tcp支持浏览器websocket协议
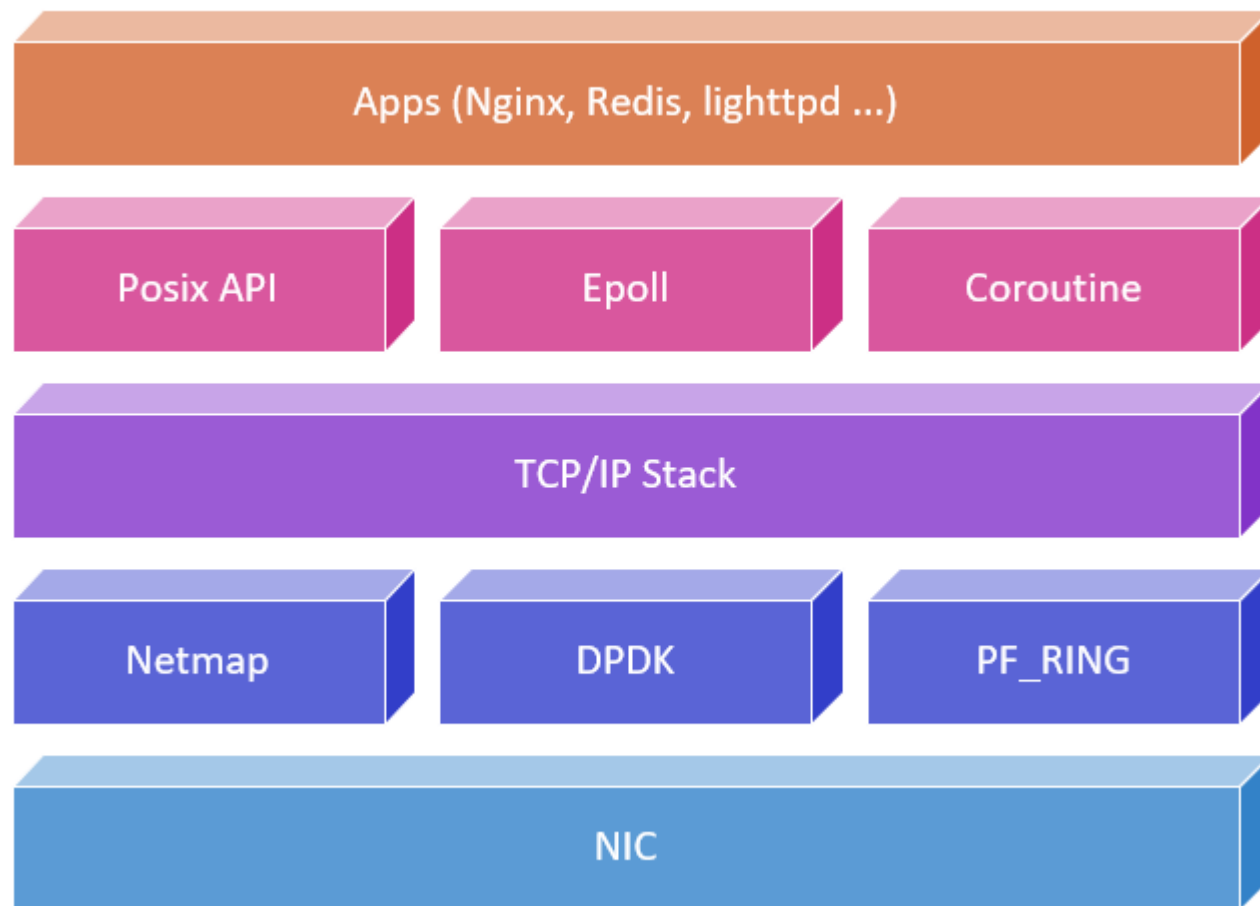
课程提纲
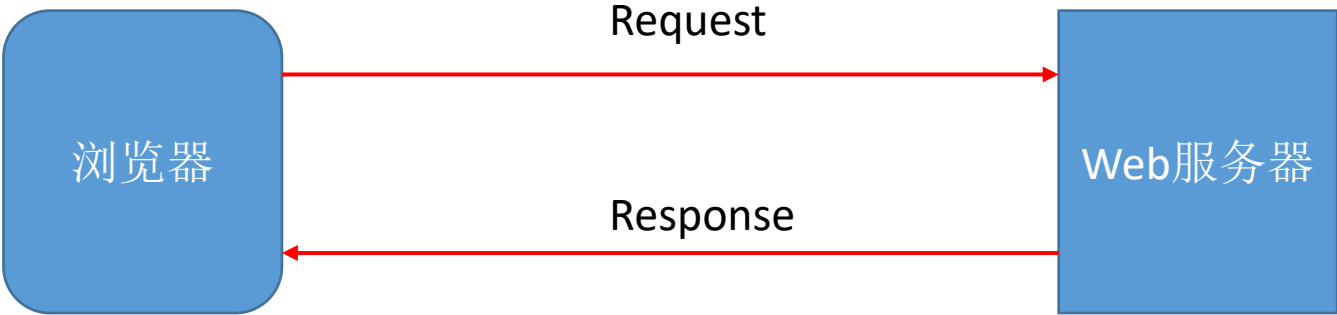
Web实时技术的应用

WebSocket协议介绍
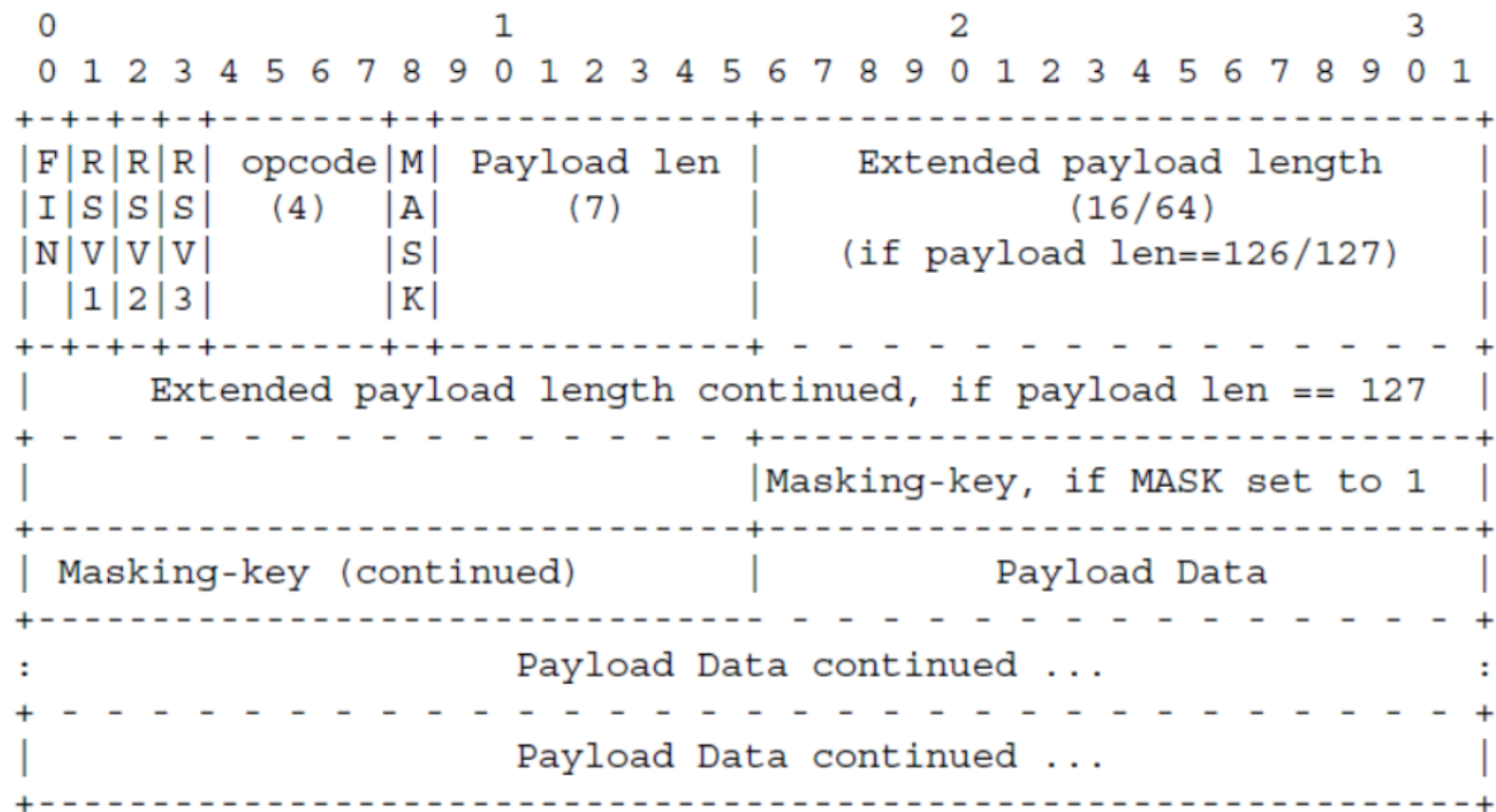
WebSocket服务器实现

Web程序拓扑图

Web实时案例

WebSocket

WebSocket协议 — handshake

```
GET / HTTP/1.1
Host: 192.168.189.128:9096
Connection: Upgrade
Pragma: no-cache
Cache-Control: no-cache
Upgrade: websocket
Origin: file://
Sec-WebSocket-Version: 13
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,
 like Gecko) Chrome/64.0.3282.186 Safari/537.36
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9,zh-TW;q=0.8,zh;q=0.7
Sec-WebSocket-Key: 18pMnSZBIhLXVBoeapze1g==
Sec-WebSocket-Extensions: permessage-deflate; client_max_window_bits
```

```
HTTP/1.1 101 Switching Protocols
Upgrade: websocket
Connection: Upgrade
Sec-WebSocket-Accept: TwXJHJpjU1xtT+kNbhyzY+I/Rk8=
```

WebSocket协议 — Data Framing

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-------+-+-------------+-------------------------------+
|F|R|R|R| opcode|M| Payload len |    Extended payload length    |
|I|S|S|S|  (4)  |A|     (7)     |             (16/64)           |
|N|V|V|V|       |S|             |   (if payload len==126/127)   |
| |1|2|3|       |K|             |                               |
+-+-+-+-+-------+-+-------------+ - - - - - - - - - - - - - - - +
|     Extended payload length continued, if payload len == 127  |
+ - - - - - - - - - - - - - - - +-------------------------------+
|                               |Masking-key, if MASK set to 1  |
+-------------------------------+-------------------------------+
| Masking-key (continued)       |          Payload Data         |
+-------------------------------- - - - - - - - - - - - - - - - +
:                     Payload Data continued ...                :
+ - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - +
|                     Payload Data continued ...                |
+---------------------------------------------------------------+
```

King老师编程实践中
Coding 。。。

系统测试

1. 接入量测试
2. 协议数据解析
3. 数据广播

系统架构师：对于一个未知的系统，
能够找出问题的症结所在。