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Dark Sky Camping: Reducing Alert Pollution with Modern Observability Practices

Kristin Smith
DevOps Services Lead, Campspot

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 : kristinmariesmith



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96%

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Clutter

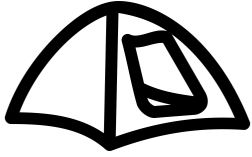
Skyglow

Light Trespass

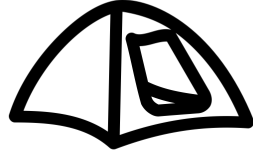
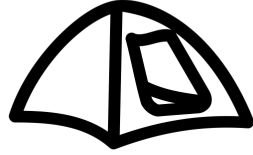
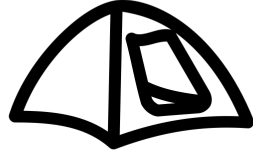
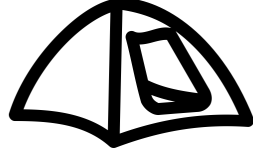
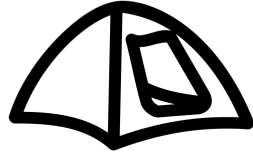
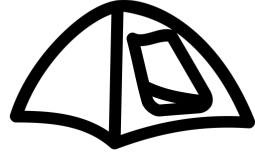
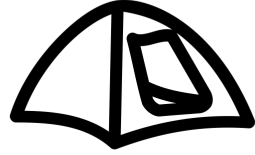
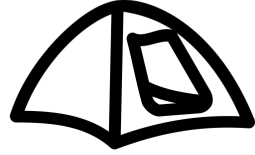
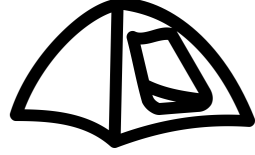
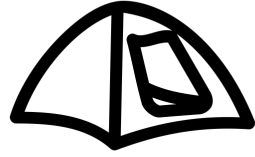
Glare

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January 2020



July 2021



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January 2020

Do Do

Do Do

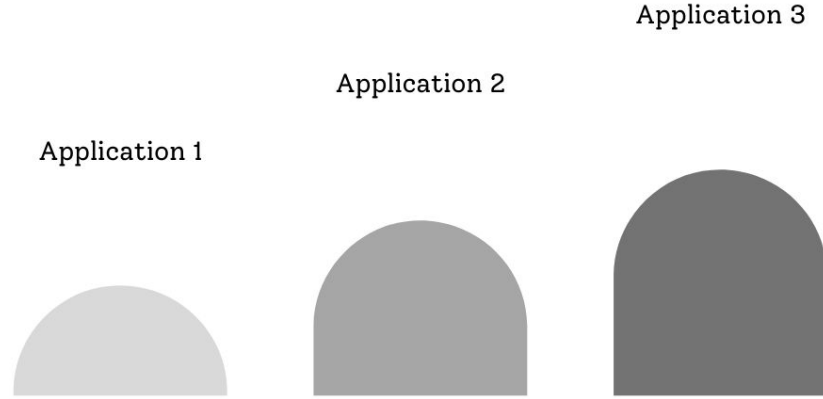
July 2021

Do Do Do Do

Do Do Do Do

January 2020

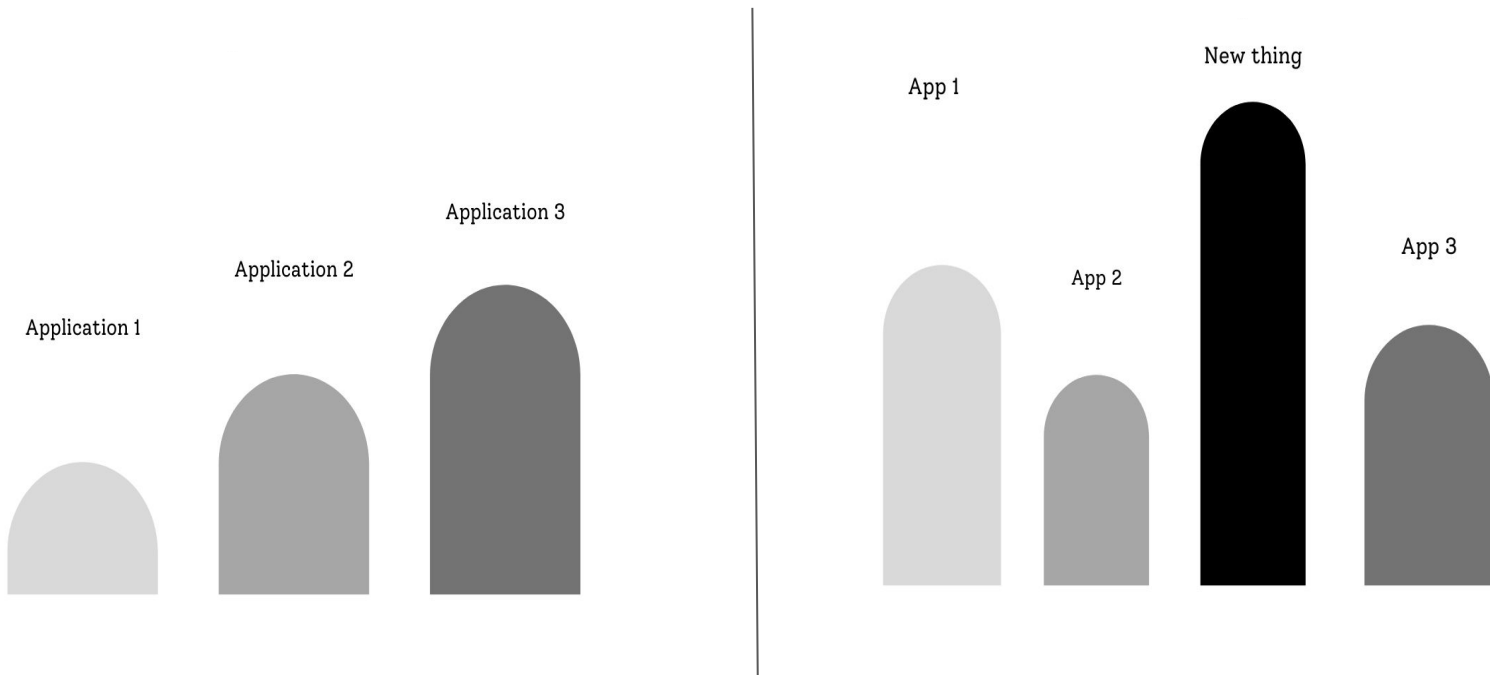
Starting Point



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July 2021

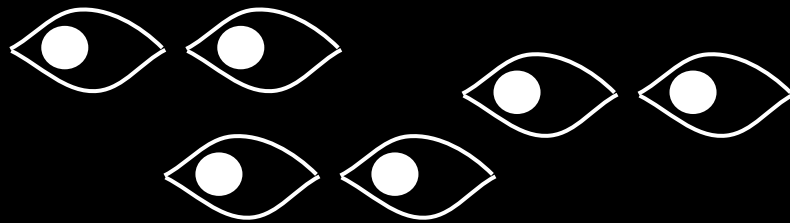
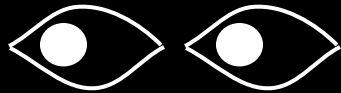
Expectation versus Reality



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Early Spring 2021

Incidents...











May 2021

Observability Commitment

- Standardize tools everyone can use
- Focus on what matters
- Invest in asking better questions

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May 2021

Translated...

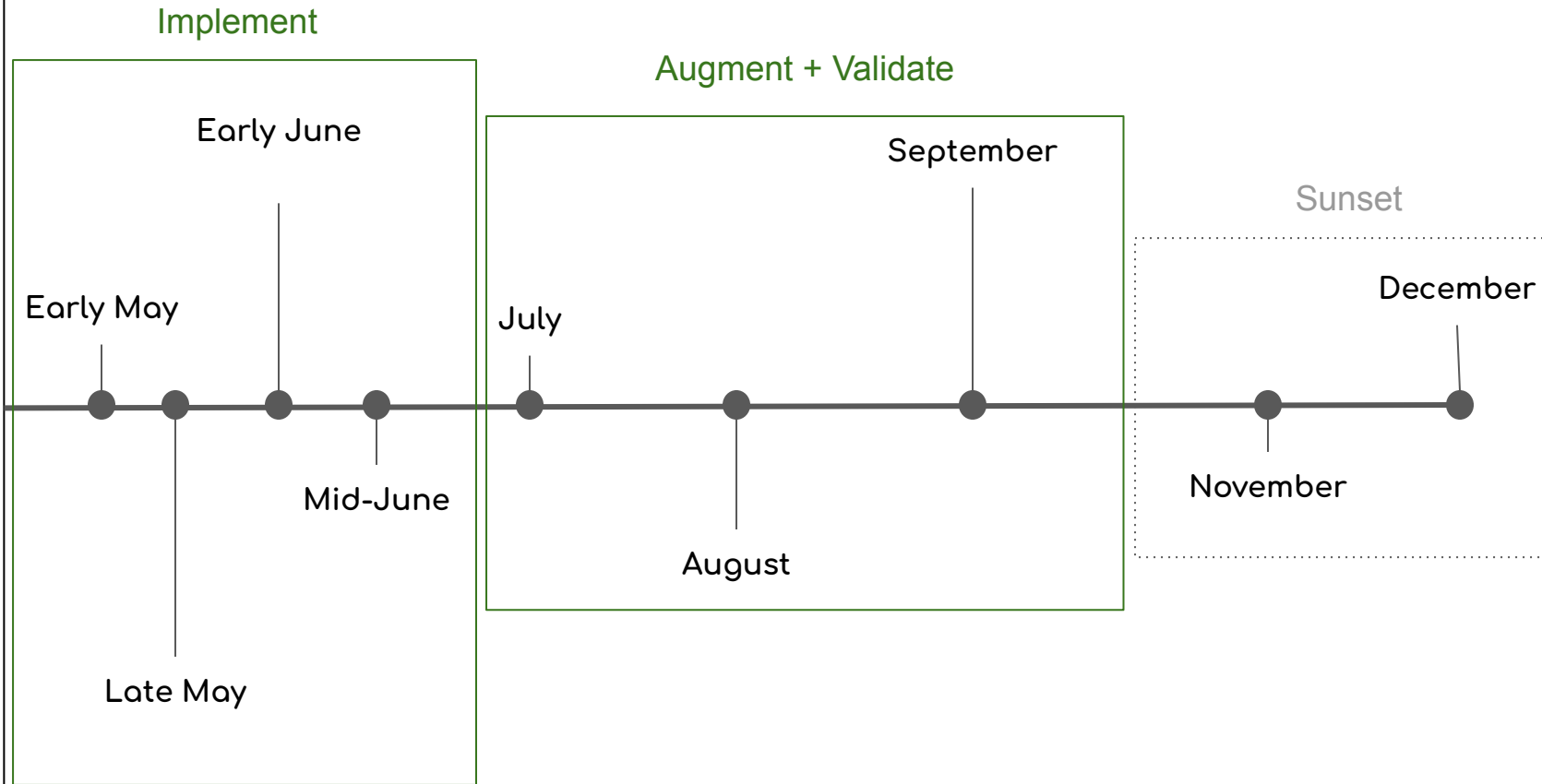
- Migrate from app metrics to tracing with context
- Funnel everything into Honeycomb
- All alerting goes through PagerDuty
- Aim for “good enough” customer experience (SLO’s)

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Implementation



Summer 2021



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1 week of half days = 20 hrs/team

Developers + 2 operations folks (+
product owner buy-in)

4 hours

Minimal setup with Java agent

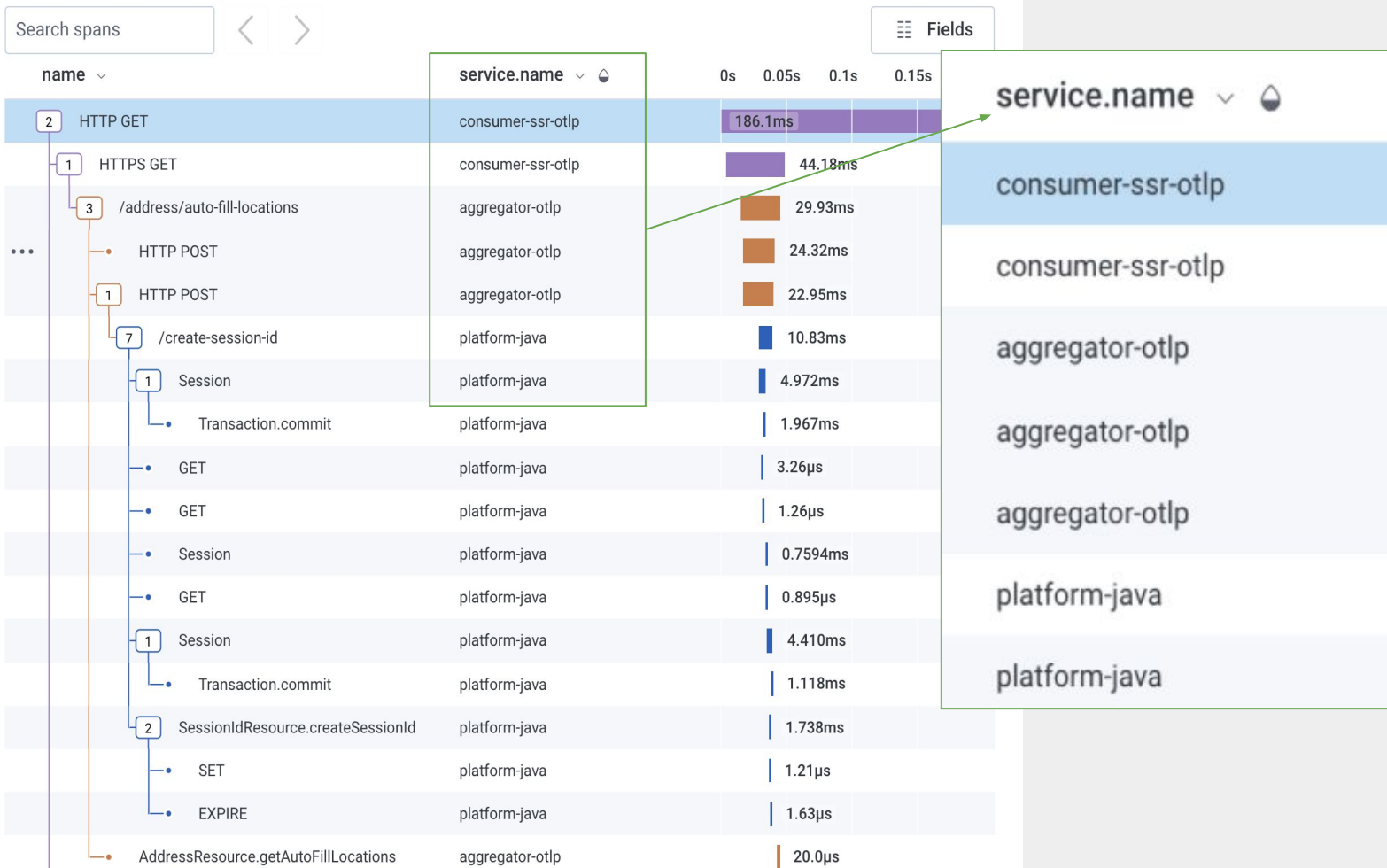
docker-compose.yml

```
environment:
  - HONEYCOMB_API_KEY=$HONEYCOMB_API_KEY
volumes:
  - /opentelemetry-javaagent.jar:/opentelemetry-javaagent.jar
```

build.gradle

```
application {
  applicationDefaultJvmArgs = [
    "-javaagent:opentelemetry-javaagent.jar",
    "-Dotel.exporter.otlp.endpoint=https://[REDACTED]:9090",
    "-Dotel.exporter.otlp.headers=x-honeycomb-team=<HONEYCOMB_API_KEY>,x-honeycomb-dataset=${[REDACTED]}",
    "-Dotel.resource.attributes=service.name=aggregator-otlp",
    "-Dotel.javaagent.exclude-classes=io.rollout.*"
  ]
}
```


Automatic Cross-application Tracing



First pass - custom info

```
private fun initializeOpenTelemetryAttributes(parkId: Long?, slug: String?) {  
    val span = Span.current()  
  
    span.setAttribute("client_type", RequestData.clientType.toString())  
    span.setAttribute("ip_address", RequestData.ipAddress)  
    span.setAttribute("session_id", RequestData.sessionId.toString())  
    span.setAttribute("aggregator_session_id", RequestData.aggregatorSessionId.toString())  
    span.setAttribute("park_id", parkId.toString())  
    span.setAttribute("park_slug", slug.toString())  
    span.setAttribute("shopping_cart_uuid", RequestData.shoppingCartUuid.toString())  
}
```

host/client info
facilitates isolating
infra/device issues

shopping_cart_uuid
helps follow multiple
units of work in longer
workflows

park_id makes
communication SO
MUCH easier between
customers, account
managers, and
developers!

User-level information

production



March 7 Meghan right before getting kicked out

Kristin Smith created Mar 7, 2022

VISUALIZE

HEATMAP(duration_ms)

WHERE

service.name = platform-java
current_user_id =
park_id =

GROUP BY

server.ip_address
http.url

ORDER BY

None

LIMIT

100

HAVING

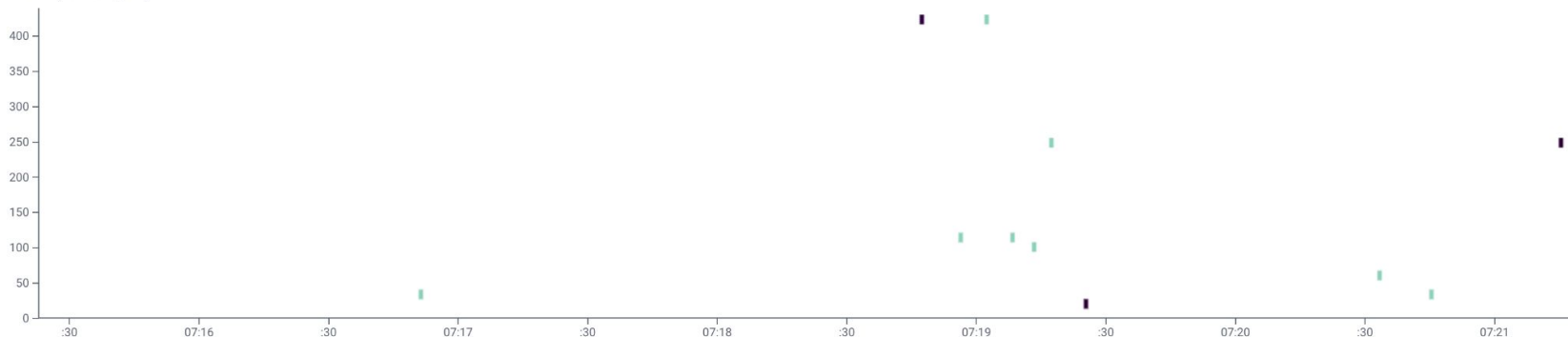
None; include all results

Results [BubbleUp](#) [Metrics](#) [Traces](#) [Raw Data](#)

Compare to Previous time range

Mar 7 2022, 7:15:23 AM – Mar 7 2022, 7:21:44 AM (Granularity: 1 sec)

HEATMAP(duration_ms)





Room for Improvement



30

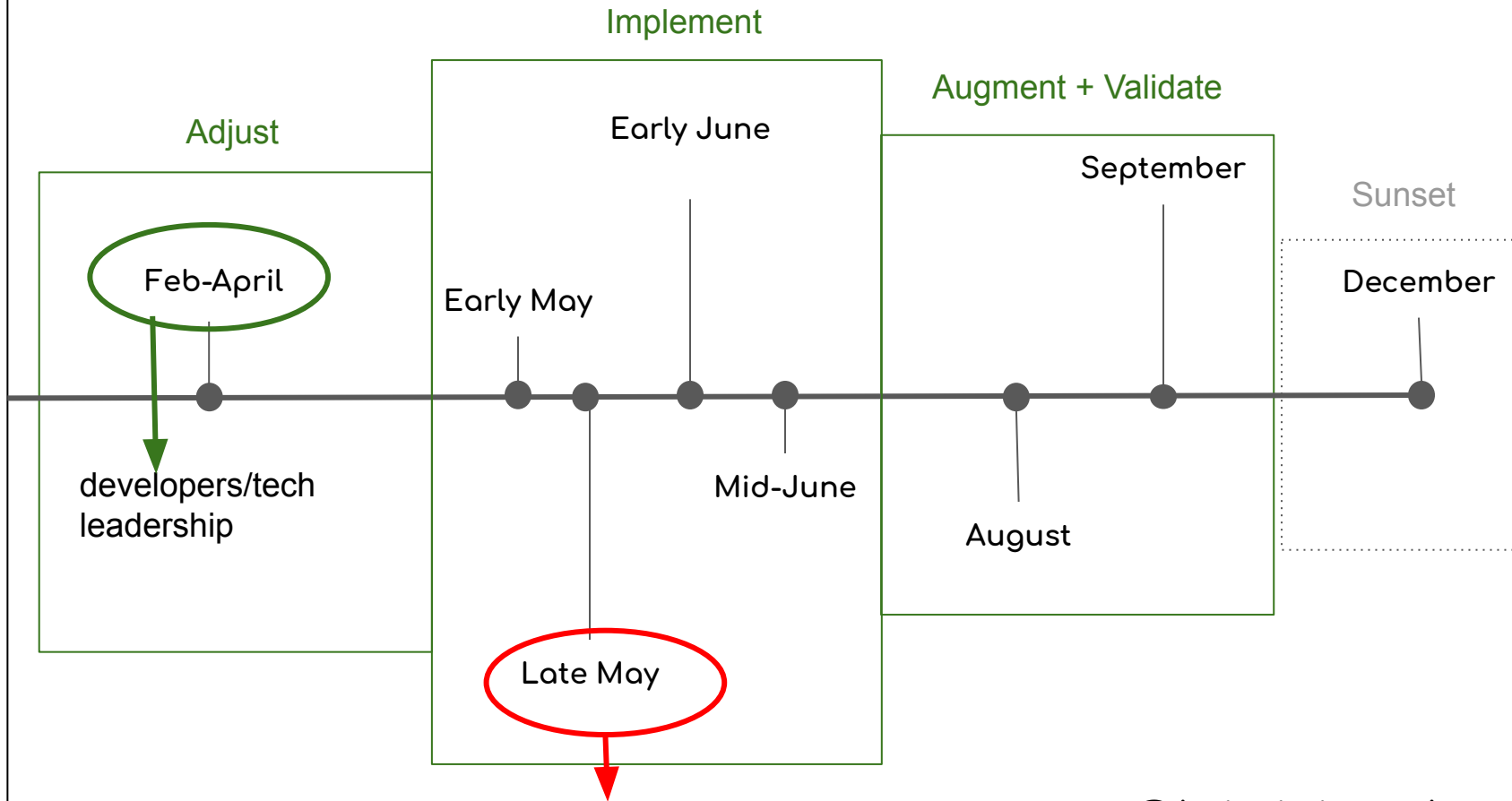
minutes



Uptime 99.999%

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Better timeline



sales team hears about SLO's :(

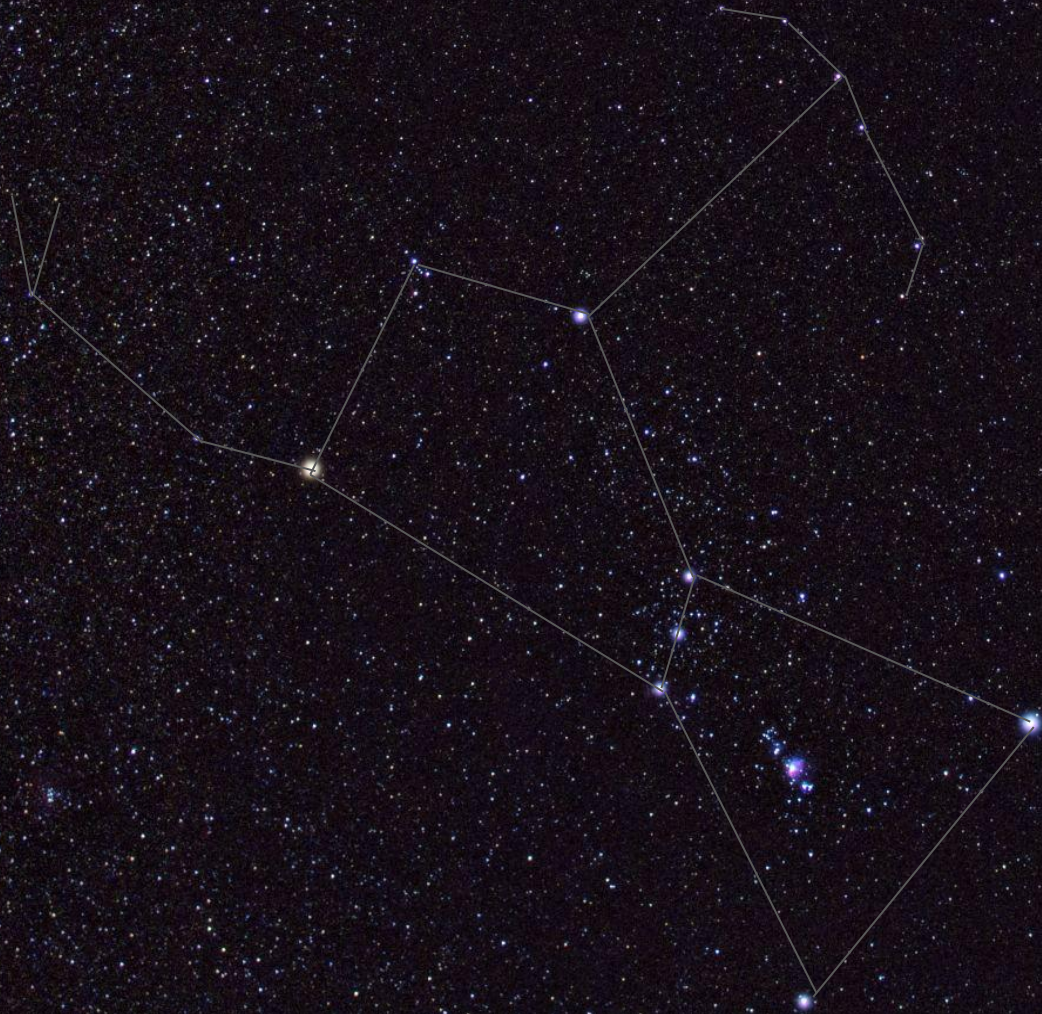
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“We know we had a problem - we added more monitoring”

- *tech team*



Orion





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Follow-up Links:

Connect with me:

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- LI: kristinmariesmith

What we're doing at Campspot:
software.campspot.com

Stars:
darksky.org