

RESTful Web Services



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What is REST?

- “The Web used properly”
- Roy Fielding’s PhD dissertation identified the architectural principles that had emerged in the design of http
- <http://www.ics.uci.edu/~fielding/pubs/dissertation/top.htm>

Five Architectural Principles

- The following are taken from Stefan Tilkov's presentation given at QCon 2008, London.
- A video of the full presentation can be found at:
 - <http://www.infoq.com/presentations/qcon-tilkov-rest-intro>
- It lasts about 1hr and is highly recommended.
Please do find time to look at this.

I. Give Every “Thing” an ID

- <http://example.com/customers/1234>
- <http://example.com/orders/2007/10/776654>
- <http://example.com/products/4554>
- <http://example.com/processes/sal-increase-0>

2. Link Things to Each Other

```
<order self='http://example.com/orders/1234'>
```

```
  <amount>23</amount>
```

```
    <product ref='http://example.com/products/4554'>
```

```
      <product ref='http://example.com/customers/888'>
```

```
    </product>
```

3. Use Standard Methods

GET	retrieve information, possibly cached
PUT	Update or create with known ID
POST	Create, or append sub-resource
DELETE	(Logically) remove

4. Allow for Multiple “Representations”

- HTML
- XML
- SVG
- ATOM
- JSON
- ...

5. Communicate Statelessly

GET /customers/1234

Host: example.com

Accept: application/vnd.mycompany.customer + xml

....

shutdown, change server, update software, buy new car,
save planet, startup

GET /customers/orders/46

Host: example.com

Accept: application/vnd.mycompany.order + xml

Consequences

