

Pivotal

#DellEMCCSP Ed.

Beyond the nonsense of digital transformation

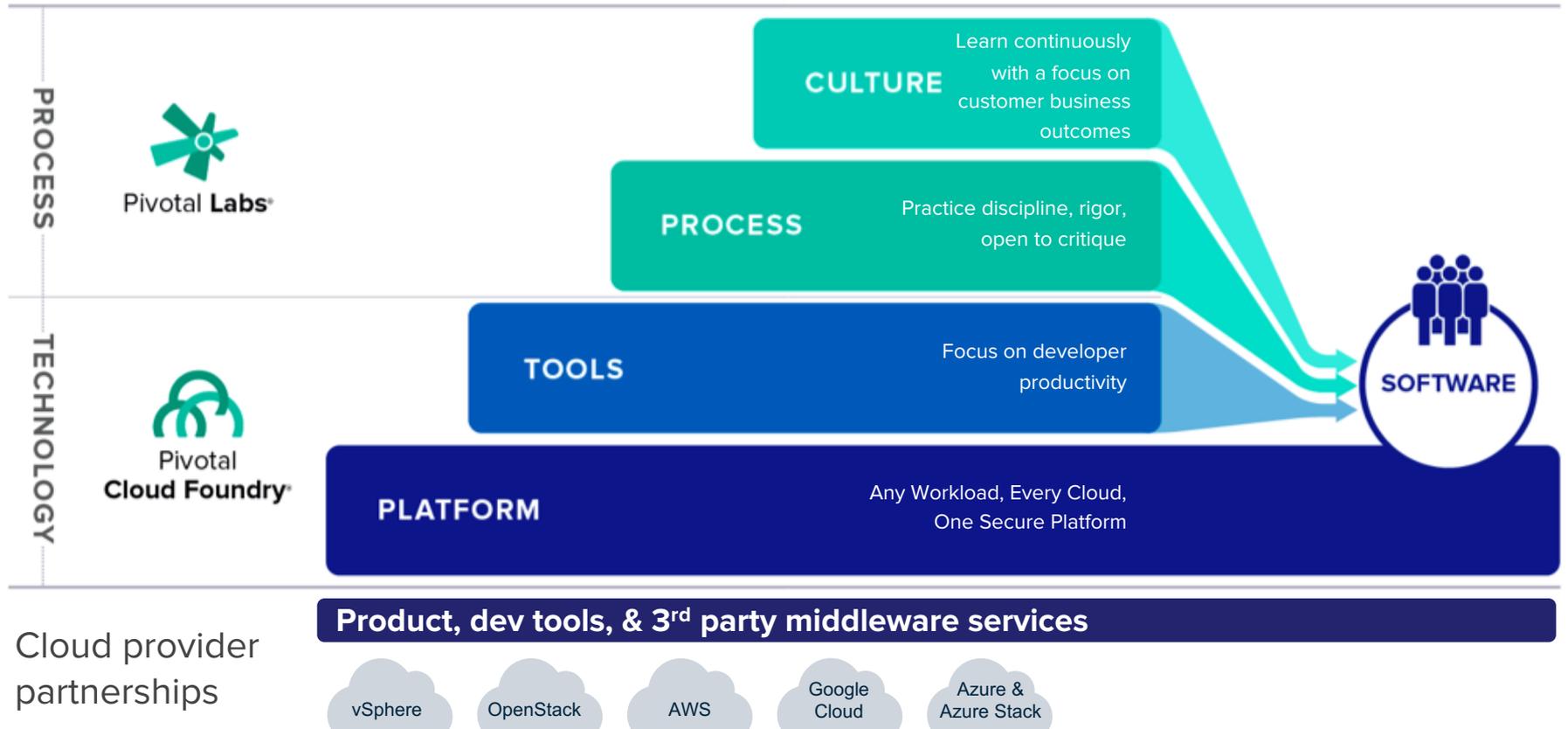
How Pivotal enables DevOps, and cloud native - creating better software

October, 2018

@cote

<http://cote.coffee/bettersoftware>

Pivotal: transforming how the world builds software



Enterprises are transforming with Pivotal

AUTO & TRANSPORTATION



INDUSTRIAL & BUSINESS SVCS.



FINANCIAL SERVICES



HEALTHCARE & INSURANCE



TECHNOLOGY & MEDIA



CONSUMER & COMMUNICATIONS





Digital transformation is the systematic improvement of an enterprises' software development & delivery capabilities to enable strategic business growth.





**“Digital transformation”
means making more money
with better designed & better
run software.**



Three forces driving digital transformation

**Competitors
new & old**

**New capabilities
&
business models**

**Aging IT
&
technical debt**

“Digital transformation” == creating better software



50% B2B customer engagement, shipped in 6 months vs. 18.



3+ week to 3 days, 50% reduction in incidents, 4 ops.



Small teams deploying to production in minutes, not days.



Modernized app, rolled out 20 countries in 5 months

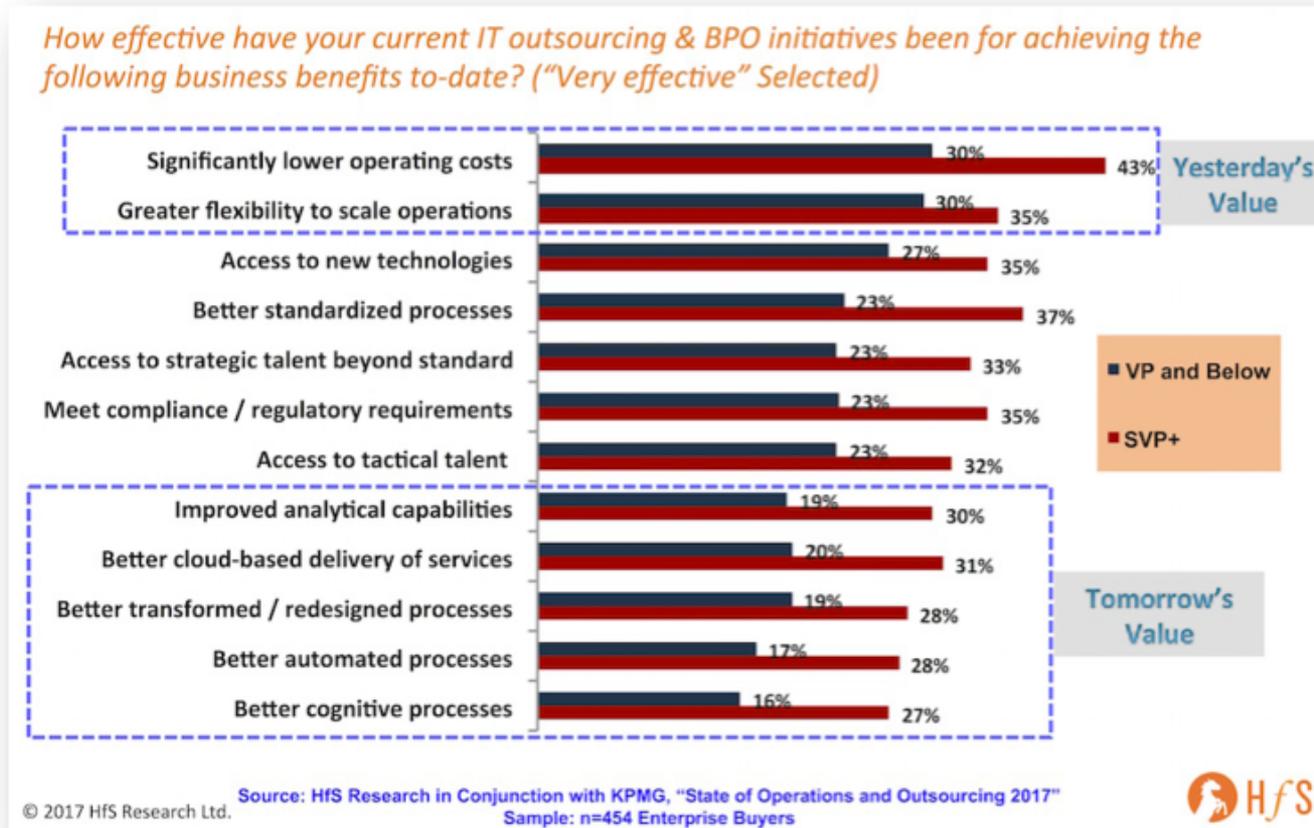


40%+ productivity/cost, rebooted member facing app.



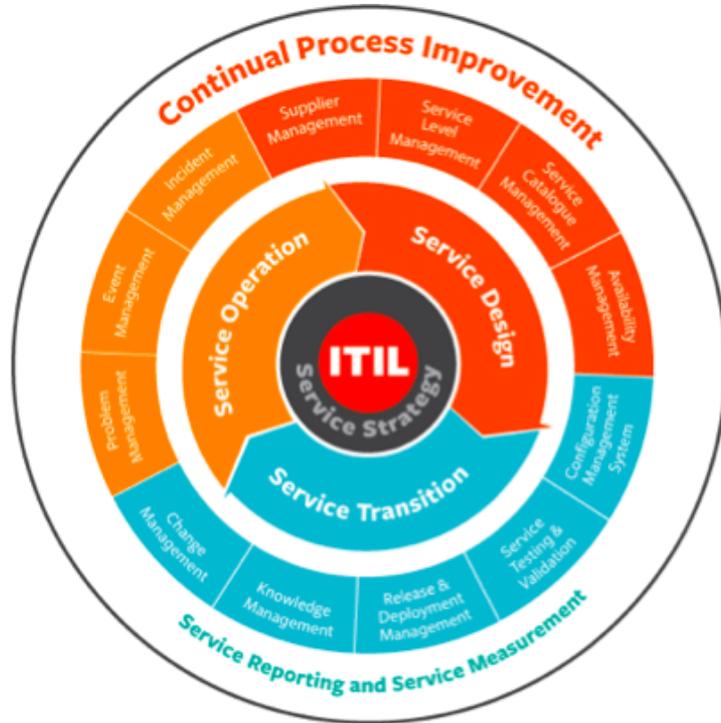
40% policy strike rate, vs. 20% industry average.

Few organizations trust outsiders with digital transformation

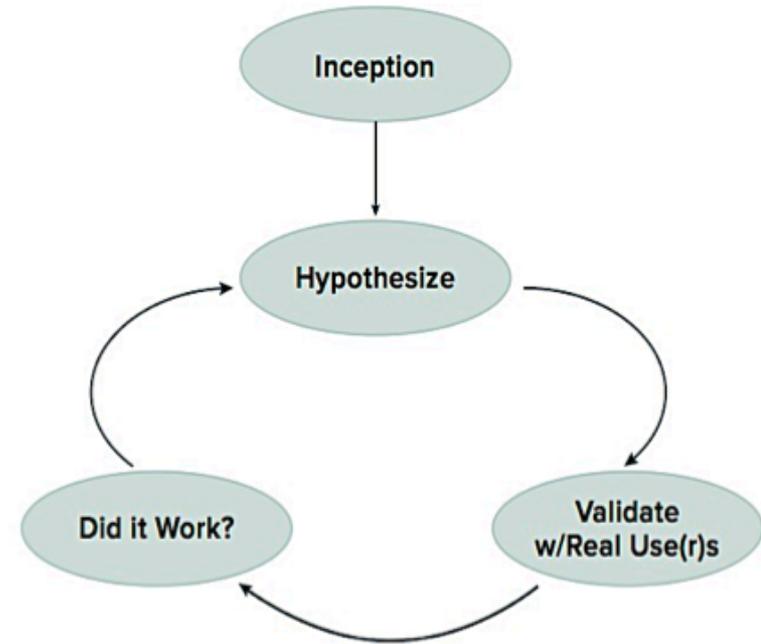


How organizations are creating better software

Enterprises are shifting *Service Delivery* to *Product Delivery*

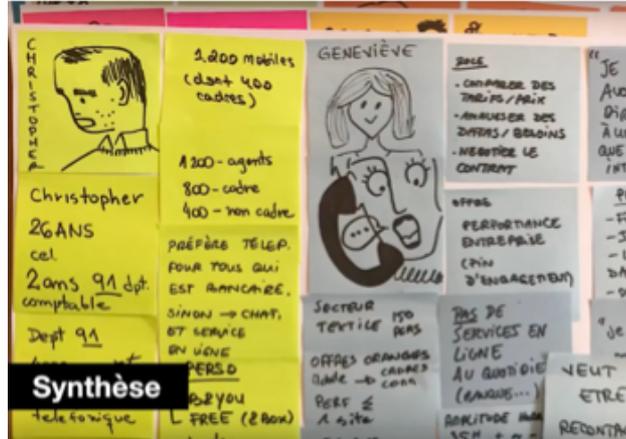


Months, if not years



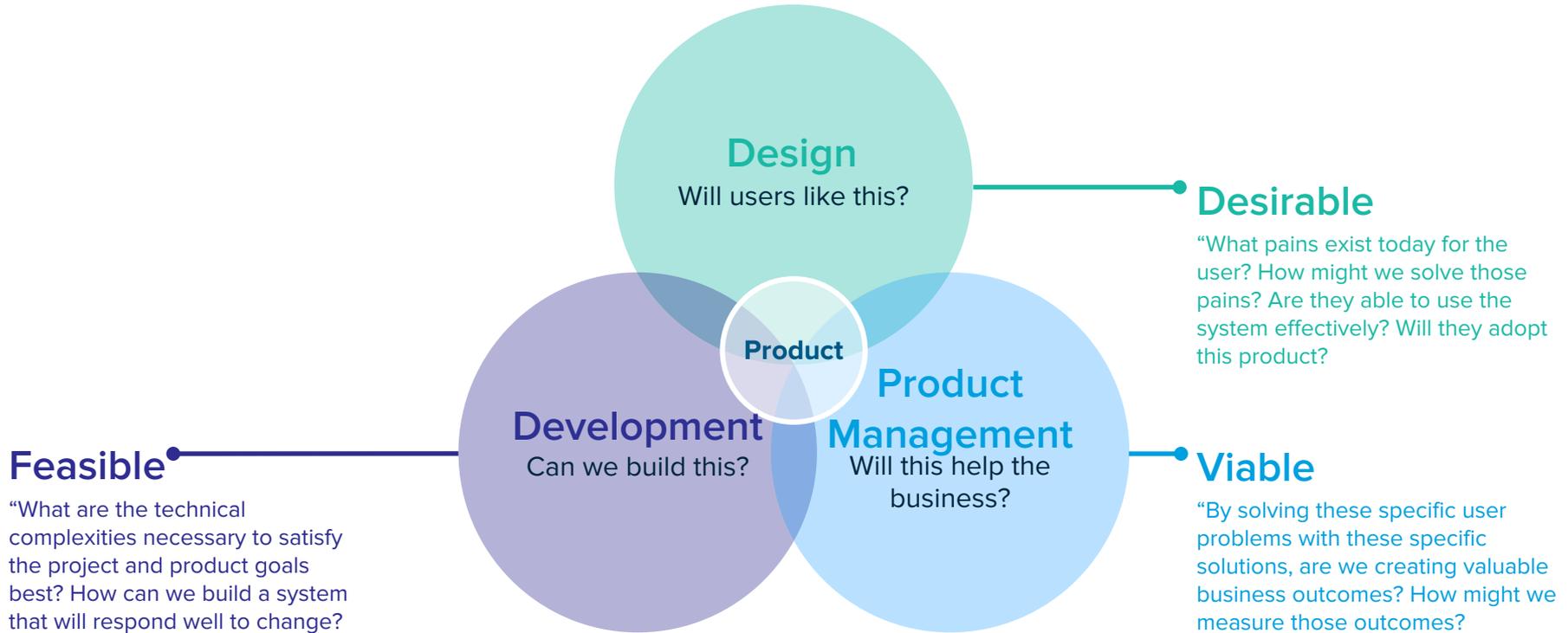
Weekly, if not daily

“I want to be able to interact only when it matter to me from my smartphone.”



- SMB Service Mgmt App
- Two years reduced to 4 months
- 200 deployments a month
- 50% of B2B customers using in 9 months
- Established lean design, agile teams, and PCF use

Product centric, balanced teams



Organized around products, not services & functions



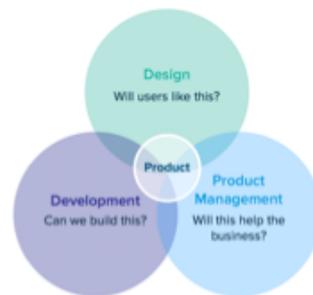
Mobile payments



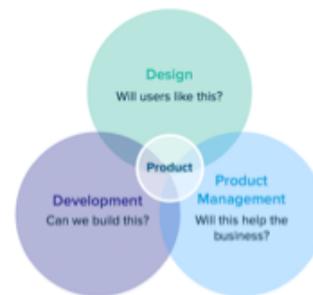
Mortgage application



Mortgage approval



Bill pay



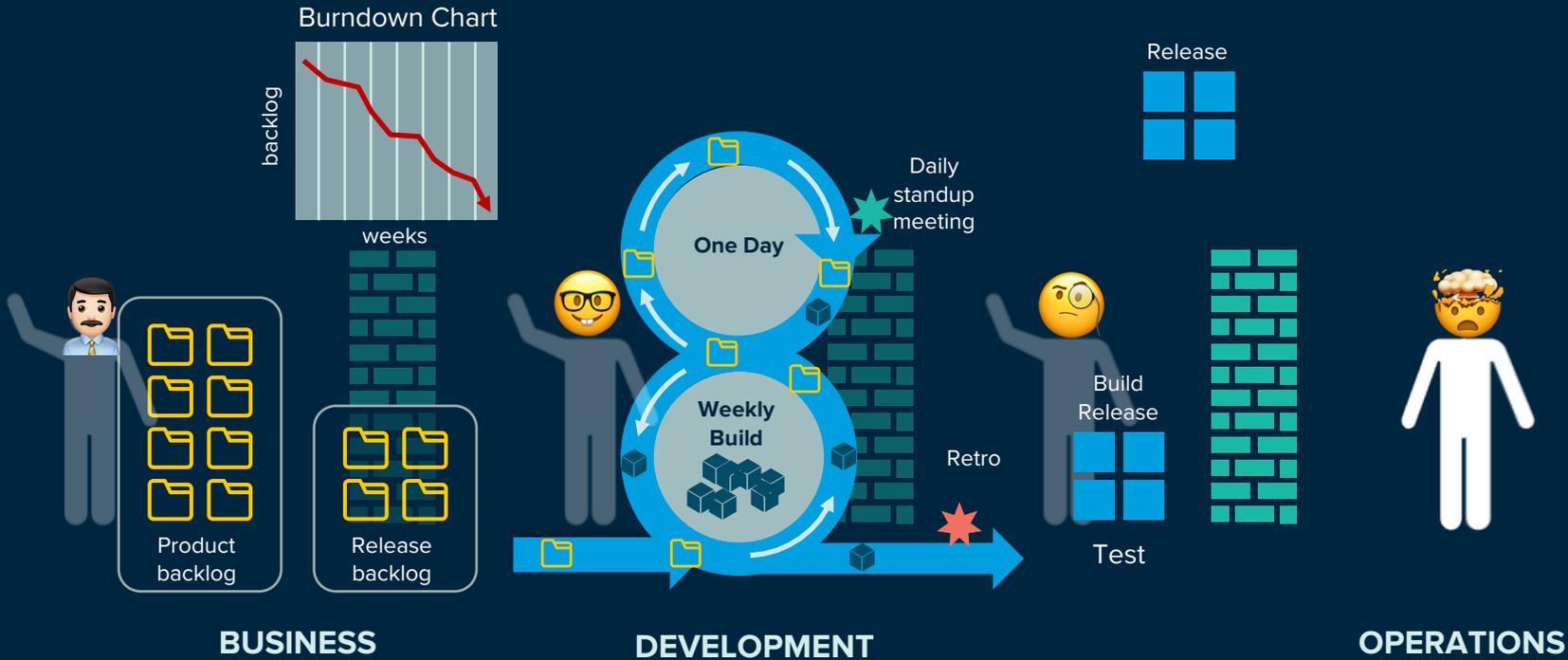
Transfers

From coding 20% of the time coding to coding 90% of the time



An agile methodology, proven over 25+ years:

- Balanced teams w/all roles needed, dedicated to the product
- Paired programming, & beyond
- Test-driven Development
- Short iterations
- Continuous Integration & Continuous Delivery

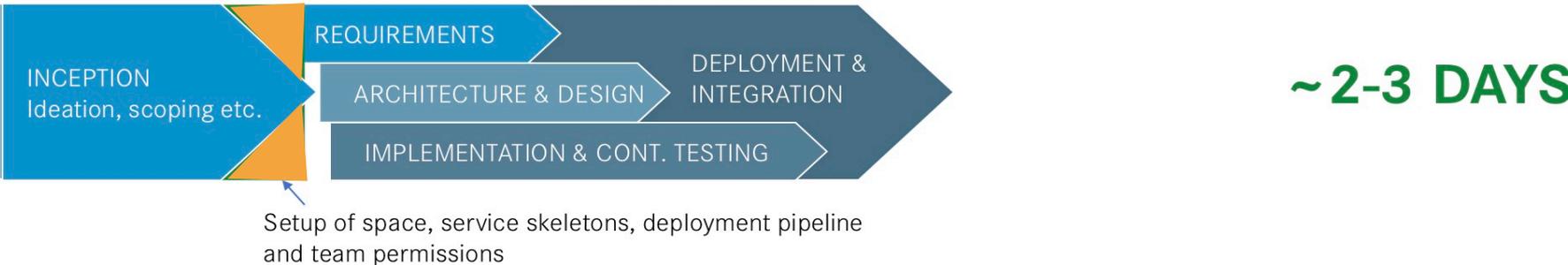


Removing waste with CI/CD and platform automation

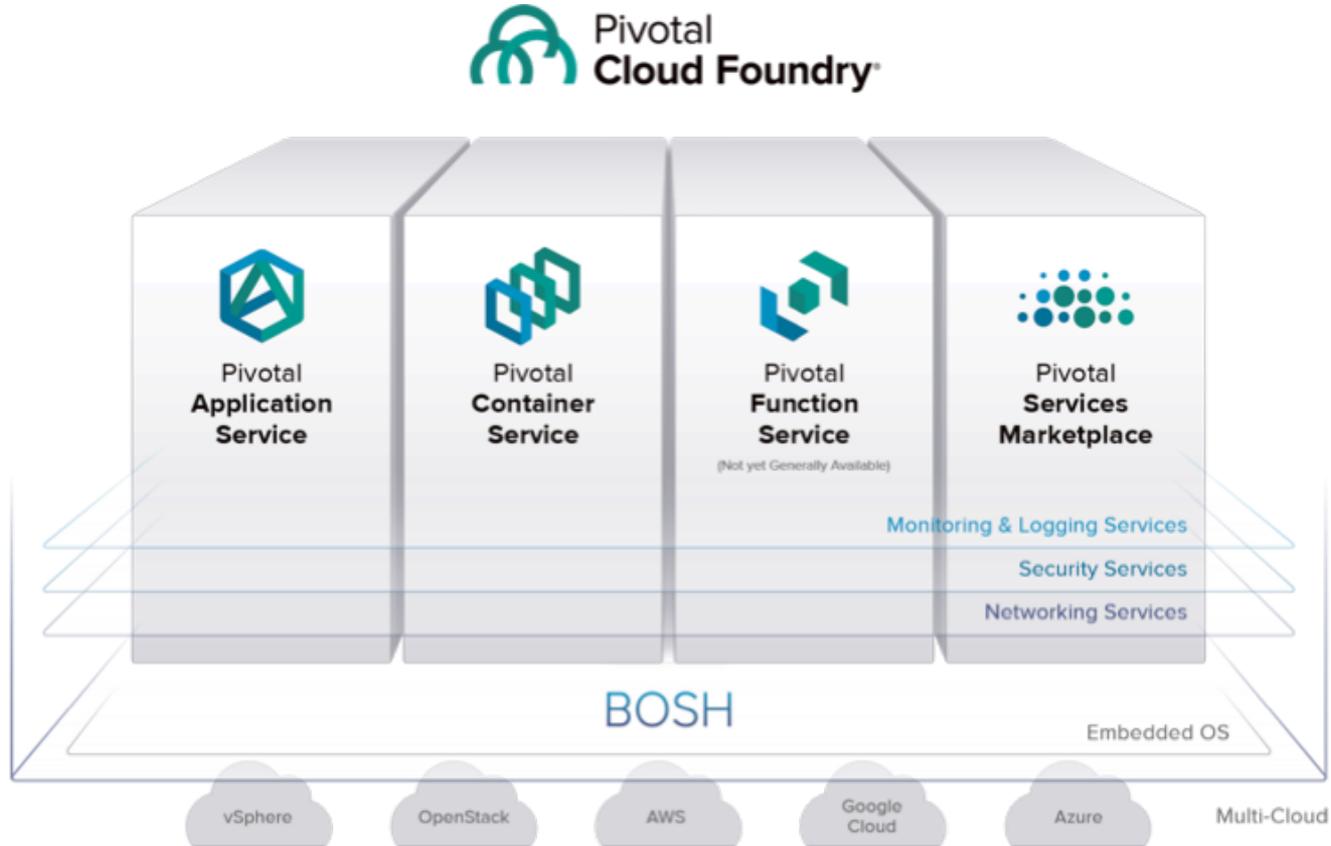
PAST



PRESENT



How T-Mobile USA went from **7 months** to update software, to **same day deployments**





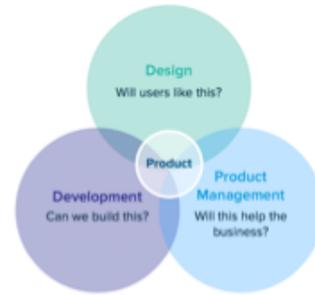
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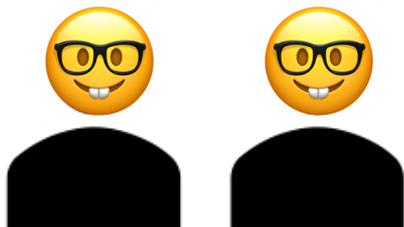
Bill pay



Transfers

Platform Engineers

Platform engineers provide product-centric ops (aka SRE)



Platform Engineers

Functions

- Removes toil with automation & programming
- Stands up & manages the platform
- Creates shared services/middleware/etc.
- Consults with initial projects

Staffing

- T-Mobile USA: 8 ops to 300 developers, 11k containers
- Dick's Sporting Goods: 6 ops to 120 devs.

Modernizing & replatforming

Pick Applications That Matter

BUSINESS

- Business criticality
- Risk tolerance
- Change frequency
- Lifecycle stage
- Domain expert availability

ECONOMIC

- Licensing costs (HW / SW)
- Time-to-market implications
- Revenue impact-fullness

TECHNICAL

- Codebase
- Suitable framework / runtime
- Relatively lightweight footprint
- Extent of “hard wire” dependencies
- Usage / workload



Time to move on!



Aging technology



DevOps



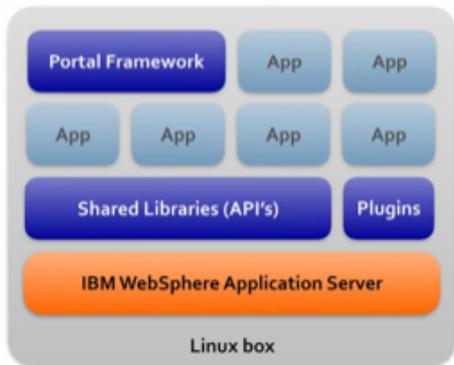
We selected Pivotal Cloud Foundry
as *the* microservices platform
for the *whole* bank



Scalability limits

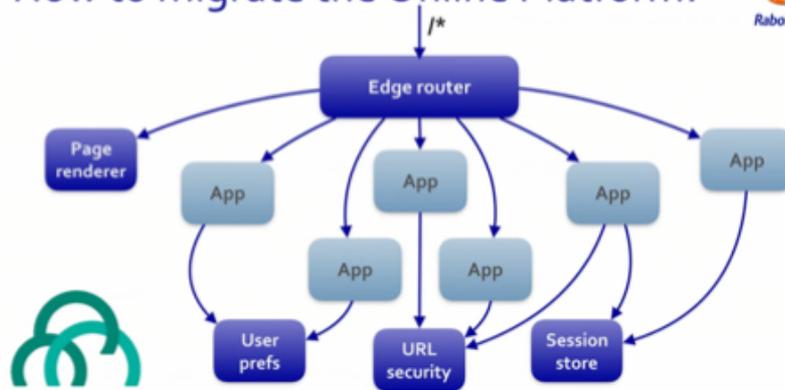
Replatforming banking for 8.5m customers in 40 countries

How to migrate the Online Platform?



- New IaaS and PaaS, globally
- Legacy re-platforming & modernization
- PCF install w/new ops playbook

How to migrate the Online Platform?



- Split monoliths into microservices
- Support 100+ teams
- ~4 ops people to run the platform

Cloud provider & partner opportunities

Cloud transformation creates many opportunities for cloud service providers

Apps

- Re-platforming/migrating apps & services
- Skills gaps: design, dev, ops data science
- Business & process transformation

App Services

- Databases, queues, etc.: managing & ISV'ing
- Security, securing apps & services
- AI/ML, IoT backends, business-centric services

Tools & Process

- CI/CD and pipeline tooling and management
- Development toolchain (git, Tracker, etc.)
- Multi-cloud enablement

Platform

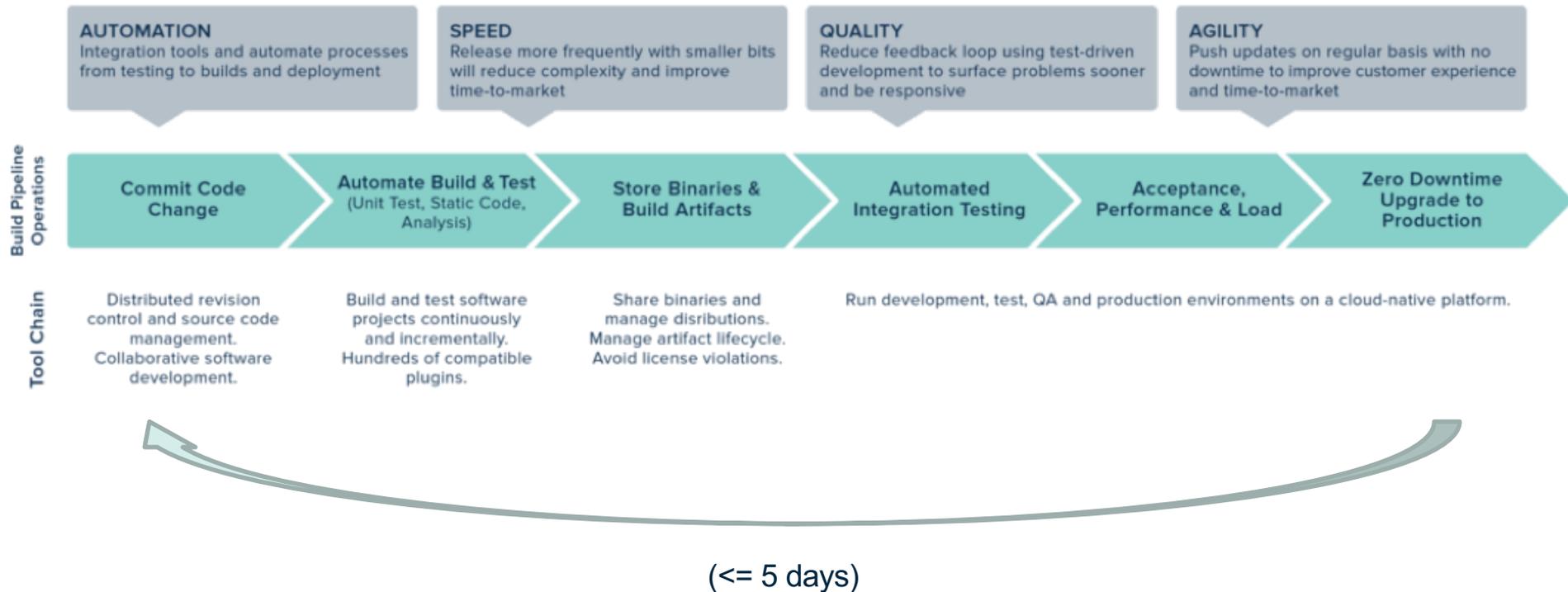
- Pivotal Cloud Foundry – installing, managing
- Platform Engineering/SRE – providing, training
- Public, private, geographic, regulated, secured

Infrastructure

- IaaS
- Networking
- Storage

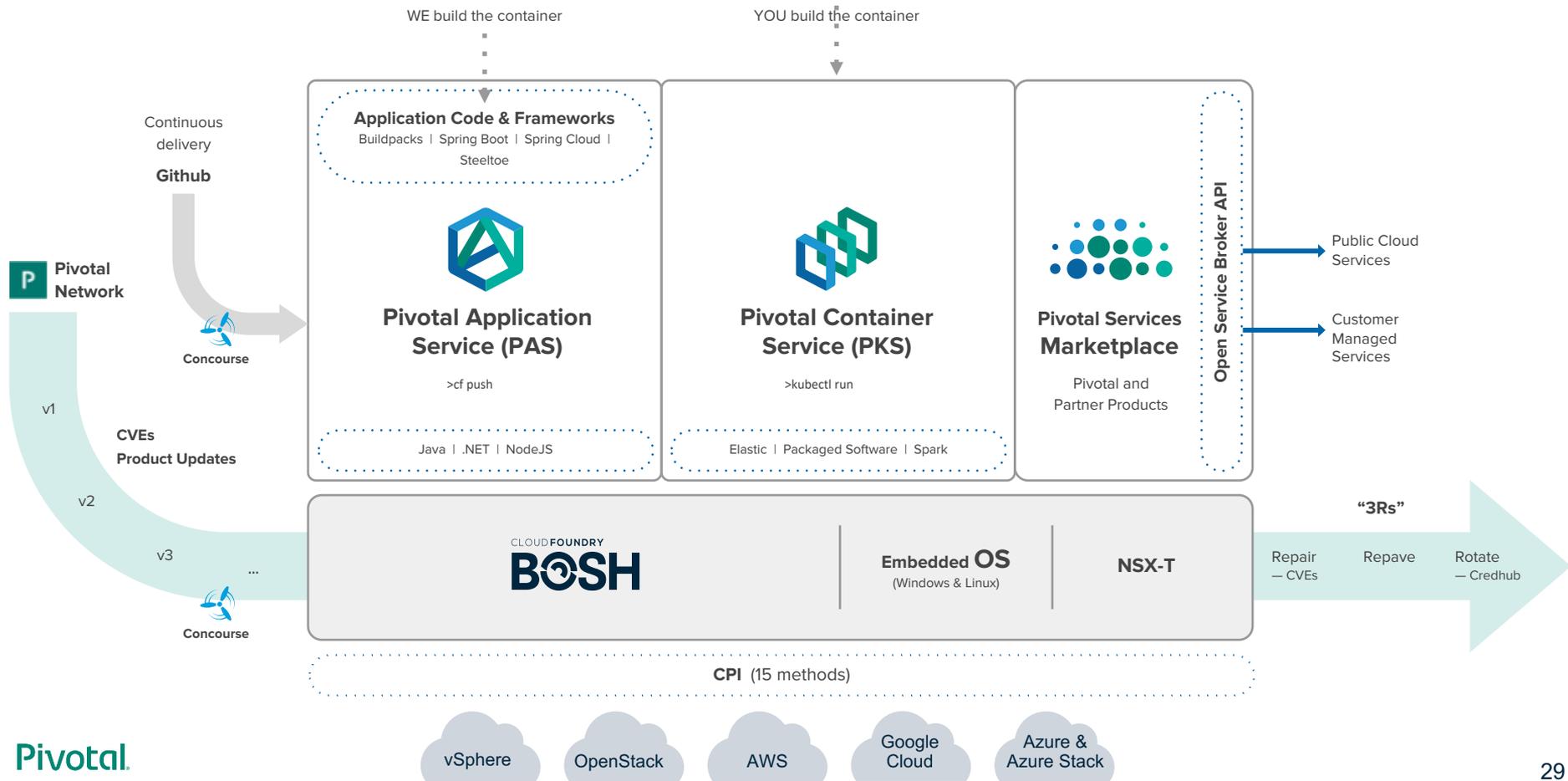


An estimated 40% to 70% of organizations need real CI/CD

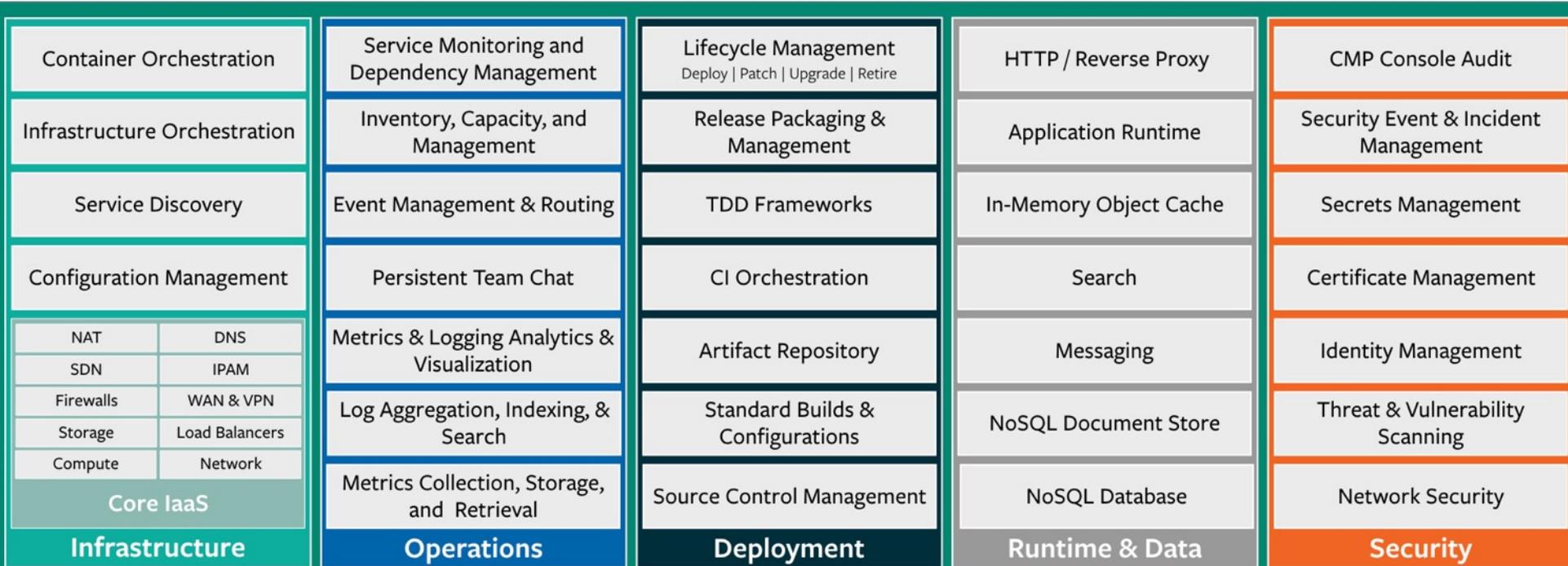


Sources: [“Speed Thrills: How to Harness the Power of CI/CD for Your Development Team.”](#) Ben Kamysz & Jared Ruckle, Pivotal, Aug 2017. CI/CD estimate based on the [“The 12th Annual State of Agile Report”](#) (2018) and [“Survey Analysis: Agile Now at the Tipping Point - Here's How to Succeed.”](#) Mike West, Gartner, June 2017, see also [estimates from 2015](#). Estimates based on CI/CD surveys, strict definitions.

Installing, managing, & extending platform operations

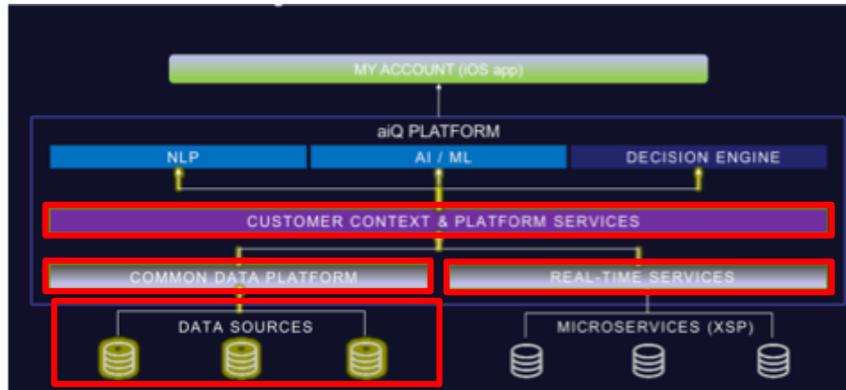
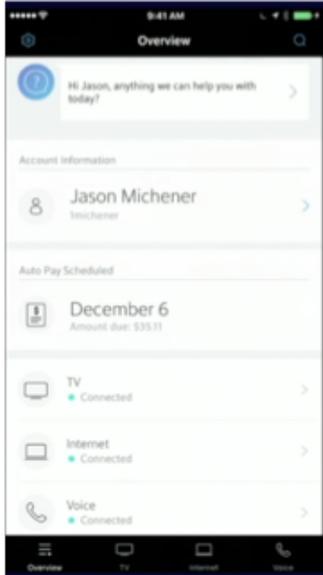


Platforms are composed of many, many components



Reference Architecture for Cloud-Native Platforms

Better, cheaper customer service with machine learning



Run on  Pivotal
Cloud Foundry®

 COMCAST +  **accenture**

- 8 weeks, 15 services & app
- Reduce costs of human agents
- Small batch cycles to discover best usage patterns
- Decomposing Java monolith into microservices

Join Pivotal as we transform how
the world builds software

<https://pivotal.io/partners/>

Labs in Berlin, Paris, London, US, Asia, ANZ

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