AUTO-HEALING DATABASES
FOR
DEVELOPERS AND
ADMINISTRATORS

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Who am I?

- I am a husband and father of 4 children.
- I’ve recently lost 11.5 kg in the past 45 days. Go Keto Diet!
- This is my first time in Brno.
- FINALLY I’m not the Couchbase expert…. my co-presenter is ill. Get better soon, Denis!

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https://github.com/mwardRH/partner-field-kits
NEW APPS NEED NEW DATA PARADIGMS

- Optimize existing IT
- Auto-Recovery
- Add and manage hybrid cloud infrastructure
- Geo-Distribution
- Centralized Management

Couchbase

RED HAT® OPENSSHIFT®
THE CLOUD-NATIVE APP DEV CHALLENGE
Couchbase and Red Hat enable hybrid/multi-cloud
KUBERNETES OPERATOR FRAMEWORK

Operator Framework is an open source toolkit to manage application instances on Kubernetes in an effective, automated and scalable way.

AUTOMATED LIFECYCLE MANAGEMENT

- Installation
- Upgrade
- Backup
- Failure recovery
- Metrics & insights
- Tuning
WHY OPERATOR FRAMEWORK?

DEVELOPER ➔ DEPLOY STATEFUL APP ➔ UPDATE PATCH BACKUP REBALANCE SCALE ➔ APP SERVICES OPERATIONS

A WHILE LATER

DEVELOPER ➔ DEPLOY STATEFUL APP ➔ UPDATE PATCH BACKUP REBALANCE SCALE ➔ APP OPERATOR
Couchbase Autonomous Operator is an application-specific controller that extends the Kubernetes API to create, configure and manage instances of complex stateful applications on behalf of a Kubernetes user.

It builds upon the basic Kubernetes resource and controller concepts, but also includes domain or application-specific knowledge to automate common tasks better managed by computers.
COUCHBASE AUTONOMOUS OPERATOR

The Couchbase Autonomous Operator deploys Couchbase Server alongside your cloud-native applications in public, private, and multi-cloud environments without sacrificing the portability and manageability of your data.
WARNING: LIVE DEMO

TWITTER #Devconf #OpenShift #LIVEDEMO
Couchbase designed for containerized applications

Microservice Architecture == Multi-Dimensional Scaling
COUCHBASE ENABLED TRANSFORMATION

Couchbase offers a performant and scalable, distributed database optimized for diverse use cases. The Couchbase Autonomous Operator simplifies deployment and manageability of your data services for microservices applications.

**Couchbase offers:**
- Caching
- Key Value
- Document Store (JSON)
- Full Text Search
- Analytics
- Eventing (FaaS)
- Mobile