

Governance to Guidance

Bob(A) Whalen

Bob(B) Stockstead





TARGET

tech.target.com

dojo.target.com

350,000+ team members

1,800+ stores

39 distribution centers

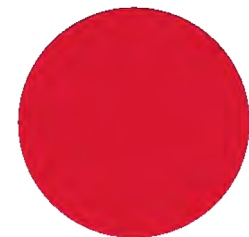
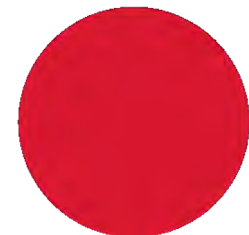
6 HQ locations

5% Target profit goes to communities

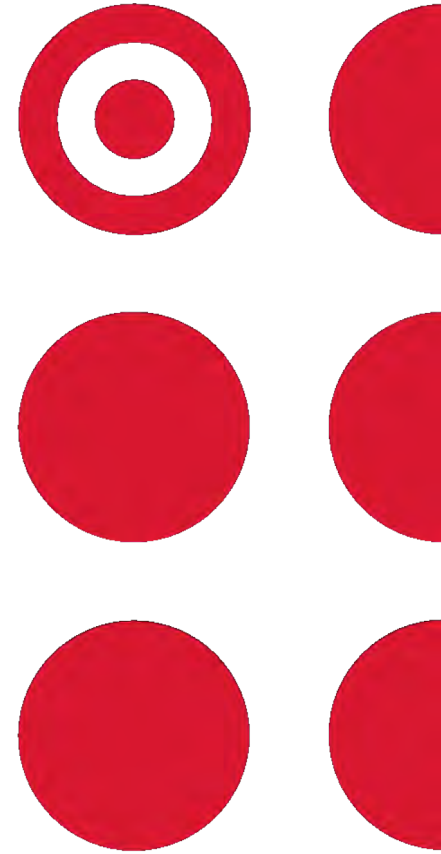
57 years of service

300+ product teams

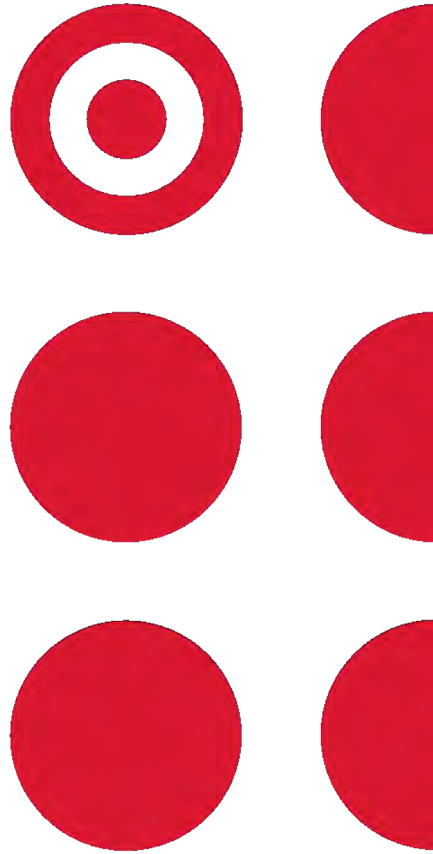
4500+ people in technology



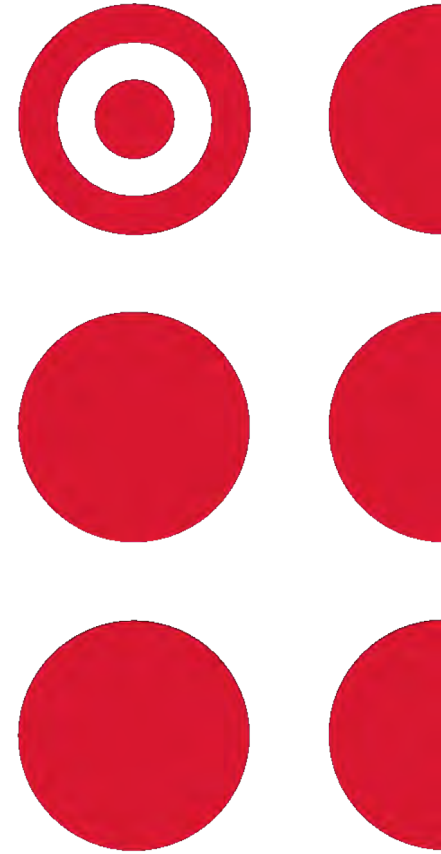
**Target has
“Unique”
challenges**



**industry standard
approaches
creating industry
standard problems**



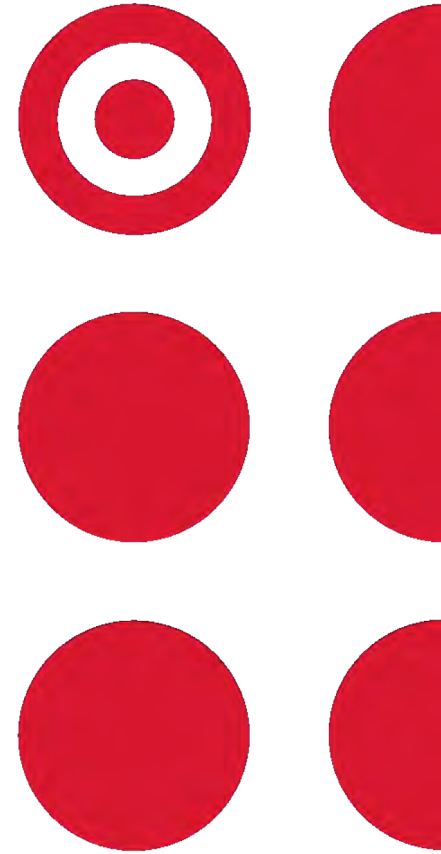
**the new CIO starts
off with some
simple asks...**



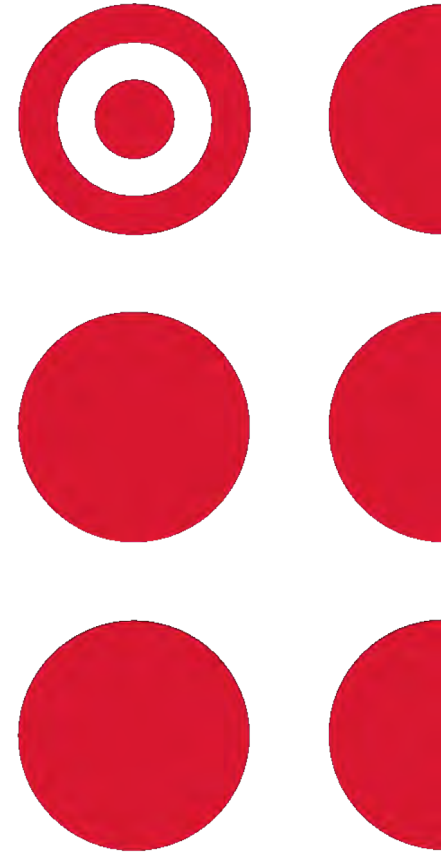
Willy Wonka: "Remember Charlie, don't forget the tale of the engineers who got everything they wanted."

Charlie: "What happened?"

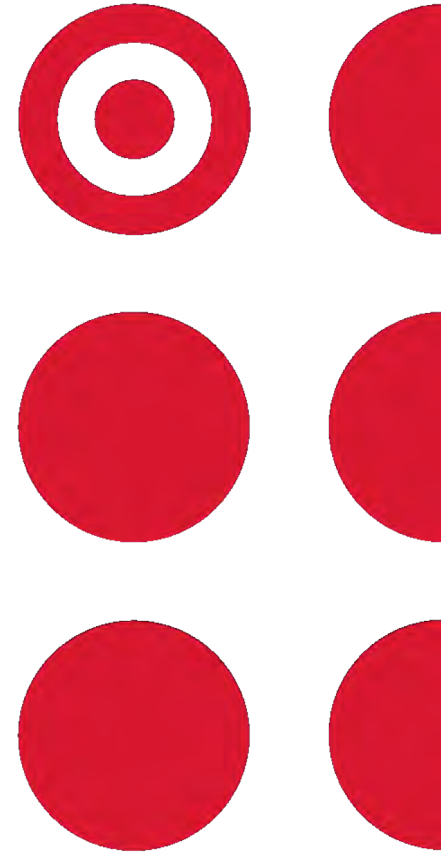
Willy Wonka: "They had to transform the entire IT department in 6 months."



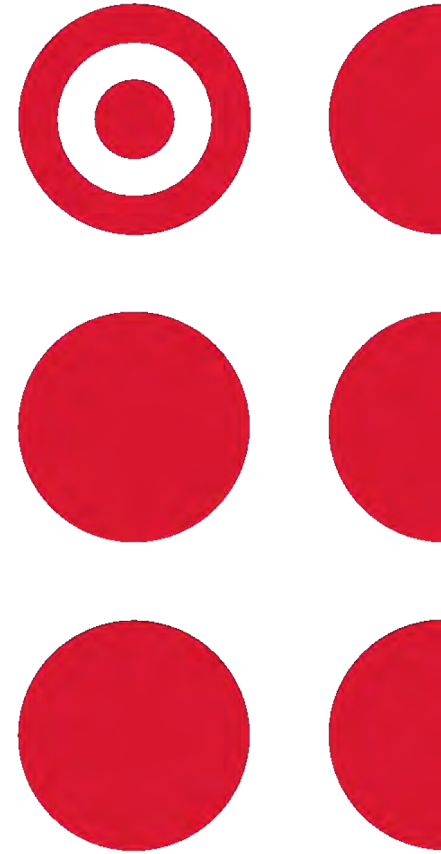
**how do we govern this
new world?**



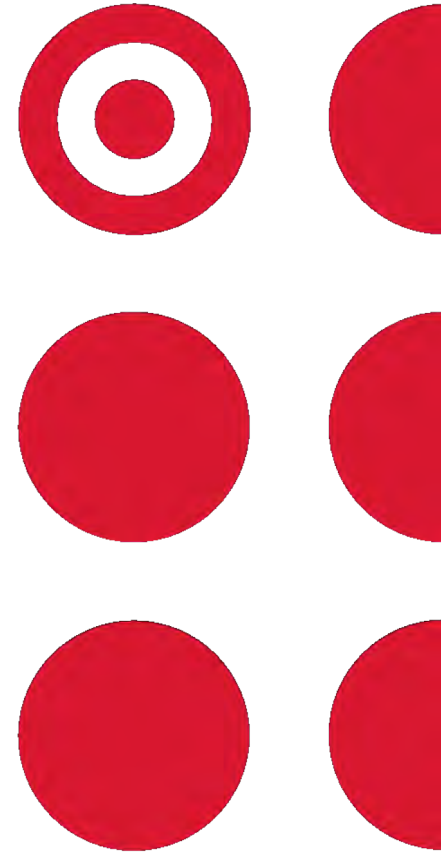
**governance to
guidance**

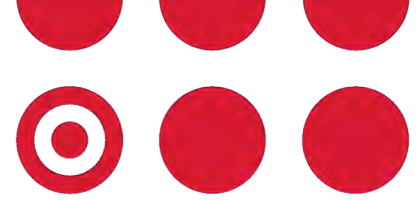


**“can you sign off on my
empowerment?”**



**so how do you guide
empowered teams?**





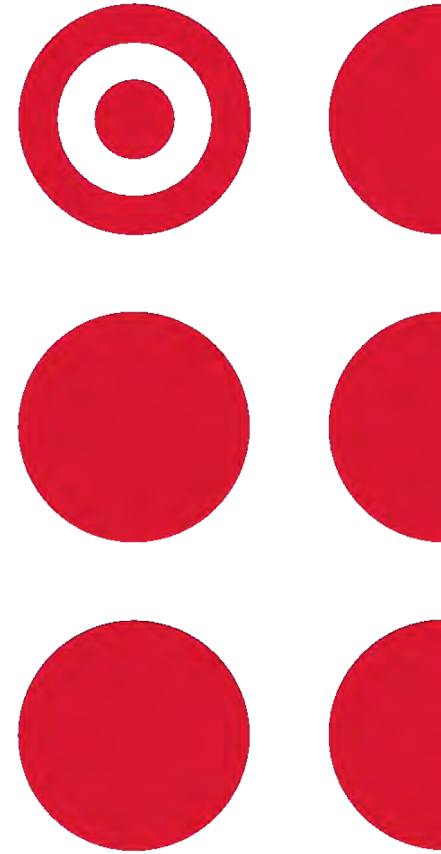
accessible - everyone can contribute

transparent - everyone should be able to see

flexible - easy to change

cultural - community driven

recommended_technologies

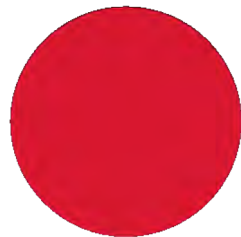
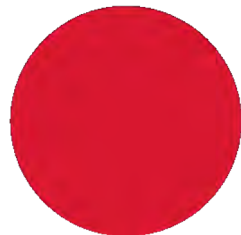




MarcusManley Merge pull request #383 from BobbyStockstead/master ...

Latest commit b89126d 2 days ago

.drone.yml	Automate the technologies index file (index_alpha.md)	6 days ago
.gitignore	read me links	2 years ago
CONTRIBUTING.md	Additional instructions for changes	a year ago
PULL_REQUEST_TEMPLATE.md	Revised per comments.	a year ago
README.md	Update badge to drone6	6 months ago
api_gateway.md	Updated api gateway page	15 days ago
application_frameworks.md	Update application_frameworks.md	16 days ago
caching.md	added caffeine	7 days ago
category-prototype.md	updating spelling errors, adding compliance status category	10 months ago
ci_cd.md	#358 - correct copy/paste error	14 days ago
cloud_and_compute.md	Clarified that it applies to Java 11 and above	4 days ago
collaboration.md		8 months ago
containers.md	Readded Image Versioning & removed supervisor link	a year ago
couscous.yml	Update couscous.yml	7 months ago
datastores.md	Merge branch 'master' into bigdata	2 days ago
developer_tools.md	Update developer_tools.md	7 days ago



tts / recommended_technologies

Unwatch 324 Star 176 Fork 154

<> Code Issues 18 Pull requests 1 Projects 0 Wiki Insights Settings

Branch: master recommended_technologies / datastores.md Find file Copy path

MarcusManley Merge branch 'master' into bigdata c48309b 2 days ago

10 contributors

127 Lines (92 sloc) 11.7 KB Raw Blame History

Datastores

Introduction

The purpose of this document is outline the main use cases for datastores at Target and recommend appropriate technologies for each use case. See the [related issues](#).

Motivation

The goal of data stores or databases is to provide a solution for persisting data that survives system restarts, application upgrades, and manages access to the data (i.e. a filesystem isn't a data store).

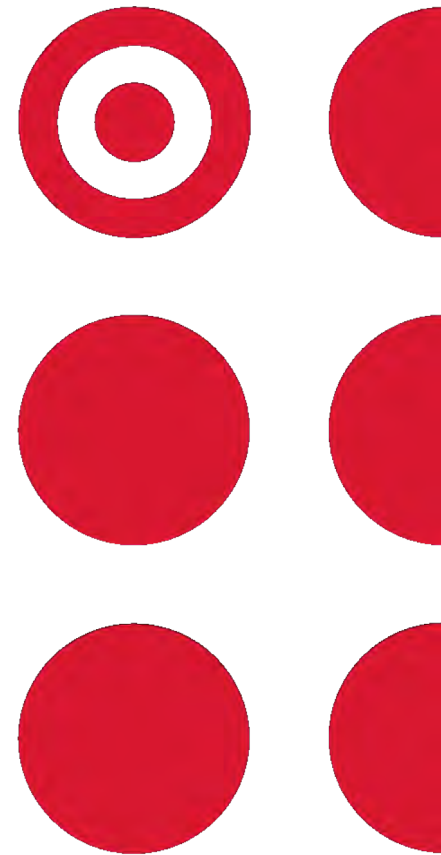
Additionally, Target has the following goals for data stores:

- Balance **consistency** in the environment with **product team needs**, ultimately reducing the number of technologies
- Maximize use of open source database/data store solutions where available and appropriate
- Reduce license and maintenance costs associated with databases/data stores
- Provide a recommended technology choice associated with each data store type discussed in the specification section below

Specification

This specification covers the various data store use cases.

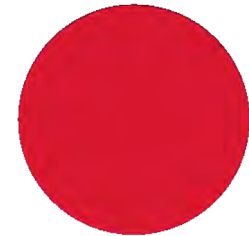
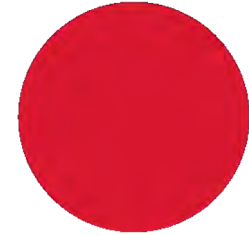
A persisted datastore is used to store stateful information outside of a worker node. There are a number of different kinds of data problems, such as relational, doc stores, columnar, or graphs. The recommended datastore depends first on the kind of data problem that you have, and then by the collective opinion of the community. Data stores are stateful and thus aren't deployed on stateless infrastructure (i.e. containers). Generally, there's a long tail to datastore selection (especially



Technologies

Type: Relational Datastore
Classification: Foundational

Name	Status	Use Case/Rationale	Compliance Status	Link(s)
PostgreSQL	Recommended	Default choice. Open source, no license costs. Good for small to medium applications.		PostgreSQL Managed Service or request via DaaS Portal
	Limited Use		All	
	Do Not Use	Do not use for new applications, is being sunset across all portfolios. Existing applications should actively search for replacement.		



Provide recommendations for CockroachDB #344

[Edit](#)[New Issue](#)[Open](#)

DanMaas opened this issue on Sep 4 · 16 comments



DanMaas commented on Sep 4



In order to provide better fault tolerance in stores k8s environments and in the cloud, I would like to recommend CockroachDB as a viable alternative database.

Benefits:

- 100% compatibility with postgres - in theory, little/no impact to our existing microservices
- horizontal scaling
- fault-tolerant

Questions:

1. little/no impact to our existing microservices - is this true? What app changes would be required?

@EthanSommer @DannyParker @PeterGuidarelli



3



MarcusManley commented on Sep 4

Member



Thanks @DanMaas, this is timely.

@balajibalasubramanian Can you weigh in with some of the rationale your team had when considering adding cockroachdb support?



EthanSommer commented on Sep 4



FWIW, we looked into cockroachdb for stores.

We had it working, I believe, but when we started talking to the DRaaS team, they wanted to use netroni

Assignees



No one—assign yourself

Labels



CIO Forum Inputs

Projects



None yet

Milestone



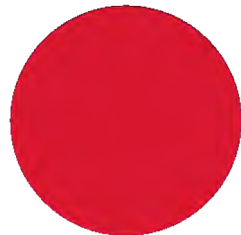
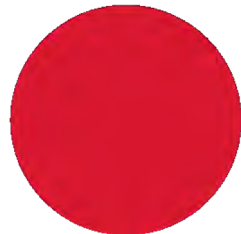
No milestone

Notifications

[Unsubscribe](#)

You're receiving notifications because you're watching this repository.

5 participants

[Lock conversation](#)

Overview



27 Active Pull Requests



23 Active Issues

 26
Merged Pull Requests

 1
Proposed Pull Request

 14
Closed Issues

 9
New Issues

Excluding merges, **15 authors** have pushed **35 commits** to master and **61 commits** to all branches. On master, **14 files** have changed and there have been **113 additions** and **383 deletions**.



26 Pull requests merged by 14 people

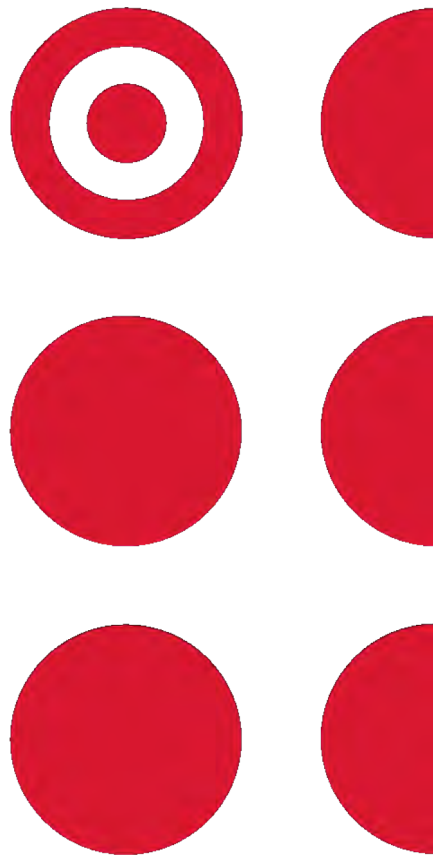
Merged #383 [Update notes on Cucumber and Spock](#) 2 days ago

Merged #382 [Clarified that it applies to Java 11 and above](#) 2 days ago

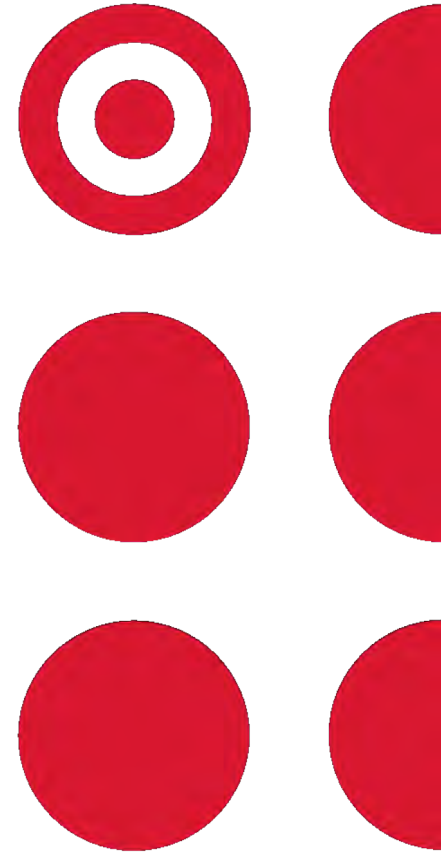
Merged #381 [Automate the technologies index file \(index_alpha.md\)](#) 2 days ago

Merged #380 [Adding Security Testing](#) 2 days ago

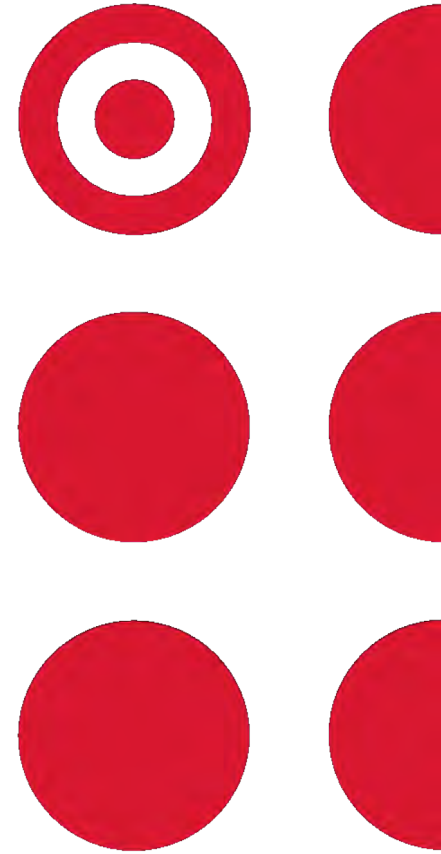
Merged #375 [added K8s cron jobs as do not use](#) 2 days ago



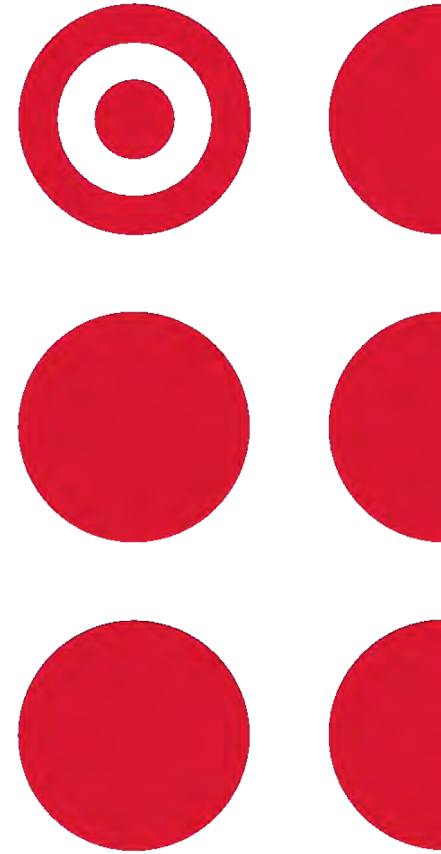
**can anyone really
change direction for the
enterprise?**



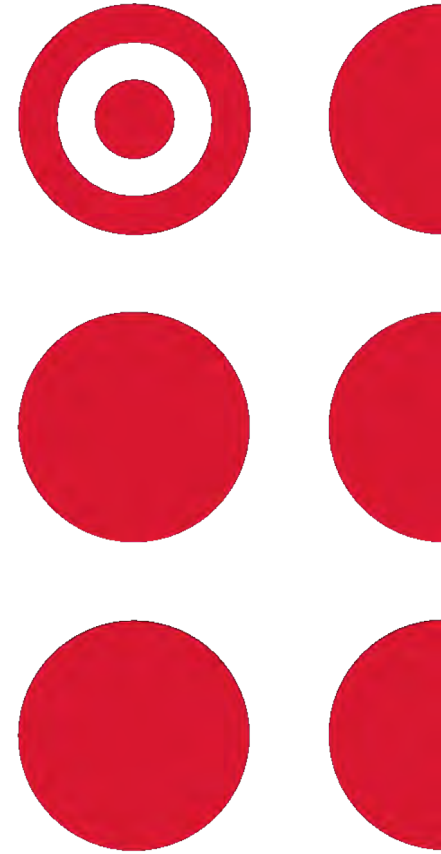
**community driven &
enterprise architecture
moderated**



platform 2019



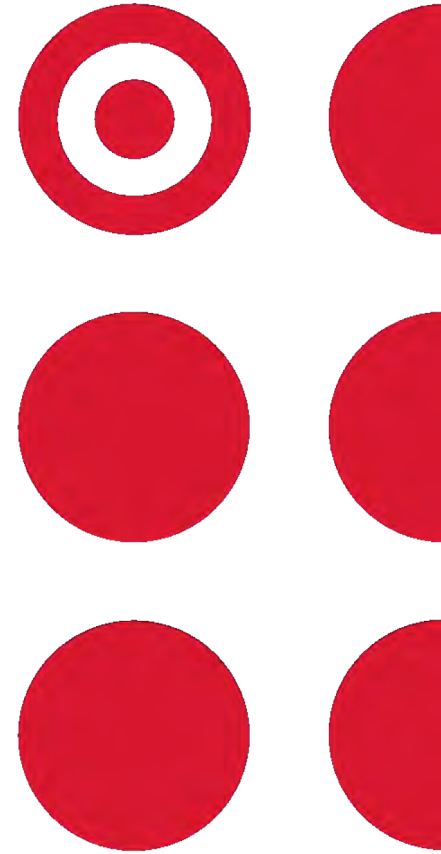
**inner-con &
demo day &
code red - oh my!**



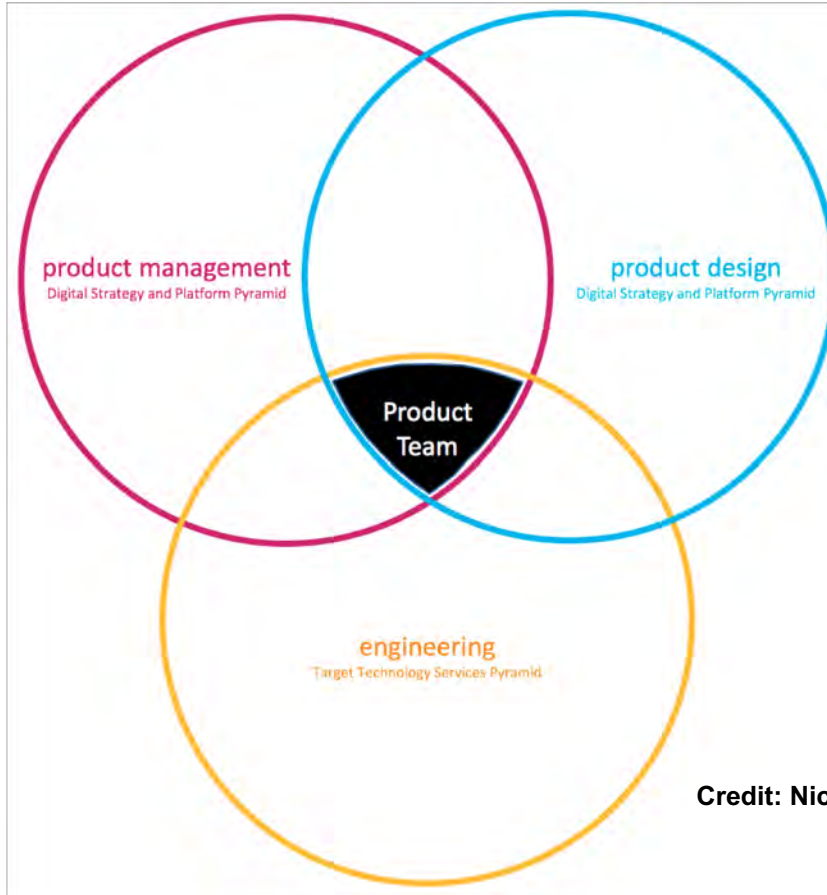
<sarcasm>

**And our business
partners adapted to
it all with ease and
gratitude!**

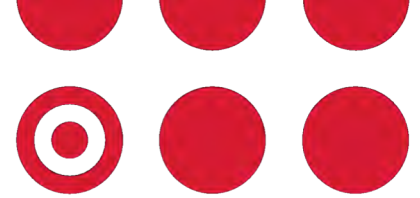
</sarcasm>



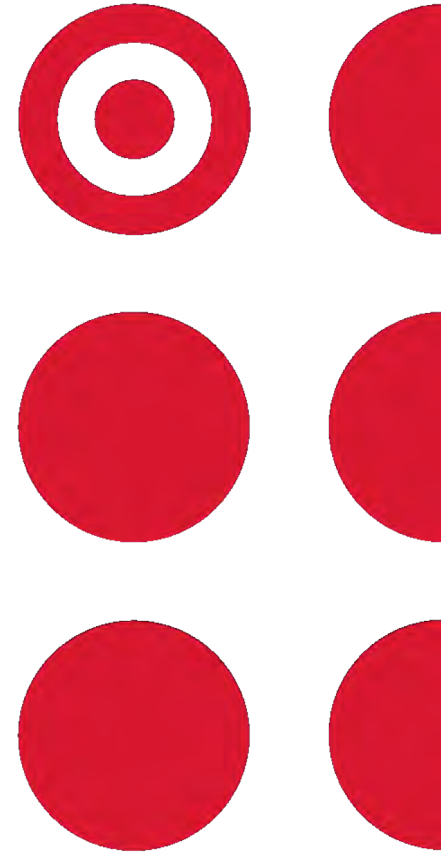
silos



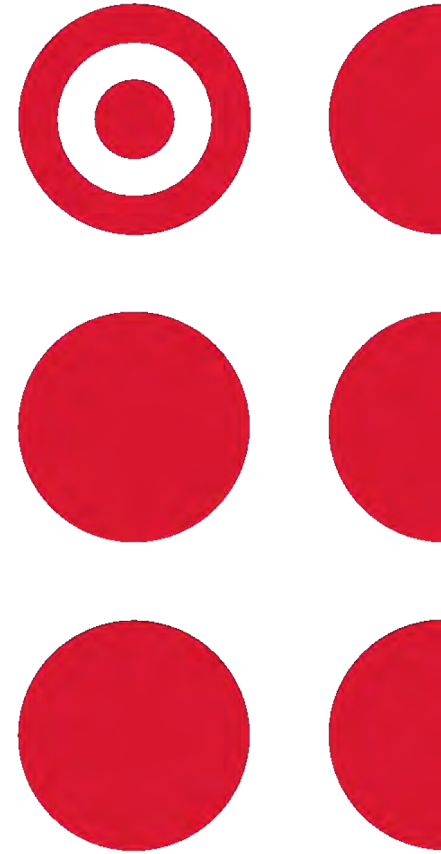
Credit: Nicole Forsythe @NicoLibrarian



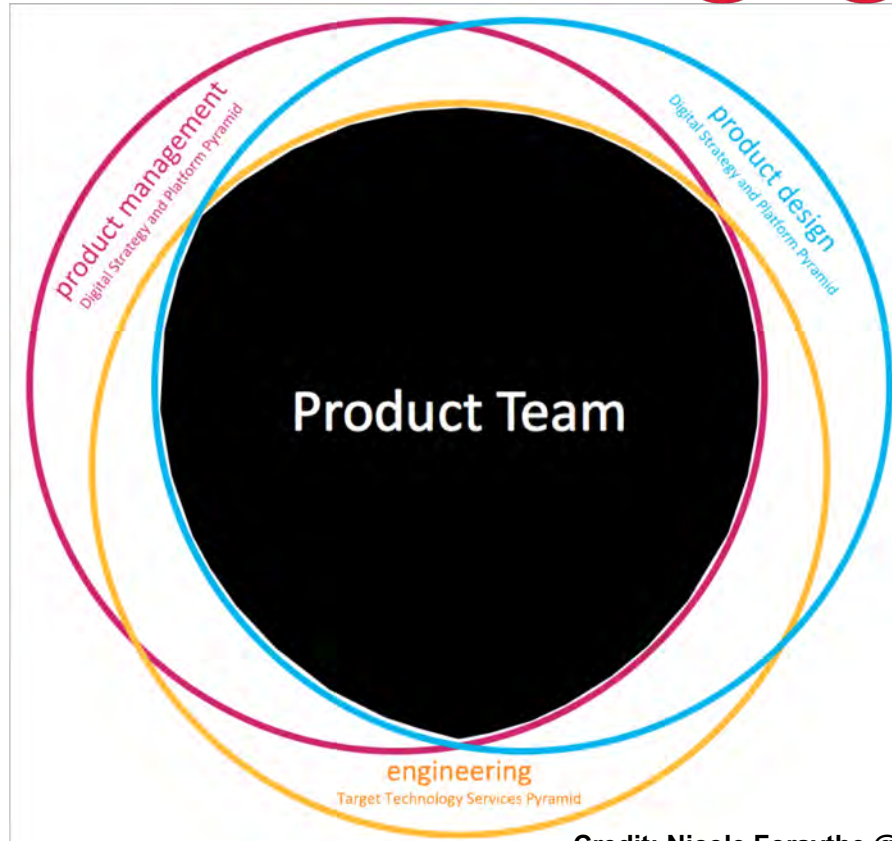
Stumbles



**a new kind of
accountability**

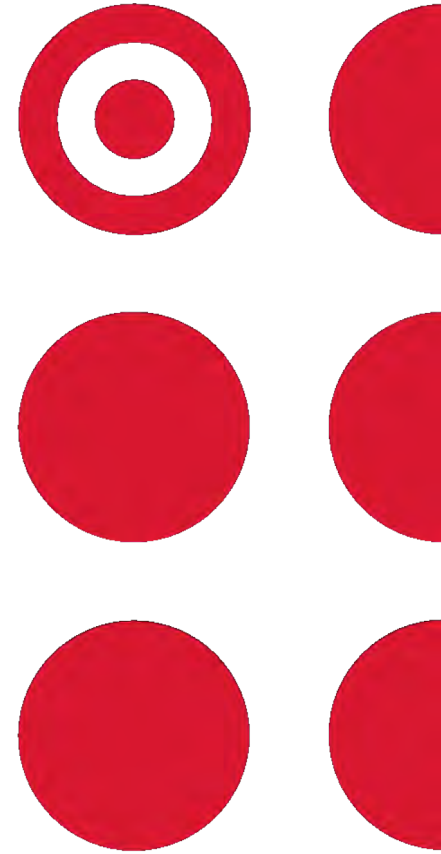


awesome product symptoms

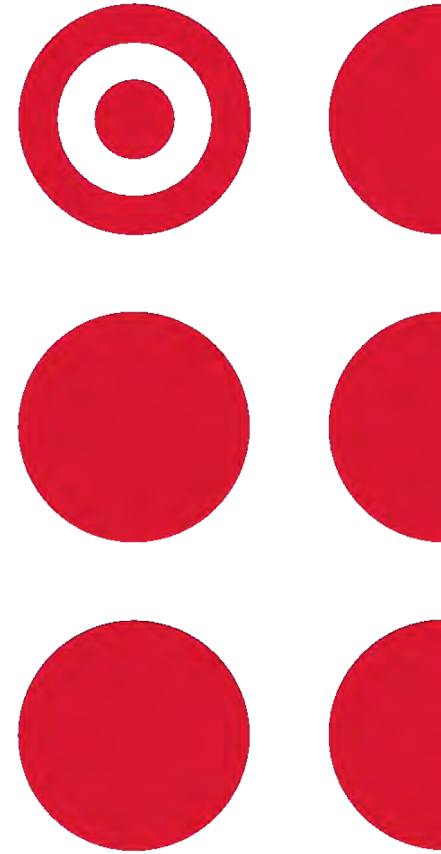


Credit: Nicole Forsythe @NicoLibrarian

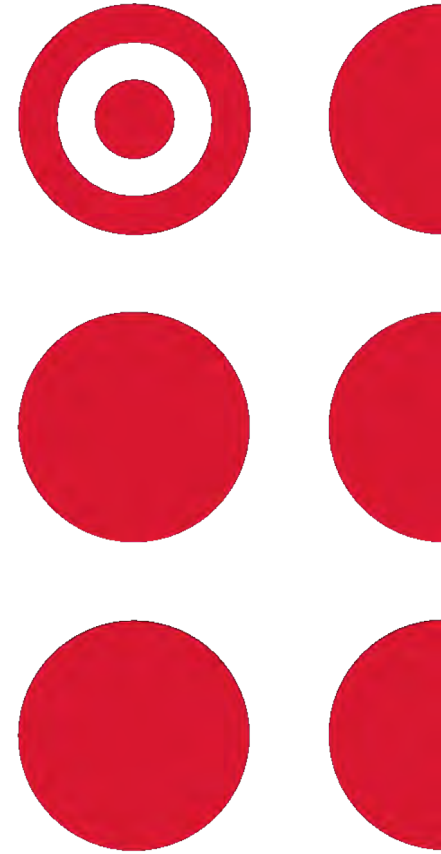
Google it!



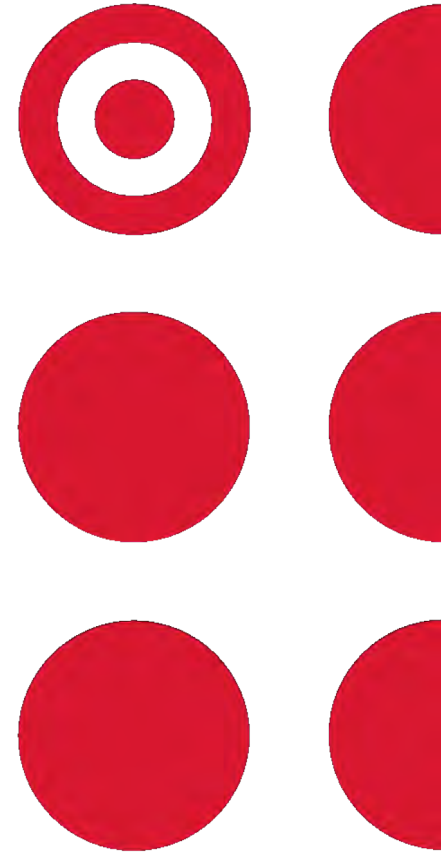
**We aren't trying to
become a tech
company anymore.**



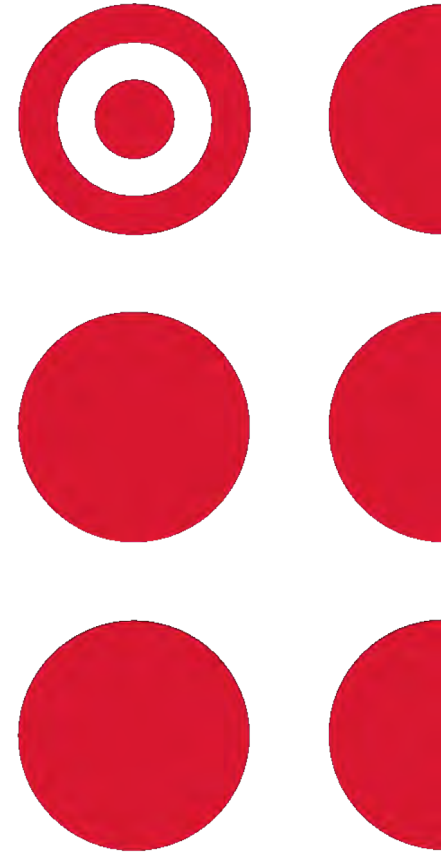
What did we learn?



**our success was
not due to a
person, team or
product that can
be bought**



**It came from our
commitment,
culture, &
mindset**



thank you.

