Transactional Analytics Delivers Greater Visibility with End-to-End Monitoring - HPE AppPulse Trace
May 25, 2016
Hosted By

Jim Copio
Carolinas Chapter Leader
BSM SIG Leader
Today’s Speakers

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AppPulse - Sr. Product Marketing Manager
Hewlett Packard Enterprise

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APM Sr. Technical Marketing Manager
Hewlett Packard Enterprise

Udi Shagal
AppPulse Product Manager
Hewlett Packard Enterprise
Housekeeping

- This “LIVE” session is being recorded
  Recordings are available to all Vivit members

- Session Q&A:
  Please type questions in the Questions Pane
Webinar Control Panel

Toggle View Window between Full screen/window mode.

Questions

Q: Is it compatible with all web browsers?
A: Yes.

Q: How much time is required for the upgrade?

Type your questions here.

Susan
Webinar ID: 850-600-483

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Stop Flying Blind

Transactional analytics delivers greater visibility with end-to-end monitoring

Eric Odell, Sr. Product Marketing Mgr
Udi Shagal, Sr. Product Manager
Dan Iuster, Sr. Technical Marketing Mgr.
When good applications go bad...
Your company’s day in the spotlight

The British Airways website suffers technical glitch leaving people unable to book flights or check in
Rising user expectations – How annoying can it be?

Jenny McCarthy - 2 days 20 hours ago
- Chrome 46.0 on Windows
I have been unable to open american airlines web page for 24 hours? Is it reported as down?

Elizabeth Raney Burman - 15 May 2016 - 20:35
- Safari 9.1 on Mac
I can't get to any AA page today. Couldn't get online last week either. I use Firefox for Mac. Note: AA lost a sale from me last week but of this. Today I'm just trying to find out when my husband's plane will arrive. This is a fairly royal pain, and I am not a great fan of AA in the first place...

Herb Dollar - 2 March 2016 - 14:02
- Firefox 44.0 on Windows
"Our system is having trouble. Please try again or come back later." was down yesterday...
The cost of poor performing applications

Poor application performance costs 1 in 3 enterprises over £1m per year

UK survey finds only 10% IT organizations have necessary performance testing & monitoring in place
Users expect the world of your apps – Better give it to them

Rising user expectations

80% Will abandon apps after only three attempts or less

69% Say poor application issues give lower opinion of company that created
Give users a great experience – or they’ll give you the finger

49% expect a mobile app to respond in 2 seconds or less.

36% stop using mobile apps because of heavy battery usage.

53% uninstall or remove the mobile app when it stops responding or crashes.
Your company’s day in the spotlight

YouTube down: users shown '500 Internal Server Error' while trying to access Google's video sharing site
Bad user experience is no longer an option

- How do you know what your real users are experiencing?
- How can you avoid customer attrition due to poor user experience?
- How can you protect your company brand and revenue?
- How can you find root cause quickly and reduce MTTR?
- How can you stop investing expensive resources in troubleshooting application problems?
- How can you protect YOUR job?
Do you have the right tools?

- 57% of DevOps teams lack Application Performance Monitoring (APM) tools featuring user experience dashboards.
- 67% have no insight into the line of code that caused an error, slow performance or a crash.
- 61% of developers are blind to the end-to-end process of monitoring the user experience.
Do you have the right tools?

What’s wrong with today’s APM tools?

- Core products that don’t cooperate.
- Limited in their functionality.
- No drill-down to the root cause of problems.
Who needs what?

IT Ops: “I want to find and fix app issues before my users do.”

Business: “I have to achieve a 5-star rating for my mobile app.”

DevOps: “I need visibility to the root cause from user action to the line of code.”
Introducing HPE AppPulse Suite for User Experience Transformation

Unified Experience
End-to-End Visibility
Built for DevOps
Integrated with Ops Bridge and APM

Synthetic Monitoring
Real User Monitoring
Application Performance Management
Transaction Analytics
Powered by HPE Vertica
Introducing a smarter solution

- Proactive, continuous, real-time synthetic monitoring.
- Measure the user experience of mobile apps.
- Track end-to-end transaction flow through all service tiers; Isolate problems to the line of code.

**HPE AppPulse Suite**

- **HPE AppPulse Active**
- **HPE AppPulse Mobile**
- **HPE AppPulse Trace**

**Integrated | Complementary | End-to-end**
AppPulse Monitoring Architecture
Monitoring Architecture

AppPulse MOBILE

AppPulse ACTIVE

HPE SiteScope

AppPulse TRACE
General Availability of AppPulse Trace
Real User Monitoring & Transaction Tracing
AppPulse Trace
Real User Monitoring and Transaction visibility
Mobile App Troubleshooting Using the AppPulse Suite

Lara S.
Android Developer
Online Banking Engineering

Jim W.
Summer Intern
Corporate IT
STABILITY OVERVIEW

313
Users with Crashes

1.2%
Failed Action Hits

CRASHES

ACTIONS WITH MOST CRASHES

<table>
<thead>
<tr>
<th>Users with Crashes</th>
<th>Screen</th>
<th>Action</th>
<th>Crashes</th>
<th>App Versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>220</td>
<td>Check Deposit</td>
<td>Tap the Scan button</td>
<td>220</td>
<td>3.6</td>
</tr>
<tr>
<td>11</td>
<td>Help</td>
<td>Tap the Call for support button</td>
<td>11</td>
<td>3.4</td>
</tr>
<tr>
<td>3</td>
<td>Accounts</td>
<td>Select item from the left drawer list</td>
<td>3</td>
<td>3.4</td>
</tr>
</tbody>
</table>

CRASHES ON APP LAUNCH

79
Affected Users

CRASHES NOT LINKED TO ACTIONS

No Crashes

AFFECTED USERS

1,748
Users

4 Latest Versions

v3.6
44.2%
Failed Action
May 24, 17:28

3.6
App Version

4.2.1
OS

Sony Xperia S
Device

ERROR DETAILS

Error Message
"Transaction couldn't be completed. Internal server error"

Failed HTTP requests
HTTP response code 500:
http://amb.hpswdemoportal.com/Advantage/Customer/FraudPrevention

Trace Server Error
Operation: SQL query to SQL Server advantage database on 172.16.239.198:1433 1001 ms

Query: 
```java
(call calculate_fraud_score (?,
    ?,
    ?,
    ?))
```
Failed Call
May 24, 05:28:16

Transaction: GET /Advantage/Customer/FraudPrevention

2.237 ms
Server Time

1
Exceptions

500
HTTP Status

Transaction Timeline

Operations Flow

<table>
<thead>
<tr>
<th>OPERATION NAME</th>
<th>SELF TIME (ms)</th>
<th>TOTAL TIME (ms)</th>
<th>TOTAL CONTRIBUTION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET /Advantage/Customer/FraudPrevention</td>
<td>623</td>
<td>2.237</td>
<td></td>
</tr>
<tr>
<td>SQL query to SQL Server advantage database on 172.16.239.198:1433</td>
<td>1001</td>
<td>1001</td>
<td></td>
</tr>
<tr>
<td>/FraudCheckService/FraudAssessment (not traced)</td>
<td>612</td>
<td>612</td>
<td></td>
</tr>
</tbody>
</table>
Failed Call
May 24, 05:28:16

Transaction: GET /Advantage/Customer/FraudPrevention

2237 ms
Server Time
1
Exceptions
500
HTTP Status

Transaction Timeline

Operation: /Advantage/Customer/FraudPrevention 623 ms

<table>
<thead>
<tr>
<th>METHOD NAME</th>
<th>SELF TIME (ms)</th>
<th>TOTAL TIME (ms)</th>
<th>TOTAL CONTRIBUTION (ms)</th>
<th>EXCEPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>/Advantage/Customer/FraudPrevention</td>
<td>0</td>
<td>2237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AuthenticatorBase.invoke()</td>
<td>201</td>
<td>2236</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MoneyLaunderingCheck.inquireInvolvedParties()</td>
<td>101</td>
<td>2035</td>
<td></td>
<td>ExternalServiceException</td>
</tr>
<tr>
<td>MoneyLaunderingCheck.assessFraudProbability()</td>
<td>0</td>
<td>1021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MoneyLaunderingCheck.getFraudScore()</td>
<td>20</td>
<td>1021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQL query to SQL Server advantage database on 172.16.239.198:1433</td>
<td>1001</td>
<td>1001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CloseableHttpClient.execute()</td>
<td>0</td>
<td>612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call to /FraudCheckService/FraudAssessment not traced</td>
<td>612</td>
<td>612</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Failed Call
May 24, 05:28:16

Transaction: GET /Advantage/Customer/FraudPrevention

2237 ms
Server Time
1 Exceptions
500 HTTP Status

Transaction Timeline

Operation: /Advantage/Customer/FraudPrevention 623ms

METHOD NAME

AuthenticatorBase.invokerO
MoneyLaundryCheck.inquireInvolvedPartiesO
MoneyLaundryCheck.assessFraudProbabilityO
MoneyLaundryCheck.getFraudScoreO

SQL query to SQL Server advantage database on 172.16.239.198:1433

Call to /FraudCheckService/FraudAssessment not traced

Exception
Type: com.advantage.online.exceptions.ExternalServiceException
Method: MoneyLaundryCheck.inquireInvolvedPartiesO

201 2236
101 2035
0 1021
20 1021
1001 1001
0 612
612
612

ExternalServiceException
<table>
<thead>
<tr>
<th>Operation</th>
<th>GET /Advantage/Customer/FraudPrevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>com.advantage.online.exceptions.ExternalServiceException</td>
</tr>
<tr>
<td>Message</td>
<td>External request ended with error. HTTP response code: 503, Service unavailable.</td>
</tr>
</tbody>
</table>
Failed Call
May 24, 09:28:16

Transaction: GET /Advantage/Customer/FraudPrevention

2237 ms
Server Time
1 Exceptions
500 HTTP Status

Operation
com.advantage.online.exceptions.ExternalServiceException

Type
External request ended with error. HTTP response code: 503, Service unavailable.

Message

Stack trace
at com.advantage.online.HoneyLaundryCheck.inquireInvolvedParties(HoneyLaundryCheck.java:103)
  at com.advantage.online.HoneyLaundryCheck.doGet(HoneyLaundryCheck.java:50)
  at javax.servlet.http.HttpServlet.service(HttpServlet.java:464)
  at javax.servlet.http.HttpServlet.service(HttpServlet.java:731)
  at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:203)
  at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
  at org.apache.tomcat.websocket.server.WsFilter.doFilter(WsFilter.java:52)
  at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:201)
  at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
  at org.apache.catalina.core.StandardWrapperValve.invoke(StandardWrapperValve.java:220)
  at org.apache.catalina.core.StandardContextValve.invoke(StandardContextValve.java:122)
  at org.apache.catalina.authenticator.AuthenticatorBase.invoke(AuthenticatorBase.java:505)
  at org.apache.catalina.core.StandardHostValve.invoke(StandardHostValve.java:169)
  at org.apache.catalina.core.StandardEngineValve.invoke(StandardEngineValve.java:116)
  at org.apache.catalina.connector.CoyoteAdapter.service(CoyoteAdapter.java:36)
  at org.apache.catalina.connector.HttpUpgradeProcessor.process(AbstractHttpUpgradeProcessor.java:1078)
  at org.apache.catalina.connector.HttpUpgradeProcessor.process(AbstractHttpUpgradeProcessor.java:625)
  at org.apache.tomcat.util.net.JIoEndpointSocketProcessor.run(JIoEndpoint.java:316)
  at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)
  at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)
  at org.apache.tomcat.util.threads.TaskThread$WrappingRunnable.run(TaskThread.java:61)
  at java.lang.Thread.run(Thread.java:745)
Failed Call
May 24, 05:28:16
2237 ms
Server Time
1 Exceptions
500 HTTP Status

Log
May 24, 2016 5:28:16.237 PM INFO (com.advantage.online.MoneyLaundryCheck) Going to calculate fraud score
May 24, 2016 5:28:17.244 PM INFO (com.advantage.online.MoneyLaundryCheck) FraudScore is :200
May 24, 2016 5:28:17.250 PM INFO (com.advantage.online.MoneyLaundryCheck) Internal fraud check has passed successfully. Internal fraud score= 200


Failed Action
May 24, 17:28

3.6
App Version

4.2.1
OS

Sony Xperia S
Device

ERROR DETAILS

Error Message

"Transaction couldn't be completed. Internal server error"

Failed HTTP requests

HTTP response code 500:
http://amb.1pswdemoportal.com/Advantage/Customer/FraudPrevention

Trace Server Error
Submit Defect

Project Name: MyProject  Issue Type: Bug  Priority: 3-Medium

Summary

Failed user action: "Advantage Mobile Banking" (Android) | Screen: "Money Transfer" | Action: "Tap the Transfer button"

Description

Error Message:  
"Transaction couldn't be completed. Internal server error"

Failed HTTP requests:
1. Error Code: 500  
   URL: http://emb.hpswdemoportal.com/Advantage/Customer/FraudPrevention

Environment

App Version: 3.6  
OS: 4.2.1  
Device: Sony Xperia S
**AppPulse Suite benefits summary**

- Comprehensive SaaS APM solution
- Proactively identify app issues before users do
- Identify which performance and stability issues are impacting real app users
- Correlate issues from user experience, to application execution, to its underlying infrastructure

**Net result:** Continuous assessment and continuous improvement of both the application and the UX.
Real customers, real results.

“Ameren

“Performance data mined in HPE AppPulse helped us build better apps for our users.”

“SpeechTrans

“HPE AppPulse took us from a low-star to a 5-star app in less than a month”

“Travelist

“Slowdowns directly impacted our revenue. HPE AppPulse traced transactions E2E to resolve problems fast!”

“OpenText

“We used AppPulse to identify a slowness, diagnose the problem and resolve it. Reducing Tx load time from 20s to 2s”

And many more…

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See for yourself!
Arrange a personalized demo at your earliest convenience

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Thank you

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