



Architectural Constraints

REST API Design, Development & Management

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Summary of a course that covers the A to Z of RESTful API. More information.

Updated: Dec 27th, 2016

Discounted access to the courses:



<https://www.udemy.com/ibm-bluemix/?couponCode=BLUE100>

Coupon Code = **BLUE100**



<https://www.udemy.com/rest-api/?couponCode=REST100>

Coupon Code = **REST100**

PS:

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Is your Architecture RESTful?



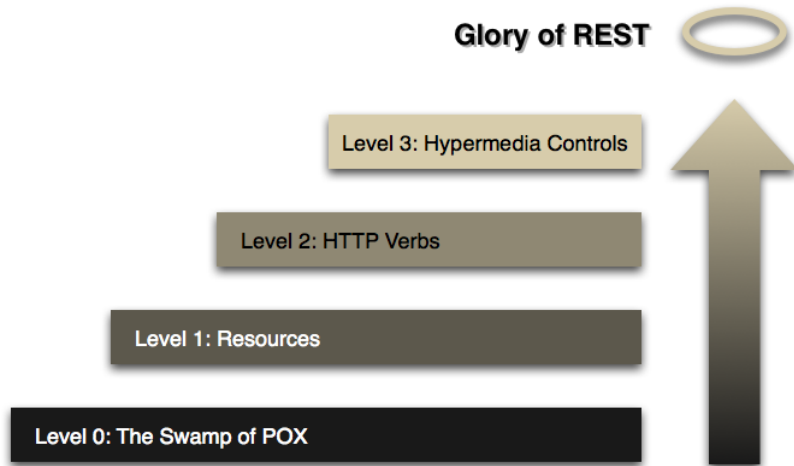


1. Client - Server
2. Uniform Interface
3. Statelessness
4. Caching
5. Layered system
6. Code on demand (*optional*)

RESTful Architecture



How do I know if my current Architecture is RESTful?



Richardson Maturity model
Assigns a score between 0 & 3



Client and Server share a common technical interface

- Interface =
- Contract for communication between client-server
 - Contract has NO business context
 - Contract defined using HTTP methods & media types

#1 Uniform Interface



There are 4 guiding principles

1. Identity of the resource (URI/URL)
2. Representation of the resource
3. Self descriptive messages - metadata
4. Hypermedia



Client and server do not reside in same process

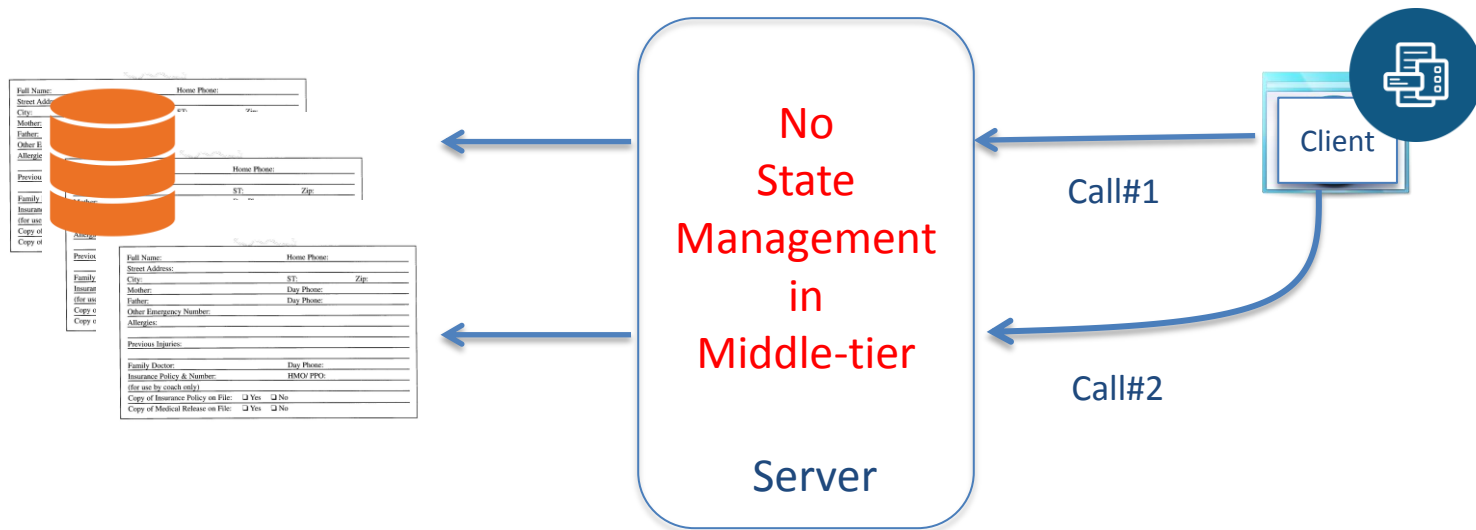
RPC over HTTP

SERVER **Decoupled** from CLIENT

Client and Server can change/evolve without impacting each other



- Each client request is independent
- Server receives all info it needs in the request





Statelessness

- Negative impact on performance
- Chattiness
- Higher data traffic (impact's scalability)

Caching

- Performance • Scalability
- Reduce chattiness

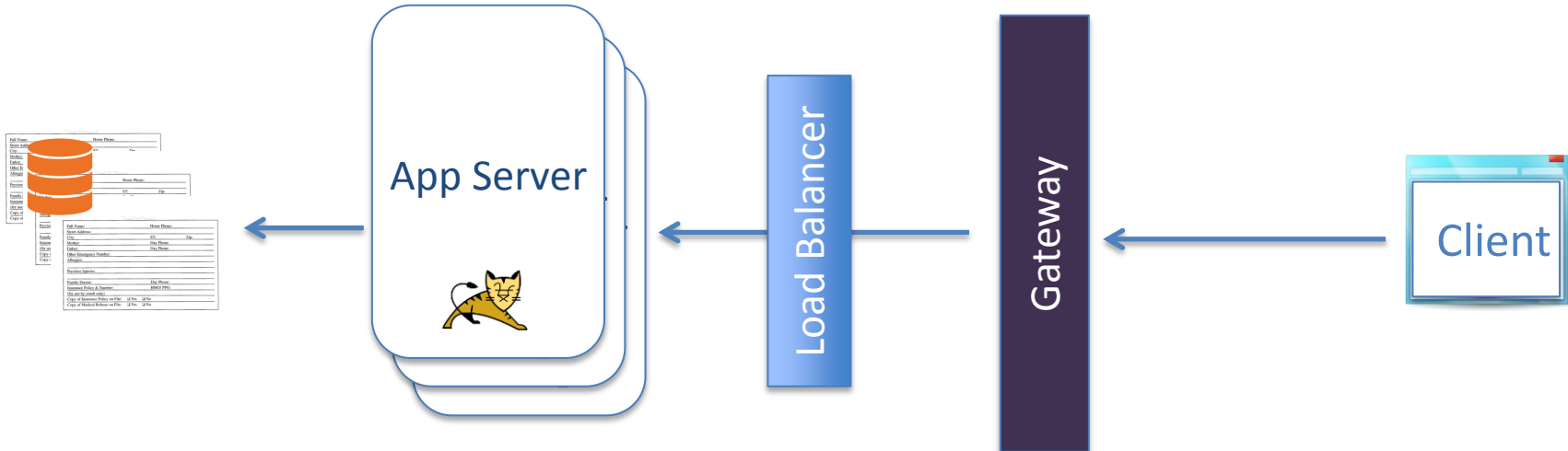
Caching counter-balances some of the negative impacts of Statelessness



- Client-Server architecture consist of multiple layers

No one layer can see past the next

Layers may be added, removed or modified based on needs





Server can extend client's functionality by sending the code

