Annual Report 2020

CLOUD F OUNDRY

January 2021

The year 2020 marked a significant change for the Cloud Foundry Foundation and, most importantly, the Cloud Foundry community towards simplifying the cloud native developer experience on Kubernetes.

Our technical community came together in 2020 aligned around the mission of bringing the Cloud Foundry developer experience to Kubernetes infrastructure. This resulted in major release milestones from the cf-for-k8s project, KubeCF, Eirini, Quarks and Stratos projects. At the same time, our community continued its commitment to existing users of the virtual-machine-based Cloud Foundry architecture, continuing to support that platform with regular updates. In the fourth quarter, the Cloud Service Broker was accepted as an incubating project in the Extensions PMC, donated by VMware.

Mid-year, two Developer Advocates were brought on the Cloud Foundry team with the mission of introducing (or reintroducing) Cloud Foundry to developers working on Kubernetes-based infrastructure platforms. The team delivered more than 20 articles, video tutorials, hands-on labs and livestream events, viewed by several thousand individuals. These early developer marketing efforts were exploratory in 2020, and will be built upon in 2021.

The switch to virtual Summit events went reasonably well, with the virtual format allowing for nearly 2½ times the initial registration goals for our in-person events. Most importantly, the summits were used as a focal point for the community to launch its new mission and for the Foundation to support that mission through a major messaging and brand awareness change. Both events resulted in significant press coverage of our community's Kubernetes efforts. Also, the website was relaunched to reflect a focus on Kubernetes and to be more welcoming to potential new users.

The release of our user survey capped the end of the year with results showing Cloud Foundry is recognized for helping developers build, run, and manage apps faster and easier, and the survey showed increased uptake with a new class of users – especially developers at smaller enterprises.



TECHNICAL COMMUNITY

The technical community consists of four Project Management Committees (PMCs), with individual project teams further breaking down the technical efforts within the PMCs. The PMCs are: Cloud Foundry Application Runtime, BOSH, Open Service Broker API and Cloud Foundry Extensions. The lifecycle of PMCs is governed by the PMC Council, while each PMC is responsible for the lifecycle management of projects within its scope.

Prior to last year, Cloud Foundry Summits provided a regular, twice annual pulse for the CF community, fostering essential dialogue and a lot of good times. In 2020, subject to the same limitations the rest of the world faced, the Cloud Foundry community moved to virtual events. These were generally successful and, while not being a full surrogate for spending time together in person, gave the community a needed hub for checking in with one another and spotlighting the technical work of the community.

Our community continues to work towards integrating cloud native projects like Kubernetes, Istio, and Envoy into the platform, and there is consensus that the community's mission is to bring the "cf push" developer experience to Kubernetes-based environments.

CF-for-K8s released v1.0 in 2020. This was a major milestone in the unified effort to build a truly Kubernetes-native Cloud Foundry deployment.

The Cloud Foundry technical community does its work across hundreds of git repositories in the Foundation's three primary GitHub organizations (cloudfoundry, cloudfoundry-incubator, paketo-buildpacks, and openservicebrokerapi), averaging 234 repositories with activity per month. Some key statistics about our technical community activities in 2020 include:

- 40,403 commits were made by 576 unique authors to 497 different repositories
- 7,195 pull requests were made by 532 unique contributors
 - While these pull requests include some cross-project collaboration by committers, they were primarily from contributors outside of the core committer group
- 3,256 issues were opened against 250 of our repositories by 788 unique submitters
- **13,426 users** are registered in the Cloud Foundry team on Slack, with **1,080** of those users participating in discussions across **103 public channels**

What follows are some relevant highlights from that community work.



CLOUD FOUNDRY APPLICATION RUNTIME PMC

• KubeCF was donated by SUSE, accepted as an incubating project, and cut v1.0 and v2.0 releases. This provided crucial value for CF users hoping to deploy the App Runtime via Kubernetes in production.

 CF CLI v7 was released in June, with a myriad of new features including rolling app deployments, cf push substep commands, and user-provided sidecars. Congratulations to everyone who worked towards this. We've seen other new features on subsequent releases, including new cf rollback and cf revisions commands. The CAPI team continued work on the V3 API, and the CAPI-K8s-release.

- CF-for-K8s released v1.0, providing a truly K8s-native deployment for Cloud Foundry. Thanks to everyone who worked towards this major milestone, too. Support now exists for the CF CLI v7, application staging with kpack and Paketo Buildpacks (CNB), encrypted communications with Istio and Envoy, many other features and integrations.
- Eirini released v2.0, which removes Eirini buildpack staging and SCF and UAA templates, and adds several new features.
- The Perm project was wound down and moved to the attic.
- The Networking team continued its work to integrate Istio and Envoy into CF-for K8s, and cut myriad new releases.

CLOUD FOUNDRY BOSH PMC

- The BOSH project teams moved to a distributed committer model, as the wider project has moved to a maintenance stage and active development on various CPIs has ceased. The BOSH Openstack CPI is no longer maintained and has been moved to the attic. The stemcell bump cadence has slowed.
- BOSH team introduced a new stemcell line based on Ubuntu 18.04 LTS (Bionic Beaver).
- Project Quarks cut a number of releases, continuing to enable the easy packaging of CF App Runtime components as containers for Kubernetes.

OPEN SERVICE BROKER API PMC

Work on the Open Service Broker API has slowed, as the spec has been relatively stable. Version 2.16 was released in 2020.









Technology & Community

EXTENSIONS PMC

Troy Topnik (SUSE) has taken over as PMC lead for the Extensions PMC, which continued to support a variety of ongoing projects that extend the Cloud Foundry Application Runtime and BOSH platforms:

- Paketo Buildpacks, a collection of CNB-compliant, next generation CF buildpacks was launched
- Stratos added extensions for K8s and Helm and made major UI improvements
- EiriniX, an extensions library for Eirini, was donated as an incubating project from SUSE
- CF Backup and Restore was donated as an incubating project from SUSE
- Cloud Service Broker was donated as an incubating project from VMware
- MultiApps added new features, including multiple-instance deployments of the same MTA in a single space and using the "service-broker" parameter to specify which broker to use.

VULNERABILITY MANAGEMENT

Our technical community continues to make security a top priority, including responsibly handling vulnerabilities discovered in both the Cloud Foundry codebase and those from upstream dependencies. Over the course of the year, 22 vulnerabilities were identified and resolved. An additional 69 upstream critical vulnerabilities were identified and remediated within Cloud Foundry project releases. In 2020, the Foundation marketing and communications team switched gears, along with the rest of the world, to virtual events. The team hosted two virtual Cloud Foundry Summits in North America and Europe, launched multiple new marketing campaigns, refreshed outdated content on its website, updated key documents, and published 11 articles from the executive team. The marketing team also did a significant amount of work to transition to the new message of Cloud Foundry being a developer experience for Kubernetes.

GLOBAL CLOUD FOUNDRY EVENTS

Originally planned to co-locate with the Open Source Summits in Austin, Texas (North America), and Dublin, Ireland (Europe), the 2020 Cloud Foundry Summits were designed to give the Cloud Foundry community a deep-dive into technical content while building community, both within the Cloud Foundry ecosystem and across the broader cloud native universe. The goal was to show enterprise developers the power of the cf push experience to simplify their workflows and connect the dots to related technologies in the evolving cloud native world.

When the global pandemic hit, with the support of our members, we adapted, iterated, and updated, making the pivot to virtual Summits. The virtual North America Summit attracted 764 registrants–nearly 2½ times the initial registration goal–from a record 46 countries, and the virtual European Summit attracted 520 registrants from 33 countries.

PRESS COVERAGE 2020

2020 was another very successful year for press and analyst relationships and coverage for the Cloud Foundry community. In fact, there were 4,555 media mentions of "Cloud Foundry" and 999 media mentions of "Cloud Foundry Foundation" in global coverage. Cloud Foundry Foundation issued 18 press releases, with the communications teams and its member organizations pitching a wide range of news items throughout the year.

Some coverage highlights from the year, excluding Summit coverage, include:

- Container Journal: VMware Sets Kubernetes Strategy for 2020 (1/2)
- ComputerWeekly: With friends like AWS, who needs an open source business? (1/7)
- CIO Dive: Enterprise-scale companies adopting Azure over AWS, Goldman Sachs finds (1/10)
- JaxEnter: 5 DevOps trends everyone should get ready for in 2020 (1/14)
- CIO Dive: What applications are moving to the cloud? (1/15)
- InfoQ: Falco is the First Runtime Security Project to be Accepted into CNCF Incubator (1/16)

- ZDnet: CircleCl automates Continuous Delivery to multiple clouds (1/24)
- Network World: Cisco and IBM offer a managed private-cloud service (1/24)
- InfoQ: CircleCl Introduces New Orbs to Simplify Deployment Activities (2/4)
- The New Stack: How Cloud Foundry Has Felt the Kubernetes Effect (2/10)
- TFIR: Cloud Foundry Foundation Turns 5 (2/12)
- InfoQ: Platforms Demystified: Cloud Foundry, Kubernetes, Eirini, and Knative (2/26)
- Datanomi: PostgreSQL Gets a Parallel Processing Boost (2/27)
- Container Journal: Mendix Enables Private Clouds Based on Kubernetes (3/6)
- ZDnet: Linux and open-source conferences: List of what's canceled or going virtual (3/9)
- ZDnet: Quels sont les évènements tech touchés par le Coronavirus ? (les annulations et les reprogrammations) (3/10)
- eWeek: How VMware Has Modernized Its Main Lineup (3/11)
- SDxCentral: Cloud Foundry Foundation Adopts KubeCF Runtime (3/20)
- TechRepublic: How to keep engineering teams connected when telecommuting (3/20)
- ZDnet: With KubeCF, Cloud Foundry comes to Kubernetes (3/20)
- Heise: CloudFoundry packt mit KubeCF das eigene Angebot auf Kubernetes (3/23)
- @IT: Cloud Foundry Foundation、KubeCFでKubernetes上の"cf push"に向け前進 (3/23)
- Techzine: KubeCF laat Cloud Foundry draaien op Kubernetes (3/23)
- Techzine.nl: KubeCF laat Cloud Foundry draaien op Kubernetes (3/23)
- Aboutict: KubeCF laat Cloud Foundry draaien op Kubernetes (3/23)
- Silicon.fr: Cloud Foundry sur Kubernetes : le projet KubeCF se structure (3/23)
- Heise Developer: CloudFoundry packt mit KubeCF das eigene Angebot auf Kubernetes (3/23)
- Computable.nl: KubeCF onderdeel Cloud Foundry (3/23)
- Oozo.nl: KubeCF onderdeel Cloud Foundry Computable (3/23)
- Computable.be: KubeCF onderdeel Cloud Foundry (3/23)
- Aboutict: KubeCF onderdeel Cloud Foundry (3/23)
- Business Computing World: Cloud Foundry in Azure, made easier (3/23)
- TFIR: KubeCF: A Kubernetes-Native Distribution Of Cloud Foundry (3/24)

Marketing & Communications

- Programmez: La Cloud Foundry Foundation annonce son nouveau projet d'incubation KubeCF (3/24)
- DevClass: Cloud Foundry spreads wings to cover KubeCF (3/24)
- DutchITChannel.nl: KubeCF voegt zich bij Cloud Foundry Foundation (3/24)
- Executive-People.nl: KubeCF voegt zich bij Cloud Foundry Foundation (3/24)
- Programmez: La Cloud Foundry Foundation annonce son nouveau projet d'incubation KubeCF (3/24)
- ZDnet: SUSE offers free enterprise Linux support to medical devices manufacturers (3/25)
- MtoM Mag: KubeCF rejoint la Cloud Foundry Foundation (3/25)
- The New Stack: Q&A: How SAP Views The Role of Open Source within the Enterprise (3/26)
- Sempre Update: SUSE oferece suporte corporativo gratuito ao Linux para fabricantes de dispositivos médicos (3/26)
- TFIR: Do I Use Kubernetes Or Do I Use Cloud Foundry? (3/27)
- L'informaticien | The computer: KubeCF incubating in the Cloud Foundry Foundation (CFF) (3/27)
- Linux.com: KubeCF Is What DevOps Wanted: Marrying Cloud Foundry With Kubernetes (3/27)
- The Register: Google polishes platinum Cloud Foundry membership badge as foundation takes KubeCF under its wing (3/27)
- Business Computing World: KubeCF Is What DevOps Wanted: Marrying Cloud Foundry with Kubernetes (3/27)
- Forbes: Why Education Is Key To A Developer Marketing Strategy (4/6)
- Chief Information Officer: Manage the Hybrid Cloud (4/6)
- ICTkommuikation: Cheftechnologe Chip Childers übernimmt bei der Cloud Foundry Foundation das Ruder (4/7)
- Inuit: Cheftechnologe Chip Childers übernimmt bei der Cloud Foundry Foundation das Ruder (4/7)
- The Cloud Report: Cloud Foundry Foundation's CTO Steps into Executive Director Role (4/7)
- The Cloud Report: "Figure out how to take the right steps that will evolve the technology. That is my main goal" (4/7)
- E3 Zine: Cloud Foundry Foundation's CTO Chip Childers Steps Into Executive Director Role (4/7)

- The New Stack: Chip Childers Takes Executive Director Role at Cloud Foundry (4/7)
- SDxCentral: Cloud Foundry Changes Captains, Keeps Sites on Kubernetes (4/7)
- TFIR: 3 key Focus Areas of Cloud Foundry Foundation (4/7)
- TFIR: VMware at the heart of Cloud Foundry and Kubernetes (4/7)
- TFIR: Chip Childers Appointed Executive Director of Cloud Foundry Foundation (4/7)
- Linux.com: Chip Childers Appointed Executive Director of Cloud Foundry Foundation (4/7)
- TFIR: Chip Childers Appointed Executive Director Of Cloud Foundry Foundation (4/7)
- TechCrunch: Cloud Foundry Foundation executive director Abby Kearns steps down to pursue a new executive role elsewhere (4/7)
- Finanzen.net: VMware Exec Named Cloud Foundry Foundation Board Chairman (4/7)
- MashViral: Cloud Foundry changes top leadership (4/8)
- SearchITOperations: Foundation exec seeks Cloud Foundry vs. Kubernetes detente (4/8)
- MarketScreener: VMware : Chip Childers Takes Executive Director Role at Cloud Foundry (4/8)
- MarketScreener: VMware : Cloud Foundry Foundation executive director Abby Kearns steps down to pursue a new executive role elsewhere (4/8)
- L'informaticien: La CFF (Cloud Foundry Foundation) change de directeur exécutif (4/8)
- The Register: Changing of the guard at Cloud Foundry: CTO made executive director, VMware veep becomes chairman of the board (4/8)
- DataCenter-Insider: "Alle Kubernetes-Cluster sollen von Cloud Foundry profitieren" (4/8)
- ZDnet: Cloud Foundry sees top leadership change (4/8)
- IT Reseller: Chip Childers übernimmt Führung bei Cloud Foundry (4/8)
- Silicon UK: Sysdig Expands Unified Monitoring Across IBM Cloud Services Globally (4/8)
- MtoM Mag: Le CTO de la Cloud Foundry Foundation promu directeur général (4/10)
- MtoM Mag: Nomination d'un dirigeant de VMware à la présidence du Conseil d'administration (4/10)
- Technologik: CTO nommé directeur exécutif, VMware veep devient président du conseil d'administration (4/12)
- SaaS Magazine: Cloud-native Entwicklungsumgebungen (4/12)
- ZDNet Japan: Cloud Foundry Foundationのトップが交代 (4/13)

- SiliconAngle: VMware updates its Tanzu application development tools (4/14)
- SDxCentral: VMware Tanzu Gains Features, Availability (4/14)
- SaaS Magazine: Entwickler-Tool für die Cloud-native Welt (4/14)
- Container Journal: CFF Certifies Kubernetes as Diego Alternative (4/15)
- Linux.com: Face-to-face collaboration for community to become more impactful Chip Childers (4/17)
- Sohu: Cloud Foundry基金会五周年,企业级PaaS终将普及 (4/18)
- NewGenApps: Top 5 Cloud Platforms and Solutions to Choose From (4/18)
- TFiR: SUSE's Bridge Between Kubernetes & Cloud Foundry: Thomas Di Giacomo (4/20)
- Inside IT: Swisscom stampft sein Public-PaaS-Angebot ein (4/20)
- It markt: Swisscom stoppt sein Public-PaaS-Angebot (4/20)
- Computerworld.ch: Aus für das Public-PaaS-Angebot von Swisscom (4/20)
- ITReseller: Swisscoms Public Application Cloud ist Geschichte (4/20)
- SDTimes: Cloud Foundry releases Paketo Buildpacks to provide application language runtime support (4/21)
- Container Journal: CFF Launches Paketo Buildpacks for Containers (4/21)
- ComputerWeekly: How DBS is reaping the dividends of digital transformation (4/22)
- Heise: Containerisierung: Cloud Foundry Foundation stellt Paketo Buildpacks vor (4/22)
- The Register: Google Cloud CEO says Istio will be handed to a foundation. The Reg: But what about..? Google: That will be all. (4/23)
- Forbes: Why Enterprises Must Prioritize Software Developers' Creativity (4/24)
- Portland Business Journal: Puppet adds a second chief technology officer to focus on enterprise sales (4/29)
- TechCrunch: Puppet names former Cloud Foundry Foundation executive director Abby Kearns as CTO (4/29)
- The Register: Ex-Cloud Foundry boss to pull strings at Puppet as CTO, says open-source software 'evolves faster, is more mature' (4/29)
- ZDNet: Abby Kearns takes over as Puppet CTO (4/29)
- ZDNet.fr: Open source : nominations chez Avencall, Red Hat et Cloud Foundry (4/29)

- The US Breaking News: Abby Kearns takes over as Puppet CTO (4/30)
- SDTimes: SD Times news digest: ActiveState's Python 2 support, DeepCode's bug bounty contest and Cloud Foundry's tutorial hub (4/30)
- TechCrunch: Cloud Foundry renews its focus on developer experience as it looks beyond the enterprise (4/30)
- ComputerWeekly: Red Hat-VMware rivalry intensifies with Openshift virtualisation (4/30)
- Emerce: VMware Tanzu brengt updates uit voor app development en Cloud beheer (4/30)
- Breakingnews.fr: L'exécutif de GE Healthcare rejoint Microsoft; Puppet nomme un nouveau CTO; Adaptive Biotech se développe (4/30)
- SDTimes Digital Magazine: People on the Move (5/1)
- Dev-Insider: "Alle Kubernetes-Cluster sollen von Cloud Foundry profitieren" (5/1)
- Cloud 7: Cloud Foundry Foundation launched Cloud Foundry tutorials hub (5/1)
- TFiR: Cloud Foundry Launches Tutorial Hub For New Users (5/1)
- Protocol: Why Is Counting Video Callers So Complicated? (5/1)
- SaaS Magazine: Entwickler-Tool für die Cloud-native Welt (5/5)
- The Register: VMware's Tanzu Application Service for Kubernetes hits beta, will take some time to get production-ready (5/5)
- Techzine.nl: Cloud Foundry wil PaaS-dienst toegankelijker maken (5/5)
- Forbes: Businesses Must Embrace Agility Amid Calamity (5/8)
- SearchITOperations: VMware Tanzu beta project melds Cloud Foundry, Kubernetes (5/8)
- E3zine: cloud foundry foundation highlights community and harmonizes with kubernetes (5/11)
- Forbes: The Era Of Cloud Nomads: Why Multi-Cloud Is Here To Stay (5/13)
- SearchITOperations: VMware Tanzu seeks IT attention with Kubernetes security buy (5/13)
- The New Stack: The Case for Boring Tech: Relational Databases in the Cloud (5/18)
- ZDNet: How Cloud Buildpacks can help you deploy complex applications to your cloud (5/18)
- TFiR: Why Did Abby Kearns Join Puppet As CTO? (5/18)
- DZone: Running Docker Containers on Cloud Foundry (5/19)
- Kubernetes Podcast: Cloud Foundry, with Chip Childers (5/26)

Marketing & Communications

- Forbes: The Biggest Impact Of Open Source On Enterprises Might Not Be The Software Itself (5/26)
- ITProPortal: Systemic Agility' is key to enterprise survival (6/3)
- Cloud Computing Insider: STACKIT plant Cloud-Angebote aus DACH (6/4)
- TFIR: Cloud Foundry Launches Paketo Buildpacks (6/4)
- DZone: Deploying Docker Containers in Cloud Foundry Using a Private Registry (6/8)
- SearchDataManagement: Yugabyte boosts distributed SQL database with new funding (6/9)
- E3zine: Die wichtigste Open-Source-Komponente: Die Community (6/10)
- E3zine: Cloud Foundry Community And Foundation Unite To Offer Tutorial Hub (6/14)
- security Insider: Was bringt DevSecOps für die Sicherheit? (6/16)
- TNS: Cloud Foundry's Second Act: Bring a Proven Developer Experience to Kubernetes (6/17)
- Container Journal: SAP Advances Microservices Strategy (6/18)
- Linux.com: What do Paketo Buildpacks Mean for Developers and Operators (6/19)
- TFIR: Cloud Foundry Summit Is Next Week | What To Expect (6/19)
- Heise: SAS arbeitet mit Microsoft an Analyse aus der Cloud (6/22)
- TFIR: How Cloud Foundry Is Helping Developers During Covid-19 (6/22)
- GCN: Agencies' pandemic response shows true power of cloud services (6/23)
- Tech Herald: SUSE's 2.0 release to speed up software production (6/27)
- Towards Data Science: 20 Best Visual Studio Code extensions for Cloud Native Development in 2020 (6/28)
- Container Journal: Kubernetes Turns 6, Comes of Enterprise Age (6/29)
- PCQuest: SUSE Cloud Application Platform 2.0 Accelerates Software Production (6/29)
- Codemotion: Foundation Announces Availability of New Features to Make Modern Application Development Even Simpler for Developers (6/30)
- Medium: Paketo Buildpacks: Paketo Buildpacks Hot Topic at Cloud Foundry Summit (6/30)
- SearchITOperations: Kubernetes complicates Cloud Foundry platform development (7/1)
- The New Stack: Cloud Foundry Summit: Developers Shouldn't Have to Worry about Kubernetes (7/2)
- ZDNet: Google open sources trademarks with the Open Usage Commons (7/8)

- it business: Suse verheiratet Cloud-Foundry mit Kubernetes (7/9)
- DataCenter Insider: Was ist, was macht Cloud Foundry? (7/9)
- SDxCentral: Google's Istio Move Irks IBM, Confounds Industry (7/9)
- Devops: DevOps Deeper Dive: Google Roils Open Source Community (7/10)
- Devops: Google Exposes Old Wounds in Open Source Community (7/15)
- The New Stack: Your Lines of Code Are Not a Success Metric (7/15)
- GeekWire: Portland cloud infrastructure automation startup Puppet raises \$40M (7/16)
- Analytics India Magazine: How Vendor Lock-in Works In Analytics And How To Avoid It (7/21)
- Jax Enter: "The priority going forward is making automation actionable, scalable and intelligent" (7/22)
- SiliconAngle: Solo.io pitches unified control layer for application traffic with Gloo Federation (7/22)
- Forbes: Why Automation Engines Matter To Best-In-Breed DevOps Vendors (7/27)
- DataCenter Insider: VMware Tanzu: Multicloud-Bereitstellung von Kubernetes (7/29)
- Container Journal: The CNCF etcd project reaches a significant milestone with completion of security audit (8/5)
- Heise: Spring Cloud Data Flow 2.6 bietet Monitoring-Integration mit Wavefront (8/7)
- Datanomi: Is Kubernetes Overhyped? (8/10)
- Container Journal: CFF Aims to Meld PaaS and Kubernetes Management (8/14)
- InfoQ: Build Your Own PaaS with Crossplane: Kubernetes, OAM, and Core Workflows (8/14)
- E3zine: Cloud Foundry Foundation Announces Availability Of cf CLI v7 (8/14)
- TechCrunch: SUSE contributes EiriniX to the Cloud Foundry Foundation (8/17)
- TFIR: Challenges For Kubernetes & Cloud Foundry Users (8/17)
- The New Stack: All Cloud Native Roads Lead to Fargate (8/18)
- Techzine.eu: Suse also contributes EiriniX to Cloud Foundry Foundation (8/20)
- Techzine.nl: Suse maakt EiriniX beschikbaar in het Cloud Foundry-platform (8/20)
- Data Center Knowledge: Is Kubernetes Changing Data Centers in Perceptible Ways? (8/25)
- IT Pro Today: Is Kubernetes Changing Data Centers in Perceptible Ways? (8/26)
- Maschinenmarkt: Cloud Foundry Summit Europe findet vom 21. bis 22. Oktober statt Call for Papers endet am 10. September (8/27)

- Admin Magazin: Cloud Foundry Foundation lädt zum virtuellen Summit (8/27)
- CloudComputing Insider: Die größten Cloud-Pannen der Corona-Krise (8/27)
- Linuxmagazin: Cloud Foundry Summit Europe findet virtuell stattfinden (8/27)
- TFIR: CFF Virtual European Summit To Kickstart On Oct 21 (8/28)
- TFIR: Julian Fischer Founder & CEO of anynine | Cloud Foundry & Kubernetes (8/31)
- Forbes: Four Tips For Hosting The Best Virtual Event Possible (9/2)
- TFIR: What Is EiriniX And What Problem Is It Trying To Solve? (9/2)
- IT-Administrator: Cloud Foundry Foundation lädt zum virtuellen Summit ein (9/3)
- Container Journal: etcd Data Store Project Key to Scaling Kubernetes Clusters (9/8)
- E-3 Magazine: E-3 Interview With SAP CTO Jürgen Müller (9/11)
- The Register: Google's solution for Business Application Platform: More Anthos (9/14)
- Cloud Computing Insider: 7 kostenlose Lösungen für die Private Cloud (9/17)
- TFIR: Bringing Cloud Foundry KubeCF To Mainframe | Open Mainframe Summit (9/18)
- TFIR: Sorry, Kubernetes & Cloud Foundry Are Not the Same | Julian Fischer (10/2)
- TFIR: Both Cloud Foundry & Kubernetes Attract Similar User cases | Julian Fischer (10/8)
- TFIR: anynines Announces Extension Of a9s PaaS at Cloud Foundry Summit (10/20)
- TFIR: Cloud Foundry Foundation Kicks Off European Summit (10/20)
- Container Journal: Cloud Foundry Foundation Embraces Kubernetes Fully (10/20)
- TechCrunch: Cloud Foundry coalesces around Kubernetes (10/20)
- E3zine: Cloud Foundry Announces KubeCF, Cf-for-k8s And Stratos Updates (10/20)
- TFIR: Simplifying Developer Experience with VMware Tanzu (10/26)
- InformatiqueNews: Cloud Foundry se renforce autour de Kubernetes (10/26)
- CloudComputing Insider: The Cloud Foundry Foundation makes it easy for itself (10/27)
- DevClass: Open sourcers get unlimited container pulls after sitting on the Docker 'obey', says firm (11/3)
- Datacenter Insider: Kubernetes killt OpenStack (11/11)
- TFIR: Kubernetes vs BOSH For Deploying Cloud Foundry | KubeCon Special (11/17)
- Cloud Pro: Cloud Foundry looks to embrace Kubernetes (11/19)

- The New Stack: The Growing Complexity of Kubernetes And What's Being Done to Fix It (11/20)
- Forbes: The Six Risks To Assess Before You Choose That Open-Source Technology (11/20)
- ITPro: Cloud Foundry looks to embrace Kubernetes (11/21)
- TFIR: Easily Migrate Cloud Foundry Apps from BOSH to GKE With KF (11/23)
- VMBlog: Cloud Native Meets the Edge, Pandemic After Effects and Pervasive Machine Learning (11/23)
- TechZine.NL: Cloud Foundry maakt definitief stap naar Kubernetes (11/24)
- TFIR: 2021 Predictions By Chip Childers, Executive Director of Cloud Foundry (11/30)
- E3zine: SAP Cloud Platform: The Good And The Ugly (12/7)
- The New Stack: PaaS or Fail? The Advantages of Platform-as-a-Service (12/11)
- TFIR: Meet New Cloud Foundry Foundation Developer Advocates (12/11)
- Bootiful Podcast: Cloud Foundry Developer Advocate Shedrack Akintayo (12/17)
- TFIR: User Survey Shows Cloud Foundry Helps Developers Build, Run, And Manage Apps Faster (12/18)
- TFIR: Highlights Of The 2020 Cloud Foundry User Survey (12/22)
- TFIR: Cloud Foundry Cuts Cycle Times From Months To Days | 2020 Cloud Foundry User Survey (12/22)
- Container Journal: Survey Shows Kubernetes, Cloud Foundry Synergies (12/23)
- TFIR: More Cloud Foundry Than Ever: 2021 Predictions By anynines (12/23)

The communications team brought in 10 analysts and journalists. Media coverage was impressive, with articles published in outlets including TechCrunch, ZDNet, SDxCentral, The New Stack, TFiR and many other publications from inside and outside the U.S. Analysts and journalists attended an off-the-record



panel on June 23rd to learn more about the release of cf CLI v7 and the project's roadmap. Four reporters attended the briefing, while more attended the sessions. Three briefings took place with Chip Childers.

Coverage highlights are below:

- TechCrunch: Cloud Foundry gets an updated CLI to make life easier for enterprise developers
- TechCrunch: Suse launches version 2.0 of its Cloud Foundry-based Cloud Application Platform
- The New Stack: Cloud Foundry Summit: Developers Shouldn't Have to Worry about Kubernetes
- ZDNet: New Cloud Foundry command-line interface arrives
- SDxCentral: Cloud Foundry Touts Kubernetes Progress, New CLI
- Devops.com: Cloud Foundry Foundation Updates CLI to Extend DevOps Processes
- TFiR: CFF Releases Latest Version Of Cloud Foundry Command Line Interface
- SearchITOperations: Kubernetes complicates Cloud Foundry platform development
- Codemotion: Foundation Announces Availability of New Features to Make Modern Application Development Even Simpler for Developers
- PCQuest: SUSE Cloud Application Platform 2.0 Accelerates Software Production
- iavcworld: Cloud Foundry veröffentlicht neue Version 7 des cf CLI
- Golem: Cloud Application Platform 2.0 vorgestellt
- Nau.ch: SUSE präsentiert Version 2.0 von Cloud Application Platform
- CIO Tech Asia: SUSE releases new Cloud app platform
- Enterprise IT World: SUSE Cloud Application Platform 2.0 Accelerates Software Production to Increase Business Agility
- Fintech in Shorts: SUSE: Launches Version 2.0 of Its Cloud Foundry
- Heise Ix: SUSE aktualisiert Cloud Application Platform auf Version 2.0
- Heise Ix: Die Cloud Foundry Foundation erweitert die Kommandozeile für die Cloud
- Linuxmagazin: Suse stellt Cloud Application Platform 2.0 vor
- Datacenter Insider: Automatischer, schneller, sicherer, Kubernetes: Suse für ergebnisorientierte Software-Projekte

Cloud Foundry EU Summit 2020 attracted 13 journalists from French, German, Dutch, UK and US media. An exclusive virtual press event on October 20th gave journalists the opportunity to speak with Cloud Foundry certified providers, including: Jason



McGee, IBM; Marc Geall, SAP; Thomas Di Giacomo, SUSE; and Ian Andrews, VMware.

Media coverage was impressive with 39 articles published including TechCrunch, Computable (Benelux), LeMagIT, Datacenter Insider, the Cloud Report and others.

Separate interviews were set up with Gaetan Raoul of LeMagIT (France), who was unable to attend the press conference, and Max Cooter, IT Pro (UK) who wanted additional details.

Coverage highlights are below:

- Techcrunch: Cloud Foundry coalesces around Kubernetes
- Container Journal: Cloud Foundry Foundation Embraces Kubernetes Fully
- E3zine: Cloud Foundry Announces KubeCF, Cf-for-k8s And Stratos Updates
- TFIR: Cloud Foundry Foundation Kicks Off European Summit
- TFIR: anynines Announces Extension Of a9s PaaS at Cloud Foundry Summit
- Computable.be: Cloud Foundry omarmt Kubernetes volledig
- Global Security Mag: L'écosystème Cloud Foundry se rassemble autour de Kubernetes avec l'annonce de mises à jour majeures de projets par la Cloud Foundry Foundation
- iTechnews: Cloud Foundry coalesces around Kubernetes
- Dutch IT Channel: Cloud Foundry will fully support Kubernetes
- IT Ops Times: Cloud Foundry announces project updates around Kubernetes
- Datacenter Insider: Die Cloud Foundry Foundation macht es sich einfach
- M-to-M Mag: Cloud Foundry simplifie l'experience developpeur sur Kubernetes
- Toolinux: Cloud Foundry : nouveautés pour Cf-for-k8s, KubeCF et Stratos
- e3Zine: CF Summit 2020: Cloud Foundry Is A Developer Experience For Kubernetes
- Inside-IT: Cloud Foundry schmiegt sich näher an Kubernetes
- TFIR: Stark & Wayne Increase Focus On Data Protection For Cloud Foundry
- TFIR: Cloud Foundry Is A Developer Experience For Kubernetes | Chip Childers
- TFIR: Integrating service brokers with Kubernetes operators
- The New Stack: Cloud Foundry Aims to Bring the Ease of 'cf push' to Kubernetes
- LeMagIT: Cloud Foundry a deux voies, mais un seul objectif : Kubernetes

- Cloudinzicht: Cloud Foundry fully embraces Kubernetes
- InformatiqueNews: Cloud Foundry se renforce autour de Kubernetes
- CloudComputing Insider: The Cloud Foundry Foundation makes it easy for itself

INDUSTRY ANALYST RELATIONS

In 2020, Cloud Foundry Foundation took a targeted approach to industry analyst relations, focusing its efforts on analysts from tier one and influential boutique firms. Over the course of the year, more than 23 analysts from 9 firms including Gartner, Forrester, IDC, 451, and RedMonk participated in briefings and events designed to increase their awareness and understanding of Cloud Foundry technologies, contributors and users. These and other interactions resulted in mentions of Cloud Foundry in 83 industry analyst reports and blogs.

The Cloud Foundry Foundation team hosted an analyst briefing ahead of the start of the Cloud Foundry Virtual Summit NA. The focus of this analyst event was very different from past years, primarily centered around updating the analysts on the work of the open source community in continuing to evolve the Cloud Foundry architecture and developer experience. Seven analysts from 451 Research, Aberdeen, Forrester, IDC, and Redmonk attended and participated in a discussion with the Foundation executive team and Cloud Foundry project contributors.

Just after the European Summit, we set up a virtual analyst forum. While in the past these events have featured end user customers, this year we took a different approach. The panel consisted of project leads Dieu Cao, Eric Malm, Troy Topnik and Angela Chin, hosted by Chip Childers to discuss the news and future directions of the projects. This approach is in line with the strategy of building community within the Cloud Foundry ecosystem and across the broader cloud native universe by targeting the developers. Six analysts attended from IDC, CCS Insight, Freeform Dynamics and Analysys Mason. Separate interviews were set up with IDC, Gartner, Omdia and Richard Marshall in early November. Some analysts also attended the virtual summit.

CONTENT

In 2020, we published 87 blog posts on the website and seven additional posts on the new Cloud Foundry Medium page.

Top Blog Posts Include:

- Cloud Foundry Becomes More Kubernetes Native with cf-for-k8s
- How to Connect VS Code to Cloud Foundry Application Runtime

- Citi Banks on Cloud Foundry to Accelerate Its Innovation
- A Better Way to Split the Cake: CPU Entitlements
- How to Push an App to Cloud Foundry with Sidecars

DEVELOPER ADVOCACY

In the summer of 2020, we added two Developer Advocates to the Cloud Foundry team in order to connect with developers and other practitioners. The main goals of the advocacy team is to uncover more audiences who could benefit from discovering Cloud Foundry, and complement the efforts of contributors who are already a part of the community.

The Advocacy team has been working to publish technical content with a focus on making tutorials available for audiences who discover Cloud Foundry. In addition, the team has been writing and publishing about the purpose and benefits of various Cloud Foundry projects and started making headways with our outreach efforts.

Summary of items published so far:

- 9 video tutorials published
- 7 blog tutorials published
- 3 Hands-on Labs Hosted
- 2 tutorials added to tutorials.cloudfoundry.org
- 1 livestream

DIGITAL

In 2020, the Foundation prioritized Developer Experience, Community and Operational Efficiencies to drive our efforts in 2020 focusing on organic website content and user experience to drive our audience to relevant content. There was a significant amount of work done to rebuild the Cloud Foundry website and launch new pages to reflect these top-level priorities.

The goal of the website redesign was to:

- Establish Cloud Foundry as the "proven developer experience for Kubernetes"
- Drive traffic to project pages, documentation, Github repos
- Eliminate redundant content and pages to streamline the user experience
- Improve SEO rankings for 'Kubernetes'



Website updates in 2020 included:

- Redesign website to highlight Cloud Foundry for Kubernetes messaging
- New cloudfoundry.org pages:
 - Technology
 - · KubeCF
 - · Cf-for-k8s
 - · Five Years of Cloud Foundry
- Work with the community to launch standalone pages including:
 - · Paketo.io
 - $\cdot\,$ Tutorials Hub
 - · Kubecf.io
 - · Cf-for-k8s.io
- Redesigned pages include:
 - · Homepage
 - · Top Navigation
 - \cdot Why Cloud Foundry
 - · Get Started
 - · Projects
 - · Events

Website Highlights include:

GET STARTED

https://www.cloudfoundry.org/get-started/

- Impressions: 2.5% increase (124,103 to 127,208)
- Clicks: 37% increase (2,147 to 2,950)
- Click-Through Rate: 34% Increase (from 1.73% to 2.32%)
- Sessions: 68% increase (1,955 to 3,285)
- Noteworthy ranking changes:
 - This page more than doubled the number of keywords it ranks for in the Top 3 search results (this stat does not take into account personalized results, such as individual search

Marketing & Communications

history). This would have contributed significantly to the increase in clicks and sessions that originated on this page (as well as redirects).

· Most ranking keywords are related to training and certification.

WHY CLOUD FOUNDRY

https://www.cloudfoundry.org/why-cloud-foundry/

- Impressions: 22% increase (72,199 to 87,801)
- Clicks: 13% increase (183 to 207)
- Sessions: 49% increase (269 to 402)
- Noteworthy ranking changes:
 - · Now ranking for terms related to "cloud microservices" and "Kubernetes"

PROJECTS

https://www.cloudfoundry.org/projects/

- Impressions: 270% increase (20,898 to 77,282)
- Clicks: 219% increase (143 to 456)
- Sessions: 373% increase (124 to 586)
- Noteworthy ranking changes:
 - This page has increased significantly for branded terms (i.e. various forms of "cloud foundry") which may explain some of the decreased numbers we're seeing for the homepage for the same terms.
 - Increases for all search terms related to bosh, eirini, container runtime, application runtime, quarks, etc. (Sidenote: We aren't getting as many clicks for these terms overall so this has contributed to decreased organic search traffic for the site as a whole.)

TECHNOLOGY

https://www.cloudfoundry.org/technology/

• Ranking in Top 3 for many search terms related to "kubernetes" and "cloud foundry"



ORGANIZATIONAL RESTRUCTURING

The Cloud Foundry Foundation's Board of Directors voted in late 2020 to execute a change to the corporate structure supporting the community, bringing the Foundation into the Linux Foundation as a directed fund as of January 1, 2021.

STAFF CHANGES

The Foundation went through several transitions to the support staff during 2020, with several members of the team moving on to their next career challenges. Additionally, the team added two new members to focus on developer advocacy.

BUSINESS DEVELOPMENT

- **Summits:** Our Cloud Foundry virtual summits were close to breaking even, with a combined cost of approximately \$210,000 and a combined revenue of \$200,000. Member support for these events is the only way they will continue to exist, and our goal is for the events to be at or close to breaking even.
- **Membership:** In 2020, one company joined the Foundation as a member. Google upgraded to Platinum during 2020. The transition into the Linux Foundation is ongoing as past members continue to sign the participation agreements.
- **Cloud Foundry PaaS Certification:** Seven distributions achieved Cloud Foundry PaaS Certification in 2020: Atos Cloud Foundry, Cloud.gov, IBM Cloud Foundry, VMware Cloud Foundry, SAP Cloud Platform, SUSE Cloud Application Platform and Swisscom Application Cloud.



PRELIMINARY 2020 FINANCIAL SUMMARY

These figures are preliminary as of the publication of this annual report. The 2020 budget listed is the initial budget approved at the start of the year, and it does not include changes made during the reforcasting process as business conditions changed throughout the year.

REVENUE	2020 BUDGET	2020 ACTUAL	2020 VARIANCE
Membership	\$4,205,016	\$3,982,321	(\$222,694)
Event Sponsorship	\$300,000	\$207,087	(\$92,913)
Platform Certification	\$300,000	\$300,000	-
Training	\$20,000	\$11,689	(\$8,311)
TOTAL REVENUE	\$4,825,016	\$4,501,296	(\$327,296)

EXPENSES	2020 BUDGET	2020 ACTUAL	2020 VARIANCE
Marketing & Public Relations	\$495,000	\$575,165	(\$80,165)
Summits & Events	\$500,000	\$181,416	\$318,584
Technology	\$144,500	\$115,346	\$29,154
Training Programs	\$240,000	\$180,206	\$59,794
Operations	\$459,000	\$264,757	\$194,243
Compensation	\$2,451,702	\$1,772,511	\$679,191
G&A	\$319,501	\$300,078	\$19,423
TOTAL EXPENSES	\$4,610,203	\$3,394,928	\$1,215,275
SURPLUS / (DEFICIT)	\$214,813	\$1,106,368	
CARRYOVER TO 2021 (Includes surplus of \$582,488 from 2019)		\$1,688,855	



Conclusion

In addition to the broader global challenges we all faced as individuals in 2020, it was a year of significant change for the Cloud Foundry Foundation and our community. We fully embraced Kubernetes as the infrastructure platform of the future. We realigned our market messaging around that new technical approach. Our community was unable to meet in person, but embraced the virtual events as well as we could have hoped. Finally, our organization underwent structural changes to set the project up for a long, sustainable future.

In 2021, the Cloud Foundry Foundation, both the staff and the collective actions of its members, will be focused on two strategic pillars:

- **Supporting the Community:** Support of the open source community, our members and the larger community of users that surround the Cloud Foundry project remain our highest priority. 2021 will be a year of major change in how our technical community organizes itself, broadening access to participation and leadership opportunities.
- **Developer Outreach:** The new, Kubernetes-based focus of the project opens up the opportunity to introduce (or reintroduce) Cloud Foundry to developers. Developer outreach and marketing will be the focus of our marketing activities throughout 2021.

Our vision is to ensure all our members and users are able to rely on Cloud Foundry for the long term. Cloud Foundry is used by enterprise developers in the majority of the Fortune 500, and we strive to make it a reality that in the future the Cloud Foundry is baked into every cloud strategy at every major enterprise around the world – now with the expanded mission of developers at smaller enterprises.

We look forward to partnering with you – our community – to ensure this future.



Annual Report 2020