More than just a key value datastore

Christopher Spring

What is redis?

remote dictionary server

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```
'Key' => String
'Key' => Set
'Key' => Hash
'Key' => List
'Key' => Sorted Set
```

Key features

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- Key expiry

In memory storage

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- Single process event driven design

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- Non blocking

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- 100k+ operations per second

Asynchronous persistence

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- Snapshotting
  - `save 60 1000`

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- Snapshotting
  - `save 60 1000`
- Append only file
  - Log rewriting
  - fsync

Master slave replication

```
slaveof '192.168.1.1' 6379
```

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- Scalability
- Defer save to slaves

Redis Virtual Memory

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…disk store

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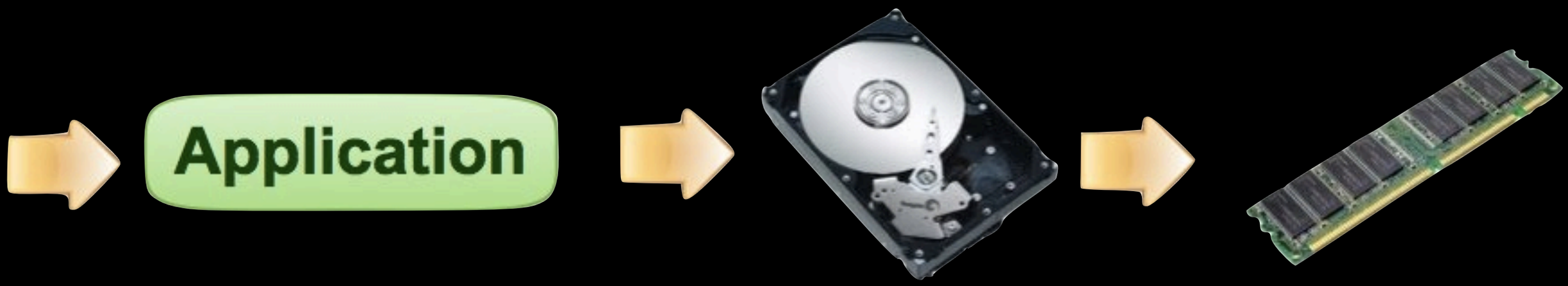
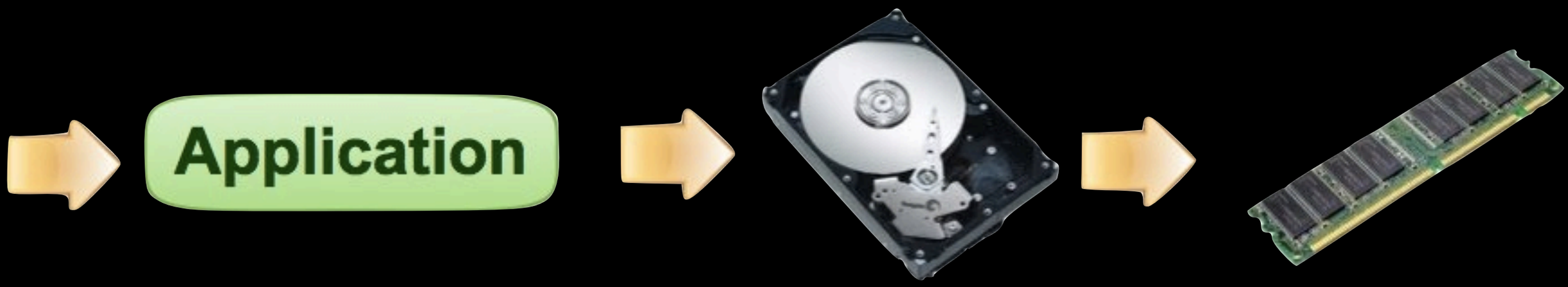
- Subscribers and publishers don't care about each other
- Supports pattern subscription
  `PSUBSCRIBE f*`

There are only two hard things in computer science...

DB + caching

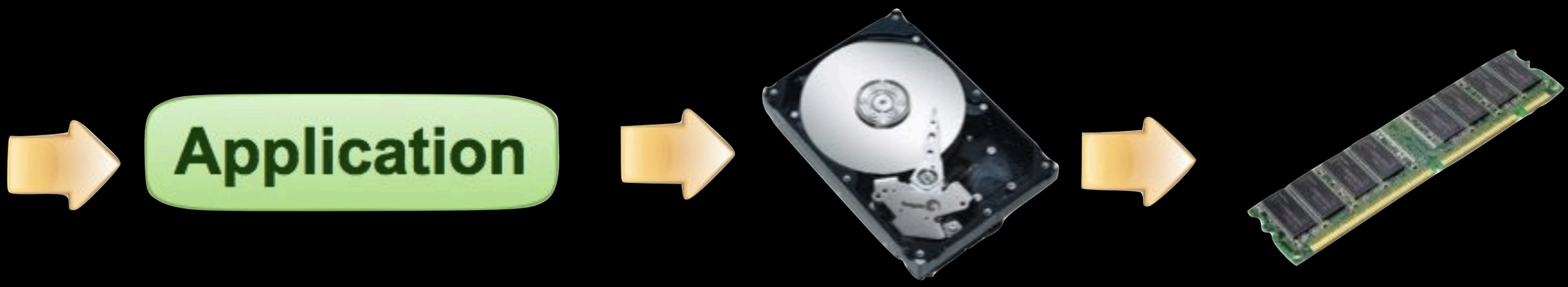


DB + caching



- Multiple copies of data

DB + caching



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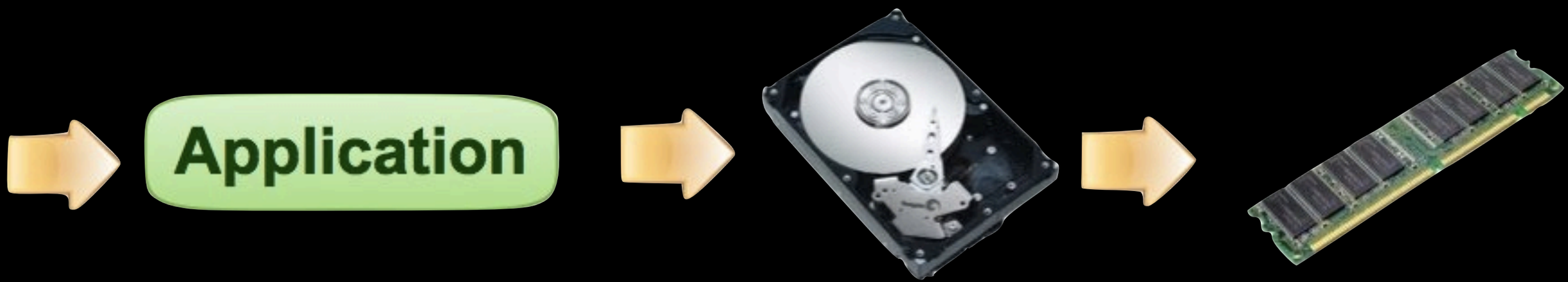
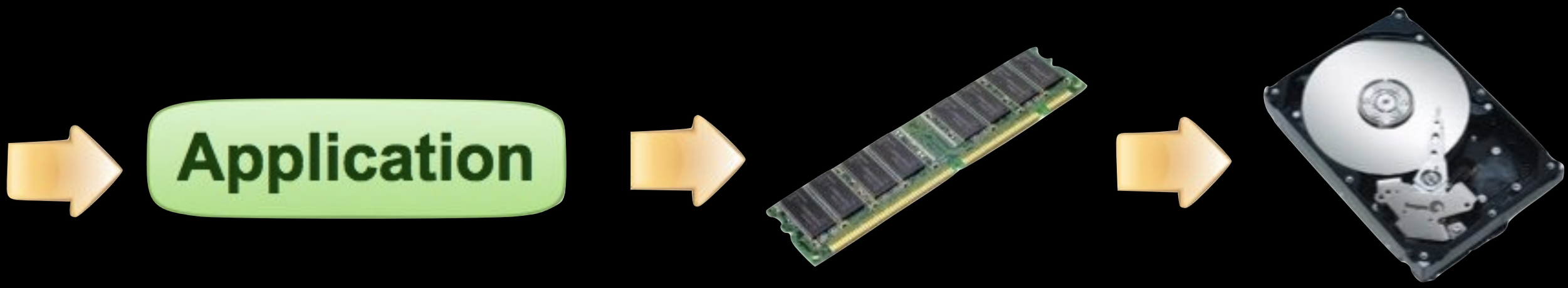


- Multiple copies of data
- Mainly scaling reads
- No higher level functions

Redis



How we use redis

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- Inter process communication*

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When to consider redis

- You like it fast
- You need more than just key value pairs
- Small dataset that can fit into memory
- Your dataset isn’t critical*

- C
- C#
- C++
- Clojure
- Common List
- Erlang
- Go
- Haskell
- haXe
- Io
- Java
- Lua
- Node.js
- Objective-c
- Perl
- PHP
- Python
- Scala
- Smalltalk
- Tcl

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Thanks!