



Application Performance
Management
for high availability digital
platforms

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APM

“Application Performance Management (APM) is the monitoring and management of performance and availability of software applications.”

“APM strives to detect and diagnose application performance problems to maintain an expected level of service.”

Sky Sports

- 40k concurrent users
- 17m uniques
- 10 web servers @ 400 rpm
- 4 backend servers @ 2300 rpm
- large estate
- multiple properties



Fighting Fires

- regular incidents
- wasted time and effort
- unnecessary infrastructure changes
- unnecessary config changes
- code changes

Enter APM

- brand damaging outages
- achieved overnight success
- applied fixes

App server transaction traces

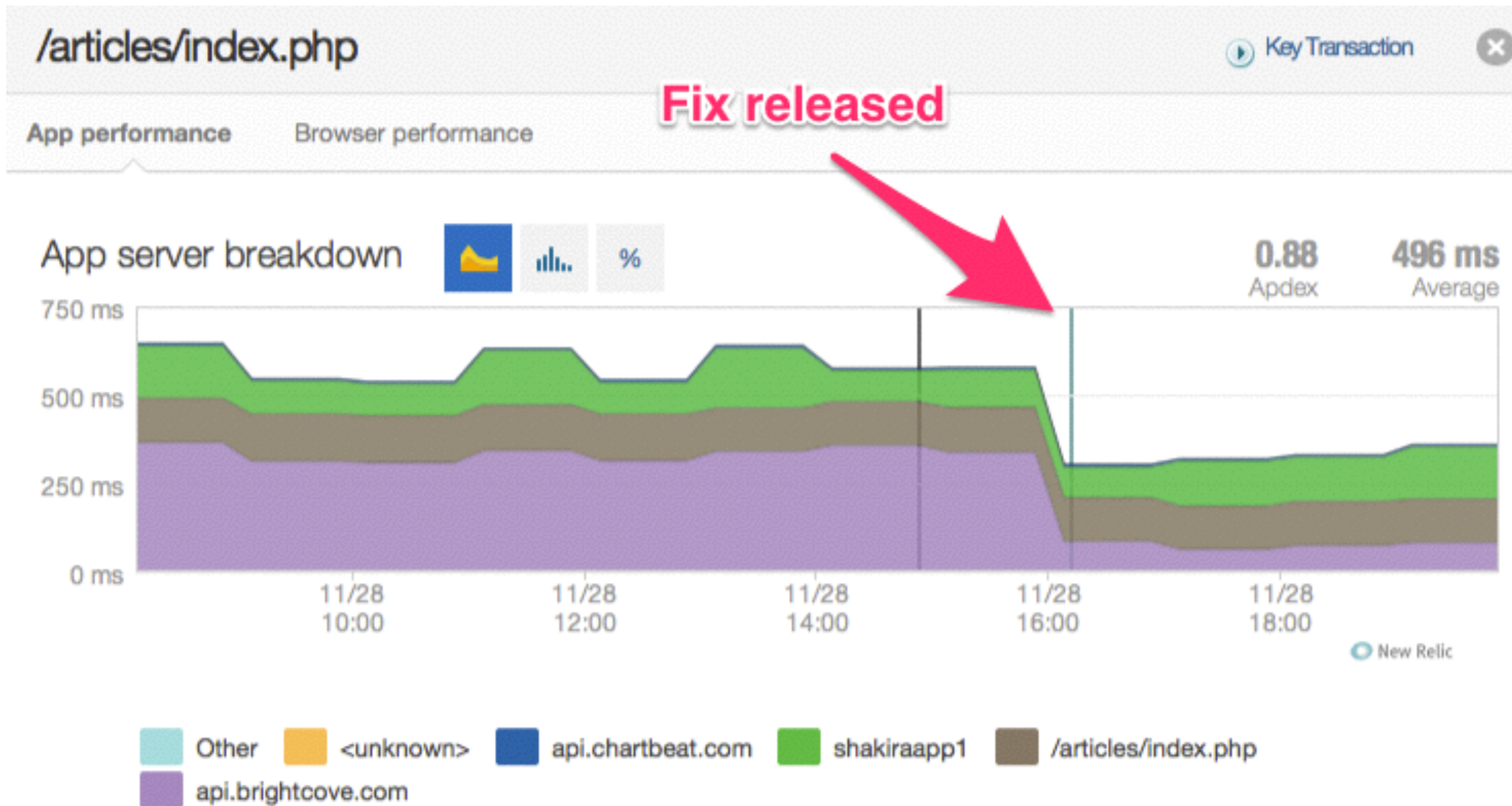
Sample performance details



Date ▼	Transaction / URL	App server ▲ ▼	Browser ▲ ▼
11/26 17:53 — about 15 hours ago	/football/match/match.php /football/match/live/betting/300954	905,645 ms	
11/26 17:54 — about 15 hours ago	/football/match/match.php /football/match/live/betting/301279	902,853 ms	
11/26 17:55 — about 15 hours ago	/football/match/match.php /football/match/live/betting/300954	899,813 ms	
11/26 17:56 — about 15 hours ago	/football/match/match.php /football/match/live/betting/300954	877,726 ms	
11/26 17:52 — about 15 hours ago	/football/match/match.php /football/match/live/betting/301279	862,077 ms	
11/26 17:52 — about 15 hours ago	/football/match/match.php /football/match/live/betting/300954	841,454 ms	
11/26 18:00 — about 15 hours ago	/football/match/match.php /football/match/live/betting/300954	834,997 ms	

November '13





This graph shows where the article listing page is spending the majority of its time during its execution.

November '13

External service: cdn-api.ooyala.com

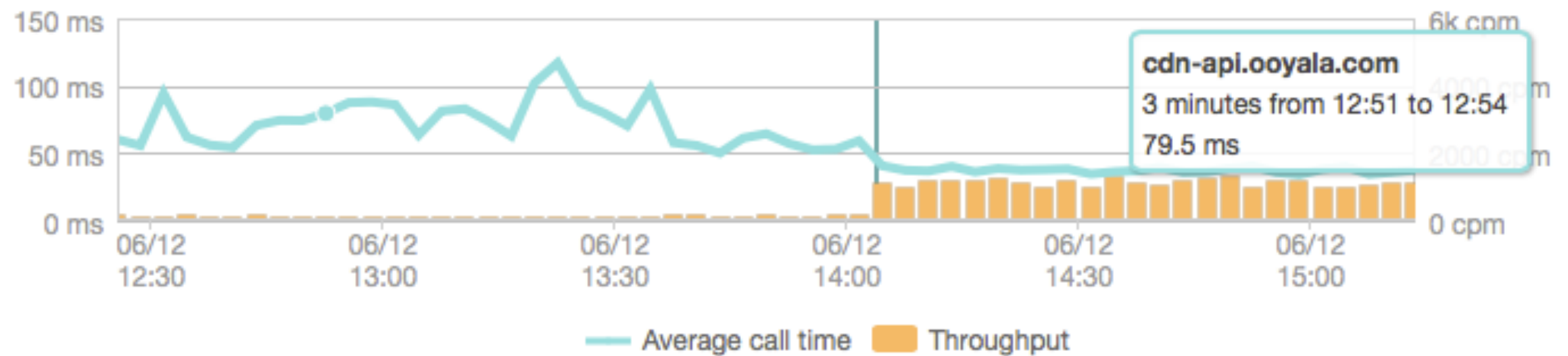
41.4 ms

RESP. TIME

538 cpm

THROUGHPUT

Response time and throughput

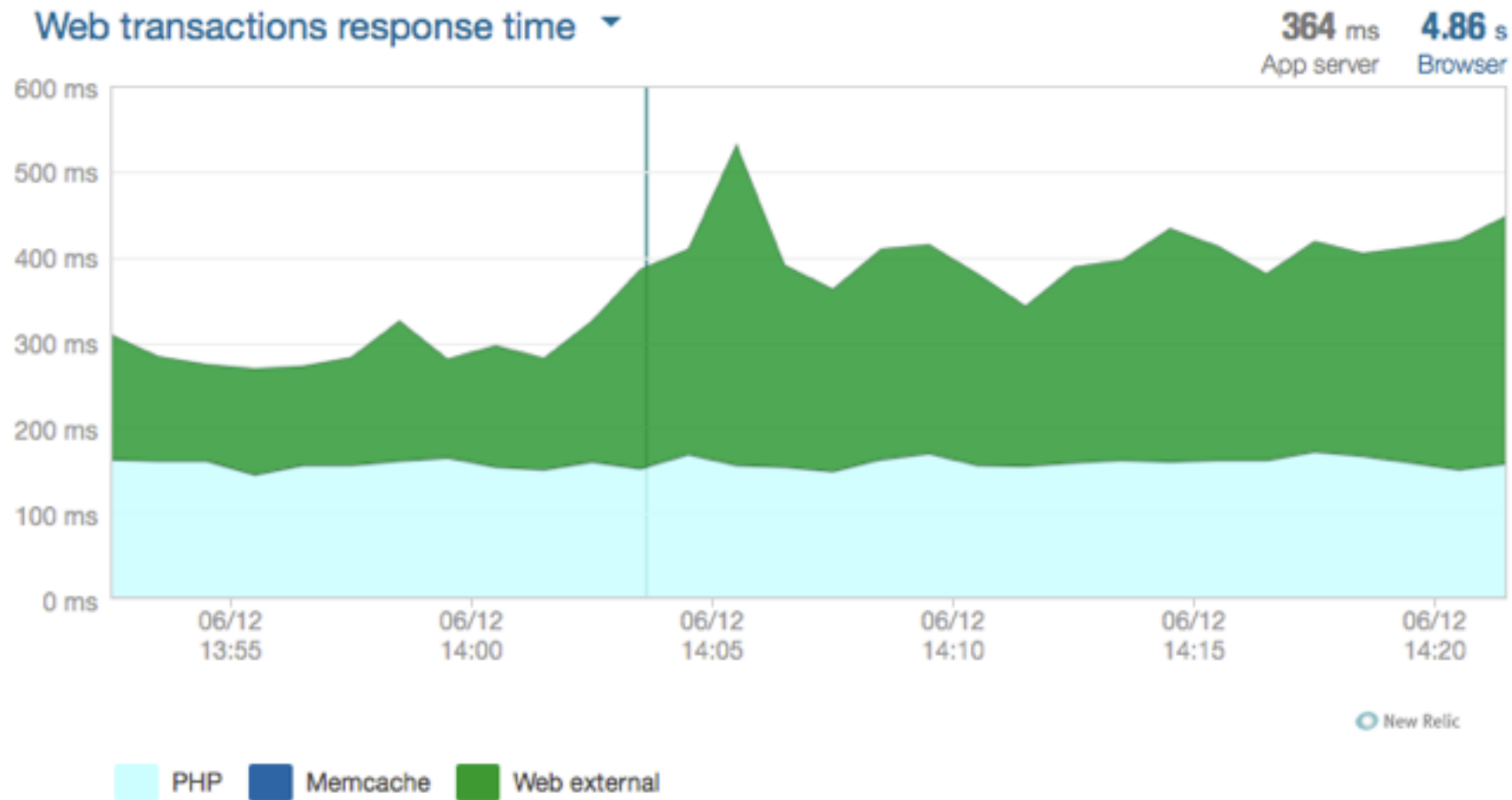


Time consumption by caller

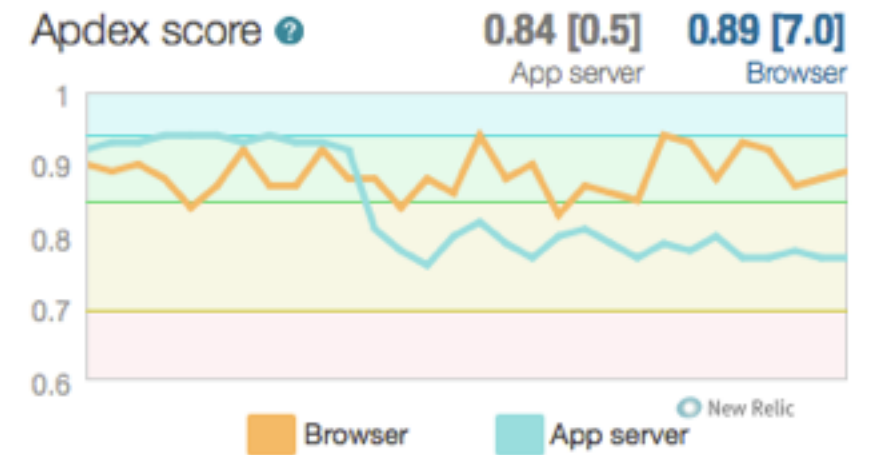
June '14



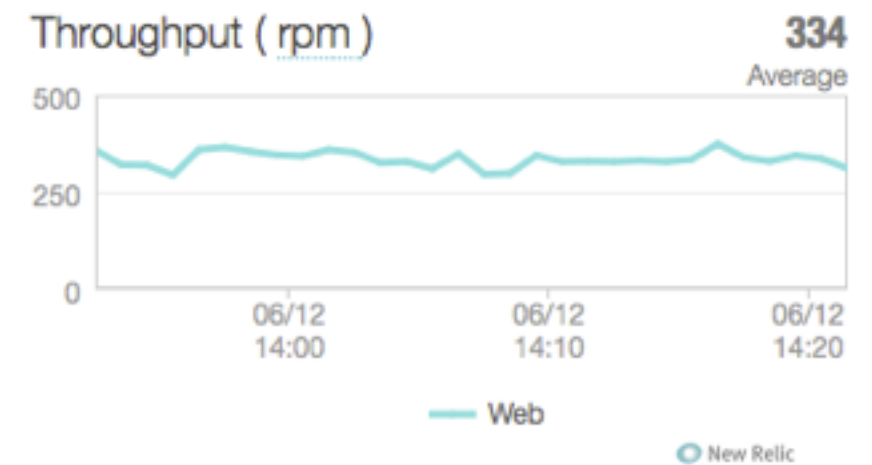
Web transactions response time



Apdex score



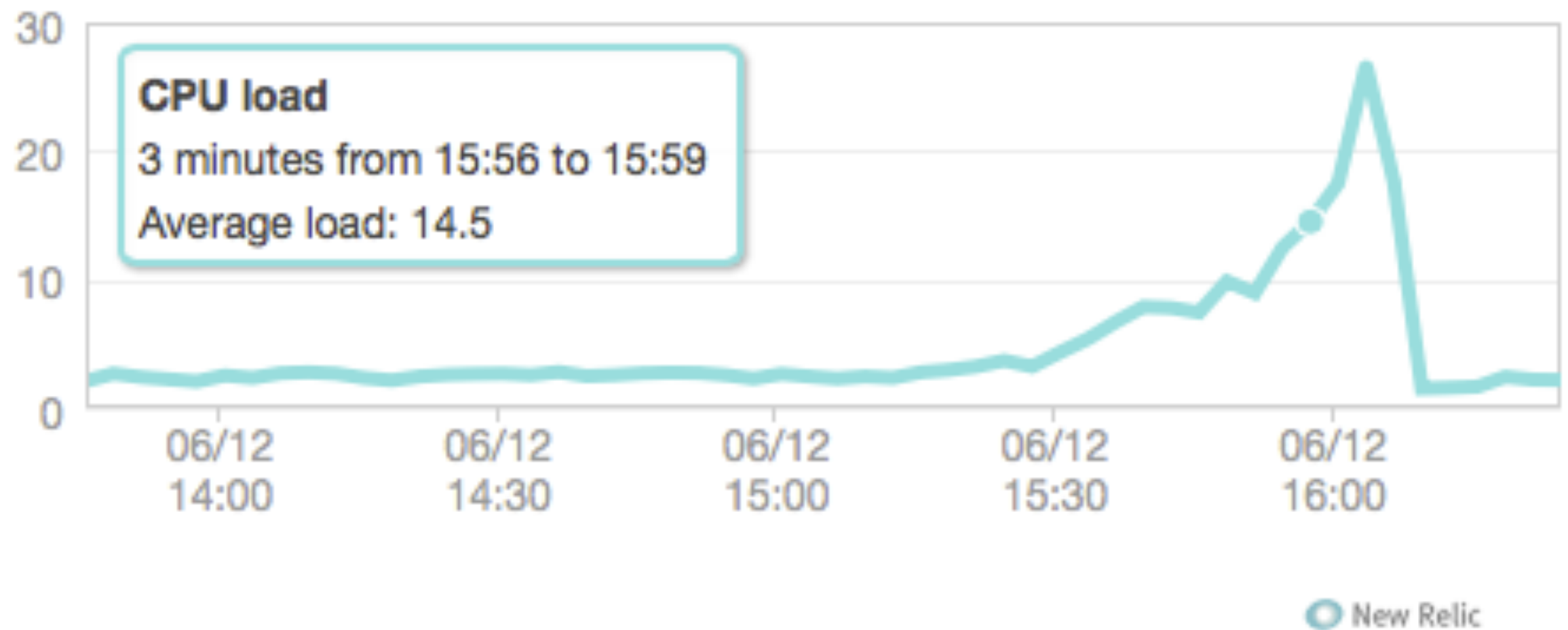
Throughput (rpm)



June '14



Load average



June '14

External service: cdn-api.ooyala.com



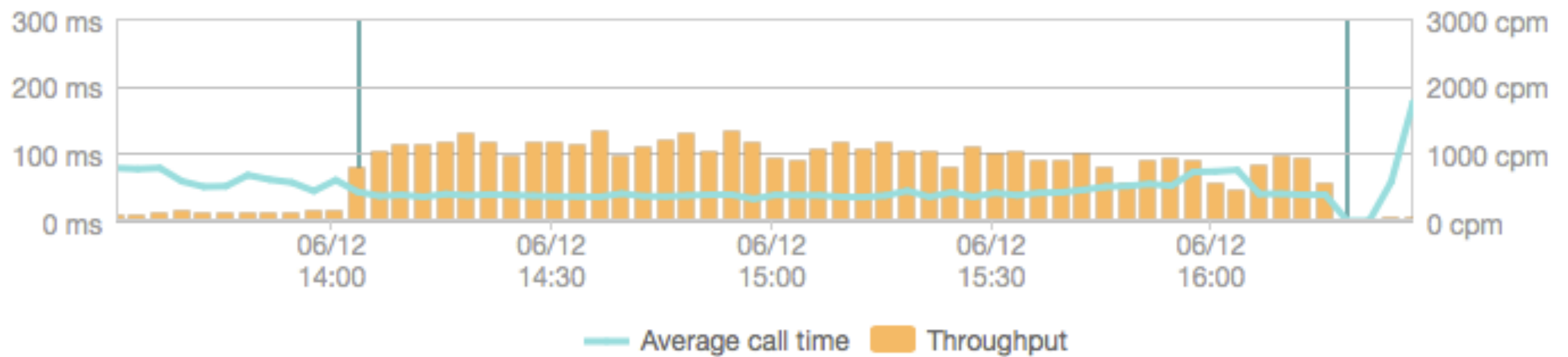
41.5 ms

RESP. TIME

770 cpm

THROUGHPUT

Response time and throughput



June '14



New Relic

- hosted solution
- great features
- easy setup
 - `-javaagent:/full/path/to/newrelic.jar`
 - `npm install newrelic`
- other languages supported: .Net, Ruby and Python

PHP Setup

```
sudo rpm -Uvh http://yum.newrelic.com/pub/newrelic/  
el5/x86\_64/newrelic-repo-5-3.noarch.rpm
```

```
sudo yum install newrelic-php5
```

```
sudo newrelic-install install
```

Where we are now

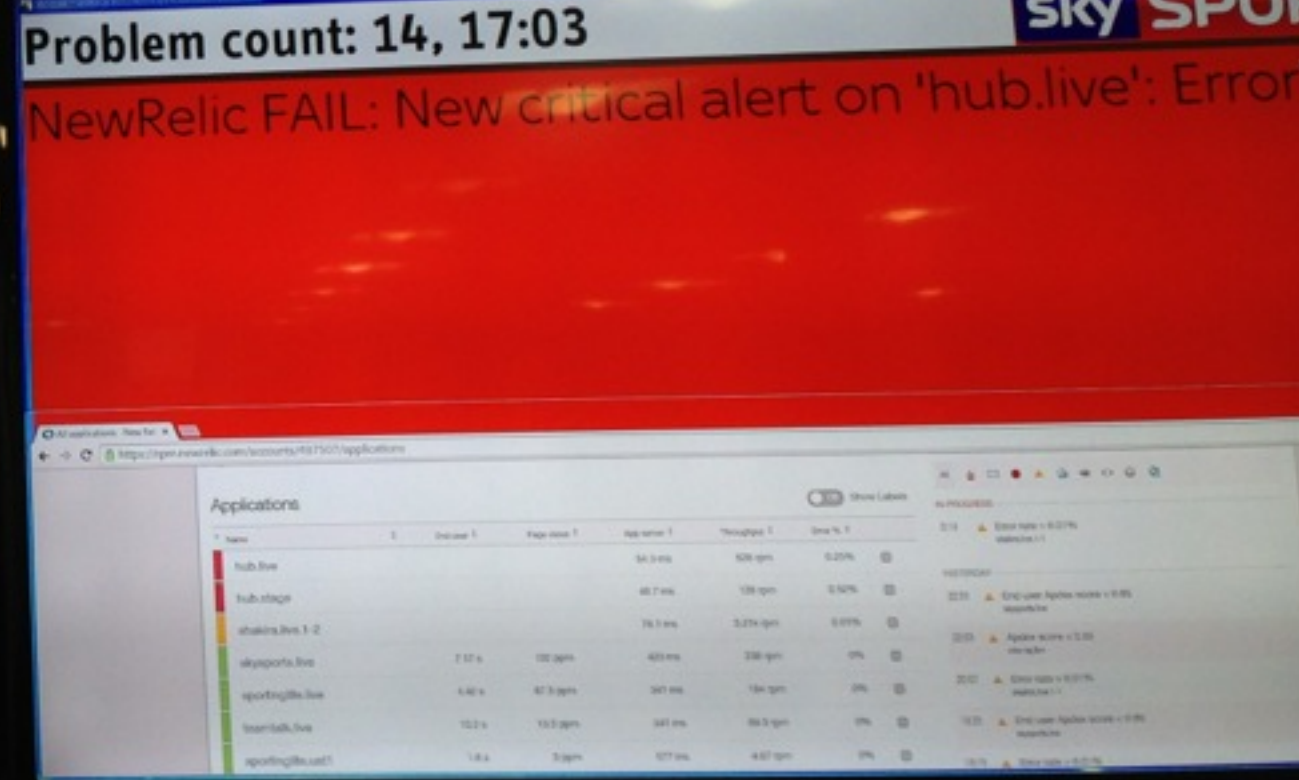
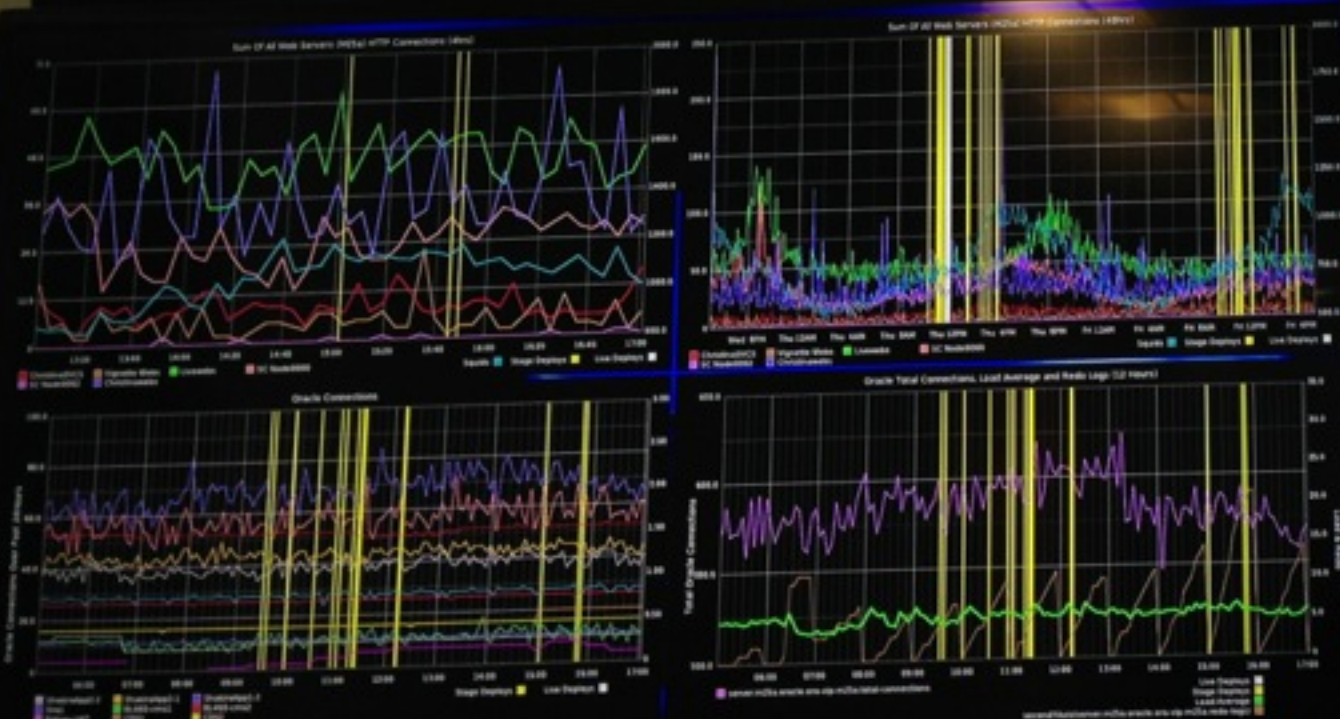
- stable platform
- confidence in our platform
- release with confidence
- improved performance
- cultural change
- notice and fix issues before they affect end users

Statsd + Graphite

- flexible
- UDP
- familiar technology
- local install



Queue					Transfer Status				
Last Updated: Thu Sep 11 11:04:06 BST 2014					Last Updated: Thu Sep 11 11:04:06 BST 2014				
Queue					Transfer Status				
Audio Function	Trans in buffer space	File waiting to be uploaded	Trans in buffer space	Trans that have failed	Date	File	File Size	Destination Folder	Destination Server
Audio	0	0	0	0	Thu Sep 11 11:04:06 BST 2014	11:04:06	11:04:06	11:04:06	11:04:06
Audio	0	0	0	0	Thu Sep 11 11:04:06 BST 2014	11:04:06	11:04:06	11:04:06	11:04:06
Audio	0	0	0	0	Thu Sep 11 11:04:06 BST 2014	11:04:06	11:04:06	11:04:06	11:04:06
Audio	0	0	0	0	Thu Sep 11 11:04:06 BST 2014	11:04:06	11:04:06	11:04:06	11:04:06
Audio	0	0	0	0	Thu Sep 11 11:04:06 BST 2014	11:04:06	11:04:06	11:04:06	11:04:06



Service Desk

SSDM Service Desk
0113 3982122
ssdm@service-desk.co.uk

What we learned

- determine your coverage
- monitor the injected JS
- non-production monitoring has worked great
- define an application nomenclature
- define apdex values
- not a replacement for performance monitoring during dev
- trust our data
- alerting policy

Questions?