CppCMS

CppCMS
- Faster
- Lighter
- Greener

The
High Performance
Web Framework

open source™
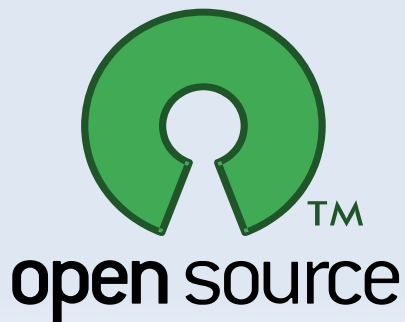
By Artyom Beilis

In The Beginning...

Year:
  2006

New PC:
  AMD 64 bit,
  1GB memory

Use:
  Gaming
  Blogging

90
frames per second

Something
Is Wrong!
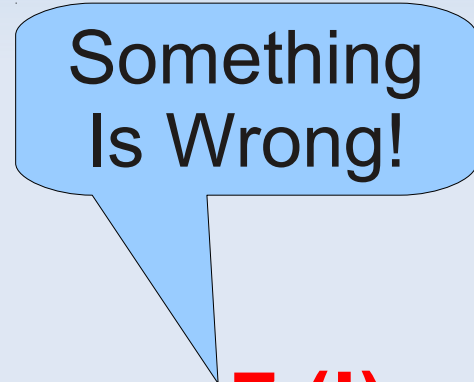
7 (!)
pages per second

Framework Idea – 2006

Native Code:
No: Byte Code
No: Just (not) in Time
Yes: Native Code
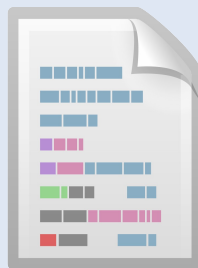
Recycle:
Objects
Connections
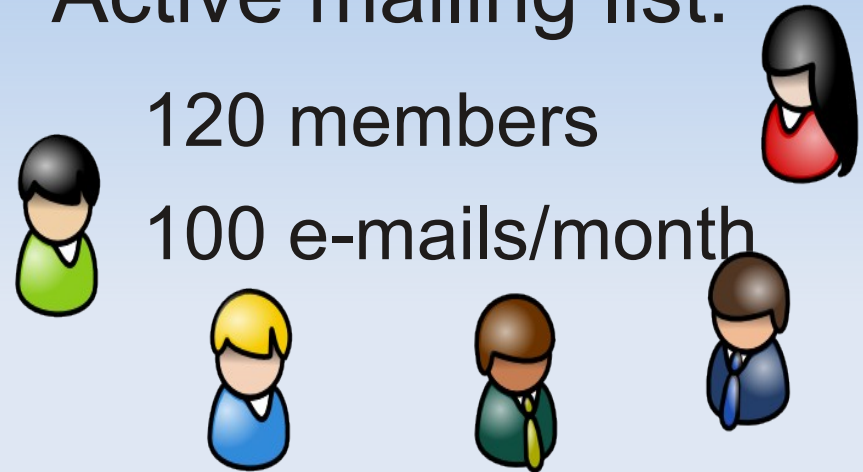Data
Pages

CppCMS – 2012

700 downloads/month

100,000 lines of code
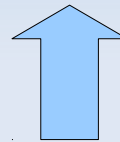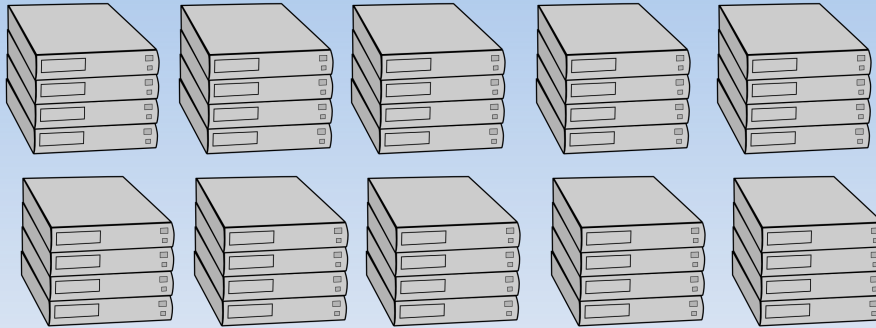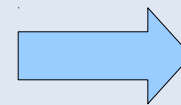

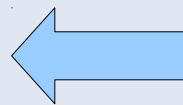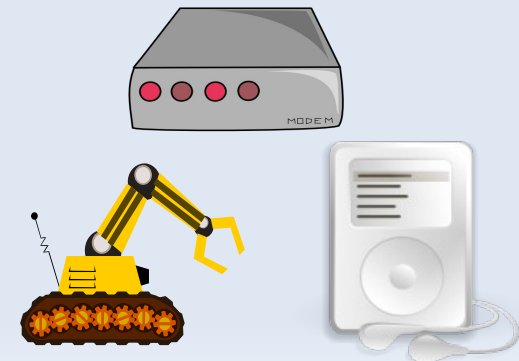Active mailing list:

120 members

100 e-mails/month

Code contributions to

Major Use Cases

Web Server Farms

Web Interfaces

Embedded Systems

CppCMS
- Faster
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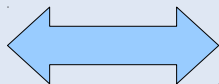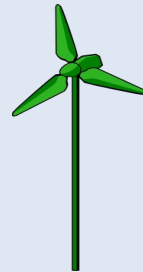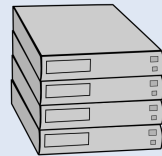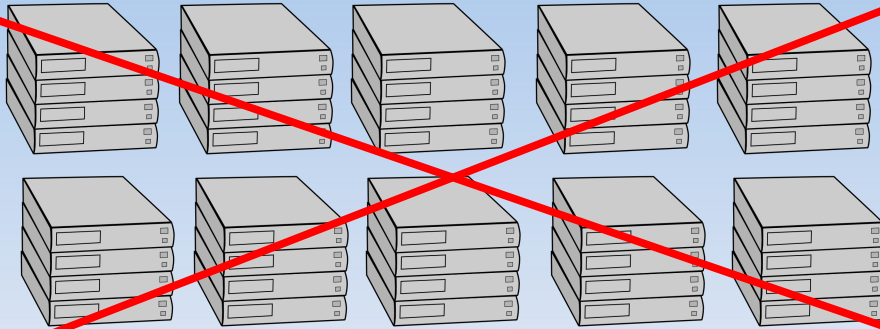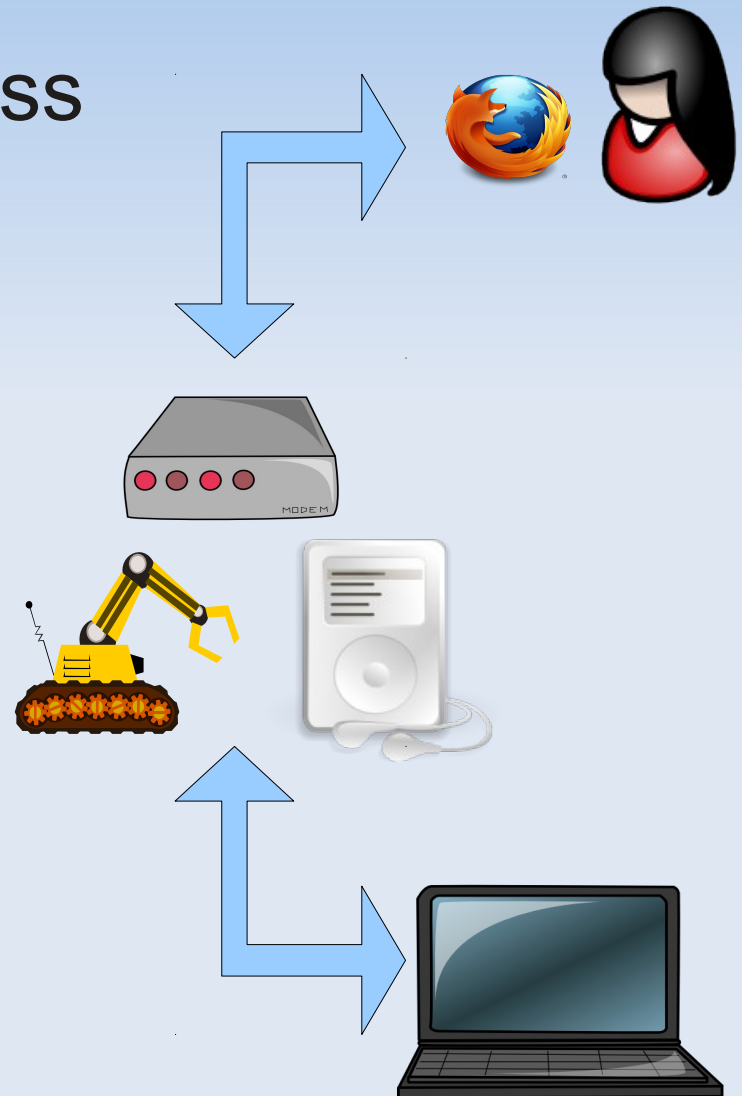
Resource Consuming Systems

PHP
Rails
Java
.Net

C++/CppCMS

Embedded Web Interfaces

- Native code – direct HW access
- Tiny all-in one executable
    - CppCMS library: 1.3MB
    - Python: 2.2MB
- Both
    - User Interface
    - RESTFul API

    JSON-RPC API

Real World Examples

Services Designed for My Customers:

- RESTFul API for Geographical Database:
  - **Architecture:** In Memory Database
  - **Performance:** **~1,000,000 request/minute** on low end hardware

- Advertisement Engine:
  - **Architecture:** in-memory indexing with intensive caching; SQL as storage engine
  - **Performance:**

    ~300,000 ads/minute on low end hardware

    ~40,000 ads/minute on Amazon's Smallest VPS

Some CppCMS Users

- http://page2rss.com

    Creates and servers RSS feeds bases on page monitoring

- http://dhiti.com

    Content discovery engine

- http://tatoeba.org

    Sentence database for language learners
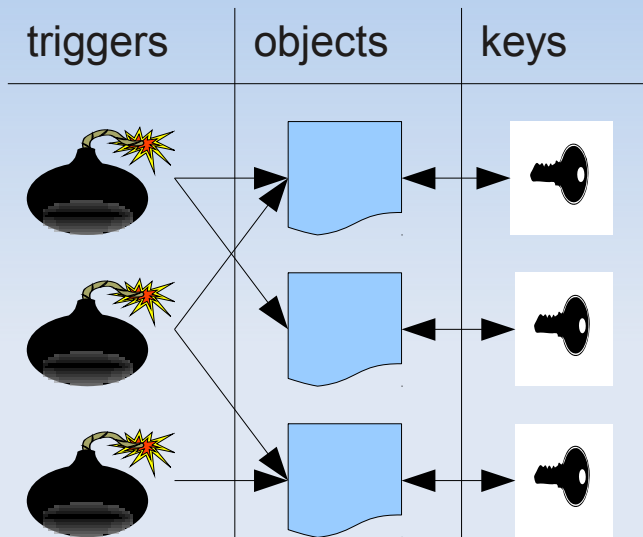
- http://picase.net

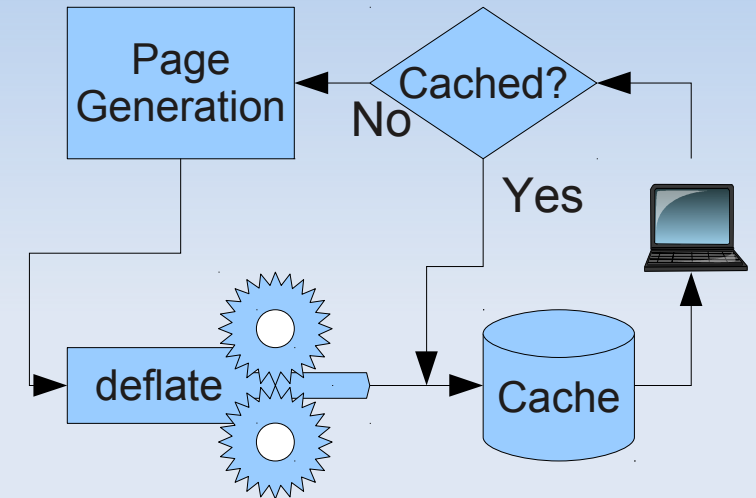   *Image Sharing Service*

Features

Built-in Web Sever

Anti-CSRF

Visual C++

Windows

GCC

LGPL & Commercial

Comet

FreeBSD

Linux

Clang

Solaris

Mac OS X

Web Templates

Localization

Nice URLs

SCGI

Cache

Sessions

Ajax

FastCGI

XSS-Filtering

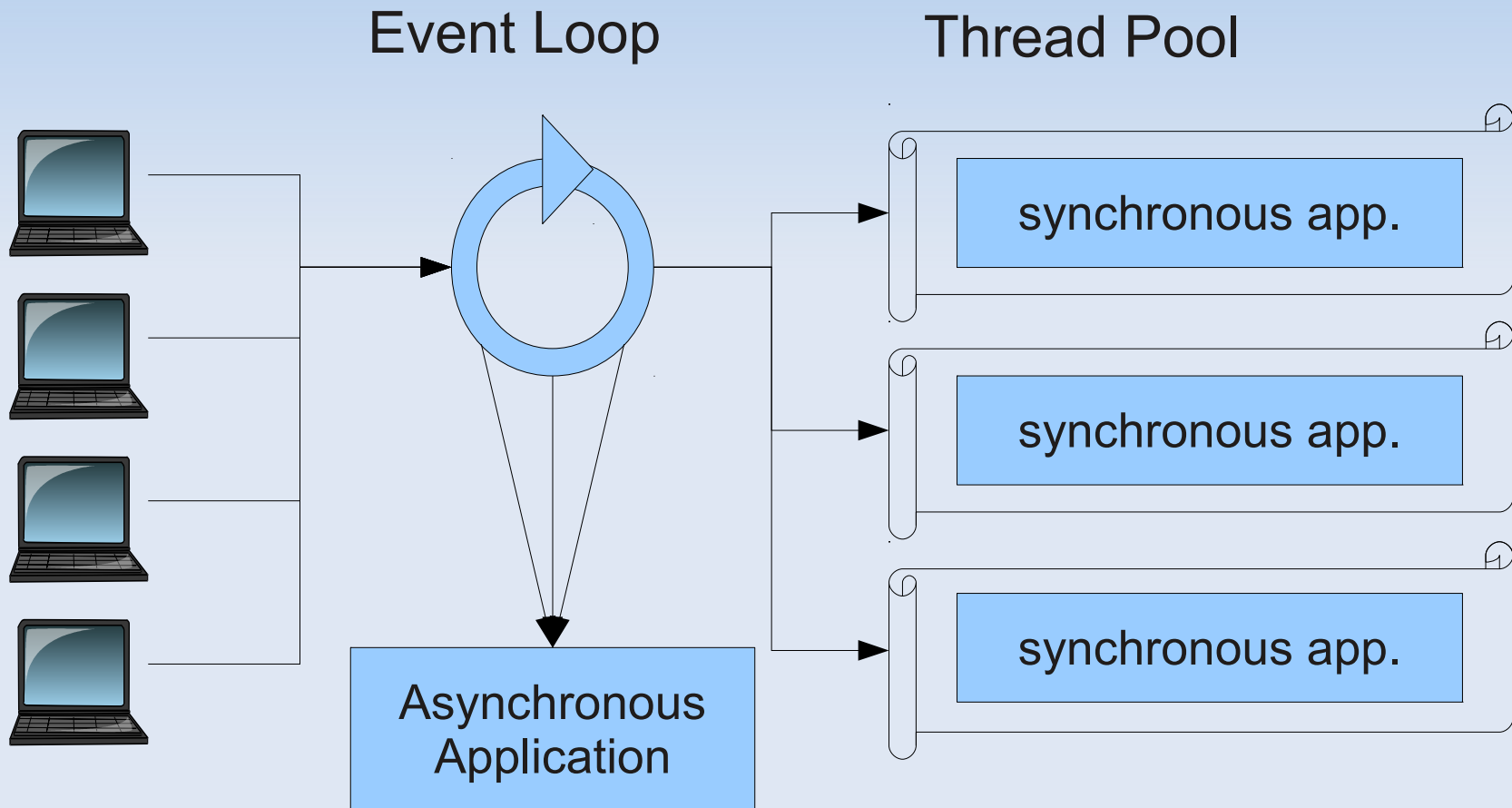# Taking Caching to The Limits

Cache Invalidation

triggers   objects   keys

Gzip compression

Two levels cache

Asynchronous I/O

Event Loop

Thread Pool

Asynchronous
Application

synchronous app.
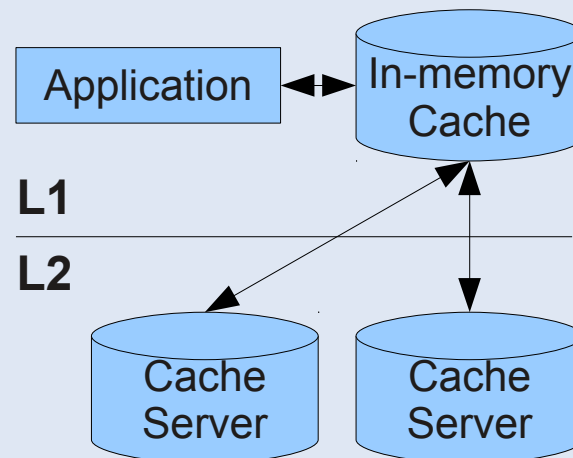
synchronous app.

synchronous app.

How To Get Help?

- *Tutorials, Reference, Examples, Source Code:*

  http://cppcms.com

- *Community Support:*

  CppCMS Users Mailing List

- *Commercial Support:*

  Contact Me: artyomtnk@yahoo.com

Visit

http://cppcms.com

Questions?

Do you have any questions?

質問はおありですか。

Есть вопросы?

יש לכם שאלות?

Маєте якісь питання?

Avez-vous des questions ?