Getting started with Kubernetes

Find out how Kubernetes is an elegant solution to a wide range of essential business problems.

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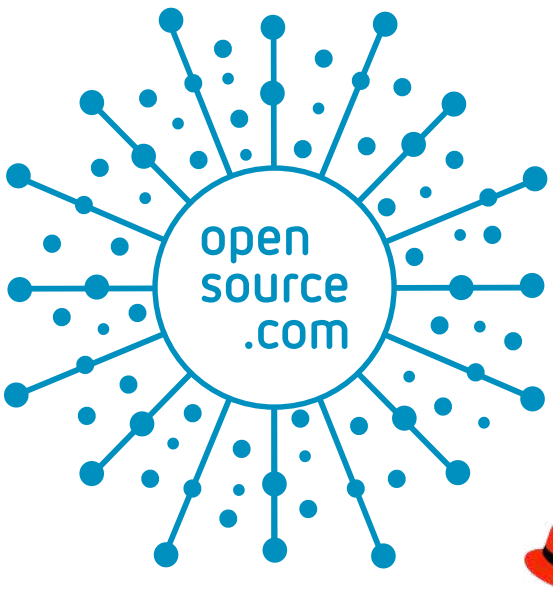

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SCOTT MCCARTY AT RED HAT, SCOTT MCCARTY IS TECHNICAL PRODUCT MANAGER for the container subsystem team, which enables key product capabilities in OpenShift Container Platform and Red Hat Enterprise Linux. Focus areas includes container runtimes, tools, and images. Working closely with engineering teams, at both a product and upstream project level, he combines personal experience with customer and partner feedback to enhance and tailor strategic container features and capabilities.

Scott is a social media start-up veteran, an e-commerce old timer, and a weathered government research technologist, with experience across a variety of companies and organizations, from seven person startups to 12,000 employee technology companies. This has culminated in a unique perspective on open source software development, delivery, and maintenance.

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INTRODUCTION

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Kubernetes is a dump truck: Here's why

Dump trucks are an elegant solution to a wide range of essential business problems.

DUMP TRUCKS ARE ELEGANT. Seriously, stay with me for a minute. They solve a wide array of technical problems in an elegant way. They can move dirt, gravel, rocks, coal, construction material, or road barricades. They can even pull trailers with other pieces of heavy equipment on them. You can load a dump truck with five tons of dirt and drive across the country with it. For a nerd like me, that's elegance.

But, they're not easy to use. Dump trucks require a special driver's license. They're also not easy to equip or maintain. There are a ton of options when you buy a dump truck and a lot of maintenance. But, they're elegant for moving dirt.

You know what's not elegant for moving dirt? A late-model, compact sedan. They're way easier to buy. Easier to drive. Easier to maintain. But, they're terrible at carrying dirt. It would take 200 trips to carry five tons of dirt, and nobody would want the car after that.

Alright, you're sold on using a dump truck, but you want to build it yourself. I get it. I'm a nerd and I love building things. But…

If you owned a construction company, you wouldn't build your own dump trucks. You definitely wouldn't maintain the supply chain to rebuild dump trucks (that's a big supply chain). But you would learn to drive one.

OK, my analogy is crude but easy to understand. Ease of use is relative. Ease of maintenance is relative. Ease of configuration is relative. It really depends on what you are trying to do. Kubernetes [1] is no different.

Building Kubernetes once isn't too hard. Equipping Kubernetes? Well, that gets harder. What did you think of KubeCon? How many new projects were announced? Which ones are "real"? Which ones should you learn? How deeply do you understand Harbor, TikV, NATD, Vitess, Open Policy Agent? Not to mention Envoy, eBPF, and a bunch of the underlying technologies in Linux? It feels a lot like building dump trucks in 1904 with the industrial revolution in full swing. Figuring out what screws, bolts, metal, and pistons to use. (Steampunk, anyone?)

Building and equipping Kubernetes, like a dump truck, is a technical problem you probably shouldn't be tackling if you are in financial services, retail, biological research, food services, and so forth. But, learning how to drive Kubernetes is definitely something you should be learning.

Kubernetes, like a dump truck, is elegant for the wide variety of technical problems it can solve (and the ecosystem it drags along). So, I'll leave you with a quote that one of my computer science professors told us in my first year of college. She said, "one day, you will look at a piece of code and say to yourself, 'now that's elegant!'"

Kubernetes is elegant.

Links

[1] https://kubernetes.io/