"Soft" Launch - Markup UK
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What is FusionDB?

- **Multi-model database**
  - Document
    - XML and Binary
    - JSON native - work in progress
  - Key/Value

- **ACID**
  - MVCC
  - Snapshot Isolation

- **Written in C++ 14 and Java**

- **100% eXist-db API Compatible**
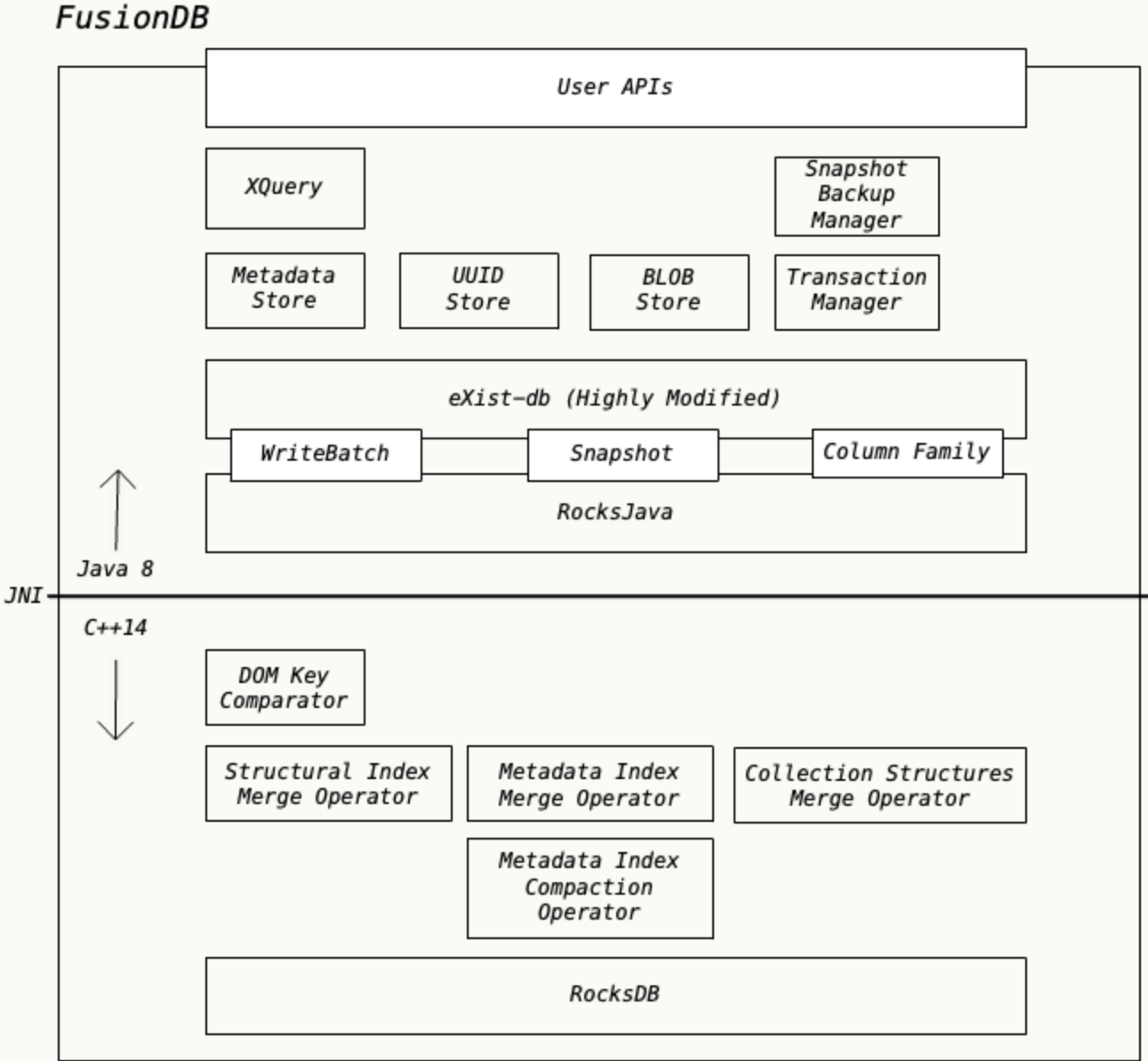
- **Will be Open Sourced...**

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What is FusionDB?

- **A *fusion* of three main components:**
  - RocksDB (6.0.2)
  - eXist-db (5.0.0-RC8++)
  - Our own additions, fixes, and integration.

- **It's growing into something more...**

- **Planned features:**
  - Pushing things lower in the stack (likely Rust)
  - New XQuery 3.1 Engine
  - New Full-text indexes
  - Native JSON Support, JSONiq, and JavaScript
  - Clustering

FusionDB Architecture

FusionDB

User APIs

XQuery

Snapshot Backup Manager

Metadata Store

UUID Store

BLOB Store

Transaction Manager

eXist-db (Highly Modified)

WriteBatch

Snapshot

Column Family

RocksJava

Java 8

JNI

C++14

DOM Key Comparator

Structural Index Merge Operator

Metadata Index Merge Operator

Collection Structures Merge Operator

Metadata Index Compaction Operator

RocksDB

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Interesting Features

- **Key/Value Metdata**

- **UUID Locators**

- **Instant "Snapshot" Backups**

- **XQuery Try/Catch is Transactional**

- **Blob Deduplication**

FusionDB – Status

- **Alpha 1**
  - Please use and report issues
  - We expect you to find problems ;-)

- **Not yet open source**
  - Alpha 1 - free for non-commercial
  - Likely will be dual licensed open source and commercial

- **Near future:**
  - Fix issues found in Alpha 1
  - More Alphas and then a Beta
  - Optimisation

Fusion Studio

- **Open Source (GPL v3.0)**

- **IDE**
  - Not designed to replace comprehensive tools like Oxygen!
  - Create and Edit Documents in the database
  - Execute XQuery against the database
  - Serialization Settings and Paging

- **Management Tool**
  - Connect to Multiple servers
  - Browse/Upload/Copy/Move/Delete Documents
  - Modify Document Properties - permissions, type, metadata, etc.
  - Create/Edit/Delete Users
  - etc...

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Alpha1

Now available for Download:

https://www.fusiondb.com

Thank You!
Ask Me Anything...

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