

# Pushing a big project forward Jenkins Story

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# Digital Darwinism



# Digital Darwinism

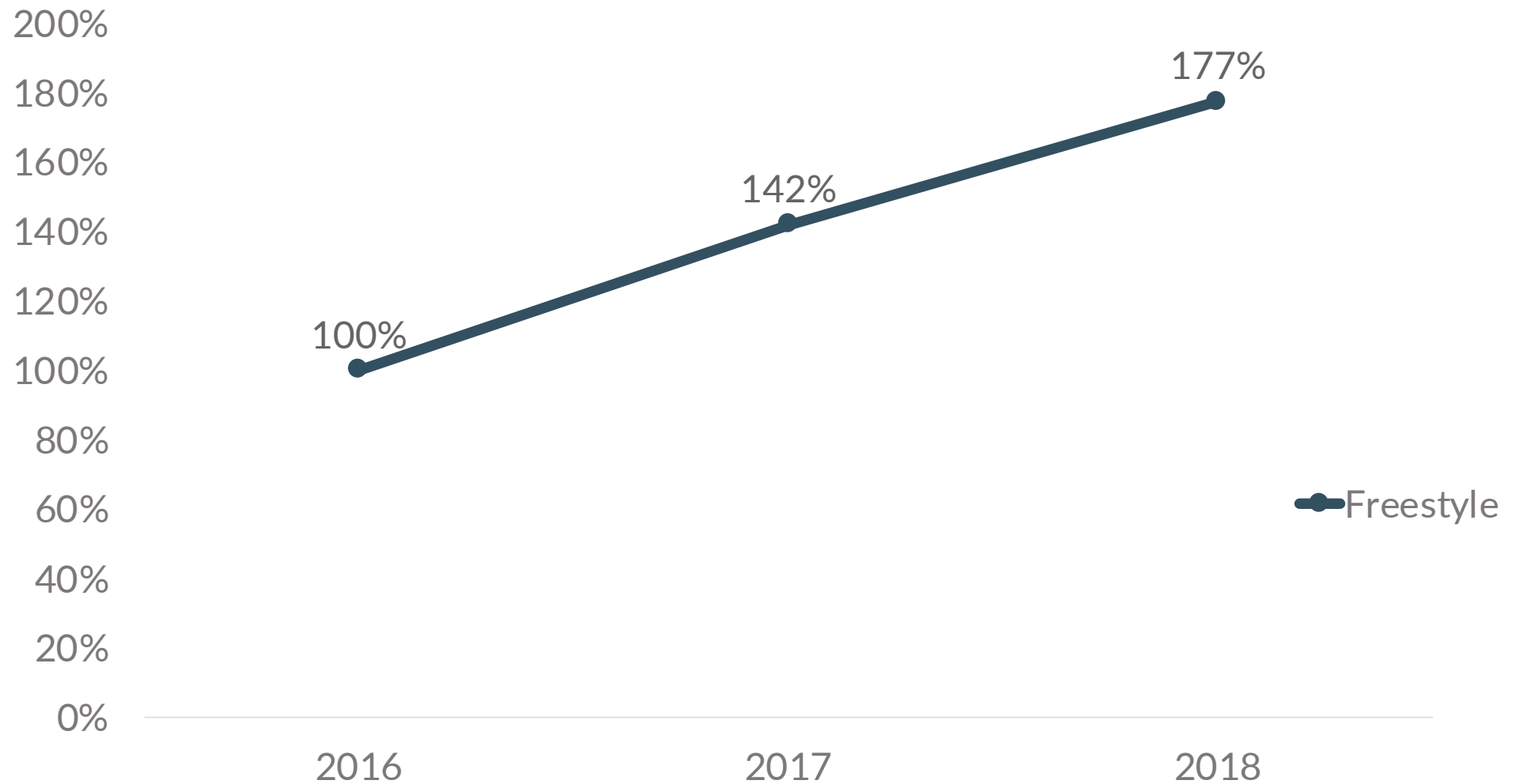


# Digital Darwinism

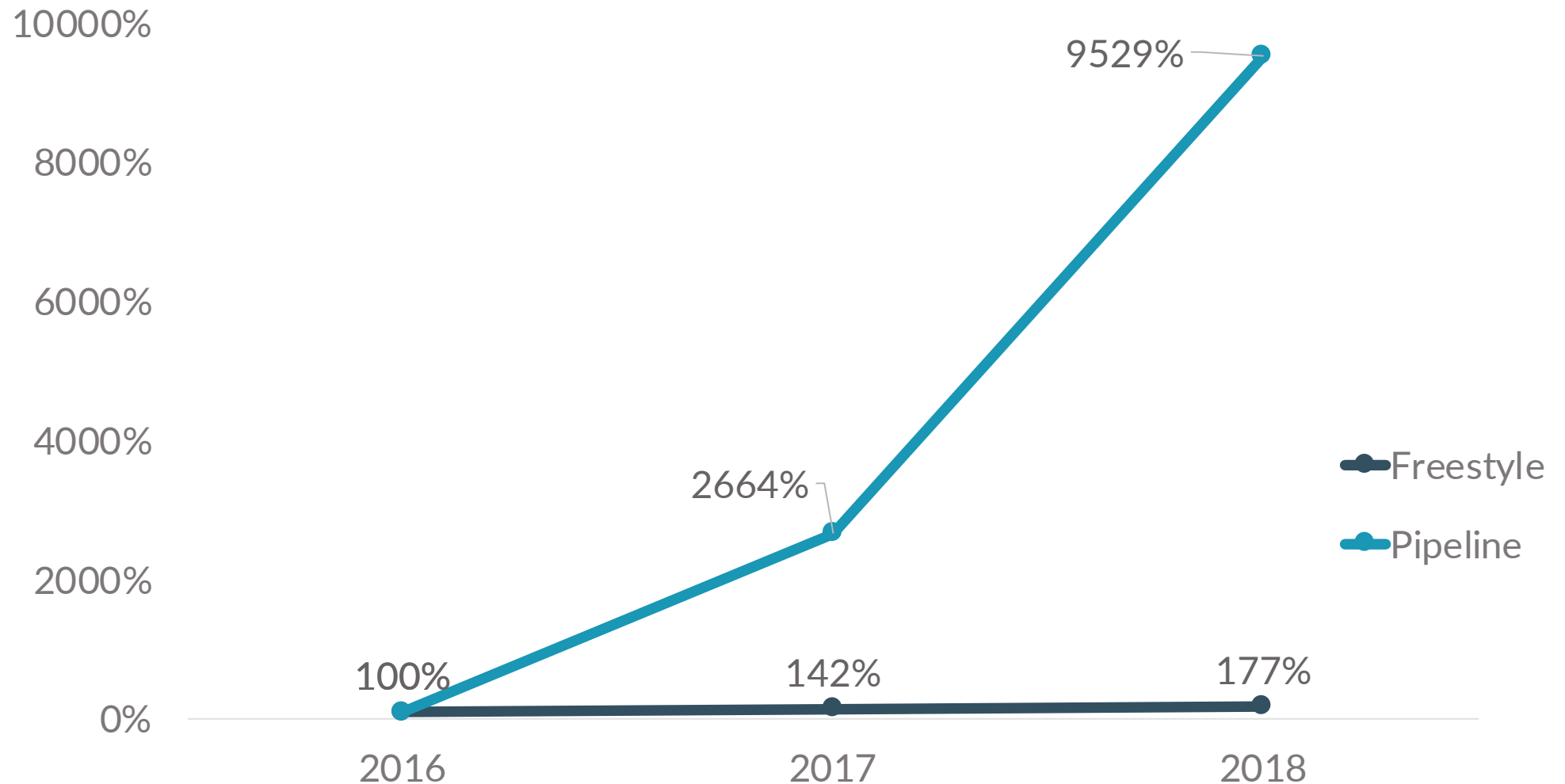


WATCH SPORT  
Aluminum Case • Ion-X Glass • 38mm

# Jenkins continues its growth

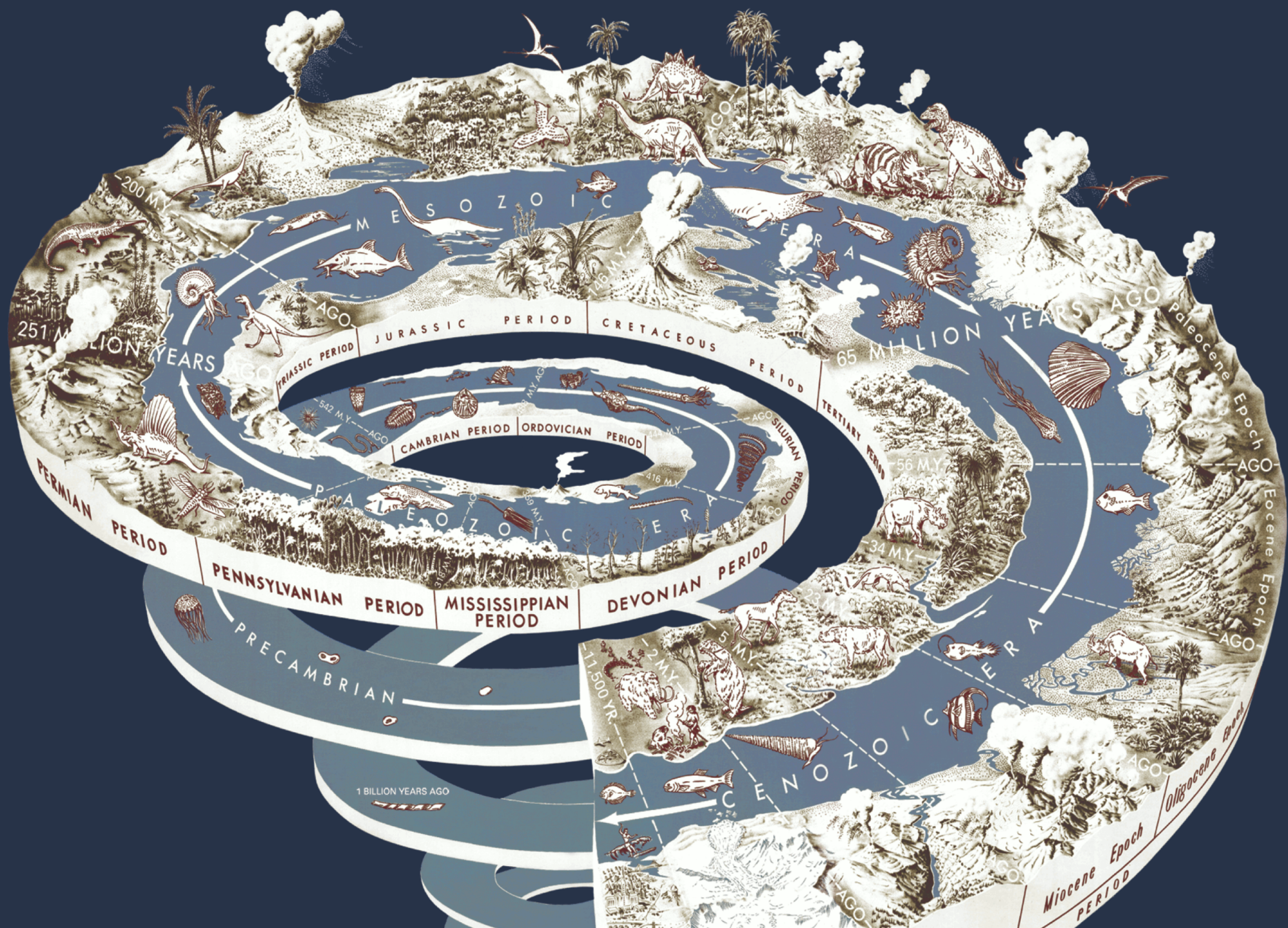


# Everyone is Adopting Jenkins Pipeline



# Jenkins Area Meetups – 24K members





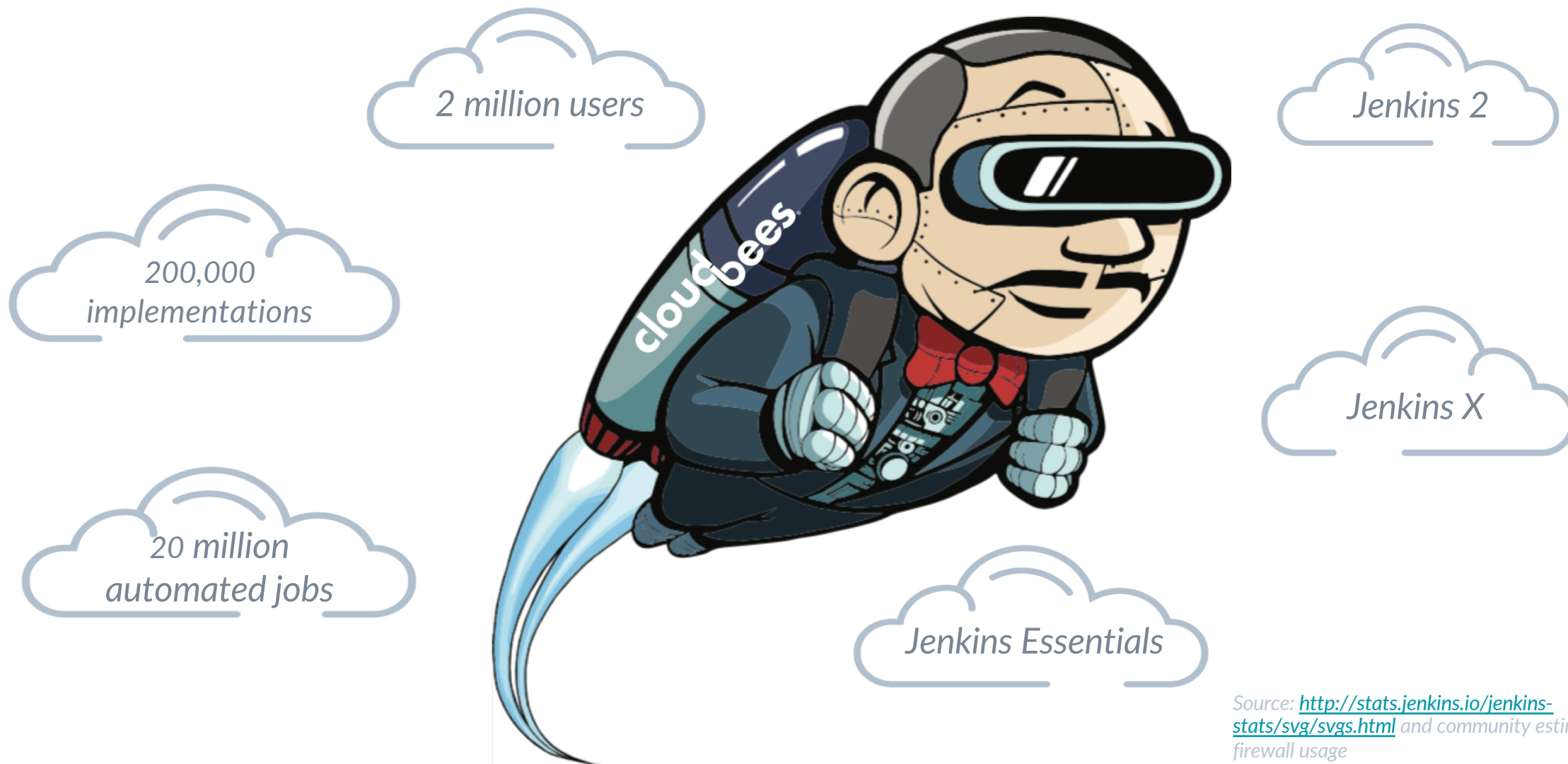






# We Are the #1 Jenkins Corporate Sponsor

Fueling the growth of the world's most popular open source CI/CD project



Source: <http://stats.jenkins.io/jenkins-stats/svg/svg.html> and community estimate of behind firewall usage



# Who We Are

*Our mission is to free developers while preserving business peace of mind.*



## The Company Behind Jenkins

We're the #1 corporate sponsor of Jenkins. Our CTO, Kohsuke Kawaguchi, created the project; teams of our engineers continuously add new code; testers assure stability and security; and dozens of our field engineers are certified Jenkins administrators



## DevOps & OSS Leaders

We've been improving modern software development since 2010. Our founders are Open Source veterans from RedHat and JBOSS. We recently acquired CodeShip, a leader in the next generation of CI/CD-as-a-service.



## Enterprise Class

45% of the Fortune 100 trust CloudBees with their mission critical delivery pipelines. Our leaders have grown great ideas into enterprise standards at Splunk, VMware, Microsoft, SUN, IBM and dozens of startups.



We're building the  
**WORLD'S FIRST**  
end-to-end continuous  
software delivery system





Continuous Delivery Foundation

Jenkins Pipeline

Configuration as Code

Cloud Native Jenkins

Jenkins X

Join the community  
building the future of  
Continuous Delivery

<https://cd.foundation>

@CDeliveryFdn



CD.FOUNDATION

## Premier Members



## General & End User Members







## Initial Projects:



<https://cd.foundation/projects>

# Technology Leader Lessons

- Play to your strength
- Find common interests, make allies
- Align groups to create a space for engineers to do “something interesting”

# Pipeline





# Iterative



# Transformational

# Tekton Pipeline, in Jenkins X

- Emerging, promising early phase project
- Kubernetes native Pipeline workload
  - Jenkins has always supported lots of different workloads
- Collaboration on the back of the CDF



# Technology Leader Lessons

- Contextualize the effort
- Don't force HOW
- Be a translator

# Configuration as Code



# What if ...

- You can apply a sane change control practice to Jenkins configuration?
- Jenkins stops being a snowflake?
- You can safely roll back a failed upgrade?
- You can cookie-cutter lots of identical Jenkins instances?

# Example of what you'll be writing

```
jenkins:
  securityRealm:
    ldap:
      configurations:
        - server: ldap.acme.com
          rootDN: dc=acme,dc=fr
          managerPasswordSecret: ${LDAP_PASSWORD}
      cache:
        size: 100
        ttl: 10
      userIdStrategy: CaseSensitive
      groupIdStrategy: CaseSensitive
```

# This is happening!

- You launch Docker container with the said config file
- Look for “Jenkins configuration as code”
  - 8 releases so far, evolving rapidly

PRAQMA



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# Technology Leader Lessons

- Find somebody with passion & build a space around them
- Lend them your credibility
- Be a cheerleader
- Build a success in one place, then expand to the rest

# Cloud Native Jenkins



What if ...



# What if ...



M T W T F S S

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

# That's why we take on Cloud Native Jenkins

No more file system storage

No more single process SPoF



# Some work is well under way

- First batches of efforts
  - Artifact archiving --- AWS S3, Azure Storage
  - Build log, initially to AWS CloudWatch
- Super powers you will get
  - Big cuts to \$JENKINS\_HOME
  - Cheaper storage cost
  - Better scalability

# Introducing Cloud Native SIG



# Fruits of Cloud Native SIG

- Jenkins on GCP by “Google Graphite Team”
  - OAuth support for service account
  - Preemptible flag that cuts the running cost
- Azure Storage support
- Jenkins Kubernetes Operator
  - Make Jenkins deployment & configuration stateless

# Technology Leader Lessons

- When does a process become your advantage?
- When does a vision become your advantage?

**Jenkins X**



# New “Cloud Operating System” is here



# kubernetes

- Common platform in all clouds
  - AWS, Azure, GCP
  - OpenShift, CloudFoundry
- Functionalities
  - Cluster scheduler
  - Service discovery
  - Load balancer
- Extensibility

**You can have fun tinkering...**



Or you can just get productive



# Jenkins X vision

- Figure out the best practice of how to CD cloud native apps
  - Not just build, test, but reviewing, promotion, changelog, collaboration, etc.
- Integrate best of the bleed software in this ecosystem to achieve it
- Democratize it by building a pleasant CLI that represents high-level steps
- Be opinionated on how to do things
- Kubernetes is a means to the end

# Best practice we preach

- Use cloud to develop, keep your laptop for what it needs to do
- Promote apps through multiple environments
  - Dev -> Test -> Staging -> Production
- GitOps: deployment should be recorded & tracked in Git
  - Who did what deployment when, easy audit trail & roll back
- Develop/collaborate changes in PR, review/test before merge
- Keep master always releasable
- Deploy often and in small increments
- Inform other people about where changes are

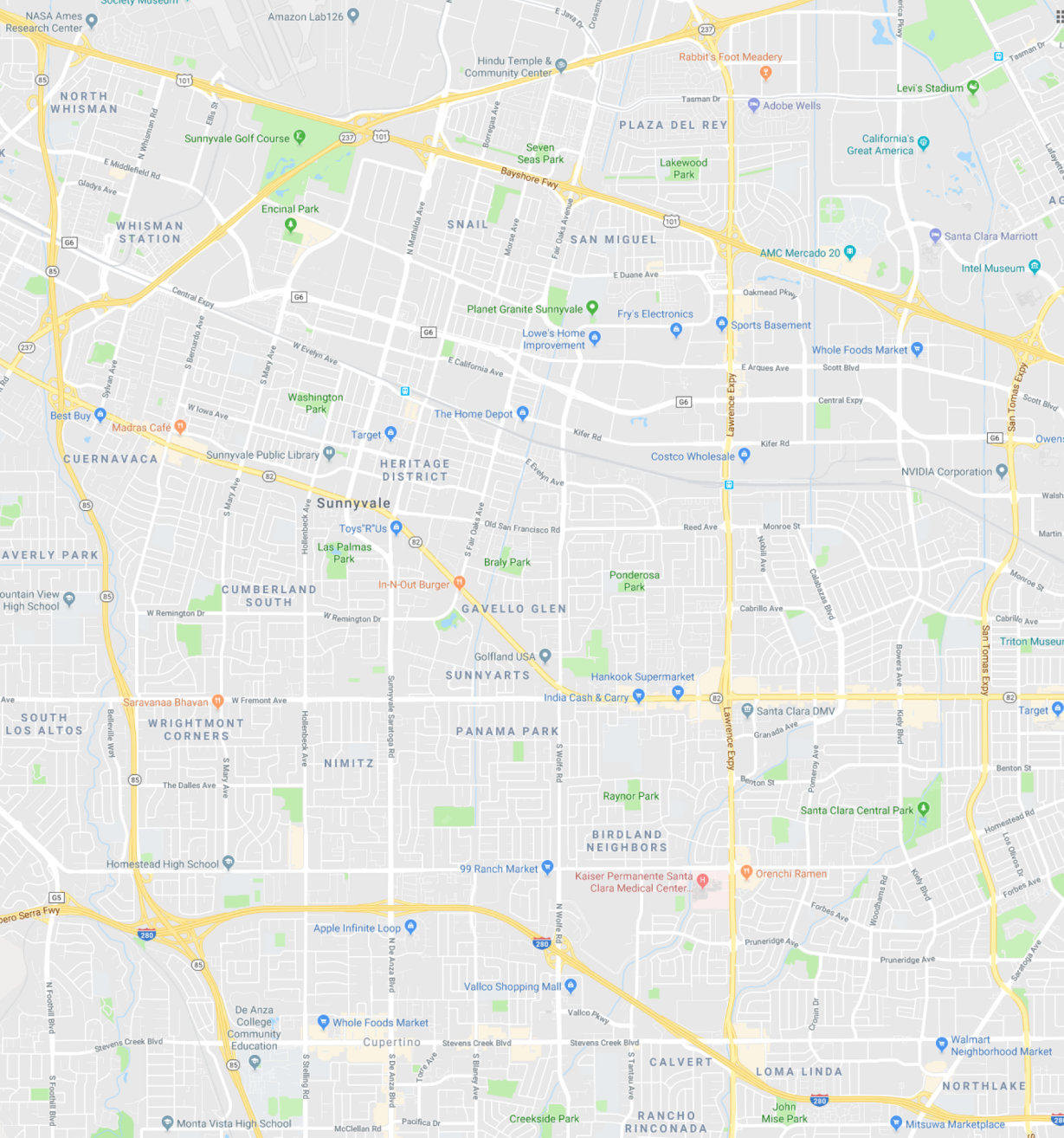


Image: <https://flic.kr/p/smze69>

# Technology Leader Lessons

- Bring disruption from outside before the market forces it upon you!
- If it's not uncomfortable to you, it's probably not a disruption enough
- Tackle new different audience, not just ones you already know



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# Technology Leader Lessons

- Not everything has to fit with everything else right now
- “Kid with great potential” vs “Middle-aged bread earner”
- Space & distance matters
- Fortune teller fallacy
  - A master plan that needs constant updating
  - Not every “project” will succeed



# THANK YOU!

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