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Supercharge Your Mobile App Delivery With Splunk MINT

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A Little Bit of History

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“How the hell did that happen?”

- Random Mobile Developer

BugSense it was...

We love developers and developers love us back!

- 12 Person company
- Based in Greece
- \$100k Seed investment
- Supporting Android, iOS, HTML5, WP7, WP8, Windows 8, Xamarin
- Running on hundreds of millions of devices, probably including yours 😊



Splunk MINT it Became!

September 16, 2013 - Splunk acquired BugSense

- Team moved to Splunk's HQ
- New product line
- Combine BugSense's data collection with Splunk's capabilities

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Splunk MINT it Became!

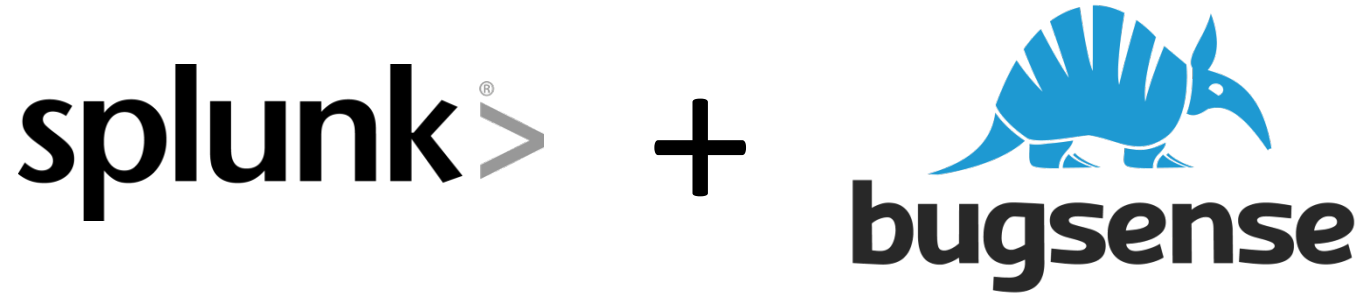
September 16, 2013 - Splunk acquired BugSense

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One objective: Get mobile data into Splunk!

Splunk MINT



Can you imagine the possibilities?

Splunk MINT Product Update

BugSense
A Splunk Company



- Cloud-only
- Crash detection, usage insights and retention information
- Not integrated with Splunk Enterprise



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- **Splunk MINT Express:** adds transactions and network performance
- **Splunk MINT Enterprise:** connects to Splunk Enterprise, more features and analytics
- Correlates infrastructure, application and mobile data in Splunk Enterprise



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Introducing Splunk MINT

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What is a Splunk MINT?

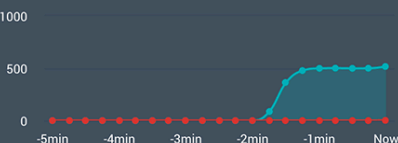
“An awesome technology that helps you gain insights about your mobile application.”

Realtime sessions

517

Realtime crashes

2



Mobdex is a quality score for each release of your app

Version:

2.4.13

Version:

10.0.19

100

0

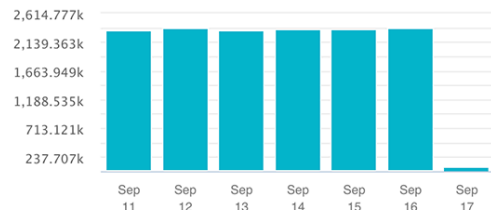
Errors decreasing Mobdex

No open errors for version 2.4.13!

Daily active users

Sessions

All users vs users affected by at least one crash



Retention

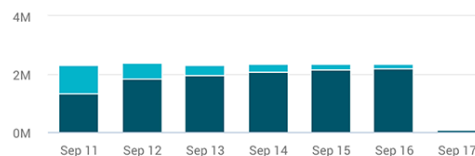
New users to returning users

Returning users

11.6M

New users

2.4M



Crash rate

The ratio of crashes to sessions per day

Avg crash rate

0.33%

Avg number of affected users

0.49%



Popular App versions

Latest App versions

Number of sessions by version over last 7 days

Name	Percentage (all)	Sessions
2.4.12	78%	20.1M
2.4.10	6%	1.4M
2.4.11	3%	796K

Popular OS versions

Latest OS versions

Number of sessions by version over last 7 days

Name	Percentage (all)	Sessions
4.2.2	35%	8.9M
4.4.2	23%	6.0M
4.1.2	19%	4.7M

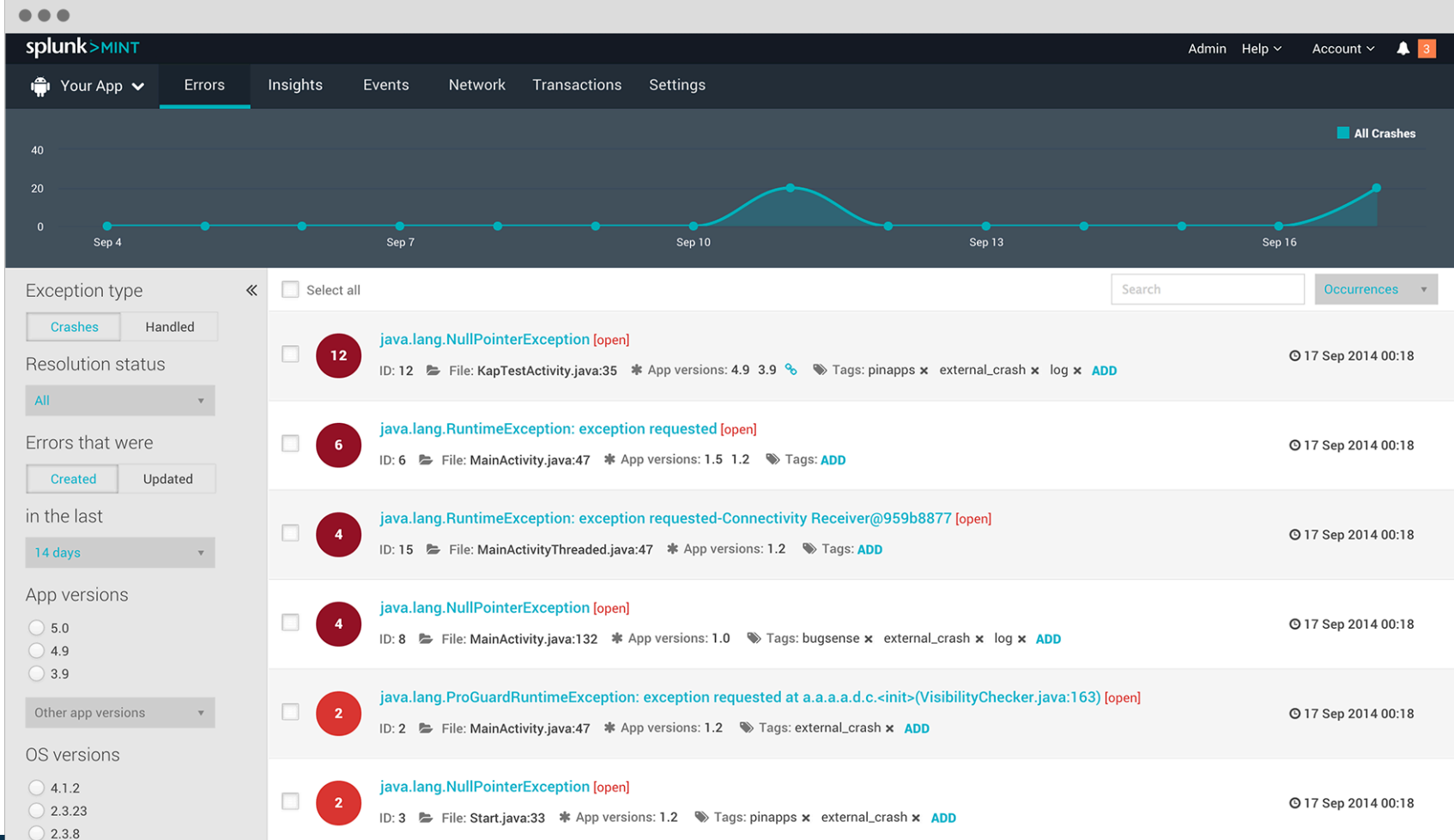
Devices

Top devices by sessions and crashes

Most used devices

Devices with most crashes

Device	Sessions	Device	crashes
SO-04E	1.8M	SO-04E	8.85K
SC-04E	1.0M	SC-04E	5.59K



splunk App: Splunk MINT Administrator Messages Settings Activity Help Find

Home Analytics Network Transactions Reports Search Pivot Splunk MINT

New Search

tag=mint All time

✓ 668,746 events (before 3/10/15 11:43:14.000 AM) Job

Events (668,746) Patterns Statistics Visualization 1 day per column

Format Timeline Zoom Out Zoom to Selection Deselect

< Hide Fields All Fields

Selected Fields

- a host 1
- a source 2
- a sourcetype 8

Interesting Fields

- a apiKey 10
- # appVersionCode 3
- a appVersionName 38
- a carrier 4
- a connection 6
- a device 33
- a eventtype 2
- a failed 4
- a index 1
- # latency 100+
- # level 19
- # linecount 3
- a locale 12
- a osVersion 43

sourcetype

8 Values, 100% of events Selected Yes No


Reports


- Top values
- Top values by time
- Rare values
- Events with this field


Values	Count	%
mint:network	160,358	23.979%
mint:event	129,514	19.367%
mint:trstart	74,674	11.166%
mint:trstop	74,674	11.166%
mint:error	72,105	10.782%
mint:log	63,463	9.49%
mint:ping	49,077	7.339%
mint:gnip	44,881	6.711%

```
transactions: [
]
userIdentifier: NA
uuid: 5014e36cad204744aae4df682636a661
}
Show as raw text
host = mintdemo.splunk.com source = mi_cds://default sourcetype = mint:gnip
```

How to Use It

 Sign up and download the SDK

 Copy the file to your project

 Use 1 line of code

Start collecting data!

Good Old Functionality

Still There!

Crash Reporting

- Track your crashes automatically in real time.
- One line of code!
- That's it! 😊

Android

```
Mint.initAndStartSession(Context, "APIKEY");
```

iOS

```
[[Mint sharedInstance] initAndStartSession@"API_KEY"];
```

Crash Reporting + Insights

Track your crashes automatically in real time.
One line of code!

Full analytics and reports
Mobdex Score

REAL TIME ANALYTICS
WITH ONLY ONE LINE OF CODE!

Android	-
iOS	-

Log Handled Exceptions

What about Handled Exceptions?

We can report them as well!

Android

```
try{
    String a = null;
    a.toString();
} catch(Exception ex) {
    ex.printStackTrace(); // in case you want to see the stacktrace in your log cat output
    Mint.sendException(ex); //OR
    Mint.sendExceptionMessage("level", "2", ex);
}
```

iOS

```
MintLogException(NSException, LimitedCrashExtraDataList) // More in our website
```

Crash Extra Data*

We offer the ability to get more information on your crashes and add your custom data.

* With a small tweak in the new version

Android

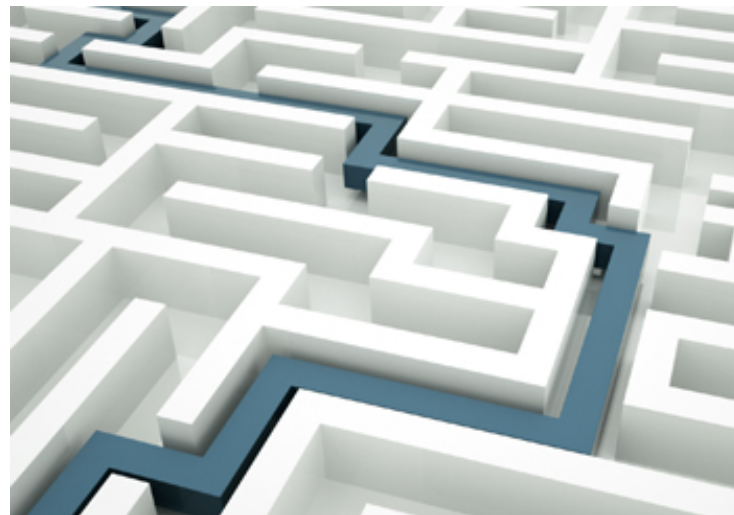
```
Mint.addCrashExtraData("level","2");
```

iOS

```
[[Mint sharedInstance] addCrashExtraData:[CrashExtraData alloc] initWithKey:@"level"  
andValue:@"2"]];
```

Breadcrumbs

Show me the path of the user through the application.



Android

```
Mint.leaveBreadcrumb("Login Screen");
```

iOS

```
[[Mint sharedInstance] leaveBreadcrumb:@"Login Screen"];
```

User Identifier

You are able to locate existing users in MINT using name, email, server ID, etc.

Find everything that the specific user experienced.



Android

```
Mint.setUserIdentifier("kp@splunk.com");
```

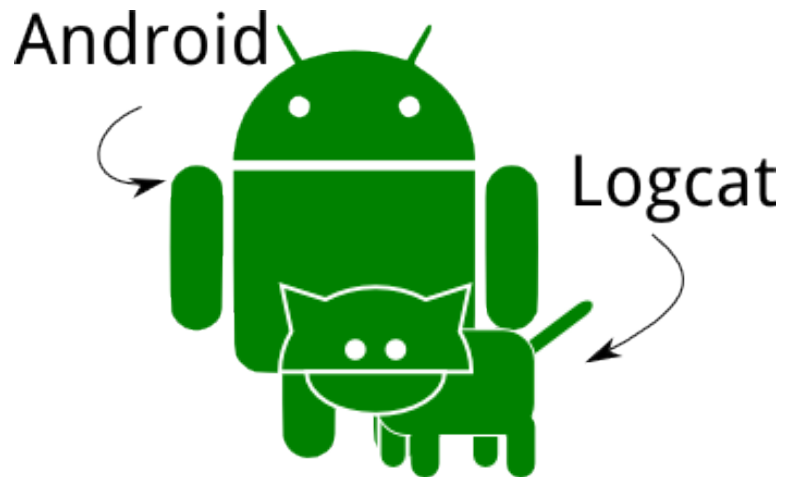
iOS

```
[Mint sharedInstance].userIdentifier = @"kp@splunk.com";
```

Logcat / Apple Logging System Support

Lots of important information is included in the logcat output. Check there for all your crashes.

- Print messages to the console using the ALS (Apple Logging System)
- In debug mode all the messages will be printed in the console window
- In release mode only Notice messages and above will be printed in the device log, while all your messages will be forwarded to Splunk server



Android

```
Mint.setLogging(true);  
Mint.setLogging(lines, filter);
```

iOS

```
[[Mint sharedInstance] enableLogging:YES];  
MintLog(DebugLogLevel, @"%@", @"A debug log");
```

Last Breath

You can do important things when you know the application will crash...before it crashes!

Android

```
public class MainActivity extends Activity implements ExceptionCallback {  
}
```

```
@Override  
public void lastBreath(Exception ex) {  
    //do or save stuff here  
}
```

```
BugSenseHandler.setExceptionCallback(this);
```

iOS

Due to platform nature and restrictions this feature is not supported

Events

Get informed about anything users are doing in your mobile application with events!

Android

```
Mint.logEvent("button1pressed");
```

iOS

```
[[Mint sharedInstance] logEventAsyncWithTag:@"button1pressed" completionBlock:nil];
```



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New Features

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Splunk MINT Data Types



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Crashes
Errors

Sessions
Events



Crashes

Sessions

Errors

Events

Network

Transactions

Semantic Logs

Location

Tons of metadata

Global Extra Data

Add extra data to all your actions to get better information.

Android

```
Mint.addExtraData("level","2");  
//or  
Map<String, String> map = new HashMap<String,String>();  
map.put("level","2");  
Map.put("character","warrior");  
Mint.addExtraData(map);
```

iOS

```
[[Mint sharedInstance] addCrashExtraData:[[CrashExtraData alloc] initWithKey:@"level"  
andValue:@"2"]];
```

Advanced Events

Get informed about anything users are doing in your mobile application with events!

Break down events by app version, OS version, see the trend and stats.

Android

```
Mint.logEvent("button1pressed");
```

iOS

```
[[Mint sharedInstance] logEventAsyncWithTag:@"button1pressed" completionBlock:nil];
```

Transactions

A transaction is used to monitor critical functionality in your app like a purchase. It is basically an event with a start and finish.

Android

```
Mint.transactionStart("userLogin"); //start transaction  
Mint.transactionStop("userLogin"); //successfully end transaction  
Mint.transactionCancel("userLogin", "user pressed back"); //cancel transaction with a reason
```

iOS

```
[[Mint sharedInstance] transactionStart:@"userLogin" andResultBlock:nil];  
[[Mint sharedInstance] transactionStop:@"userLogin" andResultBlock:nil];  
[[Mint sharedInstance] transactionCancel:@"userLogin" reason:@"user pressed back"  
andResultBlock:nil];
```

Developer Settings

What if you could change your variables remotely?

Set the difficulty of your game at Mint, retrieve the variable when the app starts.

Android

```
int level = Integer.parseInt(Mint.getDevSettings("level"));
```

iOS

```
[[MINT sharedInstance] getDevSettings@"level"];
```

Collecting Data from Hybrid Apps

Supporting web components

Collect crashes, errors, events and transactions from hybrid apps.

Watch the **Collecting Data From Hybrid Applications** presentation.

Android

```
MINTWebView webView = (MINTWebView) findViewById(R.id.webview);
```

iOS

```
MintUIWebView *webView = [[MintUIWebView alloc] init];
```


Network Monitoring

Automatically keep track of all your application's network requests!



Android	-
iOS	-

Everything Available on Splunk

You have raw access to all the data through Splunk, you can create your own dashboards and alerts.

“Everything looks cool,
can I have a real example?”

- Random .conf attendee

“Of course, Sir!”

- Kostas Polychronis



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Live Demo

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THANK YOU

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