



What's new in CA APM

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What's New in CA APM SaaS?

July 2018 Features (8/1)

- UI Updates
 - New Notebook view
 - TT Viewer –Snapshot view
- Agent Updates
 - Attribute Extension
 - Agent support on Java 9
 - Additional CPU Timing/Memory
 - PHP Browser Agent injection
 - Javascript Calculator Phase 1

August Features (8/31)

- Resource Analyst Phase 2 (Assisted Triage – Infra issue)
- APM Infrastructure Agent – Additional docker images to deploy other APM IA extensions
- Developer Mode Enhancements
 - Line of Code (TT viewer)
- Modern Application Support
 - Oracle DB extension
 - Cloud Foundry Phase 2
 - Kafka agent
 - Mulesoft Monitoring agent

Transaction Tracing - Line of Code

Multiple selection > 2000 Business Transactions > 8/30/18 1:16:26 AM (4 ms) DataEngine|URLs|dataengine/api/ - 8/30/18 1:16:26 AM - 4ms - 35 components

Search X 0/0

Export As JSON Dock Size

TokenService|URLs|api/v1/ - 8/30/18 1:16:26 AM - 9ms - 47 components (Duration:9 ms)

Timestamp	Duration	Percent	Invocations	Source Line	Path
8/30/18 1:16:26:764 AM	9 ms	100.00	1	ServletContainer.java:216	Frontends Apps

Line of Code is found in 3 places

org.glassfish.jersey.servlet.ServletContainer.service (ServletContainer.java:254)

org.glassfish.jersey.server.ServerRuntime\$2.run (ServerRuntime.java:311)

WebServices|Server|token/login/login (TokenResource.java:33)

com.unfit.token.service.TokenService.login (TokenService.java:39)

java.net.HttpURLConnection.getResponseCode (HttpURLConnection.java:469)

Backends|WebService at http://dataengine_8080 (HttpURLConnection.java:1458)

Backends|WebService at http://dataengine_8080/Paths|dataengine/api/ (HttpURL...

sun.net.www.protocol.h...

DataEngine|URLs|dataengine/api/ - 8/30/18 1:16:26 AM - 4ms - 35 components

Trace Summary

Remote Client Address: 172.18.0.8

Resource Name: Frontends|Apps|TokenService|URLs|api/v1/

Scheme: http

SeqNoCrossProcessData: 1

Server Host IP: 172.18.0.7

Server Name: tokenservice

Server Port: 7010

Source Line: ServletContainer.java:216

TTPugin.globalAttribute.containerId: 3350dca3e0f4ad544a573407fc92233dd47d970803c7bb584ac62a2933eb7f5a

Thread Group Name: main

Thread Name: qtp828447060-31

Trace Type: Sampled

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Servlets|ServletContainer (ServletContainer.java:216)

org.glassfish... Servlets|ServletContainer (ServletContainer.java:254)

org.glassfish... (ServerRuntime.java:311)

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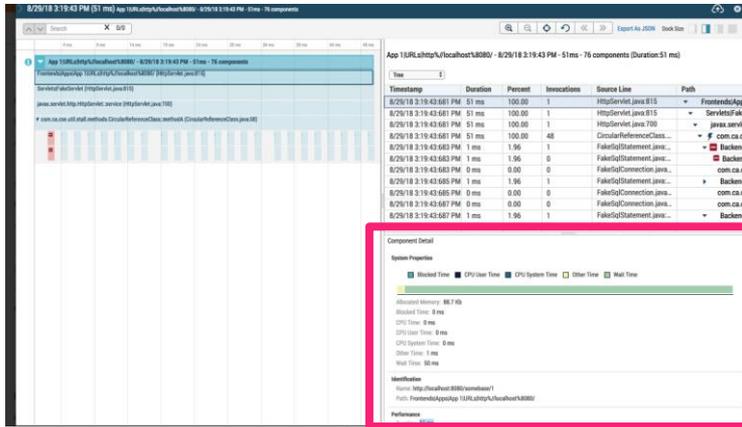
TokenService|URLs|api/v1/ - 8/30/18 1:16:26 AM - 9ms - 47 components (Duration:9 ms)

Tree

Timestamp	Duration	Percent	Invocations	Source Line	Path
8/30/18 1:16:26:764 AM	9 ms	100.00	1	ServletContainer.java:216	Frontends App
8/30/18 1:16:26:764 AM	9 ms	100.00	1	ServletContainer.java:216	Servlets Ser
8/30/18 1:16:26:765 AM	8 ms	88.89	3	ServletContainer.java:254	org.glassfis
8/30/18 1:16:26:765 AM	0 ms	0.00	0	Request.java:797	org.eclips
8/30/18 1:16:26:765 AM	8 ms	88.89	15	ServerRuntime.java:311	org.glassf
8/30/18 1:16:26:766 AM	0 ms	0.00	0	ThreeThirtyResolver.jav...	SpringIM
8/30/18 1:16:26:766 AM	7 ms	77.78	1	TokenResource.java:33	WebSer
8/30/18 1:16:26:766 AM	0 ms	0.00	0	ThreeThirtyResolver.jav...	SpringIM
8/30/18 1:16:26:773 AM	0 ms	0.00	0	SocketChannelImpl.java...	sun.nio.c
8/30/18 1:16:26:773 AM	0 ms	0.00	0	Response.java:780	org.eclips
8/30/18 1:16:26:773 AM	0 ms	0.00	1	HttpServletResponseWr...	javax.se
8/30/18 1:16:26:773 AM	0 ms	0.00	0	Response.java:872	org.eclips

Component Detail

Transaction Tracing - Systems Properties



ReportingService|URLs|Default - 8/23/18 1:34:57 AM - 242ms - 12 components (Duration:242 ms)

System Properties

Total CPU Time	User CPU Time	System CPU Time	Wait Time	Blocked					
2 ms	0.83%	0 ms	0%	2 ms	0.83%	N/A	0%	0 ms	0%
2 ms	0.83%	0 ms	0%	2 ms	0.83%	N/A	0%	0 ms	0%

Component Detail

System Properties

Blocked Time CPU User Time CPU System Time Other Time Wait Time



Allocated Memory: 88.7 Kb

Blocked Time: 0 ms

CPU Time: 0 ms

CPU User Time: 0 ms

CPU System Time: 0 ms

Other Time: 1 ms

Wait Time: 50 ms

Identification

Name: http://localhost:8080/somebase/1

Path: Frontends|Apps|App 1|URLs|http://localhost%8080/

Performance

Duration: 51 ms

New Systems Properties

- System properties are available for front end services

Assisted Triage – Infrastructure Culprit

Experiences **Application** 0/4 Sorted by: My Order

UserService

100 HEALTH Problems 0 Anomalies 0
Poor Transactions: 0 / 168

168 0 0 0 0
1s 2s 2s+ SLOW ERROR
RESPONSE TIME POOR TRANSACTIONS
2 Experiences

TokenService

100 HEALTH Problems 0 Anomalies 0
Poor Transactions: 0 / 493

493 0 0 0 0
1s 2s 2s+ SLOW ERROR
RESPONSE TIME POOR TRANSACTIONS
2 Experiences

ActivityService

94 HEALTH Problems 3 Anomalies 0
Poor Transactions: 106 / 1.8k

1.2k 528

foodservice

100 HEALTH Problems 0 Anomalies 0
Poor Transactions: 0 / 982

982

New Infrastructure Culprit

PROBLEMS

Internal component ServletContainer|service experienced Alerts

IMPACTED EXPERIENCE CARDS
ActivityService

POSSIBLE CULPRIT INFORMATION
APPLICATION : ServletContainer|service
INFRASTRUCTURE : tas-scflid-n168.ca.com (Host)

Internal component /activity/(id)|getById experienced Alerts

IMPACTED EXPERIENCE CARDS
ActivityService

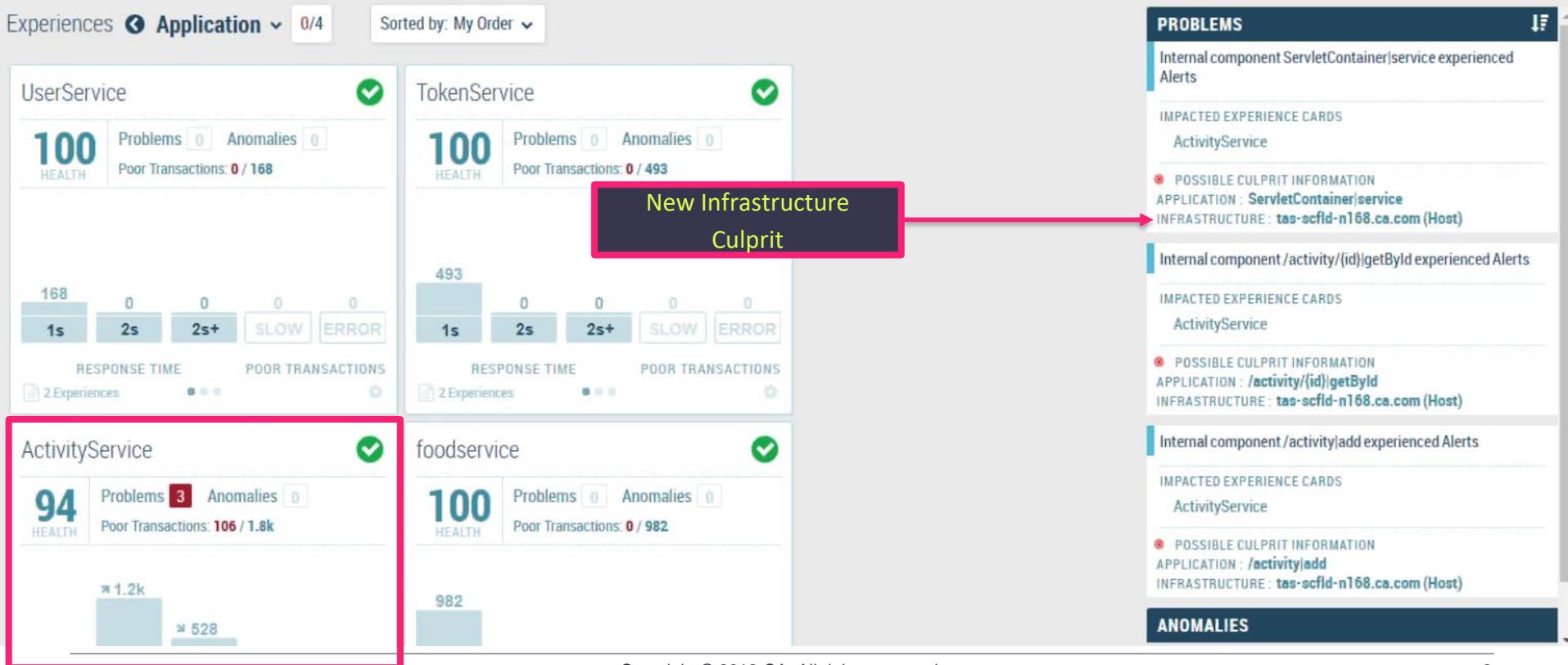
POSSIBLE CULPRIT INFORMATION
APPLICATION : /activity/(id)|getById
INFRASTRUCTURE : tas-scflid-n168.ca.com (Host)

Internal component /activity|add experienced Alerts

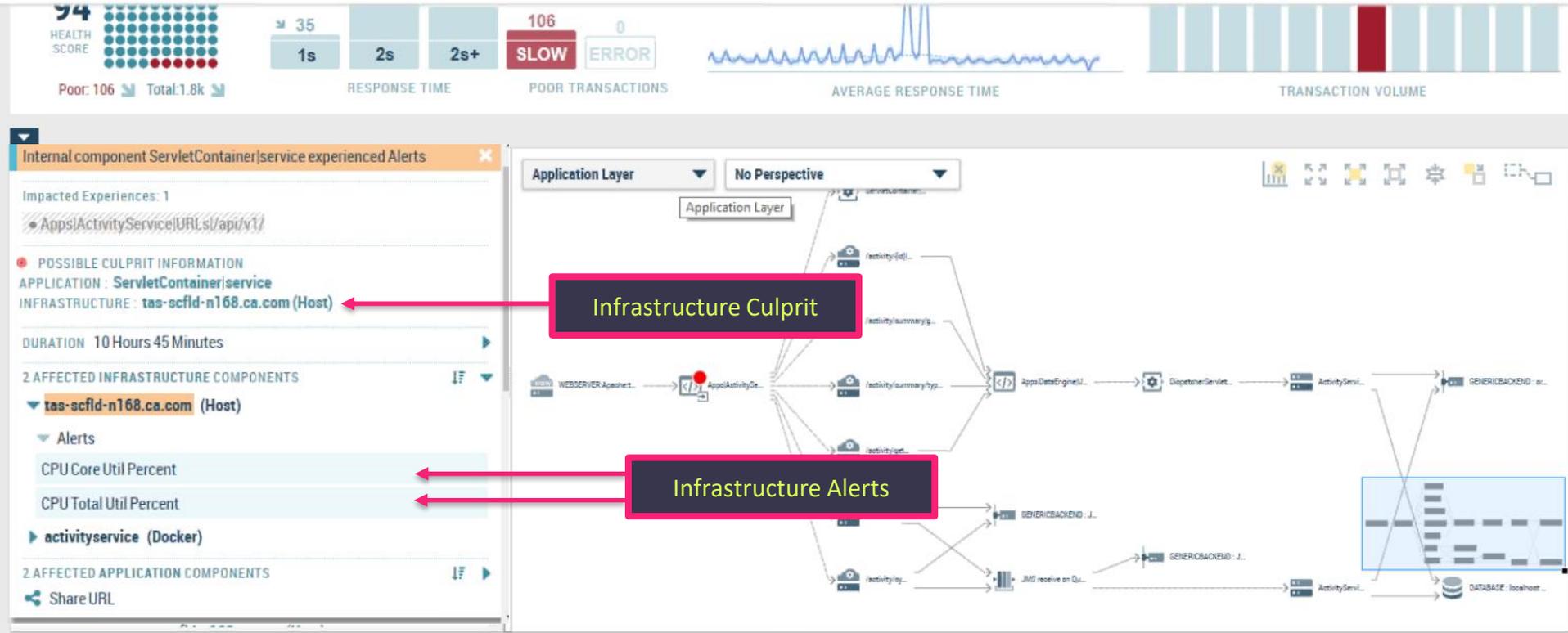
IMPACTED EXPERIENCE CARDS
ActivityService

POSSIBLE CULPRIT INFORMATION
APPLICATION : /activity|add
INFRASTRUCTURE : tas-scflid-n168.ca.com (Host)

ANOMALIES



Assisted Triage – Infrastructure Culprit



Assisted Triage – Infrastructure Culprit

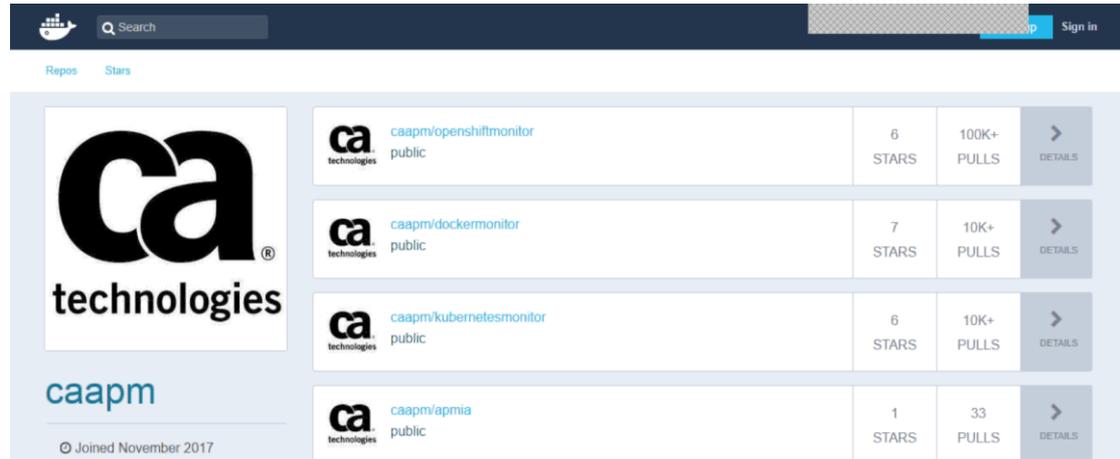
Components Overview



Spike in CPU Utilization

Drill into infrastructure metrics

APM Infrastructure Agent – Docker Deployment



The screenshot shows the GitHub repository page for CA Technologies. The header includes the GitHub logo, a search bar, and a 'Sign in' button. Below the header, there are links for 'Repos' and 'Stars'. The main content area displays the CA Technologies logo and the 'caapm' organization name, along with the text '© Joined November 2017'. A table lists four public repositories:

Repository Name	Stars	Pulls	Details
caapm/openshiftmonitor	6	100K+	> DETAILS
caapm/dockermonitor	7	10K+	> DETAILS
caapm/kubernetesmonitor	6	10K+	> DETAILS
caapm/apmia	1	33	> DETAILS

- APM Infrastructure Agent now available as a docker container

- Easily deploy using Swarm/Kubernetes

- Support for Azure/AWS, OpenShift, Docker

- Available to download from Docker Marketplace

Extensions – Cloud Foundry

Type of Metrics

- Cloud Foundry Components
- Cloud Foundry Application Metrics
- Cloud Foundry Cell Metrics
- VM(Bosh) Metrics

The screenshot displays the Cloud Foundry monitoring interface. At the top, there are navigation tabs for 'Infrastructure Layer' and 'CloudFoundry Overview'. A central diagram shows the 'Cloud Foundry - Technology' architecture with components: CF_CELL - type (4), CF_CONTAINER - type (63), CF Components - Components_Type (6), and CF_VM - type (7). On the right, a 'Component View' panel shows details for a 'CF Cell' and 'CF Container', including an 'Alerts Summary' with 5 alerts (all OK) and a 'Metrics Overview' for 6 metrics. On the left, a tree view shows 'CF Components' expanded, listing various metrics like 'App Instance Placement Failures' and 'Task Placement Failures'. At the bottom, two 'Metric Browser' panels are shown. The left panel shows 'Basic Attributes (6)' for a CF Cell, and the right panel shows 'Basic Attributes (6)' for a VM(Bosh) component, with 'CPU Percentage' selected.

CF Components

- Diego
- Brain
 - Auctioneer
 - App Instance Placement Failures
 - App Instance Started
 - Task Placement Failures
- Database
- BBS
 - Cloud Controller and Diego in Sync
 - Crashed App Instances
 - Extra App Instances
 - Missing App Instances
 - Time to Handle Requests(ns)
 - Time to Run LRP Convergence(ns)
- Locket
 - Active Locks
 - Active Presences

Cloud Foundry - Technology

- CF_CELL - type: 4
- CF_CONTAINER - type: 63
- CF Components - Components_Type: 6
- CF_VM - type: 7

Component View

CF Cell | CF Container

Name: CF_VM
Type: CF_VM
Nodes: 7

Alerts Summary

Alert Status: OK

Alerts (5)

- CloudFoundry-Ephemeral Disk Usage Percentage
- CloudFoundry-VM Health
- CloudFoundry-VM Persistent Disk Usage Percentage
- Disk In Use Percent
- Memory In Use Percent

Metrics Overview (6)

8/30/18 9:14:44 PM | 8/30/18 9:22:44 PM

Metric Browser

Basic Attributes (6)

Name	Live Value
agent	DS-F48E387653B-
Components_Type	CF Components
Name	CF_Components:F-
Source cluster	Enterprise Team C-
Technology	Cloud Foundry
Type	CF_Firehose

VM(Bosh)

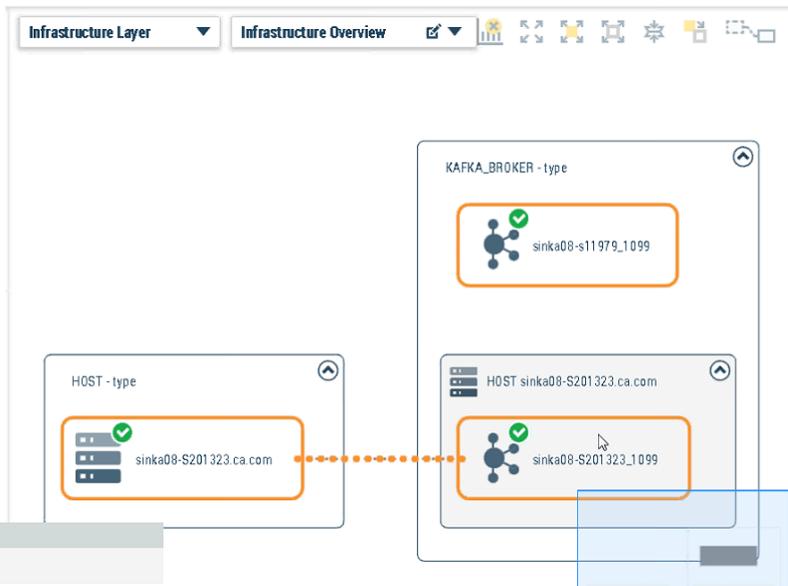
- bosh-health-check
 - CPU Percentage
 - Disk Used Percentage
 - Ephemeral Disk Used Percentage
 - Health
 - Memory Used Percentage
 - Persistent Disk Used Percentage

Basic Attributes (6)

Name	Live Value
agent	DS-F48E387653B-
Name	p-rabbitmq-e02ca-
Source cluster	Enterprise Team C-
Technology	Cloud Foundry
Type	CF_VM
VM_NAME	p-rabbitmq-e02ca-

Kafka Infrastructure Agent

- Discovery of Kafka Broker and host
- 10 Metrics Collected
 - Total messages
 - Payload metrics
 - Offline partitions
 - Under Replicated Partitions
 - Active Controller count



Basic Attributes (9)	
Name	Live Value
agent	sinka08-S201323\InfrastructureAgent
Hostname	sinka08-S201323
ipaddress	127.0.1.1
kafka_endpoint	sinka08-S201323_1099
layer	INFRASTRUCTURE
Name	sinka08-S201323_1099
Source cluster	Enterprise Team Center
Type	KAFKA_BROKER
zookeeper_host	sinka08-S201323

The Component View panel displays the alert status as 'OK' with a green checkmark. Below this, there are four alerts, all with green checkmarks, indicating they are resolved. The metrics overview shows 10 metrics, with a time range from 8/30/18 8:51:36 AM to 8/30/18 8:59:36 AM. The metrics are categorized into 'Kafka Broker Metrics' and 'UnderReplicatedPartitions'. The 'PartitionCount' metric is also visible.



Container Monitoring

Rising Docker Popularity

52%

WE'RE JUST GETTING STARTED

25%

WE USE IT FOR SMALL PROJECTS AND EXPERIMENTAION, BUT NOT FOR PRODUCTION APPLICATIONS

23%

WE ARE RUNNING CONTAINERS IN PRODUCTION

Use of Docker container technology is just getting started at 52 percent of surveyed organizations.

The rest are almost evenly divided between using the technology outside of production (25 percent) and running containers in production (23 percent).

12M



Docker Hosts

900K



Dockerized Apps

14B



Docker Image Pulls

170K



Meetup Members

¹ 7 Trends in Container Monitoring, data based on Gatepoint Research Study, "trends in Container Monitoring" Conducted between March and May 2018

² DockerCon Keynote presentation 2017

Do You Know the Impact of Container Performance?

How do Docker container performance problems affect your business?

17%

SUB-OPTIMAL SERVICE

18%

DEPLOYMENT DELAYS

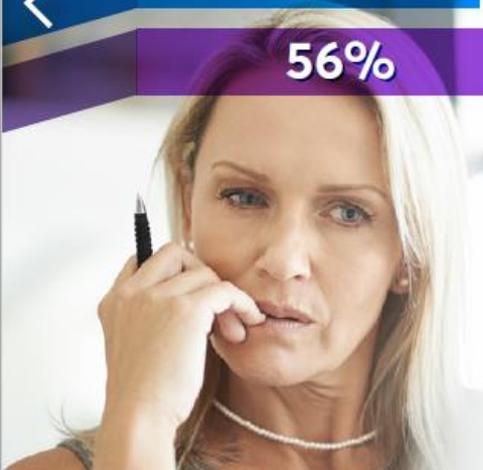
19%

LONGER TRIAGE TIMES

56%

NOT MONITORING CONTAINERS FOR BUSINESS IMPACT YET

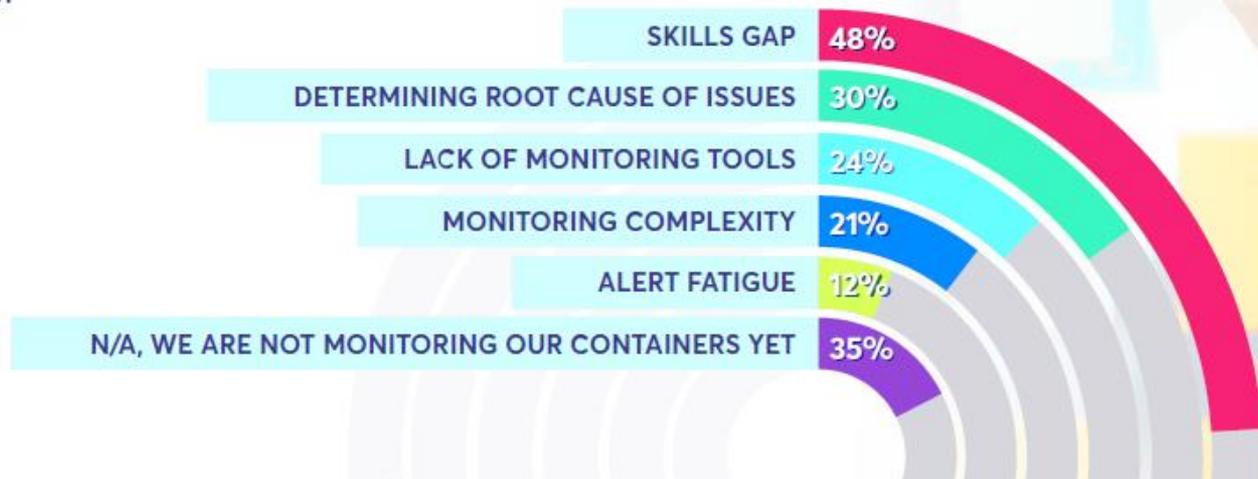
More than half of respondents are not monitoring Docker container performance problems for business impact yet, but those who are experience sub-optimal service (17percent), have deployment delays (18 percent) and are suffering from longer triage times (19 percent).



Why is it so Difficult?

What problems does your organization face with monitoring Docker containers?

The most prevalent issue with monitoring Docker containers is the gap in skills, 48 percent of respondents say. It's difficult to determine the root cause of issues, too, say 30 percent, and 24 percent say they lack the tools to monitor.



CA's Essentials of Container Monitoring



Complete Visibility

Provides a single-source of truth into performance across complex containerized apps, with an open data model contextually serving critical information to DevOps teams.

[Learn more](#)



Change Analysis

Determines how even the smallest container changes –in apps, code and architecture—can impact application performance, for better or for worse.

[Learn more](#)



Actionable Intelligence

Dynamic baselining pinpoints signals in the container noise, with proven statistical models, analytics and automated workflows rapidly determining the exact root cause.

[Learn more](#)



Flexible Monitoring

Gathers critical container metrics, flows and dependencies with minimal effort and configuration and scales to support more complex systems with deeper instrumentation and tracing.

[Learn more](#)

Demo



Questions?





Thank You.