

Half the Size, Twice as Awesome

Kubernetes for All of Us



<https://github.com/choudeshell/codemash-k3s-workshop>

The Plan.

Learn K8s with K3s...

- resources
- tooling
- compute
- storage
- networking

How?

- doing
- reading the docs
- **talking**

The Goal.

The primary goal of this workshop is to demonstrate that Kubernetes is **approachable** and **is for all of us**.

We will do this through:

- Creating your own production-ready Kubernetes instance
- Understanding the basics of Kubernetes
- Kubernetes tooling, command line and debugging

Schedule.

50 minutes: Getting started and slides. Our first pod...

50 minutes: We do. Let's learn through examples.

50 minutes: We do. Let's learn through more examples.

50 minutes: You tell me how to do it. CKAD exercises.

About me



Chris Houdeshell
CTO & VP of Technology
EnergyCAP

I am a geek.
I love technology.
I am hiring.

<https://www.energycap.com/company/careers>

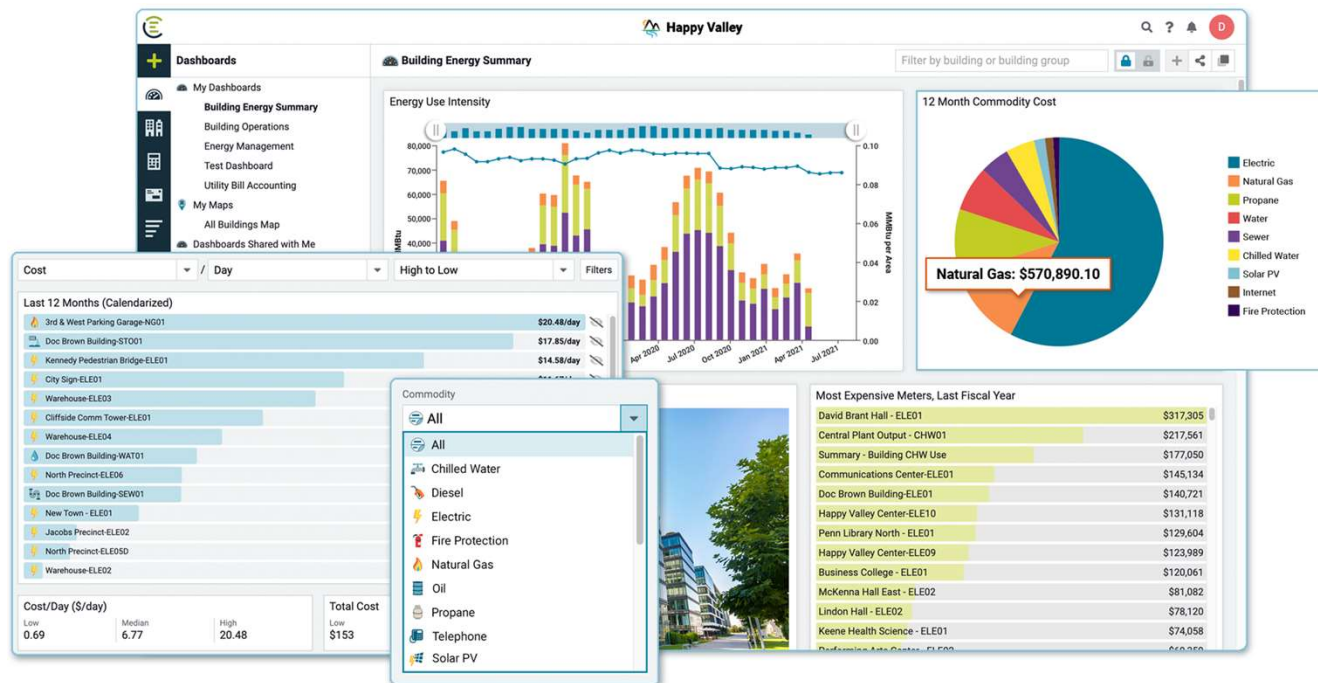
Let's Connect!

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EMPOWER YOUR ENERGY DATA

Say goodbye to spreadsheets, late fees, and inefficiencies.
There's a better way to manage and gain value from your vendor,
utility, and facility data.



ENC Clusters

EnergyCAP currently leverages
4.1 Kubernetes clusters.

Production – k3s.

Implementation – k3s.

Development – k3s.

Cloud – AKS.

JIT – k3s.

k3s

4 nodes
4 vCPUs
6 GiB

AKS

4 nodes
4 vCPUs
16 GiB

Just-In-Time

1 nodes
4 vCPUs
4 GiB

What is Kubernetes?

Kubernetes

is an open source
container
orchestration
platform that
automates
deploying,
managing, and
scaling
containerized
applications.

Kubernetes

is an **open source** container orchestration platform that automates deploying, managing, and scaling containerized applications.

Apache License 2.0

Commercial use

Modification

Distribution

Kubernetes

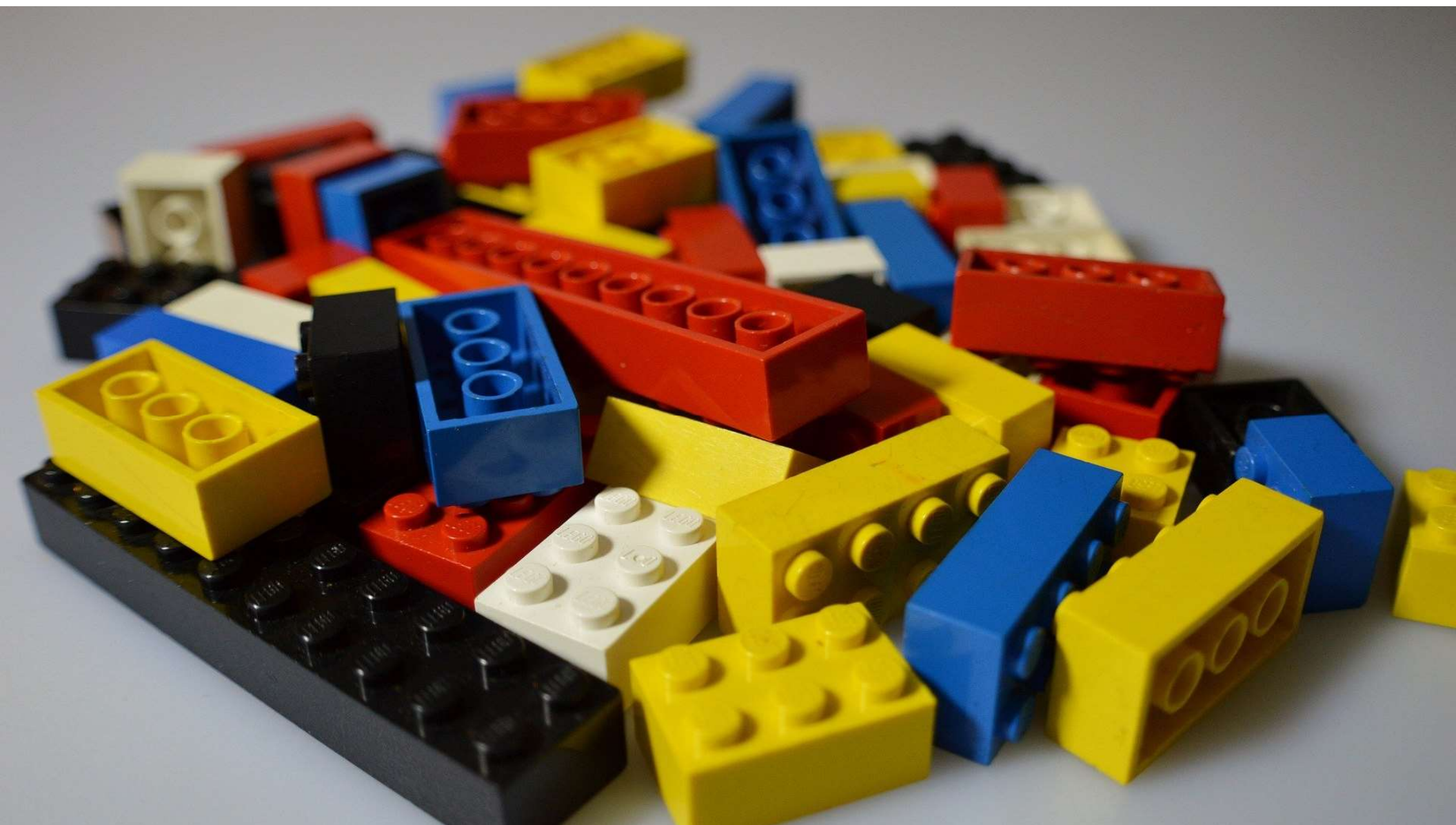
is an open source
container
orchestration
platform that
automates
deploying,
managing, and
scaling
containerized
applications.

lightweight packages of your
application code together with
dependencies

Kubernetes

is an open source
container
orchestration
platform that
automates
deploying,
managing, and
scaling
containerized
applications.

automation of the
operational effort



What is K3s?

K3s

is a certified
distribution of
Kubernetes

K3s

is a **certified
distribution** of
Kubernetes

Cloud Native Computing
Foundation (CNCF) serves as
the vendor-neutral umbrella
organization

K3s

is a **certified
distribution** of
Kubernetes

Consistency: Users want consistency when interacting with any installation of Kubernetes.

Timely updates: To remain certified, vendors need to provide the latest version of Kubernetes yearly or more frequently, so you can be sure that you'll always have access to the latest features the community has been working hard to deliver.

Confirmability: Any end user can confirm that their distribution or platform remains conformant by running the identical open source conformance application that was used to certify.

ref: <https://www.cncf.io/certification/software-conformance/>

K3s

<https://github.com/k3s-io/k3s>

Is Kubernetes complex and difficult?

Let's get started!

<https://github.com/choudeshell/codemash-k3s-workshop>

Quick Feedback



Let's Connect

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