



去哪儿SPA分享

蔡欢 Qunar

NativeApp

NativeApp的局限

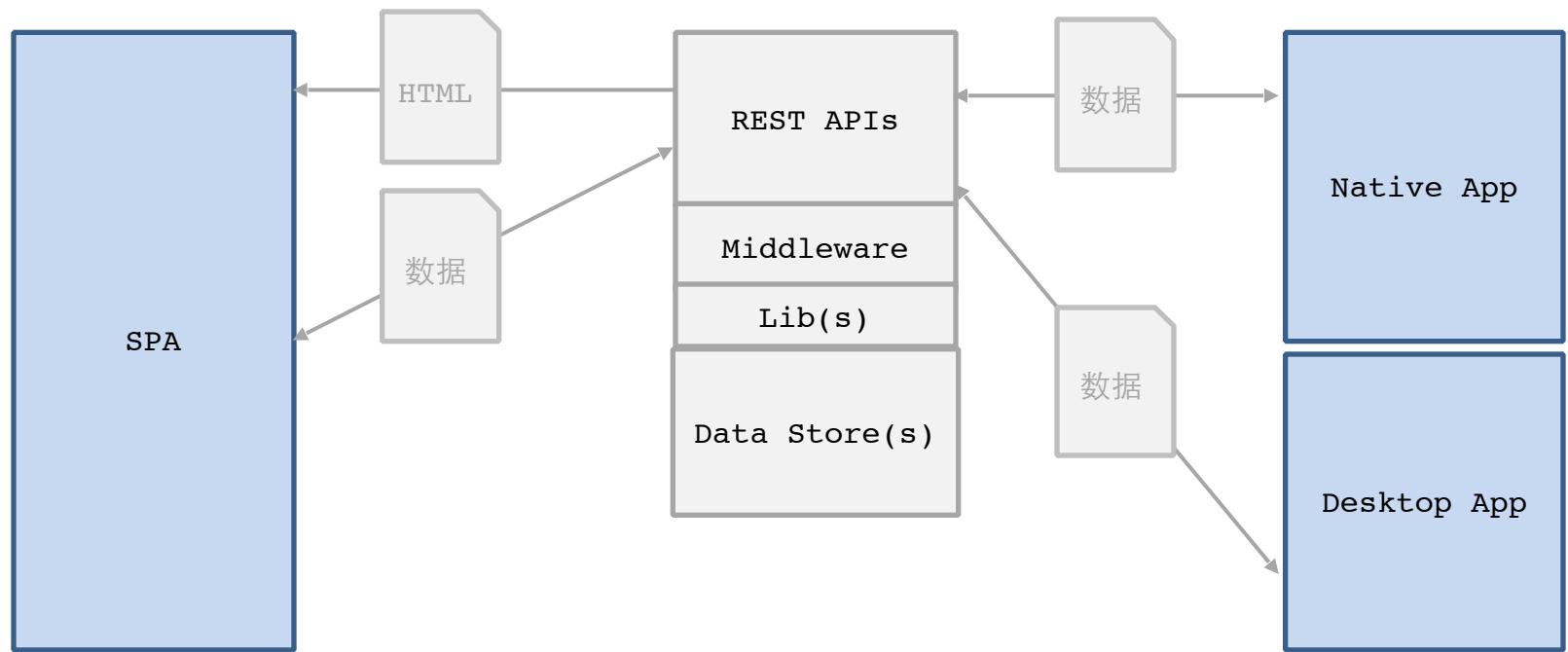
- ✓ 分平台开发维护，成本高
- ✓ 部署成本高

WebApp解决方案选型

- ✓ 传统page2page
- ✓ pjax (pushState Ajax)
- ✓ SPA (SinglePageApplication)

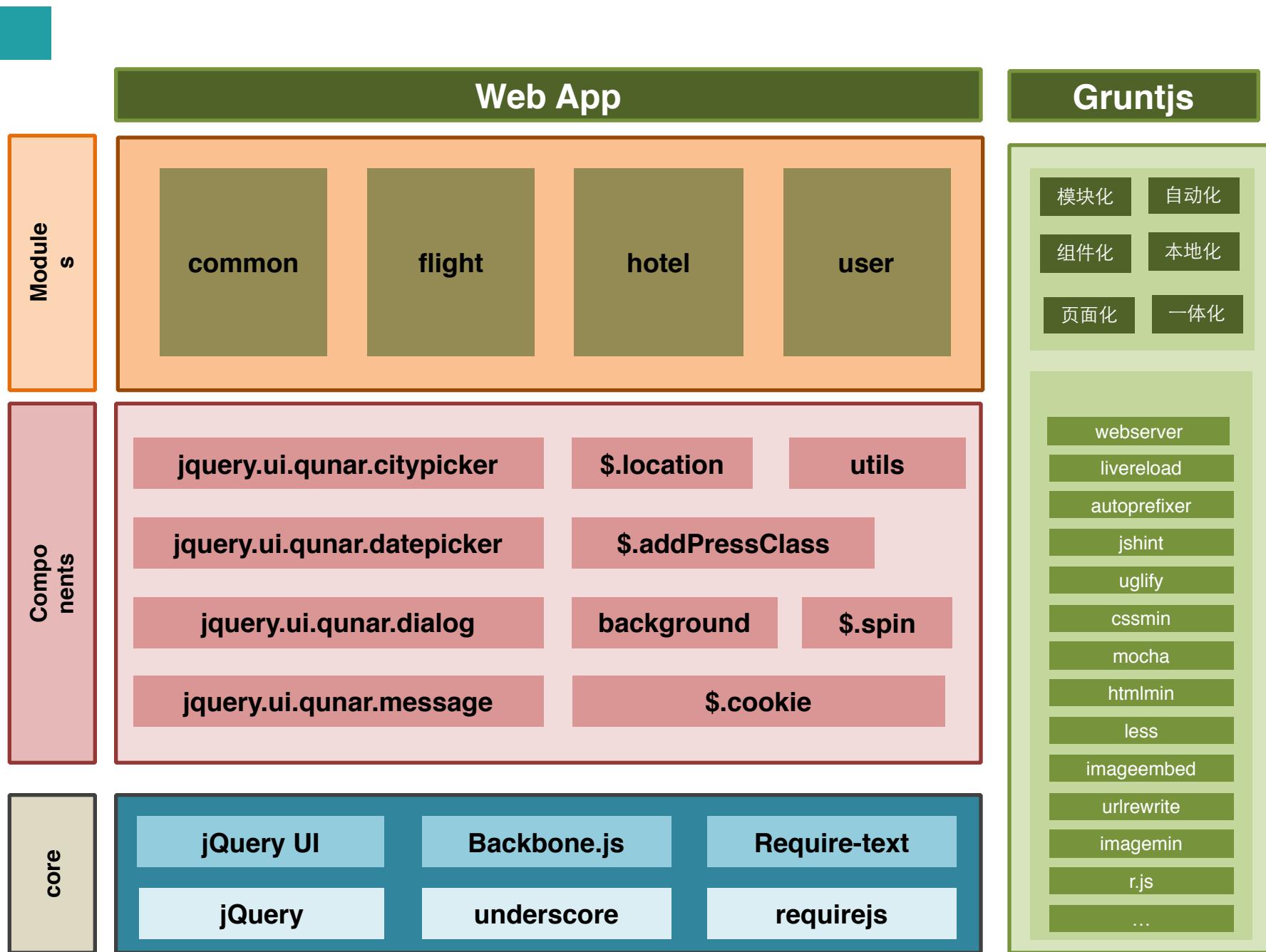
SPA的优势：

- ✓ 实施部署、跨平台
- ✓ 前端模板渲染，前后端完全分离，数据量最小
- ✓ 视图切换和url路由
- ✓ 最贴近于Native应用的交互体验



设计思路

- ✓ 模块化开发
- ✓ 视图切换、URL路由
- ✓ 模板前端渲染
- ✓ 响应式
- ✓ 浏览器及App内做功能扩充和体验差异
- ✓ 开发环境及构建工具



模块化开发-Requirejs

- ✓ 编译时资源打包
- ✓ 实现同步、异步加载自由切换
- ✓ js依赖处理
- ✓ 代码的拆分及复用、按需加载

example

```
'use strict';

define([
    'common/ui/qstorage/qstorage',
    'text!flight/action/list/template/interflight-ite
    'text!flight/action/list/template/intervendor-ite
    'text!flight/action/list/template/interflight-bac
    'flight/config/config',
    'flight/ui/util/util',
    'common/ui/dropdown/dropdown',
```

```
// action names
flightIndex: function() {
    var self = this;

    require([actionPath], function(FlightAction) {
        self.changePage(new FlightAction.index());
    });
},
```

视图切换、URL路由

- ✓ Quicklink技术切换视图
- ✓ 二次开发backbonejs的路由完成url hash
对querystring 参数的支持
- ✓ 支持视图定位，url分享，支持浏览器前
进后退、页面刷新等

example

- ✓ <http://pad.qunar.com/>
- ✓ <http://pad.qunar.com/#hotel>
- ✓ [http://pad.qunar.com/#hotel/list/`city=%E5%8C%97%E4%BA%AC&cityUrl=beijing_city&keyword=&fromDate=2014-12-18&toDate=2014-12-19&sortType=&orderBy=&location=`](http://pad.qunar.com/#hotel/list?city=%E5%8C%97%E4%BA%AC&cityUrl=beijing_city&keyword=&fromDate=2014-12-18&toDate=2014-12-19&sortType=&orderBy=&location=)

模板前端渲染-underscore

- ✓ 单页的渲染都在前端完成，需要一套简单高效的前端模版
- ✓ 使用underscore的template，简洁、高效
- ✓ 采用inline compress，将模版文件编译成单个模块化的js文件
- ✓ 模块可以和其他静态资源一起做CDN部署

响应式设计-iconfont

- ✓ iconfont矢量字体处理icon
- ✓ CSS控制图形外观
- ✓ 兼容移动设备屏幕不同devicePixelRatio
展示差异

example



The screenshot shows a flight search interface with a teal header bar containing the text "往返". Below the header is a search bar with the input "北京" and a dropdown arrow. To the right of the search bar is an orange square button featuring a magnifying glass icon. A yellow tooltip below the button indicates its dimensions as "i::after 41px x 44px". At the bottom of the screen is a toolbar with icons for search, settings, and other functions.

Below the interface is a developer tools panel. The "Styles" tab is selected, showing the following CSS code:

```
#flight-index .main .search form + h1 body buttons .submit  
i::after {  
    font-size: 64px; /* qunarpad */  
    color: #fff;  
    display: block;  
    line-height: 70%;  
    content: 'K';  
}
```

The CSS rule for the magnifying glass icon is highlighted with a red box. The "margin" and "border" properties for this element are shown in a collapsed state at the bottom of the styles panel.

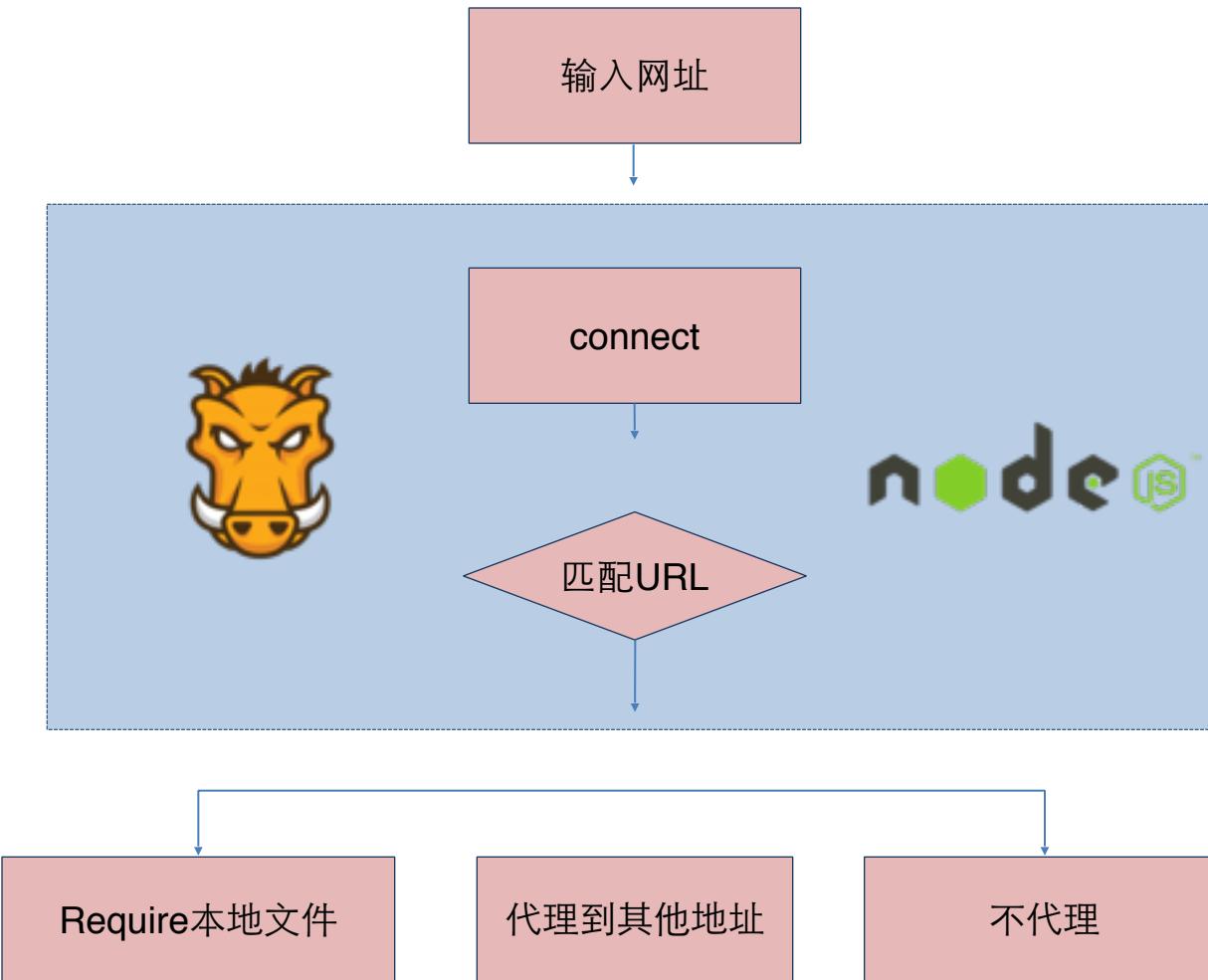
开发构建环境-gruntjs

- ✓ 构建工具，同时提供一套方便的开发环境
- ✓ 插件式易于扩展，丰富的第三方插件
- ✓ 自己开发插件

less&autoprefixer&cssmin&uglify等

- ✓ Less将CSS赋予了动态语言特性
- ✓ CSS预编译，自动补全浏览器厂商前缀
- ✓ 自动内联图标文件到CSS文件中，减少HTTP请求

实现插件完成数据mock



- ✓ 对浏览器及App内WebView做体验差异化
- ✓ 当运行在App内WebView时候，通过Native组件对WebApp做能力扩充。

✓ 针对搜索引擎的SEO

- ✓ http://pad.qunar.com/#hotel/list/city=%E5%8C%97%E4%BA%AC&cityUrl=beijing_city&keyword=&fromDate=2014-12-18&toDate=2014-12-19&sortType=&orderBy=&location=
- ✓ http://pad.qunar.com/#!hotel/list/city=%E5%8C%97%E4%BA%AC&cityUrl=beijing_city&keyword=&fromDate=2014-12-18&toDate=2014-12-19&sortType=&orderBy=&location=

问题

- ✓ 复杂的交互体验仍然有性能瓶颈
- ✓ 设备差异导致体验很难一致



谢谢