



EMC {code}

Community Onramp for
Developer Enablement

"CODE OPEN, DEPLOY EVERYWHERE" - EMC believes in open source.
CODE is here to share and collaborate with developers worldwide.

HELLO WORLD

Yesterday we officially launched a new project, [libStorage](#), that makes storage a first-class citizen in the container ecosystem and beyond. You can read more about libStorage below.

The team is also busy at MesosCon, presenting the hard work of our developers in several sessions around the new Open Source Data Center, how people are building frameworks with new APIs and how Marathon can interact with external storage.

We'll continue to distill, aggregate and share news related to the EMC {code} Community and industry happenings. We'll provide the content, but we need your feedback. You can always reach us at emccode@emc.com.

code.community

REX-Ray at a Docker Meetup in Kenya

Imagine Nairobi as the New York of East Africa - it is the main business hub for Kenya and the neighboring countries. Two thirds of the adult population in this region use mobile money services, making Kenya one of the most forward-thinking countries in the world when it comes to technology adoption.

Kenya is definitely the place to start a talk about cutting edge stuff. I met William ([@wondenge](#)) via Twitter, as he's a huge fan of Docker and a very active community member in the country. As I was digging into REX-Ray & Mesos at the time, I asked to join his Docker meetup to do an introduction of

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DockerCon

June 20-21
Seattle, WA

On the 21st, [Jonas Rosland](#) will be speaking at 11:15AM in the Contribute and Collaborate Room on "Open Source is Good for both Business and Humanity."

Click here to [register for DockerCon](#) and visit with the EMC {code} team.

storage persistence for containers.



We went through the history of containers on x86, kernel namespaces & cgroups, compared some major container schedulers out there and then focused on Mesos and DC/OS. Presenting external storage into containers has been one of the hottest topics lately so we talked about the various mechanisms and focused on how Project REX-Ray solves this problem.

In preparation for the meetup we had to tweak the Mesosphere DC/OS EarlyAccess edition since it currently has no support for external volumes. The walkthrough on how I made it work is here: <https://github.com/mitel/dcos-rexray>.

At the meetup I set up a DC/OS cluster on AWS with two Mesos Agents running REX-Ray 0.3.3 and Docker 1.10.3. I was able to run an OrientDB (a popular graph database) Docker container via Marathon with three external AWS EBS volumes, showing data persistence while the container was restarted between the two hosts.

It was a great experience, and I hope to repeat it soon.

Special thanks to Said Rechchad (GM of EMC South-East Africa) and the whole EMC Kenya team for hosting the meetup - very cozy office by the way, anybody reading this, you should visit them next time you're in Nairobi.

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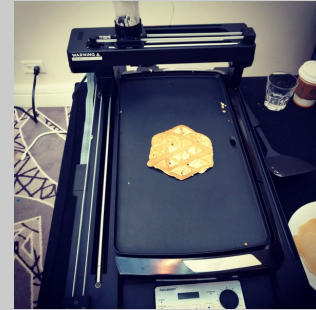
East & West Africa

Want to see all of our upcoming events?

Check out the [EMC {code} Events Google Calendar](#) to stay up to date!

code.overheard

The future is here: the pancake printer #MesosCon



by [@csanchez](#)

[Newsletter Archive](#)

For feedback, topic ideas, or corrections, please email emccode@emc.com.

The {code} newsletter is edited by [Stephanie Carlson](#).

New Open Source Initiative: libStorage

We are proud to [announce](#) the latest open source initiative - libStorage, a vendor and platform-agnostic storage orchestration, model and API. The first open source technology of its kind, libStorage elevates storage to a first-class and sustainable citizen within the container ecosystem by providing universal and portable storage capabilities for container and application platforms.



Containers have been gaining attention as a valuable open source technology; however, each container platform is unique, and the technologies aren't unified for users. Additionally, users need a seamless interface between storage and container platforms, as well as native interoperability. None of that has been easy-until now.

Key features of the project:

- libStorage is an open source vendor and platform-agnostic storage framework released through EMC {code}
- Provides orchestration through a common model and API
- Delivers the future foundation of simplified storage integration to heterogeneous open source container platforms
- Allows unified management and communication between storage technology and heterogeneous container platforms
- Supports multiple platforms, including Cloud Foundry, Apache Mesos, DC/OS, Docker and Kubernetes
- Enables nascent platforms to immediately become relevant in the container world

[libStorage is Open Source on GitHub](#)

[Here you'll find the documentation for libStorage](#)

MesosCon Keynotes And The Future Of Schedulers

We've all seen the rise of containers for quite some time. There is so much talk about how containers are solving the world's problems that the true work horses of our next generation applications take a back seat to the credit they deserve. Yes, by that I am talking about container schedulers.

Containers on their own aren't exactly interesting. Without schedulers, you start a container on a server and it just sits there. Throw schedulers in the mix and you truly get something dynamic and quite frankly... interesting.

Enter MesosCon. A place where people can come and talk about their unique stories using one of the most popular schedulers out there, Apache Mesos, to run in your data center.

This year's event got kicked off with Benjamin Hindman from Mesosphere talking about the state of the industry and how the interest within its user base are mapped to a few areas, namely Containerization, Microservices, Storage/Analytics, and Cluster Management. He views these interests as a continual cycle feeding into each other and enabling growth. This has culminated into Mesos 1.0 working together with DC/OS as a Microservices architecture that fosters new Microservice applications.



This message happens to coincide with Josh Bernstein's views on Open Source infrastructure. In particular, why the

move to Open Source is so compelling and adoption is accelerating.

Josh outlined four important benefits in his talk: **freedom, innovation, flexibility, and integration**. Integration was highlighted in particular because things like community enablement and the ability to integrate with both modern and existing processes and infrastructure leads to quicker adoption.

We're hoping to see even more things come out from MesosCon during the week, stay tuned for a recap next week!

code.industry

Containers:

- [Windows Containers on Windows 10](#)
- [Presenting Torus: A modern distributed storage system by CoreOS](#)
- [Seamlessly Integrate External Storage Into Mesos Using the New Docker Volume Isolator](#)

Open Source:

- [Free Software Artists and their Tools - Part I: David Revoy & Krita](#)
- [Google beats Oracle - Android makes "fair use" of Java APIs](#)
- [Dear GitHub: Thanks for getting rid of streaks](#)

In Other Tech News:

- [Rapid Fire - Live Streaming Hacking Events](#)
- [Chinese ARM vendor's Kernel root backdoor snippet](#)
- [Megaprocessor: a microprocessor built large](#)

code.learn

Learn Algorithms The Easy Way

Reading through massive text books just to understand how different algorithms work is neither fun nor a great learning experience. Aditya Bhargava has just published is elegantly title book "Grokking Algorithms", you can read more about the book and how to get it on his blog:

<http://adit.io/posts/2016-05-25-Grokking-Algorithms-Is-Out.html>

grokking

algorithms

*An illustrated guide for
programmers and other curious people*

Aditya Y. Bhargava



We hope you enjoyed the 68th issue of the EMC {code} newsletter.

Thanks for subscribing!