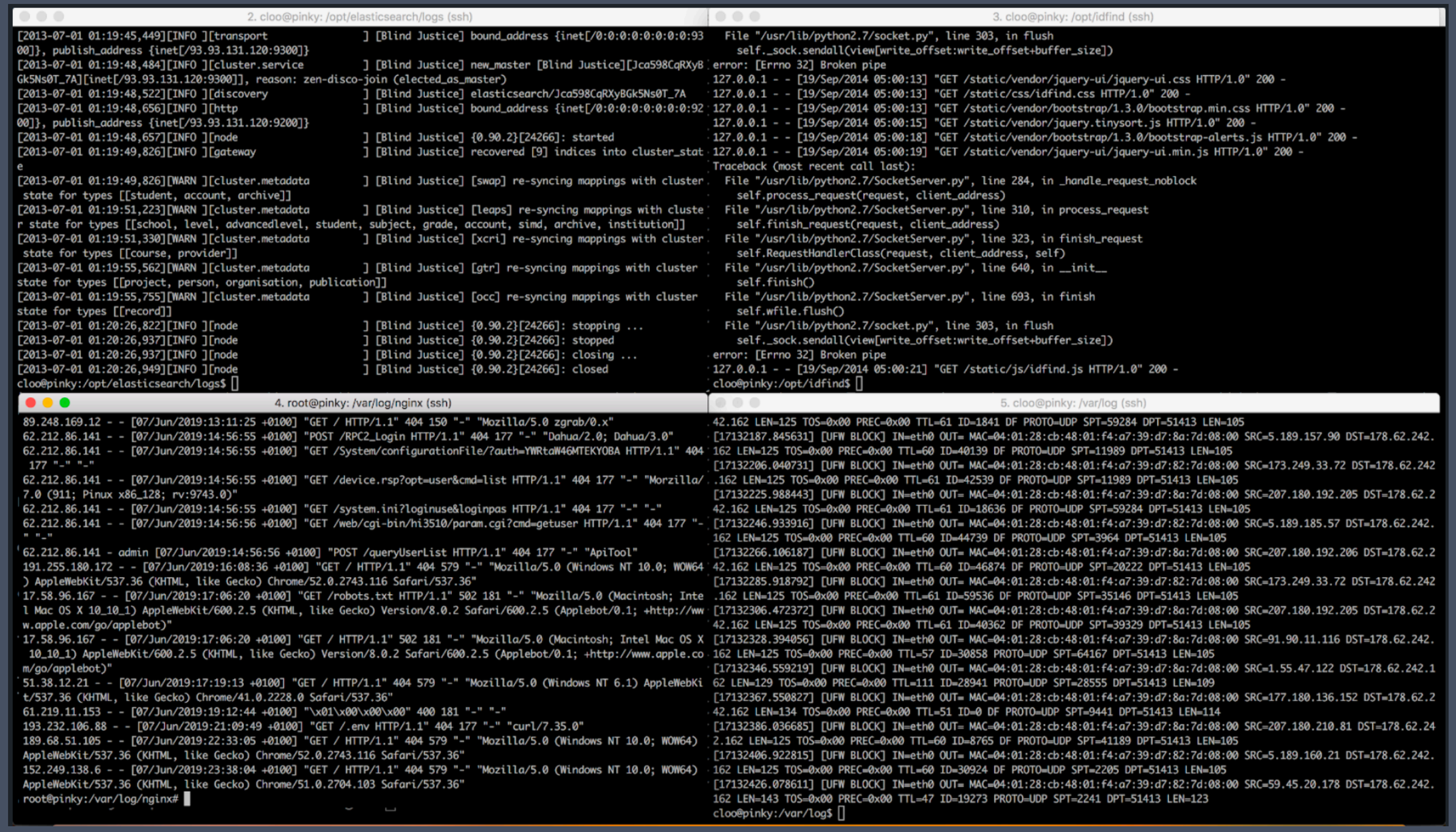
THE EVOLUTION OF WEB MONITORING

@EMANUIL_TOLEV

HISTORY
PRESENT INNOVATION
FUTURE

```
ess {inet[/93.93.131.120:9200]}
[2013-07-01 00:41:38,099][INFO ][node                    ] [Starsmore, Jonothon] {0.90.2}[23645]: started
[2013-07-01 00:42:18,604][INFO ][node                    ] [Starsmore, Jonothon] {0.90.2}[23645]: stopping ...
[2013-07-01 00:42:18,809][INFO ][node                    ] [Starsmore, Jonothon] {0.90.2}[23645]: stopped
[2013-07-01 00:42:18,809][INFO ][node                    ] [Starsmore, Jonothon] {0.90.2}[23645]: closing ...
[2013-07-01 00:42:19,846][INFO ][node                    ] [Starsmore, Jonothon] {0.90.2}[23645]: closed
[2013-07-01 01:19:43,108][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: initializing ...
[2013-07-01 01:19:43,114][INFO ][plugins                 ] [Blind Justice] loaded [], sites []
[2013-07-01 01:19:45,340][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: initialized
[2013-07-01 01:19:45,340][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: starting ...
[2013-07-01 01:19:45,449][INFO ][transport               ] [Blind Justice] bound_address {inet[/0:0:0:0:0:0:0:0:9300]}, publish_address {i
net[/93.93.131.120:9300]}
[2013-07-01 01:19:48,484][INFO ][cluster.service         ] [Blind Justice] new_master [Blind Justice][Jca598CqRXyBGk5Ns0T_7A][inet[/93.93.
131.120:9300]], reason: zen-disco-join (elected_as_master)
[2013-07-01 01:19:48,522][INFO ][discovery               ] [Blind Justice] elasticsearch/Jca598CqRXyBGk5Ns0T_7A
[2013-07-01 01:19:48,656][INFO ][http                    ] [Blind Justice] bound_address {inet[/0:0:0:0:0:0:0:0:9200]}, publish_address {i
net[/93.93.131.120:9200]}
[2013-07-01 01:19:48,657][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: started
[2013-07-01 01:19:49,826][INFO ][gateway                 ] [Blind Justice] recovered [9] indices into cluster_state
[2013-07-01 01:19:49,826][WARN ][cluster.metadata        ] [Blind Justice] [swap] re-syncing mappings with cluster state for types [[stude
nt, account, archive]]
[2013-07-01 01:19:51,223][WARN ][cluster.metadata        ] [Blind Justice] [leaps] re-syncing mappings with cluster state for types [[scho
ol, level, advancedlevel, student, subject, grade, account, simd, archive, institution]]
[2013-07-01 01:19:51,330][WARN ][cluster.metadata        ] [Blind Justice] [xcri] re-syncing mappings with cluster state for types [[cours
e, provider]]
[2013-07-01 01:19:55,562][WARN ][cluster.metadata        ] [Blind Justice] [gtr] re-syncing mappings with cluster state for types [[projec
t, person, organisation, publication]]
[2013-07-01 01:19:55,755][WARN ][cluster.metadata        ] [Blind Justice] [occ] re-syncing mappings with cluster state for types [[record
]]
[2013-07-01 01:20:26,822][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: stopping ...
[2013-07-01 01:20:26,937][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: stopped
[2013-07-01 01:20:26,937][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: closing ...
[2013-07-01 01:20:26,949][INFO ][node                    ] [Blind Justice] {0.90.2}[24266]: closed
```



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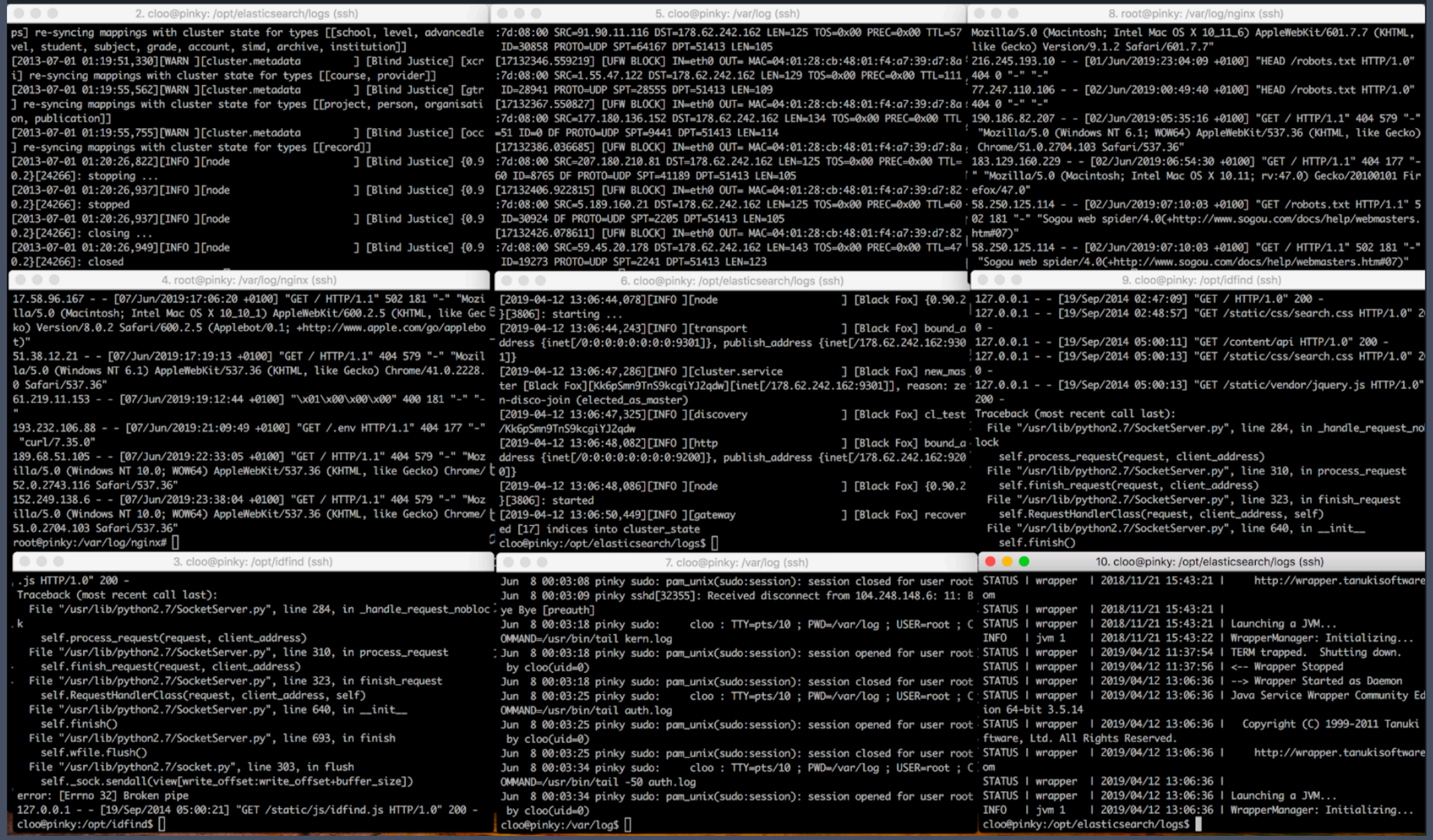

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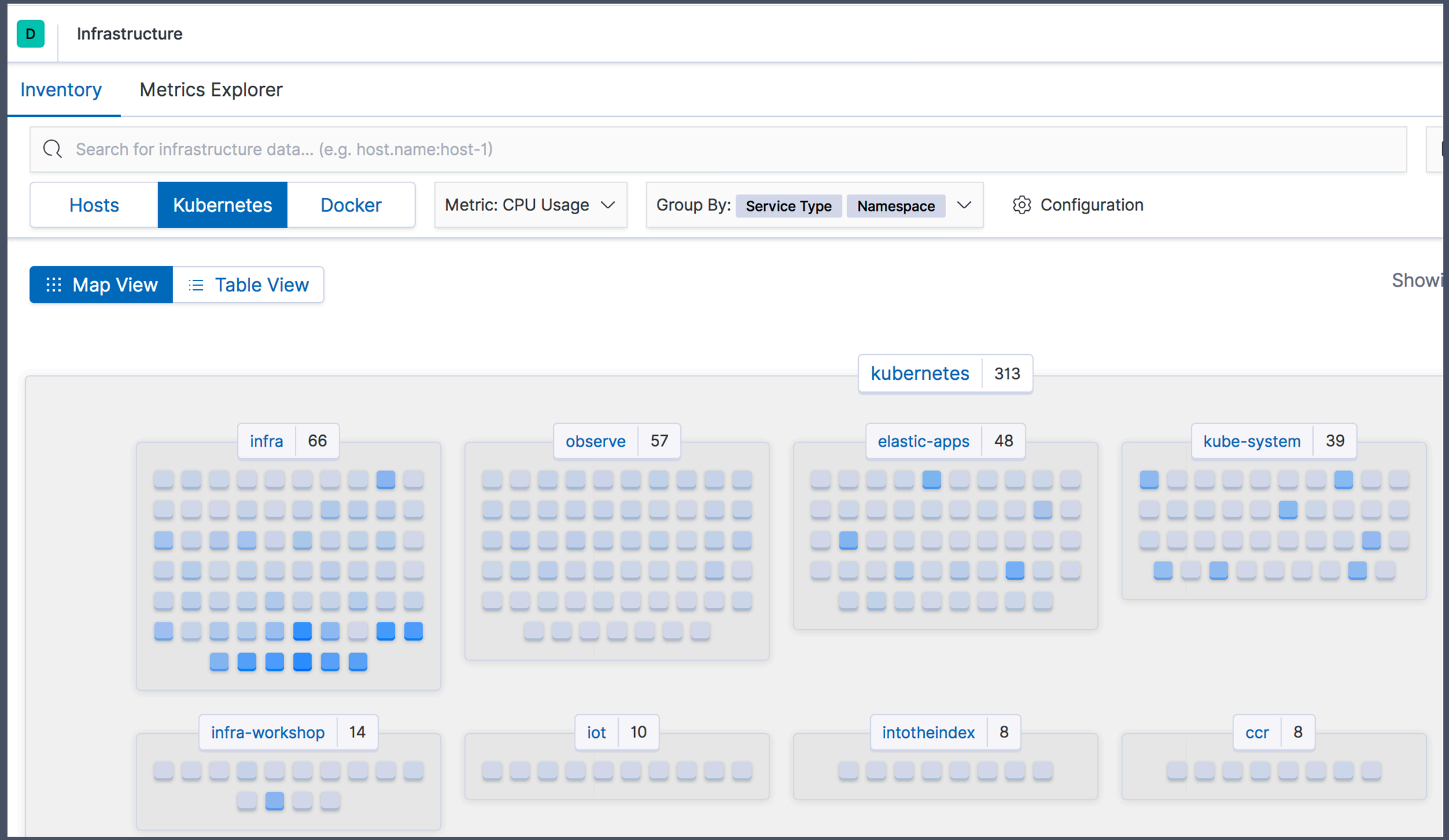
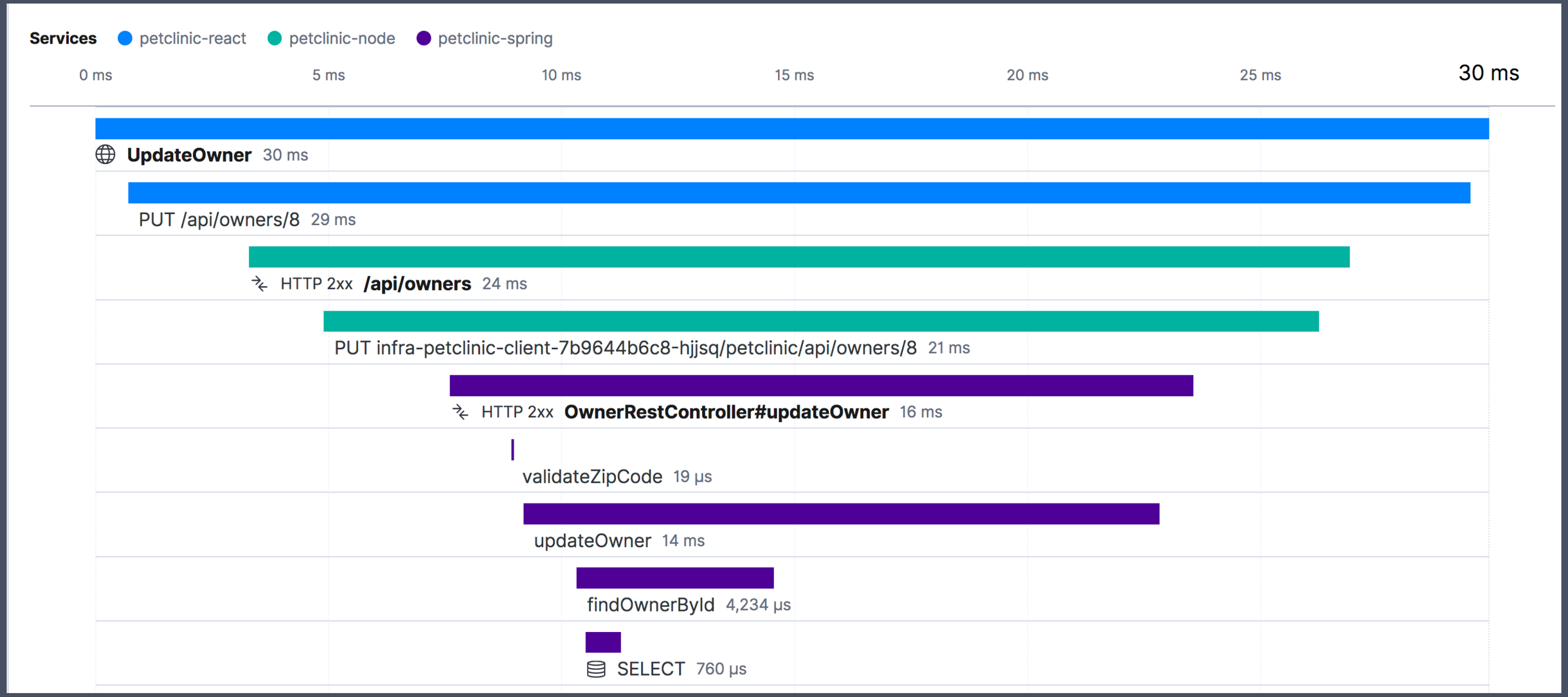
THIS IS FINE.

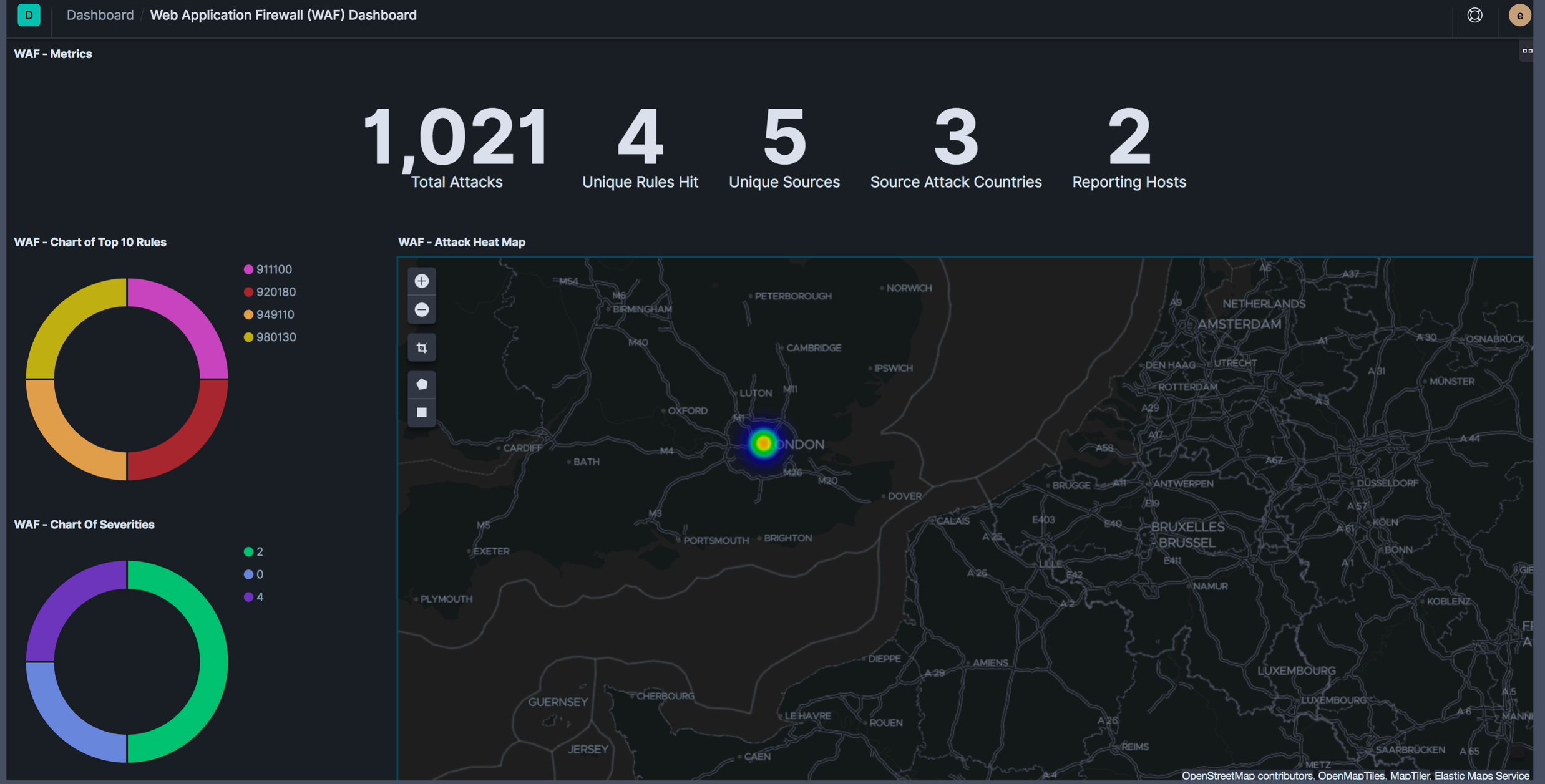

D
Infrastructure
Inventory
Metrics Explorer
Search for infrastructure data... (e.g. host.name:host-1)
Hosts
Kubernetes
Docker
Metric: CPU Usage
Group By:
Service Type
Namespace
Configuration
Map View
Table View
Showi
kubernetes
313
infra
66
observe
57
elastic-apps
48
kube-system
39
infra-workshop
14
iot
10
intotheindex
8
ccr
8


Services
petclinic-react
petclinic-node
petclinic-spring
0 ms
5 ms
10 ms
15 ms
20 ms
25 ms
30 ms
UpdateOwner 30 ms
PUT /api/owners/8 29 ms
HTTP 2xx /api/owners 24 ms
PUT infra-petclinic-client-7b9644b6c8-hjjsq/petclinic/api/owners/8 21 ms
HTTP 2xx OwnerRestController#updateOwner 16 ms
validateZipCode 19 µs
updateOwner 14 ms
findOwnerById 4,234 µs
SELECT 760 µs

THE STORY OF MONITORING IS A STORY OF FRUSTRATION, FACEPALMING AND PAINFUL MOMENTS OF REFLECTION

NOW:

- MONITORING
  - LOGGING
  - METRICS
  - TRACING
  - SECURITY?
- OBSERVABILITY



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Best Log Management Tools: 51 Useful Tools for Log Management, Monitoring, Analytics, and More

STACKIFY | MAY 26, 2017 | DEVELOPER TIPS, TRICKS & RESOURCES

OBSERVABILITY

HTTPS://WWW.HONEYCOMB.IO/BLOG/OBSERVABILITY-A-MANIFESTO/

PRESENT INNOVATION

- FEATURES
- BUSINESS MODELS
- STRATEGIC VIEW OF OPS PAIN & RELIEF

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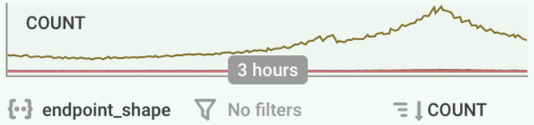
Details My history Team activity

TODAY

1:56 pm

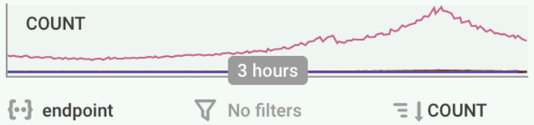
Not grouped parentId does-n... MAX(durat...

10:44 am



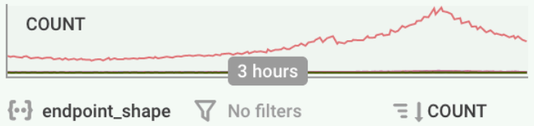
endpoint_shape No filters COUNT

10:44 am



endpoint No filters COUNT

10:44 am

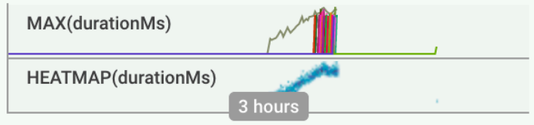


endpoint_shape No filters COUNT

Details My history Team activity

TUESDAY 11/19

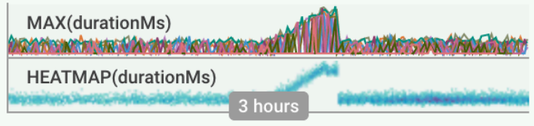
7:37 pm



user_id parentId does-n... endpoint_shape... MAX(durat...

Bob

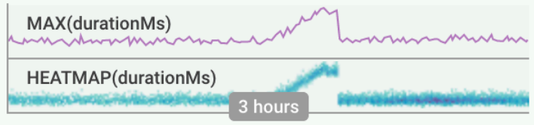
7:36 pm



platform build_id parentId does-n... endpoint_shape... MAX(durat...

Bob

7:35 pm



Not grouped parentId does-n... endpoint_shape... MAX(durat...

Bob

honeycomb.io

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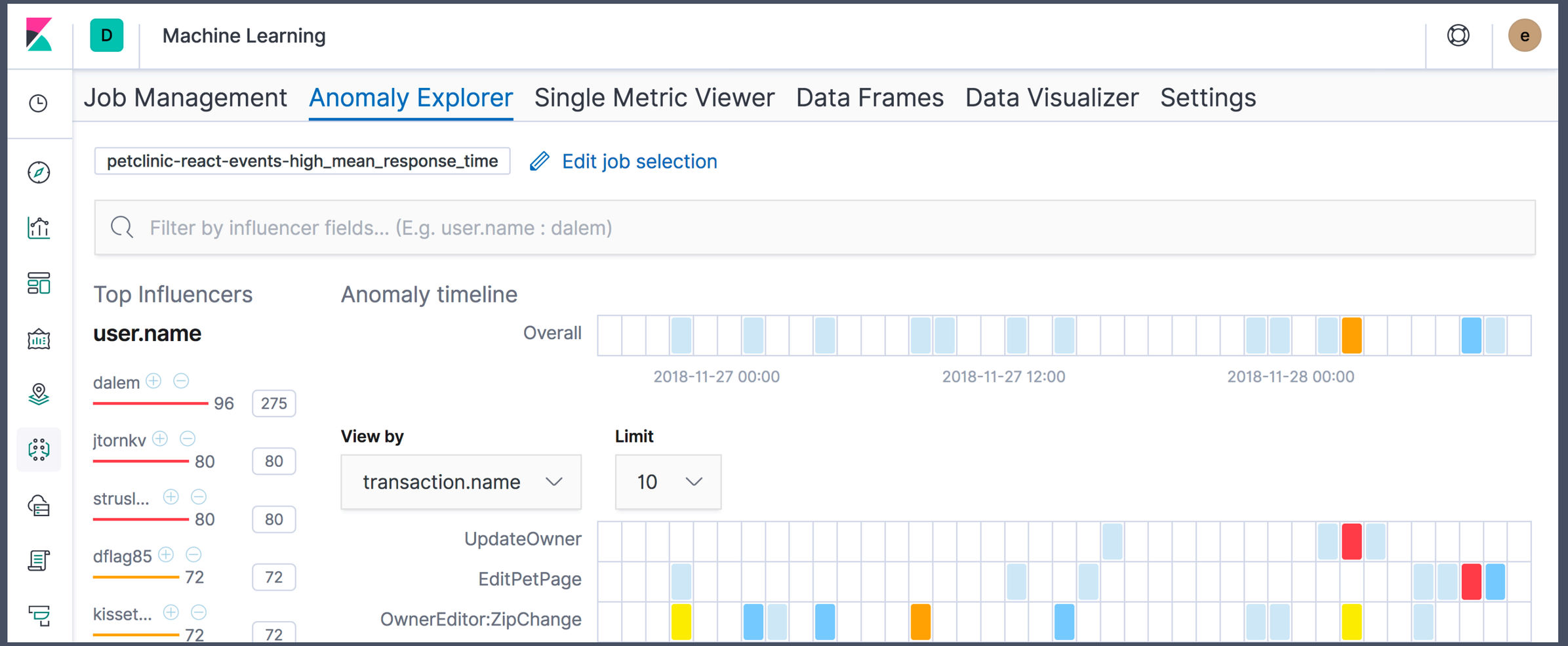
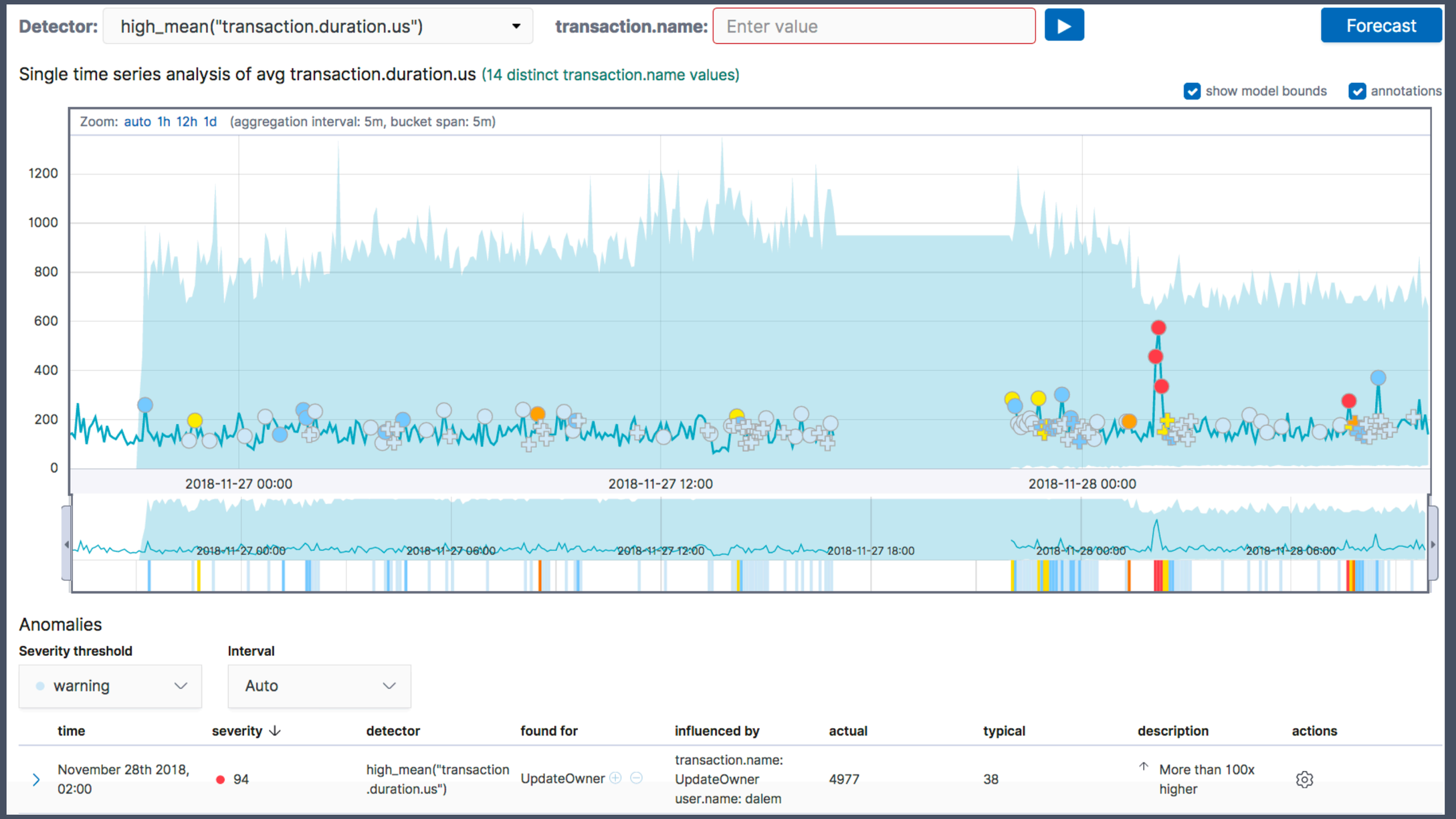

D
Machine Learning
e
Job Management
Anomaly Explorer
Single Metric Viewer
Data Frames
Data Visualizer
Settings
petclinic-react-events-high_mean_response_time
Edit job selection
Filter by influencer fields... (E.g. user.name : dalem)
Top Influencers
user.name
dalem
96
275
jtornkv
80
80
strusl...
80
80
dflag85
72
72
kisset...
72
72
Anomaly timeline
Overall
2018-11-27 00:00
2018-11-27 12:00
2018-11-28 00:00
View by
transaction.name
Limit
10
UpdateOwner
EditPetPage
OwnerEditor:ZipChange



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BUSINESS MODELS

VARIETY: CHARGE PER NODE / DATA VOLUME / DATA STORAGE / COMPUTE / OPS USER. ...

STRATEGIC VIEW

- HONEYCOMB: EVENTS, STRUCTURED INFO RATHER THAN LOGS, UNKNOWN UNKNOWNS, THE SYSTEM TEACHES US
- ELASTIC AND SPLUNK: ONE-STOP SHOP (BUT PRICING VARIES BY ORDERS OF MAGNITUDE IN DIFF USE CASES)
- MANY OTHERS

THE FUTURE

- IN-DEPTH COMPARISON OF VENDORS?
- TRYING EVERY TOOL AVAILABLE AND WRITING A BOOK?
- PRODUCT MANAGERS @ VENDORS DECIDE WHERE NEXT?
- TIME-TESTED METHOD: GO RANT AT SEVERAL CONFERENCES ABOUT YOUR OWN FRUSTRATIONS!