

Ticketmaster Road to Kubernetes

Tim Nichols

ticketmaster

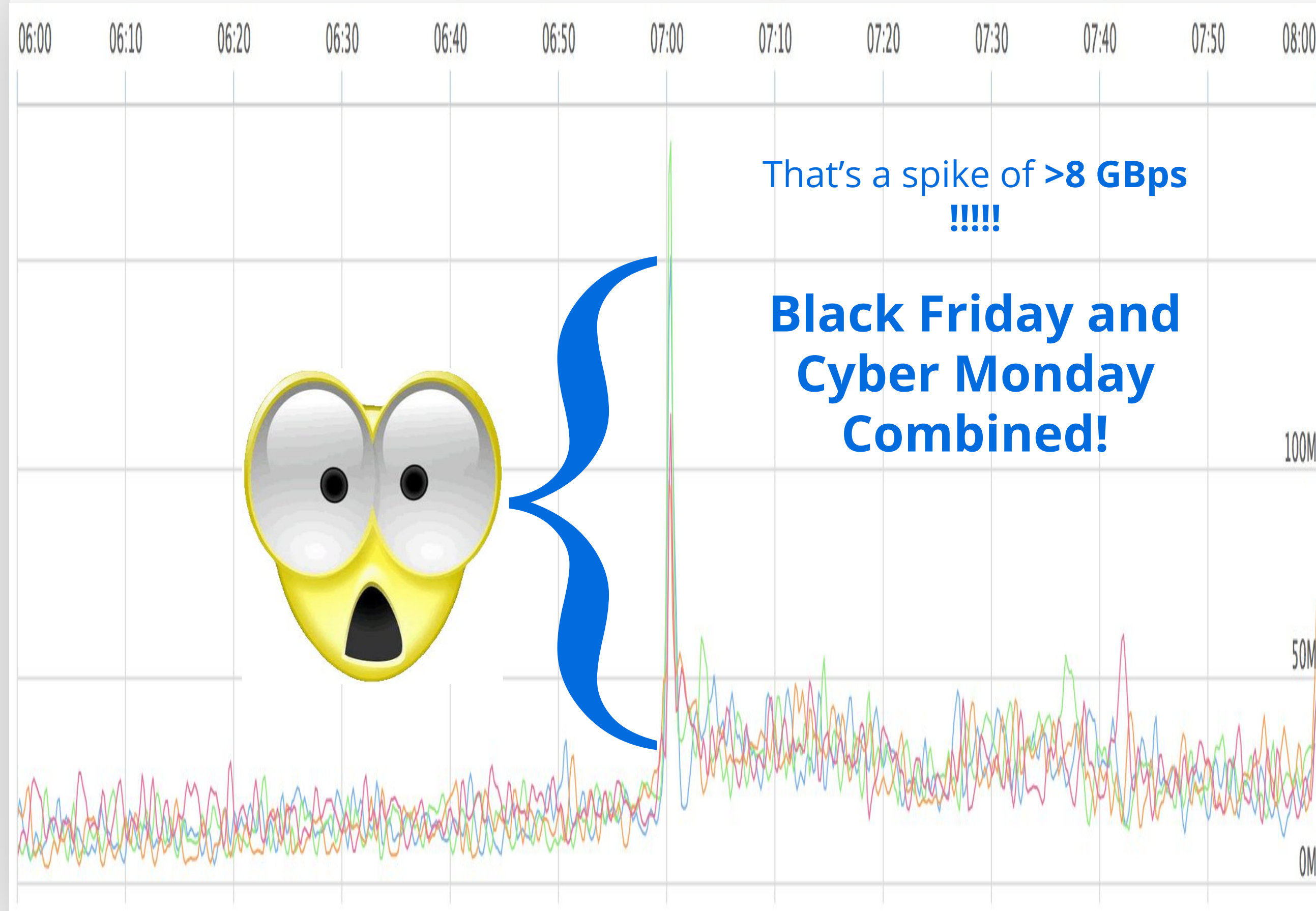
Somewhere in the world

Every 20 Minutes

Is A Live Nation Event

A wide-angle photograph of a large outdoor concert venue at dusk. In the foreground, a dense crowd of people is seen from behind, looking towards the stage. The stage is illuminated with bright lights and features two large video screens displaying colorful, abstract patterns. The background shows a vast, open landscape with rolling hills and a body of water under a twilight sky. The overall atmosphere is one of a major live music event.

We power unforgettable moments of joy!



Big Scale Big Challenges

On-sales = Black Friday every day!

- Huge spikes / demand for tickets
- Global company = across time zones
- Limited inventory (Hamilton Tickets!)
- Multiple sales channels

0 to 150M transactions in minutes!

TECH SCALE

- 27 Ticketing Systems and over 250 unique products
- 1,400+ people in Product & Tech org
- Hybrid Cloud with over 20,000 VMs across 7 global data centers
- Over 15,000 network endpoints across the world (Venues, Arenas, Kiosks, etc)
- **Kubernetes? Yes!!!**
1000+ nodes
16,000+ Pods
~80% growth since Q1 !!



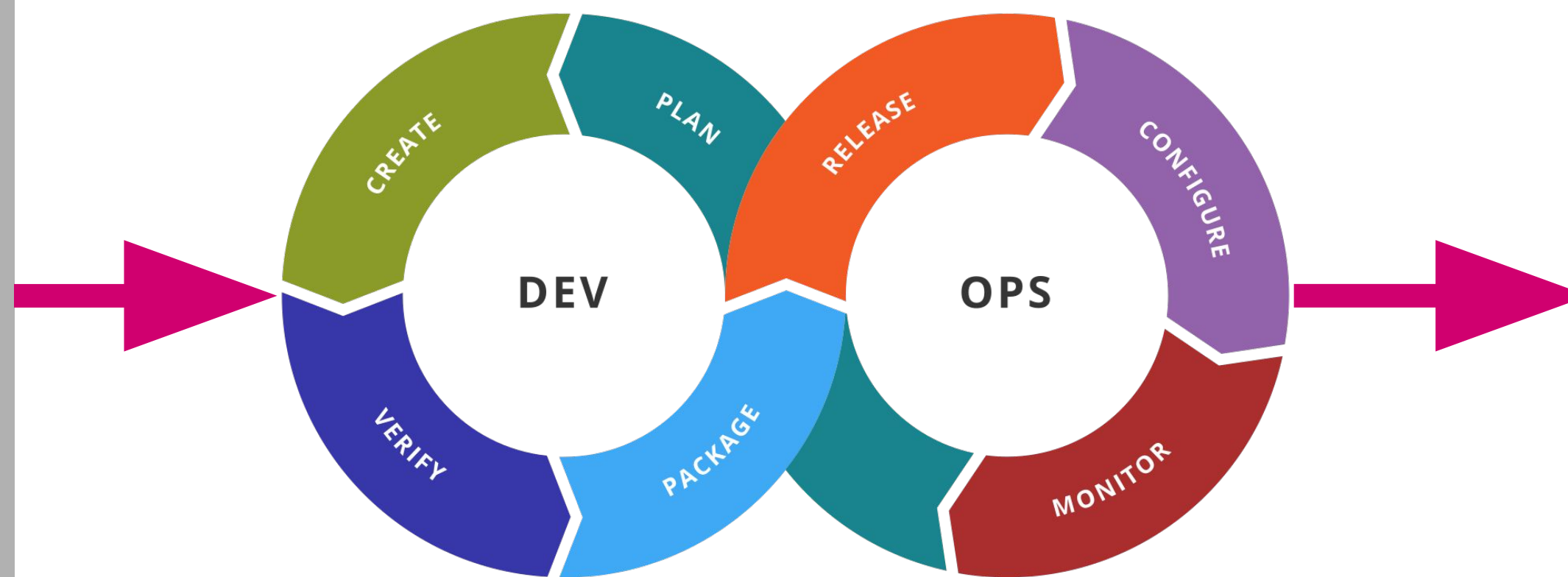


Our Kubernetes Story

The DevOps Transition



Dev and Ops



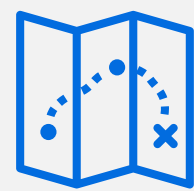
DevOps



“Developed”
Managed
Freedom

Early DevOps Learning

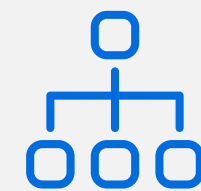
DevOps at scale is harder than it sounds. Here are some key things we learned early on.



Guardrails, not Gates

You don't want total
freedom

Guardrails are not easy
or cheap to build



Autonomy is the enemy of Alignment

There is a constant
tension between
standards governance
and freedom to innovate



Innovate Don't Reinvent

Most teams don't want to
build their own servers.
They want to use servers
on demand to a standard
that works



Build Ops Tools Limit Ops Access

Rather than granting
even more people
operational access, drive
your ops teams to
automate and immute

Why Kubernetes?

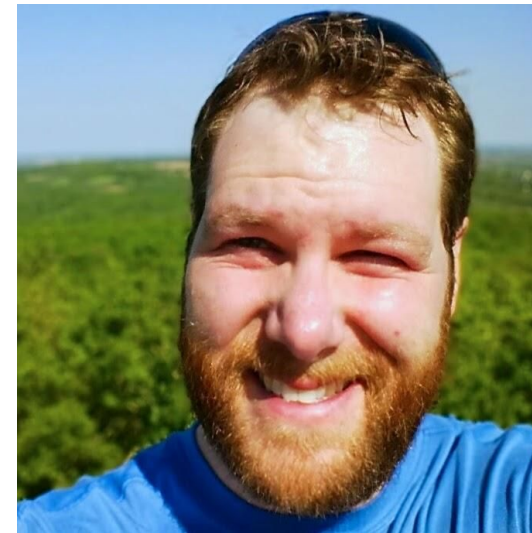
- ✓ ● Container Orchestration
 - ✓ ● Abstraction from Primitives
 - ✓ ● Offload Infrastructure Operations
-



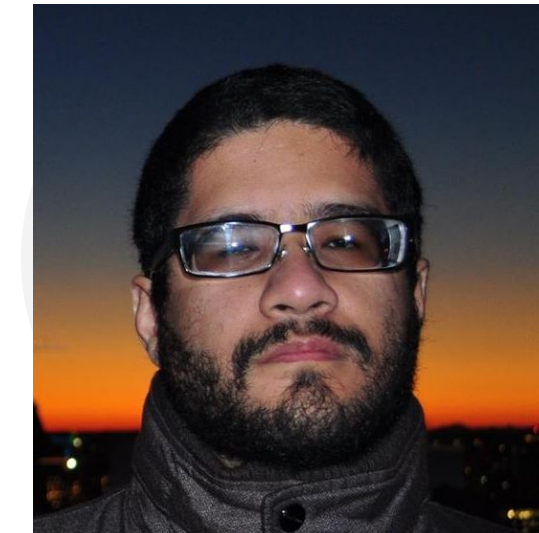
Kubernauts Team



Jackie Fong
Team Manager



Mike Goodness
Architect



Jesus Carillo
Engineer



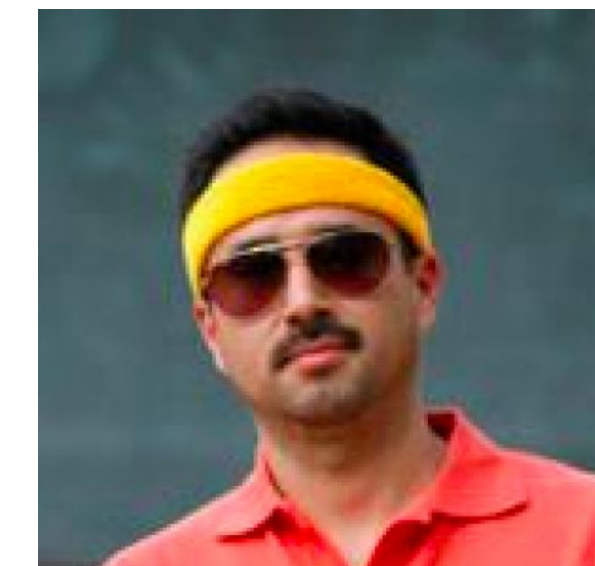
Hsu Chan
Engineer

K8s related OSS Contributions

- ALB Ingress Controller
- Helm Charts
- prometheus-operator
- External DNS
- cert-manager
- kubeadm
- Gitlab runners
- more.....



Brian Spindler
Engineer



Kraig Amador
Architect / Sr Director

Kubernetes Contributing to Ticketmaster Mission

Ticketmaster Event Details

Selecting your event tickets on Ticketmaster? You're benefiting from Kubernetes Technology.

- Event Details
- Branding
- High Traffic Event Page
- Seating and Pricing backends



Replatforming 2019

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