HTTP is your architecture

International PHP Conference 2011

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Tobias Schlitt (@tobySen)

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About us

- Degree in computer sience

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`http://qafoo.com`

Outline

Aspects of a web application

- Scalability
- Reliability
- Simplicity
- Usability
- Security
- Standard Compliance

Architecture

LCoDC$SS

Architecture

LCoDC$SS

- Who heard of this term before?

Architecture

LCoDC$SS

- Who heard of this term before?
    - This **is** HTTP. [Fie00]

Architecture

LCoDC$SS

Architecture

Layered CoDC$SS

Architecture

Layered Code on Demand C$SS

Architecture

Layered Code on Demand Client $S Server

Architecture

Layered Code on Demand Client Cached S
Server

Architecture

Layered Code on Demand Client Cached Stateless Server

Outline

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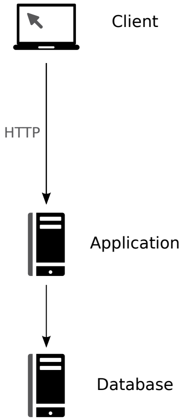
HTTP

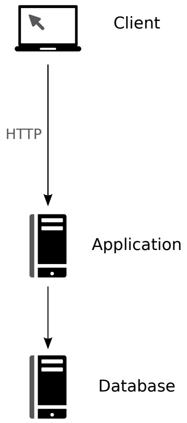
- Layered architecture
- Request semantics
- Stateless server
- Code on demand

Layered architecture



Layered architecture

- What is required?



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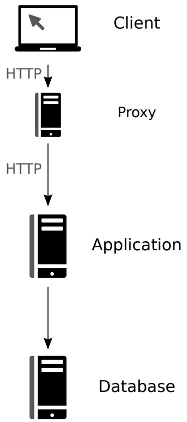

Layered architecture

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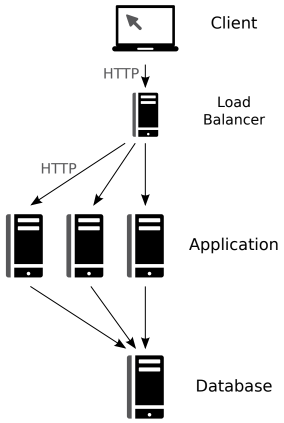

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  - `GET`
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- Use any you want. . .

“Safe” HTTP methods

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- Layered Code on Demand Client Cached Stateless Server

Is your search form broken?

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<form action="/search" method="POST">
  <input type="text" name="term" />
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- No bookmarking of search results

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  - Examples
    - Updating account data using (`PUT /users/42`)
    - Create a new resource with known identifier

HTML 5 is broken!

Using PUT and DELETE as HTTP methods for the form element is no longer supported. [vK10]

Idempotent methods

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- Idempotence is a useful property in all messaging systems

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- You may want to use something like
  - `$request->parameters`
  - `$request->body`

Do you speak HTTP?

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- All other methods are **optional**
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- Sorry, your website is not HTTP, if you . . .
  - . . . are using POST for a search form.
  - . . . are using POST for data updates.

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Security

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- Escape for target context / language (XSS)

Outline

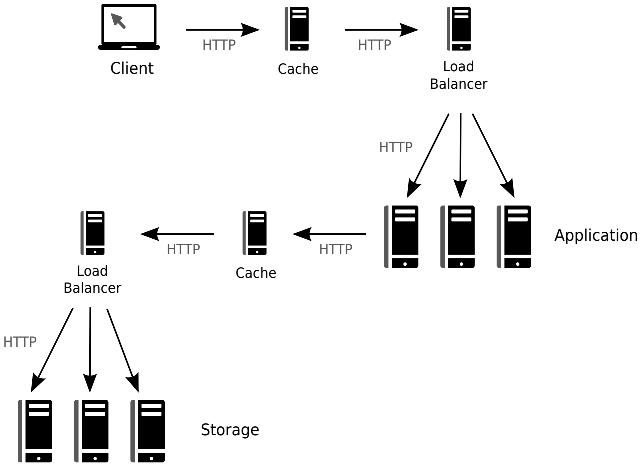
Introduction

HTTP

Taking it further

Conclusion

Embrace HTTP



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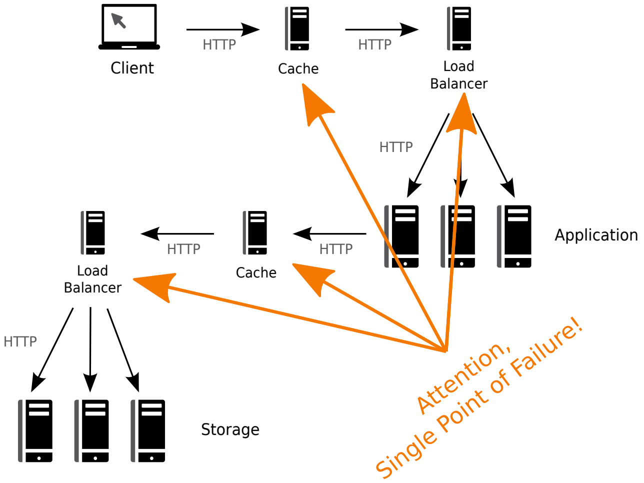

Use HTTP actively

- Semantic HTTP methods
- URIs (address resources)
- Status codes
- Headers
  - Cache control
  - Content negotiation
  - ...

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  - **HATEOAS**
    - Hypermedia as the Engine of Application State [Fie00]
    - Short: Use hyper links to delegate client

Outline

Conclusion

Use HTTP!

Conclusion

Use HTTP, properly!

Q/A

Questions? Comments? Feedback?

Thanks for listening

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`http://joind.in/3857`

and (optionally) give us some feedback right now

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This is very important for ...

- Speakers
- Organizers
- You!

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Stay in touch

- Kore Nordmann
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Rent a PHP quality expert:

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Bibliography I

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