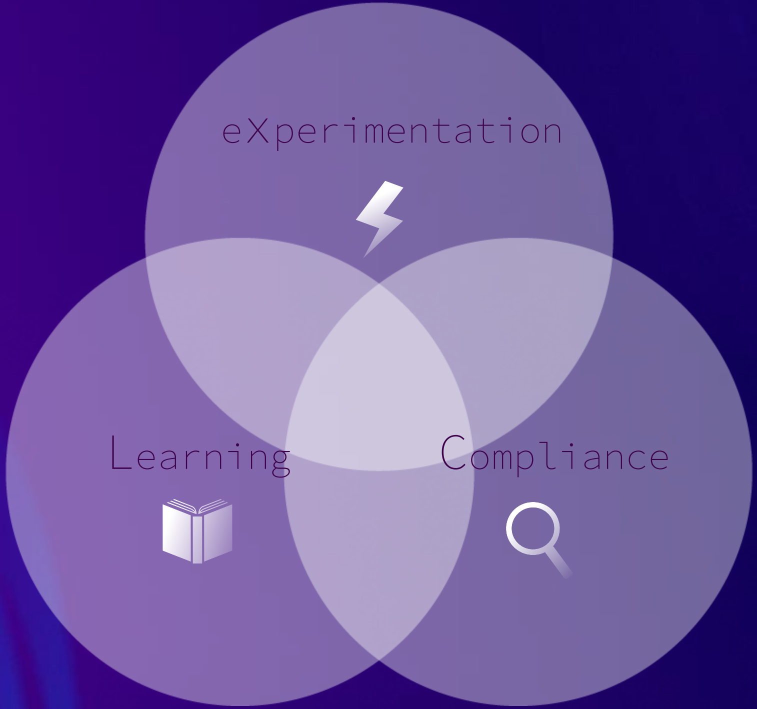
Liferay DEVCON

Ben Turner / Igor Arouca / Zsolt Balogh

Liferay Experience Cloud

A Customer Value-Driven Journey

The Journey Towards The Cloud


eXperimentation
Learning
Compliance

Senior Manager
Technical Enablement
Ben Turner
(Learning)

Vice President
Cloud Engineering
Igor Arouca
(eXperimentation)

Vice President
DevSecOps
Zsolt Balogh
(Compliance)

~5

Years of Cloud

Business Results

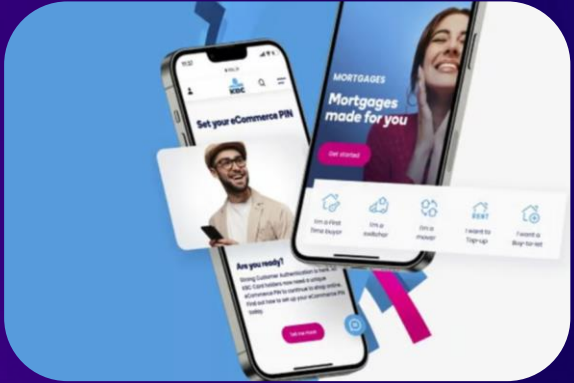
31

Countries

Across all Industries

Liferay Cloud Success Stories…

Klabin


Set your eCommerce PIN
Are you ready?
MORTGAGES
Mortgages made for you

KBC

Sky

ParcIT

Carrefour

Vodafone

Cloud Evolution

Business Perspective

Q4, 2018

PaaS Launch

After 2 years evolving platform concepts (LaunchPad, WeDeploy, etc), Liferay officially launches 1st Cloud offering

Q1, 2019

1st Cloud Deal

Signed Vodafone in the UK and helped them release new self-service portal.

Q4, 2020

Fast Global Expansion

Cloud customer base grows 3x in 2020 and reaches all corners of the globe (NA, LATAM, EMEA, APAC)

Q4, 2021

100th Cloud Customer

Demand continues strong with Cloud deals representing approx 1/4 of new business.

Q2, 2022

SaaS Launch

Release of 2nd Cloud offering with focus on reducing customers' Total Cost of Ownership (TCO).

Q1, 2023

Cloud Penetration

Cloud deals now represent more than a third of new business.

Learning
->Adaptation

Why Liferay Experience Cloud?

Why did we launch a DXP-as-a-Service?

> “
>
> The best thing about Liferay is you can do anything you want. The worst thing about Liferay is you can do anything you want.
>
> BRIAN CHAN
> Chief Software Architect, Liferay

“

The hardest thing about Liferay is…

…upgrades!

ME
(And, probably everyone else)

“

I know Liferay is better for the business because you give us a better fit for our business requirements.

But it’s hard to compete with SaaS. My business users are throwing ‘apps’ together in a couple of weeks. They’re not as good, but they’re fast.

LIFERAY CUSTOMER

> “
>
> One year is too long to wait for new features.
>
> There has to be a way for you to meet enterprise stability requirements while still adding capabilities more quickly.
>
> LIFERAY CUSTOMER

Fitting the pieces together

01

Customers need the convenience of SaaS…

…but the flexibility of a Digital Experience Platform

02

And they want features more regularly…

…but need these to not destabilise what they already have

03

So we moved to a weekly Update process and launched a new architecture for extending the platform…

…and added this on top of the proven PaaS capabilities we had in DXP Cloud

But how did we even get to here?

History Lesson

Originally, Liferay provided just the DXP software itself – the Customer was responsible for everything else.

This is now what we call DXP Self-Hosted.

RESPONSIBILITIES

Liferay

- Products
- Subscription (arranty, Indemnity, etc

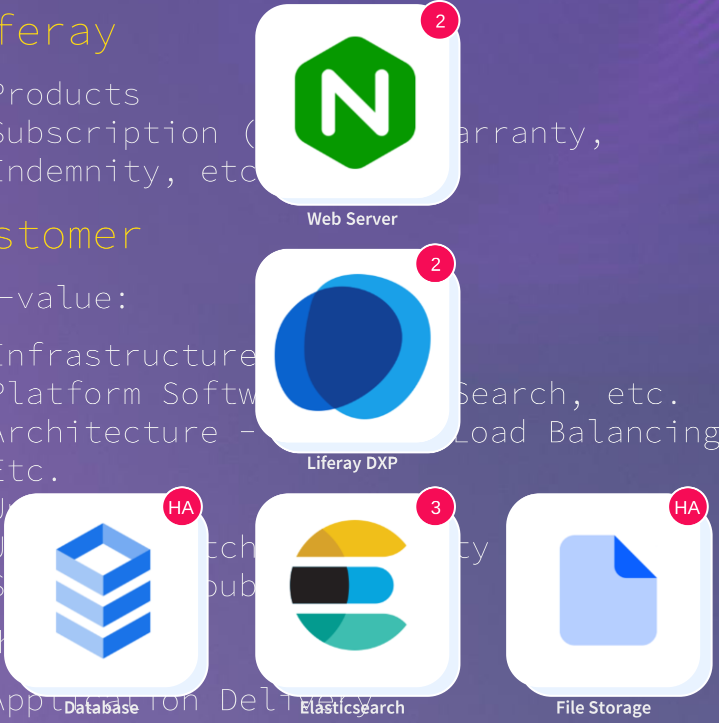
Customer

Low-value:

- Infrastructure
- Platform Softw earch, etc.
- Architecture – Load Balancing, Etc.
- U
- U tch ty
- S ub

Hig

- Application Delivery (aka Solving Business Problems)


2
Web Server
2
Liferay DXP
HA
Database
3
Elasticsearch
HA
File Storage

PaaS

With Liferay's PaaS offering, Liferay provides the DXP, the Infrastructure, and the Platform Services, but the Customer is still responsible for most other activities.

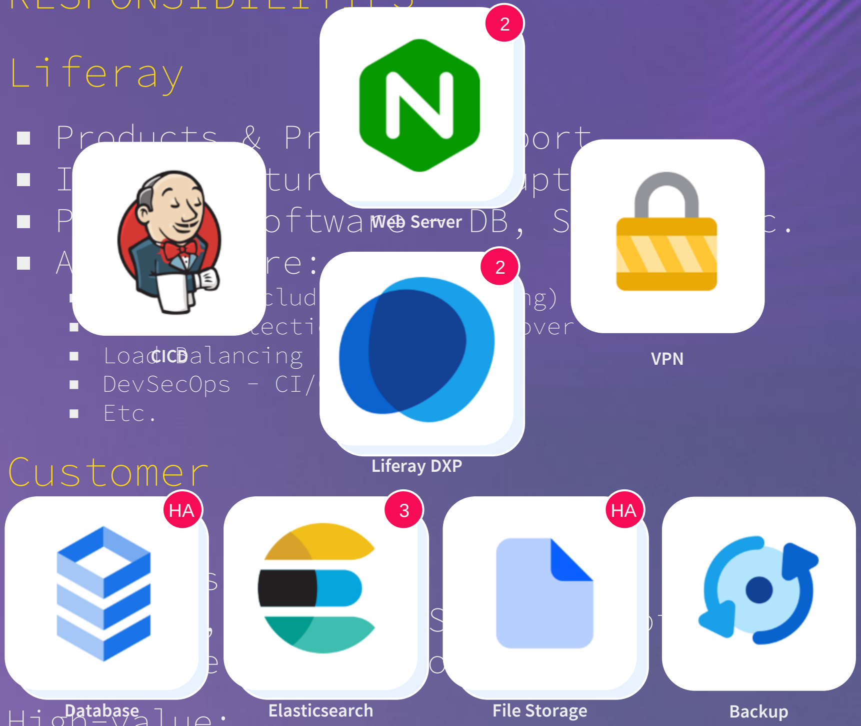
This was previously known as DXP Cloud.

RESPONSIBILITIES

Liferay

- Products & Pr … port
- I … tur … pt
- P … oftwa … DB, S … c.
- A … re:
  - … clud … ng)
  - … ecti … over
  - Load Balancing
  - DevSecOps – CI/
  - Etc.

Customer


2
Web Server
CICD
2
Liferay DXP
VPN
HA
Database
3
Elasticsearch
HA
File Storage
Backup

High-value:

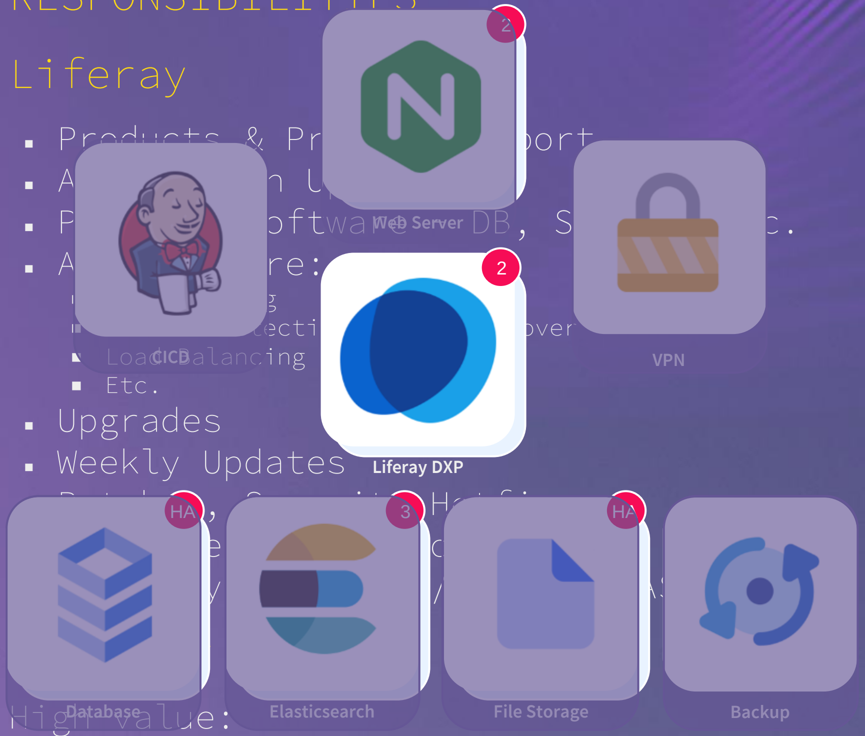
- Application Delivery (aka Solving Business Problems)

SaaS

Liferay Experience Cloud is Liferay’s SaaS offering. With Liferay Experience Cloud you can focus on what really matters – creating and launching business applications.

It’s still Liferay DXP – it is not a turnkey application

RESPONSIBILITIES


Web Server
2
CICD
VPN
Liferay DXP
2
Database
HA
Elasticsearch
3
File Storage
HA
Backup

Liferay

- Products & Pr … port
- A … n U
- P … oftwa … DB, S … c.
- A … re:
  - … g
  - … ecti … over
  - Load Balancing
  - Etc.
- Upgrades
- Weekly Updates

High value:

- Application Delivery (aka Solving Business Problems)

How do weekly updates not break things?

New Customisation Approach

Traditional Customisations

Make direct changes to Liferay using Code

→

7.4 & Liferay Experience Cloud

Don’t touch the core – when code is needed use clean separation

Extending Liferay in 2023:

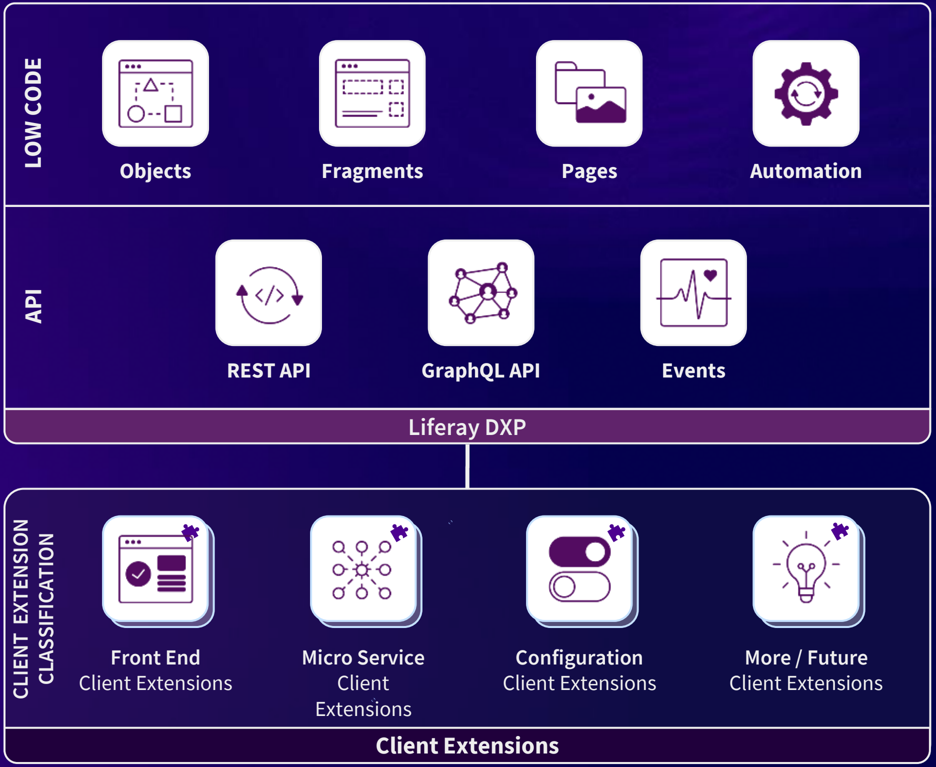
Low-Code & Client Extensions

Provides the key customization capabilities needed to meet highly specific business requirements, without modifying Liferay.

Ensures the platform can be extended and customized to fit specific needs.

Loosely-coupled code, modern technologies, supports easy upgrades.

Our preferred approach to extensions.


LOW CODE
Objects
Fragments
Pages
Automation
API
REST API
GraphQL API
Events
Liferay DXP
CLIENT EXTENSION CLASSIFICATION
Front End Client Extensions
Micro Service Client Extensions
Configuration Client Extensions
More / Future Client Extensions
Client Extensions

Want to learn more about
Client Extensions?

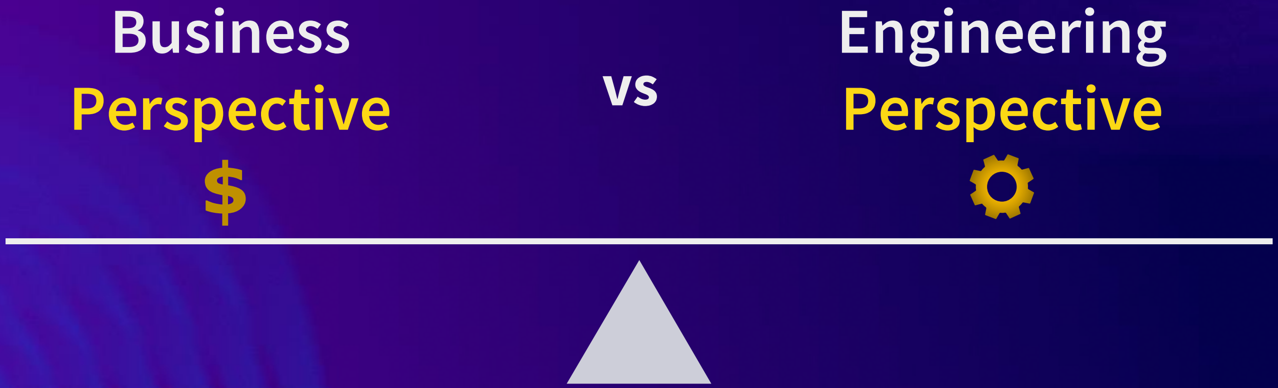
Client Extensions Deep Dive:
Today at 11:50 am

Staff Software Engineer
Cloud Engineering
Greg Amerson

Principal Software Engineer
Cloud Engineering
Ray Augé

eXperimentation
→Innovation

Cloud Evolution



Business
Perspective
$

vs

Engineering
Perspective
⚙

Cloud Evolution

Business vs Engineering Perspective

Q3,2018

Internal Release

Prior to the official release of our 1st Cloud offering, the team was working hard to validate the platform with internal customers.

Q4,2018

Kubernetes Migration

After supporting internal systems such as liferay.com in the new Cloud Infra, the Cloud Engineering team decides to switch to a managed Kubernetes service.

Q1,2019

1st Cloud Deal

Signed Vodafone in the UK and helped them release new self-service portal.

Q4,2019

1st Customer GoLive

Helped Vodafone move workloads to the Cloud and launch new self-service portal in less approximately 6 months.

Cloud Evolution

Business vs Engineering Perspective

Q4,2020

Fast Global Expansion

Cloud customer base grows ~3x in 2020 and reaches all 4 corners of the globe (NA, LATAM, EMEA, and APAC)

Q4,2021

100th Cloud Customer

Demand continues strong with Cloud deals representing approx 1/4 of new business.

15th K8s Cluster

Strong demand for Cloud translates to rapid infra growth: 15 large production clusters distributed across 10 regions.

Q1,2022

SaaS Charge is On

Prep to release SaaS offering speeds up efforts to lower product complexity. Heavy investments to further automate infra follow suit.

Q2,2022

SaaS Launch

Release of 2nd Cloud offering with focus on reducing customers' Total Cost of Ownership (TCO).

Q1,2023

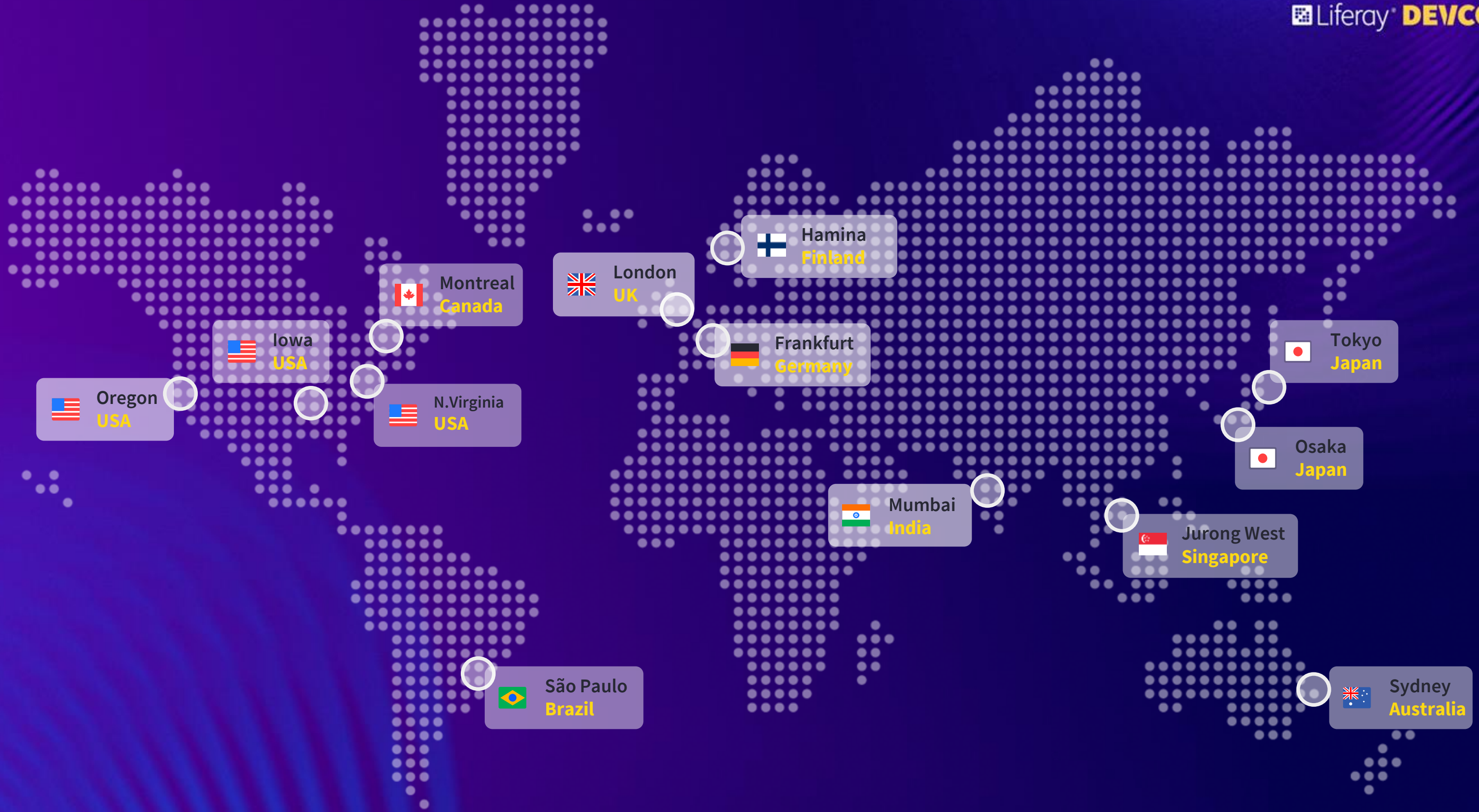
Cloud Penetration

Cloud deals now represent more than a third of new business.

Infrastructure Expansion

As the Cloud customer base grows, so does the infrastructure: more than 35 clusters, 13 regions, etc.

Global
Coverage

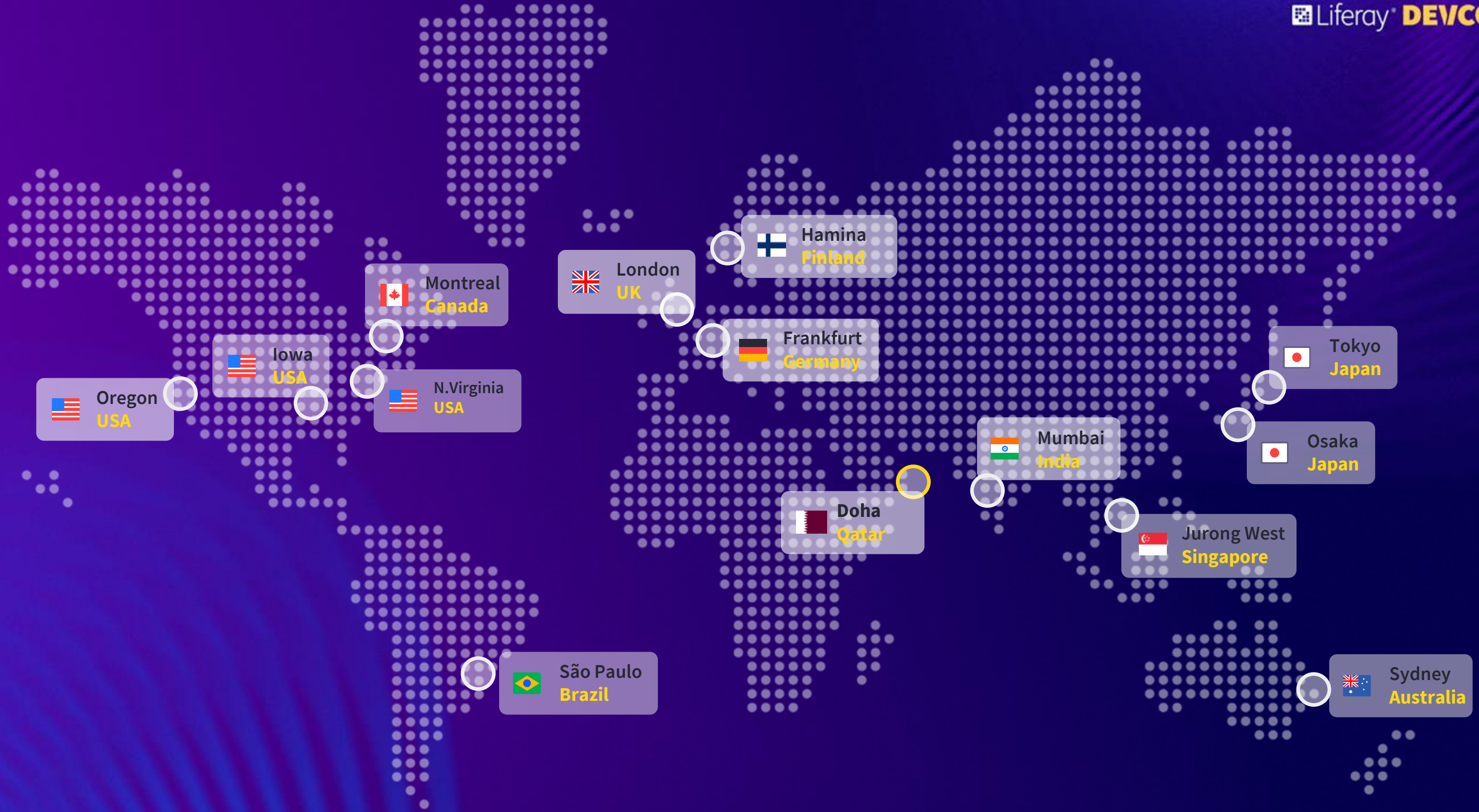

Hamina
Finland
London
UK
Montreal
Canada
Frankfurt
Germany
Iowa
USA
Oregon
USA
N.Virginia
USA
Tokyo
Japan
Osaka
Japan
Mumbai
India
Jurong West
Singapore
São Paulo
Brazil
Sydney
Australia

13 Cloud Regions

Announcement Alert

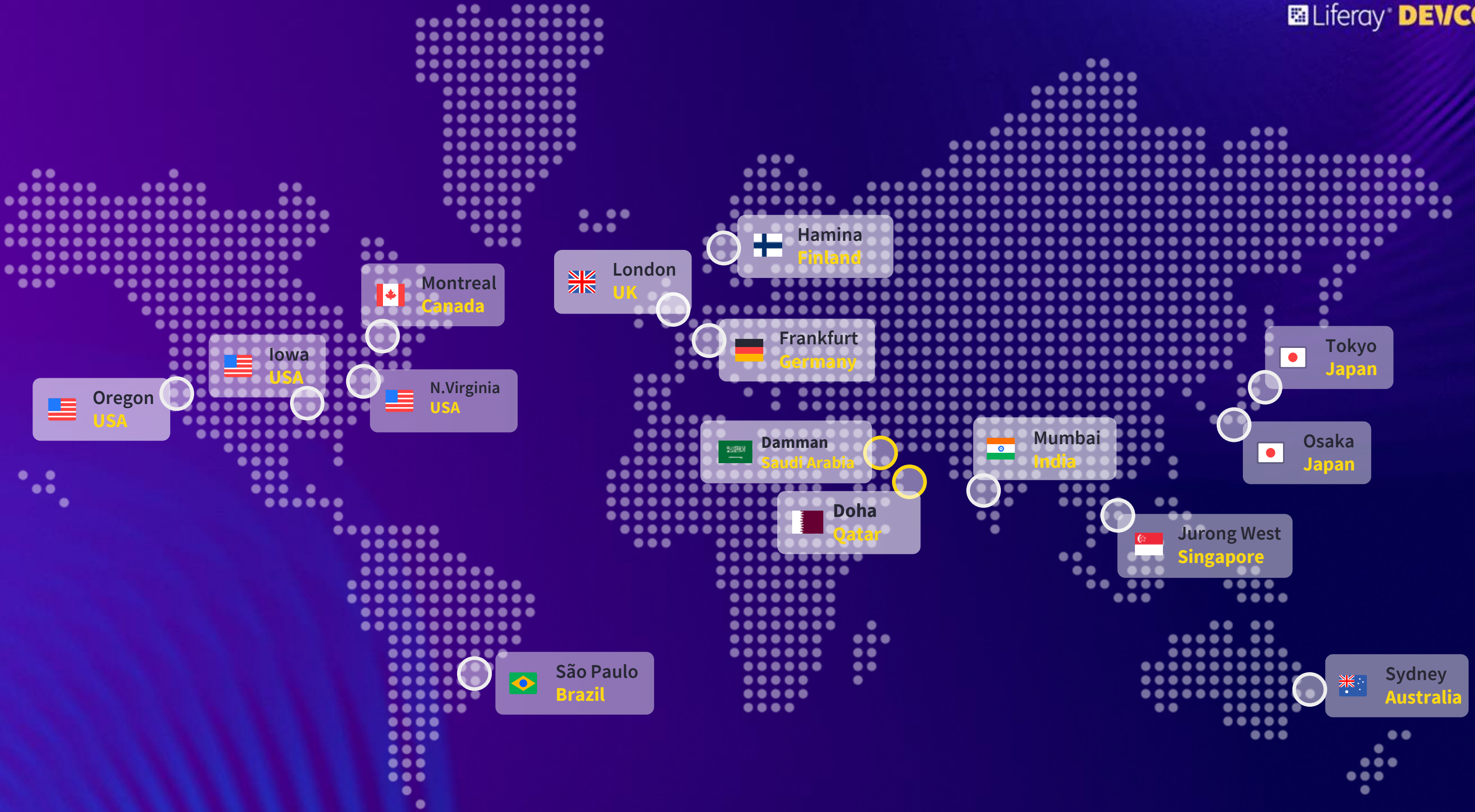
Coming soon...

Q2 2023


Hamina
Finland
London
UK
Montreal
Canada
Frankfurt
Germany
Iowa
USA
Oregon
USA
N.Virginia
USA
Tokyo
Japan
Osaka
Japan
Mumbai
India
Doha
Qatar
Jurong West
Singapore
São Paulo
Brazil
Sydney
Australia

Coming in

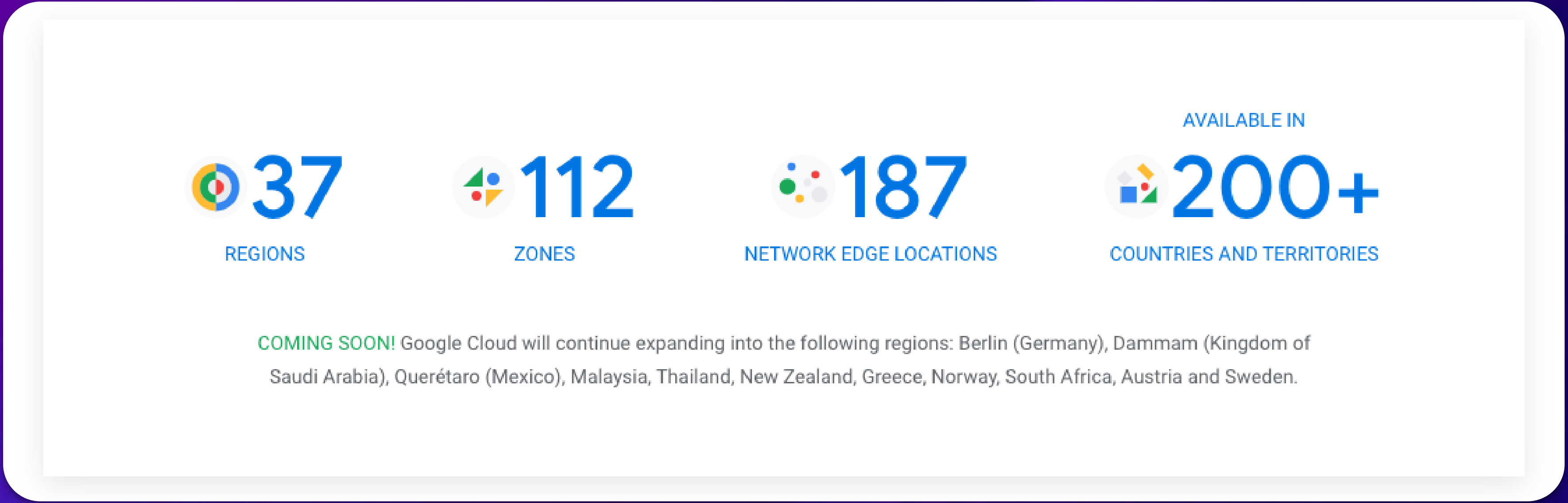
Q3 2023


Hamina
Finland
London
UK
Montreal
Canada
Frankfurt
Germany
Iowa
USA
Oregon
USA
N.Virginia
USA
Tokyo
Japan
Osaka
Japan
Damman
Saudi Arabia
Mumbai
India
Doha
Qatar
Jurong West
Singapore
São Paulo
Brazil
Sydney
Australia

2 new regions coming soon

Cloud locations

Google Cloud has added a new region: Doha (Qatar), Turin (Italy), Tel Aviv (Israel). Our private, software-defined network provides fast and reliable connections to users around the world.



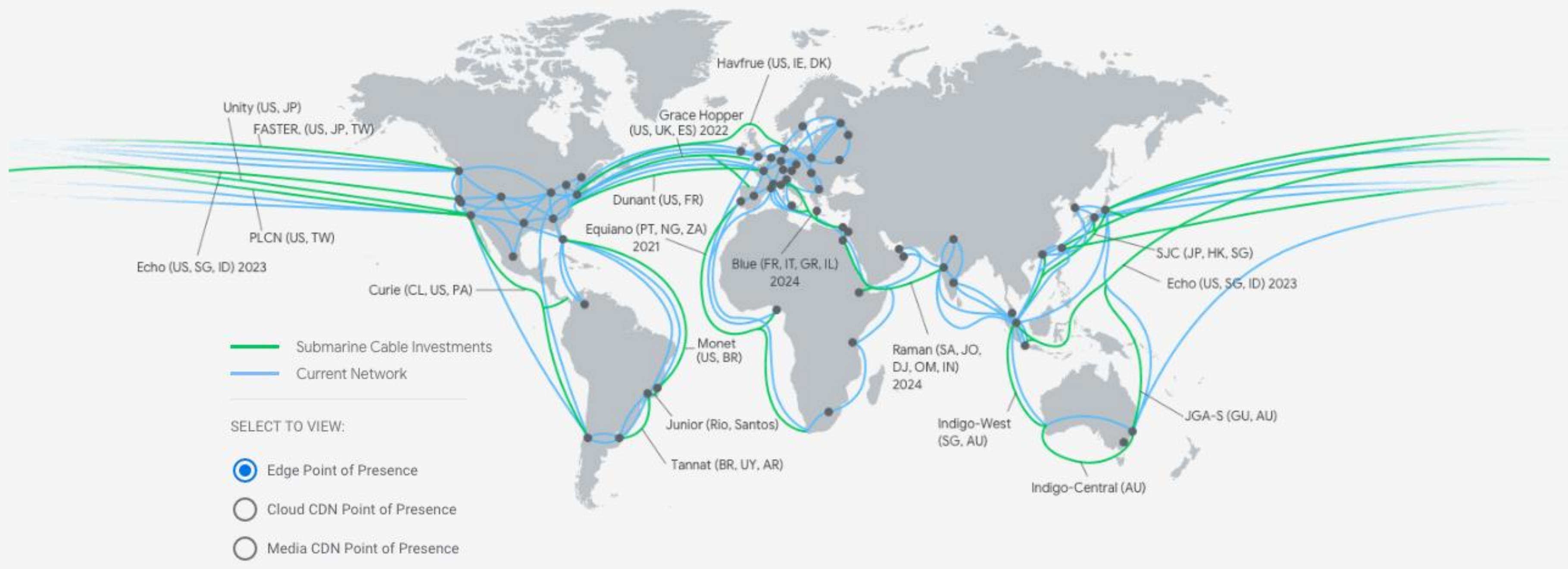
37
REGIONS

112
ZONES

187
NETWORK EDGE LOCATIONS

AVAILABLE IN
200+
COUNTRIES AND TERRITORIES

COMING SOON! Google Cloud will continue expanding into the following regions: Berlin (Germany), Dammam (Kingdom of Saudi Arabia), Querétaro (Mexico), Malaysia, Thailand, New Zealand, Greece, Norway, South Africa, Austria and Sweden.


Havfrue (US, IE, DK)
Unity (US, JP)
Grace Hopper (US, UK, ES) 2022
FASTER, (US, JP, TW)
Dunant (US, FR)
Equiano (PT, NG, ZA) 2021
PLCN (US, TW)
Echo (US, SG, ID) 2023
Blue (FR, IT, GR, IL) 2024
SJC (JP, HK, SG)
Echo (US, SG, ID) 2023
Curie (CL, US, PA)
Monet (US, BR)
Raman (SA, JO, DJ, OM, IN) 2024
Junior (Rio, Santos)
Indigo-West (SG, AU)
JGA-S (GU, AU)
Tannat (BR, UY, AR)
Indigo-Central (AU)

🟩 Submarine Cable Investments

🟦 Current Network

SELECT TO VIEW:

● Edge Point of Presence

○ Cloud CDN Point of Presence

○ Media CDN Point of Presence

Platform Numbers

Liferay Experience Cloud

15%
Cloud Customers / Base

3,354
Pods/Instances

41
Clusters

395 TB
Stored Data

~30M
API Calls
(*monthly avg*)

6,272
vCPU

23 TB
RAM

7 days
Fastest Go-Life

99.99%
Uptime

275.6K
Total Deployments*

4.72M
Activities*

512
WAU

31%
Stickiness

1. Logs
2. Activities
3. Network Mgmt
4. Deployments
5. Backups

Most used features*

9
Major R&D Projects*

534
Epics*

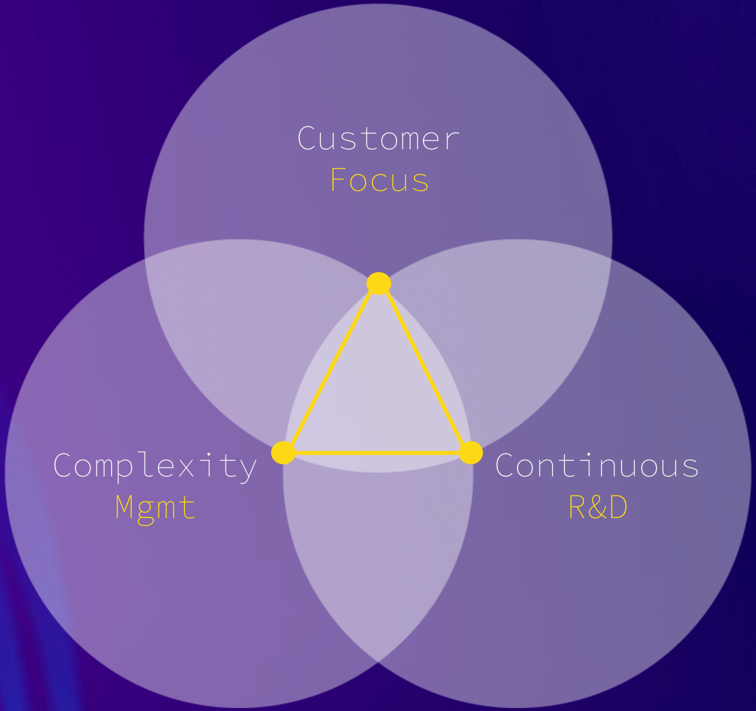
1,740
Support Tickets*

809
Bugs*

** Data from the previous 12 months*

How did
we get here?

Golden Triangle



Customer
Focus

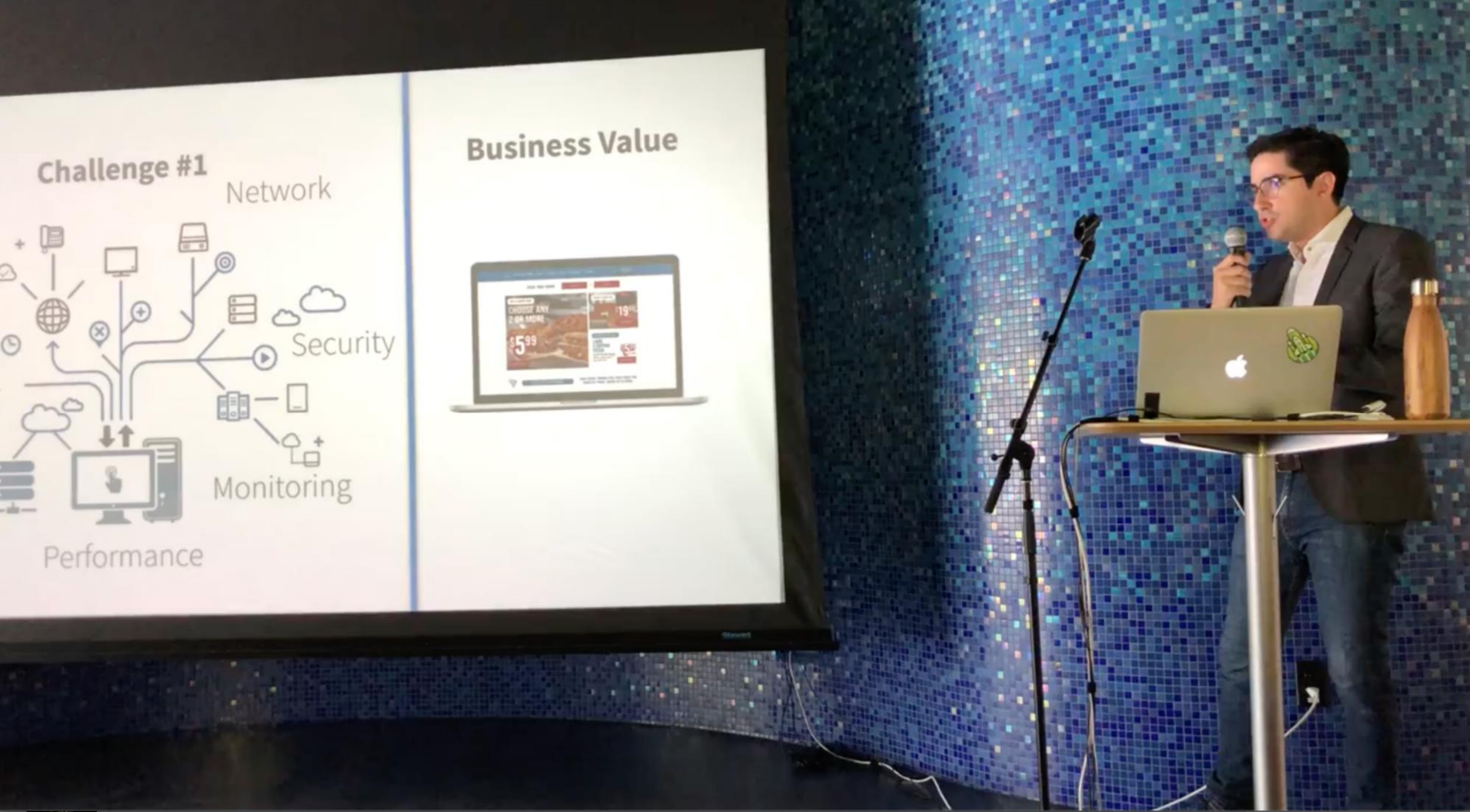
Complexity
Mgmt

Continuous
R&D

Customer
Focus

A Clear Goal

Simplify the deployment, management and evolution of DXP by building the safest, simplest, and most scalable Cloud Platform to host Liferay solutions.



Challenge #1

Network

Security

Monitoring

Performance

Business Value

Network

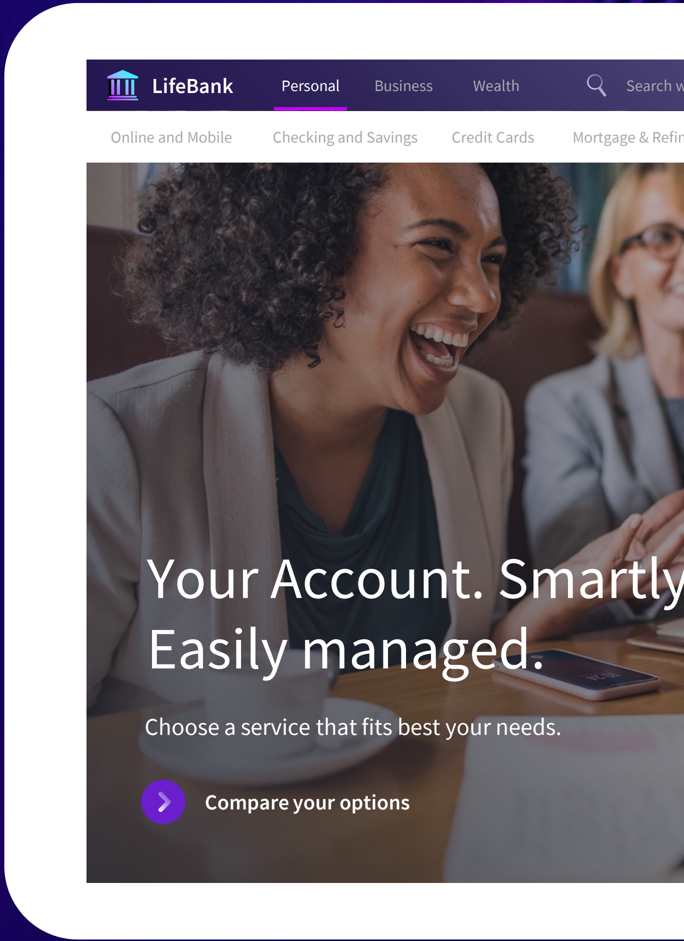
Servers

Security

OS

Performance

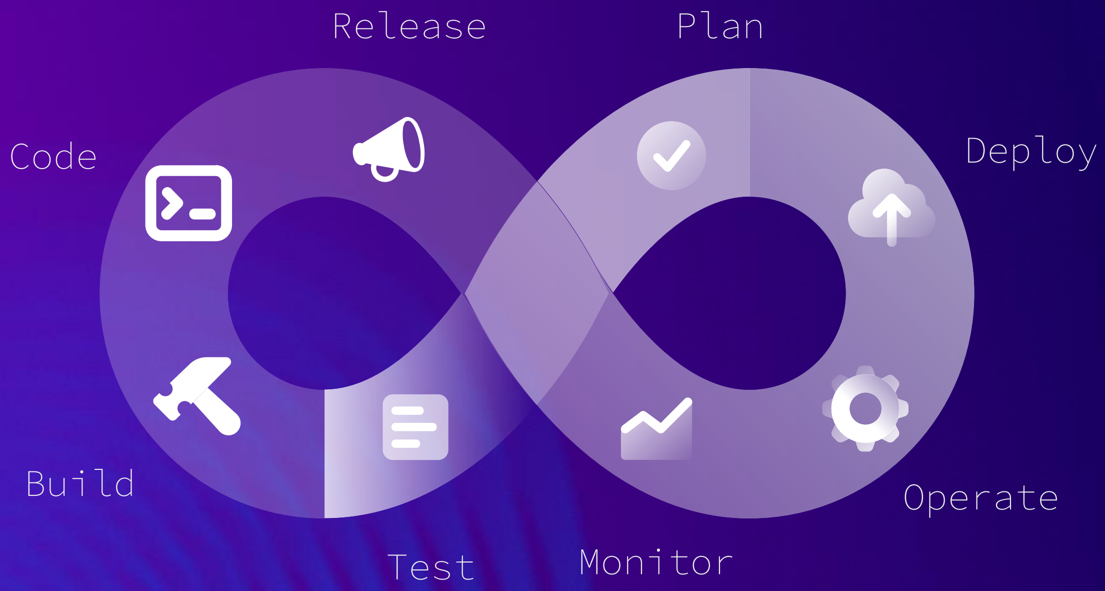
Monitoring


LifeBank
Personal
Business
Wealth
Search w
Online and Mobile
Checking and Savings
Credit Cards
Mortgage & Refin

Your Account. Smartly
Easily managed.

Choose a service that fits best your needs.

Compare your options



Release

Plan

Code

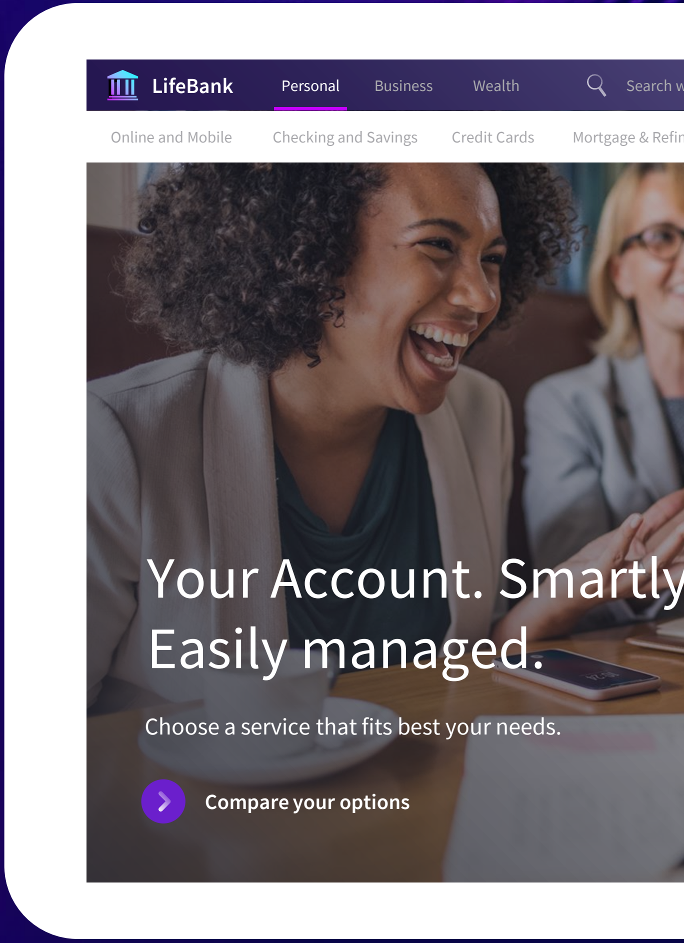
Deploy

Build

Operate

Test

Monitor

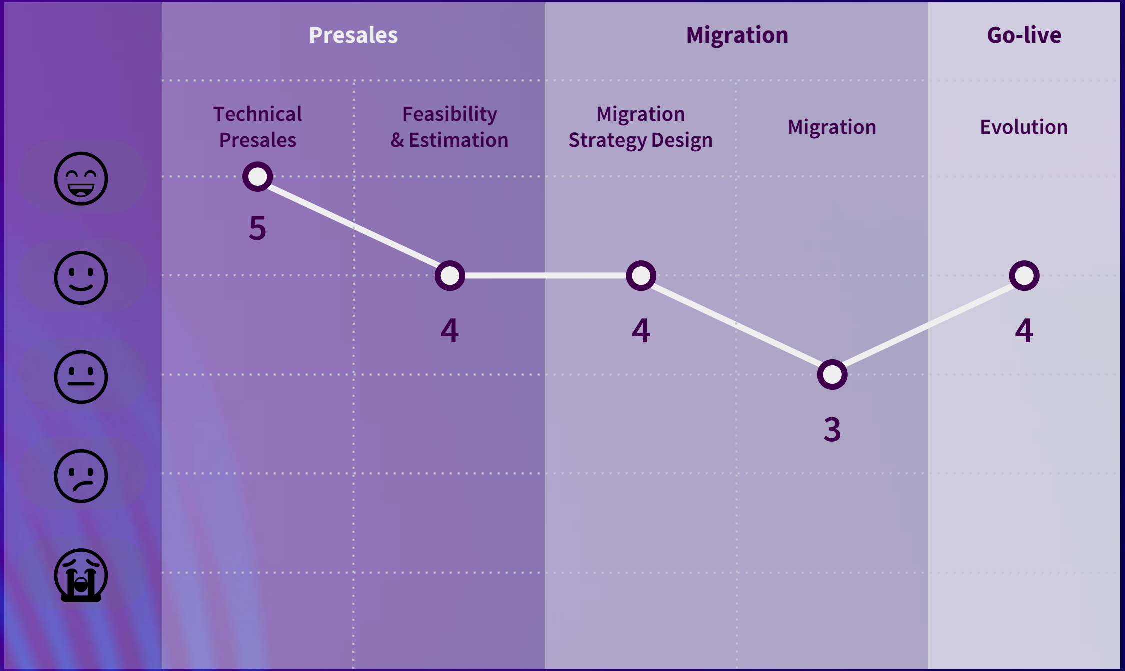

LifeBank
Personal
Business
Wealth
Search w
Online and Mobile
Checking and Savings
Credit Cards
Mortgage & Refir

Your Account. Smartly
Easily managed.

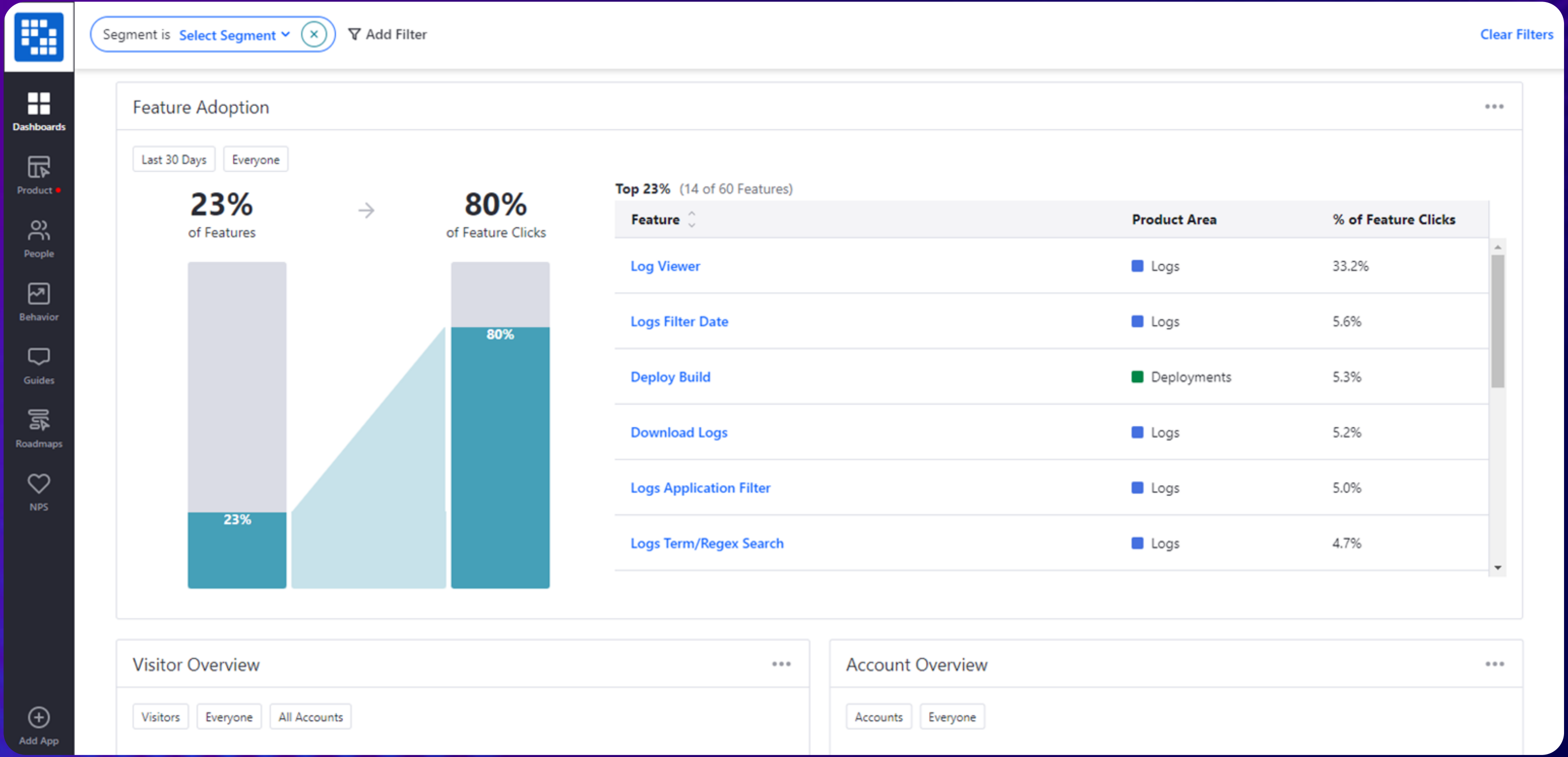
Choose a service that fits best your needs.

Compare your options

Validating Assumptions



Data-Driven Mindset


Dashboards
Product
People
Behavior
Guides
Roadmaps
NPS
Add App
Add Filter
Clear Filters
Last 30 Days
Everyone
23%
80%
Visitor Overview
Visitors
Everyone
All Accounts
Account Overview
Accounts
Everyone

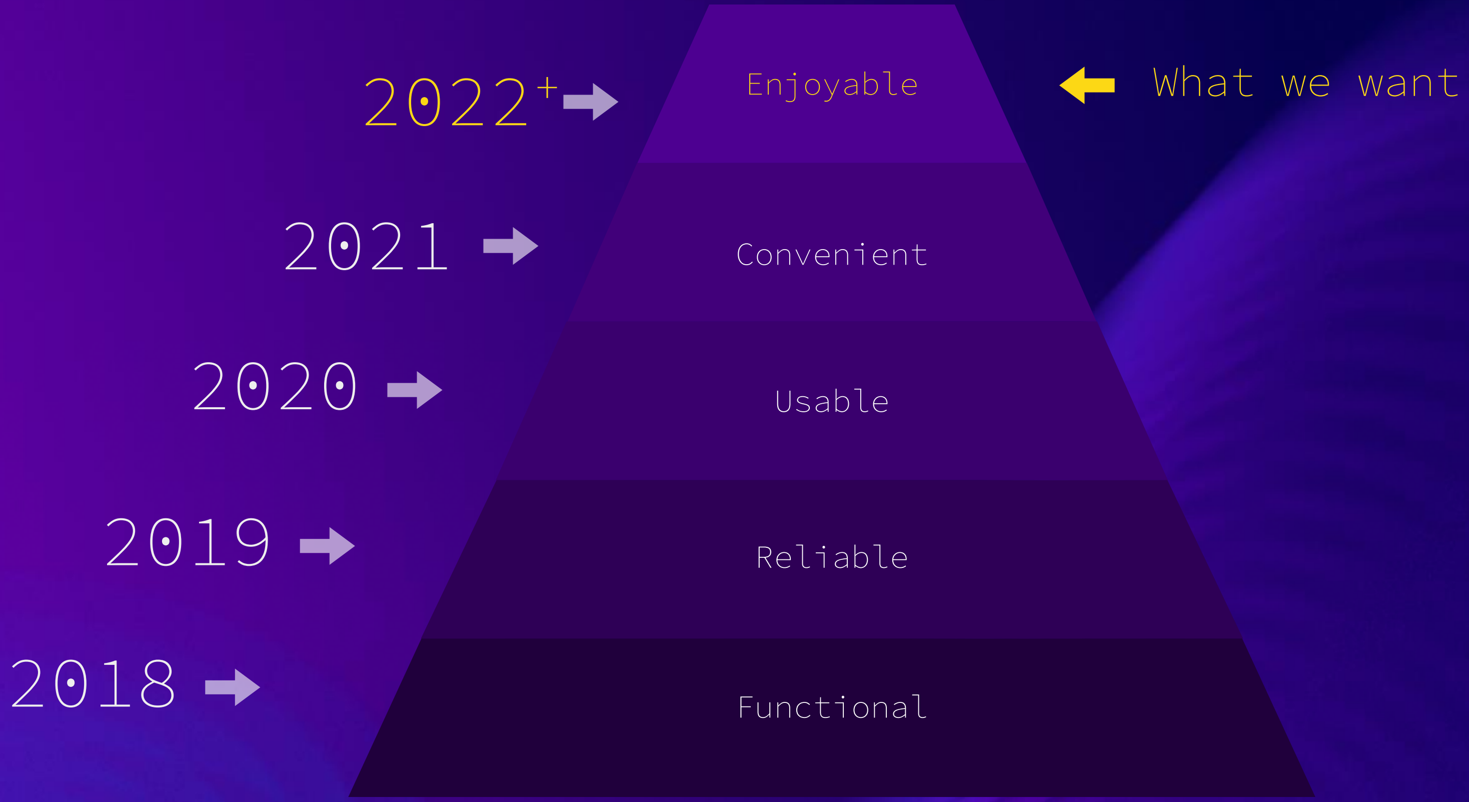
Segment is Select Segment

Feature Adoption

23% of Features → 80% of Feature Clicks

Top 23% (14 of 60 Features)

Feature	Product Area	% of Feature Clicks
Log Viewer	Logs	33.2%
Logs Filter Date	Logs	5.6%
Deploy Build	Deployments	5.3%
Download Logs	Logs	5.2%
Logs Application Filter	Logs	5.0%
Logs Term/Regex Search	Logs	4.7%



2022^+ → Enjoyable ← What we want

2021 → Convenient

2020 → Usable

2019 → Reliable

2018 → Functional

Design Hierarchy of Needs

Complexity

More often than not, scale inherently brings complexity. The other side is that simplicity requires concerted effort and purposeful investment.

Without discipline and careful oversight, it's just a matter of time until complexity rear its ugly head...

Scalability

Discipline

Investment

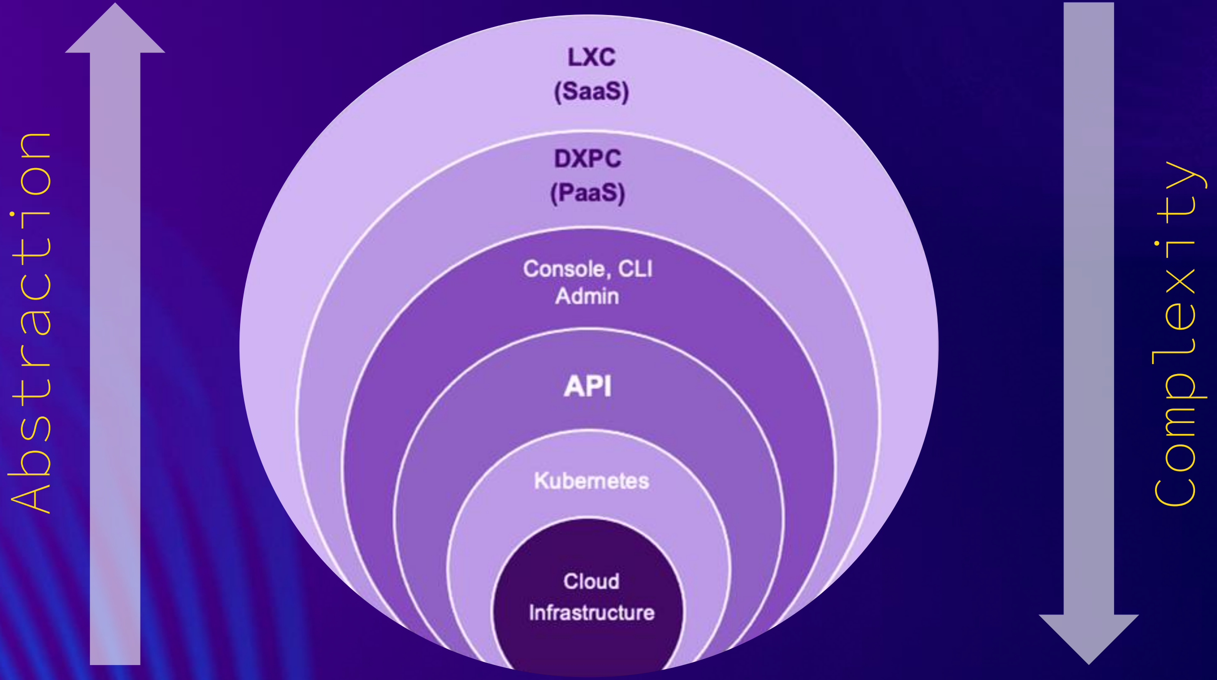
Managing Complexity

How to manage complexity?

1st

Abstraction

Raising the Abstraction Level



Abstraction
LXC
(SaaS)
DXPC
(PaaS)
Console, CLI
Admin
API
Kubernetes
Cloud
Infrastructure
Complexity

How to manage complexity?

2nd

Automate,

automate,

automate...

Using the right tool for job

argo

HELM

Atlantis
Terraform Pull Request Automation

kubernetes

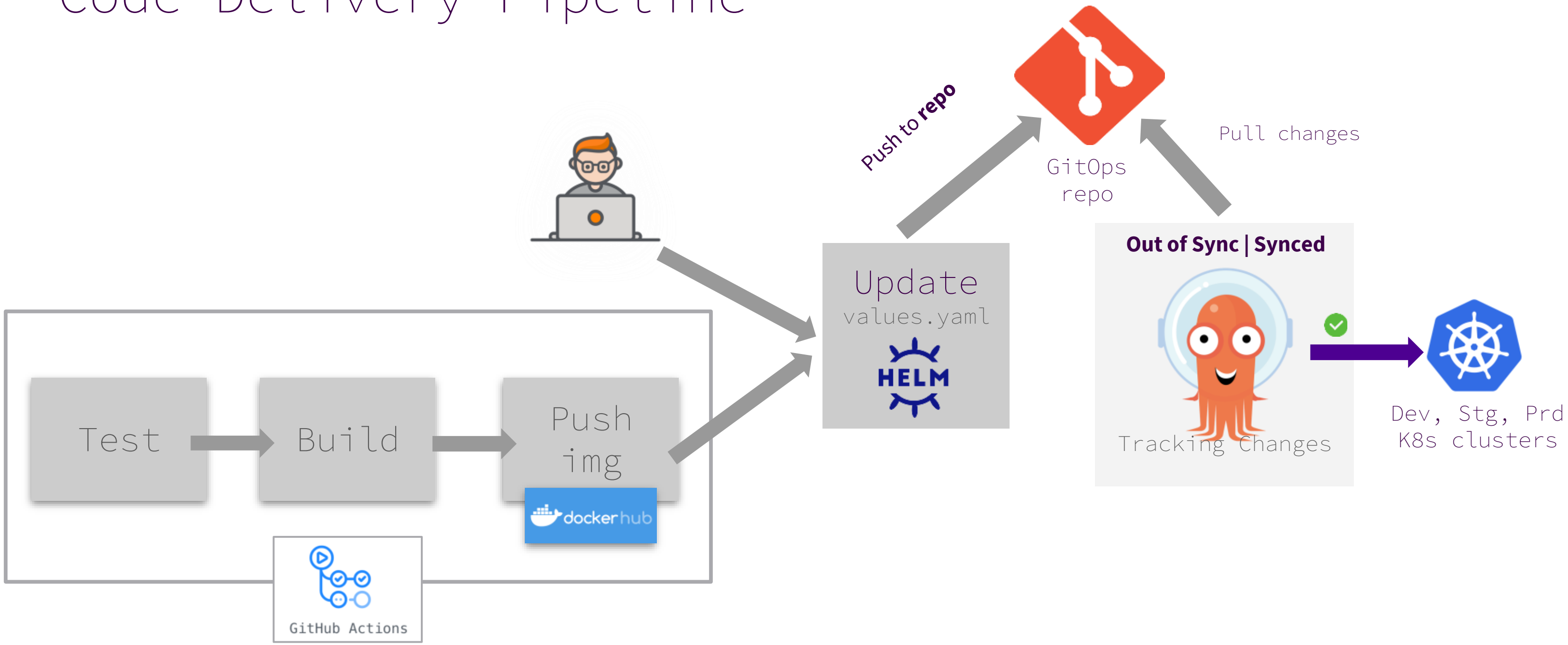
GitHub Actions

docker

Terraform

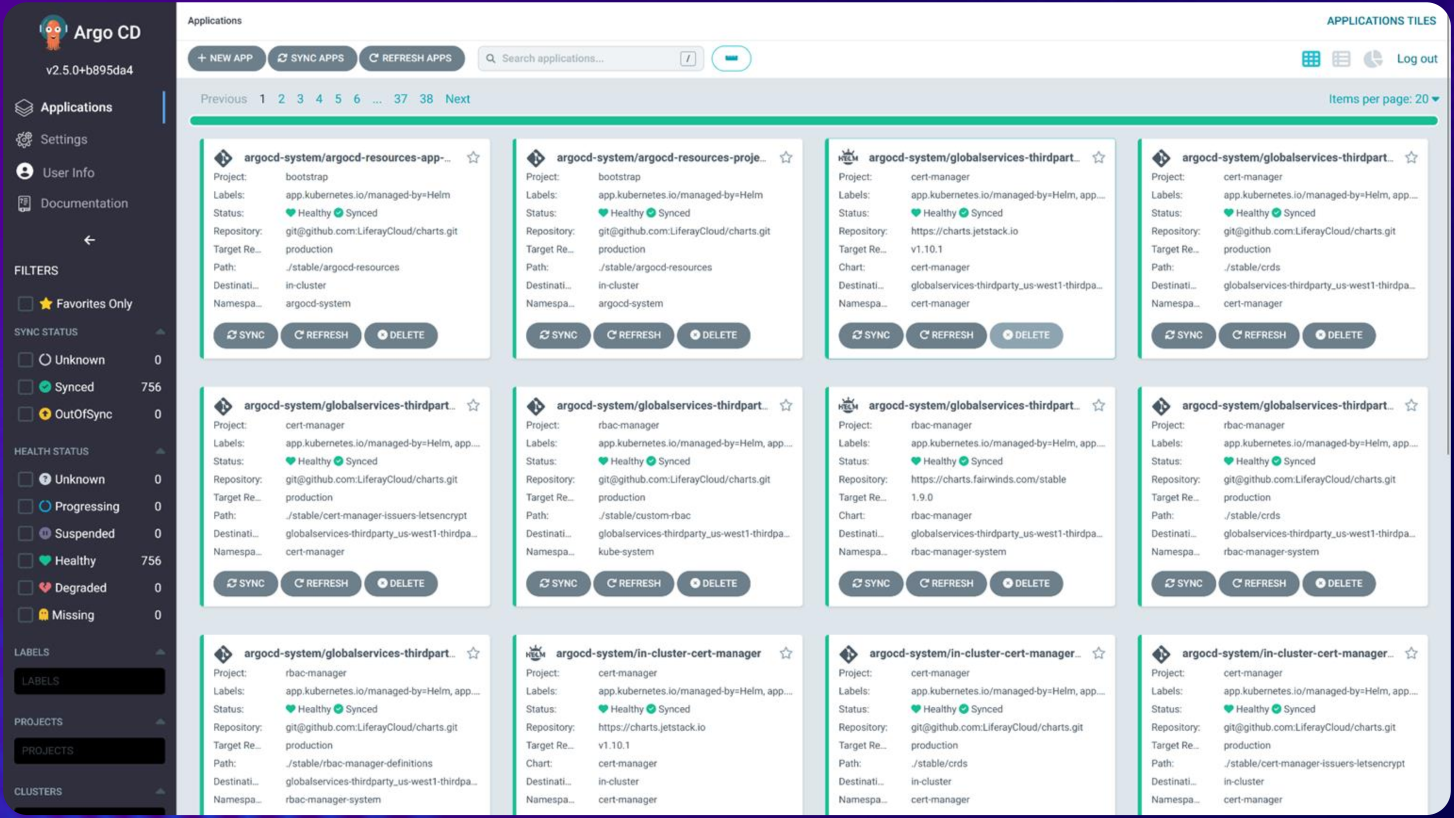
Terragrunt

Code Delivery Pipeline



Push to repo
GitOps repo
Pull changes
Update values.yaml
HELM
Out of Sync | Synced
Tracking Changes
Dev, Stg, Prd K8s clusters
Test
Build
Push img
docker hub
GitHub Actions

ArgoCD App Dashboard



Argo CD
v2.5.0+b895da4
Applications
Settings
User Info
Documentation
FILTERS
Favorites Only
SYNC STATUS
Unknown 0
Synced 756
OutOfSync 0
HEALTH STATUS
Unknown 0
Progressing 0
Suspended 0
Healthy 756
Degraded 0
Missing 0
LABELS
PROJECTS
CLUSTERS
Applications
APPLICATIONS TILES
+ NEW APP
SYNC APPS
REFRESH APPS
Search applications...
Log out
Previous 1 2 3 4 5 6 ... 37 38 Next
Items per page: 20
SYNC
REFRESH
DELETE

argocd-system/argocd-resources-app-...
Project: bootstrap
Labels: app.kubernetes.io/managed-by=Helm
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/argocd-resources
Destinati... in-cluster
Namespa... argocd-system

argocd-system/argocd-resources-proje...
Project: bootstrap
Labels: app.kubernetes.io/managed-by=Helm
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/argocd-resources
Destinati... in-cluster
Namespa... argocd-system

argocd-system/globalservices-thirdpart...
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: https://charts.jetstack.io
Target Re... v1.10.1
Chart: cert-manager
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... cert-manager

argocd-system/globalservices-thirdpart...
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/crds
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... cert-manager

argocd-system/globalservices-thirdpart...
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/cert-manager-issuers-letsencrypt
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... cert-manager

argocd-system/globalservices-thirdpart...
Project: rbac-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/custom-rbac
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... kube-system

argocd-system/globalservices-thirdpart...
Project: rbac-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: https://charts.fairwinds.com/stable
Target Re... 1.9.0
Chart: rbac-manager
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... rbac-manager-system

argocd-system/globalservices-thirdpart...
Project: rbac-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/crds
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... rbac-manager-system

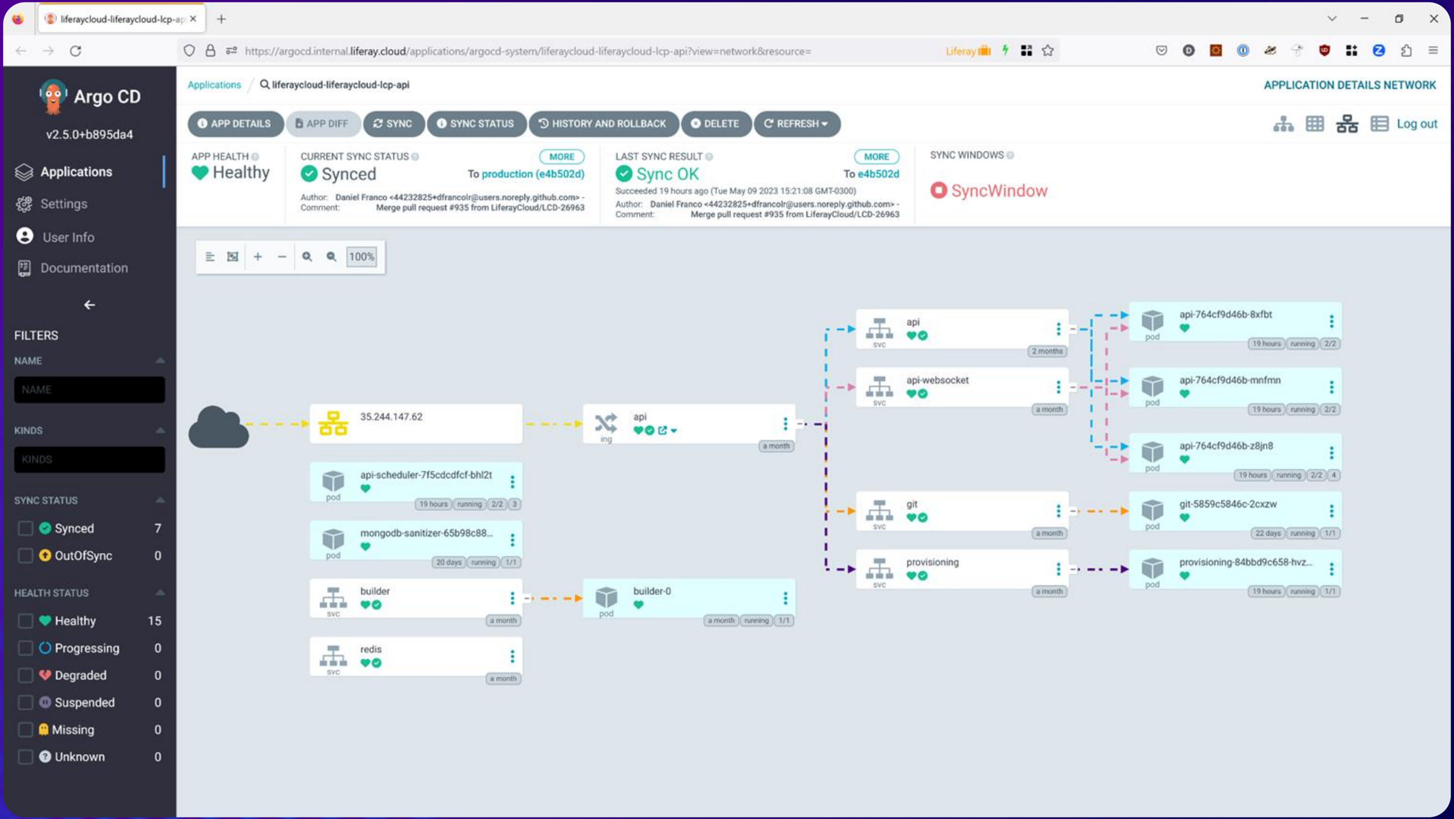
argocd-system/globalservices-thirdpart...
Project: rbac-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/rbac-manager-definitions
Destinati... globalservices-thirdparty_us-west1-thirdpa...
Namespa... rbac-manager-system

argocd-system/in-cluster-cert-manager
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: https://charts.jetstack.io
Target Re... v1.10.1
Chart: cert-manager
Destinati... in-cluster
Namespa... cert-manager

argocd-system/in-cluster-cert-manager...
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/crds
Destinati... in-cluster
Namespa... cert-manager

argocd-system/in-cluster-cert-manager...
Project: cert-manager
Labels: app.kubernetes.io/managed-by=Helm, app....
Status: Healthy Synced
Repository: git@github.com:LiferayCloud/charts.git
Target Re... production
Path: ./stable/cert-manager-issuers-letsencrypt
Destinati... in-cluster
Namespa... cert-manager

ArgoCD App Details


liferaycloud-liferaycloud-lcp-ap
https://argocd.internal.liferay.cloud/applications/argocd-system/liferaycloud-liferaycloud-lcp-api?view=network&resource=
Argo CD
v2.5.0+b895da4
Applications
Settings
User Info
Documentation
FILTERS
NAME
KINDS
SYNC STATUS
Synced 7
OutOfSync 0
HEALTH STATUS
Healthy 15
Progressing 0
Degraded 0
Suspended 0
Missing 0
Unknown 0
Applications / liferaycloud-liferaycloud-lcp-api
APPLICATION DETAILS NETWORK
APP DETAILS
APP DIFF
SYNC
SYNC STATUS
HISTORY AND ROLLBACK
DELETE
REFRESH
Log out
100%
35.244.147.62
api
ing
a month
api-scheduler-7f5cdcdfcf-bhl2t
pod
19 hours running 2/2 3
mongodb-sanitizer-65b98c88...
pod
20 days running 1/1
builder
svc
a month
builder-0
pod
a month running 1/1
redis
svc
a month
api
svc
2 months
api-websocket
svc
a month
git
svc
a month
provisioning
svc
a month
api-764cf9d46b-8xfbt
pod
19 hours running 2/2
api-764cf9d46b-mnfmn
pod
19 hours running 2/2
api-764cf9d46b-z8jn8
pod
19 hours running 2/2 4
git-5859c5846c-2cxzw
pod
22 days running 1/1
provisioning-84bbd9c658-hvz...
pod
19 hours running 1/1

APP HEALTH: Healthy

CURRENT SYNC STATUS: Synced — To production (e4b502d)

Author: Daniel Franco <44232825+dfrancolr@users.noreply.github.com> -
Comment: Merge pull request #935 from LiferayCloud/LCD-26963

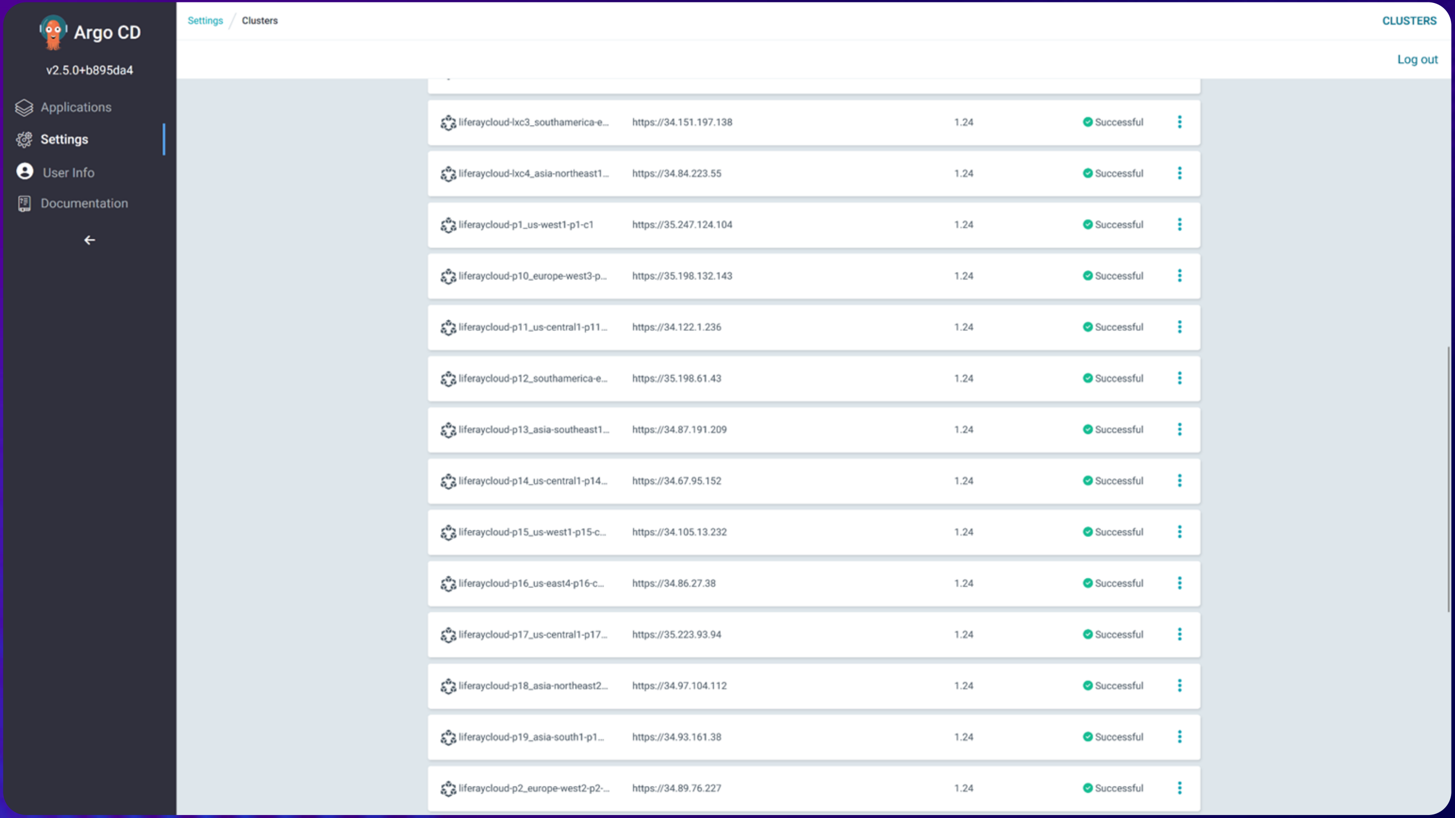
LAST SYNC RESULT: Sync OK — To e4b502d

Succeeded 19 hours ago (Tue May 09 2023 15:21:08 GMT-0300)

Author: Daniel Franco <44232825+dfrancolr@users.noreply.github.com> -
Comment: Merge pull request #935 from LiferayCloud/LCD-26963

SYNC WINDOWS: SyncWindow

ArgoCD Deployment Targets



liferaycloud-lxc3_southamerica-e...	https://34.151.197.138	1.24	Successful
liferaycloud-lxc4_asia-northeast1...	https://34.84.223.55	1.24	Successful
liferaycloud-p1_us-west1-p1-c1	https://35.247.124.104	1.24	Successful
liferaycloud-p10_europe-west3-p...	https://35.198.132.143	1.24	Successful
liferaycloud-p11_us-central1-p11...	https://34.122.1.236	1.24	Successful
liferaycloud-p12_southamerica-e...	https://35.198.61.43	1.24	Successful
liferaycloud-p13_asia-southeast1...	https://34.87.191.209	1.24	Successful
liferaycloud-p14_us-central1-p14...	https://34.67.95.152	1.24	Successful
liferaycloud-p15_us-west1-p15-c...	https://34.105.13.232	1.24	Successful
liferaycloud-p16_us-east4-p16-c...	https://34.86.27.38	1.24	Successful
liferaycloud-p17_us-central1-p17...	https://35.223.93.94	1.24	Successful
liferaycloud-p18_asia-northeast2...	https://34.97.104.112	1.24	Successful
liferaycloud-p19_asia-south1-p1...	https://34.93.161.38	1.24	Successful
liferaycloud-p2_europe-west2-p2-...	https://34.89.76.227	1.24	Successful

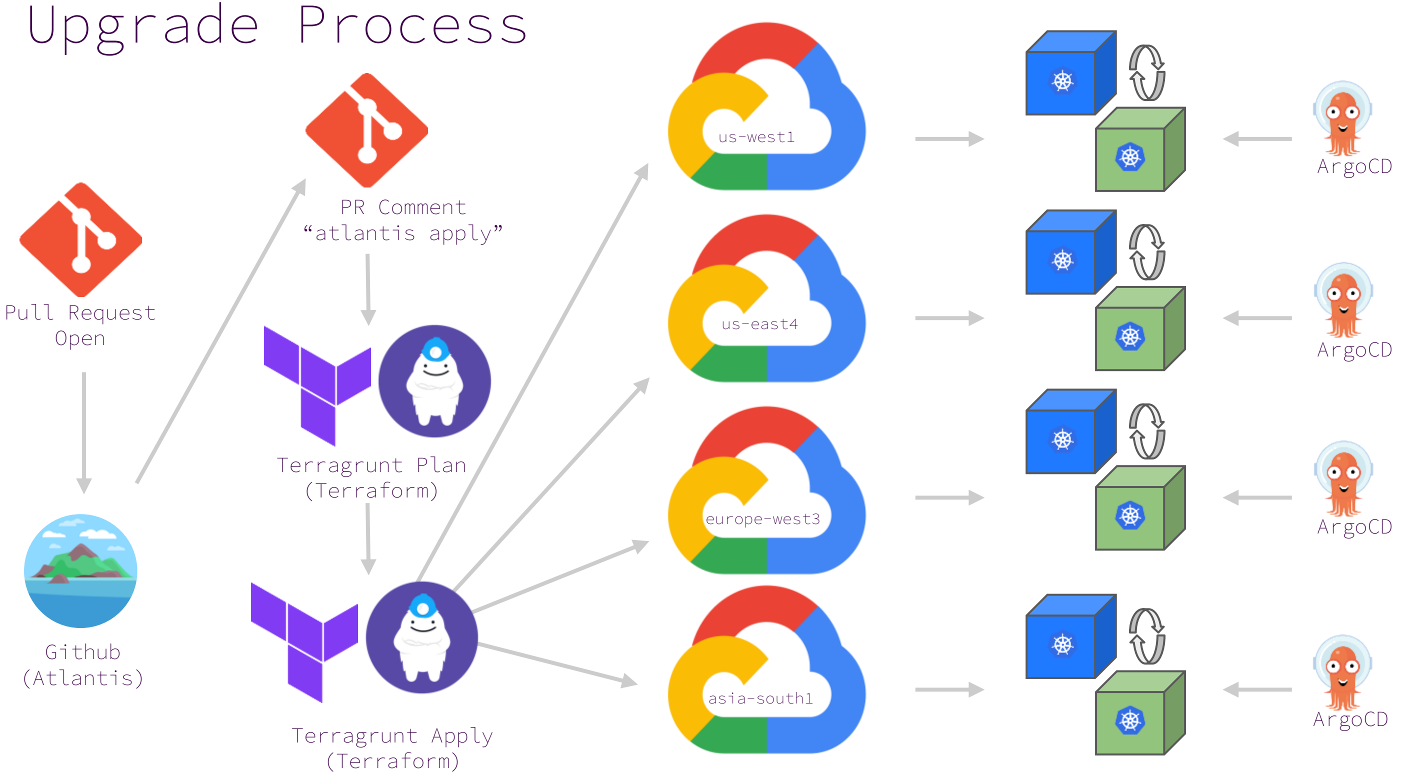
How to manage
infrastructure at scale?

“Managing 1 Kubernetes cluster is one thing. Managing 40 is a totally different thing.”

Daniel Franco

Automate, automate, automate...

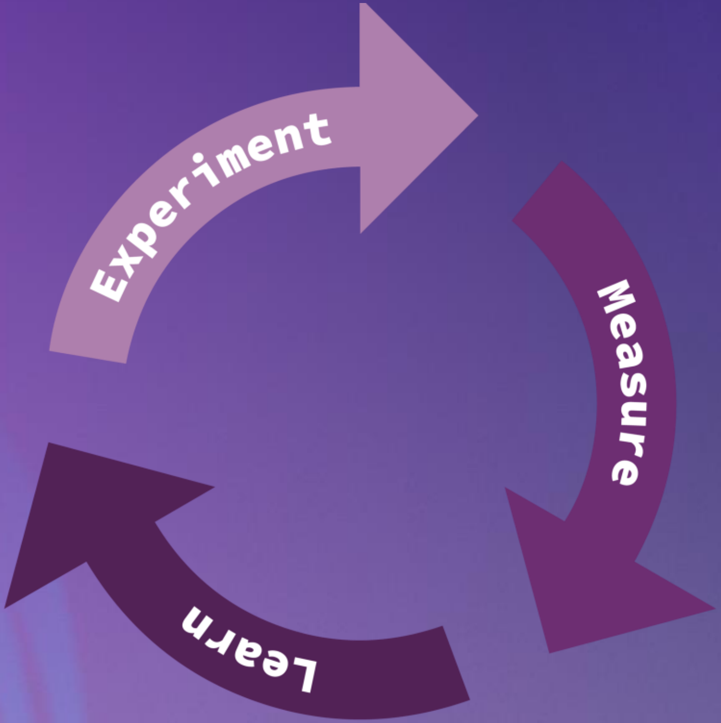
K8s Upgrade Process


Pull Request
Open
Github
(Atlantis)
PR Comment
“atlantis apply”
Terragrunt Plan
(Terraform)
Terragrunt Apply
(Terraform)
us-west1
us-east4
europe-west3
asia-south1
ArgoCD
ArgoCD
ArgoCD
ArgoCD

Liferay DEVCON

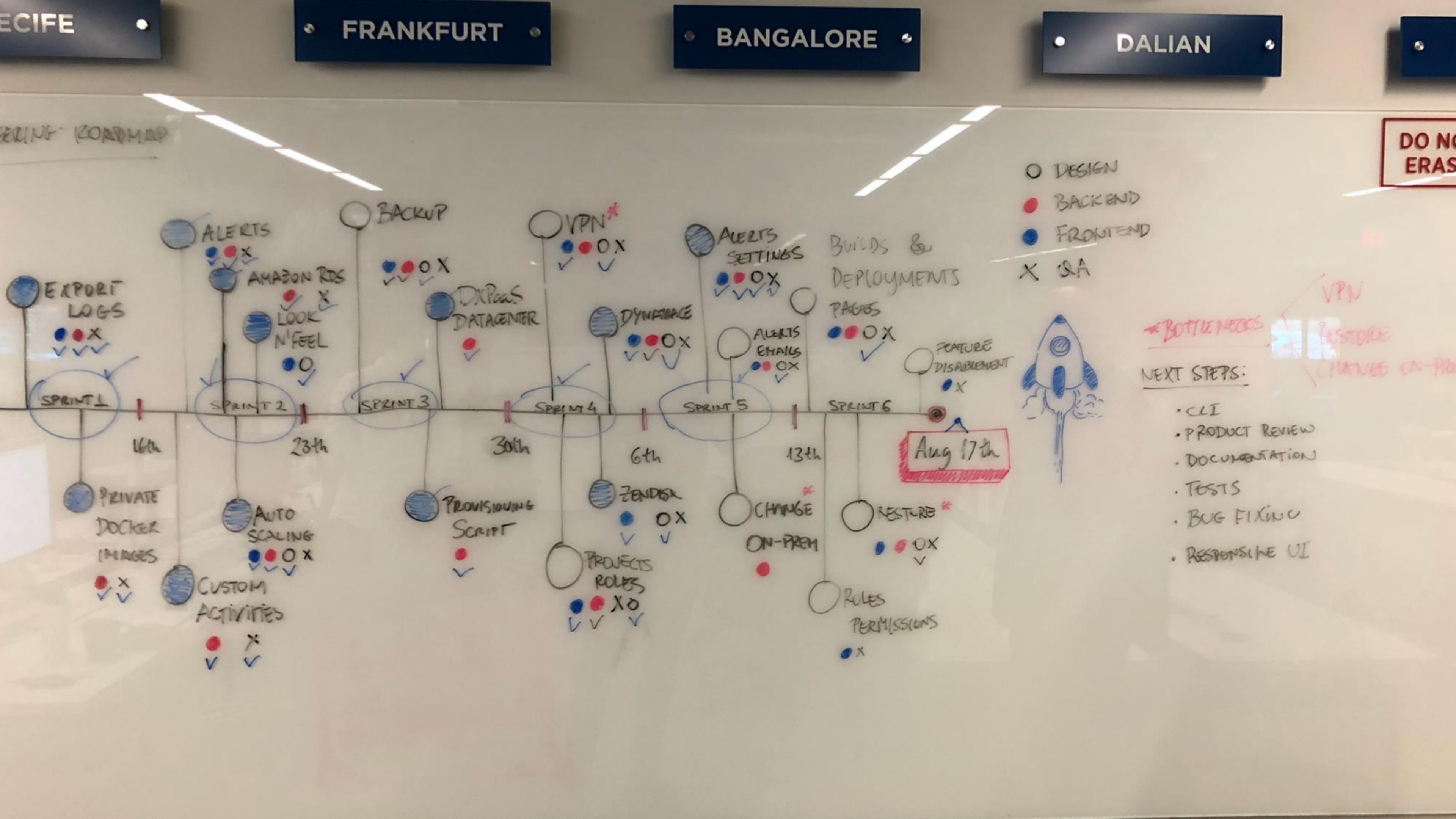
How do we find time to innovate?

Continuous
R&D

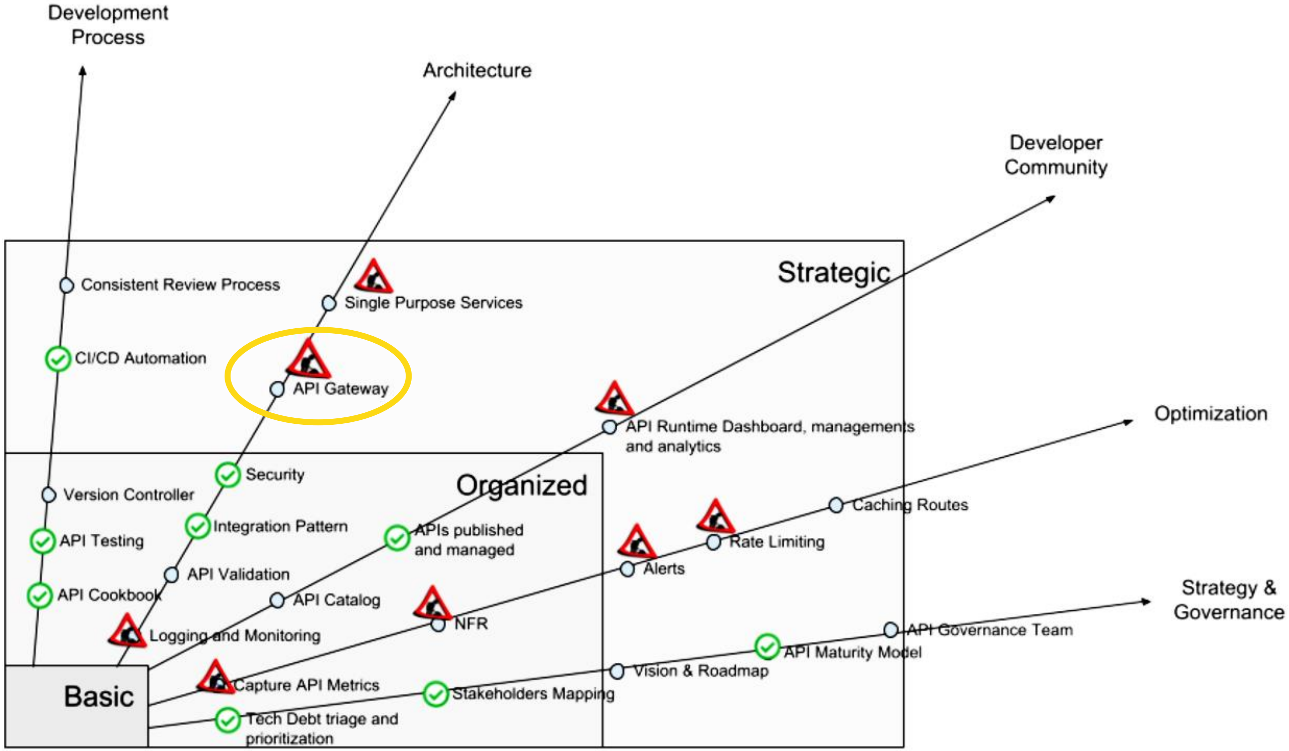

Experiment
Measure
Learn

~40M

API calls per month

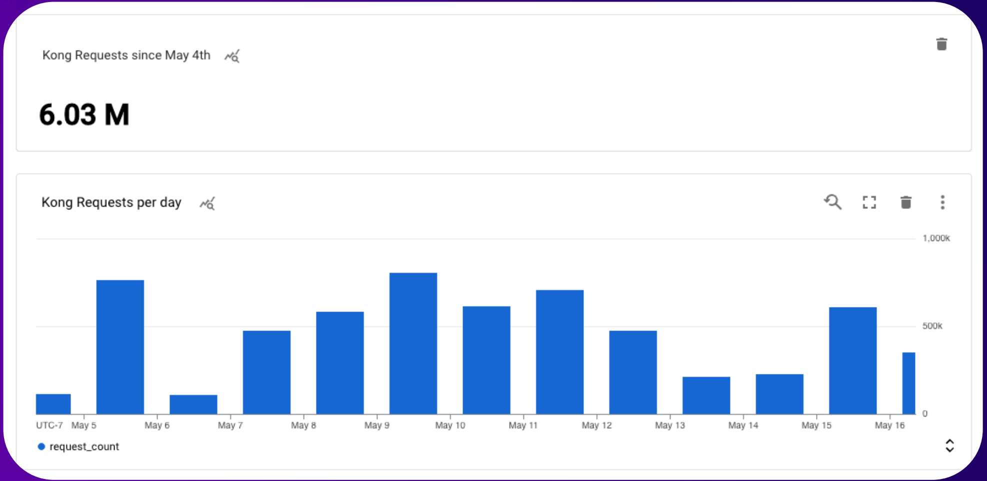

ECIFE
FRANKFURT
BANGALORE
DALIAN
ERING ROADMAP
DO NO
ERAS
DESIGN
BACKEND
FRONTEND
QA
EXPORT LOGS
ALERTS
AMAZON RDS
LOOK N'FEEL
BACKUP
DXPaaS DATACENTER
VPN*
DYNATRACE
ALERTS SETTINGS
BUILDS & DEPLOYMENTS PAGES
ALERTS EMAILS
FEATURE DISABLEMENT
SPRINT 1
SPRINT 2
SPRINT 3
SPRINT 4
SPRINT 5
SPRINT 6
16th
23th
30th
6th
13th
Aug 17th
PRIVATE DOCKER IMAGES
CUSTOM ACTIVITIES
AUTO SCALING
PROVISIONING SCRIPT
PROJECTS ROLES
ZENDESK
CHANGE ON-PREM*
ROLES PERMISSIONS
RESTORE*
*BOTTLENECKS
VPN
RESTORE
CHANGE ON-PRE
NEXT STEPS:
· CLI
· PRODUCT REVIEW
· DOCUMENTATION
· TESTS
· BUG FIXING
· RESPONSIVE UI

Taking Stock: API Maturity Model


Development Process
Architecture
Developer Community
Optimization
Strategy & Governance
Strategic
Organized
Basic
Consistent Review Process
Single Purpose Services
CI/CD Automation
API Gateway
API Runtime Dashboard, managements and analytics
Security
Version Controller
Integration Pattern
APIs published and managed
API Testing
Caching Routes
Rate Limiting
Alerts
API Validation
API Catalog
API Cookbook
NFR
Logging and Monitoring
API Governance Team
API Maturity Model
Vision & Roadmap
Capture API Metrics
Stakeholders Mapping
Tech Debt triage and prioritization

Why add an API Gateway?

01	Better Traffic Control	• Routing to multiple backend services • Canary releases • Easy request termination
02	Enhanced Security	• OpenID Connect plugin OOTB • Key authentication • Rate limiting
03	Higher Availability	• Caching • Request validation • Rate limiting
04	Observability	• Traffic metrics visible thru Graphana • Correlation ID
05	Accelerated Innovation	• Façade allowing services to be: ○ Replaced ○ Broken down ○ Reimplemented

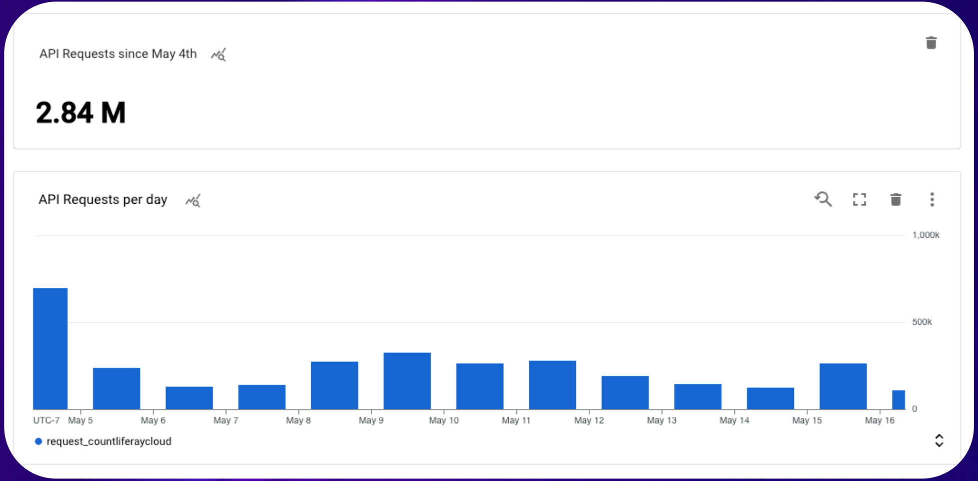


Kong Requests since May 4th

6.03 M

Kong Requests per day

1,000k
500k
0
UTC-7
May 5
May 6
May 7
May 8
May 9
May 10
May 11
May 12
May 13
May 14
May 15
May 16
● request_count

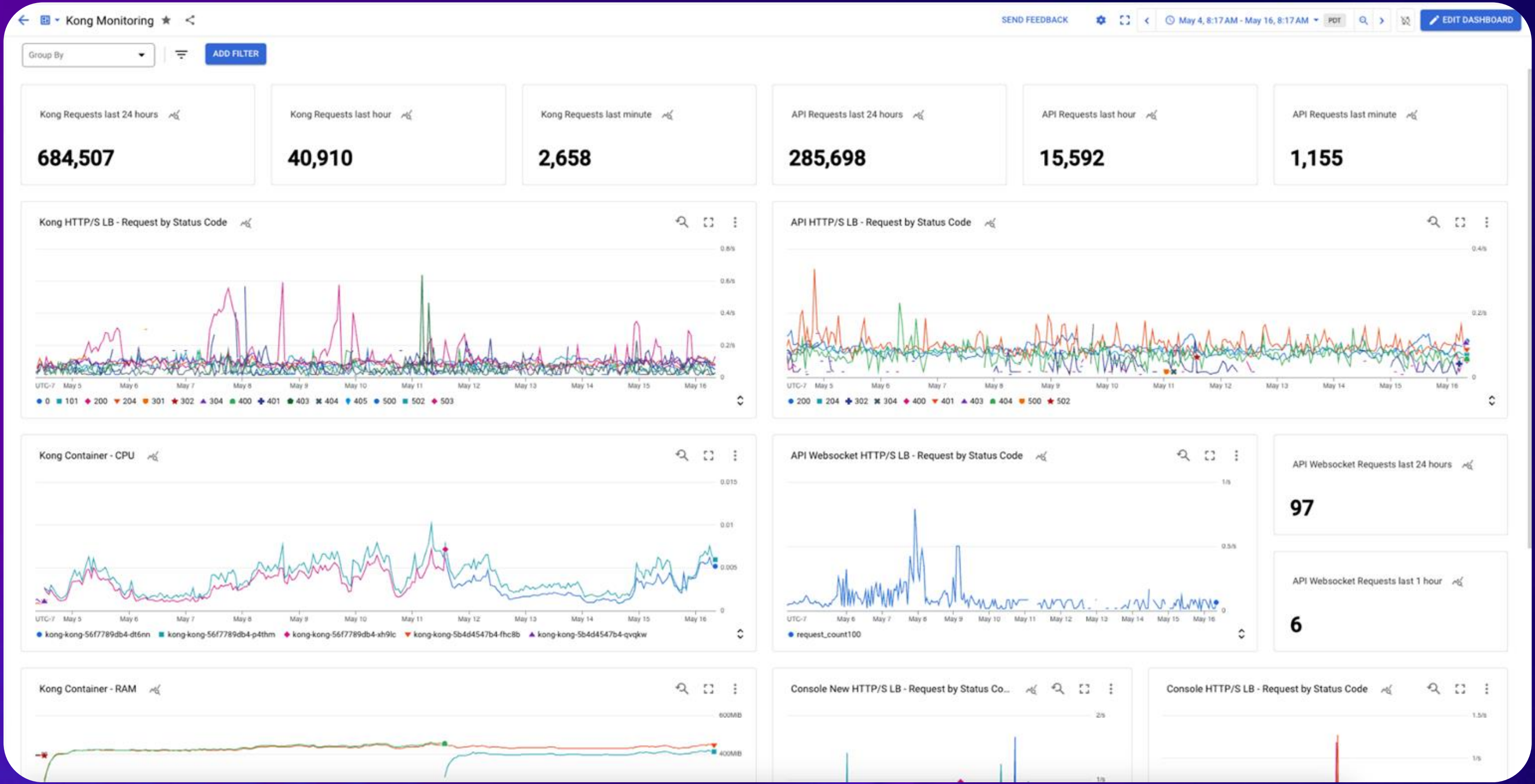


API Requests since May 4th

2.84 M

API Requests per day

1,000k
500k
0
UTC-7
May 5
May 6
May 7
May 8
May 9
May 10
May 11
May 12
May 13
May 14
May 15
May 16
● request_countliferaycloud



Kong Monitoring
Group By
ADD FILTER
SEND FEEDBACK
May 4, 8:17 AM - May 16, 8:17 AM
PDT
EDIT DASHBOARD
Kong HTTP/S LB - Request by Status Code
0.8/s
0.6/s
0.4/s
0.2/s
0
UTC-7
May 5
May 6
May 7
May 8
May 9
May 10
May 11
May 12
May 13
May 14
May 15
May 16
● 0 ■ 101 ◆ 200 ▼ 204 ■ 301 ★ 302 ▲ 304 ■ 400 ✚ 401 ■ 403 ✖ 404 ● 405 ● 500 ■ 502 ◆ 503
API HTTP/S LB - Request by Status Code
0.4/s
0.2/s
0
● 200 ■ 204 ✚ 302 ✖ 304 ◆ 400 ▼ 401 ▲ 403 ■ 404 ■ 500 ★ 502
Kong Container - CPU
0.015
0.01
0.005
0
● kong-kong-56f7789db4-dt6nn ■ kong-kong-56f7789db4-p4thm ◆ kong-kong-56f7789db4-xh9lc ▼ kong-kong-5b4d4547b4-fhc8b ▲ kong-kong-5b4d4547b4-qvqkw
API Websocket HTTP/S LB - Request by Status Code
1/s
0.5/s
0
● request_count100
Kong Container - RAM
600MiB
400MiB
Console New HTTP/S LB - Request by Status Co...
2/s
1/s
Console HTTP/S LB - Request by Status Code
1.5/s
1/s

Kong Requests last 24 hours: 684,507

Kong Requests last hour: 40,910

Kong Requests last minute: 2,658

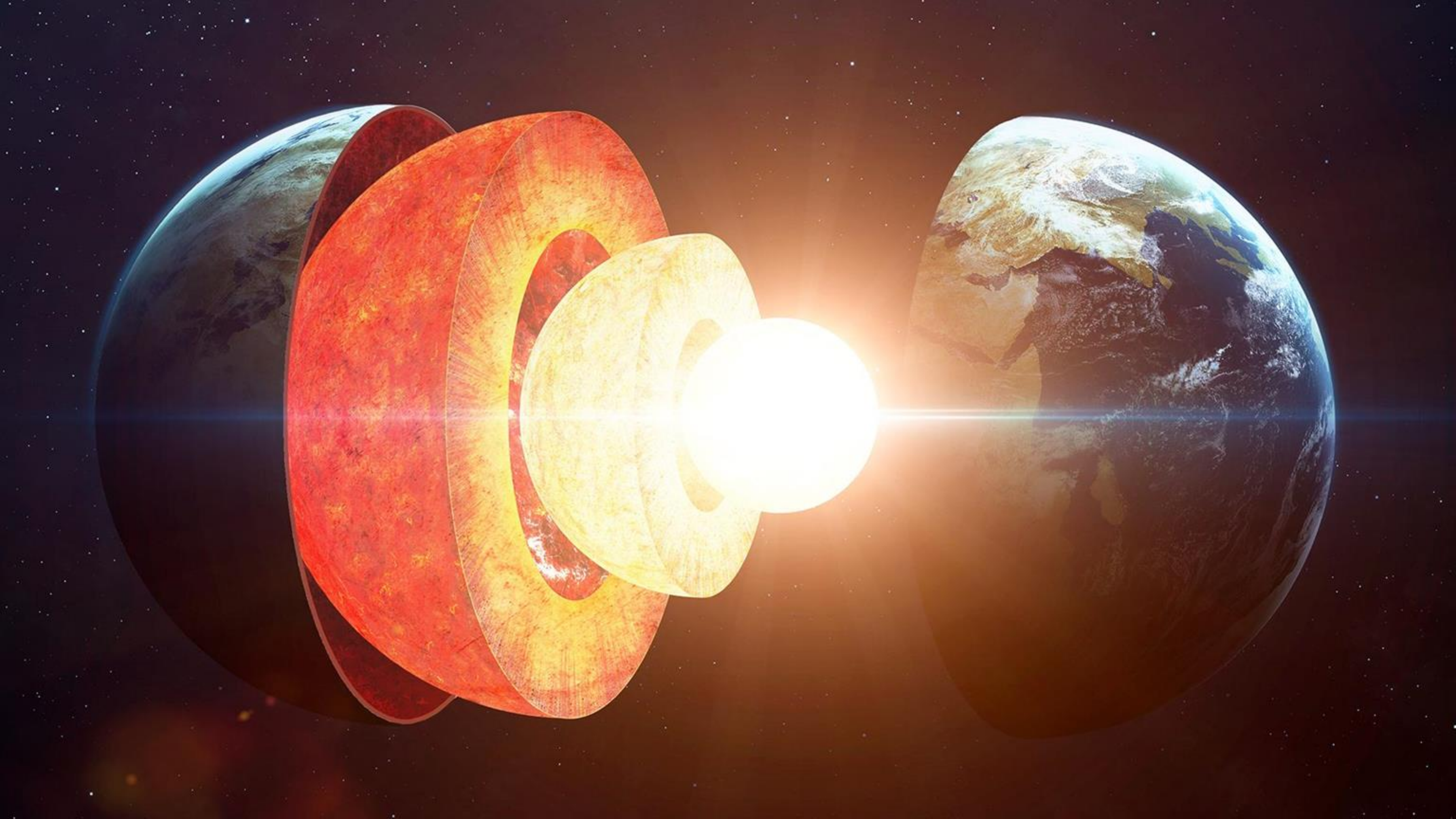
API Requests last 24 hours: 285,698

API Requests last hour: 15,592

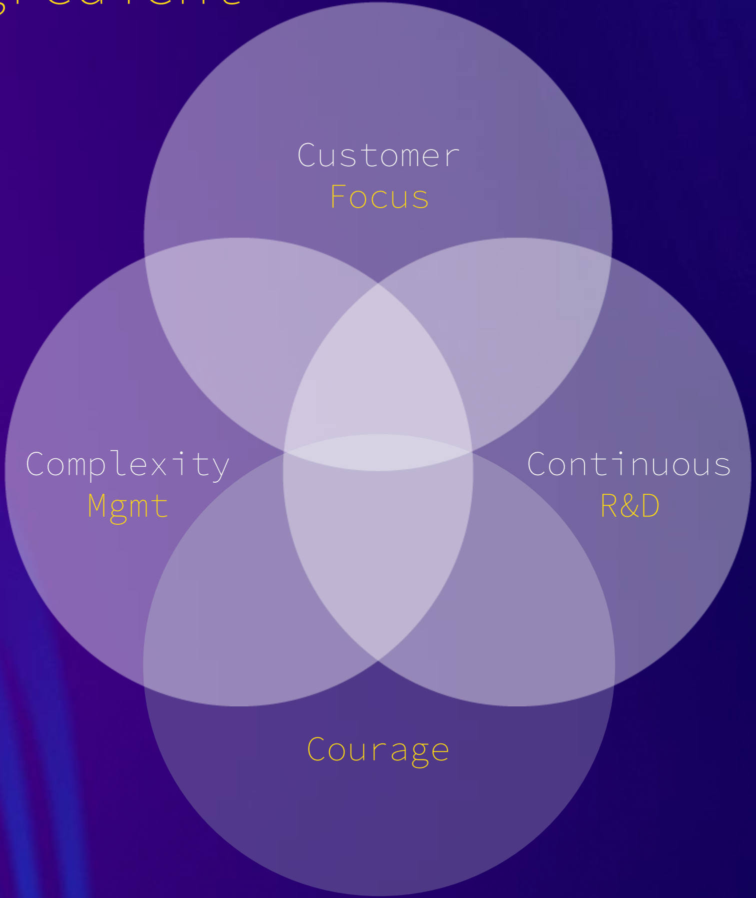
API Requests last minute: 1,155

API Websocket Requests last 24 hours: 97

API Websocket Requests last 1 hour: 6



The Missing Ingredient



Customer
Focus

Complexity
Mgmt

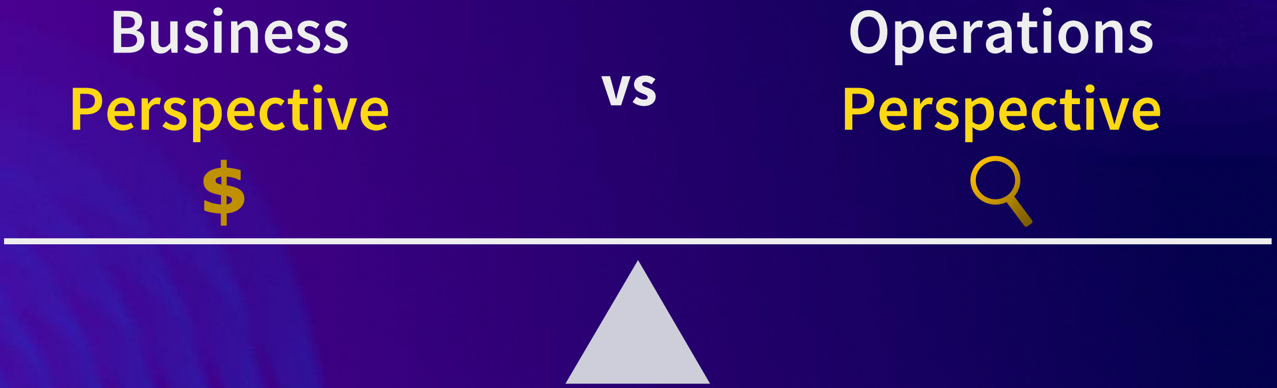
Continuous
R&D

Courage

> “
>
> People who bring transformative change have courage, know how to re-frame the problem, and have a sense of urgency.
>
> Malcolm Gladwell

Compliance
->DevSecOps

Cloud Evolution



Business
Perspective
$

vs

Operations
Perspective
🔍

We designed Liferay Experience Cloud to take the most of the Ops burden from you so you can focus on delivering value for your own business

24/7

Change in “attitude”

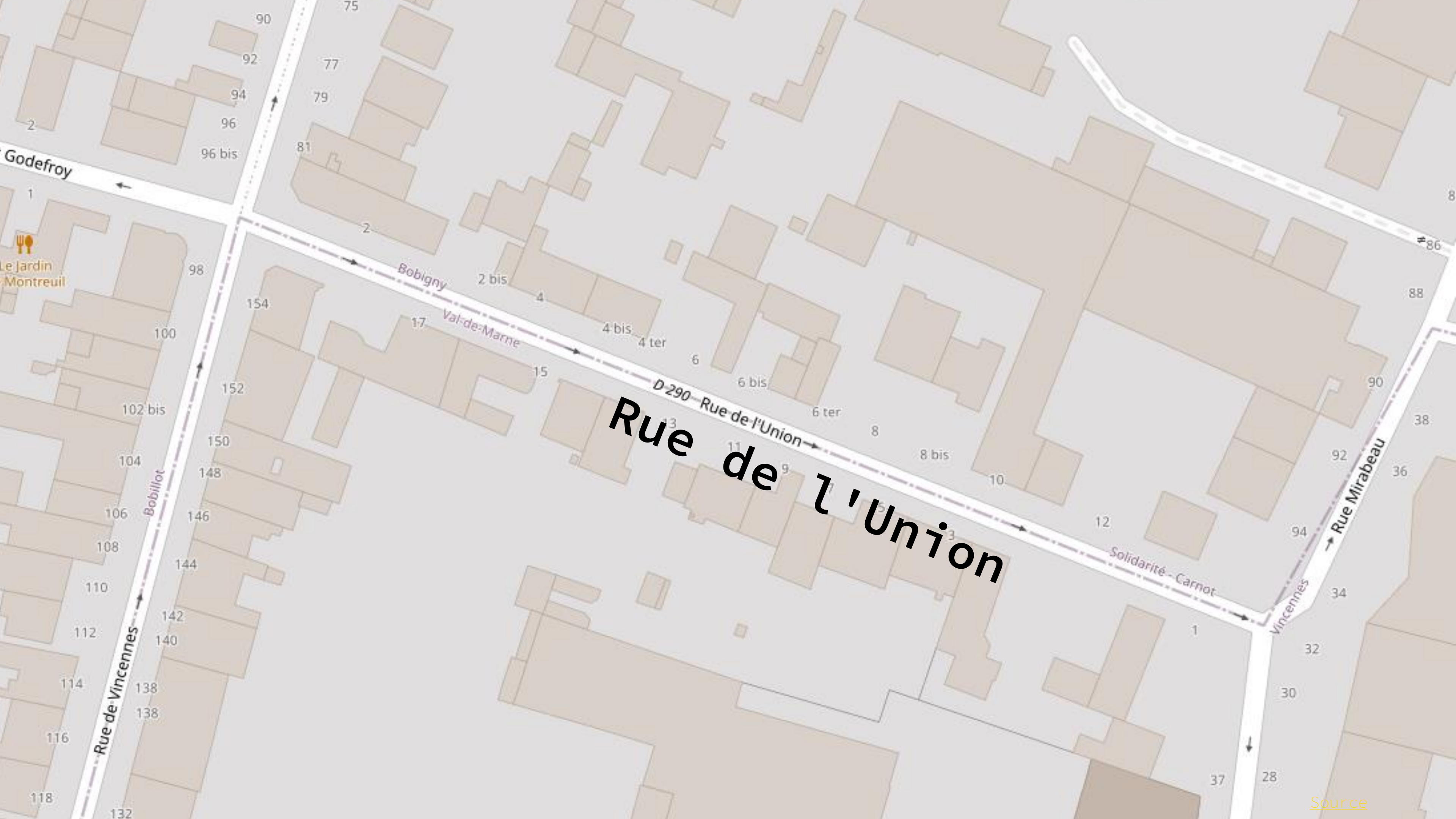
> “
>
> The EU law basically requires privacy, and the US law requires surveillance, [..] and who gets crushed in between these data systems is the companies that do these data transfers.
>
> Max Schrems

Liferay's take

24/7

(D)DoS + WAF protection

- 3 layers DOS protection:
  - GCP Ingress Layer 4
  - Google Cloud Armor, AI
  - Nginx mod_sec
- WAF:
  - OWASP Top 10
  - Filters valid requests
  - Goal to improve DXP to avoid custom config
  - Not always possible
  - Already fixed template editor issues



Rue de l'Union

Godefroy
Bobigny
Val-de-Marne
D 290 Rue de l'Union
Solidarité - Carnot
Rue de Vincennes
Bobillot
Rue Mirabeau
Vincennes
Le Jardin
Montreuil

Source

Self-aware containers

- Containers are aware of their status
- Startup locking to avoid clustering split-brain + upgrade issues
- Thread dumps on failures
- Available in the official Docker containers!

How do you select the best Cloud vendor for DXP?

We ended up using our own PaaS

- Scalable infrastructure
- OOTB configured DXP, Search, web server, database
- Access management
- Self-healing, monitoring
- Backups, restores
- Multiple environments
- CI/CD
- LXC SM is the best platform to run your DXP
- We could use our own PaaS infrastructure OOTB to run SaaS!

We ended up using our own PaaS

- Scala
- OOTB
- Acces
- Self
- Back
- Mult
- CI/C
- LXC
- We c
  SaaS

…and more checkboxes checked

AICPA Service Organization Control Reports℠
AICPA
SOC 2
Formerly SAS 70 Reports

Information Security Management
ISO
27001
Certified

HIPAA

CSA
cloud
security
alliance®

“

The hardest thing about Liferay is…

…upgrades!

ME
(And, probably everyone else)

Fast & reliable upgrade

- We upgrade LXC instance copies every day, running test after
- Automation of Upgrade is possible
- Test in lower environments
- Restart production, let Liferay startup manage the upgrade
- Startup lock enables this

15
20
25
30
35
Master

Announcement Alert

Announcement:

Security Bug Bounty Program

Private program,
invitation only

Up to $2000/security bug*

YOU are invited!

Sign up today:
security@liferay.com

* Rules are available on the bug bounty platform

Security is hard and boring...

...but we like to think we're cool

SECURITY
40
SECURITY

We're better together.

We're better together.