

```
/**
```

```
* Gimme Caching  
* The JCache Way
```

```
*/
```



[www.hazelcast.com](http://www.hazelcast.com)



# Disclaimer

This presentation may include certain forward-looking statements and projections provided by the Company. Any such statements and projections reflect various estimates and assumptions by the Company concerning anticipated results. These statements involve risks, uncertainties and assumptions and are based on the current estimates and assumptions of the management of the Company as of the date of this presentation and are subject to uncertainty and changes. No representations or warranties are made by the Company as to the accuracy of any such statements or projections. Whether or not any such forward-looking statements or projections are in fact achieved will depend upon future events some of which are not within the control of the Company. Accordingly, actual results may vary from the projected results and such variations may be material. Statements contained herein describing documents and agreements are summaries only and such summaries are qualified in their entirety by reference to such documents and agreements.



[www.hazelcast.com](http://www.hazelcast.com)



# Who's that dude?



- Chris(toph) Engelbert
- Twitter fanatic: @noctarius2k
- Weird 9+ Java-Years
- Performance, GC, Fairytales
- Apache Committer
- Gaming, Travel Management, ...

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# Who's that dude?



- Chris(toph) Engelbert
- Twitter fanatic: @noctarius2k
- Weird 9+ Java-Years
- Performance, GC, Fairytales
- Apache Committer
- Gaming, Travel Management, ...

★ The new Chuck Norris



# Caching? Gotcha!



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# Caching? Don't you mean 'Wasting Memory'?

L1 Cache Reference	0.5 ns	
L2 Cache Reference	7 ns	
Main Memory Reference	100 ns	
1K send over 1 Gbps Network	10,000 ns	0.01 ms
4K read from SSD	150,000 ns	0.15 ms
Seek on Spinning Disk	10,000,000 ns	10 ms
Send Packet CA->AMS->CA	150,000,000 ns	150 ms



[www.hazelcast.com](http://www.hazelcast.com)



# Evolution Of Caching

## Roll Your Own!

<http://gadizmo.com/roll-your-own-with-the-ham-dogger.php>



[www.hazelcast.com](http://www.hazelcast.com)



# Evolution Of Caching

Proprietary Cache!



<http://technoodling.net/mili-power-crystal-battery-pack-review/>



[www.hazelcast.com](http://www.hazelcast.com)



# JCache?

Will it  
blend?



[www.hazelcast.com](http://www.hazelcast.com)





Everybody created his own  
Caching Solution



[www.hazelcast.com](http://www.hazelcast.com)





Now we have a standard!



[www.hazelcast.com](http://www.hazelcast.com)





No need to ## care about  
Proprietary Solutions  
anymore!



[www.hazelcast.com](http://www.hazelcast.com)



# Time to be Happy!



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# It has a long History

The Java Community Process

INTERNET ARCHIVE it of all JSRs <http://jcp.org/en/jsr/detail?id=107> Go OKT NOV FEB Close

WayBack Machine by JCP Stage 130 captures 6 Nov 02 – 11 Jul 14 List by Executive Committee

What's New

Participation

JCP Procedures

Press & Success

Community Resources

日本語版目次

Specifies API and semantics for temporary, in memory caching of Java objects, including object creation, shared access, spooling, invalidation, and consistency across JVM's.

**Specification Lead**  
[Jerry Bortvedt](#)  
Oracle

**Expert Group**

Apache Software Foundation	Berry, Chris
Epicentric	Gemstone Systems, Inc.
Goetz, Brian	Hewlett-Packard
IBM	Novell Networks
Oracle	Purdy, Cameron H.
Strachan, James	Sun Microsystems, Inc.
Wong, Frankie	

[Private Expert Group homepage](#)

**Status**

Expert Group Formation	04 Apr, 2001
<a href="#">JSR Review Ballot</a>	19 Mar, 2001

Java Community Process version in use: [2.1](#)

Java Specification Participation Agreement version in use: 1.0

Please direct your comments on this JSR to [jsr-107-comments@jcp.org](mailto:jsr-107-comments@jcp.org)



[www.hazelcast.com](http://www.hazelcast.com)



JSRs: Java Specification Requests

## JSR 107: JCACHE - Java Temporary Caching API

Stage	Access	Start	Finish
Final Release	<a href="#">Download page</a>	18 Mar, 2014	
Final Approval Ballot	<a href="#">View results</a>	04 Mar, 2014	17 Mar, 2014
Proposed Final Draft	<a href="#">Download page</a>	24 Oct, 2013	
Public Review Ballot	<a href="#">View results</a>	27 Aug, 2013	09 Sep, 2013
Pull Request	<a href="#">Pull Request</a>	25 Jul, 2013	29 Aug, 2013

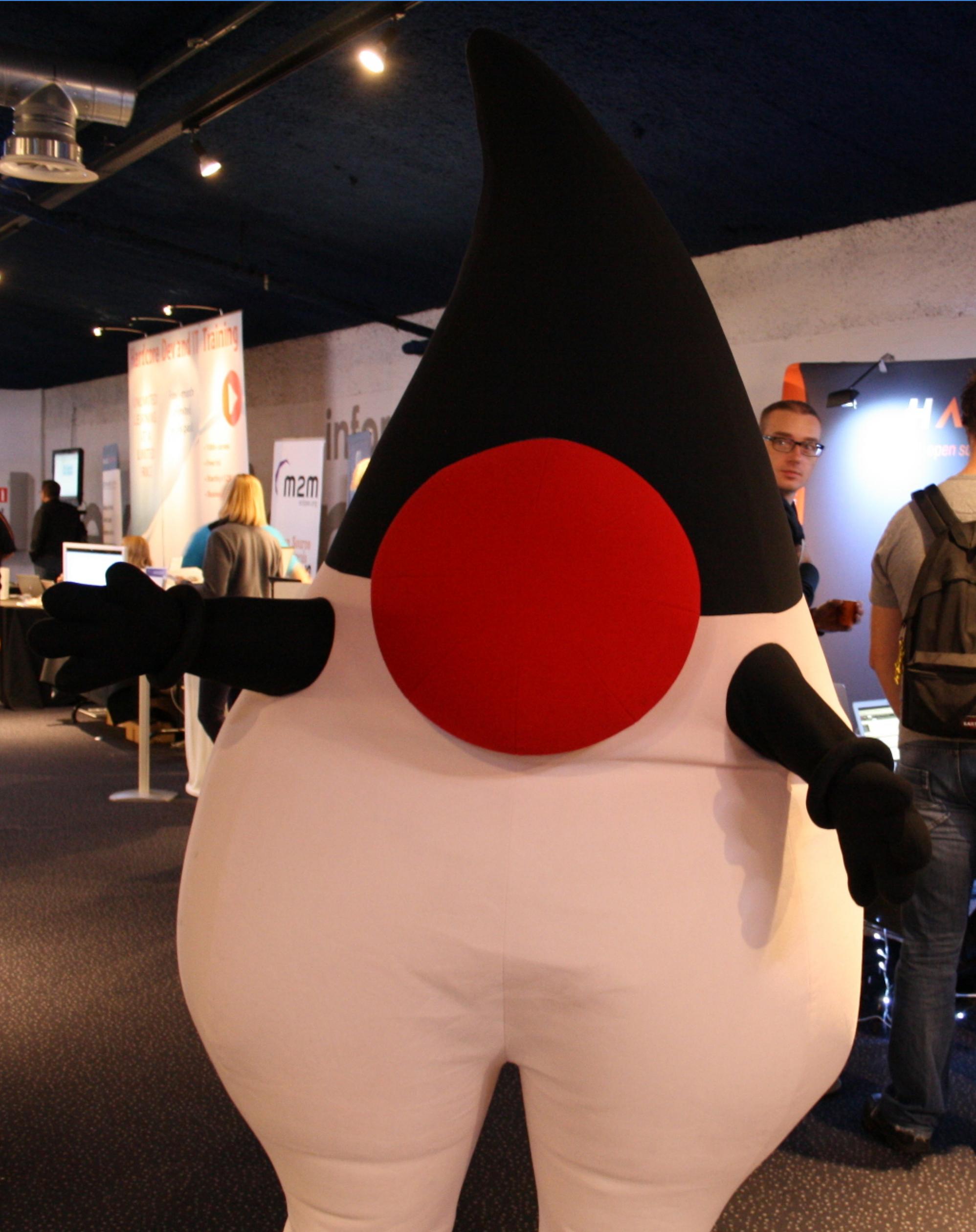
but also a Happy End!  
Brian Oliver  
Greg R. Luck



[www.hazelcast.com](http://www.hazelcast.com)



# JCache in 5 Facts



- JSR 107 - Java Temporary Caching API
- Longest Running JSR - EVER!
- Targeting Java 6
- Almost Similar to j.u.Map but Better!
- Vendor Agnostic



[www.hazelcast.com](http://www.hazelcast.com)



# JCache Implementations



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# JCache Implementations



## Hazelcast

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# JCache Implementations



Hazelcast

Ehcache

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# JCache Implementations



Hazelcast

Ehcache

Infinispan

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# JCache Implementations



Hazelcast

Ehcache

Coherence

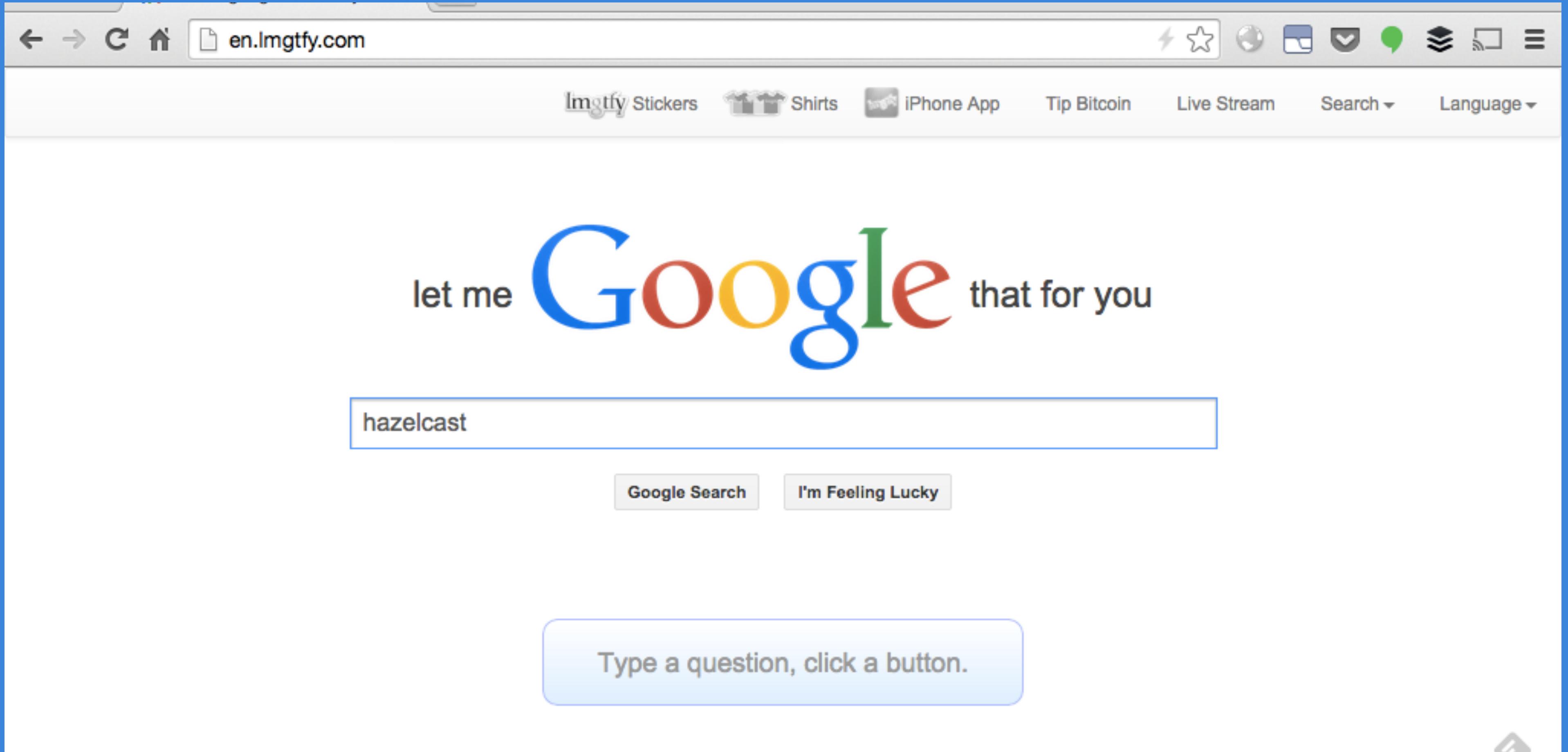
Infinispan

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)





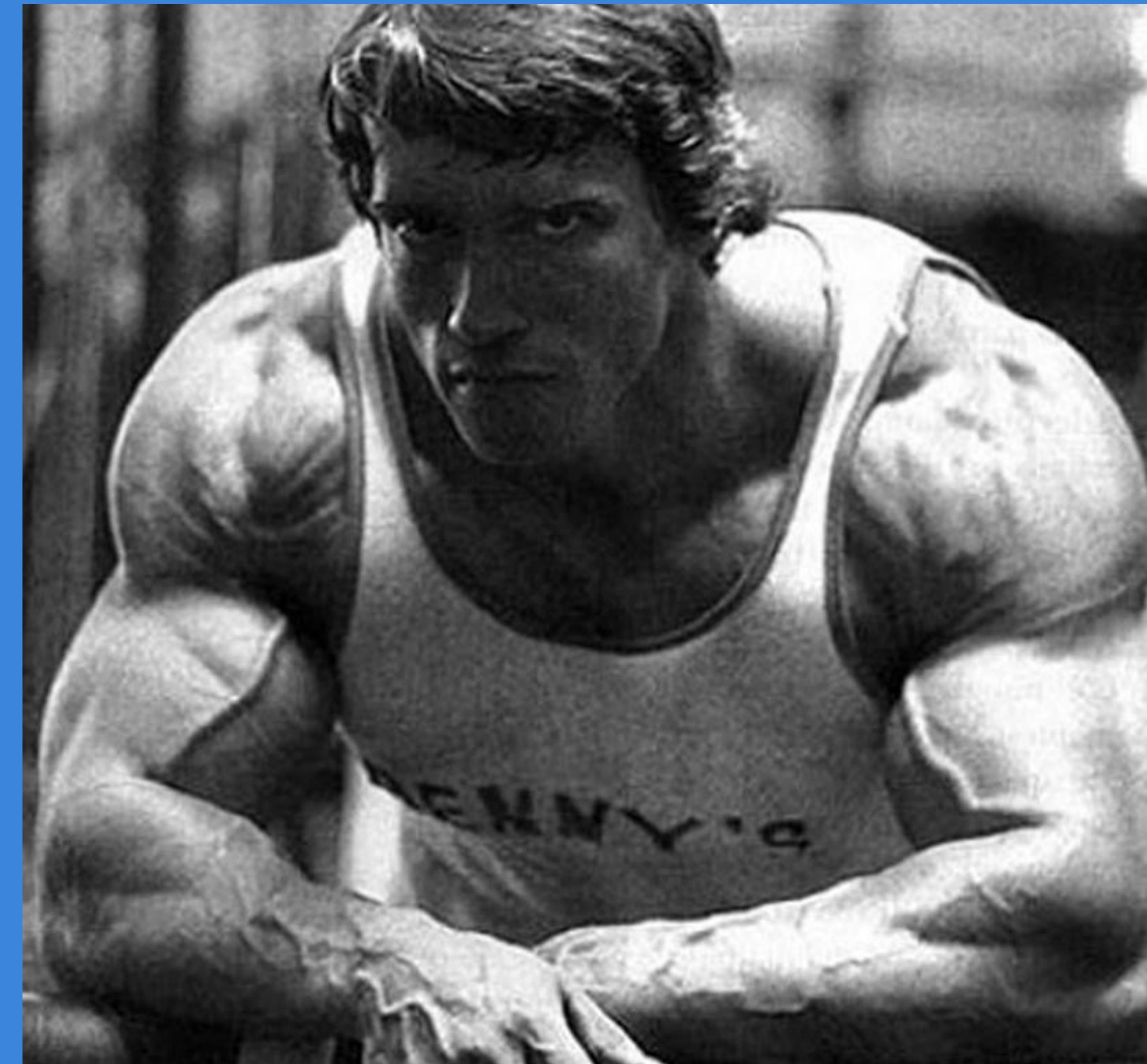
# WTF... is Hazelcast? Just LMGTFY Bro!



[www.hazelcast.com](http://www.hazelcast.com)



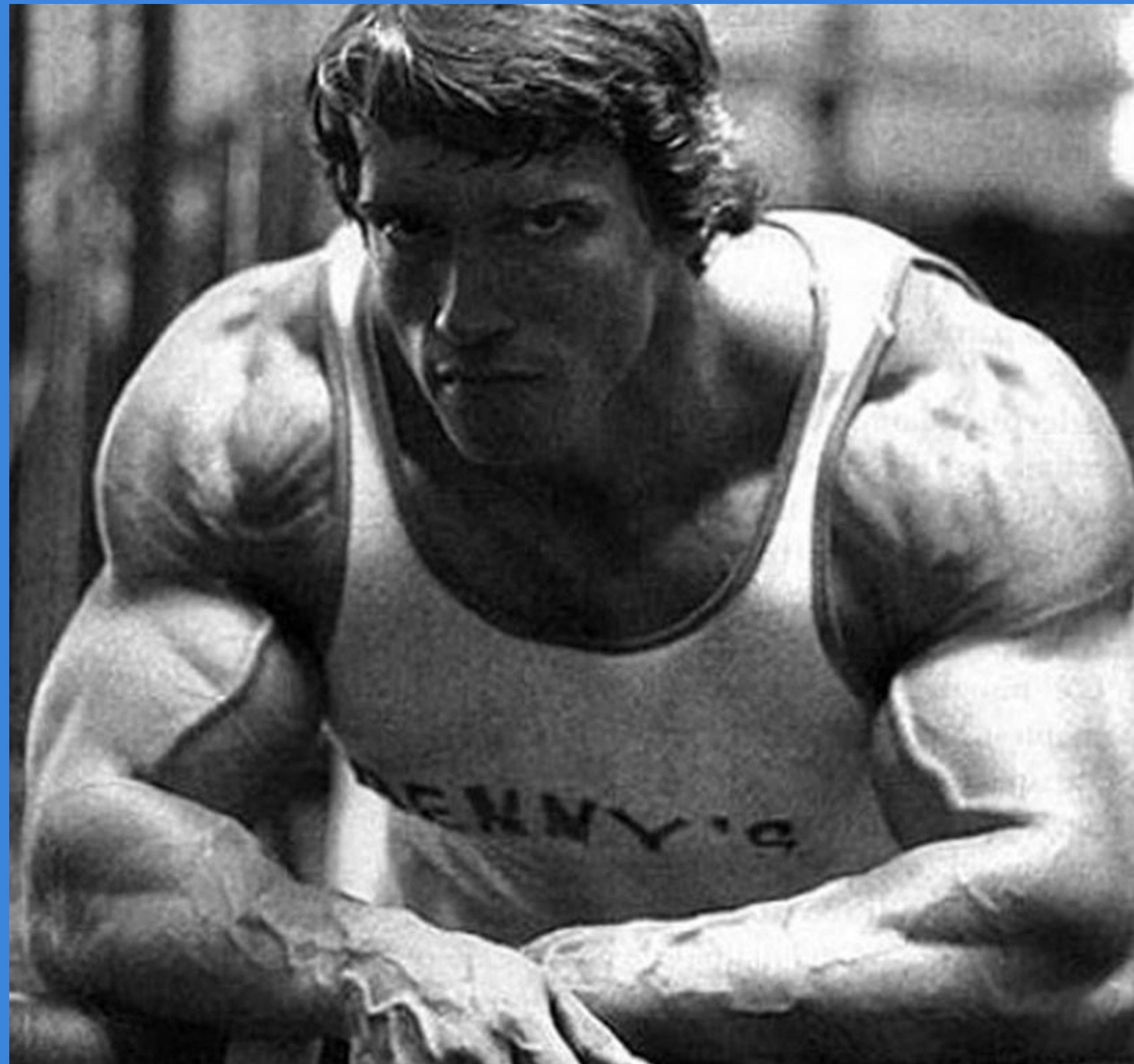
# That is Hazelcast!



[www.hazelcast.com](http://www.hazelcast.com)



Oops!  
Wrong search  
result!



[www.hazelcast.com](http://www.hazelcast.com)



# HAZELCAST

## PICKIN' DIAMONDS



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)





# Partition / Shard Data

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)





# Distribute Data

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)





# Parallelize Processing

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# Distribute Messages

A woman with long brown hair is looking upwards while holding a blue megaphone to her mouth. She is wearing a dark blue zip-up hoodie. The background is blurred, showing some orange and yellow lights, suggesting an outdoor event or protest.

Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



**Ohhh!**  
**And yeah:**  
**Caching!**



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# Fault Tolerance:

Johnny, you are the most important person here!  
It is your responsibility to keep the data!



Original: Thanks to XKCD  
[http://imgs.xkcd.com/comics/dimensional\\_analysis.png](http://imgs.xkcd.com/comics/dimensional_analysis.png)



# Hazelcast combines all the good things...



1993



2013



[www.hazelcast.com](http://www.hazelcast.com)





... and is as easy as  
taking candy from a baby!

Gartner | 2012  
COOL VENDOR



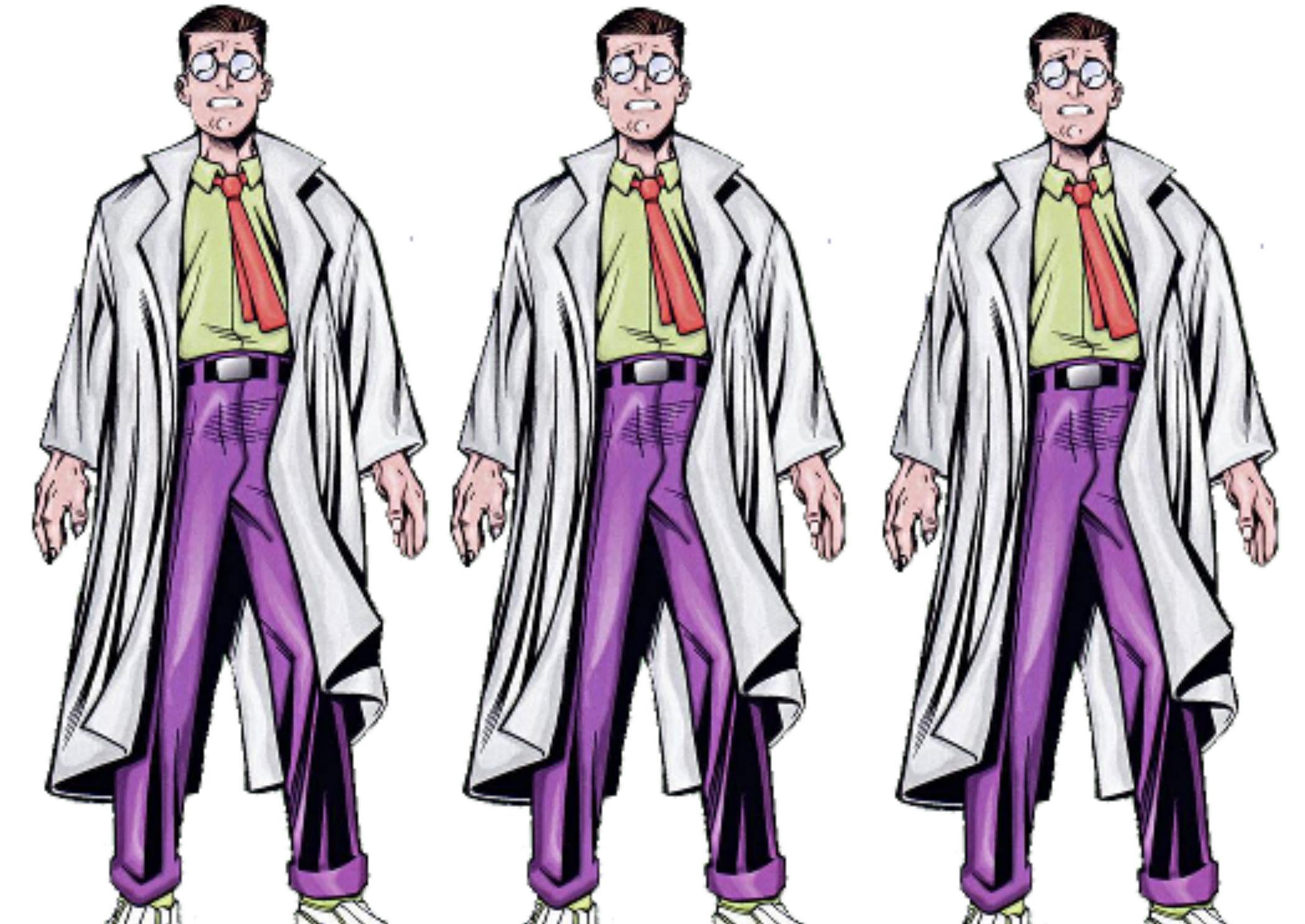
[www.hazelcast.com](http://www.hazelcast.com)



Incredible Hulk® is a registered trademark by Marvel Characters, Inc., Cadence Industries Corporation (d.b.a. Marvel Comics Group).

# Scale Out

# Not Scale Up



Gartner | 2012  
COOL VENDOR



[www.hazelcast.com](http://www.hazelcast.com)



# Let's make it into a movie!

Live Coding **OnAir!**



[www.hazelcast.com](http://www.hazelcast.com)



# Thank You!

Any Questions?

@noctarius2k

<http://www.sourceforge.org>

<http://github.com/noctarius>

@hazelcast

<http://www.hazelcast.com>

<http://www.hazelcast.org>

<http://github.com/hazelcast>



[www.hazelcast.com](http://www.hazelcast.com)

