

# Splunk Cloud at BBC Worldwide:

Operational and business intelligence to support a new digital service

Zoe Bolton

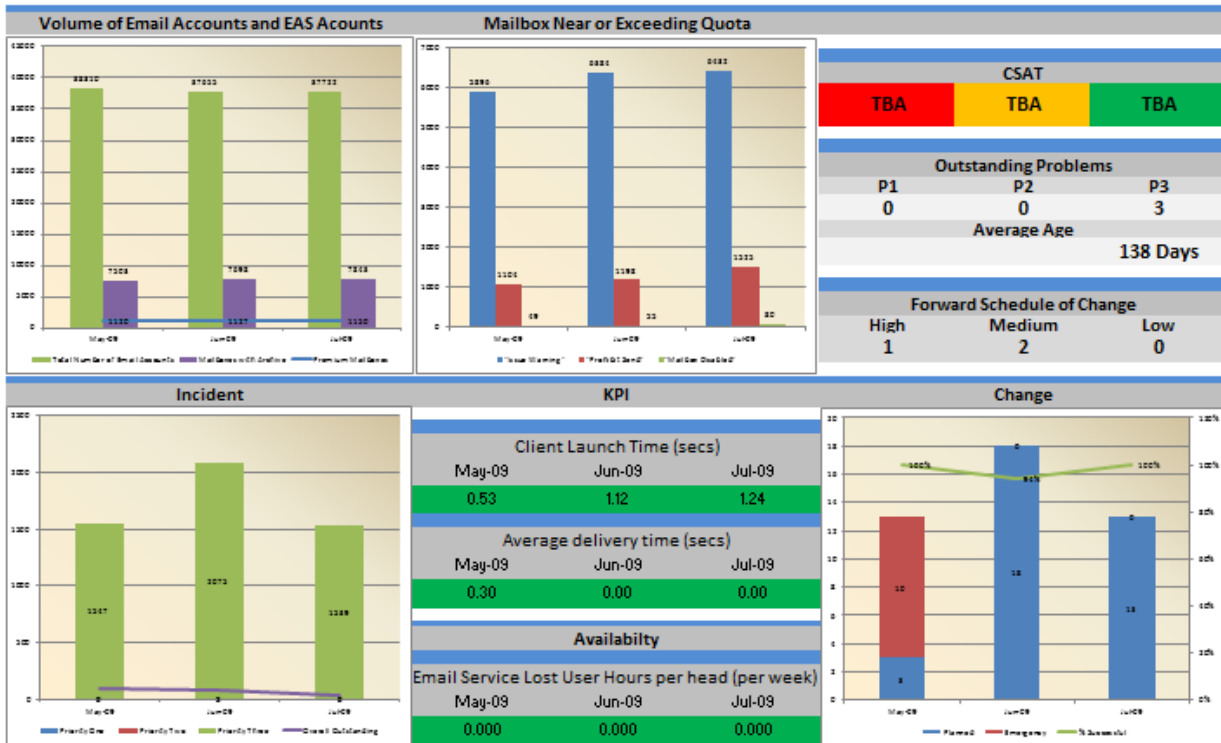
Head of Service Operations, BBC Worldwide



# Agenda

- Introduction
  - BBC Worldwide
  - BBC Store
  - My Role
    - Pre & Post Live
- BBC Store - Operational Priorities
  - Why Splunk Cloud?
- BBC Store – Splunk Cloud Journey
  - High Level Solution Design
- Operational Intelligence
  - Splunk Mint
- Business Intelligence
- BBC Store – Splunk Cloud Roadmap
- Q & A

# BS-2008



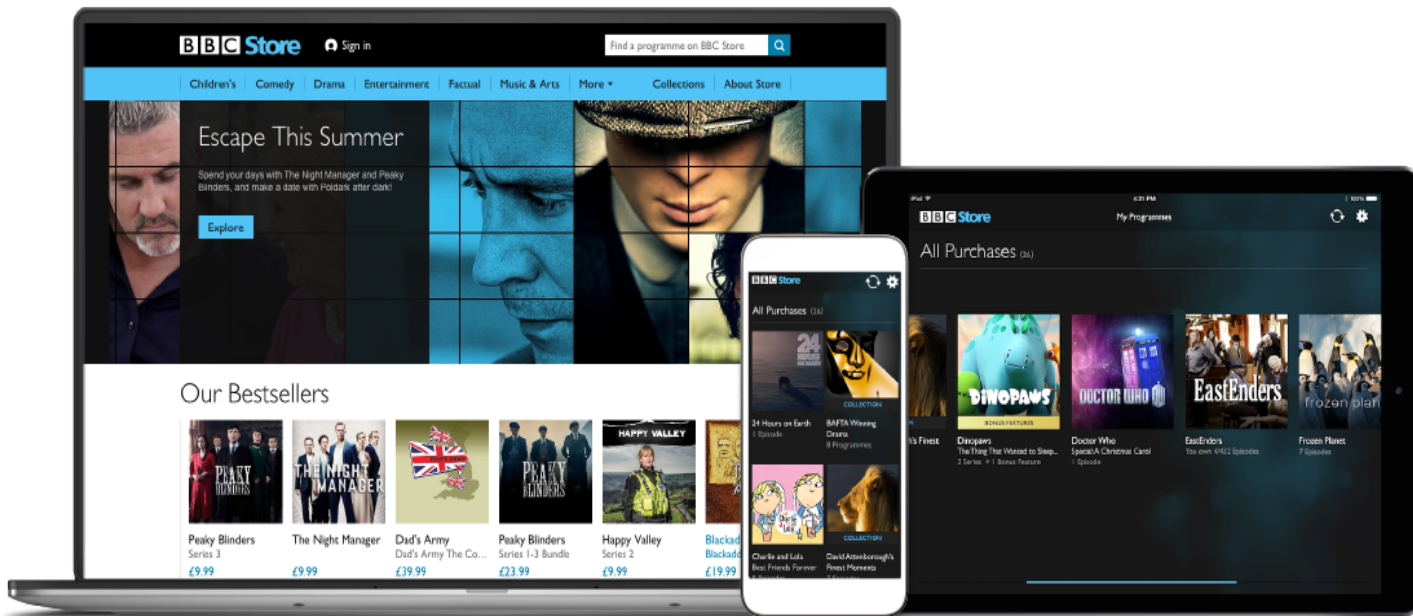
Service orientated dashboard

- Frequency - Monthly
- Review Period - Monthly
- Effort - 1 Week
- Systems - 6
- Output - MS Excel
- Trending - 3 months
- Troubleshooting - Limited

# Introduction



# BBC Store



- ❑ Launched Nov 2015
- ❑ BBCStore.com (UK Only)
- ❑ Transaction video on demand service
- ❑ Buy BBC produced content - Episodes & Series
- ❑ Streaming and download to own (DTO)
- ❑ Responsive Web, iOS, Android, Windows 10

# Video On Demand Platforms



Subscription video on demand (SVOD)

- Monthly payment unlimited streaming



Transaction video on demand (TVOD)

- Pay per episode \ series
-

# My Role



# Why Splunk Cloud?



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# Operational Priorities



Monitoring



Alerting



Troubleshooting



SELLERS



SYKES



BARKER



REEVES



CORBETT

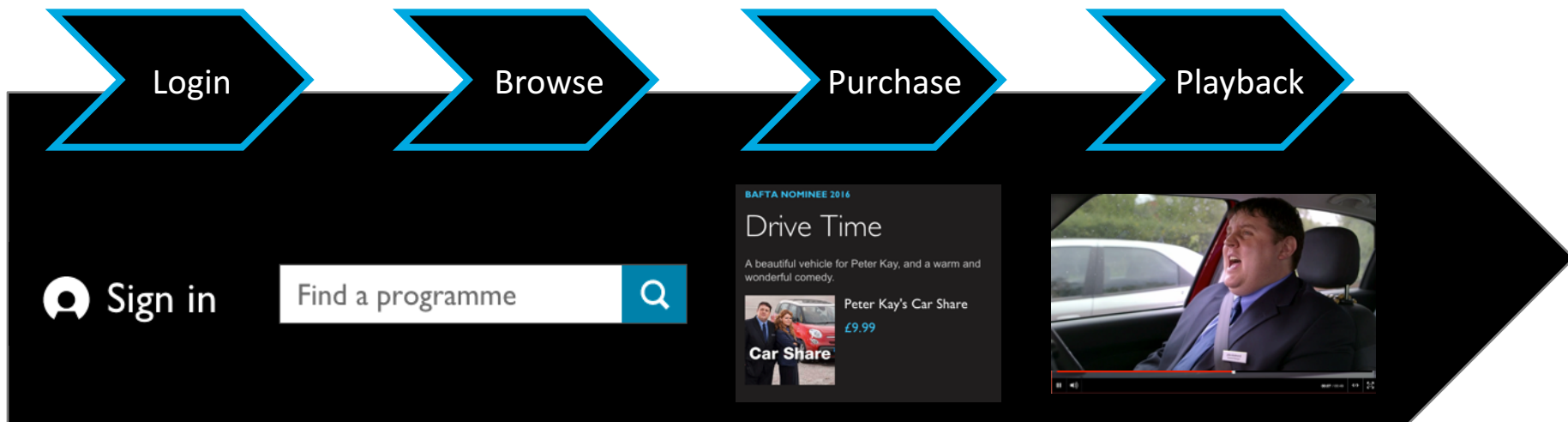


MORECAMBE

We needed a solution to give us end-to-end visibility into the customer journey

# BBC Store's Customer Journey

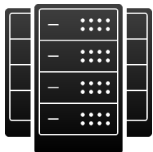
Each part of the journey has a different supplier



# Why splunk>cloud™?



Speed of implementation ahead of BBC Store launch

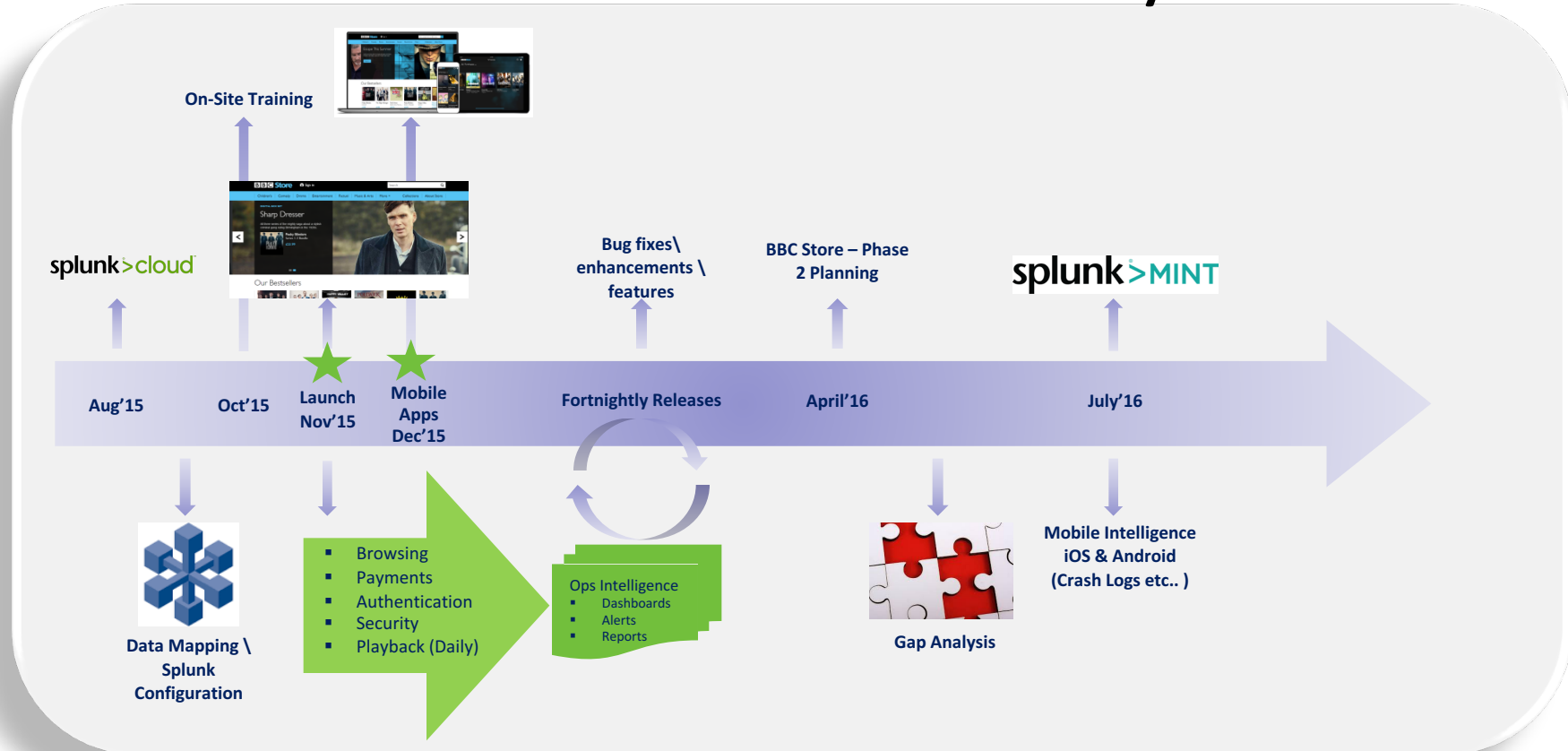


No technical resources in the team to manage infrastructure

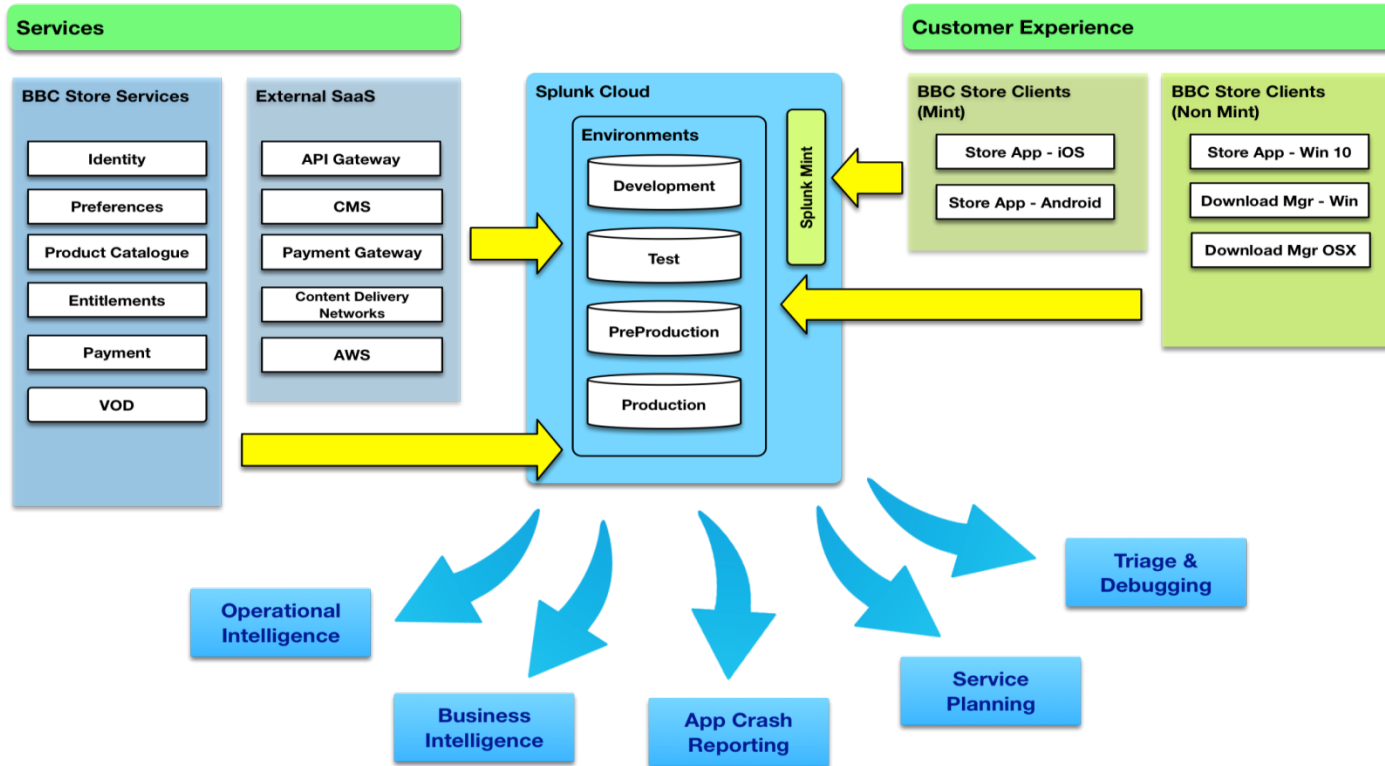


User interface, dashboards and visualizations – needed a solution for non-technical users

# BBC Store – The Journey



# Splunk Cloud – Solution Design



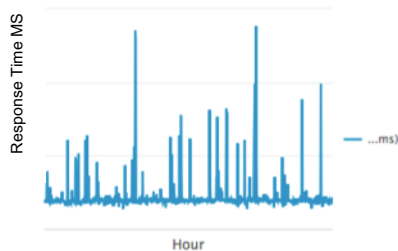
# BBC Store Operational Intelligence



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# Performance Monitoring – Response Times

Transaction History



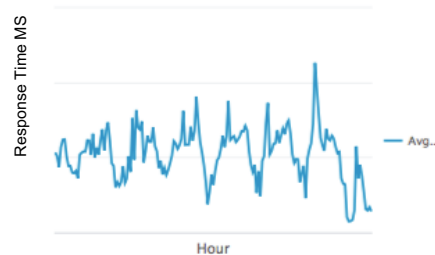
VOD Session (with ID auth)



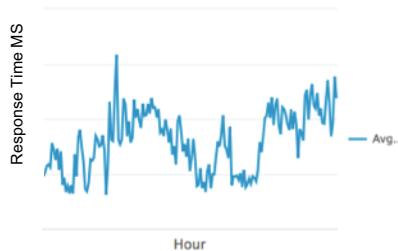
My Programmes



ID Calls



Payment Methods



VOD Session (No ID Auth)



Content Browsing



Products Entitled



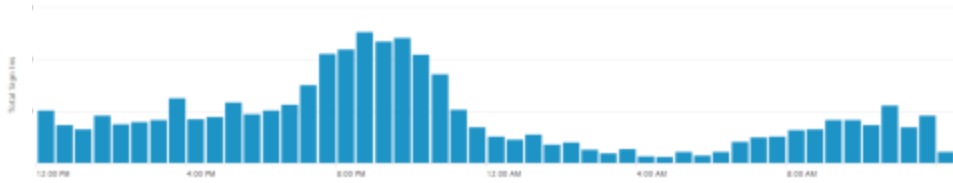


# Authentication

New Store ID Registrations

# 332

Successful Sign In – 24 hrs



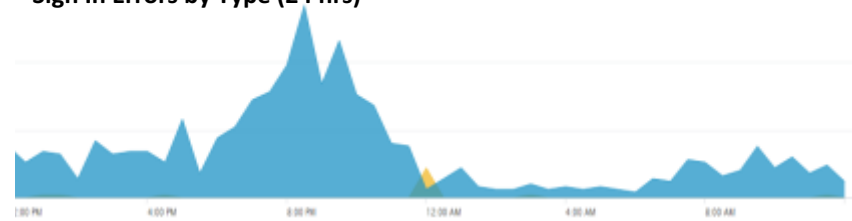
Average Response Time – Sign In



Store ID Sign In %

Sign In	No. of Calls	Percentage
IDP_AUTHENTICATE-SUCCESS	19990	99.93%
IDP_AUTHENTICATE-FAILURE	15	0.07%

Sign In Errors by Type (24 hrs)

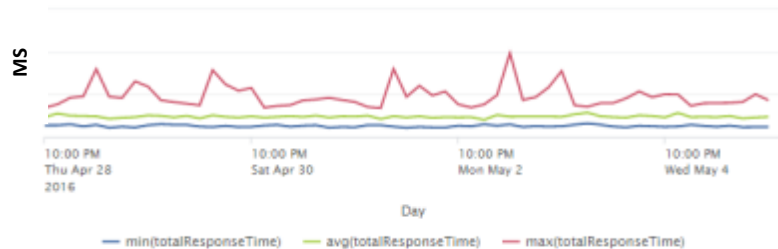


Sign In - Errors (excluding human error)

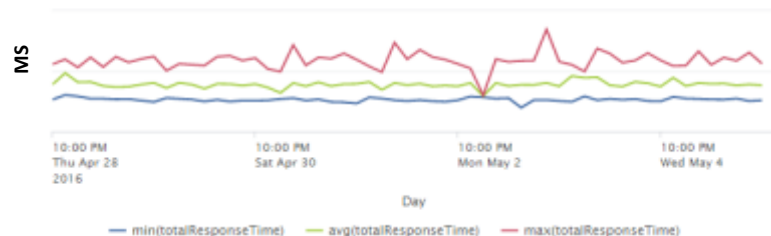


# Payments

Purchase Initialize Success



Purchase Finalize Success



Paypal Payment Errors by Type



Top Payment Method in Last 24 Hours

	Payment Method	Percentage
1	CreditCard	54.41%
2	PayPal	42.11%
3	E-WALLET	3.47%

Successful Paypal Purchases in 24 Hours



# Payment Journey - Insights

## Non UK - Payment Errors




# BBC Store Splunk Mint



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# splunk > MINT

ALL DATA >  

**USERS**  
3976

**CRASH RATE**  
6.49 %

**AVG LATENCY**  
612.83 ms

ANDROID >  

**USERS**  
1354

**CRASH RATE**  
10.76 %

**AVG LATENCY**  
440.27 ms

IOS >  

**USERS**  
2622

**CRASH RATE**  
2.21 %

**AVG LATENCY**  
785.38 ms

## USERS

Total users

3036

## AFFECTED USERS

Total affected users

78

## SESSIONS

Total sessions

9182

## CRASH RATE (%)

Avg crash rate

1.67

## SESSION LENGTH

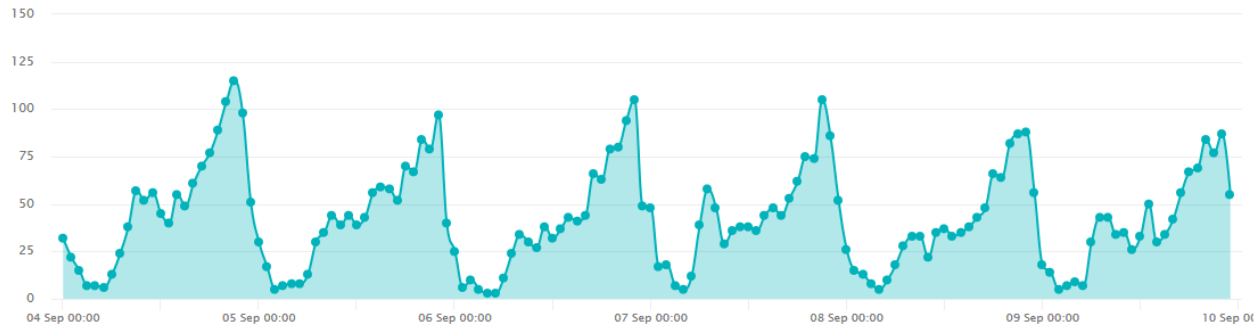
Avg session length

00:05:24

## SESSIONS PER USER

Avg sessions per user

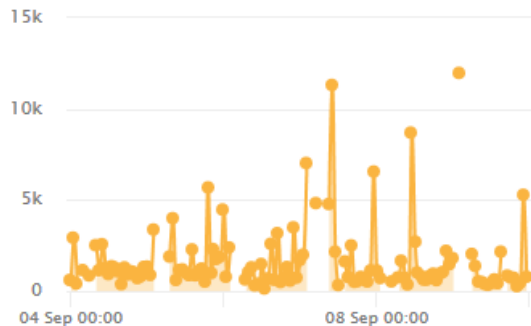
3.02



# Errors - Download

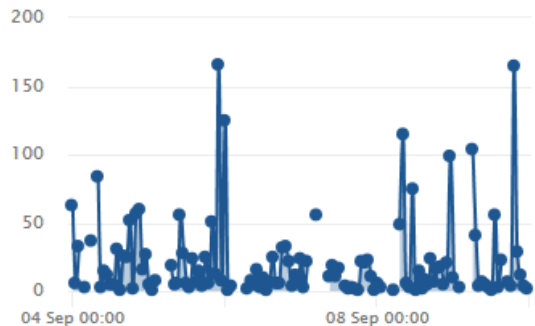
## AVG LATENCY

1564.00 ms



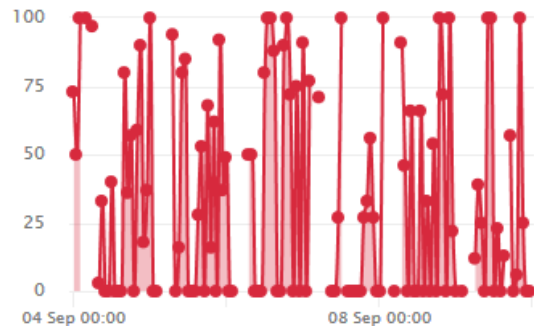
## REQUESTS VOLUME

2566



## HTTP ERROR RATE

47.54 %

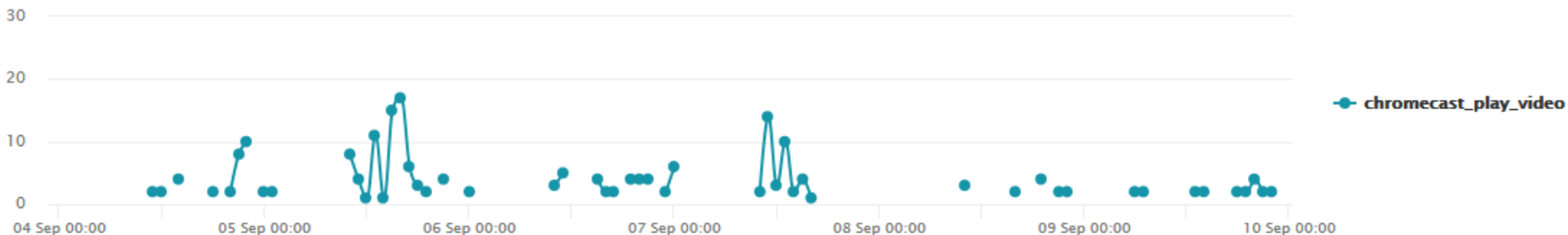


Path ↕	Volume ↕	Avg latency (ms) ↕	HTTP Error rate (%) ▾	Network Error Rate (%) ↕
<a href="#">/core/rightsmanager.asmx</a>	2566	1564.00	47.54	26.85

# Product Management - New Features

## Chromecast

EVENTS > chromecast\_play\_video



Event	Users	Occurrences	Events per user	Trend
chromecast_play_video	47	213	4.53	

# iOS App Release yesterday


## TOTAL OCCURRENCES

116

## TOTAL AFFECTED USERS

7

## MEMORY USAGE ON CRASH

 No results found.



## AGGREGATED METRICS

### NETWORK



### APP VERSION



### OS VERSIONS



### DEVICES



Stacktrace	Affected users	Last occurred	Occurrences
User ID			
313a93c0d87352e11f89332376a24bf538927e8043112b083f5f47454d3e3bcb113a		27 Sep 2016 18:27	107
313a68f3f480584a847320e77d197f00101170f2f120a9774c5433dad0854fad22ff		27 Sep 2016 07:53	2
313a6f66b7fa079698c50e1949d2bc2af193bbcdb51b190876413b02c2ec7f9295b3		28 Sep 2016 07:46	2
313ad1e104ee26fa0f7f649c42600a59a6872413f59a57cd907dc3d050a1d1cd9622		26 Sep 2016 15:23	2



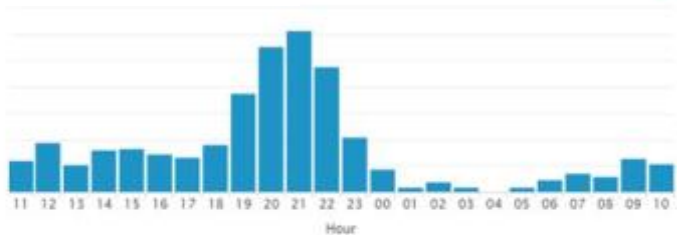
# BBC Store Business Intelligence



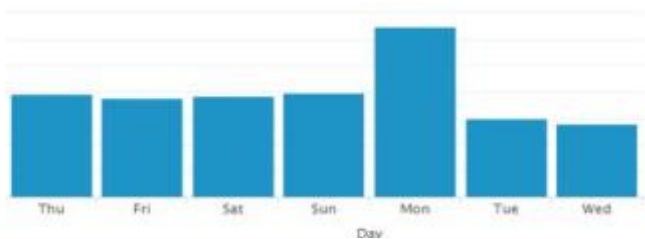
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# Reports for Marketing and E-Commerce

Store Sales (24 hrs)



Store Sales (7 days)



Assets sold by revenue (24 hrs)

	Programme Title
1	Line of Duty - Series 3 - SD - Ep 1 - Episode 1
2	Line of Duty - Series 3 - SD - Ep 2 - Episode 2
3	The Night Manager - SD - Ep 6 - Episode 6
4	The Night Manager - SD
5	Undercover - SD - Ep 1 - Episode 1

Top Coupons Used in Last 24 Hours

	Coupon Type	Percentage
1	Coupon NOWDIGITAL: 50% Off with BBC Store	38.10%
2	Coupon RAIL50: 50% Off Rail Offer	14.29%
3	Coupon CS25: 25% off BBC Store	9.52%
4	Coupon BOGOFD: 2 for 1 on Detectorists	9.52%
5	Coupon BBCSTORE10: 10% off BBC Store	9.52%
6	Coupon WELCOME50: Welcome to Store offer	4.76%
7	Coupon BOGOFL: 2 for 1 on Luther	4.76%
8	Coupon BOGOFFT: 2 for 1 on Fawly Towers	4.76%
9	Coupon BOGOFDIP: 2 for 1 on Death in Paradise	4.76%

Top 10 Assets Refunded - 7 Days

	Programme Title
1	The Night Manager - SD
2	Line of Duty Series 1-2 Bundle - SD
3	Line of Duty Series 1-3 Bundle - HD
4	The Fall - Series 2 - SD
5	Line of Duty Series 1-3 Bundle - SD
6	The Night Manager - HD
7	Line of Duty - Series 3 - SD
8	Fawly Towers - Series 1 - SD
9	Line of Duty - Series 1 - SD
10	Orphan Black - Series 1 - HD

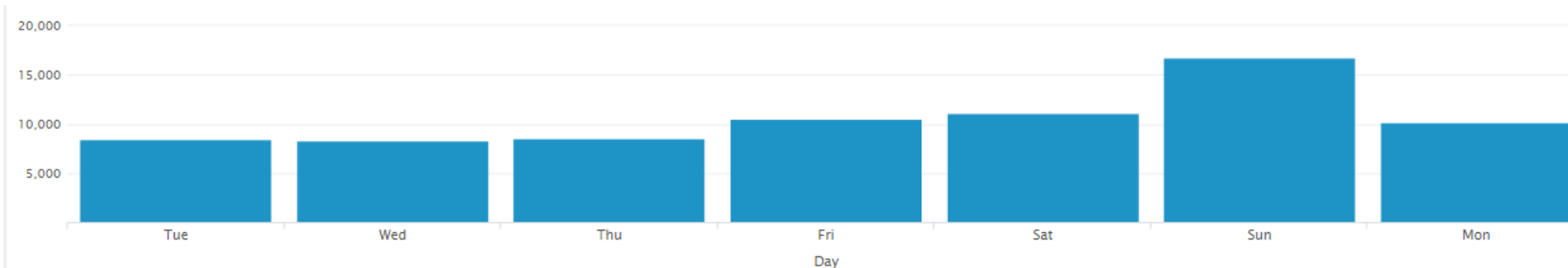
Total Store Refunds in Last 7 Days

220

Total Store Refunds in Last 24 Hours

16

# Business Analytics - Search



Last 7 Days


Top Keywords

Search	Hits	Percentage
1 doctor+who	199	0.83%
2 Doctor+who	176	0.74%
3 Dr+who	117	0.49%
4 top+gear	99	0.41%
5 Glastonbury	61	0.25%
6 dr+who	56	0.23%
7 The+Bridges+that+built+london+with+dan+cruikshank	55	0.23%
8 classic+series	49	0.20%

# Business Analytics - Refunds

## Store Refunds

A dashboard focusing on BBC Store refunds. These do not include refunds our Customer Services Team (FirstSource) make to their own internal account.

Edit ▾ More Info ▾  

Total Store Refunds in Last 24 Hours

37

Total Store Refunds in Last 7 Days

143

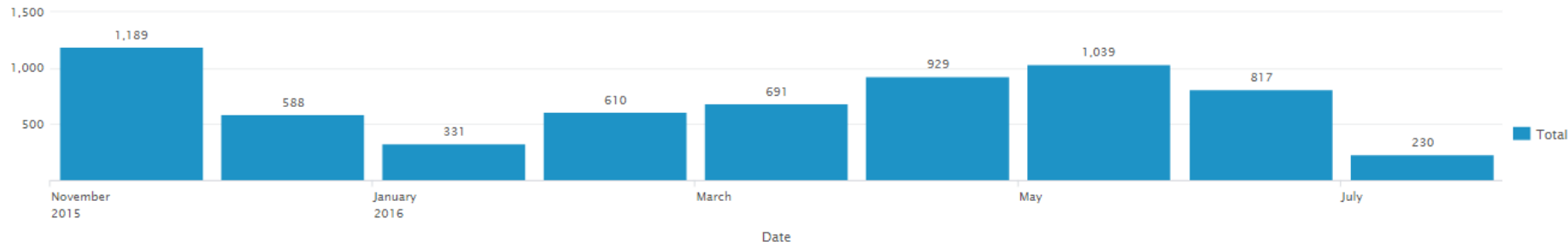
Total Store Refunds in Last 30 Days

777

Average No. of Refunds per Customer in 24 Hours

1.12

### Total Refunds per month since Launch



### Top Title Refunded Each Day - 7 Days

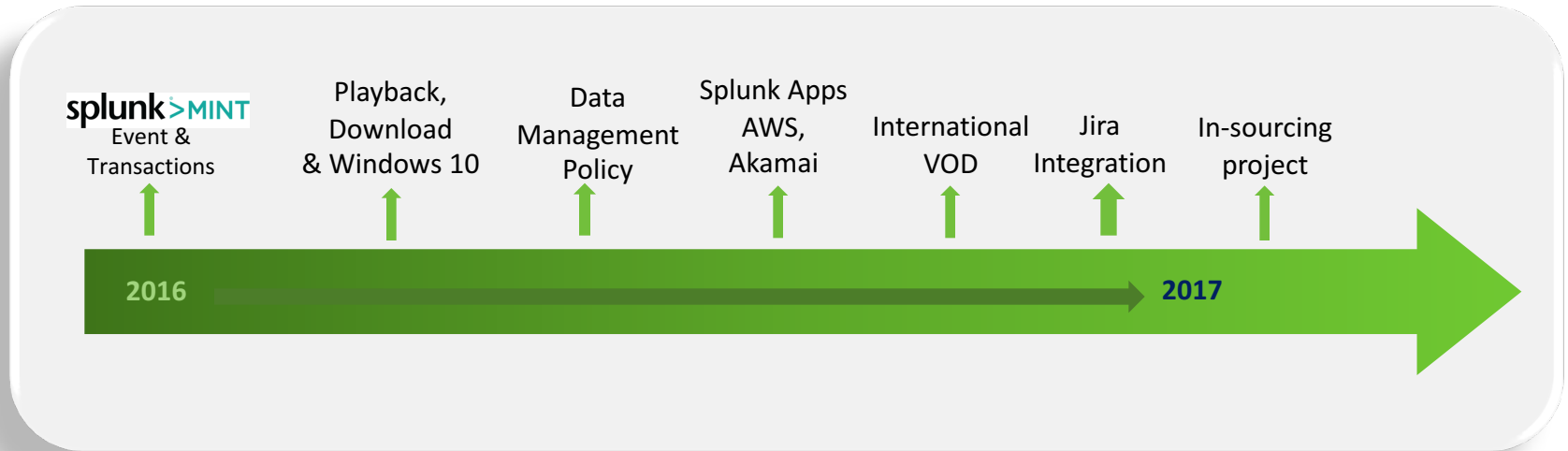
	Date ▾	Programme Title ▾	Total Refunds ▾
1	12	The Night Manager - HD	1
2	11	The Story of China - SD	2
3	10	The Night Manager - SD	2
4	9	The Bridge Trilogy - SD	2

# BBC Store - Roadmap



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# BBC Store – Roadmap Priorities



# THANK YOU

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