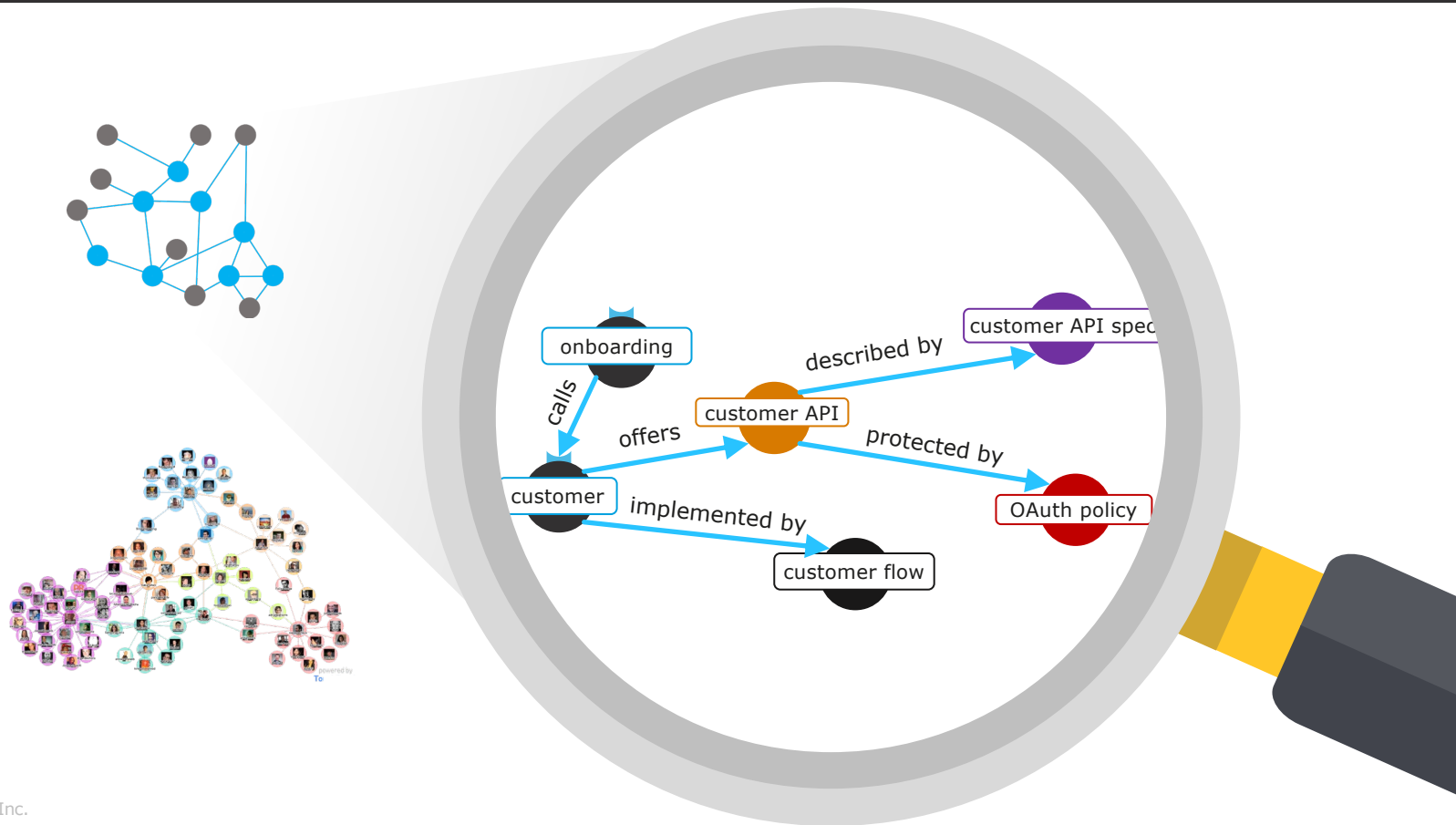


The internet graph

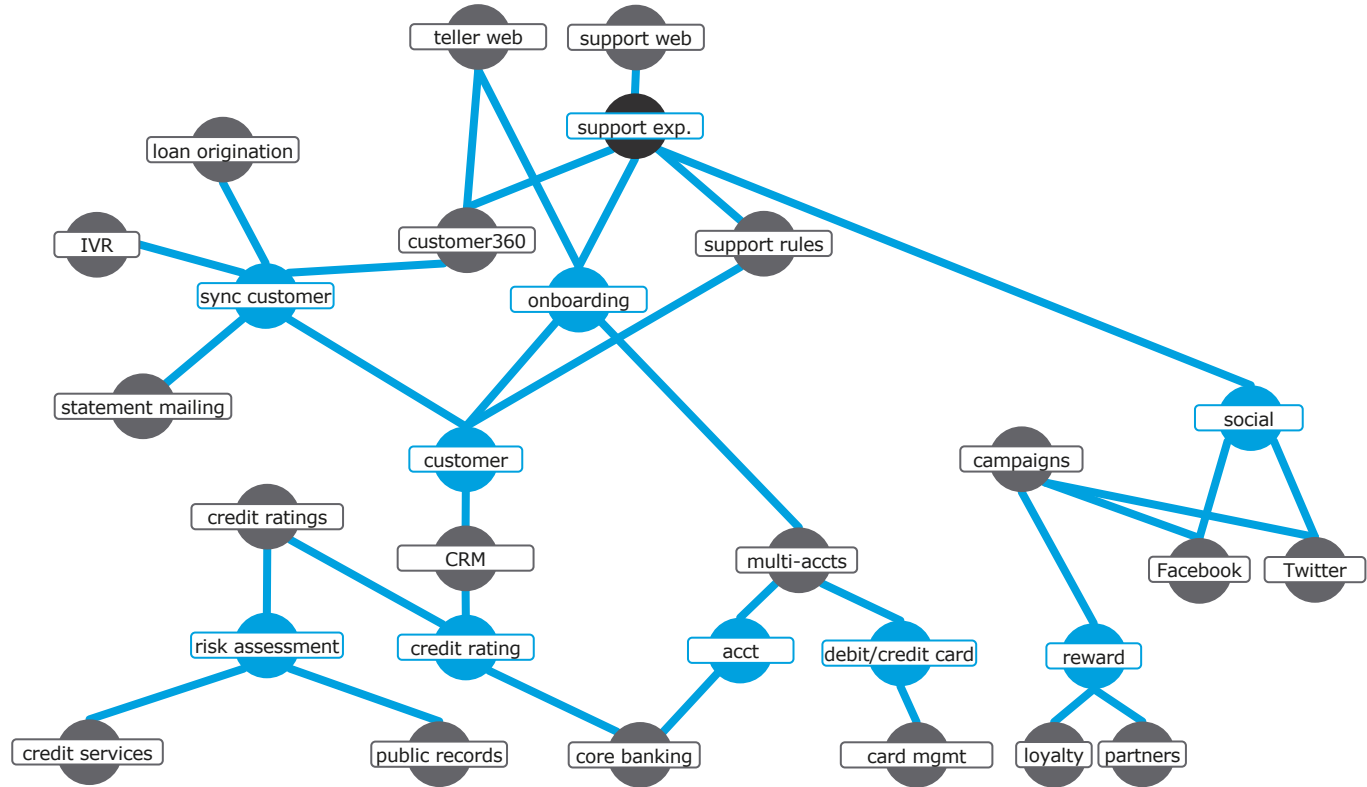
# The social graph



# The topograph

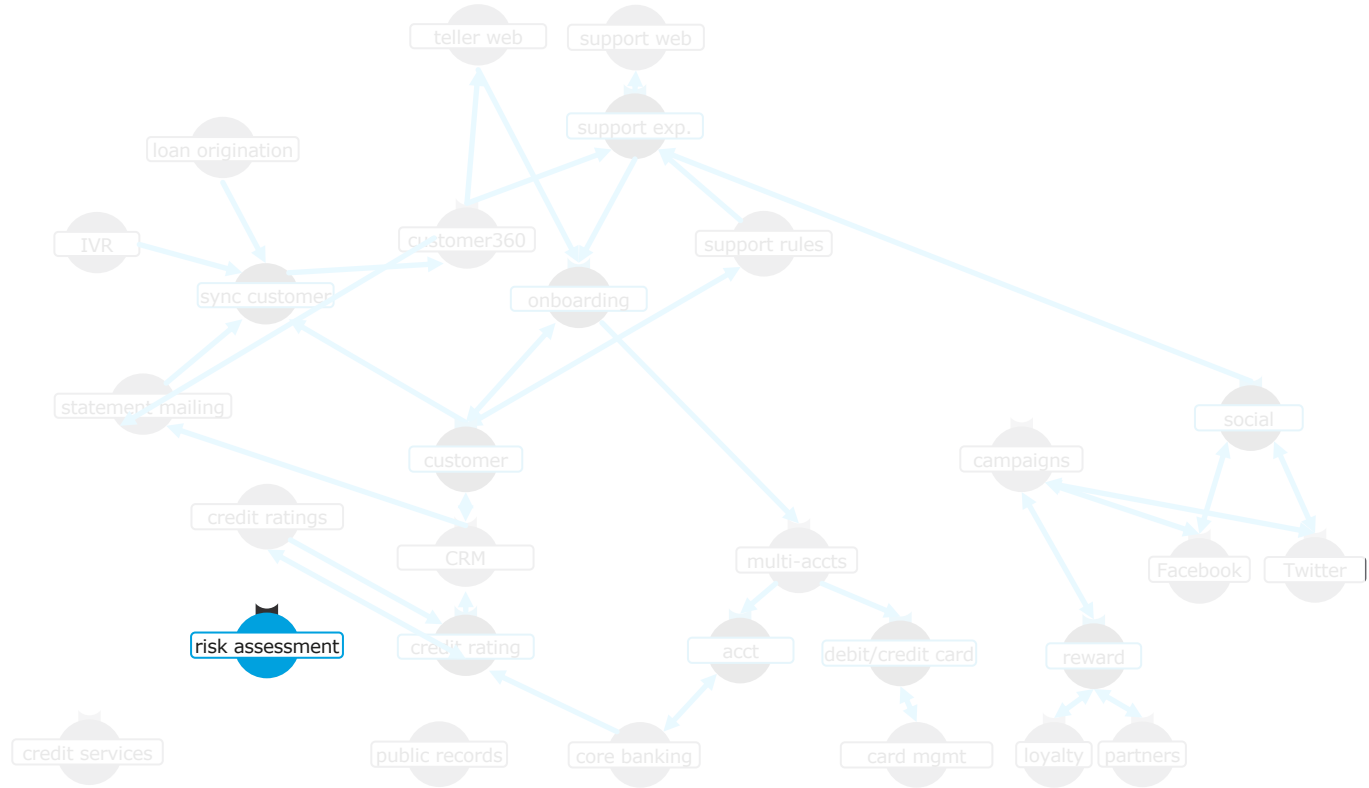


# A typical topograph





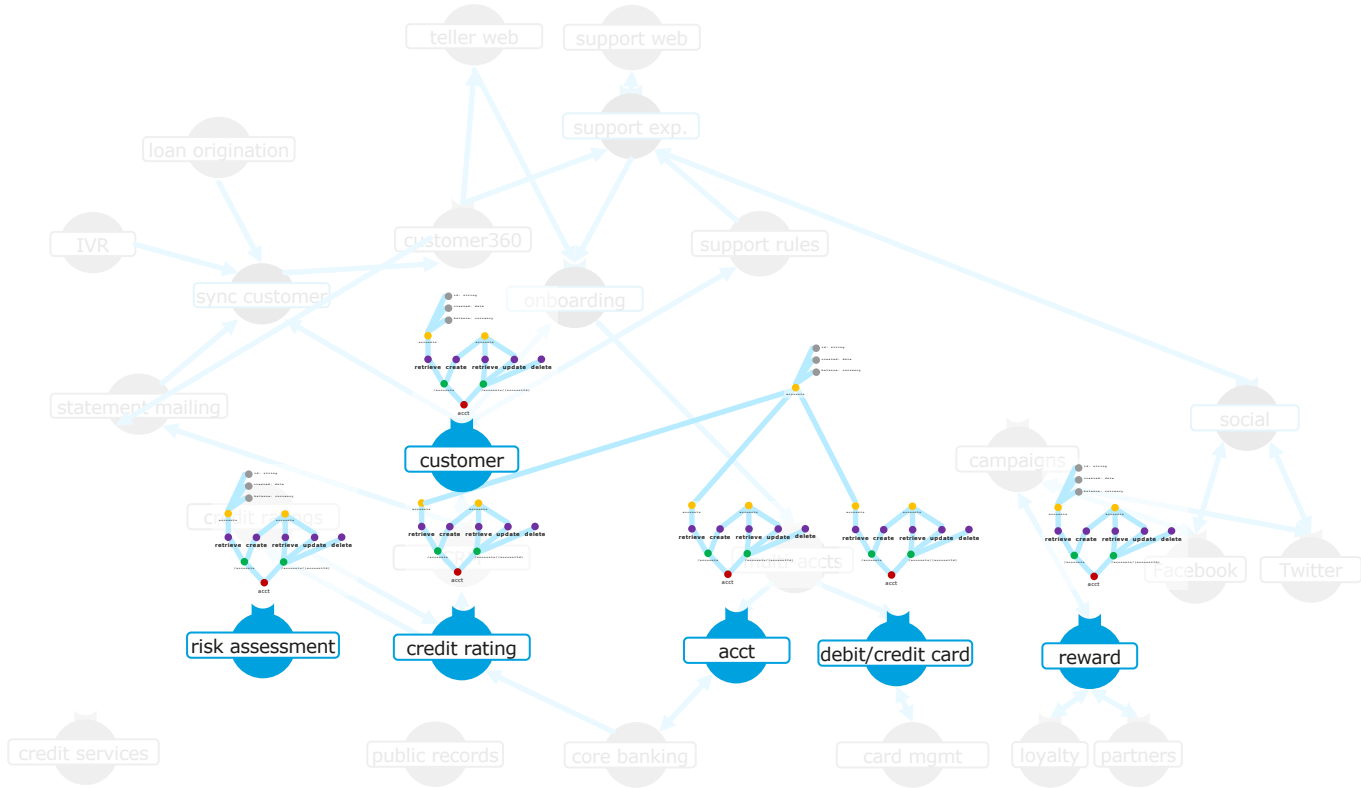
# Every application...



topograph

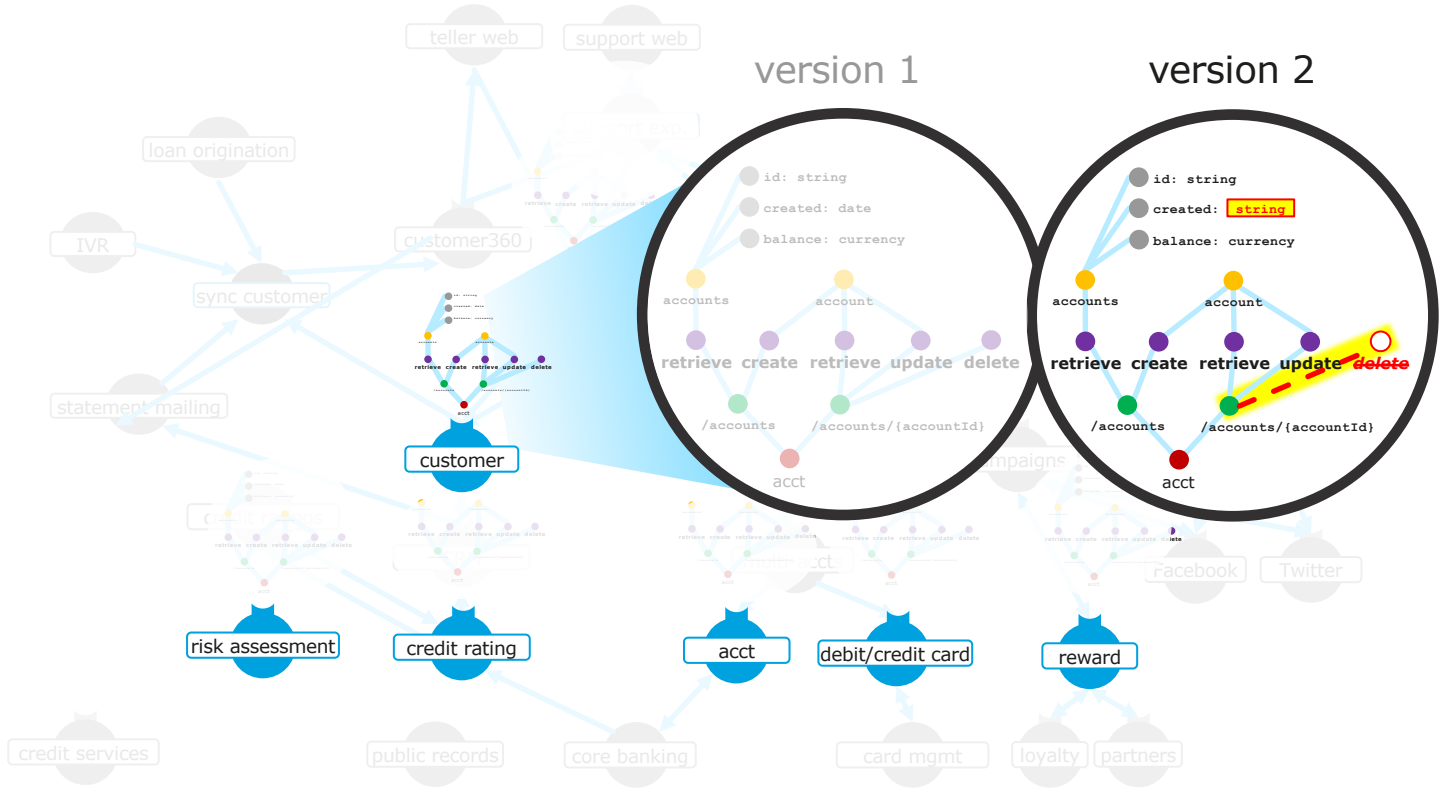


# Are the APIs consistent?



topograph

# Have they changed in a breaking way?

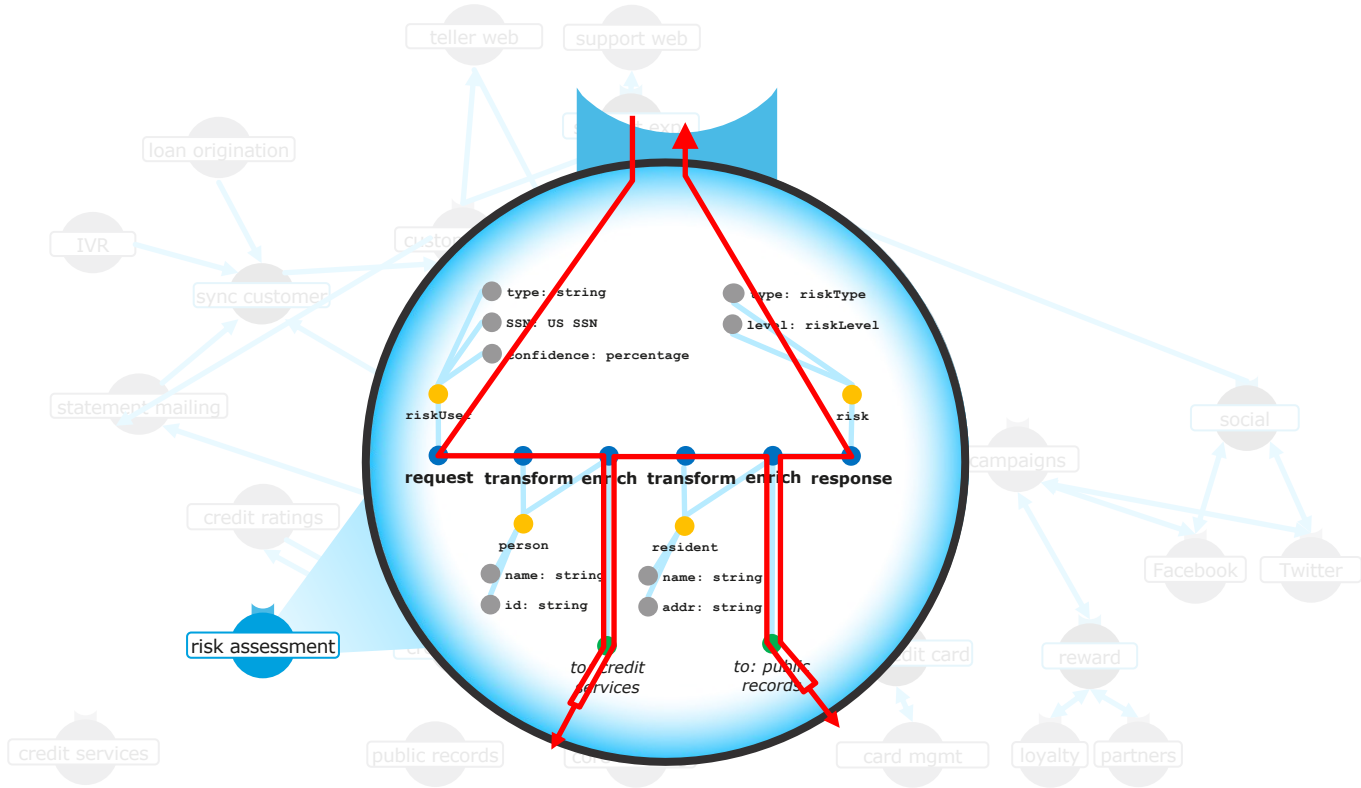


topograph



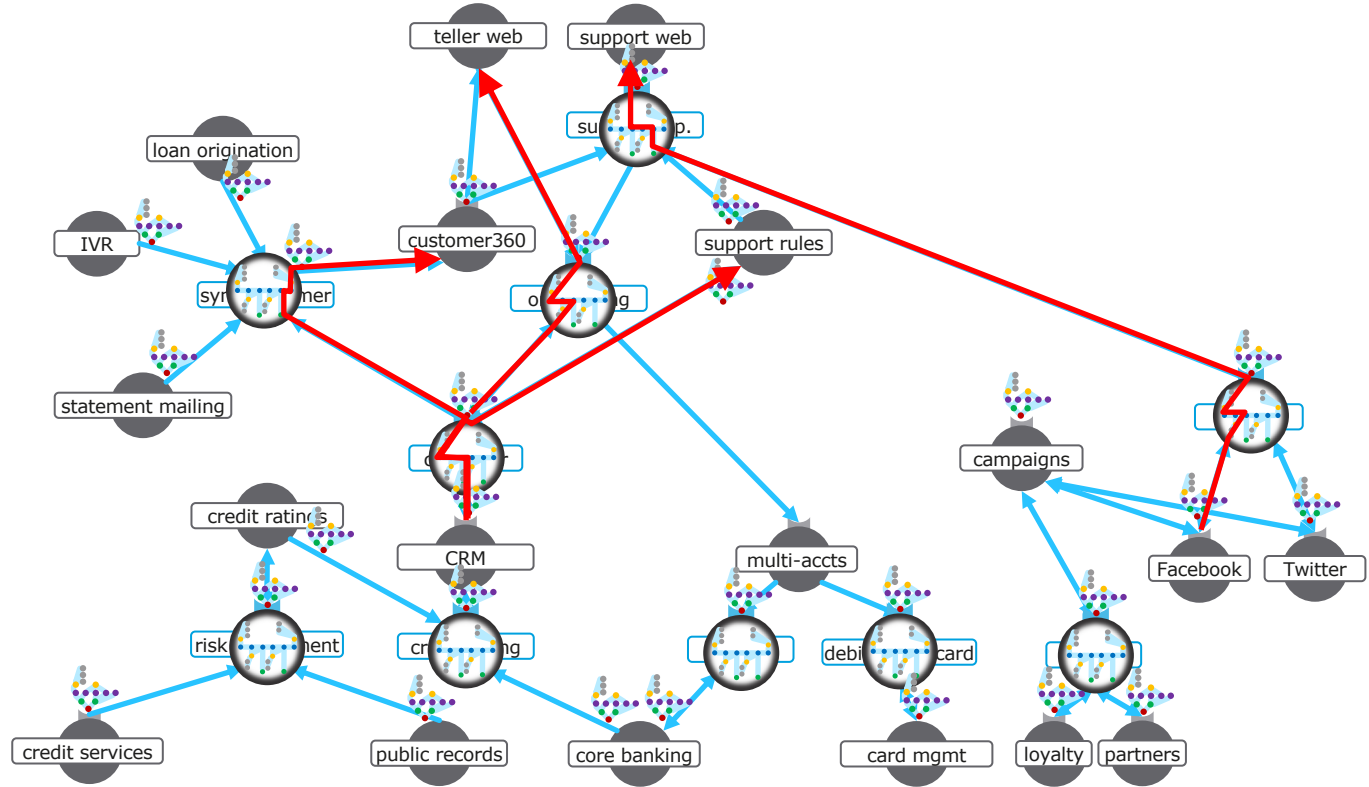


# How is the data flowing?



topograph

# How is it flowing across the application network?



topograph



