



splunk>

T1721 - Our First Win With Splunk

Finding and Remediating a Subtle Problem in an Atlassian Jira App

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A DevOps Story

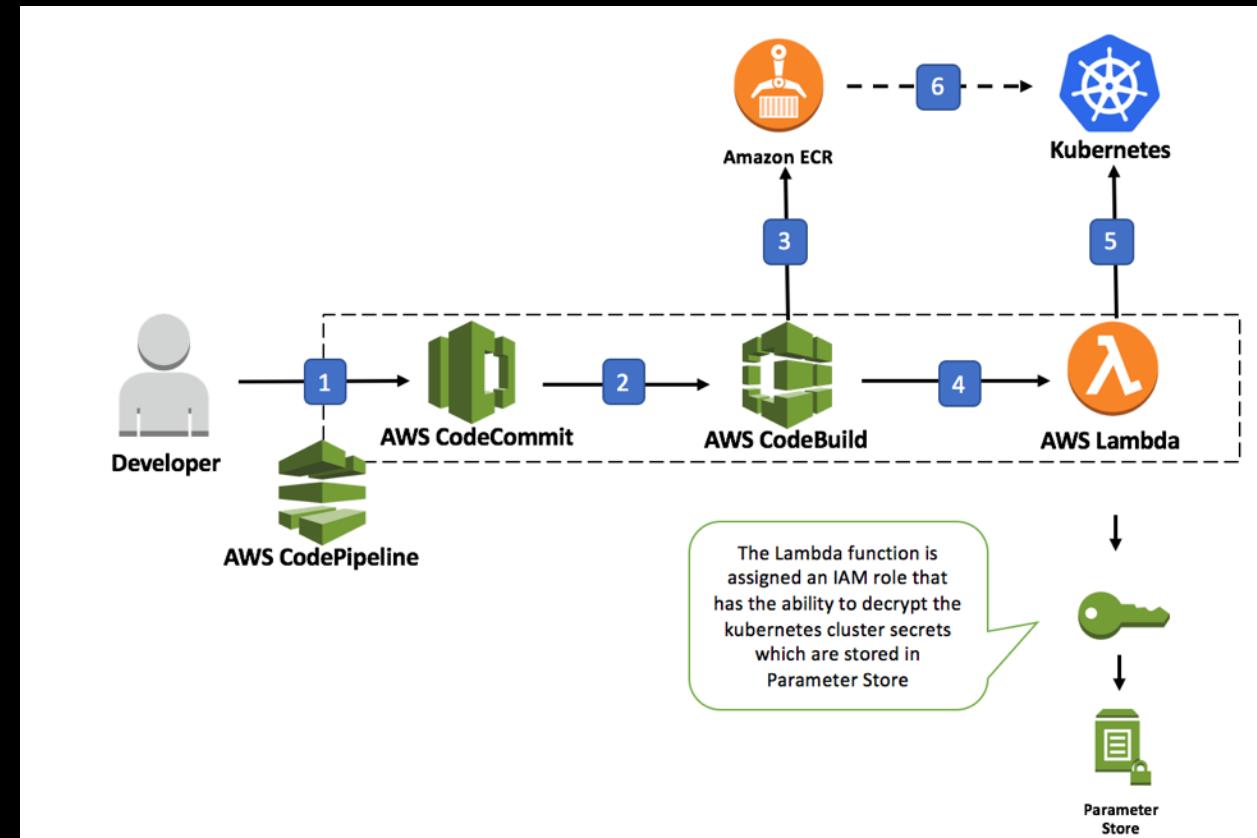
Many smalls is better than one big



Complex Automation

Makes for an exciting talk

- ▶ Automation is the last step in DevOps
 - Well, really its a loop
 - Infinity, or is it a moebius strip?
- ▶ Requires mastery of domain first



AWS DevOps blog, <https://amzn.to/2MEk8bk>

“DevOps stresses communication, collaboration and integration between software developers and other stakeholders in the software delivery lifecycle.”

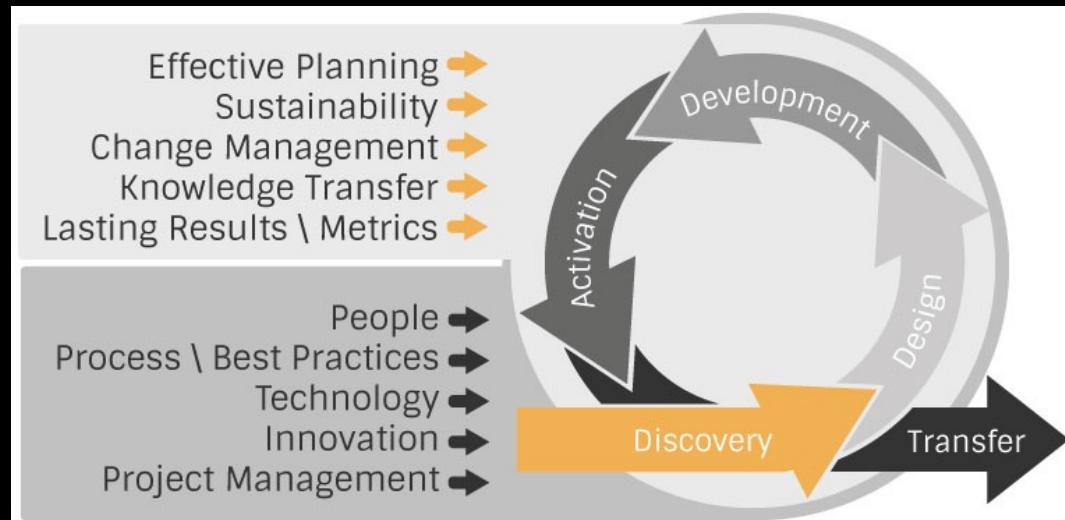
QASymphony,

<https://www.qasymphony.com/blog/understanding-devops-journey-simple-maturity-model/>

Adopting Splunk for Incident Management and RCA

Start from the beginning

- ▶ A good example of DevOps principles
 - Maintain a production service
 - Troubleshoot and remediate an unknown problem
 - Improve that same service for the long term
 - ▶ A simple use case for Splunk
 - Power on the other side of a steep learning curve
 - How can you get value on day one



Problem

Jira crashing regularly, requiring restart

- ▶ New hosting customer, forklifted over
 - ▶ No obvious cause
 - ▶ Occurring every 1 or 2 days

Atlassian logs and APM provided no discernible root cause

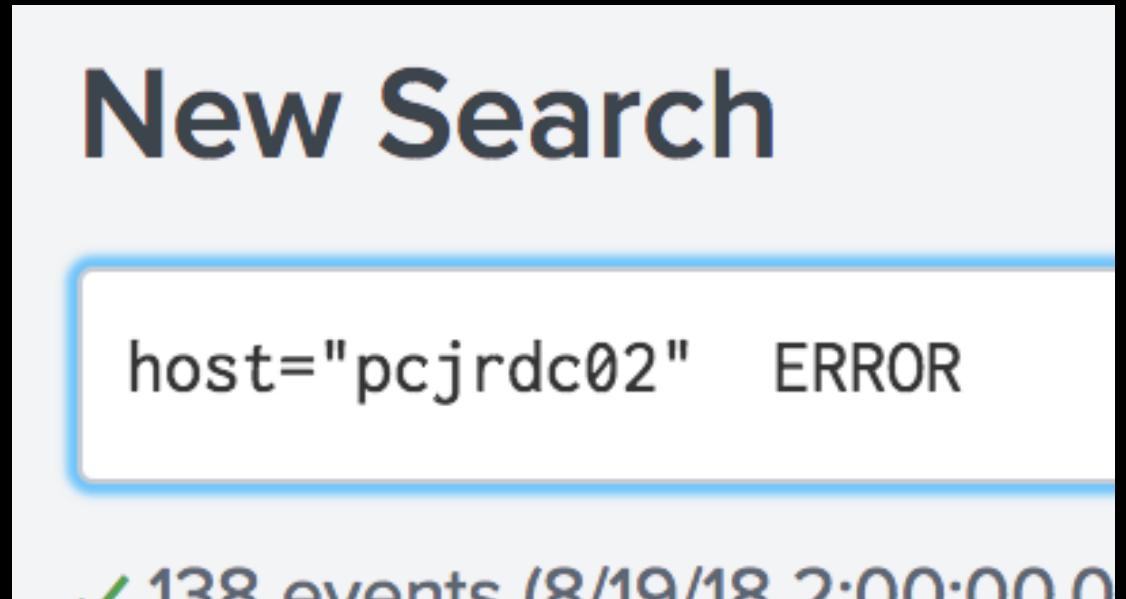


Problem

Jira crashing regularly, requiring restart

- ▶ Recently installed Splunk and forwarded logs from this host
 - ▶ Stumbled through a search

Discovered *Too many files open* error in the logs



Step One: Guess

Outrun the problem

- ▶ Increase open file limit to 4k
 - ▶ Increase open file limit to 8k
 - ▶ Increase open file limit to 12k



"You have to face it head on."

Sifu Toph, Avatar the Last Airbender

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Step Two: Measure and Respond

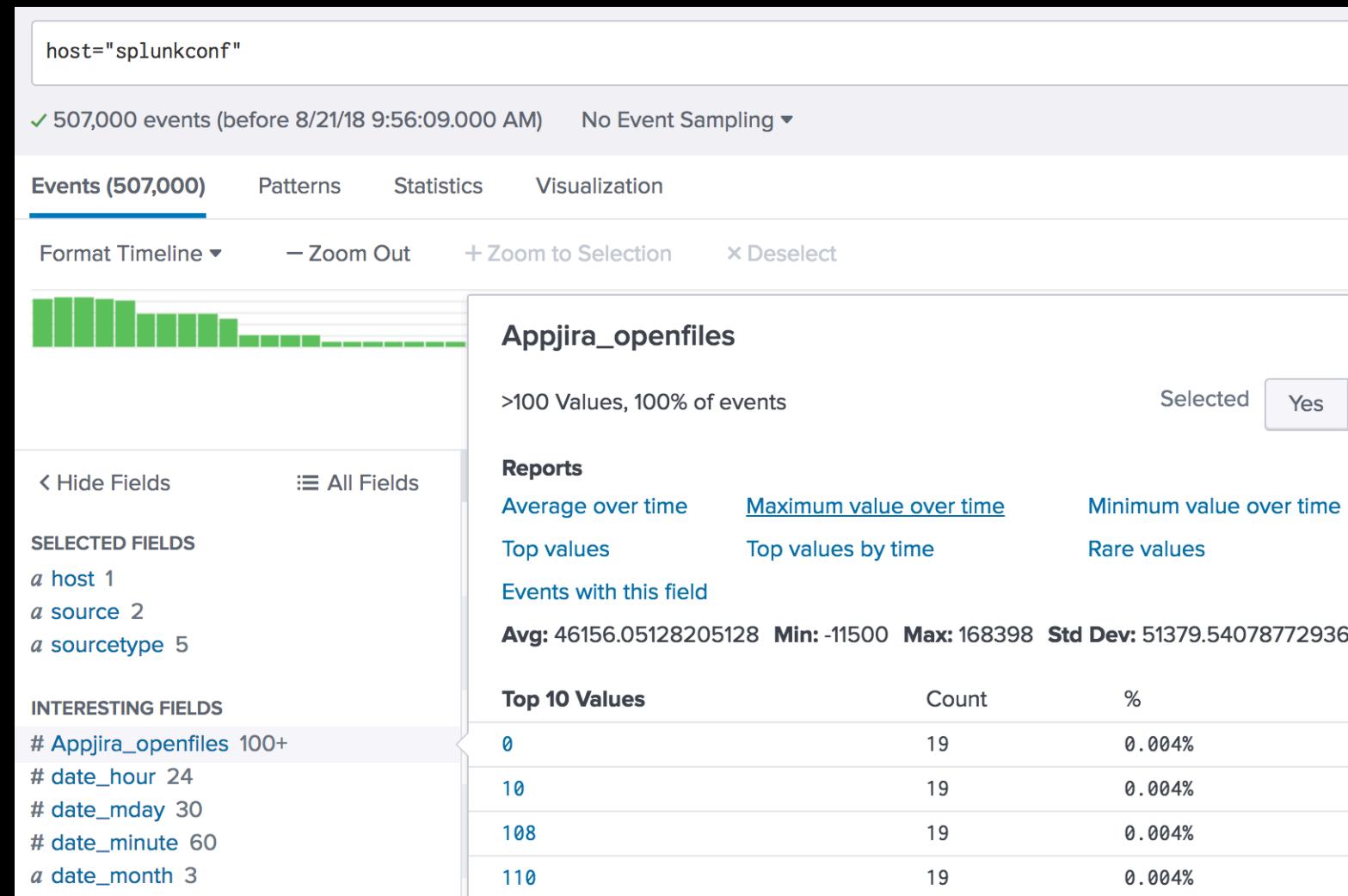
Add telemetry to moneo

```
try:  
    jirapid = psutil.Process(pinfo['pid'])  
    self.data['openfiles'] = jirapid.num_fds()  
except Exception, e:  
    self.data.error('JIRA openfiles test failed')  
    log.exception(e)
```

```
#not really how we do it but its easier to read this way  
log.info( 'Appjira_openfiles=%s' % ( self.data['openfiles'] ) )
```

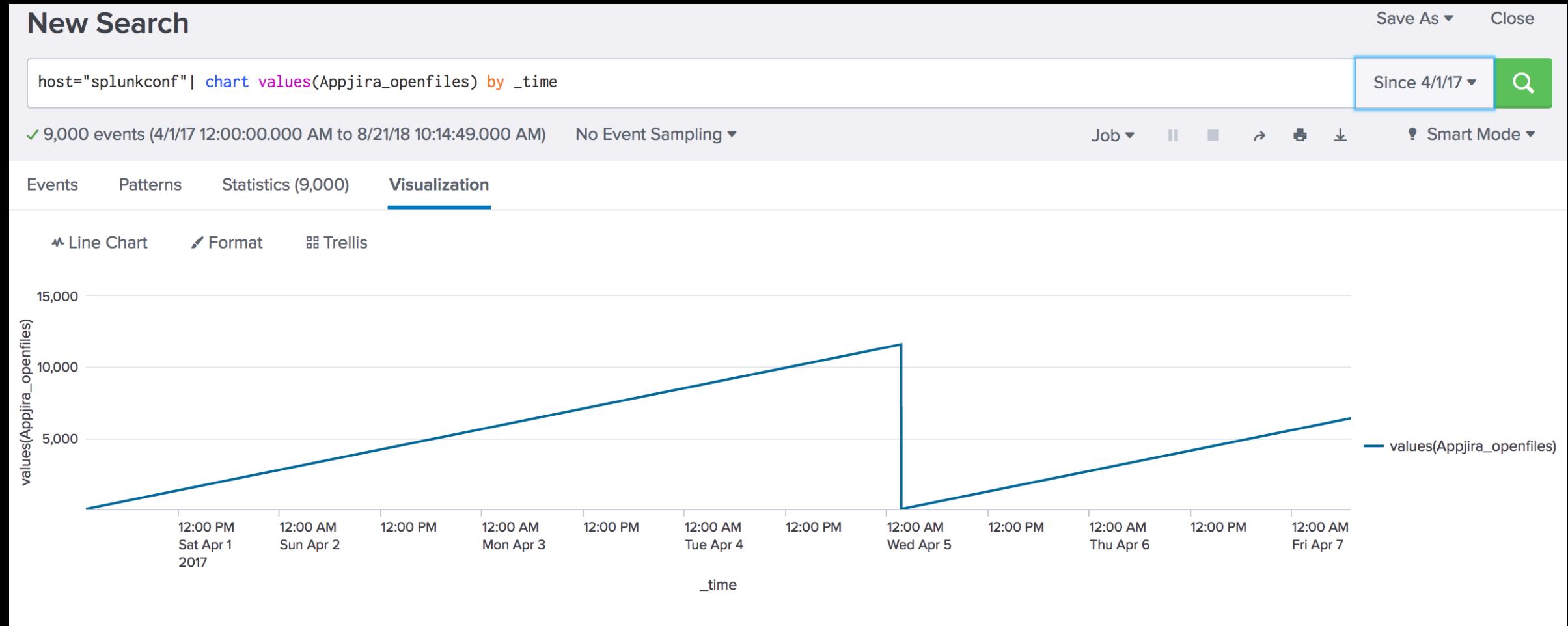
Step Two: Measure and Respond

Explore fields in Spunk



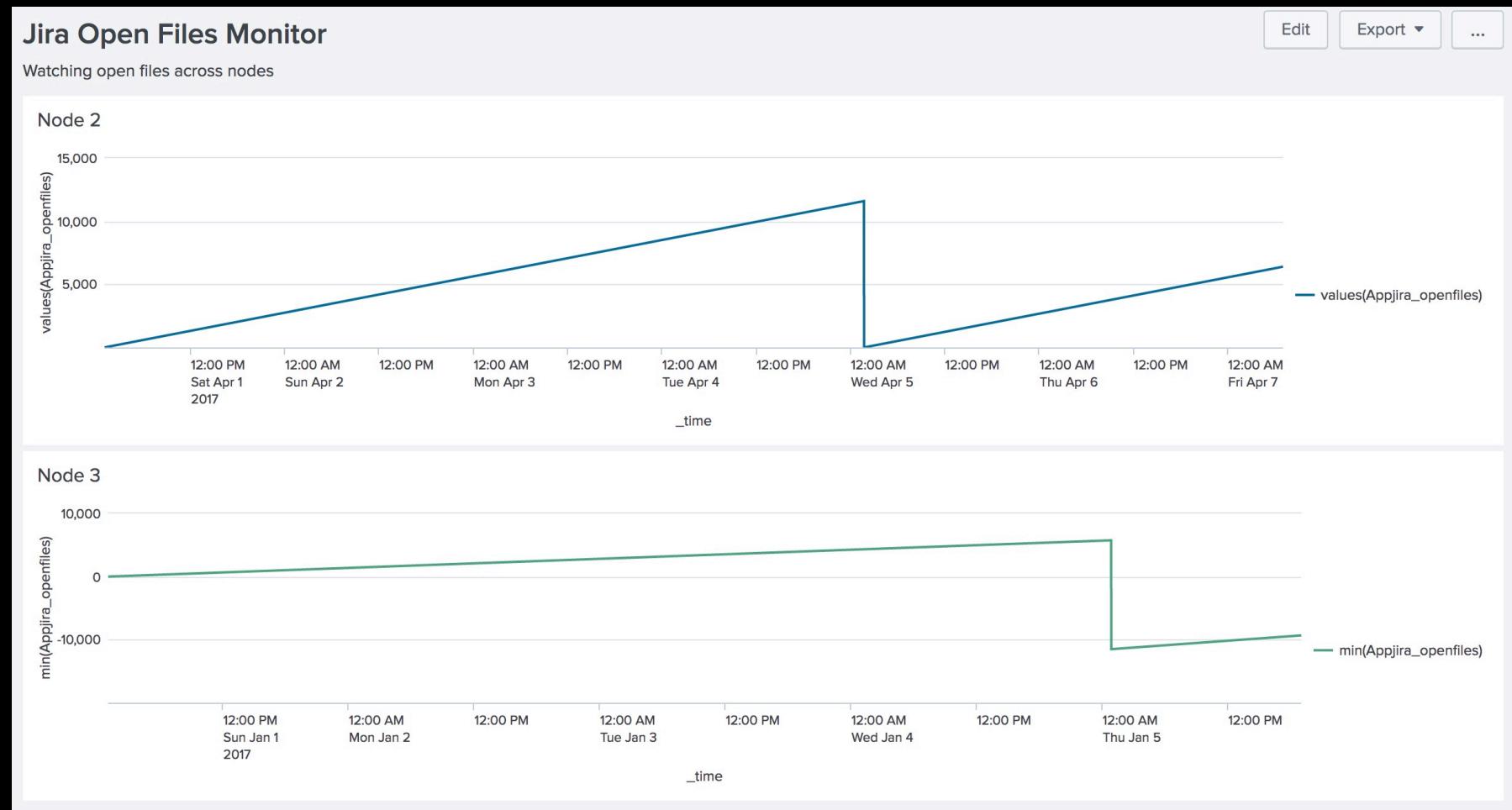
Step Two: Measure and Respond

Plot our new metric



Step Two: Measure and Respond

Build a dashboard



Review

We have gained control

- ▶ Moved from reactive to proactive
 - ▶ Improved user experience
 - ▶ Easier administration
 - Scheduled outages during normal hours
 - Decreased stress on operations
 - ▶ Improved Operations processes
 - ▶ Able to focus on identifying buggy app and working with vendor to correct



Q&A

Christopher Pepe | CTO

Thank You

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