

直播应用中的高并发场景实战

3-4 远程调用：
HTTP还是RPC

Produced By Idea讲师

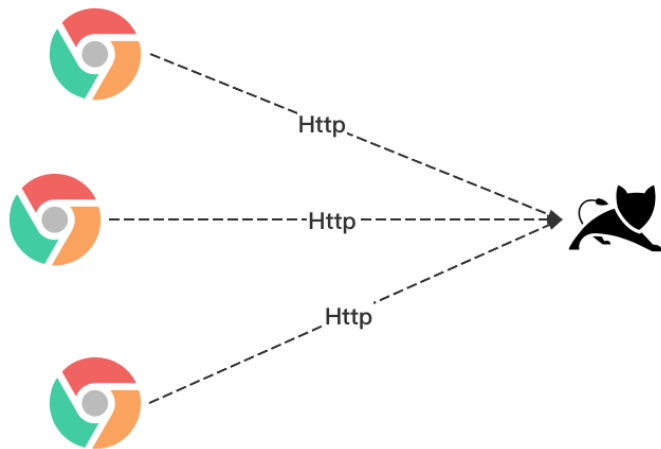
RPC和HTTP有什么区别？



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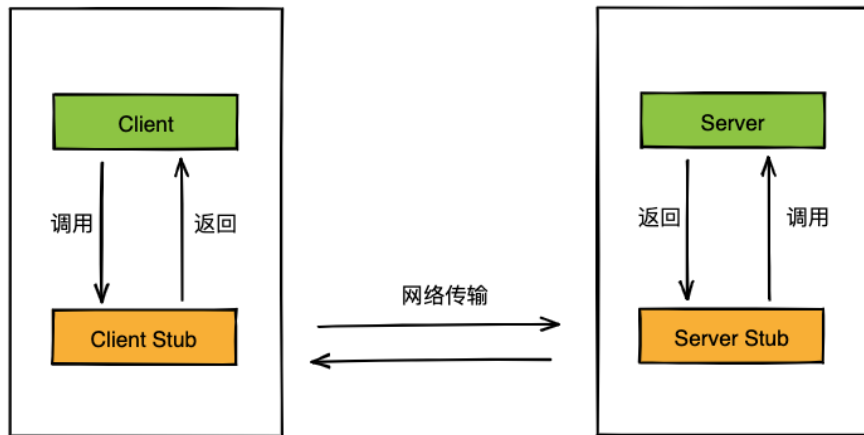
◆ HTTP (超文本传输协议)

对web服务器的访问



RPC和HTTP有什么区别?

◆ RPC (远程调用通讯实现方案)



使用起来和本地调用一样简单

RPC协议的模型



RPC和HTTP有什么区别

◆ RPC内的两种核心协议

通信协议: Http(gRPC), Tcp(Dubbo)

序列化协议: Hessian, Json, Xml, protobuf



RPC和HTTP有什么区别

- ◆ RPC更多是一套完整的远程调用实现方案，HTTP则只是一种通信协议，不是一个维度的概念



RPC和HTTP怎么选



RPC和HTTP的报文体积

◆ HTTP的协议头

▼ 请求标头

```
authority: zhuanlan.zhihu.com
method: GET
path: /api/articles/45700301/concerned_upvoters
scheme: https
accept: */*
accept-encoding: gzip, deflate, br
accept-language: zh,zh-CN;q=0.9
cookie: d_c0="AEDdNnPS3RGPTL7d9HYt8ql5wadGJI0aYU=[1599724003]"; q_c1=e580ece5fa8b4848a21a5985cecdf3c2|1614654755000|1608435409000; _xsrf=RZsfTHMxW4oX9QHHzGIAthYczchS7boEW; _9755xjdesxxd=32; YD00517437729195%3AMM_TID=3a6vTVNLwMdBAEFFURY%2BrJ7duqyC%2FMau; YD00517437729195%3AMM_NI=E0ZhcdeDwGHfQ9ZF%2BjNkKjKQW7kstXBM9VPgJjAj7see0jKohYbJcOLJR1kQnL0zcuYGhpXHZ6pegcMuXpT1t0TewithhXze7zsKmKAYws8x30L4Q5mB7hZziq%2FR8SZVU%3D; YD00517437729195%3AMM_NIKE=9ca17ae2e6ffcd170e2e6ee99e750aeaff8abd06d8feb8bb7d55f868f9b86c14da19a81afe550baeba1d1e72af0fea7c3b92a87919689e270a79cb9a8cb6eb392f7bbc5218ab282ace9419389f98cf2809c9e83dad55ca5b68f8bb679a7bb18bca65ac87aeabe24590969ed2ea458eb4009be27f9b99a891db449aeac086e6698f9ab9891d774f3acaad1d76fb5b7bc89eb54babbf99bf241af958f9af679fca8fdb0ef40938da3a3b6649a86a792ae5afc8d96b7d837e2a3; gdxidpnyhxdE=CGL6BnzspAizoCuvimvgxiK3QnLcsM4sP1cX6PrWY%5C0%2BkQ5nv14lkaF5ZaCJS7QRuEz4pKX%2BWUD%2BHTUj5k%5Cch7eVoqRXoeaPXrxnunyed6h9vR67Md7IoUktvvUq%2B3%2F8QNi9BdU50kkYauRtj1LSvrtN0bU4gYzAKKGIT2S1d%2B8djsJ%3A1660103605067; _zap=d711b622-793b-481c-a4f3-21a13d7292c2; z_c0=2|1:0|10:1680072399|4:z_c0|80:MS4xcG5lV0JRQUFBQUFtQUFBQVBS1ZUYzhzRvdVQnhBRFU2a0d8QXZxZzR0YUdyZm9LVVB2RnVBPT0=[55f84e6ea28a91aa753971e5f2a5bbbaa31546d43b2414db9ad79f3770f0f5c7; Hm_lvt_bff3d83079cef1ed8fc5e3f4579ec3b3=1680660796; tst=r; Hm_lvt_98beee57fd2ef70ccdd5ca52b9740c49=1680834559,1680872349,1680917506,1681181805; Hm_lpvtt_98beee57fd2ef70ccdd5ca52b9740c49=1681181855; KLBR5ID=4efa8d1879cb42f8c5b48fe9f8d37c16|1681183485|1681181803
referer: https://zhuanlan.zhihu.com/p/45700301
sec-ch-ua: "Google Chrome";v="111", "Not(A:Brand";v="8", "Chromium";v="111"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "macOS"
sec-fetch-dest: empty
sec-fetch-mode: cors
sec-fetch-site: same-origin
user-agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/537.36
x-ab-param
x-ab-pb: CKYbAD8ARwC0AGkBagF0ATsCzALXatgCtwPWBFEfiwMBZ4FMQrbicHdAh5CGAJ9AlrCr4KcQuHC+AL5QvmC3EmjwzDDPgMeIMAAAAAAAAAAAAAAAAEAQAAQAAAAAGAAAAAAQAABgACAA==
x-requested-with: fetch
x-zse-93: 101_3_3_0
x-zse-96: 2.0_A1Jmti9llVYwQ803GSd7Ka=91htK+l+dstV=Vgz0vTU3Xzb3rdfhBBL2dm3Xjrl6
```



RPC和HTTP的协议体

◆ RPC的协议体

int magic

byte[] body

int length

体积更小，传输速度更快



两种技术在互联网公司中的使用频率

大型互联网企业更加青睐于RPC，也有部分企业使用HTTP



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