

DevCloud前端性能优化DevOps实践

侯凡





2010年加入华为，一直从事前端开发
工作
参与过多个华为内部工具的前端设计
与交付工作
目前带领团队负责华为云DevCloud的
整体前端业务交付以及前端架构演进
与设计工作

侯凡

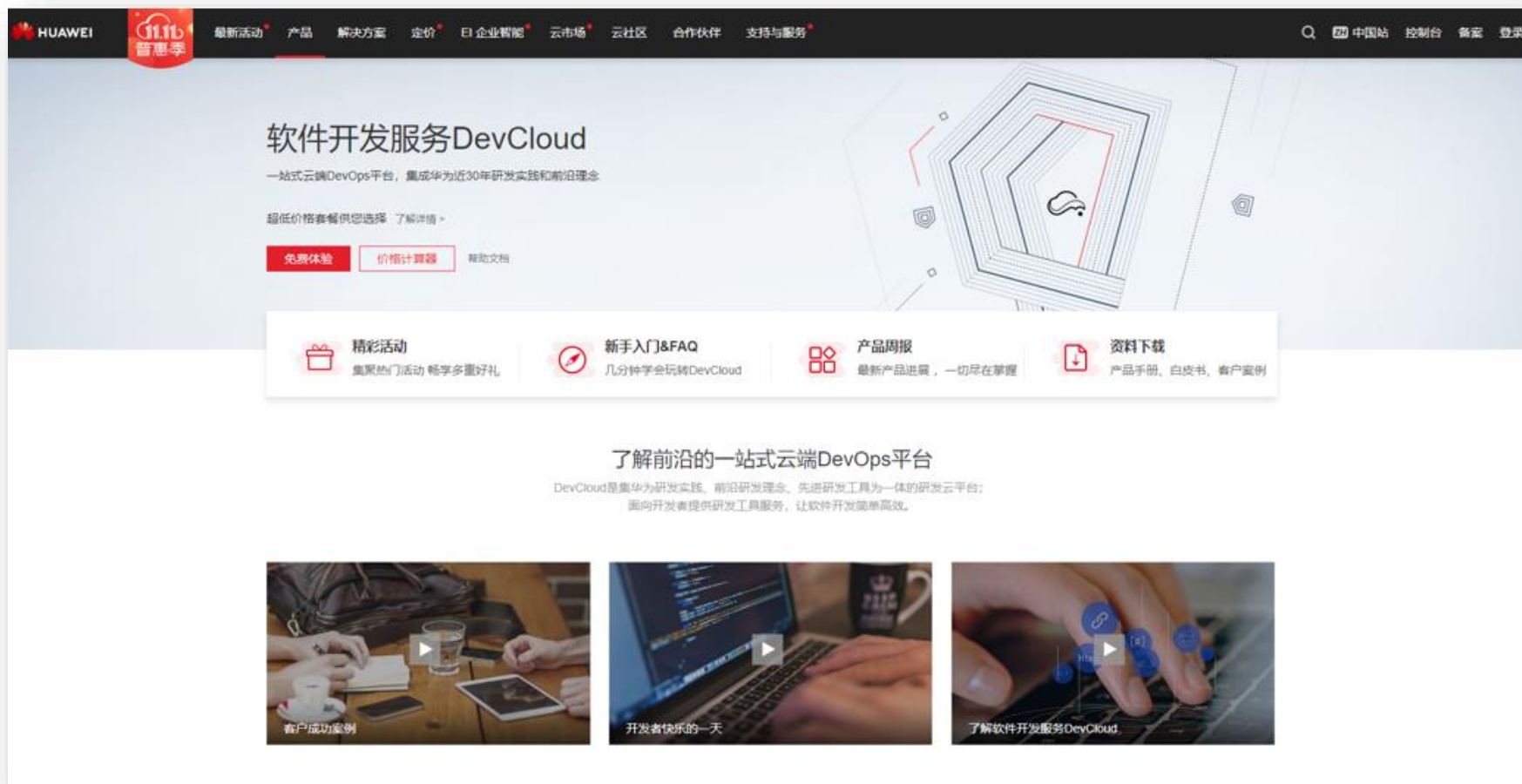
DEVCLLOUD前端首席架构

EMAIL: MONK.HOU@HUAWEI.COM



华为云DevCloud

www.huaweicloud.com/devcloud



The screenshot shows the Huawei Cloud DevCloud website. The top navigation bar includes the Huawei logo, a '普惠季' (Universal Benefit Season) banner, and links for '最新活动' (Latest Activities), '产品' (Products), '解决方案' (Solutions), '定价' (Pricing), '企业智能' (Enterprise Intelligence), '云市场' (Cloud Market), '云社区' (Cloud Community), '合作伙伴' (Partners), and '支持与服务' (Support & Services). On the right, there are links for '中国站' (China Station), '控制台' (Console), '备案' (Filing), and '登录' (Login).

The main content area features the title '软件开发服务DevCloud' (Software Development Service DevCloud) and the subtitle '一站式云端DevOps平台，集成华为近30年研发实践和前沿理念' (One-stop cloud DevOps platform, integrating Huawei's nearly 30 years of R&D practice and cutting-edge concepts). Below this, there is a link to '超低价格套餐供您选择' (Ultra-low price packages for your choice) and three buttons: '免费体验' (Free Experience), '价格计算器' (Price Calculator), and '帮助文档' (Help Documents).

A horizontal bar contains four sections: '精彩活动' (Amazing Activities) with a gift icon, '新手入门&FAQ' (New User Guide & FAQ) with a question mark icon, '产品周报' (Product Weekly Report) with a document icon, and '资料下载' (Download Materials) with a download icon.

The central section is titled '了解前沿的一站式云端DevOps平台' (Learn about the cutting-edge one-stop cloud DevOps platform). It states: 'DevCloud是集华为研发实践、前沿研发理念、先进研发工具为一体的研发云平台；面向开发者提供研发工具服务，让软件开发简单高效。' (DevCloud is a R&D cloud platform that integrates Huawei's R&D practice, cutting-edge R&D concepts, and advanced R&D tools; it provides R&D tool services to developers, making software development simple and efficient).

At the bottom, there are three video thumbnails: '客户成功案例' (Customer Success Cases), '开发者快乐的一天' (A Happy Day for Developers), and '了解软件开发服务DevCloud' (Learn about Software Development Service DevCloud).



西西弗斯



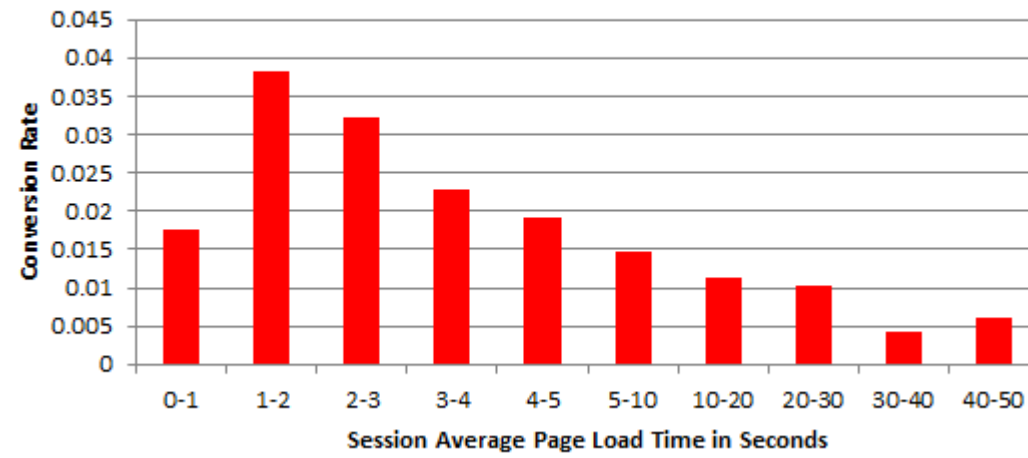
almost

大型网站的性能优化过程就是 重复的推着西西弗斯之石





Conversion Rate by Page Load Time



页面加载从10s优化到2s，性能提升500%





面临性能问题

找到问题

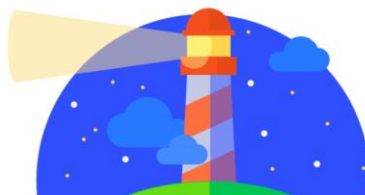
技术攻关

整理方案

技术验证



第三方评测工具



PageSpeed
Lighthouse
Yslow



结合项目实际的优化checklist

删除无用（冗余）的代码

Index.html不允许直接链接js、css等静态资源

第三方库引入规范

单个静态资源文件大小限制

所有静态资源开启gzip

单个静态资源文件大小限制

静态资源走缓存

小于4k单色小图标必须走icon font，不允许随便加图片

多色的小图标过多，不能走字体图标得，合成雪碧图

所有图片需要压缩

单个页面不允许重复接口

单个页面接口数不允许超过10个，轮询接口不能低于8s一次

Console不允许有空得404、500请求

Console不允许报错

资源银土要做到按需引入

项目内shared component模块划分必须最小粒度

子组件获取父级组件的路由参数，不允许在多个地方监听





整理实施规范
组织团队交付
攻关
专项
行动

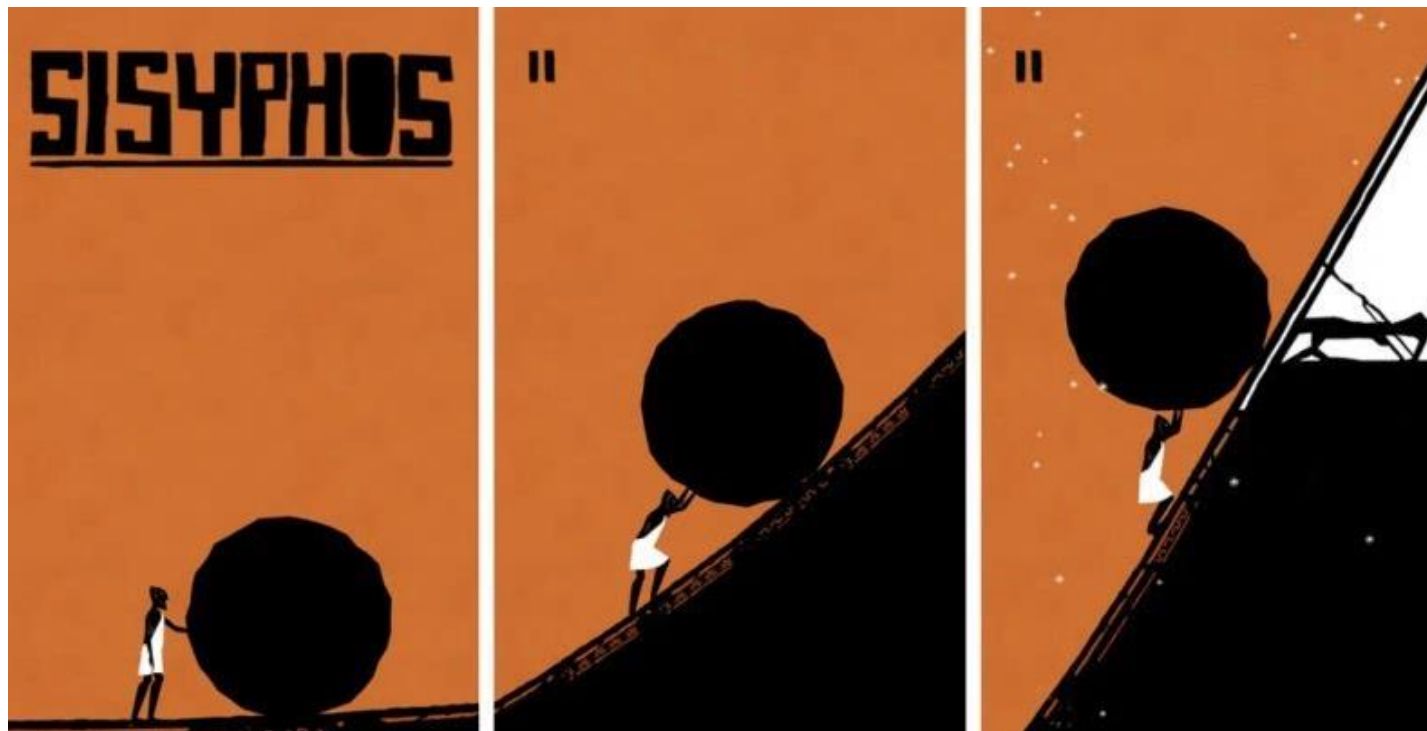


1 需求管道

2 每日跟踪

3 敏捷





沉迷交付，无法自拔
人员变动
技能难以传承
忙
忘了



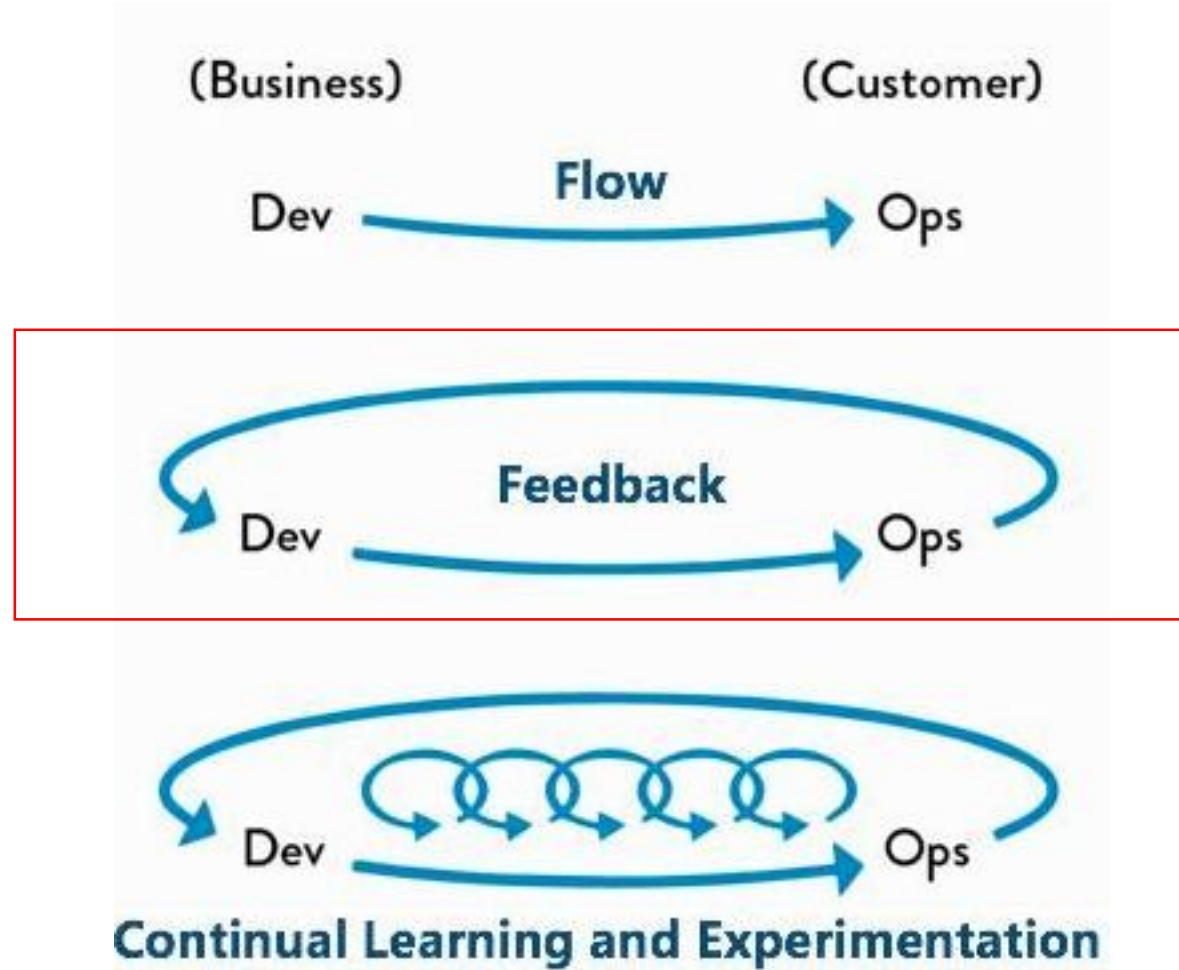


从西西弗斯的悲剧中解放出来的方法是
“不推石头了”



- 固化的部分
 - CDN、gzip
 - 前端框架本身优化
 - 组件库
 - ...
- 持续优化的部分
 - 一直优秀的代码
 - 一直规范的代码
 - 一直优化的业务框架
 - 一直专注的意识
 - ...

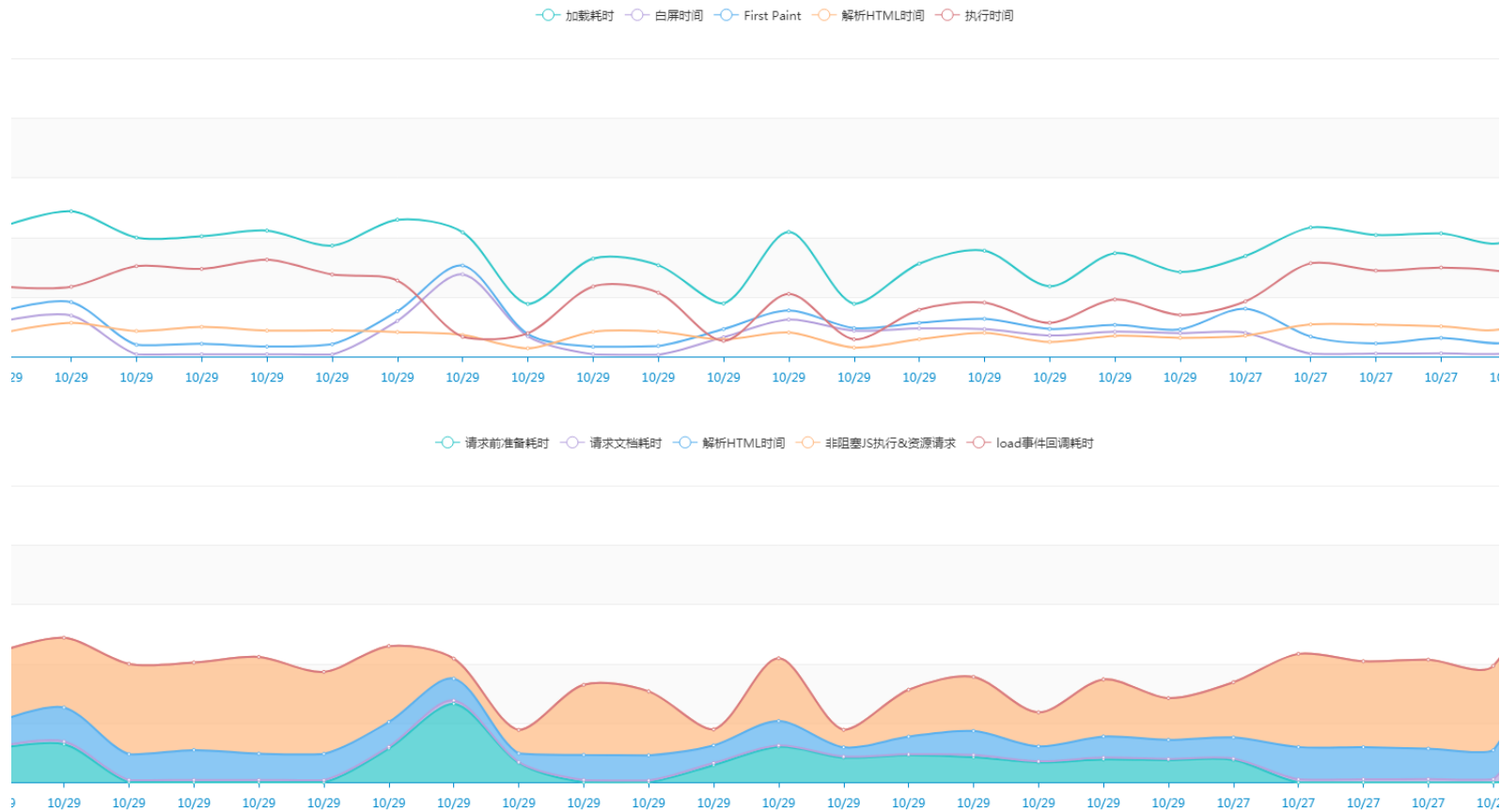




**基于监控，每迭代关注前端服务的性能变化
驱动前端交付团队主动在没迭代自主改进**



主动的、实时的前端定制化监控



被动的、例行的性能测试验收

HOME

TEST RESULT

TEST HISTORY

DOCUMENTATION

ABOUT

Need help improving?

A

A

N/A

N/A

F

X

First Byte Time

Keep-alive Enabled

Compress Transfer

Compress Images

Cache static content

Effective use of CDN

Web Page Performance Test for

https://devcloud.rnd.huawei.com (7 steps)

From: test Location - Chrome

2018/10/18 下午 2:10:06

Scripted test

Directed: bi.huaweicloud.com, app.huawei.com, hichat-devcloud.rnd.huawei.com

Summary

Details

Performance Review

Content Breakdown

Domains

Screen Shot

Tester: SZX-000430267-10.211.54.109

Script ▶

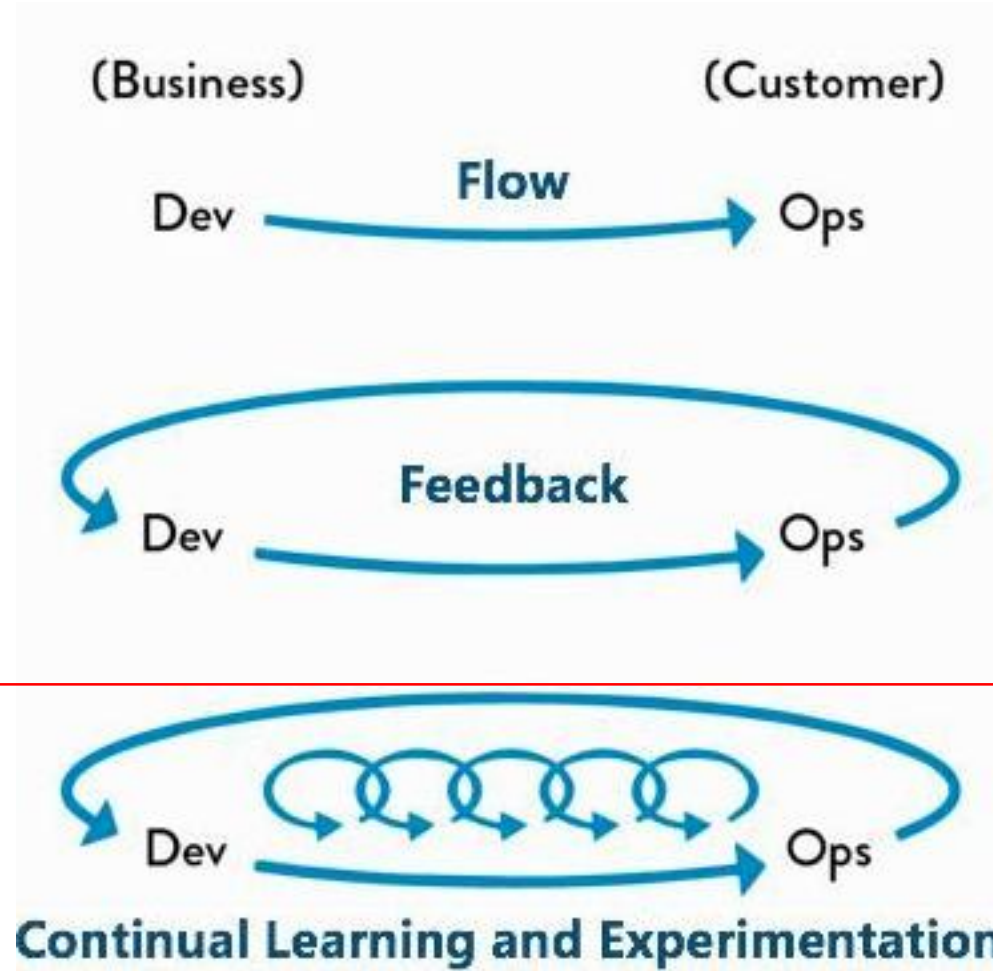
Re-run the test

Raw page data - Raw object data

Export HTTP Archive (.har)

View test log

Step	Load Time	First Byte	Start Render	User Time	Speed Index	DOM Elements	Document Complete			Fully Loaded		
							Time	Requests	Bytes In	Time	Requests	Bytes In
First View												
https://devcloud.rnd.huawei.com	0.597s	0.263s	0.568s	-	585	168	0.597s	25	190 KB	0.509s	27	190 KB
https://devcloud.rnd.huawei.com	23.020s	0.086s	0.200s	0.989s	1698	1219	23.020s	57	1,366 KB	23.048s	58	1,401 KB
https://devcloud.rnd.huawei.com	22.092s	-	0.301s	0.274s	1029	2658	22.092s	73	1,037 KB	28.418s	78	1,047 KB
https://devcloud.rnd.huawei.com	20.977s	-	0.258s	0.257s	534	1395	20.977s	77	1,145 KB	68.936s	114	1,203 KB
https://devcloud.rnd.huawei.com	20.978s	-	0.250s	0.291s	858	968	20.978s	61	1,130 KB	20.978s	61	1,131 KB
https://devcloud.rnd.huawei.com	20.980s	-	0.238s	0.314s	780	723	20.980s	63	1,051 KB	20.980s	63	1,052 KB
https://devcloud.rnd.huawei.com	20.967s	-	0.254s	0.362s	265	604	20.967s	54	1,050 KB	20.967s	54	1,051 KB
Repeat View												
https://devcloud.rnd.huawei.com	0.651s	0.002s	0.501s	-	606	160	0.651s	6	15 KB	0.665s	7	16 KB
https://devcloud.rnd.huawei.com	23.048s	0.084s	0.106s	1.085s	2332	1210	23.048s	20	35 KB	23.058s	21	60 KB
https://devcloud.rnd.huawei.com	21.025s	-	0.103s	0.462s	1635	2650	21.025s	68	1,033 KB	78.742s	114	1,107 KB
https://devcloud.rnd.huawei.com	20.955s	-	0.227s	0.300s	1203	1385	20.955s	77	1,117 KB	53.741s	104	1,163 KB
https://devcloud.rnd.huawei.com	20.083s	-	0.137s	0.386s	1135	067	20.083s	61	1,102 KB	20.083s	61	1,103 KB
https://devcloud.rnd.huawei.com	21.011s	-	0.000s	0.300s	1073	723	21.011s	63	1,051 KB	21.011s	63	1,052 KB
https://devcloud.rnd.huawei.com	1.127s	-	0.288s	0.367s	319	604	-	0	1,048 KB	1.127s	48	1,048 KB





会议引导方向

- 1 可视化的客观数据
- 2 不批评/主动激励
- 3 一起发现问题
- 4 一起解决问题
- 5 每个迭代看到客观的数据变化
- 6 公平、公正、公开





一直向上
永不停息



THANKS

Website :
chinadevopsdays.org/

Global Website:
www.devopsdays.org/events/2018-shanghai/

Official Email:
organizers-shanghai-2018@devopsdays.org



Official Wechat

