SESSIONS

SERVERLESS SUMMIT - 17/04/2019

Registration

12:00pm - 1:00pm

Welcome

1:00pm - 1:05pm
Serverless Summit

Why Serverless Computing?

1:05pm - 1:55pm
Serverless Summit

- Why someone would use Serverless Computing?
- How Serverless Computing has helped simplify Cloud Programming?
- Benefits and Limitations of Serverless Computing
- Opportunities for Serverless Computing Platforms

Participants

Kuldeep Chowhan - Cloud Architect & Cloud Evangelist, Expedia

Serverless Blockchain: Building Open-Source Blockchain Applications

2:00pm - 2:50pm
Serverless Summit

Many developers know of blockchain through its adoption throughout the cryptocurrency ecosystem, but you can also use blockchain in your non-cryptocurrency node.js applications. This talk will cover the Linux Foundation's blockchain effort, Hyperledger Fabric.

We'll discuss:

- An overview of the blockchain ecosystem and alternative blockchains
- Permissions and roles in a blockchain implementation
- Use cases / applications

Finally, we'll walk through an implementation that uses blockchain to allow coffee shop customers to trace the beans from their specific cup of coffee back through their supply chain to the specific place they were sourced, roasted and harvested.

Participants

David Nugent - Developer Advocate, IBM

Mobile Serverless Backend as a Service

2:55pm - 3:45pm
Serverless Summit

So you've been hearing a lot of buzz about Serverless tech in conjunction with Mobile, but what exactly is the serverless or cloud functions? Come find out at this session. Serverless has become the new style of coding, and it might be perfect to offload your mobile apps without incurring unnecessary costs. Get an intro into serverless/function-as-a-service/cloud functions technologies in the Mobile-Backend-as-a-Service (MBaaS) context and learn why startups and enterprises are so excited about using it. We will be demoing Serverless in Swift and iOS, and in Java for Android, and covering the following: - Who are the players in the serverless ecosystem - What are some use cases for serverless solutions - with MBaaS as one of them - Best practices for the serverless architecture for MBaaS - If going serverless is really faster, better, cheaper for developers and organizations - Live coding examples using Swift and Java.

Participants

Marek Sadowski - Developer Advocate, IBM

Knative vs. OpenFaaS: Functions on Kubernetes

3:50pm - 4:40pm
Serverless Summit

The writing is on the wall: Serverless and Functions as a Service (FaaS) are coming. Developers are ready to stop worrying about infrastructure entirely and just write code. The big issue with most of the serverless and FaaS platforms is the fear of lock-in: The big clouds make big promises but sometimes you just need to have options. That is where Kubernetes comes in, Kubernetes can be used as the common platform on which your FaaS or serverless stacks can run, giving you many of the advantages without the lock-in. With that in mind, we will compare two of the more popular toolkits for running Functions on Kubernetes: Knative and OpenFaaS. Come find out which (if either) of these platforms may be right for you.

Participants

Carson Anderson - Cloud Ops Engineer, Domo

Meetup: How a Service Mesh Makes Your Platform Better for Developers!

5:30pm - 7:30pm

Join our Container World peers and the SF Bay Cloud Native Open Infra meetup group at Container World on April 17 for food, drinks and good talks.

Agenda:

5:30 - 6:15 - Networking & Food/Bev (really GOOD meetup food/bev ;)
6:15 - 7:15 - presentation, then panel Q/A
7:15 - 7:30 - closing thoughts, networking

Summary:

Microservices need communication that is secure, observable and resilient. In this talk, Andrew and Lee will talk about what a service mesh is, how an Istio service mesh works, and some advanced developer patterns it can unlock like canaries, progressive delivery, easy-button security and microservice refactoring.

Following this intro, we'll have a panel discussion with Lisa-Marie Namphy and Boris Renski where we will also talk about deploying to Kubernetes with Spinnaker and other important cutting edge technologies in our cloud-native ecosystem.

Come learn both the "hows" and "whys" of service mesh, Istio, and Spinnaker! Bring your questions, and let's have some FUN!!!

Speakers:

Lee Calcote - Head of Technology, SolarWinds
Andrew Jenkins - CTO, Aspen Mesh
Boris Renski - Co-founder & CMO, Mirantis

Bios:

Lee Calcote is the Head of Technology Strategy at SolarWinds, where he stewards strategy and innovation across the business. Previously, Lee led software-defined data center engineering at Seagate, up-leveling the systems portfolio by delivering new predictive analytics, telemetric and modern management capabilities. Lee also held various leadership positions at Cisco, where he created Cisco's cloud management platforms and pioneered new, automated, remote management services. Lee also advises a handful of startups and serves as a member of various industry bodies, including Cloud Native Computing Foundation (CNCF), the Distributed Management Task Foundation (DMTF) and Center for Internet Security (CIS). As a Docker Captain and Cloud Native Ambassador, Lee is an organizer of technology conferences, an analyst, author, speaker in the technology community. Lee holds a bachelor's degree in Computer Science, a master's degree in Business Administration from Cal State Fresno and retains a list of industry certifications.

Andrew co-founded Aspen Mesh because he observed containerized microservices making communication resiliency ever more important, but also more challenging to build and manage at scale. He has a

background all over software and hardware for science and communication, and bits of his code still run somewhere out past Pluto. He loves the exhilaration of fixing the impossible bug.

Boris Renski co-founded Mirantis Inc. in 1993 and serves as its Chief Marketing Officer. Boris is responsible for helping define Mirantis' strategic vision and executing on it in the marketplace. During the last 15 years, Boris held several executive positions with the companies he helped establish. He was a founder and CEO of Selectosa Systems—an IT consulting company that was subsequently acquired in 2006—and a co-founder and angel investor at AGroup—now a venture-backed enterprise software company headquartered in Europe. He also serves on the Board of Directors of the OpenStack Foundation. Boris holds a BSc in Information Systems from Santa Clara University. He likes technical scuba diving, motorcycles, and RC helicopters

Participants

Lee Calcote - Advisory Board | Head of Technology Strategy, SolarWinds

Host: Lisa-Marie Namphy - Advisory Board | Dev Advocate & Community Architect, Portworx

SCHEDULE

SERVERLESS SUMMIT - 17/04/2019

TIME	SERVERLESS SUMMIT
12:00PM	**12:00pm** - Registration
1:00PM	**1:00pm** - Welcome **1:05pm** - Why Serverless Computing?
2:00PM	**2:00pm** - Serverless Blockchain: Building Open-Source Blockchain Applications **2:55pm** - Mobile Serverless Backend as a Service
3:00PM	**3:50pm** - Knative vs. OpenFaaS: Functions on Kubernetes
4:00PM	
5:00PM	**5:30pm** - Meetup: How a Service Mesh Makes Your Platform Better for Developers!

SESSIONS

DAY 1 - 18/04/2019

Registration

8:00am - 9:30am

Welcome Remarks

9:30am - 9:40am
Keynote Programming

Location: Mission City Ballroom

Open to all attendees and exhibitors.

Keynote: Beyond the Fog & Over the Edge: The Container Continuum

9:40am - 10:00am
Keynote Programming

Technology keeps moving faster, making technology choices vs hype-cycles harder to distinguish. Join Jim Ford, Chief Technologist at Pareidolia, LLC and former Chief Architect at ADP, as he discusses the coming convergence across the cloud computing landscape. Server or serverless, function or managed service, isolation or containment, encapsulate or refactor. The exponential rate of change will create surprising outcomes and possibly some “magical thinking” before the robots take our jobs and AI writes our code. What will the future ubiquity of orchestration bring, how will less than zero-trust evolve, and what can we learn from the past to help us prepare?

Open to all attendees and exhibitors.

Participants

Speaker: Jim Ford - Strategic Technology Advisor, Pareidolia

Keynote: Keeping Your Kids Happy! How Roblox Uses Containers to Solve Problems for over 70 Million Gamers

10:00am - 10:20am
Keynote Programming

If you think the problems you solve with containers are hard, wait until you hear from Roblox! (Because your children's problems are the WORST, right?) Roblox maintains availability and performance of a platform used by 70 million gamers worldwide and skillfully manages to keep operations costs in check. Using HashiCorp Nomad for managing VM- and container-based workloads that scale to 1000s of nodes, Roblox created a solution also preventing data loss in the case of large-scale failures. Roblox has tackled the hard problems of running stateful services without sacrificing critical resiliency and redundancy. They figured out how to scale to millions of users without scaling a storage platform, and guarding against attack or large-scale failures. Come hear Rob Cameron, Technical Director of Cloud Services at Roblox, who will describe the innovative environment he built leveraging containers to run gaming infrastructure at a massive scale.

Open to all attendees and exhibitors.

Participants

Rob Cameron - Technical Director, Cloud Services, Roblox

Startup Lightning Talk: Codefresh

10:20am - 10:25am
Keynote Programming

Open to all attendees and exhibitors.

Participants

Raziel Tabib - Founder & CEO, Codefresh

Startup Lightning Talk: Solecular

10:25am - 10:30am
Keynote Programming

Open to all attendees and exhibitors.

Participants

Sri Sukhi - Founder & CEO, Solecular

Keynote Panel: Future View -- Containers at the Edge

10:30am - 11:10am
Keynote Programming

Location: Mission City Ballroom

The growing number of smart edge devices are pushing computing increasingly toward the edge. This panel will explore the intersection of containers/cloud-native development and the emerging technologies of IoT and Edge.

Open to all attendees and exhibitors.

Participants

Moderator: Sarbjeet Johal - Senior Technology Strategist, Independent

Panelist: Mark Thiele - Advisory Board | Chief Strategy Officer, Apcera

Panelist: Simon Crosby - CTO, Swim.ai

Panelis: Lori MacVittie - Advisory Board | Principal Technical Evangelist, F5 Networks

Panelist: Susan Wu - Advisory Board | Senior Product Marketing Manager, VMware

Panelist: Haseeb Budhani - CEO & Founder, Rafay Systems

Keynote: Google's Serverless Journey: Past to Present

11:10am - 11:30am
Keynote Programming

Serverless, shorthand for "opinionated logic-hosting containers," continues on its sky-high trajectory. New features and products are continually being released by vendors, all with developer focus and DevOps convenience in mind. Let's back up a bit and take a glimpse of Google's serverless journey, the products, and target audiences, from the first step to the most recent, taken only a week ago at Google Cloud NEXT '19.

Participants

Wesley Chun - Senior Developer Advocate, Google

Networking Break & Lunch on Expo Floor

11:30am - 1:00pm

SESSIONS

DAY 1 - 18/04/2019

Track Sponsor Keynote: A Brief History of Kubernetes.

1:00pm - 1:20pm
Runtimes & Orchestration

Over the last few years, we've seen Kubernetes emerge as the leader in container orchestration. Join us for a brief history of the project and a view into the many ways that folks are using it today. This talk will provide insight into the rapid adoption of the project and what the future holds.

All Access, Conference, Startup Conference or Enterprise Conference pass required to attend this session.

Participants

Duffie Cooley - Staff Cloud Native Architect, VMware

Track Sponsor Keynote: Scaling ElasticSearch on Kubernetes

1:00pm - 1:20pm
DevOps & SRE

We've been where you are. We're LogDNA. We manage both, a large multi-tenant, multi-cloud ElasticSearch-based logging platform, as well as individual, single-tenant, on-premise deployments of LogDNA. Two vastly different workloads, both running on Kubernetes.

We'll be discussing everything from managing small clusters efficiently without breaking the bank, as well as how to scale ElasticSearch beyond petabytes and still sleep soundly at night.

Participants

Ryan Staatz - Head of DevOps, LogDNA

Expo Hall Open: 11:30 AM - 7:30 PM

1:00pm - 3:30pm
Expo Hall

Scared of the Huge Kubernetes ecosystem? Adopt It Incrementally.

1:20pm - 2:00pm
Runtimes & Orchestration

Kubernetes brings almost all the coveted features such as service discovery, horizontal scaling, rolling updates, binpacking, etc. that are extremely essential to build fault-tolerant cloud-native applications. At the same time, Kubernetes ecosystem is huge and very fast-moving. Stiff learning curve around massive ecosystem and many moving parts often become a major barrier to adopt Kubernetes and to take advantages of all its benefits. For example, we started using Docker in 2013 and deployed services in production with Docker v0.8. Although we embarked on containerization very early, it wasn't until 2017 when we deployed self-hosted Kubernetes on AWS. In this talk, we will discuss the driving forces to adopt Kubernetes and how we are adopting Kubernetes incrementally. We will also share how we overcame our FUD and improved developer productivity through self-service workflows.

Participants

Mazedur Rahman - Senior Software Engineer, Independent

The Future of Cloud Native CI/CD

1:20pm - 2:00pm
DevOps & SRE

CI/CD pipelines are the cornerstone of modern software delivery, whether you push to prod on every merged pull request or carefully stage rollouts over several days. These systems may range from manually-run Bash scripts to complex, telemetry-aware controllers that can detect issues with a release while the rollout is in progress, but they all have a few elements in common. This talk will focus on how cloud native infrastructure changes the CI/CD game. Through examples and demos, we will show the design and usage of Knative Pipelines: a Kubernetes-style pipeline/workflow resource. This set of Custom Resource Definitions (CRDs) can be used to replace your Bash scripts with GitOps style workflows or can be customized to provide deep integration with systems like Jenkins X. The goal of this talk is for participants to understand how Kubernetes and containers simplify and change the CI/CD process, why the pipeline CRD was designed the way it is and how to use it to build a modern CI/CD platform.

Participants

Dan Lorenc - Staff Software Engineer, Google

Containers are Breaking Up the Network

1:20pm - 2:00pm
Service Mesh / Observability

- Migration to Micro-application-services
- Data path decomposition
- Containerizing Infrastructure
- Challenges at Network Scale

Participants

Lori MacVittie - Advisory Board | Principal Technical Evangelist, F5 Networks

Panel: Cloud Native/Cloud Immigrant: Modernizing the Enterprise

2:05pm - 2:45pm
Runtimes & Orchestration

This panel will bring together leaders from "born in the cloud" companies, along with enterprises modernizing their legacy application and infrastructures to discuss what it means to be "cloud native", the different challenges they have faced, best practices and a forward view on what's coming on the Cloud Native horizon.

Participants

Moderator: Jo Peterson - VP, Cloud Services, Clarify360

Panelist: Mike Fratto - Senior Analyst, 451 Research

Panelist: Leslie Carr - Engineering Manager, Quip

Panelist: Matthew Newfield - CISO, Unisys

Panelist: Joshua Schlanger - VP, Development Operations and IT, Demandbase

CI/CD at Verizon Media using Screwdriver

2:05pm - 2:45pm
DevOps & SRE

Overview of Screwdriver, an open source CI/CD product built using modern technologies. Will share how it's used at scale for CI/CD at Verizon Media and answer any questions attendees might have.

Participants

Jithin Emmanuel - Senior Manager, Software Development Engineering, Verizon Media

SESSIONS

DAY 1 - 18/04/2019

Service Meshes, But at What Cost?

2:05pm - 2:45pm
Service Mesh / Observability

As you learn of the architecture and value provided by service meshes, you're intrigued and initially impressed. Upon reflection, you, like many others think: "I see the value, but what overhead does being on the mesh incur?"

Complicating the answer is the fact that there are over 10 service meshes projects to choose from. We'll take an in-depth look at the landscape of service meshes, characterize and contrast their functionality as well as their data plane and control plane architectures.

We will examine research results (from university collaboration) of performance testing through an open source service mesh benchmark tool and provide an apples-to-apples comparison of the performance of different service meshes, their control planes, and data planes.

Prerequisite knowledge: Conceptual familiarity with the general purpose(s) of service meshes.

For: Architects, Platform Engineers, Operators, Developers

Key Takeaways: With different service meshes, come different features, deployment styles and, unfortunately, overhead. Attendees will learn of the functional differences between service meshes and of Meshery, a utility for multi-mesh performance comparison.

Participants

Lee Calcote - Advisory Board | Head of Technology Strategy, SolarWinds

Kubernetes Operators, State-Seeking Infrastructure

2:50pm - 3:30pm
Runtimes & Orchestration

Everyone wants their infrastructure to be clearly defined and re-creatable. There are so many great tools which allow us to define our infrastructure in configuration repos and then apply it -with- code. But most of these tools lack the ability to orchestrate complex operations since they can only apply new configuration. They also rarely, if ever work to help your infrastructure seek a desired state automatically. Kubernetes operators allow us to do exactly that, define our infrastructure and seek the state automatically. This takes the idea of infrastructure as code to its logical conclusion and allows engineers to truly commit operational knowledge into code. And, thanks to the Operator SDK project, creating and maintaining a Kubernetes operator is easier than ever!

Participants

Carson Anderson - Cloud Ops Engineer, Domo

Fireside Chat with VMware's Megan Bigelow on Customer Reliability Engineering & Diversity in Tech

2:50pm - 3:30pm
DevOps & SRE

We sit down for a conversation with VWware's Megan Bigelow on the ins and outs of Customer Reliability Engineering. Megan is also the Board President & Founder of PDXWIT, an organization that supports and celebrates those who identify as women, non-binary and underrepresented people in tech, We'll also take the opportunity to discuss the current state of diversity in tech and how it can be increased.

Participants

Megan Bigelow - Senior Manager, Customer Reliablity Engineering, Cloud Native Apps BU, VMware

Securing Istio-Based Container Orchestration

2:50pm - 3:30pm
Service Mesh / Observability

When you decide to develop your system with containers, there is the moment when fine-tuning Kubernetes and Load Balancing makes all the difference. This session would explore the techniques one can use to optimize infrastructure modernization through resiliency testing, load balancing, security, and monitoring by bringing Istio as the open source-based solution. In this session, you will learn about Istio's capabilities in smart load balancing, resiliency testing, policy management, and monitoring.

Participants

Marek Sadowski - Developer Advocate, IBM

Coffee Break on the Expo Floor

3:30pm - 4:00pm

Kubic and CaaS Platform, The Duo Helping Shape Enterprise CaaS

4:00pm - 5:25pm
Runtimes & Orchestration

openSUSE Kubic isn't new to the container world. Maybe you have never heard of it. It's an exciting community building a pure Certified Kubernetes distribution. There's more, we have integrated other open source technology and container related technologies to make it lightweight, reliable, autonomous. Built from the ground up we have incorporated a rolling release transactional updates if that's your requirement. While our enterprise SUSE CaaS Platform built from the same DNA with kubeadm incorporated for full Kubernetes cluster bootstrapping. Yes, there is more. Come and learn about these two exciting projects, their direction, DNA, community, and how you can get involved today. In the end, we will take you through a short hands-on tutorial to realize the excitement of a CaaS Platform so you can feel confident deploying your microservices today.

All Access, Conference, Startup Conference or Enterprise Conference pass required to attend this session.

Participants

Cameron Seader - Senior Innovative Technologist, SUSE

BPF: Bringing Linux to the Microservices Era

4:00pm - 4:40pm
DevOps & SRE

Microservices have brought a transition in application development to meet the most demanding speed to deliver. Enabled by container technologies, microservices have typically been deployed on Linux hosts where the kernel has traditionally been difficult to change. In recent years, eBPF (extended Berkeley Packet Filter) has grown its capabilities to provide powerful tooling in the Linux kernel. Shortened to "BPF", this Linux kernel technology maps well to the changes in workloads on Linux hosts in the microservices era. Facebook, Google, and Netflix are all strong proponents of BPF technology for various use cases including load-balancing, tracing, and performance monitoring. One example of the power of BPF is in the network security space. Leveraged by Cilium (the open source network security plugin for Kubernetes), the network plumbing and security policy enforcement is done much more efficiently than legacy solutions that use IPtables. More advantages include DDOS mitigation and acceleration of sidecars.

All Access, Conference, Startup Conference or Enterprise Conference pass required to attend this session.

Participants

Dan Wendlandt - Co-Founder, Isovalent

SESSIONS

DAY 1 - 18/04/2019

Secure, Elastic, Feature-Rich and Observable Ingress for Multi-cloud Kubernetes Clusters

4:00pm - 4:40pm
Service Mesh / Observability

As Kubernetes matures and organizations are looking to use Kubernetes to build and operate everything from financial to 5G/IoT applications, challenges persist for secure, elastic, feature rich and observable ingress and traffic management. In this talk, we will cover:

- what are the Ingress security and traffic management challenges in deploying and managing applications in a multi-cluster Kubernetes world?
- how do some of the largest Enterprises solve these challenges?
- What's next for Ingress/traffic management/ security in a multi-cluster, multi-cloud Kubernetes world?

Participants

Manish Chugtu - CTO, Cloud Infrastructure and Microservices, Avi Networks

Expo Hall Open: 11:30 AM - 7:30 PM

4:00pm - 5:30pm
Expo Hall

Automated Canary Release in K8S

4:45pm - 5:25pm
DevOps & SRE

Canary release is a critical component in modern CI/ CD to detect performance degradation and avoid expensive performance testing. At Intuit, we added automated canary to our production release pipeline by implementing an integrated solution using BO Jenkins, Argo CD, Kayenta and Wavefront. The talk will cover our learning and experience in this journey.

Participants

Billy Yuen - Principal Engineer, Intuit

Network Service Mesh - A cloud native networking disruption in the making

4:45pm - 5:25pm
Service Mesh / Observability

NetworkServiceMesh is a new Opensource ecosystem and it aims at simplifying the complexity of CloudNative Networking. With 5G and Edge Cloud gaining momentum, cloud native deployments are becoming more relevant for both Enterprise and Service Provider space. The current networking models for Cloud Native architecture are inherently complex. NetworkServiceMesh adopts the concept of ServiceMesh patterns and simplifies the networking. The session will provide an overview, architecture and use case modeled using networkservicemesh. More details at https://networkservicemesh.io.

Participants

Prem Sankar Gopannan - Director of Engineering, Lumina Networks

Happy Hour on the Expo Floor

5:30pm - 7:30pm

SCHEDULE

DAY 1 - 18/04/2019

Container World

April 17-19, 2019
Santa Clara Convention Center
California

TIME	DEVOPS & SRE	EXPO HALL	KEYNOTE PROGRAMMING	RUNTIMES & ORCHESTRATION	SERVICE MESH / OBSERVABILITY
8:00AM	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration
9:00AM			**9:30am** - Welcome Remarks **9:40am** - Keynote: Beyond the Fog & Over the Edge: The Container Continuum		
10:00AM			**10:00am** - Keynote: Keeping Your Kids Happy! How Roblox Uses Containers to Solve Problems for over 70 Million Gamers **10:20am** - Startup Lightning Talk: Codefresh **10:25am** - Startup Lightning Talk: Solecular **10:30am** - Keynote Panel: Future View -- Containers at the Edge		
11:00AM	**11:30am** - Networking Break & Lunch on Expo Floor	**11:30am** - Networking Break & Lunch on Expo Floor	**11:10am** - Keynote: Google's Serverless Journey: Past to Present **11:30am** - Networking Break & Lunch on Expo Floor	**11:30am** - Networking Break & Lunch on Expo Floor	**11:30am** - Networking Break & Lunch on Expo Floor
12:00PM					
1:00PM	**1:00pm** - Track Sponsor Keynote: Scaling ElasticSearch on Kubernetes **1:20pm** - The Future of Cloud Native CI/CD	**1:00pm** - Expo Hall Open: 11:30 AM - 7:30 PM		**1:00pm** - Track Sponsor Keynote: A Brief History of Kubernetes. **1:20pm** - Scared of the Huge Kubernetes ecosystem? Adopt It Incrementally.	**1:20pm** - Containers are Breaking Up the Network

SCHEDULE

DAY 1 - 18/04/2019

Container World

April 17-19, 2019
Santa Clara Convention Center
California

TIME	DEVOPS & SRE	EXPO HALL	KEYNOTE PROGRAMMING	RUNTIMES & ORCHESTRATION	SERVICE MESH / OBSERVABILITY
2:00PM	**2:05pm** - CI/CD at Verizon Media using Screwdriver **2:50pm** - Fireside Chat with VMware's Megan Bigelow on Customer Reliability Engineering & Diversity in Tech			**2:05pm** - Panel: Cloud Native/Cloud Immigrant: Modernizing the Enterprise **2:50pm** - Kubernetes Operators, State-Seeking Infrastructure	**2:05pm** - Service Meshes, But at What Cost? **2:50pm** - Securing Istio-Based Container Orchestration
3:00PM	**3:30pm** - Coffee Break on the Expo Floor	**3:30pm** - Coffee Break on the Expo Floor	**3:30pm** - Coffee Break on the Expo Floor	**3:30pm** - Coffee Break on the Expo Floor	**3:30pm** - Coffee Break on the Expo Floor
4:00PM	**4:00pm** - BPF: Bringing Linux to the Microservices Era **4:45pm** - Automated Canary Release in K8S	**4:00pm** - Expo Hall Open: 11:30 AM - 7:30 PM		**4:00pm** - Kubic and CaaS Platform, The Duo Helping Shape Enterprise CaaS	**4:00pm** - Secure, Elastic, Feature-Rich and Observable Ingress for Multi-cloud Kubernetes Clusters **4:45pm** - Network Service Mesh - A cloud native networking disruption in the making
5:00PM	**5:30pm** - Happy Hour on the Expo Floor	**5:30pm** - Happy Hour on the Expo Floor	**5:30pm** - Happy Hour on the Expo Floor	**5:30pm** - Happy Hour on the Expo Floor	**5:30pm** - Happy Hour on the Expo Floor

SESSIONS

DAY 2 - 19/04/2019

Registration

8:00am - 9:00am

Welcome

9:00am - 9:05am
Keynote Programming

Location: Mission City Ballroom

Open to all attendees and exhibitors.

Expo Hall Open 8am - 1pm

9:00am - 10:30am
Expo Hall

Building Bridges Across Open Source Technologies and Communities

9:05am - 9:25am
Keynote Programming

Open source has evolved significantly in the past decade. End users are now forced to "cobble" multiple vendor/open source solutions together to help achieve their "cloud" journey more successful. It is more important now than it has ever been before, for open source communities to collaborate and cross-pollinate their solutions and projects to provide end users of a simpler route to success. With a non-trivial overlap across open source alternatives, it is now complex and confusing for end users as they have to choose between sustainable solutions and consider staying ahead by adopting "the next big thing". Open Service Broker API, that started as a Cloud Foundry project is now widely adopted and used across other open source communities. Similarly, the Cloud Foundry community currently collaborates with Kubernetes, CNI, Istio, and other open source projects to increase interoperability and reduce duplication of efforts. In this session, I will talk about Cloud Foundry's journey and our current cross-community collaboration and interoperability efforts that have been hugely successful.

Participants

Swarna Podila - Senior Director, Community, Cloud Foundry Foundation

Capital One's Cloud Journey: To Containers and Beyond

9:25am - 9:45am
Keynote Programming

Capital One is known as the first "all-in public cloud" financial services company. But its cloud journey encompasses far more than using external infrastructure -- the company has restructured every part of its software development lifecycle. This presentation will discuss Capital One's cloud journey, and how containers are a vital foundation of the company's future.

Specific topics covered will include:

- Why cloud is part of Capital One's corporate strategy
- Why the company transformed its development process and tooling as part of its cloud journey
- How containers integrate into its technology vision

Attendees will learn about how Capital One is becoming a cloud-native enterprise.

Participants

Bernard Golden - Vice President, Cloud Strategy, Capital One

Startup Lightning Talk: KubeGrid

9:45am - 9:50am
Keynote Programming

Location: Mission City Ballroom

Open to all attendees and exhibitors.

Participants

Spartak Buniatyan - Founder & CEO, KubeGrid

Startup Lightning Talk

9:50am - 9:55am
Keynote Programming

Location: Mission City Ballroom

Open to all attendees and exhibitors.

IoT, ML/AI, and Containers in Production: NIO tells all!

9:55am - 10:25am
Keynote Programming

Container Community Architect Lisa-Marie Namphy Interviews NIO Principal Architect Michael Richmond

Running Kubernetes in production and managing hundreds of TBs of data per day is possible. NIO is tackling these challenges in cutting-edge data centers in Shanghai and North America. The company built a container-native data management and analytics platform for autonomous driving problems.

NIO has successfully navigated the steep learning curve associated with running Kubernetes at scale and have multiple lessons to share. Kubernetes is great once deployed, however as an emerging technology it has a complicated path to deployment at scale. Michael Richmond (NIO Principal Architect, Autonomous Cloud) will discuss lessons learned running over 6700 cores in Kubernetes and DC/OS across China and USA. Their experience will inform and guide your adoption of Kubernetes for production workloads.

Participants

Michael Richmond - Principal Architect of Cloud, Systems, and Platforms, NIO

Interviewer: Lisa-Marie Namphy - Advisory Board | Dev Advocate & Community Architect, Portworx

Networking Break on Expo Floor

10:30am - 11:00am

Hybrid Container Security: Implementations of CSA Container Security Guidance

11:00am - 11:40am
Security

For many teams, “bursting” from private container environments to public clouds has become more popular than for the container’s VM brethren: networks have become quicker and container images are significantly smaller than a VM image. In this talk, Mr. Kinsella - a team lead for the CSA Container Security Workgroup - will discuss CSA’s upcoming document prescribing best practices in securing containerized applications. In particular, he will highlight challenges in securing container architectures in a hybrid private/public cloud environments. Examples of implementing security best practices in a hybrid container environment will be demoed in live environments.

Participants

John Kinsella - VP, Engineering for Container Security, Qualys | Cloud Security Alliance

SESSIONS

DAY 2 - 19/04/2019

Security in a Serverless World: Understanding Risk and Protection Best Practices in this Cloud Native Paradigm

11:00am - 11:40am
Architecture

According to a 2018 survey from The New Stack, over 75% of organizations are using or plan to use serverless in the next 18 months. From AWS Lambda to Google Cloud Functions to Microsoft Azure Functions, enterprises have more cloud provider options than ever before to choose from when integrating serverless into their application portfolio.

Serverless computing provides a way to deploy single functions which are activated only when a specific trigger is called. When serverless technology is deployed correctly, it can save money, time, and resources—all while allowing developers to focus on writing code rather than solving infrastructure issues.

At the same time, serverless does not come without risks. In this talk, Twistlock Principal Solutions Architect Kevin Lewis and Twistlock Product Marketing Lead Keith Mokris will discuss key components of serverless architecture and potential risks organizations need to be aware of, such as:

Visibility and monitoring challenges: Monitoring serverless functions is more difficult in some respects. Traditional monitoring tools often aren't designed to support serverless microservices, and your ability to collect log data from serverless events is limited.

Denial-of-Service attacks: If an attacker can find a way to execute a vast number of serverless events, they could not only disrupt legitimate services but also leverage your cloud computing resources. These dependencies create additional potential security risks, especially if teams don't understand them well.

Dependencies on external resources: Many serverless workloads are designed in such a way that they rely heavily on external resources, such as databases or third-party libraries.

Access control risks: Striking the right balance for access control can a challenge for serverless functions. Developers need functions to access the external resources they rely on, developers need to avoid giving them access that they shouldn't have.

This talk will also cover best practices for serverless security both as functions are built and at runtime.

Participants

Keith Mokris - Product Marketing, Twistlock

Provisioning and Management of Storage in the Docker Platform

11:00am - 11:40am
Cloud Native Storage

In this talk, we will discuss Kubernetes storage concepts related to containers on the Docker platform with the perspective of what is important throughout the lifecycle of an application. We will focus on application provisioning: creating persistent volumes and policies for stateful data and management: replication and failover scenarios and data protection using snapshot/restore. Through this talk, we will cover the latest storage features and also some of the current and future direction of container storage. Key concepts covered about running stateful applications: - Persistent Volumes - Provisioning (Static vs Topology-aware) - Data Availability (failover with scheduler policies) - Data Protection (using Backup/ Restore). We will look at each of the characteristics in detail with demos.

Participants

Anusha Ragunathan - Software Engineer, Docker

Expo Floor Open 8am - 1:00pm

11:00am - 12:00pm
Expo Hall

Lunch & Networking

12:00pm - 1:00pm

Panel: Kata Containers

1:00pm - 1:40pm
Security

This panel will explore the impact of Kata Containers technology, which combines the speed of containers with the security of virtual machines (VMs). The Kata Containers project was launched in 2018 by a team working with the OpenStack open-source community. The design goal: to provide secure, light, fast and agile container management technology across stacks and platforms by leveraging thin VMs. This technology will be increasingly important as more enterprise workloads migrate into hybrid clouds for production use – emphasizing the importance of security for micro-services delivery in hybrid clouds and Edge computing. This panel will explore the latest release of Kata Containers – and discuss which types of use-cases would benefit most from Kata Containers.

Participants

Moderator: Jean Bozman - Vice President, Hurwitz & Associates

Panelist: Manohar Castelino , Intel

Panelist: Eric Ernst - Software Engineer, Intel

Panelist: Harry Zhang - Staff Software Engineer, Alibaba

Updating Hundreds of Millions of Devices Daily

1:00pm - 1:40pm
Architecture

Ben Sykes from Netflix shares how Netflix has solved updates at scale and managing the risk of a bad production builds. He will cover:

- The Netflix player stack
- How updates are deployed
- Managing risk
- The delivery platform & real-time monitoring

Participants

Ben Sykes - Software Engineer, Netflix

Case Study: Running all Data Services on Containers

1:00pm - 1:40pm
Cloud Native Storage

Participants

Amulya Sharma - Director of Engineering, GE Digital

Get Behind Your Containers and Transform Your Adoption

1:45pm - 2:25pm
Security

When it comes to Container adoption you might need to think of some more ways in which you can successfully adopt it in your organization. As I have been operating containers for several years there have been some key objectives which will help increase your adoption. I'll go over a few of these objectives

from workload migration including P2V,V2V,C2C,H2H to Workload transformation. I will talk about the process, requirements, tools, and leave you with all you need to press forward with greater container adoption.

Participants

Cameron Seader - Senior Innovative Technologist, SUSE

SESSIONS

DAY 2 - 19/04/2019

Hack the Stack: Fast-track Kubernetes to Production with the Right Infrastructure Strategy

1:45pm - 2:25pm
Architecture

Enterprise organizations are leading the charge in modernizing their applications to improve agility, performance, and cost efficiency. In many cases, developers are forging ahead with containers and microservices architectures, only to be held back by legacy infrastructure that can't deliver adequate performance, isolation, or efficiency, or offer any developer visibility and control.

This session offers up a technical deep dive into how Kubernetes uses compute, storage, and network resources differently than monolithic applications, and why running containers on top of a hypervisor spells trouble when it comes to performance, container density, efficiency, and management. And, as developers better familiarize themselves with layers further down the cloud-native stack, this session will be helpful in explaining the infrastructure approaches that enable resource visibility and self-service.

Participants

Sean Roth - Director of Product Marketing, Diamanti

Containers & Persistent Memory

1:45pm - 2:25pm
Cloud Native Storage

Participants

Jeff Chang - SNIA NVDIMM SIG Co-Chair | VP Marketing and Business Development, AgigA Tech, SNIA | AGIGA Tech

Enhancing Your Workload Security with Kata Containers

2:30pm - 3:10pm
Security

In the last year, Kata Containers has been released as one of the several new approaches to isolate your workloads, together with new questions in the community. How do they work with Kubernetes and its RuntimeClass? What are some of the best practices when running databases in Kata? What is the current state when it comes to performance? What are the upsides/downsides of using Kata Containers for microservices? How do they compare to other technologies like gVisor and Nabla Containers? What are some of the newer Kata Containers features that you can take advantage of? How do Kata Containers help with multi-tenancy in the cloud? This session will examine techniques and use cases for Kata Containers including demos that explain how to set them up for each of the suggested workloads.

Participants

Ricardo Aravena - Sr Data Ops Engineer, Branch Metrics

The Design of Storage for Stateful Application in Kubernetes

2:30pm - 3:10pm
Cloud Native Storage

We developed the Kubernetes as a Service for Yahoo! JAPAN. Also, we are developing a stateful environment in Kubernetes for stateful Application such as a database. Especially, it is important to design a system that integrates Kubernetes and Storage. I introduce the 5 points of design Know-How for your Data Center.

Participants

Yukinori Sakashita - Team Leader of Software Development, Z Lab

SCHEDULE

DAY 2 - 19/04/2019

Container World

April 17-19, 2019
Santa Clara Convention Center
California

TIME	ARCHITECTURE	CLOUD NATIVE STORAGE	EXPO HALL	KEYNOTE PROGRAMMING	SECURITY
8:00AM	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration	**8:00am** - Registration
9:00AM			**9:00am** - Expo Hall Open 8am - 1pm	**9:00am** - Welcome **9:05am** - Building Bridges Across Open Source Technologies and Communities **9:25am** - Capital One's Cloud Journey: To Containers and Beyond **9:45am** - Startup Lightning Talk: KubeGrid **9:50am** - Startup Lightning Talk **9:55am** - IoT, ML/AI, and Containers in Production: NIO tells all!	
10:00AM	**10:30am** - Networking Break on Expo Floor	**10:30am** - Networking Break on Expo Floor	**10:30am** - Networking Break on Expo Floor	**10:30am** - Networking Break on Expo Floor	**10:30am** - Networking Break on Expo Floor
11:00AM	**11:00am** - Security in a Serverless World: Understanding Risk and Protection Best Practices in this Cloud Native Paradigm	**11:00am** - Provisioning and Management of Storage in the Docker Platform	**11:00am** - Expo Floor Open 8am - 1:00pm		**11:00am** - Hybrid Container Security: Implementations of CSA Container Security Guidance
12:00PM	**12:00pm** - Lunch & Networking	**12:00pm** - Lunch & Networking	**12:00pm** - Lunch & Networking	**12:00pm** - Lunch & Networking	**12:00pm** - Lunch & Networking
1:00PM	**1:00pm** - Updating Hundreds of Millions of Devices Daily **1:45pm** - Hack the Stack: Fast-track Kubernetes to Production with the Right Infrastructure Strategy	**1:00pm** - Case Study: Running all Data Services on Containers **1:45pm** - Containers & Persistent Memory			**1:00pm** - Panel: Kata Containers **1:45pm** - Get Behind Your Containers and Transform Your Adoption
2:00PM		**2:30pm** - The Design of Storage for Stateful Application in Kubernetes			**2:30pm** - Enhancing Your Workload Security with Kata Containers