Cloud Innovation and Roadmap

The Cosmopolitan, Las Vegas

dynatrace
Perform

Florian Ortner

Chief Product Officer

Alois Mayr

Technical Product Manager

dynatrace

Platform Solutions News Company Services & support | SaaS login Free trial

Product news

What's new – Product updates & new feature announcements

Show all categories

26 product releases

160 product news posts

Dynatrace Managed [illegible] Version 1.160

January 23, 2019 Wolfgang Schreiner

Get ready for extended container-monitoring capabilities

January 21, 2019 Alois Mayr

Extend native Cloud Foundry support with BOSH Process Manager (bpm) monitoring (Beta)

January 21, 2019 Alois Mayr

https://www.dynatrace.com/news/product-news/

Enhanced code-level visibility

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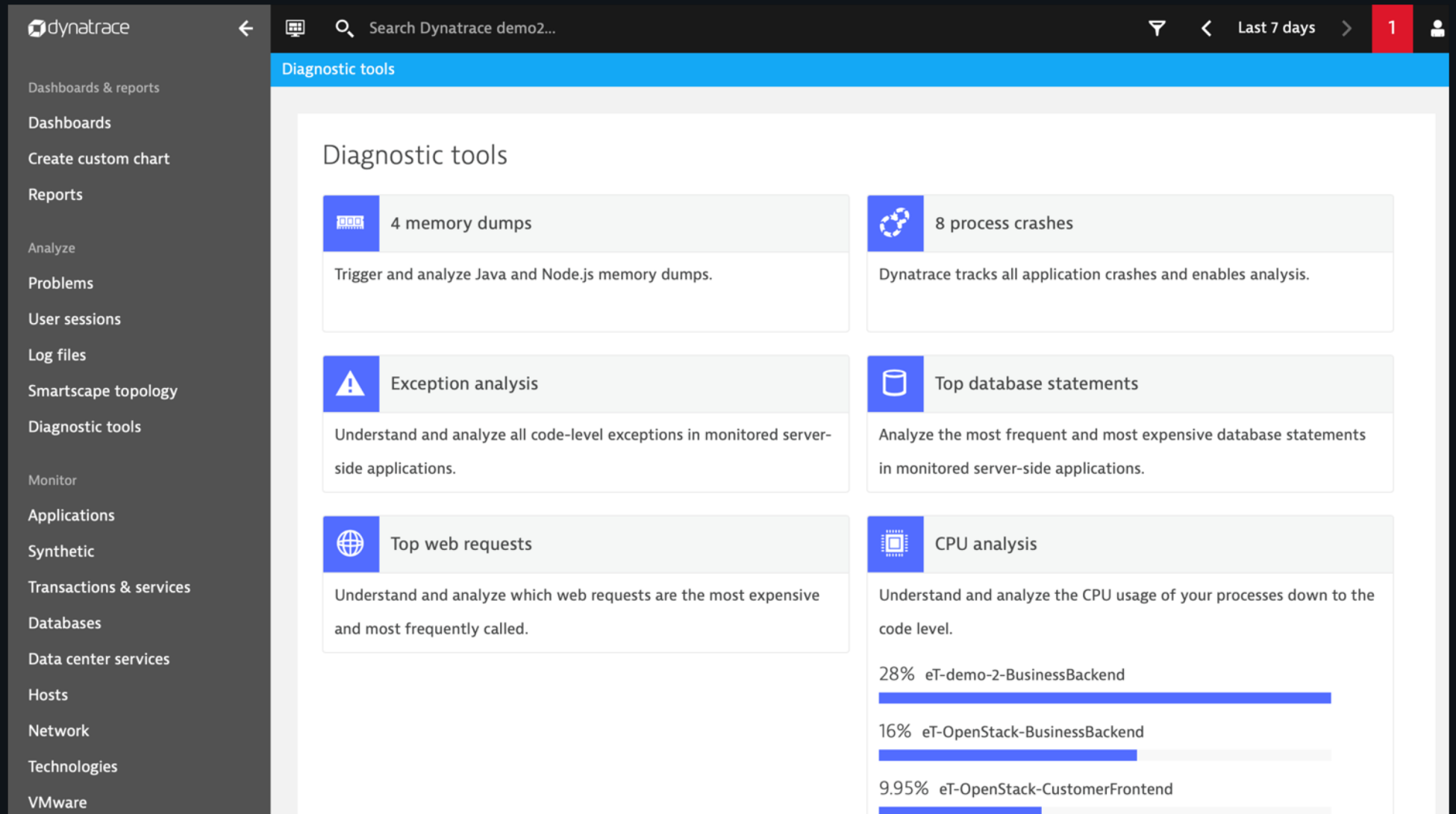
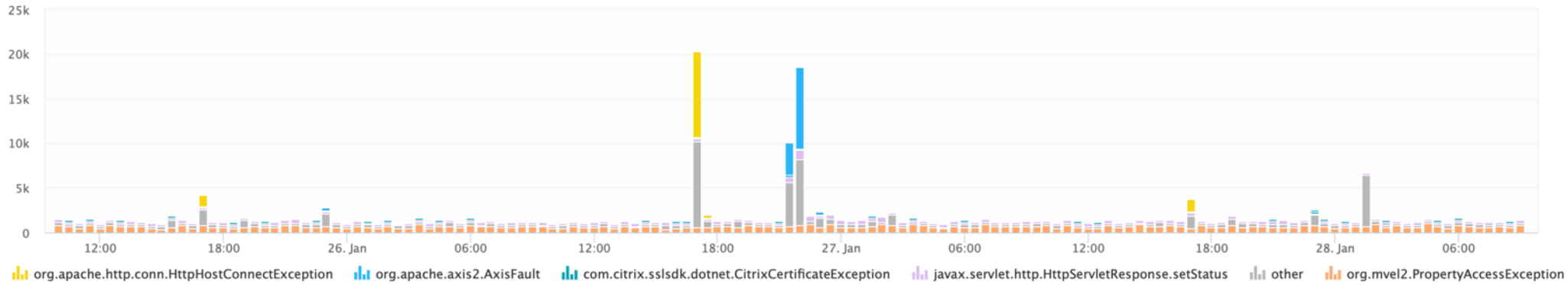


Overview of captured exceptions

Jan 25 2019, 09:34 - Today, 09:34

Add filter

Distribution of exception classes



Exception classes (34) | Affected services (72)

Filter for exception classes

Name	Total impacted ▼	Count	Actions
org.mvel2.PropertyAccessException		95.5k	
javax.servlet.http.HttpServletResponse.setStatus		41.4k	
com.citrix.sslsdk.dotnet.CitrixCertificateException		20.2k	
org.apache.axis2.AxisFault		14.5k	
org.apache.http.conn.HttpHostConnectException		12.8k	
org.lightcouch.CouchDbException		12.5k	
java.net.SocketTimeoutException		10.8k	
System.Net.WebException		10.4k	
ax.servlet.http.HttpServletResponse.sendError		8.61k	

Display a menu

Search Dynatrace demo2...

Last 72 hours

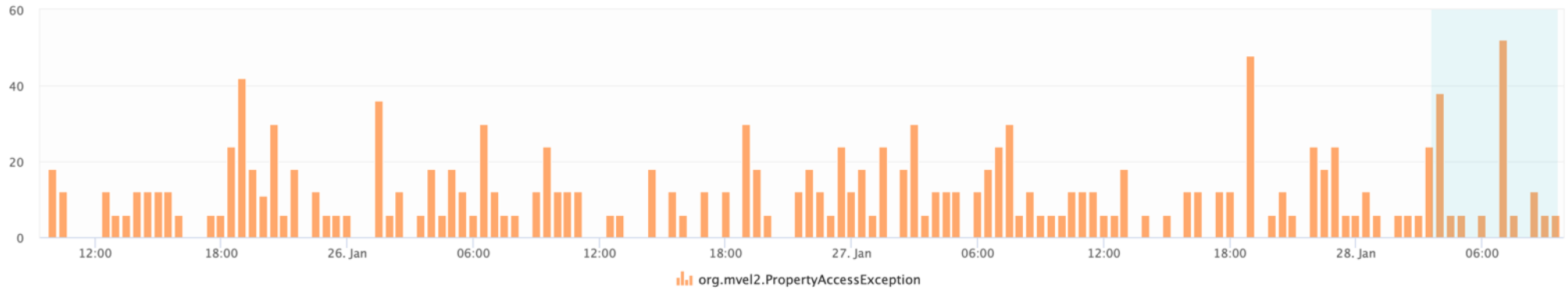
Diagnostic tools > Exception analysis > org.mvel2.PropertyAccessException

Overview of org.mvel2.PropertyAccessException

Jan 25 2019, 09:37 - Today, 09:37

Response time: 1 s - 5 s | Exception: org.mvel2.PropertyAccessException | Add filter

Distribution of org.mvel2.PropertyAccessException



Analyze calls with exceptions for 6 hours Today, 03:37 - 09:37

See all exception messages with the aggregated stacktraces and affected requests

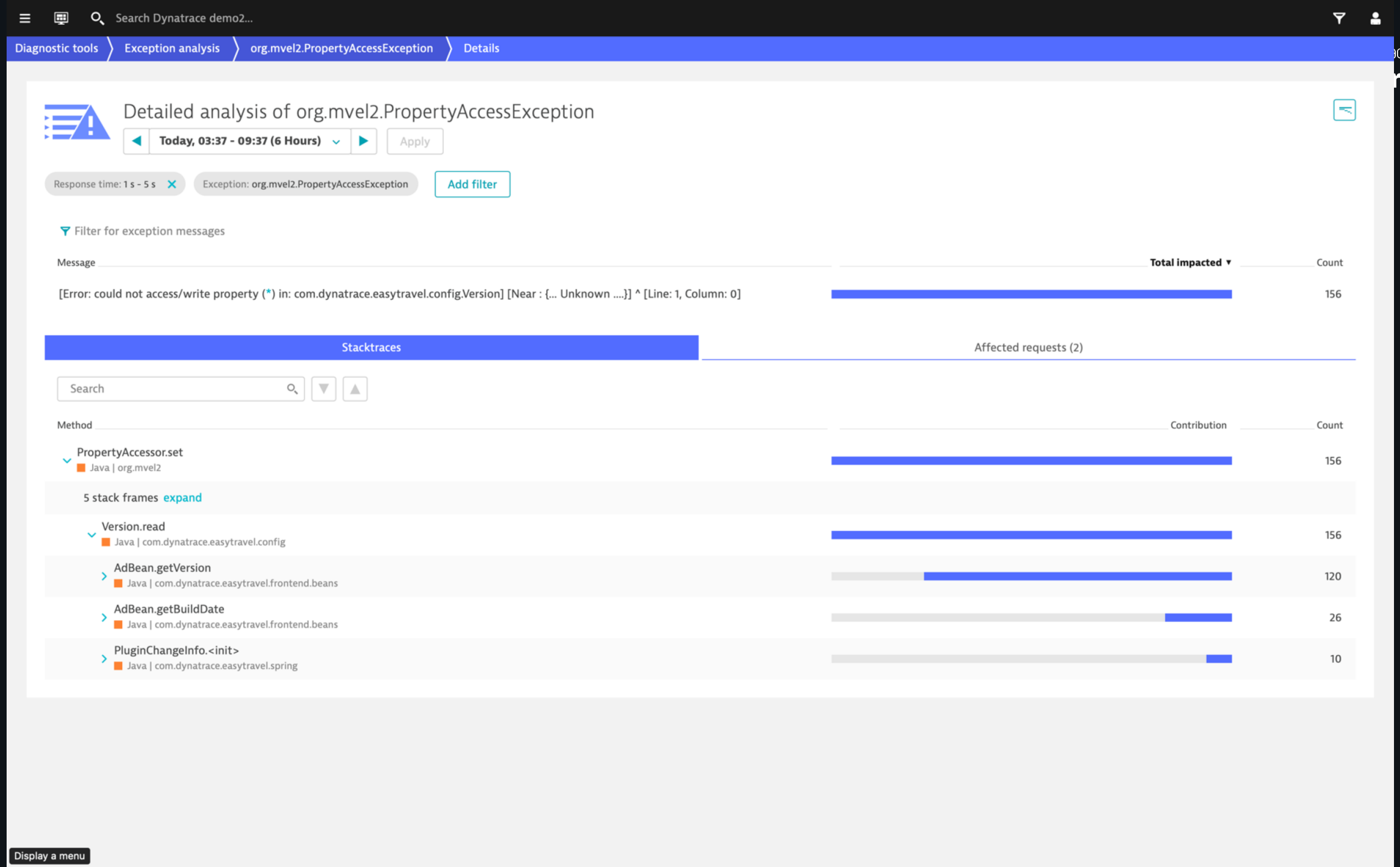
Go to exceptions details

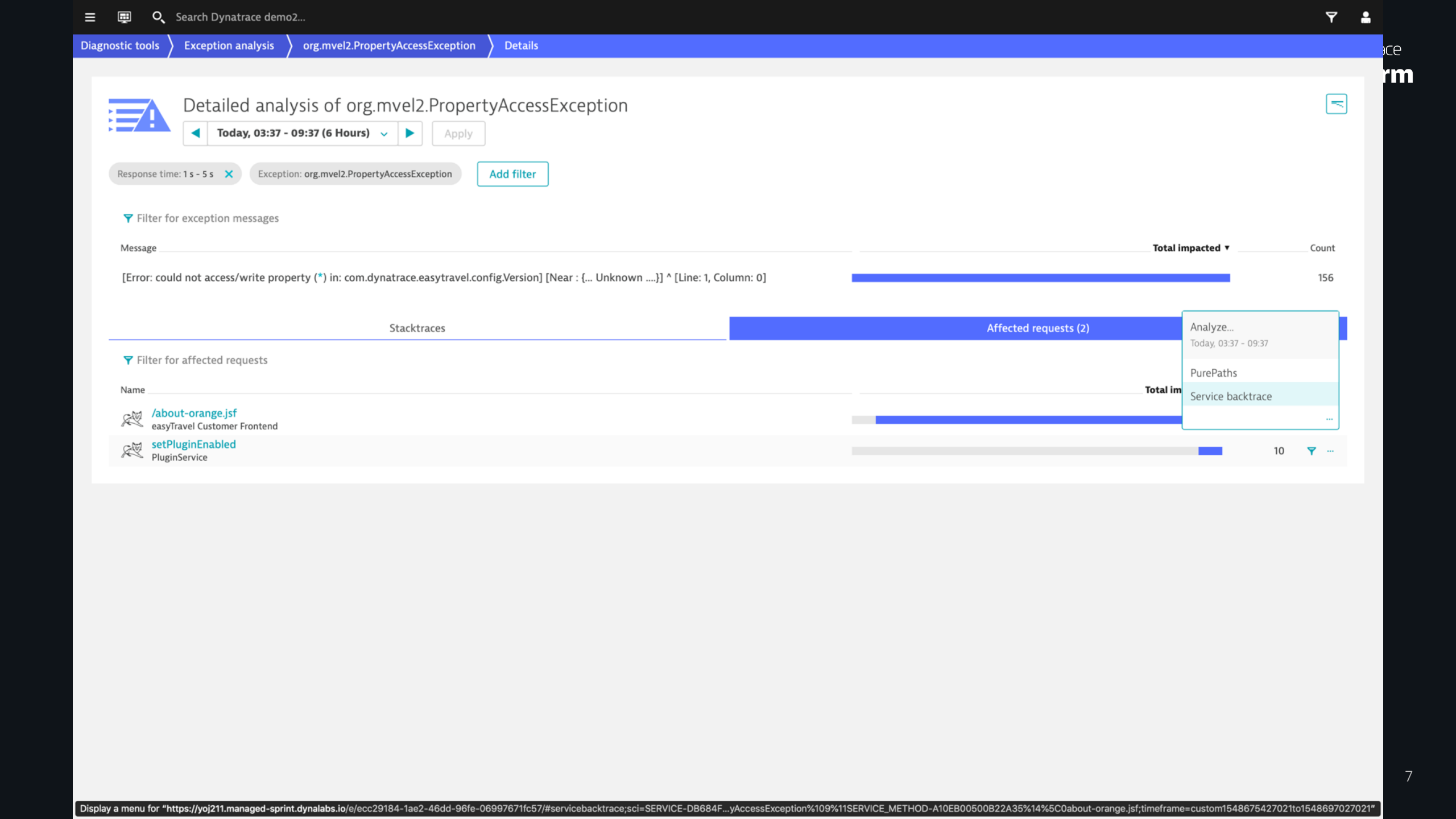
Affected services (5)

Filter for affected services

Name	Total impacted ▾	Count	Actions
easyTravel Customer Frontend eT-OpenStack-CustomerFrontend		1.38k	
easyTravel Customer Frontend eT-demo-2-CustomerFrontend		72	
PluginService com.dynatrace.easytravel.pluginservice.jar easytravel-*-x*		15	
RESTProcedureControl com.dynatrace.easytravel.cmdlauncher.jar easyTravel (x*)		12	
k8s easyTravel Customer Frontend k8s tomcat easytravel-frontend-*		12	

Display a menu


Search Dynatrace demo2...
Diagnostic tools
Exception analysis
org.mvel2.PropertyAccessException
Details
Detailed analysis of org.mvel2.PropertyAccessException
Today, 03:37 - 09:37 (6 Hours)
Apply
Response time: 1 s - 5 s
Exception: org.mvel2.PropertyAccessException
Add filter
Filter for exception messages
Message
Total impacted
Count
[Error: could not access/write property (*) in: com.dynatrace.easytravel.config.Version] [Near : {... Unknown ....}] ^ [Line: 1, Column: 0]
156
Stacktraces
Affected requests (2)
Search
Method
Contribution
Count
PropertyAccessor.set
Java | org.mvel2
156
5 stack frames expand
Version.read
Java | com.dynatrace.easytravel.config
156
AdBean.getVersion
Java | com.dynatrace.easytravel.frontend.beans
120
AdBean.getBuildDate
Java | com.dynatrace.easytravel.frontend.beans
26
PluginChangeInfo.<init>
Java | com.dynatrace.easytravel.spring
10
Display a menu


Search Dynatrace demo2...
Diagnostic tools
Exception analysis
org.mvel2.PropertyAccessException
Details
Detailed analysis of org.mvel2.PropertyAccessException
Today, 03:37 - 09:37 (6 Hours)
Apply
Response time: 1 s - 5 s
Exception: org.mvel2.PropertyAccessException
Add filter
Filter for exception messages
Message
Total impacted
Count
[Error: could not access/write property (*) in: com.dynatrace.easytravel.config.Version] [Near : {... Unknown ....}] ^ [Line: 1, Column: 0]
156
Stacktraces
Affected requests (2)
Analyze...
Today, 03:37 - 09:37
PurePaths
Service backtrace
Filter for affected requests
Name
/about-orange.jsf
easyTravel Customer Frontend
setPluginEnabled
PluginService
10

Search Dynatrace demo2...

Applications > www.openstack.easytravel.com > Service flow

Showing service flow of 'www.openstack.easytravel.com' user actions

Today, 03:37 - 09:37 (6 Hours) | Apply | Show: Response time | Throughput

www.open... > EasyTravel... > easyTra... | Remove filter

Passing transactions | Infrastructure

www.openstack.easytravel.com

Avg. action duration	5.09 s
Avg. time spent in called services	1.61 s
User actions	23
Calls to other services	619

No service selected

Select any service in the service flow to get more details and perform deeper analysis

Display a menu

Enhanced profiling and analytics

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Search Dynatrace demo2... Last 72 hours

Diagnostic tools > CPU profiler (code level)

Search

All

Process technology

.NET
.NET Remoting
Akka
Apache HTTP Server
Apache Tomcat
ASP.NET
Azure Service Fabric
Cloud Foundry
Cloud Foundry Gorouter
CLR

+ 16 more. Filter for all in the filter field on top.

Tags

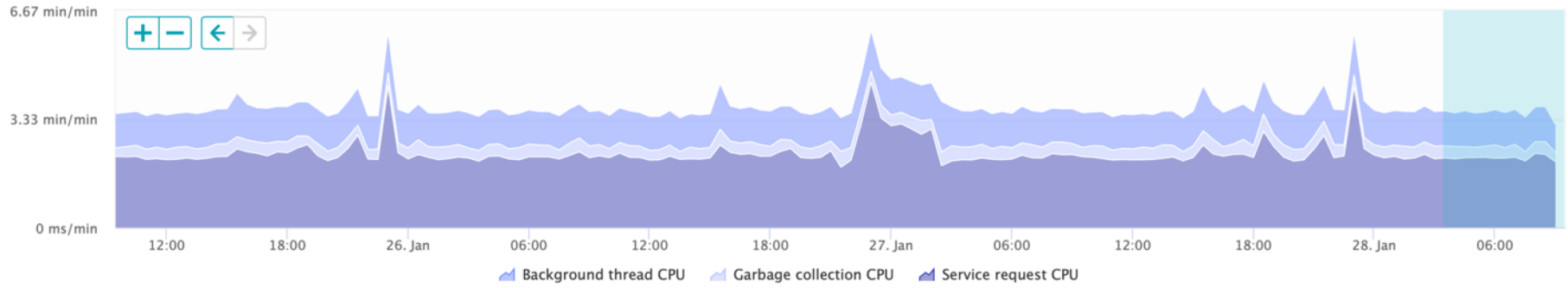
[CloudFoundry]deployment-type
[CloudFoundry]pivotal
[Kubernetes]app
[Kubernetes]deployment
[Kubernetes]deploymentconfig
[Kubernetes]io.kompose.service

CPU profiler (code level)

See how much of your monitored processes' CPU is consumed by service requests, background threads, and garbage collection. Use this information to optimize your code in these respective areas. More...

Filtered by:

Showing last values



Analyze CPU consumption for 6 hours Today, 03:27 - 09:27

Process group	Type	Overall CPU consumption ▾	CPU usage at mark	
eT-demo-2-BusinessBackend	Service request CPU		49.1 s/min	Show code level
eT-OpenStack-BusinessBackend	Service request CPU		30 s/min	Show code level
eT-OpenStack-CustomerFrontend	Garbage collection		10.4 s/min	

Search Dynatrace demo2...

Diagnostic tools > CPU profiler (code level) > eT-demo-2-BusinessBackend > Hotspots

Hotspots of process 'eT-demo-2-BusinessBackend (eT-demo-2-BusinessBackend-1-WIN2)'

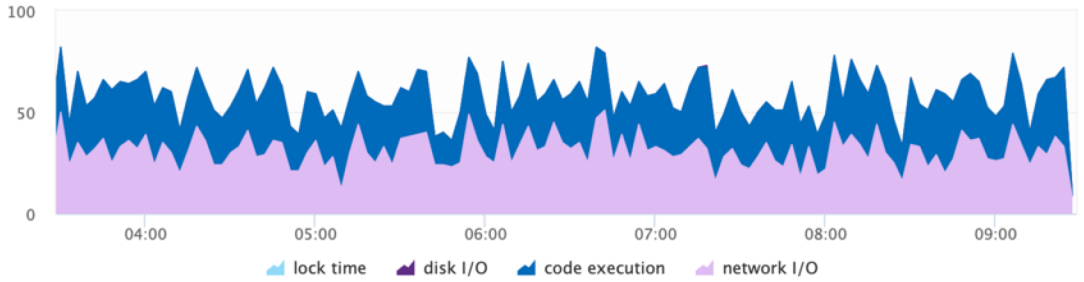
Today, 03:28 - 09:28 (6 Hours) | Apply

Type: Service request CPU | Add filter

Execution time breakdown

- 54 % network I/O
- 46 % code execution
- < 1 % lock time
- < 1 % disk I/O

Top APIs



Filtered by Thread state: network I/O

Call tree

Search

Method	Contribution	Stacktrace samples
Thread.run Java | java.lang		3.76k
ActiveMQThreadFactory$1.run Apache | org.apache.activemq.artemis.utils		89
PluginRefreshThread.run Java | com.dynatrace.easytravel.spring		30
ComponentRefreshThread.run Java | com.dynatrace.easytravel.components		4

Hotspots

Display a menu

Search Dynatrace demo2...

Diagnostic tools > CPU profiler (code level) > eT-demo-2-BusinessBackend > Hotspots

Hotspots of process 'eT-demo-2-BusinessBackend (eT-demo-2-BusinessBackend-1-WIN2)'

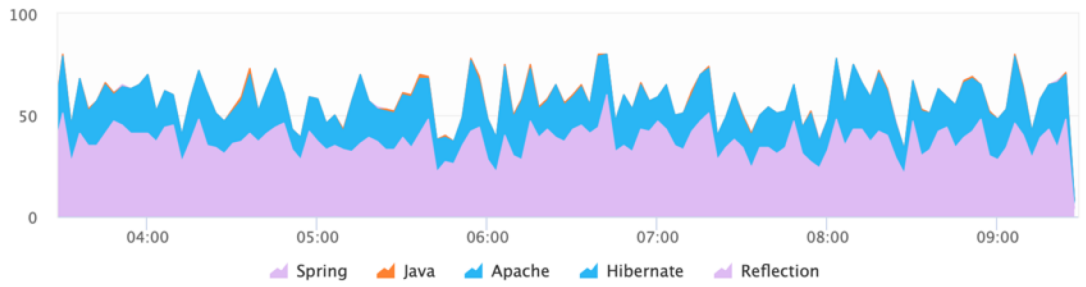
Today, 03:28 - 09:28 (6 Hours) | Apply

Type: Service request CPU | Add filter

Execution time breakdown

Reflection	65 %
Hibernate	30 %
Apache	4.57 %
Java	< 1 %
Spring	< 1 %

Top APIs



Filtered by API: Reflection | Thread state: network I/O

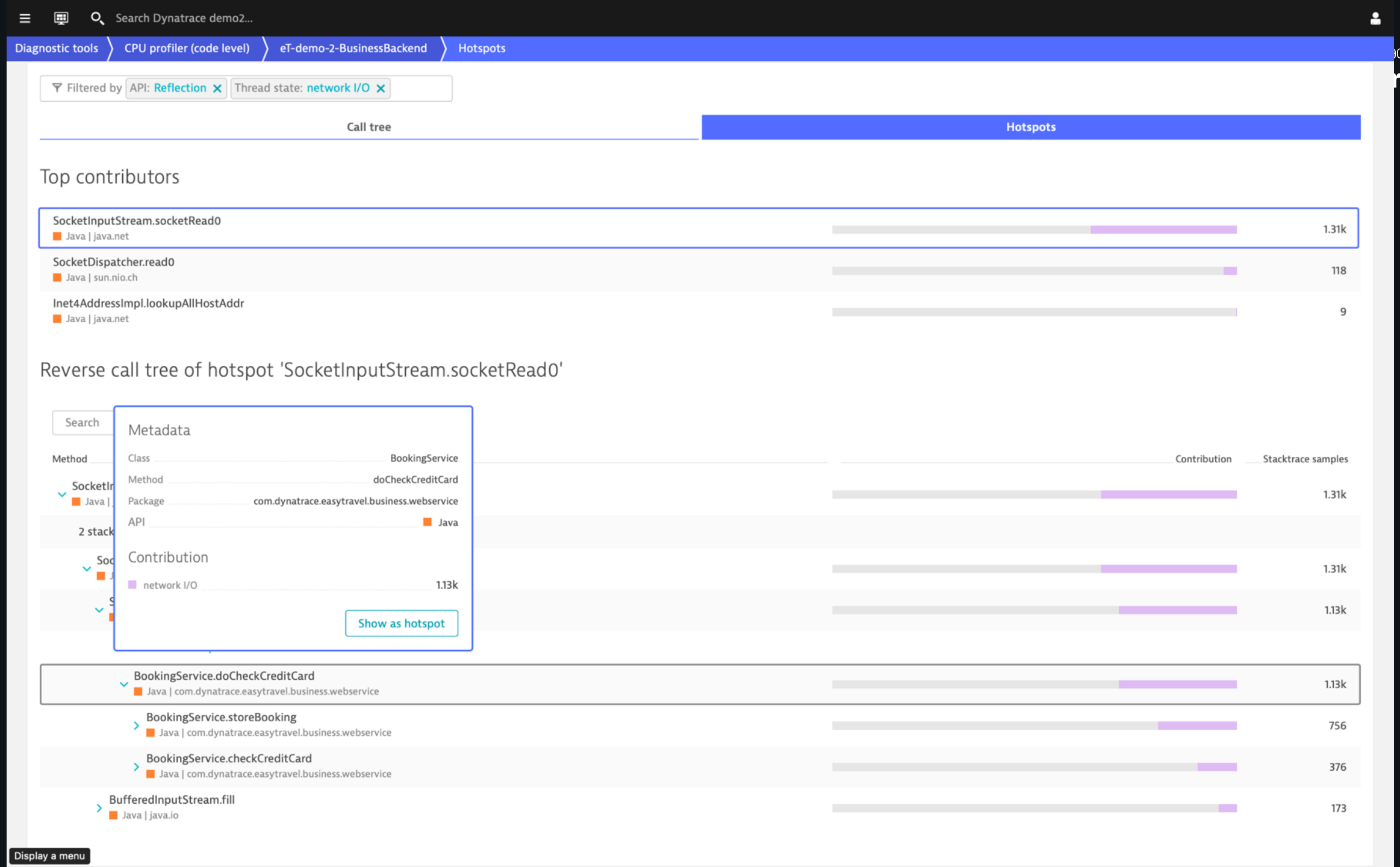
Call tree

Search

Method	Contribution	Stacktrace samples
Thread.run Java | java.lang		3.52k
ActiveMQThreadFactory$1.run Apache | org.apache.activemq.artemis.utils		89
41 stack frames expand		
Loader.doQuery Hibernate | org.hibernate.loader		89
Loader.processResultSet		

Hotspots

Display a menu


Search Dynatrace demo2...
Diagnostic tools
CPU profiler (code level)
eT-demo-2-BusinessBackend
Hotspots
Filtered by API: Reflection
Thread state: network I/O
Call tree
Hotspots
Top contributors
SocketInputStream.socketRead0
Java | java.net
1.31k
SocketDispatcher.read0
Java | sun.nio.ch
118
Inet4AddressImpl.lookupAllHostAddr
Java | java.net
9
Reverse call tree of hotspot 'SocketInputStream.socketRead0'
Search
Metadata
Class BookingService
Method doCheckCreditCard
Package com.dynatrace.easytravel.business.webservice
API Java
Contribution
network I/O 1.13k
Show as hotspot
Method
Contribution
Stacktrace samples
1.31k
1.31k
1.13k
BookingService.doCheckCreditCard
Java | com.dynatrace.easytravel.business.webservice
1.13k
BookingService.storeBooking
Java | com.dynatrace.easytravel.business.webservice
756
BookingService.checkCreditCard
Java | com.dynatrace.easytravel.business.webservice
376
BufferedInputStream.fill
Java | java.io
173
Display a menu

Source-code lookup, coming soon

.NET

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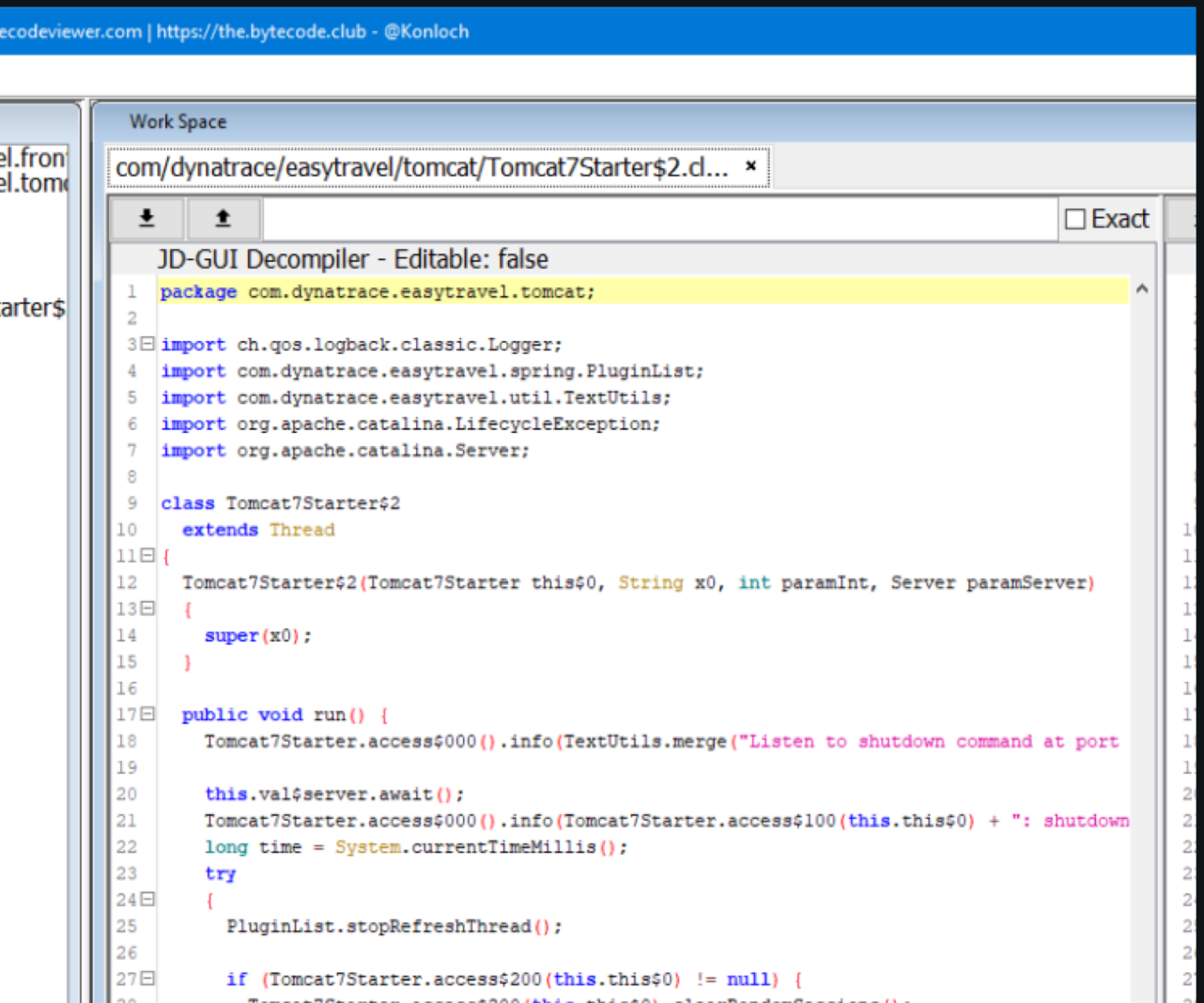

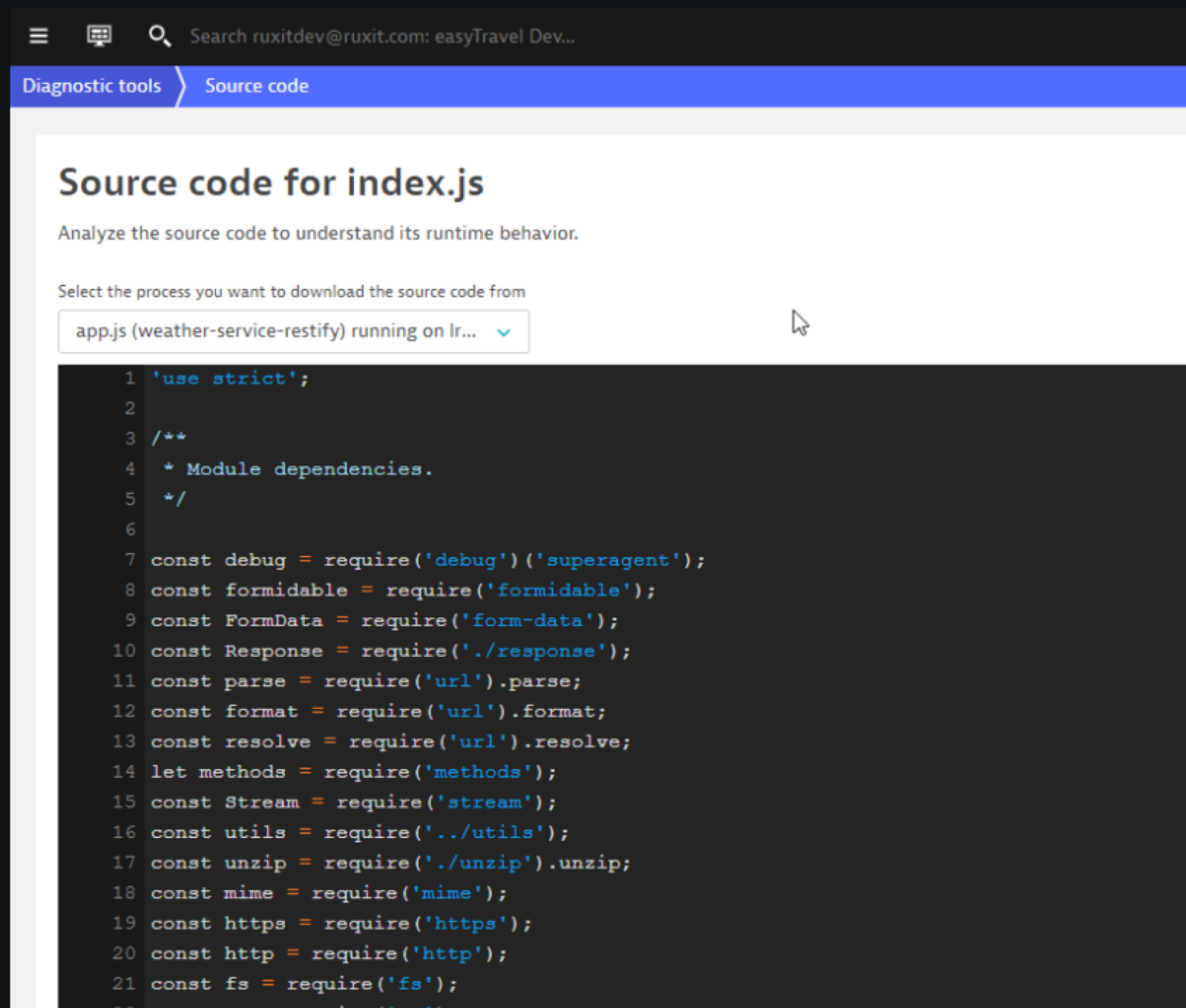

But… I came here for the cloud

Enterprise cloud platforms

Kubernetes

OpenShift

Cloud Foundry

Pivotal Cloud Foundry

Public cloud platforms

Amazon AWS

Google Cloud Platform

Microsoft Azure

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VMware
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Azure
Docker
Cloud Foundry

Multi cloud: Cloud Foundry on AWS, Kubernetes on GCP & Azure

Owned by alois.mayr@ruxit.com

Host health

All fine 45

AWS

All fine 29

GCP

All fine 12

Azure

All fine 3

Service health

All fine 49

k8s CPU

25 %	aks-agentpool-23150832-0.tm...
21 %	us-east4-a - gke-perform-poo...
18 %	us-east1-d - cc1b840c-b853-4f...
12 %	us-east1-b - 2533182a-be57-40...
8.99 %	aks-agentpool-23150832-2.tmx...
8.61 %	aks-agentpool-23150832-1.tmx...
7.41 %	us-east1-b - cb3d5231-a4a6-42...
5.6 %	us-east1-b - fbdb63aa-f05e-4...
3.72 %	us-east1-c - a2c8b485-bb76-4...
3.25 %	us-east1-c - 8a9bc83e-436d-4...

k8s memory

57 %	us-east1-b - 2533182a-be57-407c-...
50 %	us-east1-b - fbdb63aa-f05e-4b0...
44 %	us-east1-b - cb3d5231-a4a6-42f1-...
44 %	aks-agentpool-23150832-0.tmxdt...
42 %	us-east1-d - cc1b840c-b853-4f1e-...
38 %	us-east1-c - 8a9bc83e-436d-4e4...
35 %	us-east1-c - a2c8b485-bb76-44d...
34 %	us-east4-a - gke-perform-pool-1-...
28 %	aks-agentpool-23150832-1.tmxdt...
27 %	aks-agentpool-23150832-2.tmxdt...

Kubernetes services

All fine 14

Istio sample

All fine 2

Cloud Foundry CPU

100 %	diego_database/d2a6a760-ad9...
30 %	doppler/272061b5-7091-4d42-b...
19 %	diego_database/d2a6a760-ad9...
14 %	diego_cell/e7ee32ed-d67b-4ad8...
14 %	diego_cell/bf56381d-fae6-4d0c...
8.96 %	cloud_controller/1b5caae2-23d9...
7.06 %	diego_cell/60b15c9a-d171-4bcc-...

Cloud Foundry Memory

57 %	cloud_controller_worker/2e1d144d...
54 %	diego_cell/60b15c9a-d171-4bcc-ae...
48 %	diego_database/d2a6a760-ad9b-...
39 %	cloud_controller/1b5caae2-23d9-4...
38 %	diego_cell/bf56381d-fae6-4d0c-9...
37 %	loggregator_trafficcontroller/6244...
34 %	router/2ba57e41-42e3-4a7a-b615-...

Cloud Foundry services

All fine 12

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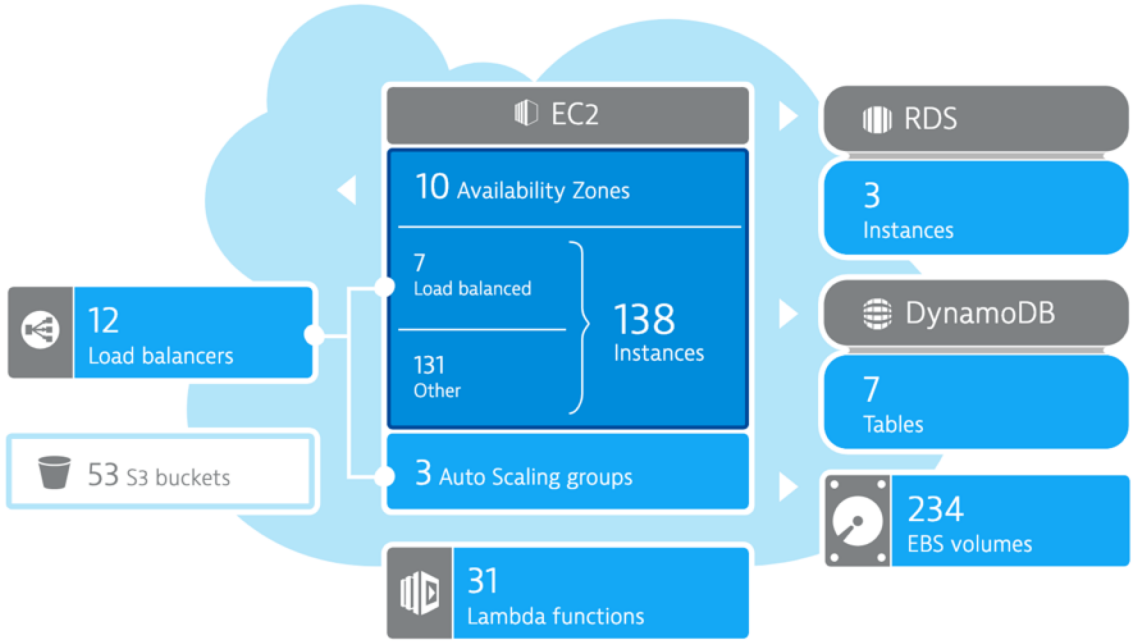
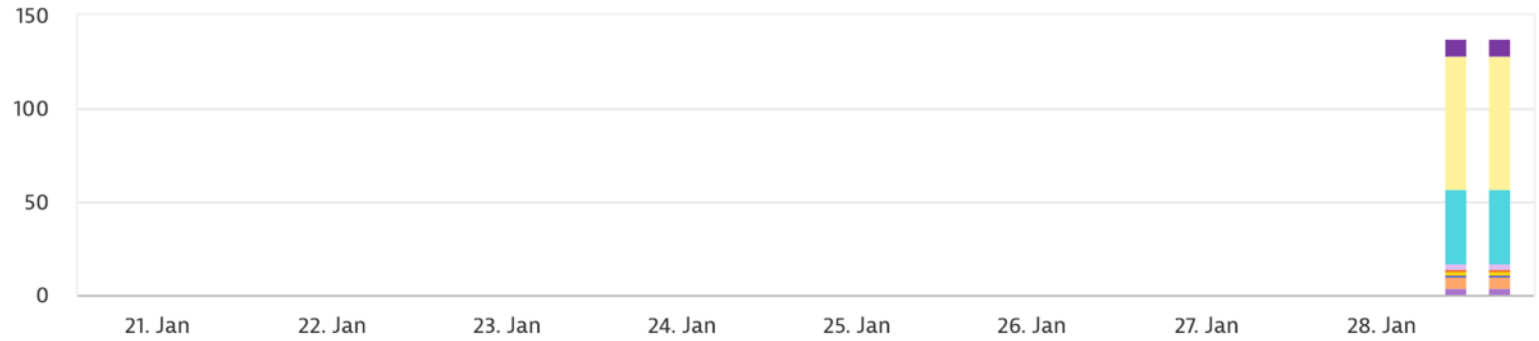


Environment dynamics

Average number of EC2 instances over last 7 days



138
Running EC2 instances

Availability Zone

Now

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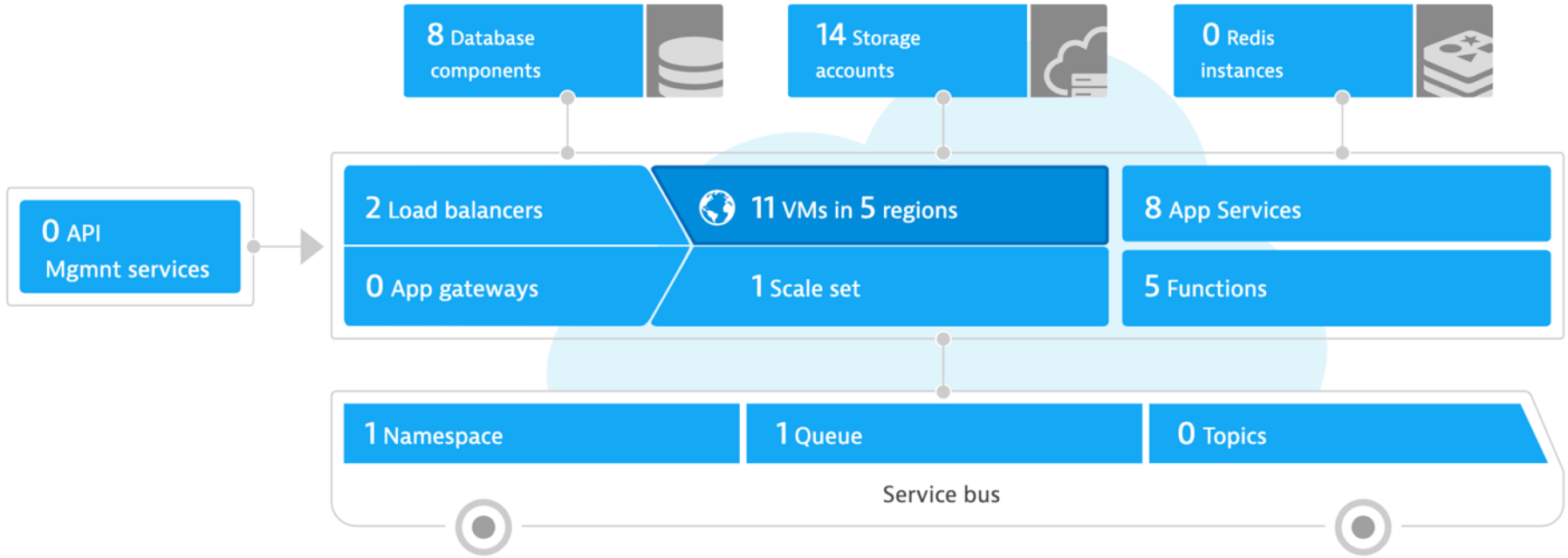
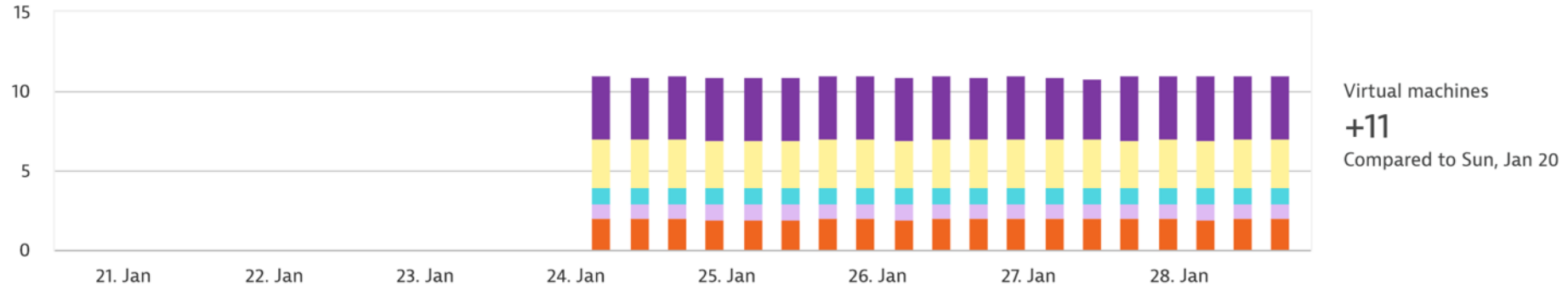


Environment dynamics

Average number of virtual machines over last 7 days



Dashboards & reports
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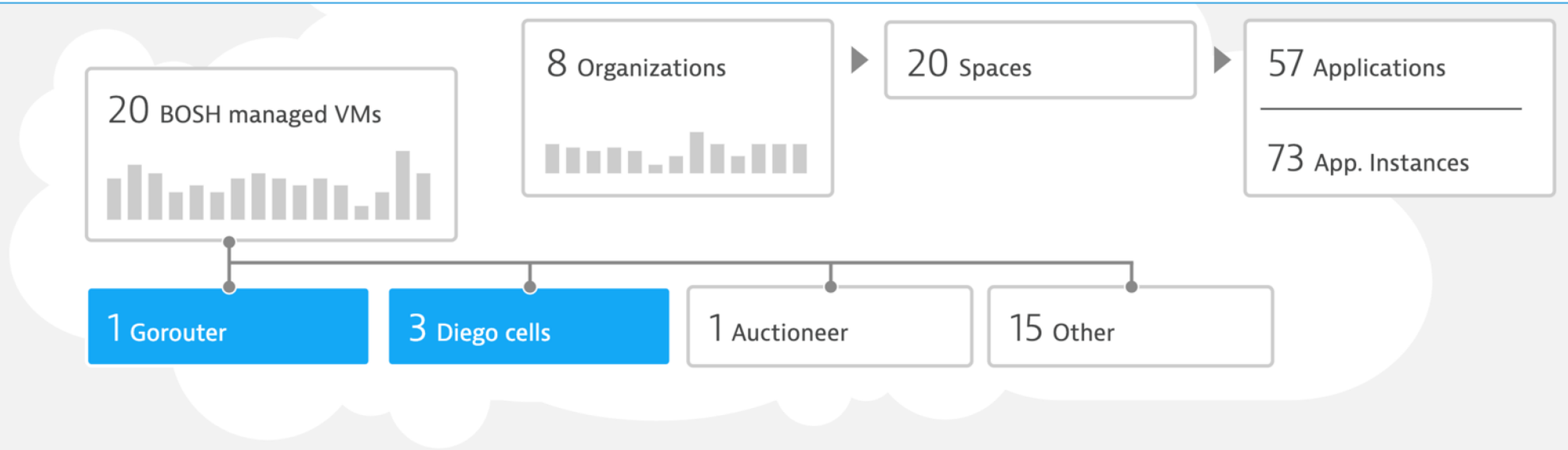
Get an overview of your Cloud Foundry foundation and inspect relevant metrics.

Gorouters | Diego cells



1 Gorouter

Get insights into the overall traffic flow of your Cloud Foundry foundation and understand how Gorouters impact application responsiveness.

Process	Requests	Details
gorouter 2ba57e41-42e3-4a7a-b615-6d77...	990 /min	

View all Gorouter process groups

You have unmonitored Organizations

Deploy Dynatrace OneAgent to your apps running in unmonitored Organizations and enable deep visibility into application processes.

Deploy Dynatrace

3 Diego cells

Investigate utilization of Diego cells and monitor resource constraints on

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AWS
Azure
Docker
Cloud Foundry
Kubernetes

3 Clusters NEW

Overview of all Kubernetes clusters (managed groups of uniform VM instances for running Kubernetes)

Please provide feedback and find planned enhancements at Dynatrace answers.

Name ▲	Nodes	Max cores	Memory requested	Memory max
AKS 1.11 cluster	3	5.79 CPUs	5.75 GB	15.3 GB
GKE 1.11 cluster	1	1.93 CPUs	2.23 GB	5.51 GB
PKS 1.3	0	0 CPUs	0 B	0 B

Multi cloud application platform.

Cluster utilization

5.79 Total CPUs
- 3.96 requested
- 1.83 available

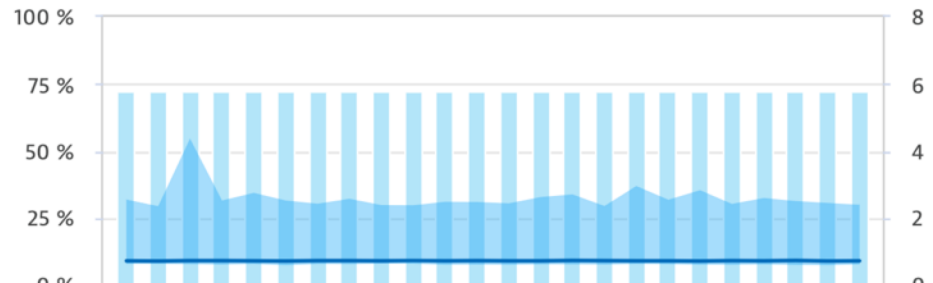
15.3 GB Total memory
- 5.75 GB requested
- 9.58 GB available

3 Cluster nodes

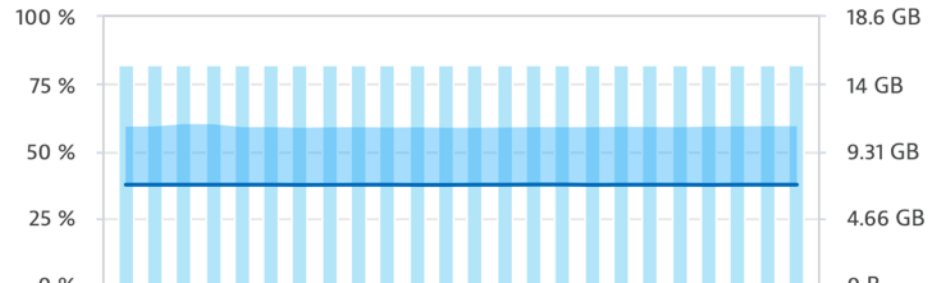
Cluster utilization (3 cluster nodes)

usage | requests | limits | available

CPU usage



Memory usage



```
TAG00944820568:perform alois.mayr$ kubectl get nodes
NAME                       STATUS    ROLES     AGE       VERSION
aks-agentpool-23150832-0   Ready     agent     54d       v1.11.5
aks-agentpool-23150832-1   Ready     agent     2d        v1.11.5
aks-agentpool-23150832-2   Ready     agent     2d        v1.11.5
TAG00944820568:perform alois.mayr$
```

```
TAG00944820568:perform alois.mayr$ cat 3_deploy-springmusic.sh
#!/bin/sh

#add spring music deployment
kubectl create namespace spring-music
kubectl -n spring-music  create rolebinding default-view --clusterrole=view --serviceaccount=spring-musi
c:default
kubectl annotate namespace spring-music scheduler.alpha.kubernetes.io/node-selector=node-role.kubernetes
.io/istio=
kubectl label namespace spring-music istio-injection=enabled
kubectl create -f ../test-app/spring-music/spring-music.yaml
TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$ ./3_deploy-springmusic.sh
namespace "spring-music" created
rolebinding.rbac.authorization.k8s.io "default-view" created
namespace "spring-music" annotated
namespace "spring-music" labeled
deployment.extensions "sm" created
service "sm-service" created
TAG00944820568:perform alois.mayr$
```

```yaml
---
apiVersion: "extensions/v1beta1"
kind: "Deployment"
metadata:
  name: "sm"
  namespace: "spring-music"
  labels:
    app: "sm"
spec:
  replicas: 1
  selector:
    matchLabels:
      app: "sm"
  template:
    metadata:
      labels:
        app: "sm"
    spec:
      containers:
      - name: "spring-music"
        image: "amayr/spring-music:alpine-3.7"
        resources:
          requests:
            memory: "768Mi"
            cpu: "350m"
          limits:
            memory: "1024Mi"
            cpu: "800m"
```

```
---
apiVersion: "v1"
kind: "Service"
metadata:
  name: "sm-service"
  namespace: "spring-music"
  labels:
    app: "sm"
spec:
  ports:
  - protocol: "TCP"
    port: 80
    targetPort: 8080
  selector:
    app: "sm"
  type: "LoadBalancer"
  loadBalancerIP: ""
TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$
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TAG00944820568:perform alois.mayr$
TAG00944820568:perform alois.mayr$
```
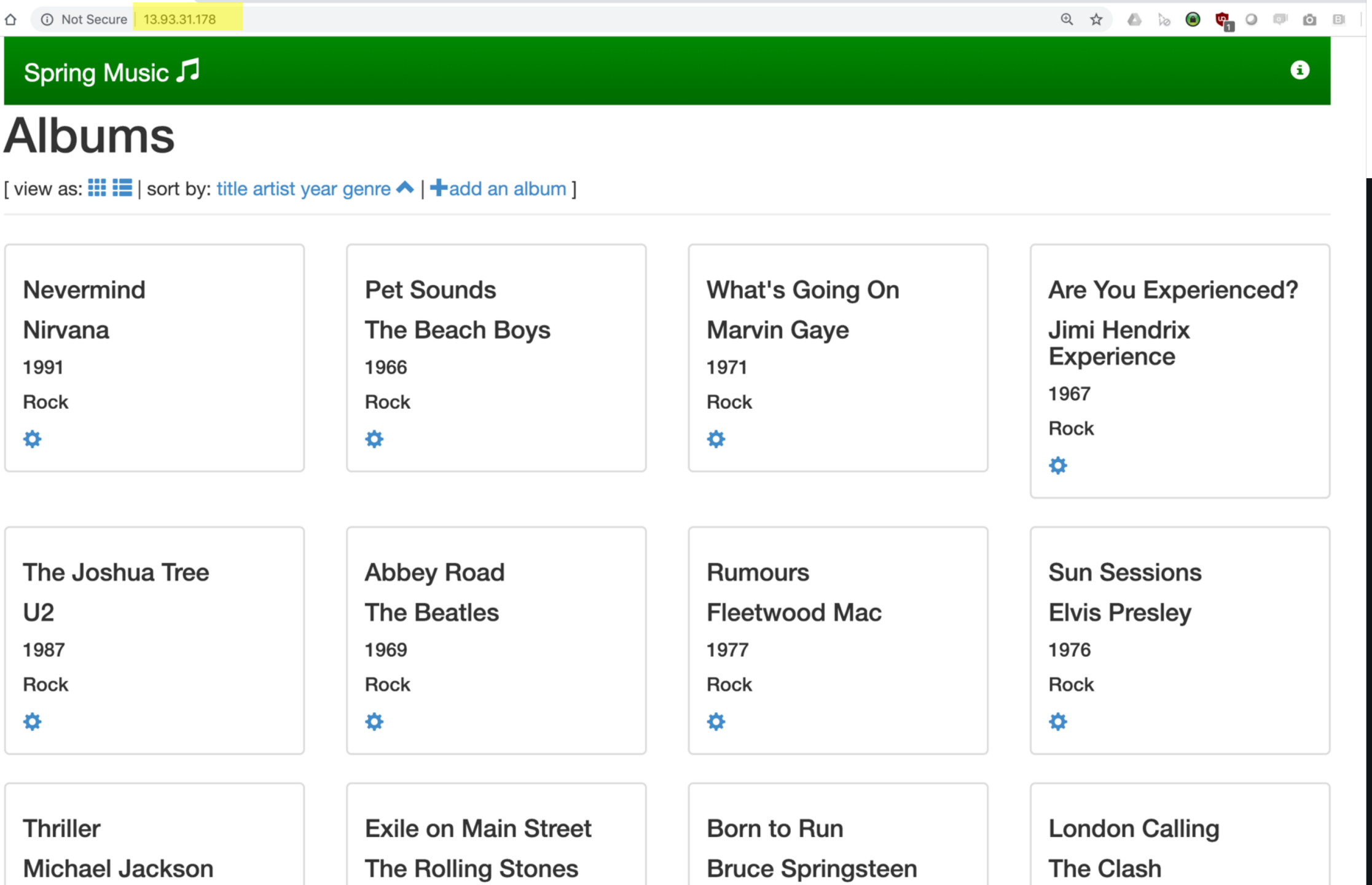

```
TAG00944820568:perform alois.mayr$ kubectl get all -n spring-music
NAME                         READY     STATUS    RESTARTS   AGE
pod/sm-6b75989878-lvjcm      2/2       Running   0          1m

NAME                 TYPE           CLUSTER-IP     EXTERNAL-IP    PORT(S)        AGE
service/sm-service   LoadBalancer   10.0.187.250   13.93.31.178   80:31099/TCP   1m

NAME                 DESIRED   CURRENT   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/sm   1         1         1            1           1m

NAME                            DESIRED   CURRENT   READY     AGE
replicaset.apps/sm-6b75989878   1         1         1         1m
TAG00944820568:perform alois.mayr$
```


Not Secure
13.93.31.178
Spring Music
Albums
[view as: | sort by: title artist year genre | add an album]
Nevermind
Nirvana
1991
Rock
Pet Sounds
The Beach Boys
1966
Rock
What's Going On
Marvin Gaye
1971
Rock
Are You Experienced?
Jimi Hendrix Experience
1967
Rock
The Joshua Tree
U2
1987
Rock
Abbey Road
The Beatles
1969
Rock
Rumours
Fleetwood Mac
1977
Rock
Sun Sessions
Elvis Presley
1976
Rock
Thriller
Michael Jackson
Exile on Main Street
The Rolling Stones
Born to Run
Bruce Springsteen
London Calling
The Clash

Multi cloud: Cloud Foundry on AWS, Kubernetes on GCP & Azure

Owned by alois.mayr@ruxit.com ···

Host health

All fine 45

AWS

All fine 29

GCP

All fine 12

Azure

All fine 3

Service health

All fine 51

k8s CPU

25 %	aks-agentpool-23150832-0.tm...
21 %	us-east4-a - gke-perform-poo...
18 %	us-east1-d - cc1b840c-b853-4f...
12 %	us-east1-b - 2533182a-be57-40...
8.99 %	aks-agentpool-23150832-2.tmx...
8.84 %	aks-agentpool-23150832-1.tmx...
7.43 %	us-east1-b - cb3d5231-a4a6-42...
5.59 %	us-east1-b - fbdb63aa-f05e-4...
3.72 %	us-east1-c - a2c8b485-bb76-4...
3.25 %	us-east1-c - 8a9bc83e-436d-4...

k8s memory

57 %	us-east1-b - 2533182a-be57-407c-...
50 %	us-east1-b - fbdb63aa-f05e-4b0...
44 %	us-east1-b - cb3d5231-a4a6-42f1-...
44 %	aks-agentpool-23150832-0.tmxdt...
42 %	us-east1-d - cc1b840c-b853-4f1e-...
38 %	us-east1-c - 8a9bc83e-436d-4e4...
35 %	us-east1-c - a2c8b485-bb76-44d...
34 %	us-east4-a - gke-perform-pool-1-...
28 %	aks-agentpool-23150832-1.tmxdt...
27 %	aks-agentpool-23150832-2.tmxdt...

Kubernetes services

All fine 16

Istio sample

All fine 2

Cloud Foundry CPU

100 %	diego_database/d2a6a760-ad9...
30 %	doppler/272061b5-7091-4d42-b...
18 %	diego_database/d2a6a760-ad9...
14 %	diego_cell/e7ee32ed-d67b-4ad8...
14 %	diego_cell/bf56381d-fae6-4d0c...
8.79 %	cloud_controller/1b5caae2-23d9...
7.09 %	diego_cell/60b15c9a-d171-4bcc-...

Cloud Foundry Memory

57 %	cloud_controller_worker/2e1d144d...
54 %	diego_cell/60b15c9a-d171-4bcc-ae...
48 %	diego_database/d2a6a760-ad9b-...
39 %	cloud_controller/1b5caae2-23d9-4...
38 %	diego_cell/bf56381d-fae6-4d0c-9...
37 %	loggregator_trafficcontroller/6244...
34 %	router/2ba57e41-42e3-4a7a-b615-...

Cloud Foundry services

All fine 12

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Search

All 16

State
Running 16

Scope and usage
Entry points 10
Internal only 4
Background activity 2

Service type
Web request service 7
Web service 7

Service technology
Apache Tomcat 11
IBM WebSphere Application ... 2
IBM WebSphere Liberty 2
Java 16

Kubernetes services

16 services

Custom service settings ···

Showing current values

Filtered by:

Filtered by Kubernetes: All ✕ k8s:space:

All
istio-sample
kube-system
spinnaker
spring-music

Name	Response time median	Failure rate	Requests ▼
Requests executed in background threa com.netflix.spinnaker.front50.Main spin- com.netflix.spinnaker.front50.Main spin-front*	57.3 ms	0 %	21 /min
Requests executed in background threads of wavefront-push-agent.jar wavefront-proxy-* wavefront-push-agent.jar wavefront-proxy-*	90 ms	0 %	15 /min
front50 com.netflix.spinnaker.front50.Main spin-front*-*	18.5 ms	0 %	12 /min
ApplicationsController com.netflix.spinnaker.front50.Main spin-front*-*	39.4 ms	0 %	11 /min
ApplicationsController com.netflix.spinnaker.clouddriver.Main spin-clouddriver-*	7.3 ms	0 %	11 /min
echo com.netflix.spinnaker.echo.Application spin-echo-*	1.33 ms	0 %	6 /min
rosco com.netflix.spinnaker.rosco.Main spin-rosco-*	3.22 ms	0 %	6 /min

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Search

All 3

State
Running 3

Scope and usage
Entry points 3

Service type
Web request service 1
Web service 2

Service technology
Apache Tomcat 3
Java 3
MUSLC 3

Kubernetes services

3 services

Custom service settings ···

Showing current values

Filtered by:

Filtered by Kubernetes: All ✕ k8s:space: spring-music ✕

Name	Response time median	Failure rate	Requests ▼
AlbumController spring-music.jar sm-*	-	-	0 /min
InfoController spring-music.jar sm-*	-	-	0 /min
Tomcat/localhost spring-music.jar sm-*	-	-	0 /min

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AlbumController

Last call 1 minute ago

Properties and tags

Kubernetes | k8s-pod: sm-* | k8s:space: spring-music | + Add tag

Detected name	AlbumController
Type	Web service
Process group	spring-music.jar sm-*
Service main technology	Apache Tomcat
Process technology	Apache Tomcat (8.5.28.0), Java (OpenJDK 1.8.0_151), and ...
Web service name	AlbumController
Web service namespace	-

Requests

Response time	-
Failure rate	-
CPU	
Throughput	

No problems

Today, 16:56 - 18:56

No hotspots detected

Multidimensional analysis views

Create chart

This section will list your bookmarked multidimensional analysis views for this service. Click 'Create chart' to start.

Understand dependencies

Today, 16:56 - 18:56

Understand all dependencies and response time contributions

View service flow

Understand which user actions and related services are dependent on this service

Analyze backtrace

Understand and analyze which web requests are the most expensive and most frequently called

View web requests

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Docker

AlbumController

Last call 1 minute ago

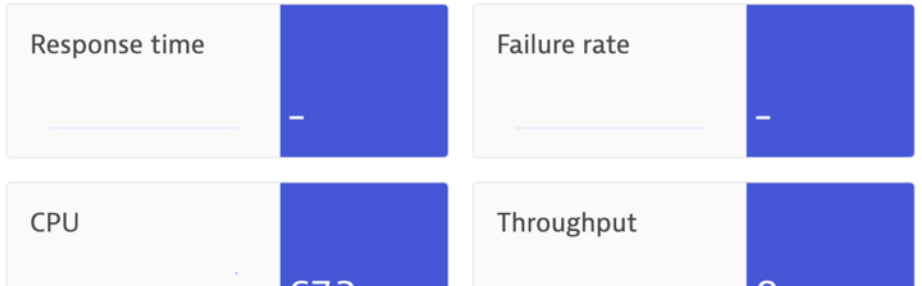
Smartscape view
Edit
Pin to dashboard
Process crash details
Memory dump details

Properties and tags

Kubernetes | k8s-pod: sm-* | k8s:space

Detected name	AlbumController
Type	Web service
Process group	spring-music.jar sm
Service main technology	Apache Tomcat
Process technology	Apache Tomcat (8.5
Web service name	AlbumController
Web service namespace	-

Requests



No problems

Today, 16:56 - 18:56

No hotspots detected

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This section will list your bookmarked multidimensional analysis views for this service. Click 'Create chart' to start.

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Today, 16:56 - 18:56

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Applications

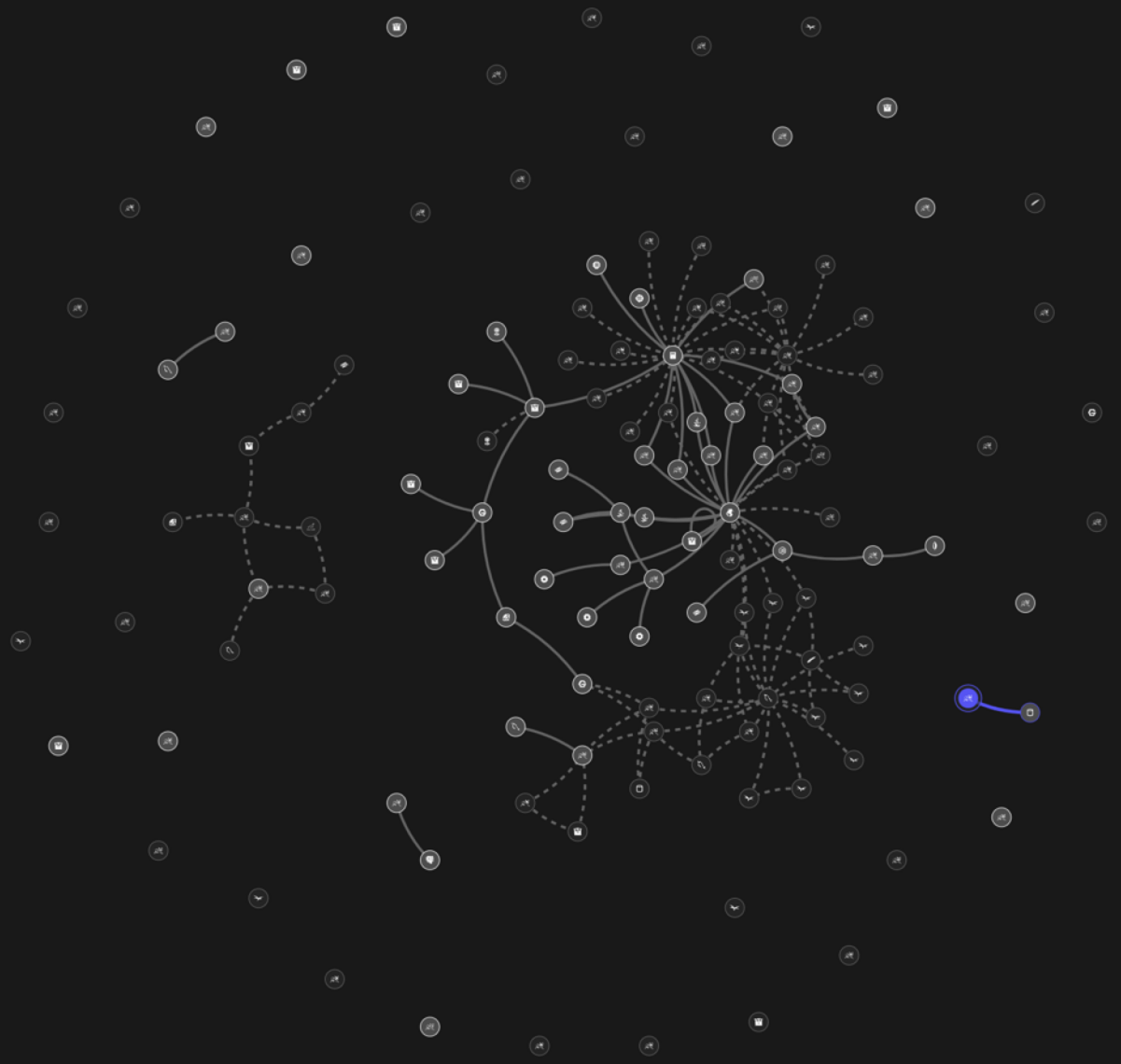
Services
134

AlbumController
Web service

Processes

Hosts

Data centers



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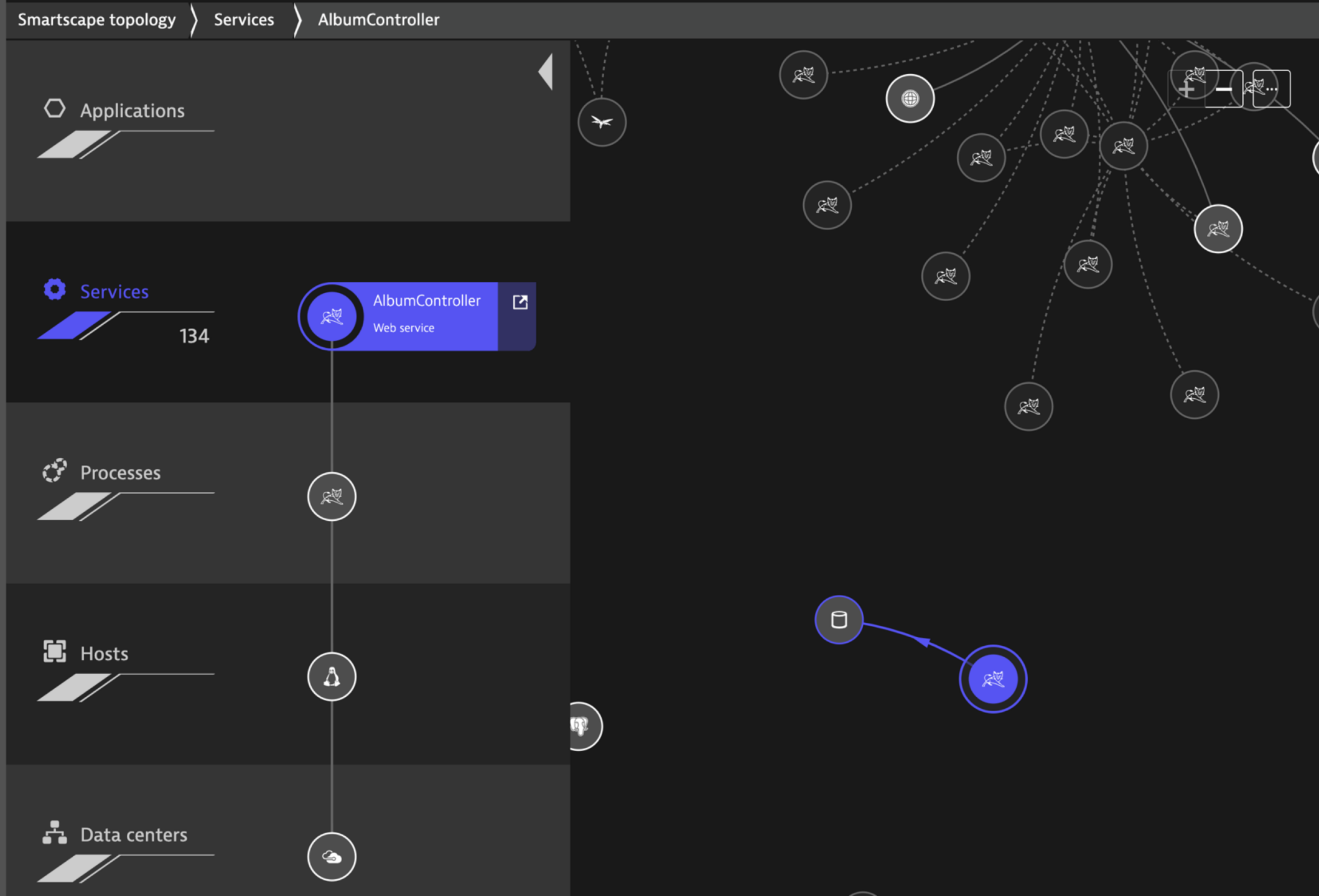

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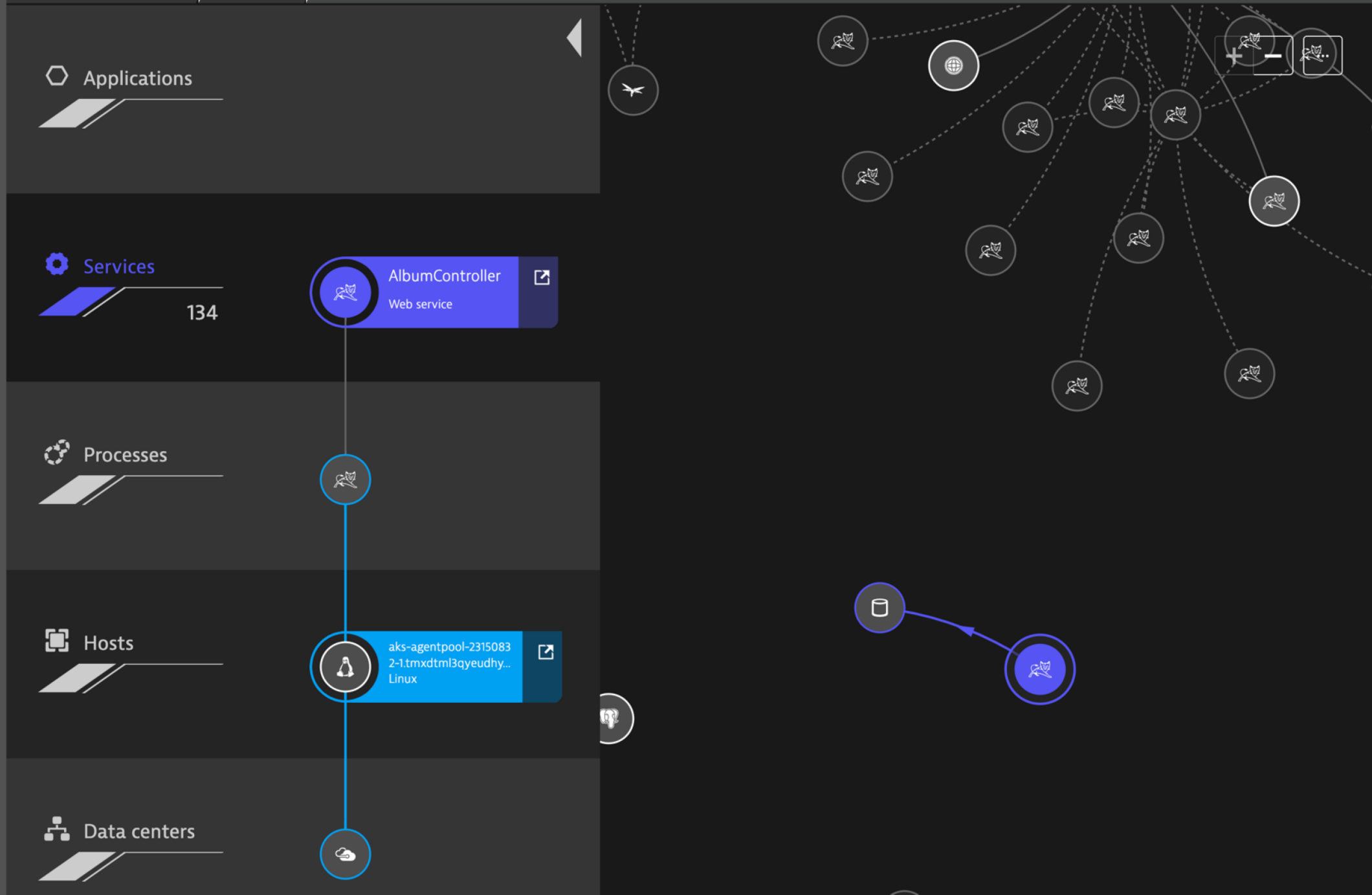

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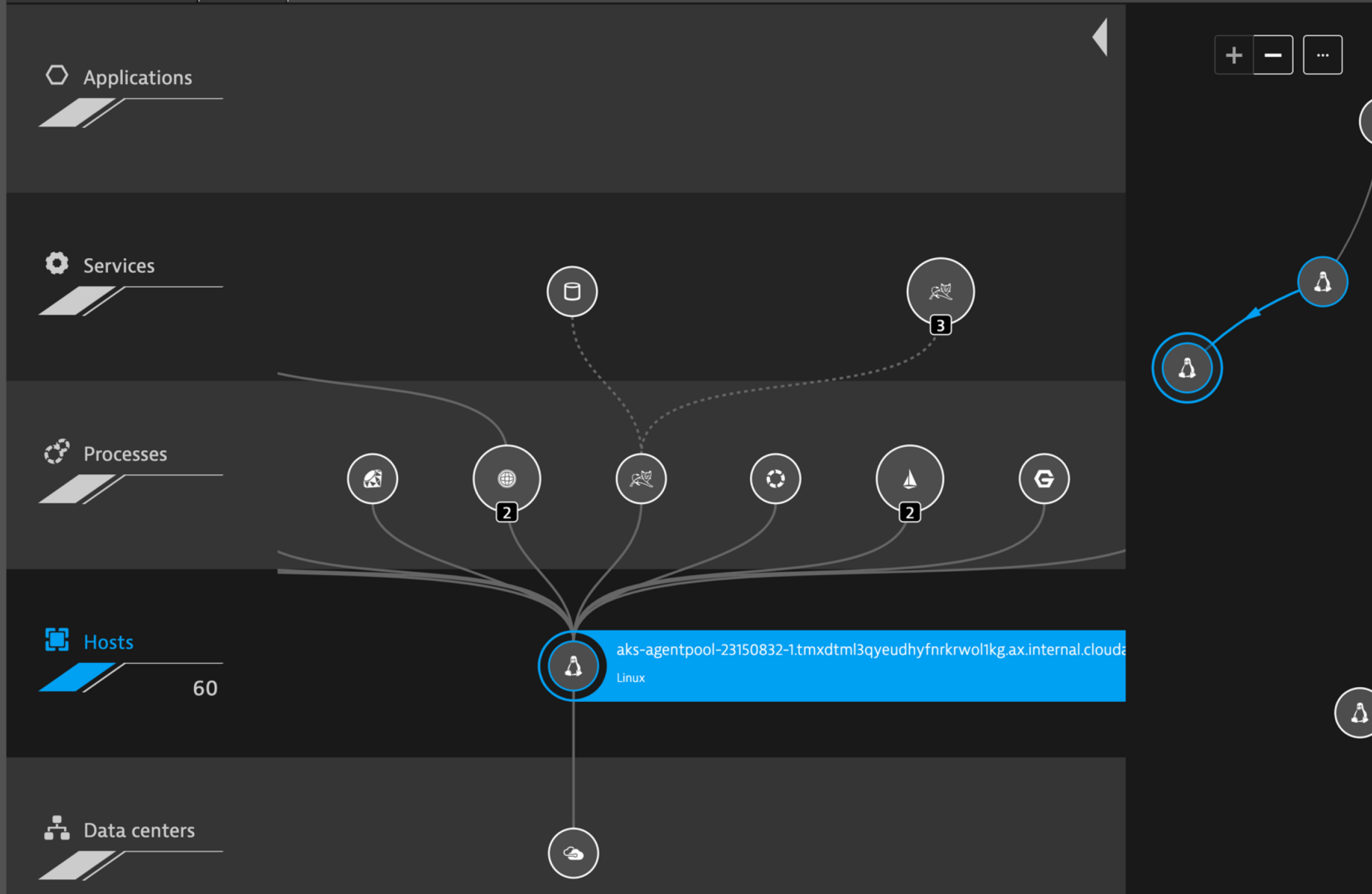

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Azure
Docker

aks-agentpool-23150832-1.tmxdtm...

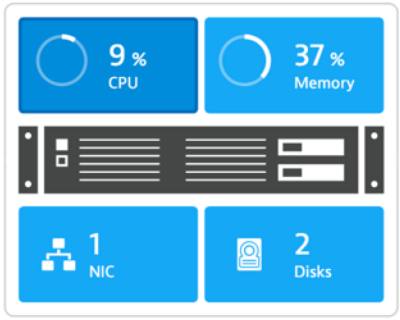
Uptime: over 4 days

Properties and tags

Kubernetes | k8s-worker | + Add tag

Ubuntu 16.04.5 LTS (Xenial Xerus) (kernel 4.15.0-1035-azure)

Detected name	aks-agentpool-23150832-1.tmxdtml3qyeudhyfnrkr...
OneAgent version	1.161.153.20190128-161954
Architecture	x86, 64-bit
Cloud	Azure
Cloud platform type	Kubernetes (node 1.11.5)
Host group	aks-k8s-1
IP addresses	10.240.0.4
Instance type	Standard_DS2_v2
Kubernetes cluster	AKS 1.11 cluster
Logical CPU cores	2
Monitoring mode	Full stack
Physical CPU cores	2
Region	westeurope

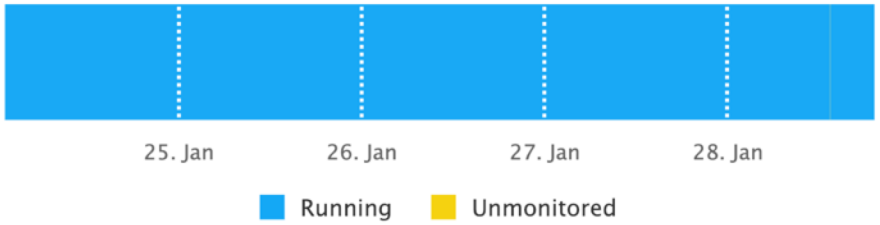


CPU usage 9.27 % | CPU Azure 10 %

No problems Today, 17:13 - 19:13

100% Availability

0 min total downtime



Processes and Docker Containers

Go

kubectl l*d (l5d-9lwvg)
using "buoyantio/kubectl"
pilot-agent details-v*-* (details-v1-6764bbc7f7-rlsl2)
using "sha256"
pilot-agent productpage-v*-* (productpage-v1-54b8b9f55-4kjgx)
using "sha256"
pilot-agent reviews-v*-* (reviews-v1-fdbf674bb-8c7cx)
using "sha256"
pilot-agent reviews-v*-* (reviews-v2-5bdc5877d6-z4bmq)
using "sha256"
pilot-agent sm-* (sm-6b75989878-8f5h7)
using "sha256"
snapd

Nginx

Multi cloud application platform.

Cluster utilization

5.79 Total CPUs

- 4.32 requested
- 1.47 available

15.3 GB Total memory

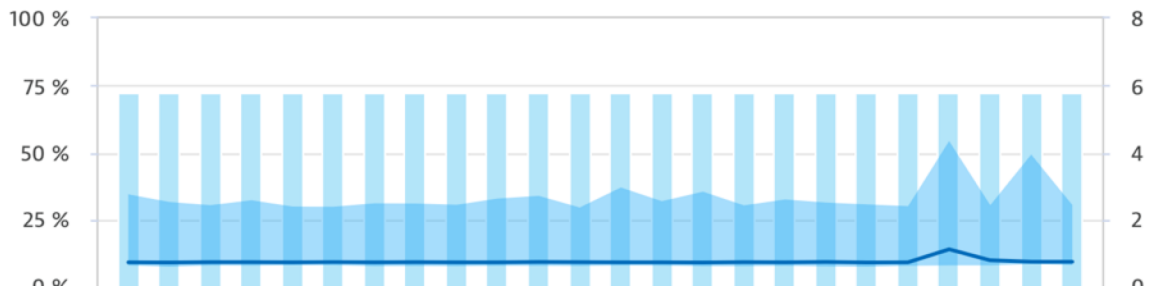
- 6.5 GB requested
- 8.83 GB available

3 Cluster nodes

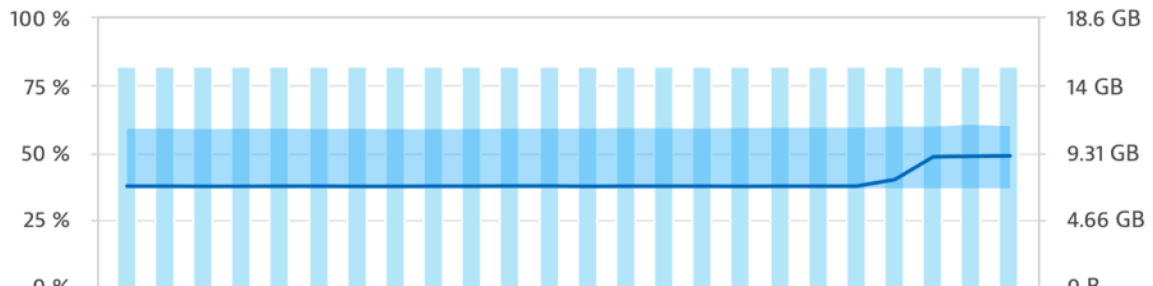
Cluster utilization (3 cluster nodes)

usage | requests | limits | available

CPU usage



Memory usage



Multi cloud application platform.

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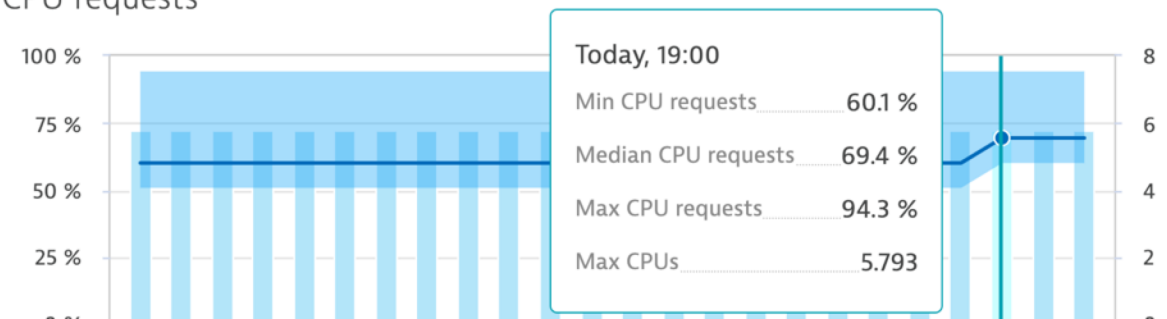
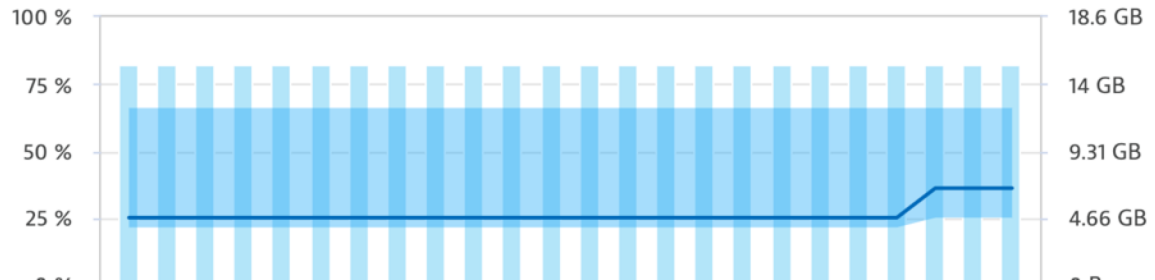
Cluster utilization (3 cluster nodes)

usage | requests | limits | available

CPU requests



Memory requests



Multi cloud application platform.

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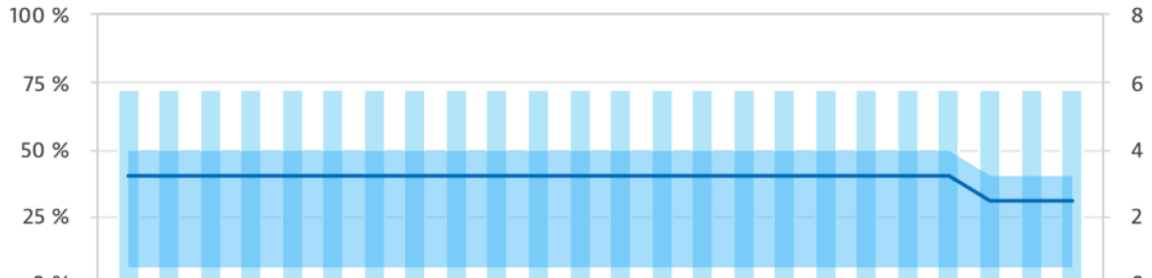
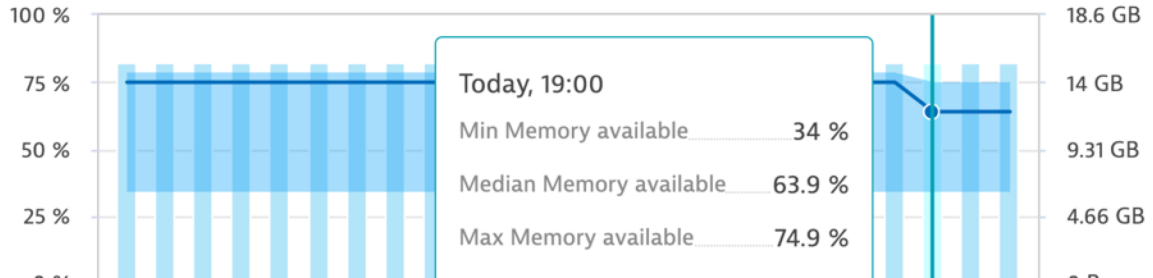
Cluster utilization (3 cluster nodes)

usage | requests | limits | available

CPU available



Memory available



Future proof for new container runtimes

- **Auto-injection** in most popular containers technologies
- Ready for **OpenShift 4.0**
- Ready for even more distributions like
  IBM IKS, Google **GKE COS-containerd**
- **Rule-based control of deep monitoring for containers**




Native root-cause analysis, coming soon

Deployment Scheduling

Scale up/down

User impact

1 Cluster event | 3 Workload events

Events	Time ▾	Details
FailedScheduling	07:45 - now	

Pod: carts-564595f689-xqv6h
Namespace: sock-shop
Message: 0/1 nodes are available:
1 Insufficient cpu, 1 Insufficient memory

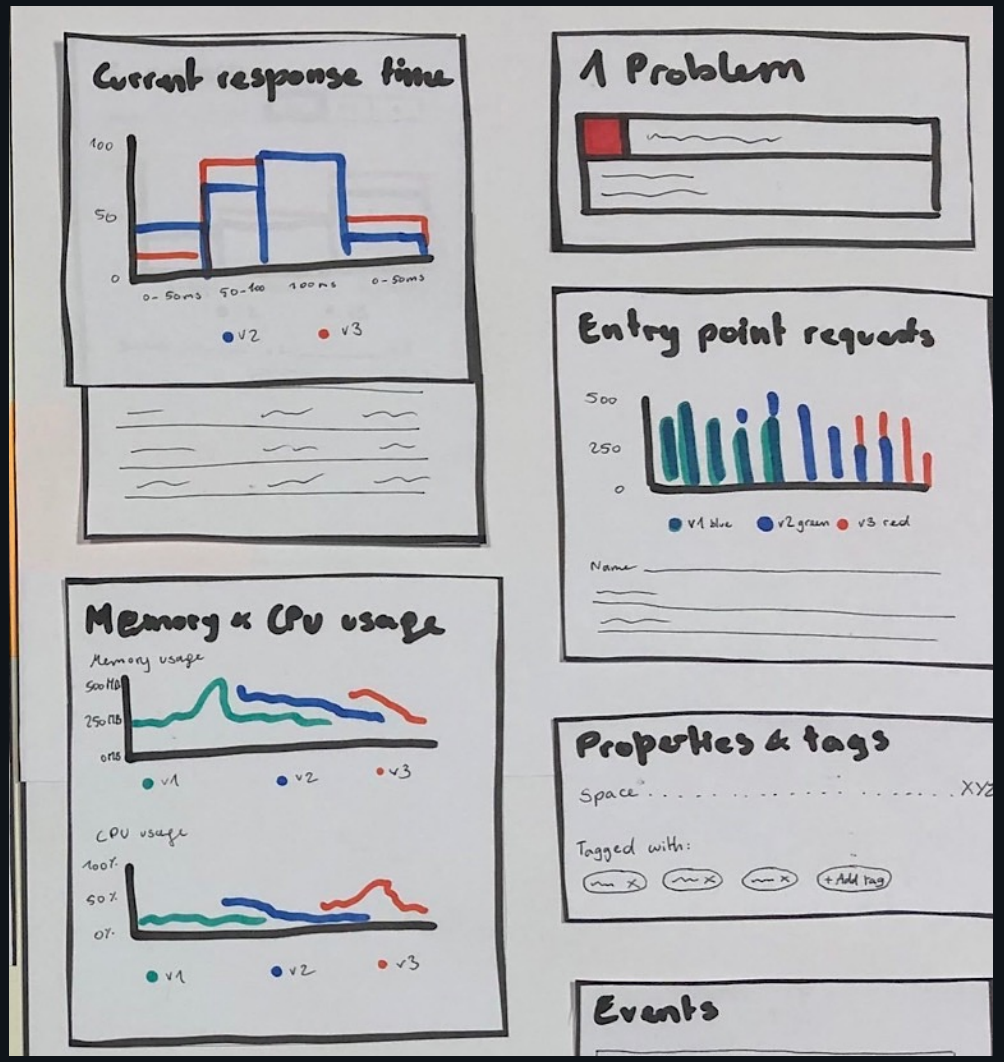
Starting kubelet	06:52 - 07:15	
FailedScheduling	06:47 - now	
NetworkNotReady	06:45 - now	
Evicted	06:37 - now	

Problem ID: Problem 214
Pod: oneagent-z6gmb
Namespace: dynatrace
Message: The node was low on resource:
[DiskPressure]
Node: gke-cos-default-pool-0f545174-9l3v

Cloud adoption puts strains on DevOps teams, service mesh to the rescue

"The term service mesh is used to describe the network of microservices that make up such applications and the interactions between them. As a service mesh grows in size and complexity, it can become harder to understand and manage. Its requirements can include discovery, load balancing, failure recovery, metrics, and monitoring. A service mesh also often has more complex operational requirements, like A/B testing, canary releases, rate limiting, access control, and end-to-end authentication."

https://istio.io/docs/concepts/what-is-istio/



Enterprise cloud platforms

Kubernetes

OpenShift

Cloud Foundry

Pivotal Cloud Foundry

Enterprise cloud platforms

Kubernetes

OpenShift

Cloud Foundry

Pivotal Cloud Foundry

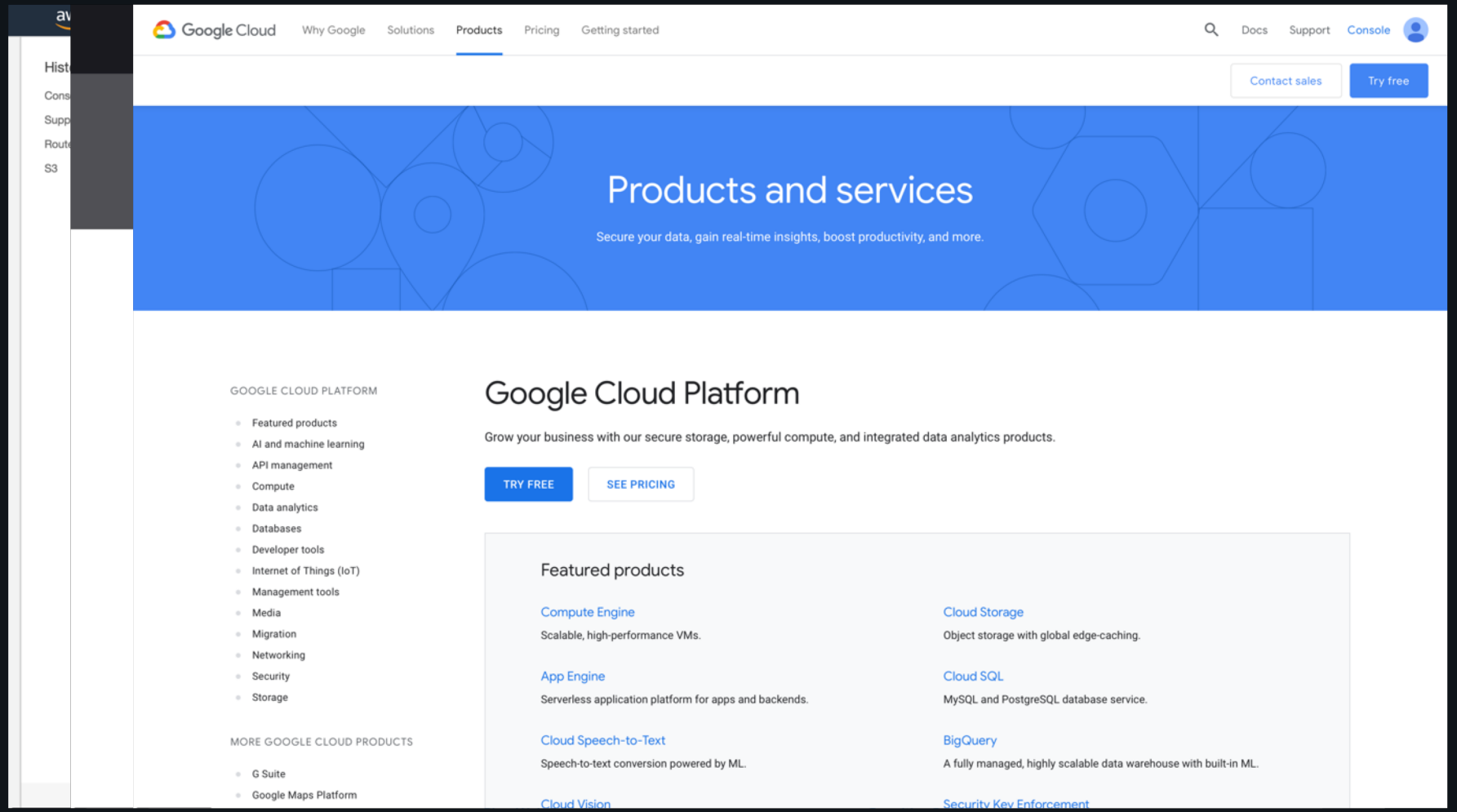
Public cloud platforms

Amazon AWS

Google Cloud Platform

Microsoft Azure

Public cloud platforms



Public cloud platforms

Out of the box visibility

Native deployments and tracing

Meta data for ease of use

Integrating logs and events

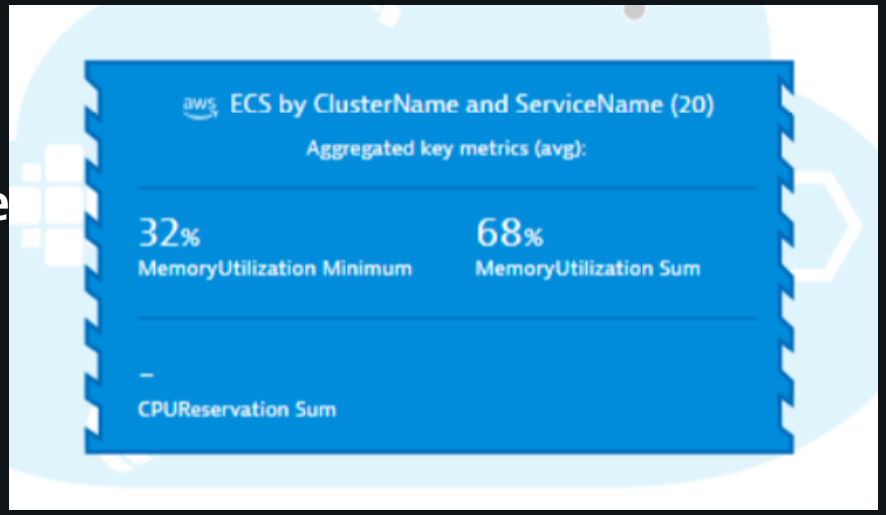
Service level monitoring

Serverless workloads

Out of the box visibility

dynatrace Perform

- Amazon API Gateaway
- Amazon Cloudfront
- Amazon Elastic Container Service
- Amazon Elastic File System
- Amazon ElastiCache
- Amazon Elasticsearch Service
- and many more



https://www.dynatrace.com/news/blog/aws-supporting-services-eap/

Public cloud platforms

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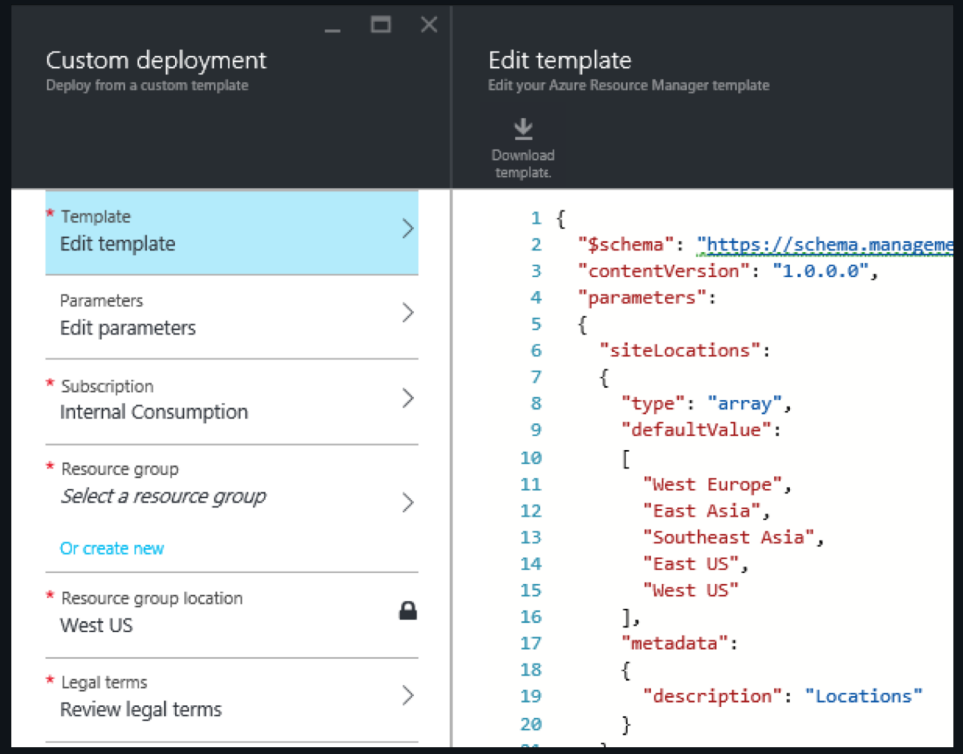
Native deployments and tracing

dynatrace Perform

- Azure ARM Templates
- Azure VM Extensions
- Azure Site Extension
- Azure Service Bus
- Azure Cosmos DB
- Azure ServiceFabric
- and many more



https://www.dynatrace.com/news/blog/enhanced-azure-service-insights/

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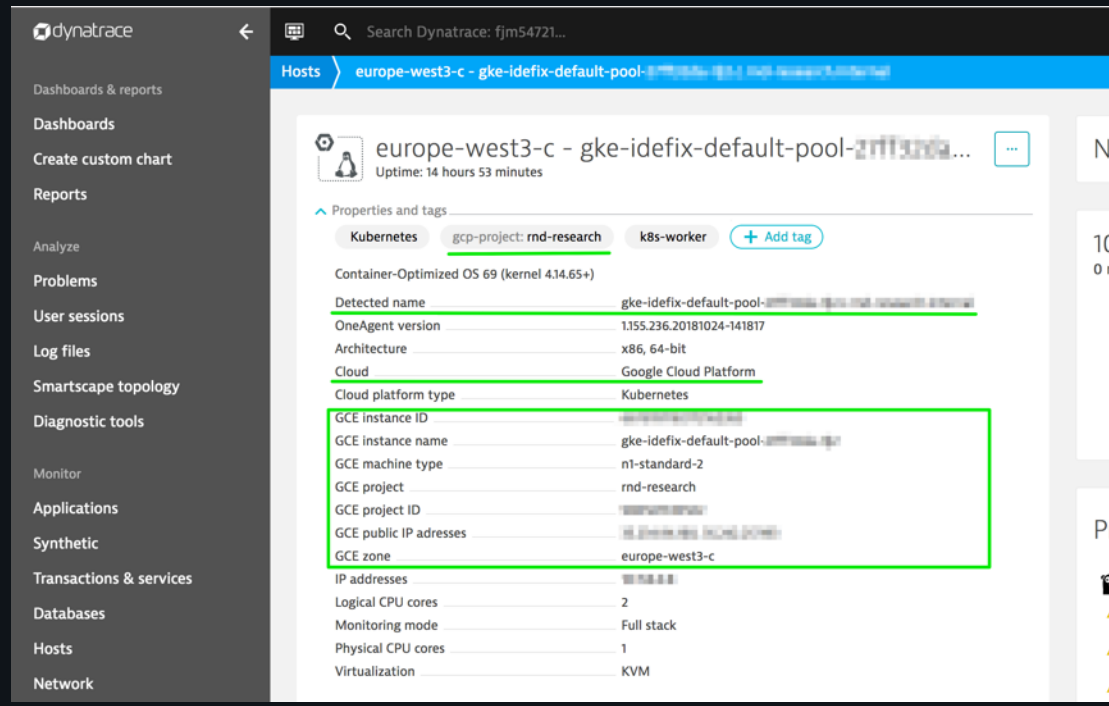
Meta data for ease of use

dynatrace Perform

- Ready to be used for filtering, tags, alert profiles and management zones
- Define your own tags



https://www.dynatrace.com/news/blog/a-brief-intro-to-full-stack-performance-monitoring-on-google-cloud-platform/

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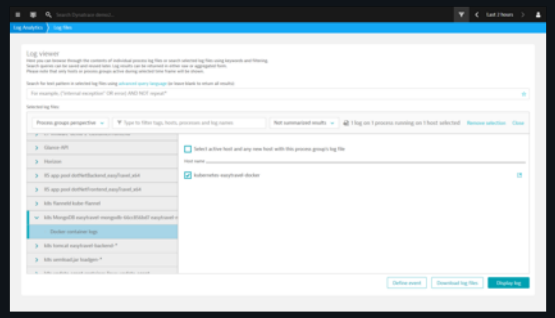
dynatrace Perform

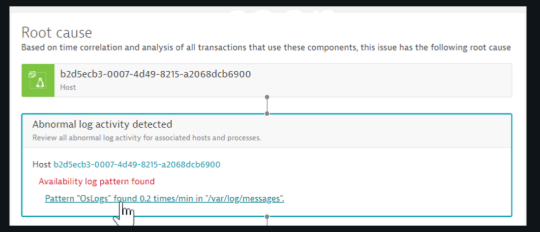
AWS CloudTrail

r/syslog

Analyze



Alert, coming



https://www.dynatrace.com/news/blog/announcing-support-for-aws-cloudtrail-logs/

Service level monitoring

- Global synthetic multi-cloud locations available today
- Monitor your service levels and response times from AWS, Azure, GCP or Alibaba

https://www.dynatrace.com/news/blog/kick-off-2019-with-new-synthetic-public-locations/

Public cloud platforms

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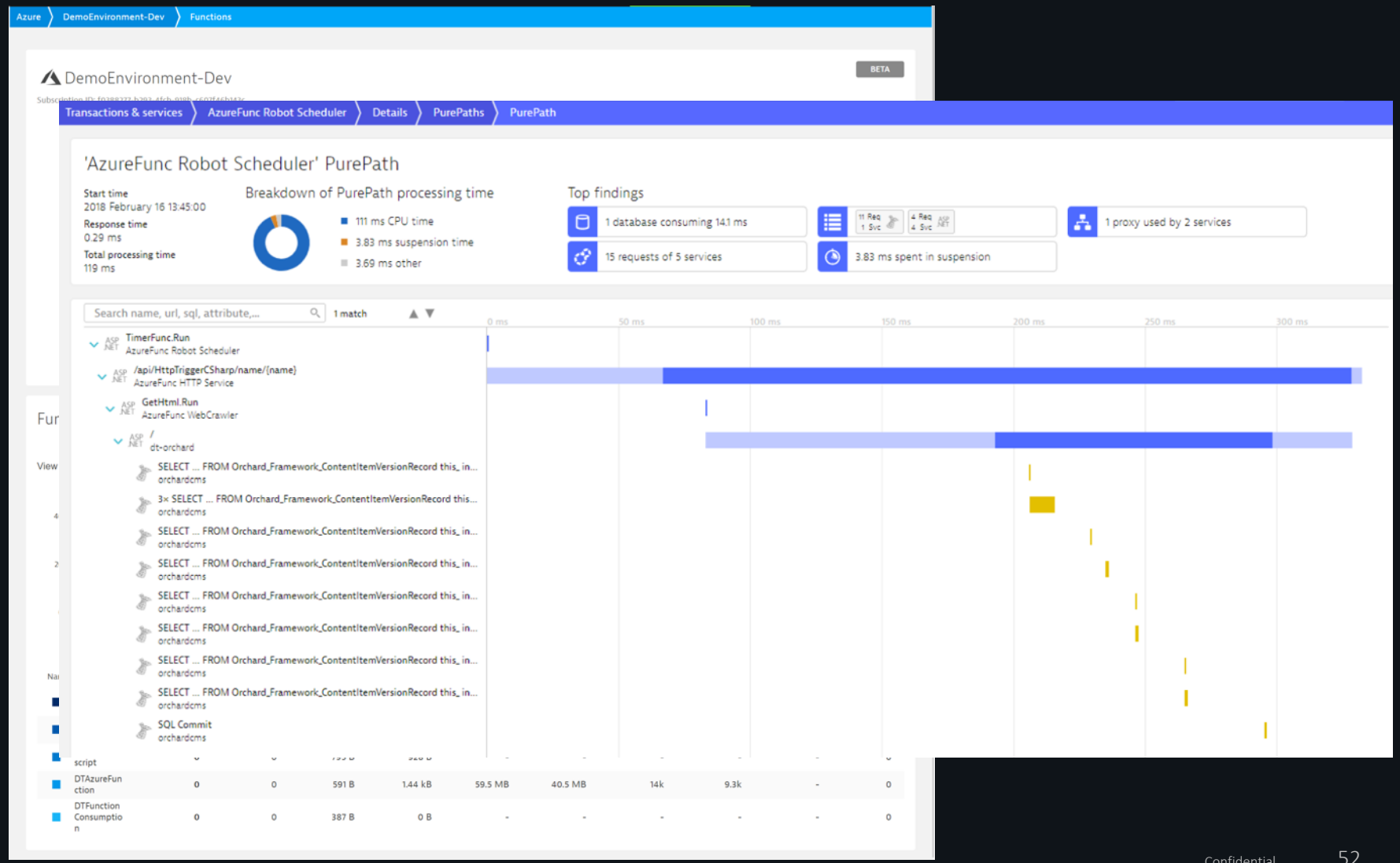
Serverless workloads




Thank you
dynatrace
Perform