

Introduction to RESTful Webservice

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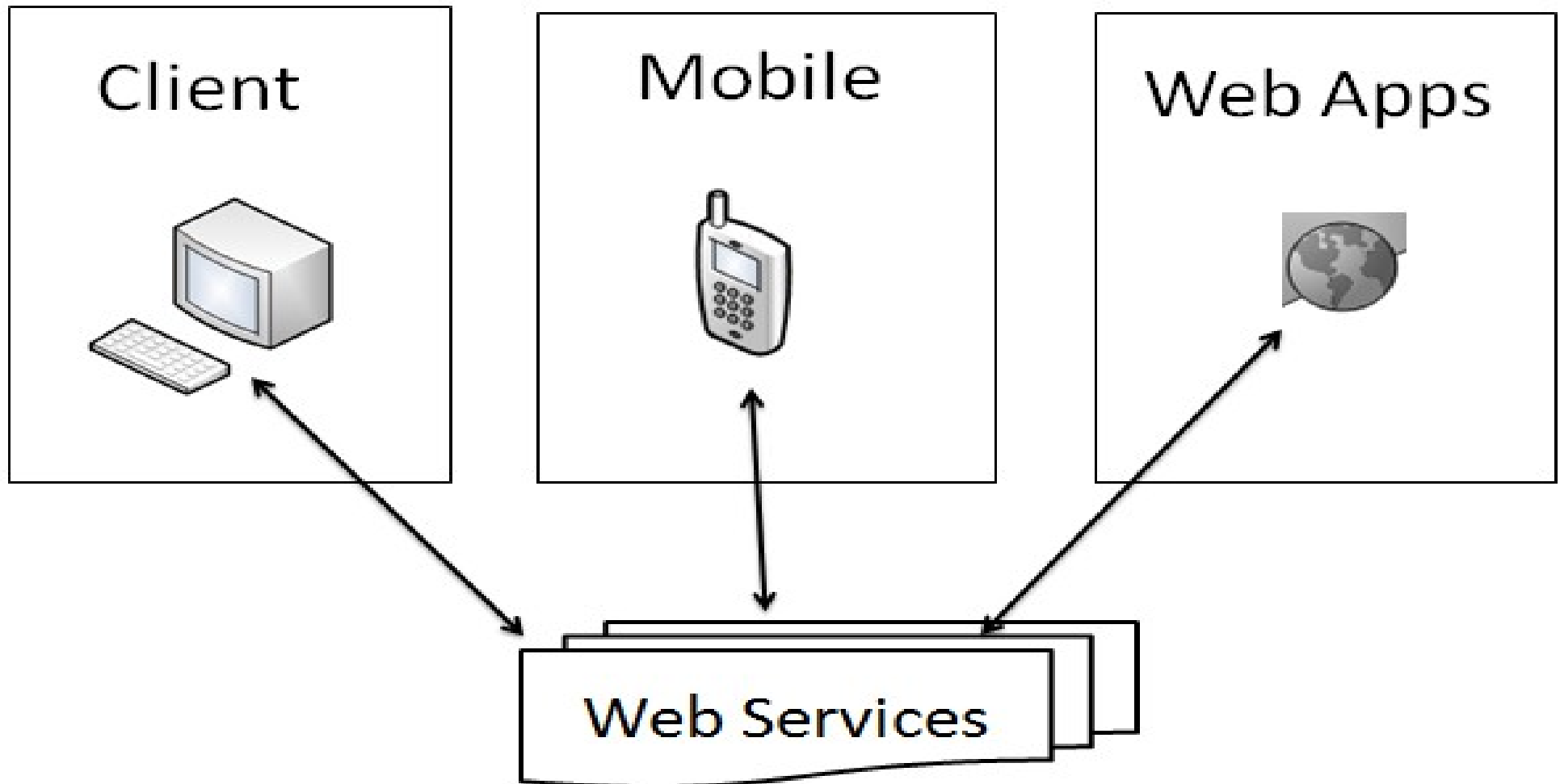
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What is Webservice?



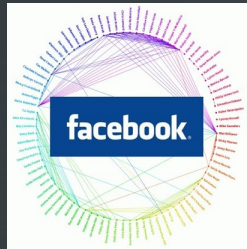
Webservice Design Models

- XML RPC
- SOAP
- REST



Inside RESTful Webservice?

- Not Technology and not even protocol
- Software architectural principle
- Resources transfer over HTTP



Basic Design Principles Of REST

1. HTTP methods explicitly
2. Be stateless
3. Directory structure-like URIs
4. Transfer resources by any valid MIME type supported by the web service.



HTTP Methods Explicitly

Add Resources

POST `http://api.linkedin.com/v1/people/123/friends`

Content-Type: application/xml

`<friend uri="urn:linkedin:v1:people/888"/>`



HTTP Methods Explicitly

Retrieve Resources

GET <http://api.linkedin.com/v1/people/123>

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<person>
```

```
  <id>123</id>
```

```
  <first-name>Sakib</first-name>
```

```
  <last-name>Stein</last-name>
```

```
  <connections total="200">
```

```
    ...
```

```
</person>
```



HTTP Methods Explicitly

Update Resources

PUT <http://api.linkedin.com/v1/people/123>

Content-Type: application/xml

<person>

 <name>Sakib Mahmud</name>

 <best-friend uri="urn:linkedin:v1:people/999"/>

 <photo xsi:nil="true"/>

</person>



HTTP Methods Explicitly

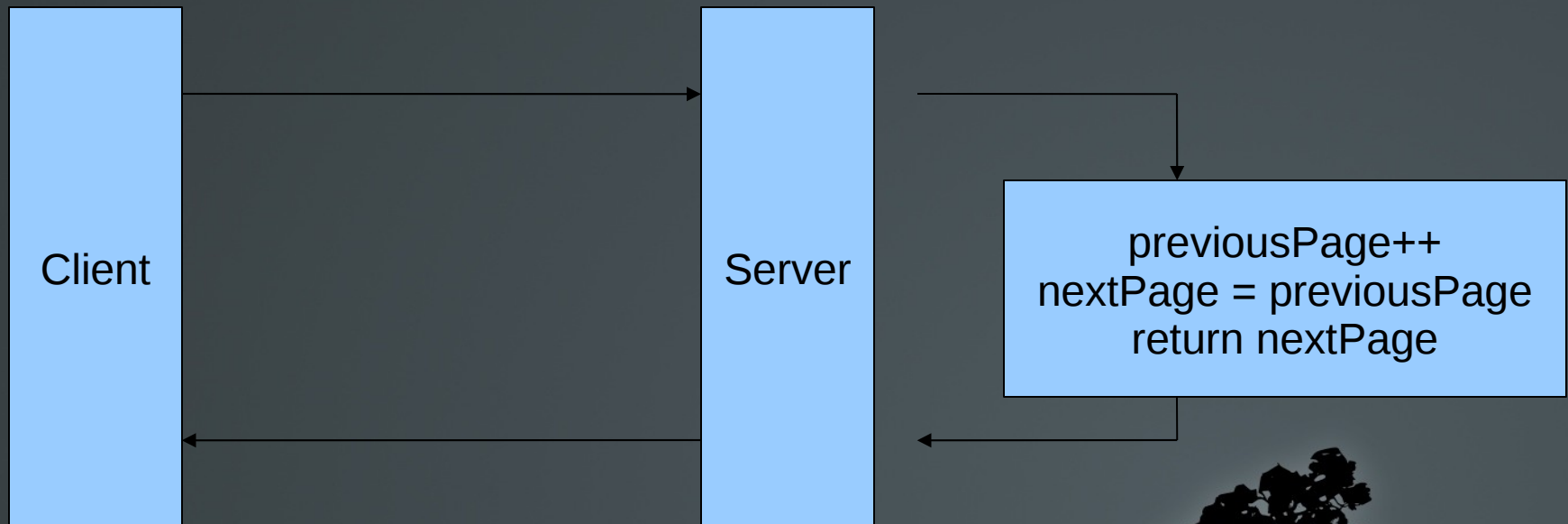
Delete Resource

DELETE <http://api.linkedin.com/v1/people/123/friends/456>



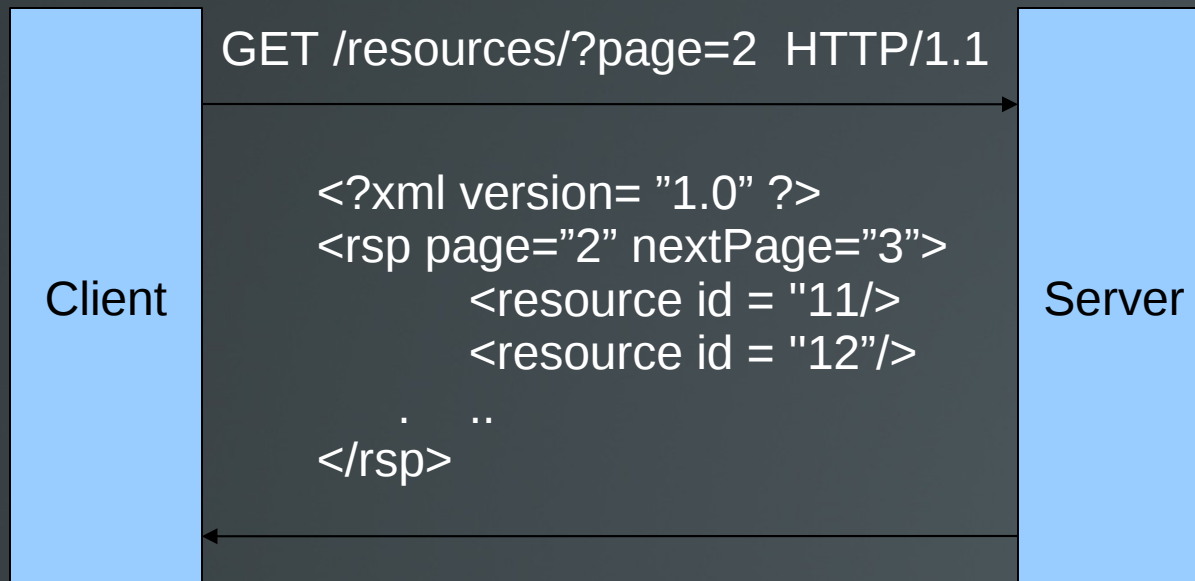
Be Stateless

Stateful design (Non-REST):



Be Stateless

Stateless design (REST):



Directory Structure-like URIs

http://example.com/topics/{topic_name}

<http://graph.facebook.com/10150224661566729>

[http://twitter.com/statuses/user_timeline.xml?
id=eftakhairul](http://twitter.com/statuses/user_timeline.xml?id=eftakhairul)



Transfer Resources By Any Valid MIME Type

Mostly Used

- XML
- JSON
- XHTML

Any other valid content type



Thank You

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