CASE STUDY

Capillary Technologies <> Facets.cloud

How Capillary Technologies enabled Developer self-service and adopted Platform Engineering with Facets

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2023

OVERVIEW

Capillary Technologies is a global leader in loyalty and customer engagement solutions with a presence across the United States, India, the Middle East, and Southeast Asia. The company has a massive reach of ~875M consumers and processes 1.95B+ transactions, annually.

Background

As Capillary grew from 350 to 800 staff members, it started experiencing DevOps complexities. The Ops team not only had to cater to business-critical projects but also was responsible for developers' changing needs. This created slower response times and a burnt-out Ops team.

Capillary realized that they needed to reimagine a solution – that would empower developers to take ownership of their code and infrastructure while allowing the Ops team to focus on developer enablement.

Read on to see how Facets' self-service infrastructure management helped Capillary adopt platform engineering and speed up developer productivity.

CHALLENGES

As Capillary grew, the constant need for agility and fast iterations put a strain on its lean operations team. Each product group wanted to introduce new services, experiment with various frameworks, or change existing setups.

The Ops team had to manage migrations and upgrades, address cost, security, and compliance issues, and deal with service degradations while being responsible for meeting the developers' changing needs.

1 Ops Burnout and higher response times

Growing dependency on the Ops team led to burnout. The Ops team introduced several processes, such as a ticketing system, which created delays and blockers for developers, creating productivity issues, and management overheads, and led to slower releases.

> The ratio of the number of developers to Ops was starting to get skewed. That meant the number of Ops tickets going in from the Devs to the Ops team was growing and our response times were beginning to slow down.

- Piyush K,
CTO, Capillary

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2 Automation needed constant refresh

The automation couldn't keep up with the changing demands. Triggering the majority of the automation required specialized skills and supervision which meant Dev teams couldn't use them. This led to tribal knowledge, resulting in predictability and reliability problems creeping into the infrastructure.

> In six months, whatever we went ahead and automated, we basically carried newer debt, so there was more to be automated.

3 Multi-geography expansion

As Capillary expanded into new regions and went up-market, additional production environments were needed. Each additional launch consumed significant Dev and Ops bandwidth during the initial setup as well as added slowness to the pace of change.

> We didn't want stability to start to take a hit, because we now needed to release across multiple environments. Something more than linear scaling was needed to manage all of this.

WHY FACETS

Capillary's teams had gone the open-source route to avoid vendor lock-ins. But whether they went open source or proprietary, they realized the complexity of the cloud-native landscape meant a lot of stitching automation toolchains together.

Capillary needed:

- Something that would make the overall infrastructure and deployment architecture more uniform, more visible, and 100% automated, from build to deployment.
- A tool to manage the environments, infrastructure, and releases.
- To enable developer self-service to reduce dependence on the Ops team. This includes the ability to create a single source of truth.

In late 2020, Capillary began partnering with Facets to co-build a solution that helped them adopt Platform engineering principles, and enable developer self-service.

Capillary chose Facets because it automated the cataloging of applications, databases, caches, queues, and storage across the infrastructure, as well as the interdependencies among them.

HOW FACETS HELPED CAPILLARY

> Once you have a single blueprint, then whatever it is you do in terms of launching your infrastructure, running applications, monitoring, and managing - everything becomes a downstream activity from there.

Creating Infrastructure Blueprint

Cataloging resources helped create a deployment blueprint and visualize what lay where in their infrastructure.

This Blueprint served as a base for all DevOps activities like environment launches, release management, and monitoring applications.

Standardization

Previously, the Ops team relied on automation to streamline their work, but that didn't enable Developer self-service. With Facets, standardized higher-order workflows were implemented that were comprehensible to all teams.

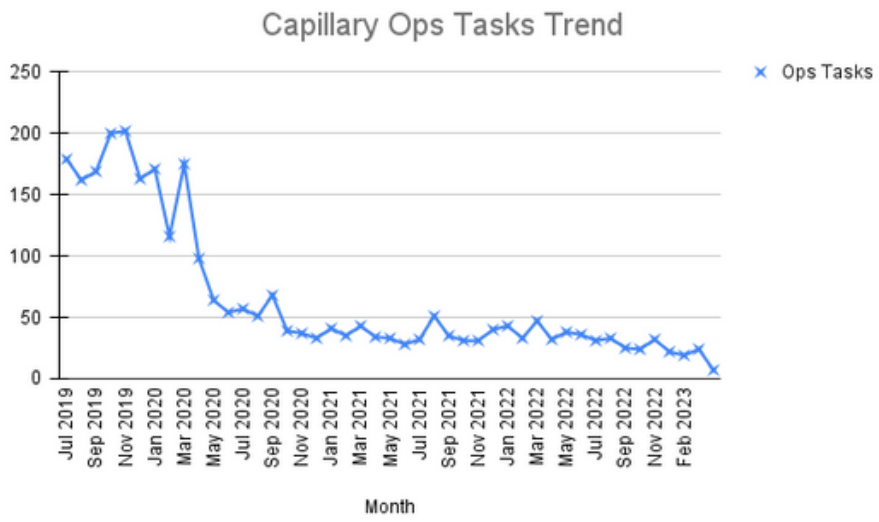
> Facets has brought in standardization across all aspects– how you build, deploy, monitor, and how you access and interpret metrics – all of these are defined in a consistent way.

Enabling Developer self-service

The Dev teams' standardized workflows, combined with the Ops teams' guardrails, enabled both teams to work autonomously. Facets created an abstraction layer so that developers could introduce new modules without delving into finer details.

As the Ops team's bandwidth increased, they now focus on enhancing developer experiences and expanding Facets' capabilities.

> Once you have a single blueprint, then whatever it is you do in terms of launching your infrastructure, in terms of running your applications, in terms of monitoring and managing, everything becomes a downstream activity from there," Kumar said.



Ops tickets decreased by 95%

Single source of truth and 100% automation

Facets is designed to centralize all information required to launch a new environment. This means that launching a new environment with existing workflows can now be accomplished with a single click.

In addition, Facets automates infrastructure upgrades such as Kubernetes upgrades, resulting in significant time savings across all environments, potentially saving hundreds of person-hours.

> A recent US region we launched took just under 2 weeks with 8 man-weeks of effort for the tech team to sign off – It used to be 64 man-weeks of effort before Facets.

Improved visibility and a cost-conscious culture

Facets' centralized developer experience, combined with complete auditability, guarantees increased visibility into resource and cloud costs.

This enables Dev teams to proactively plan cost optimization within their sprints and reduces delayed responses and leaked costs.

> The new capabilities have sparked more proactive monitoring, CloudOps, and FinOps, where there are signals that I get on the cost spikes much sooner.

KEY RESULTS

20%

Increase in Developer Productivity

Saving 30-40 hours of coordination efforts per scrum team per sprint

95%

Reduction in Ops tickets

Unattended releases of 40 major and 100s of minor releases per month

Single-click Environment Launch

Managing in multiple geographical and private deployments: US, China, Asia, Middle East

99.99%

Uptime

Improved stability and ability to respond faster

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WHAT'S NEXT?

Facets is not just a tool, it is also a framework that can adapt to new requirements, making it a valuable asset as Capillary prepares for future expansion in the US and Europe. Capillary is confident that they are well-prepared for the necessary tech infrastructure changes that will be required for such expansion.

In addition to this, new acquisitions with completely different tech stacks will also be able to easily adopt Facets.

Inspired by Capillary Technologies' success story?

Get in touch with us to start your journey toward platform engineering and developer self-service

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