

Product Visualization

Through Live Metrics

By Skylar Watson

HYPOTHETICALLY SPEAKING

WHAT EXACTLY ARE WE DOING HERE

Do You React to
Failures?



Do You React to
Failures?



OR

Do You React to
Failures?



OR

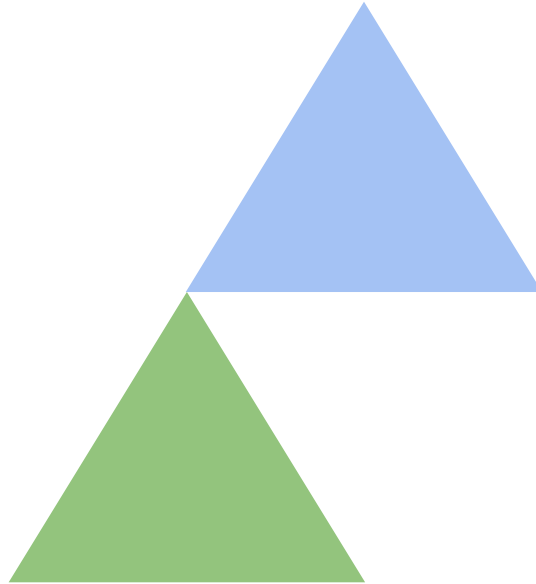
Do You Respond to
Failures?



What to Measure

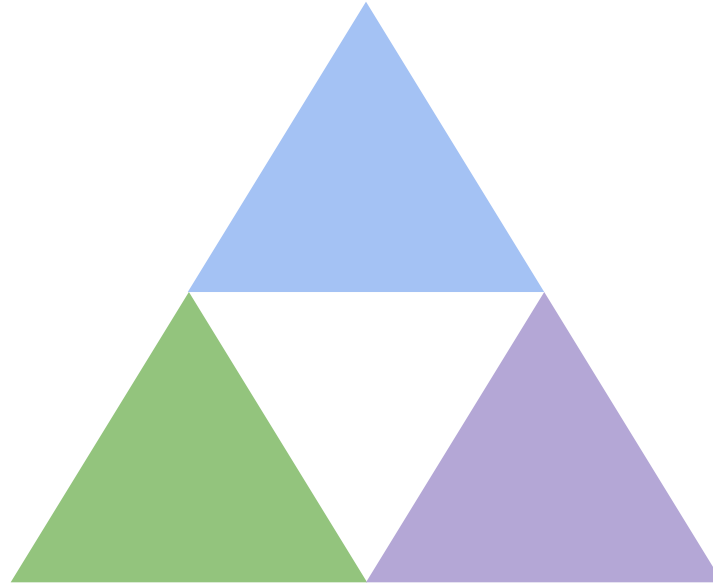


What to Measure



Industry Examples

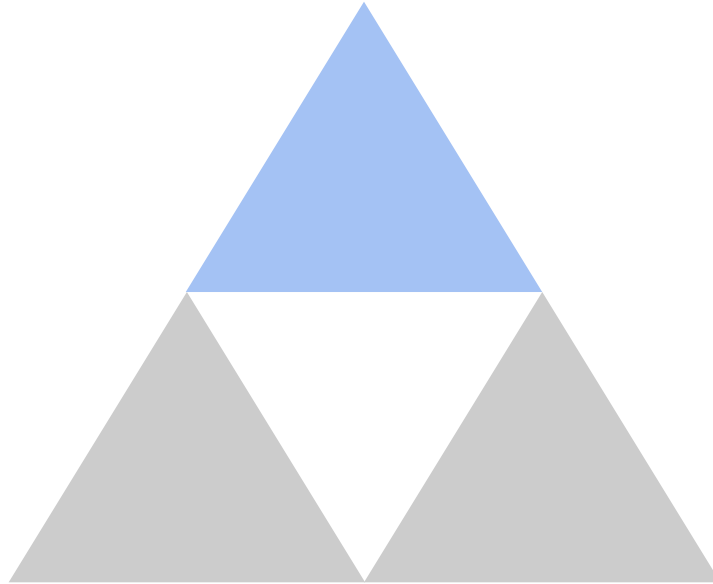
What to Measure



Industry Examples

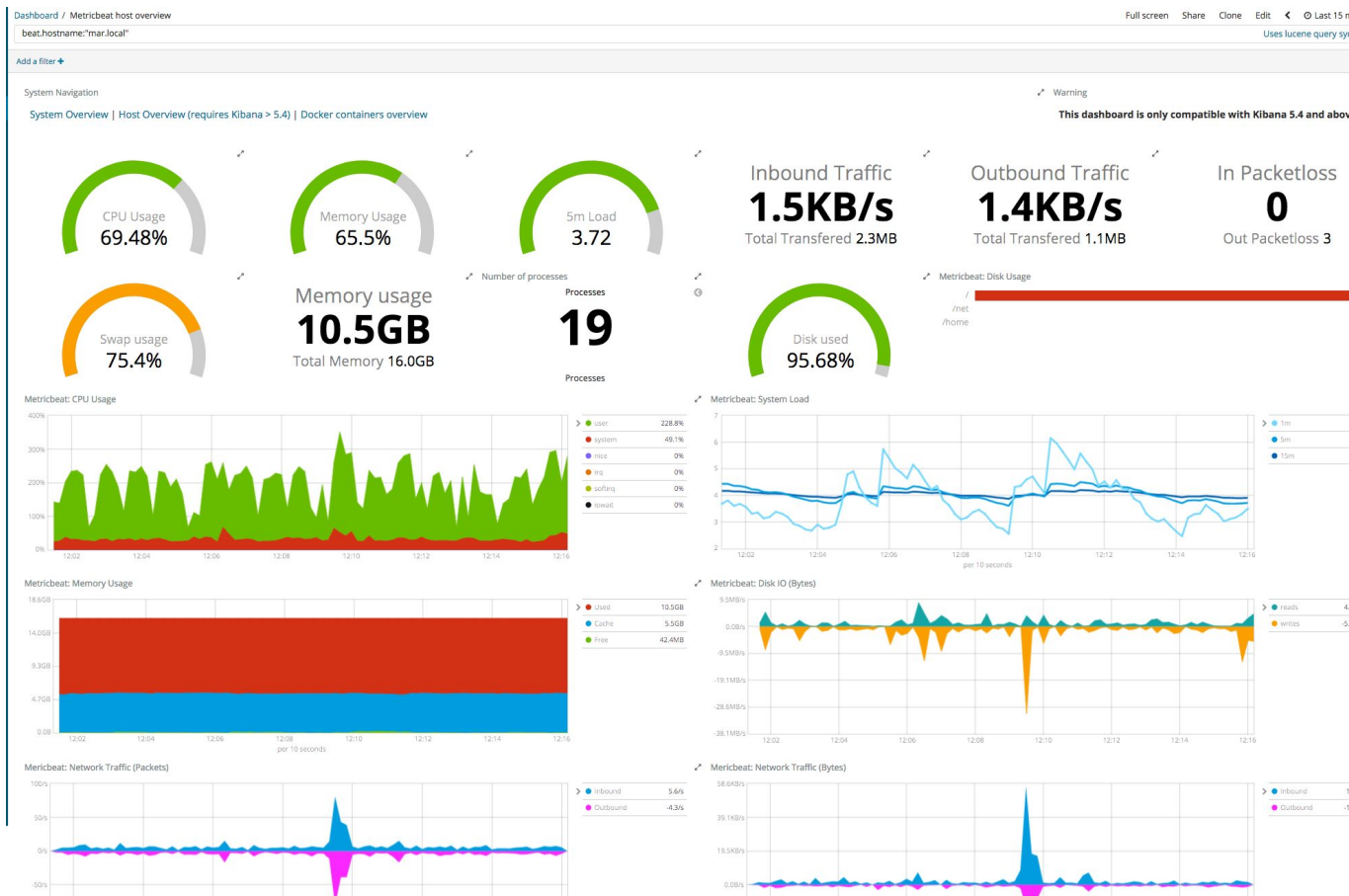
A Deeper Dive

What to Measure



Industry Examples

A Deeper Dive



What to Measure



What does that data tell us?



What to Measure



What does it tell us about the product?



What to Measure



Output

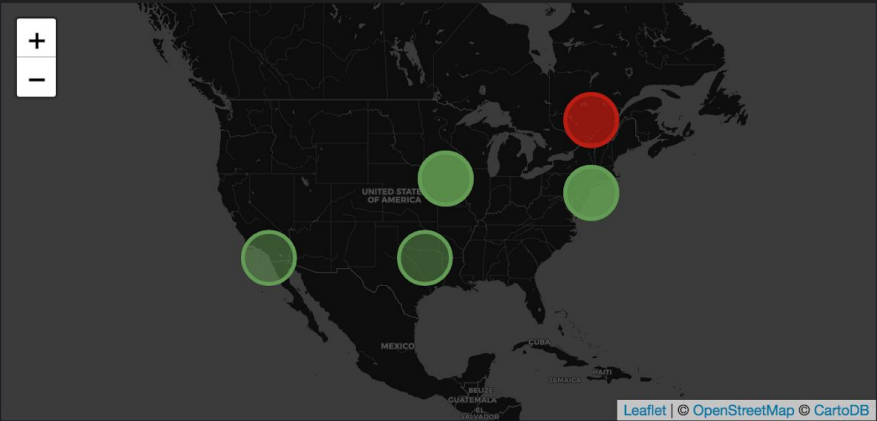
Captures details
about how work is
being done.

Outcome

Measures the
difference a team's
work makes in the
world.



Global Health ▾



Beer Revenue



Beer Revenue

\$216

Beer Sold

58

Declined Cards

1

Failed Transactions

35

Purchase Details

City Beer Consumed ▾	City Beer Purchased	Price
Huntington Beach, CA	Boston, MA	\$8.50
Dallas, TX	Dearborn, MI	\$4.75
Dallas, TX	Des Moines, IA	\$6.50
Ontario, Canada	Des Moines, IA	N/A

What does that data tell us?



What to Measure

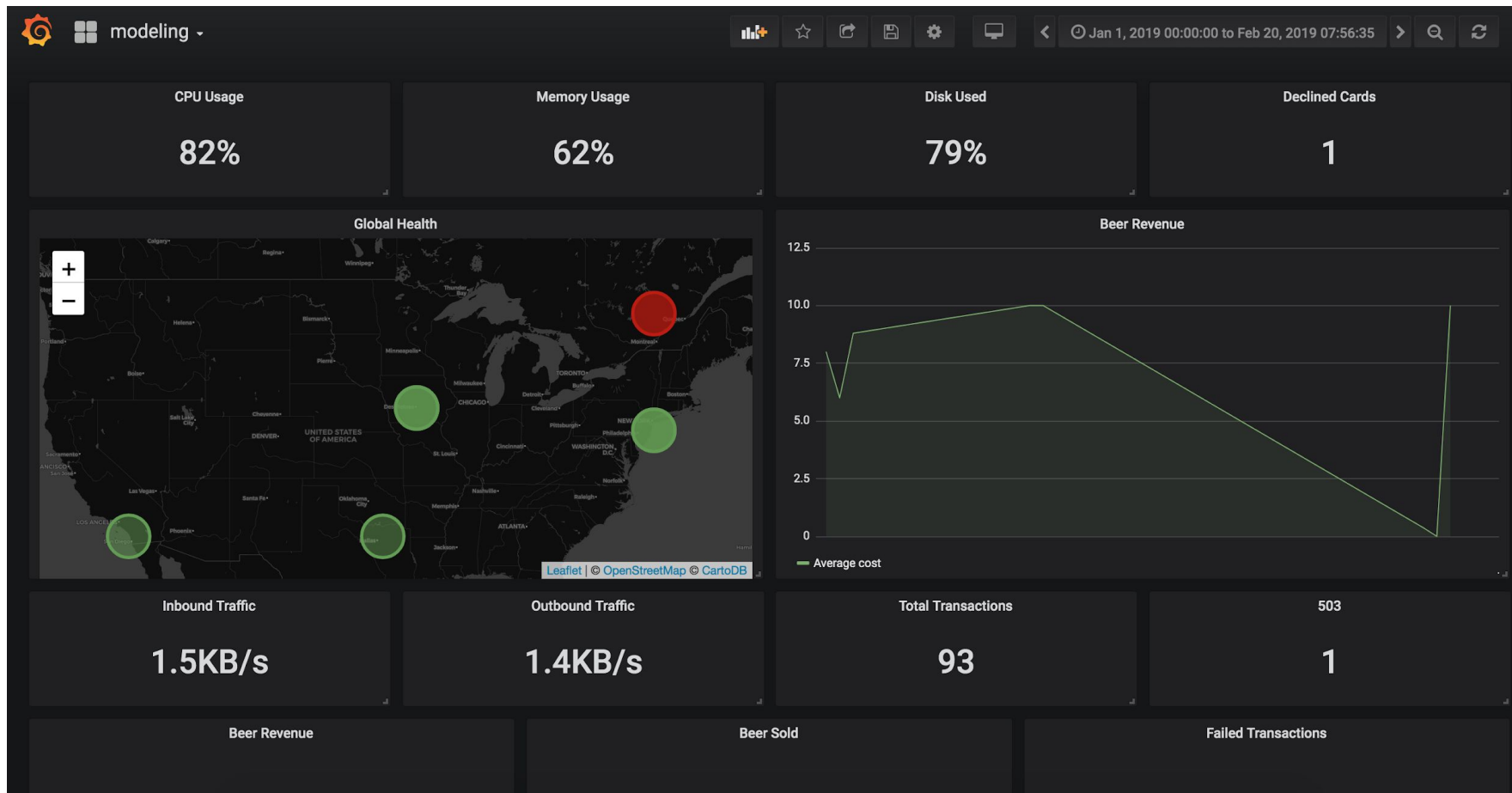


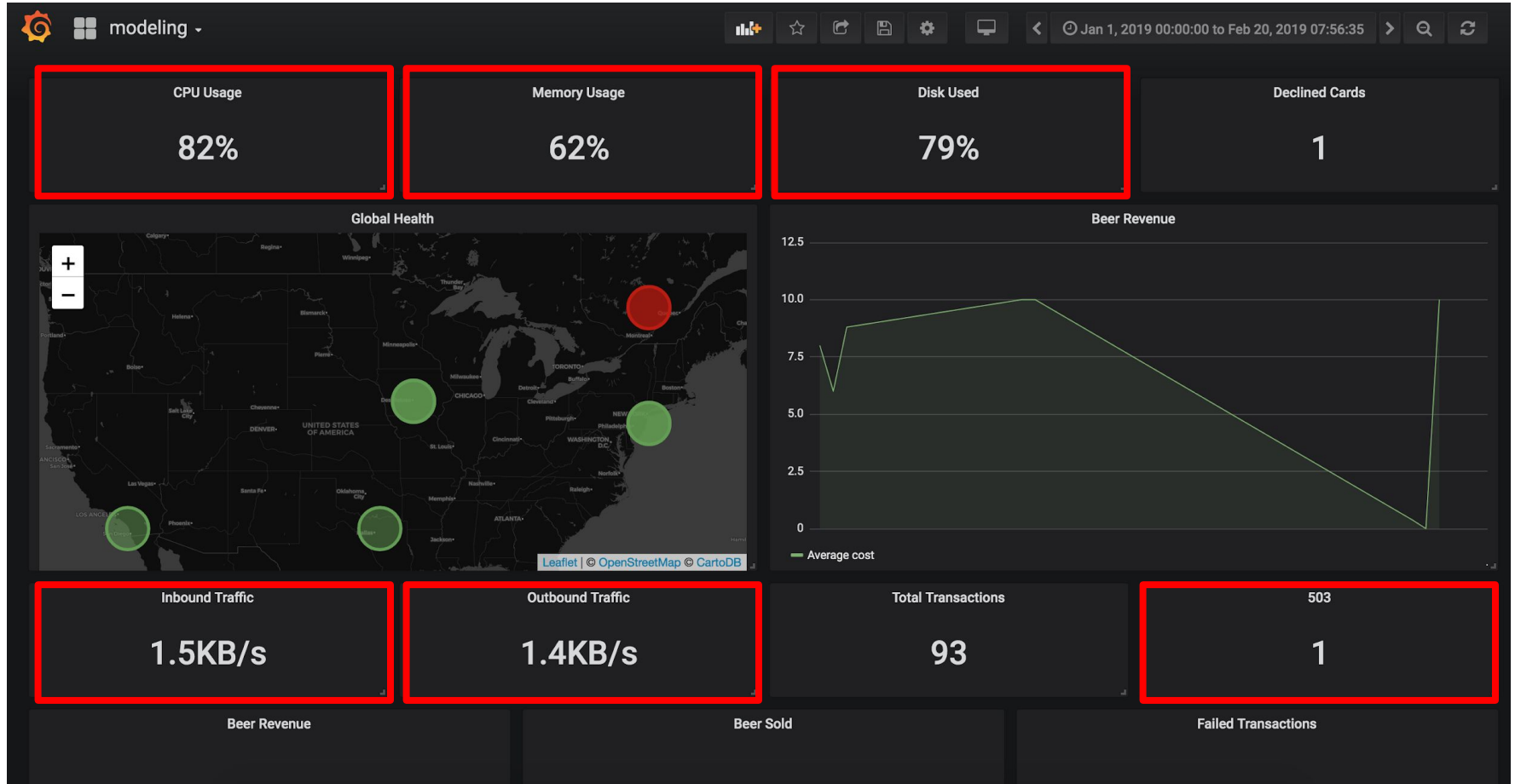
What does it tell us about the product?

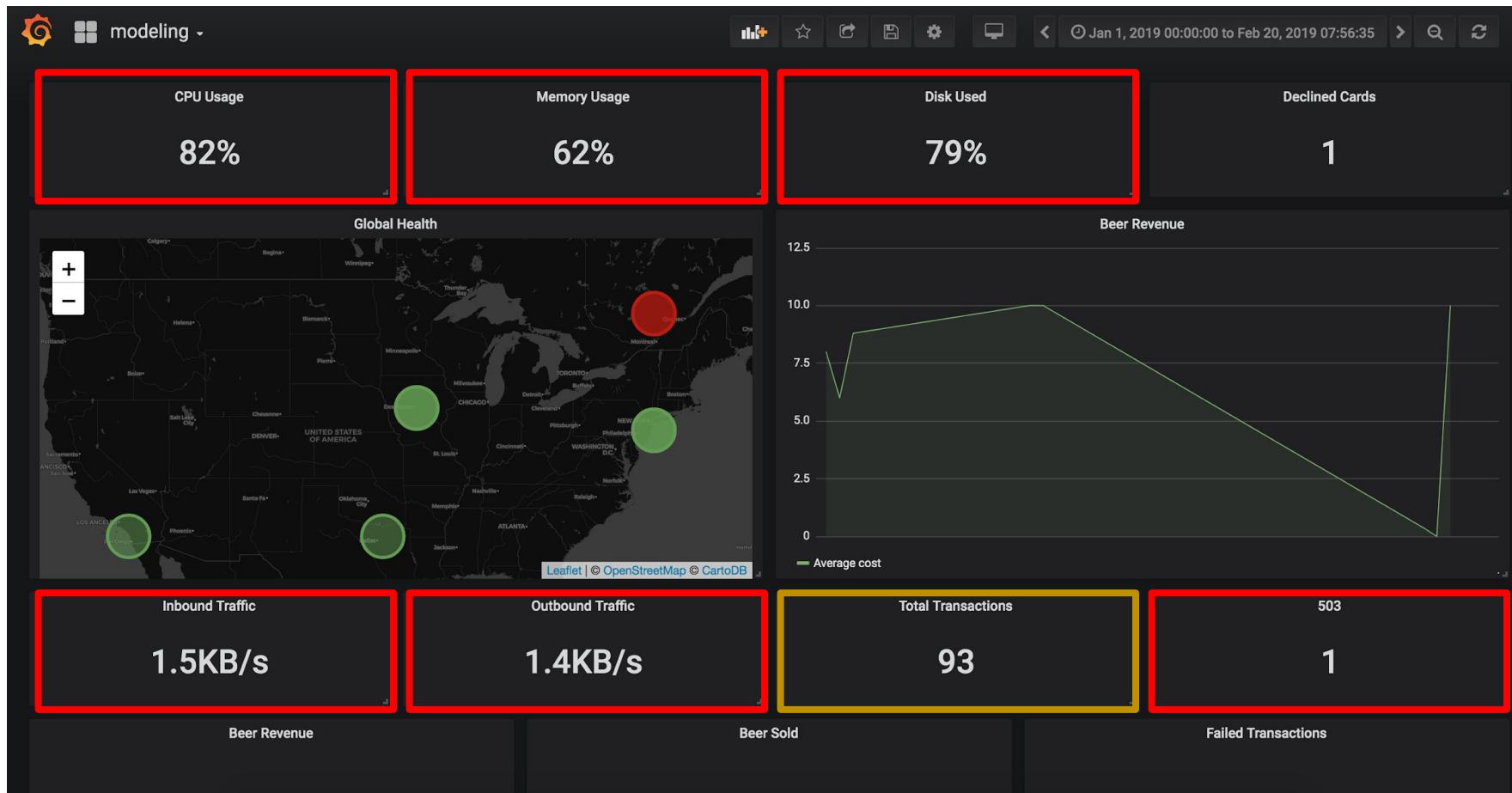


What to Measure









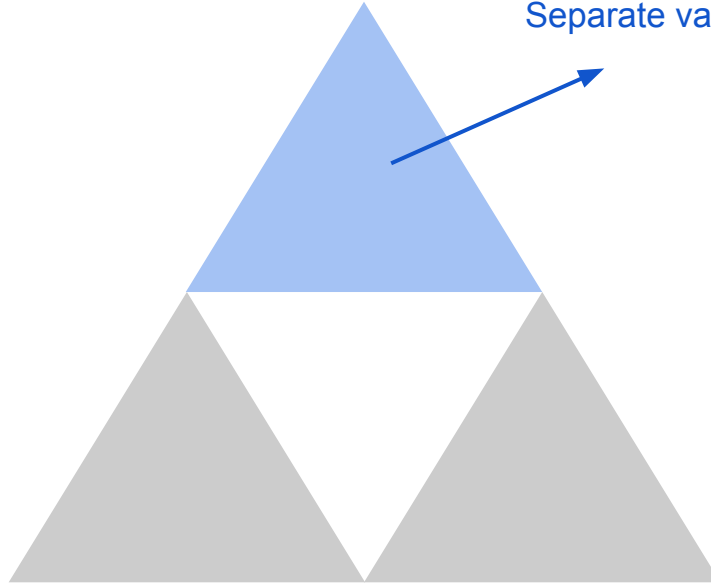


What to Measure



What to Measure

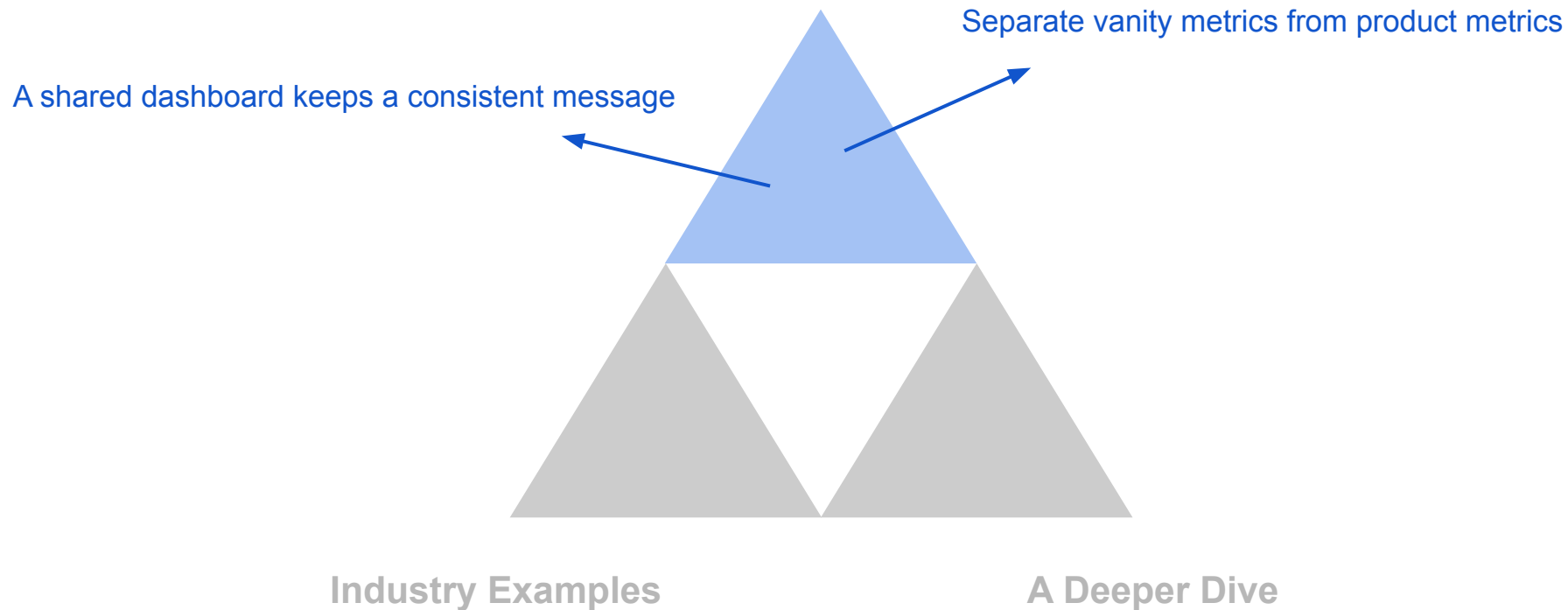
Separate vanity metrics from product metrics



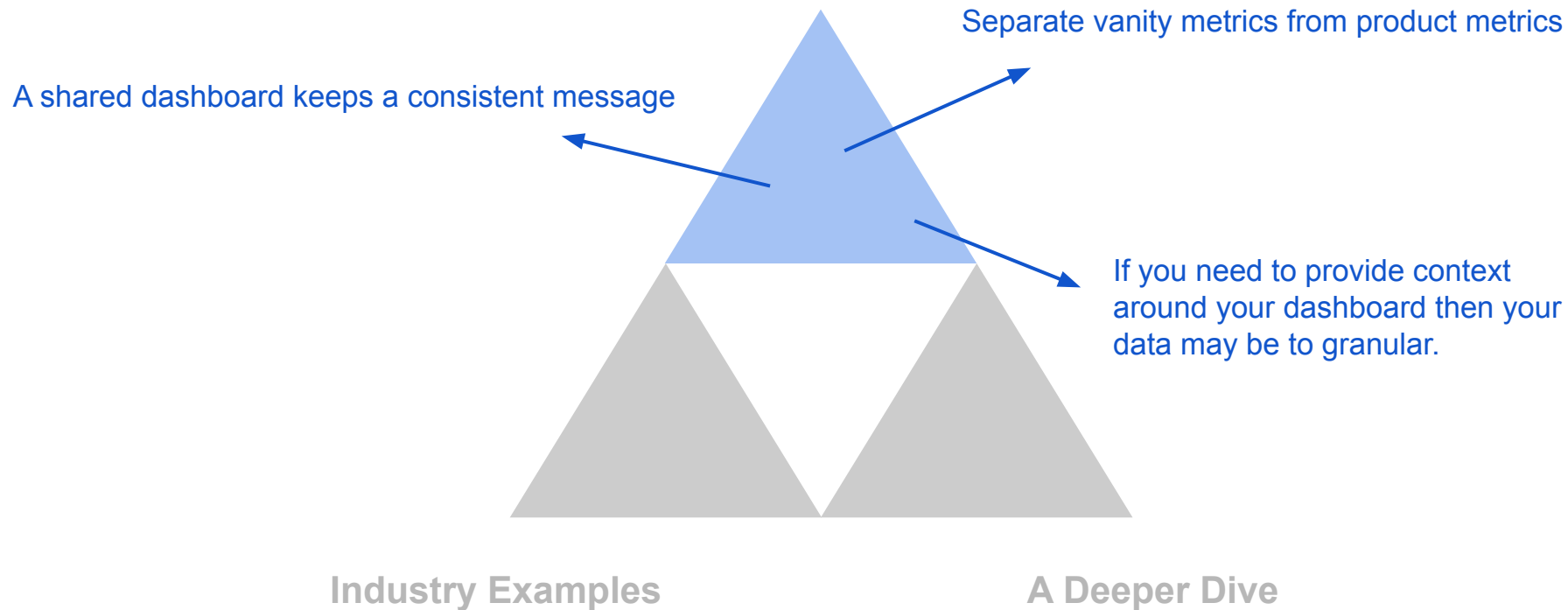
Industry Examples

A Deeper Dive

What to Measure



What to Measure



What to Measure



Industry Examples

A Deeper Dive

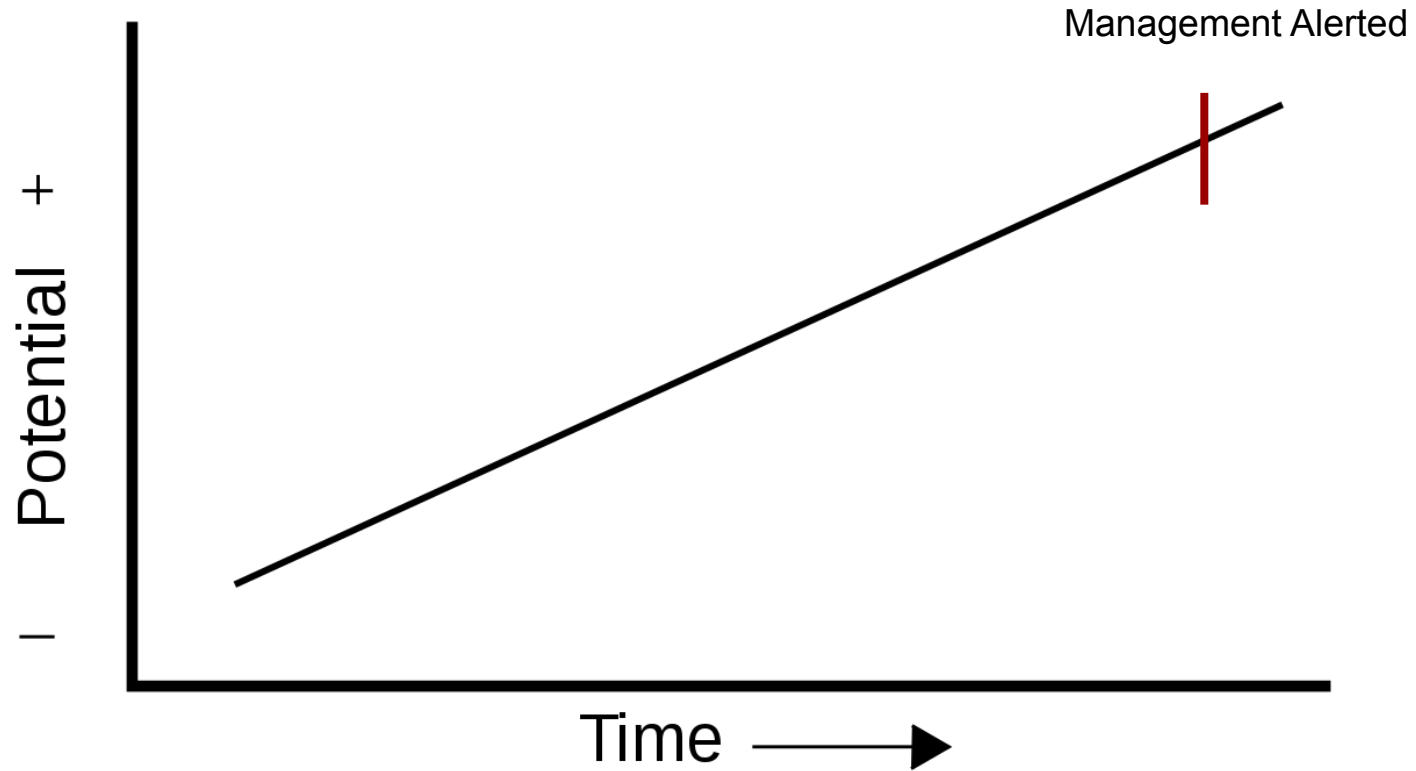


Industries



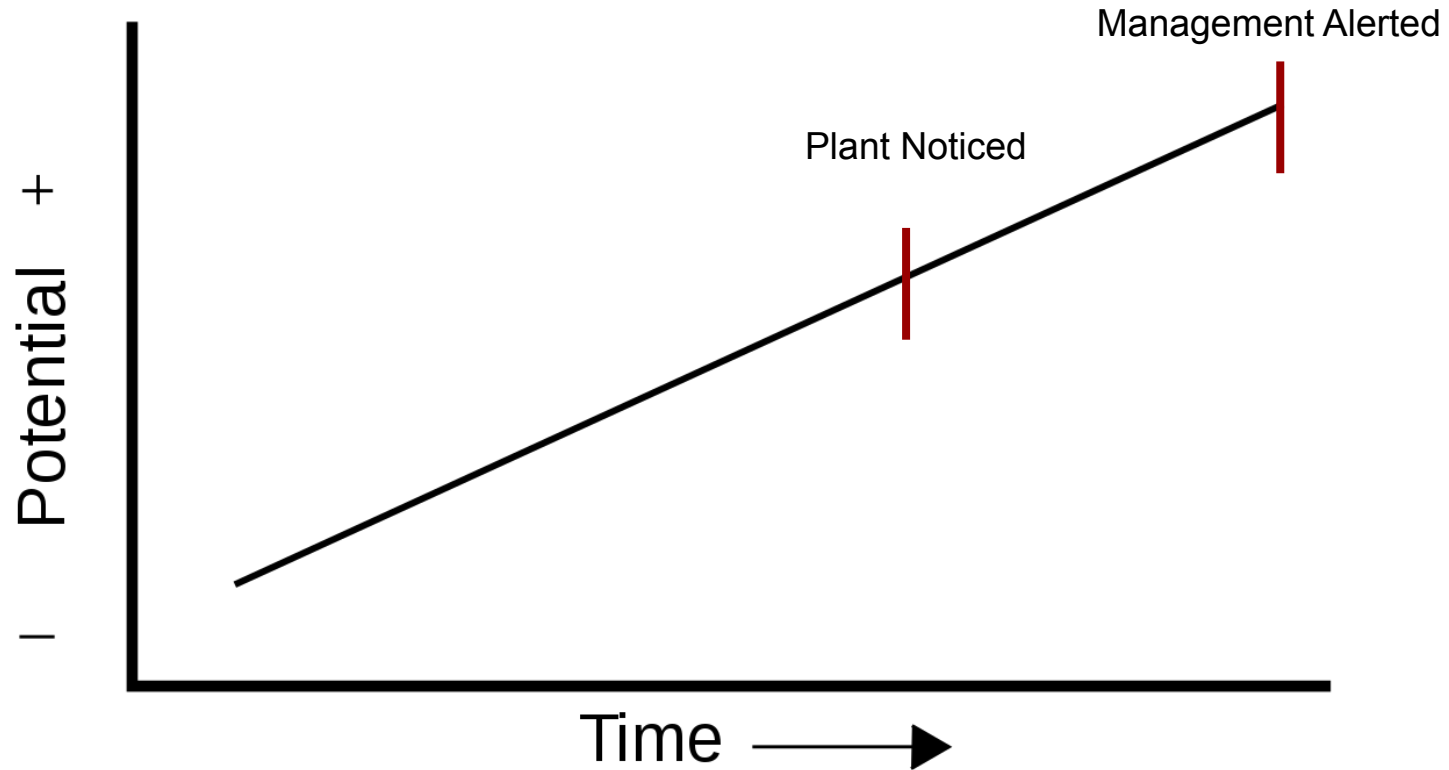






Industries



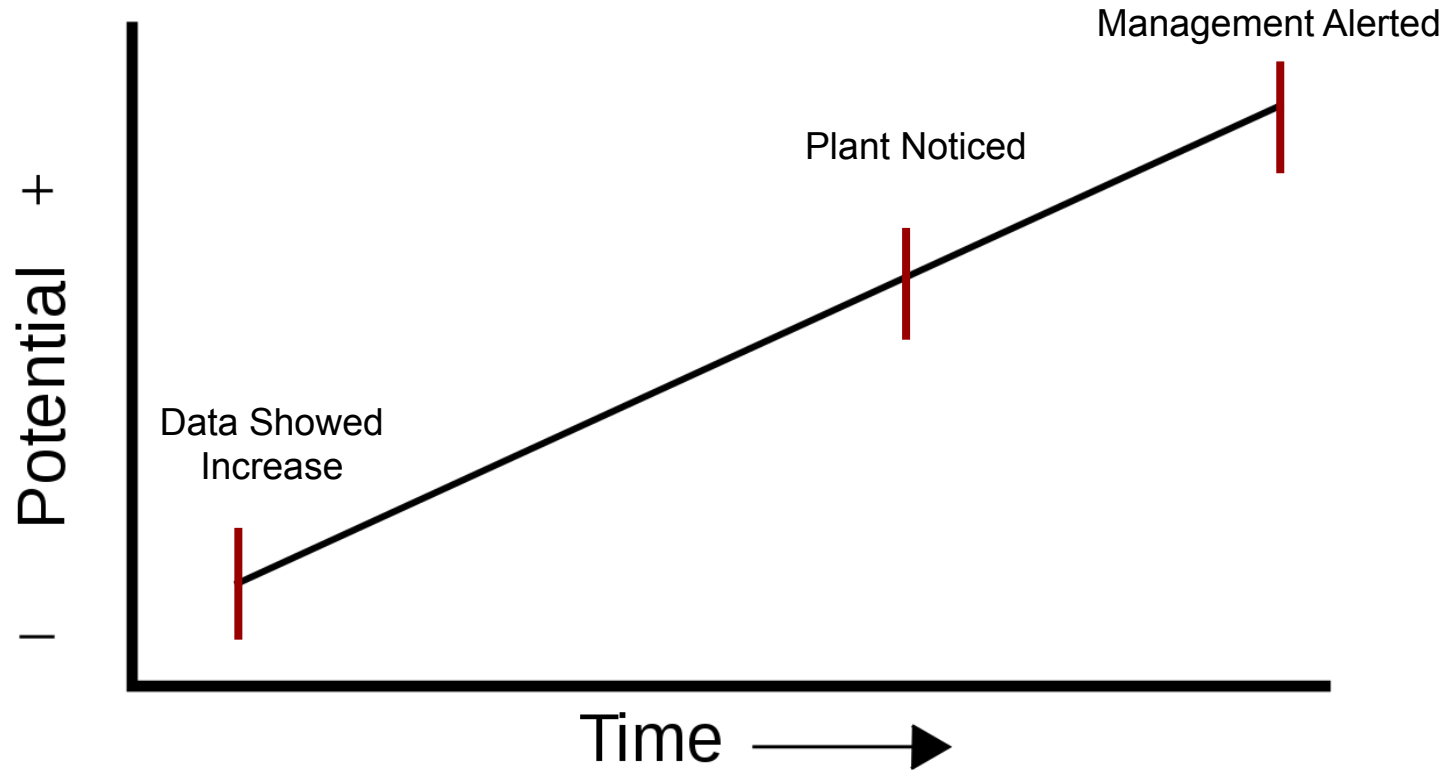


Industries



What if we looked
at the data?





Industries













Industries





Industries









Data Helps w/ Future Experiments

Name: Black Kolsch

Targeted FG: 1.013

Volume: 16 gallons

*** estimated value***

Recipe – In the Shadows - Stout

Rahr 2-row Malt	24.0 lbs	\$16.56
Munich Light	6.0 lb	
Pale Chocolate	0.75 lb	
Black Patent	1.5 lb	
German Traditional (AA: 7.8)	3.0 oz @ 60 min	\$0.93
	1.5 oz @ 20 min	
	1.5 oz @ 10 min	

Water – Amber Bitter

MgSO ₄	(Epson Salt)	1.7 grams – mash	1.4 grams – sparge
NaCl	(Canning Salt)	0.5 grams – mash	0.5 grams – sparge
CaCO ₃	(Chalk)	7.0 grams – mash	

Yeast – WY 2565 (Kolsch)

Date: 07/31/18 (2pk)

Viability: 78%

Volume: 16

Targeted Cells: 548 billion

Estimated Cells: 557 billion

Starter: 3L @ 1.040 (12.1 oz DME)

Attenuation: 73 – 77%

Temperature Range: 56 – 70° F

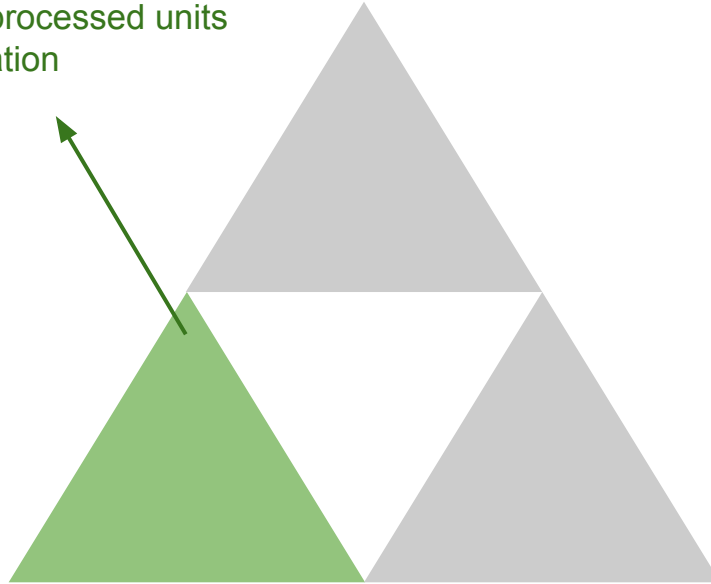
Estimated OG: 1.052

Industries



What to Measure

Understanding the growth of unprocessed units
allowed for risk mitigation



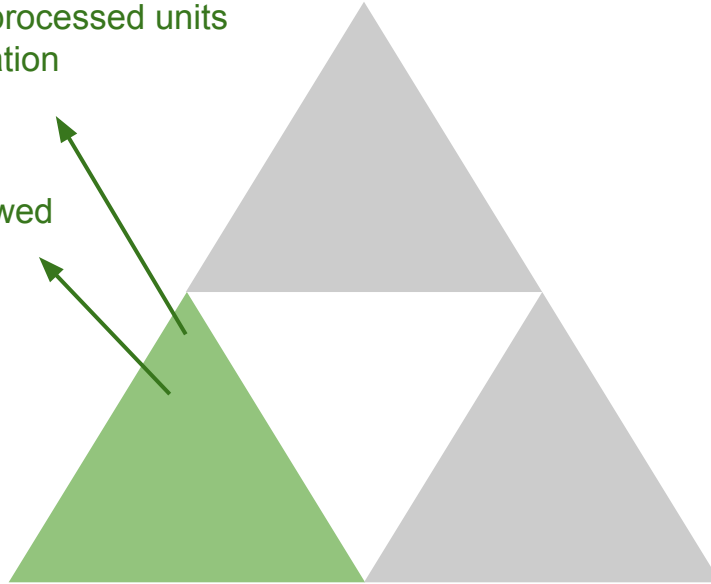
Industry Examples

A Deeper Dive

What to Measure

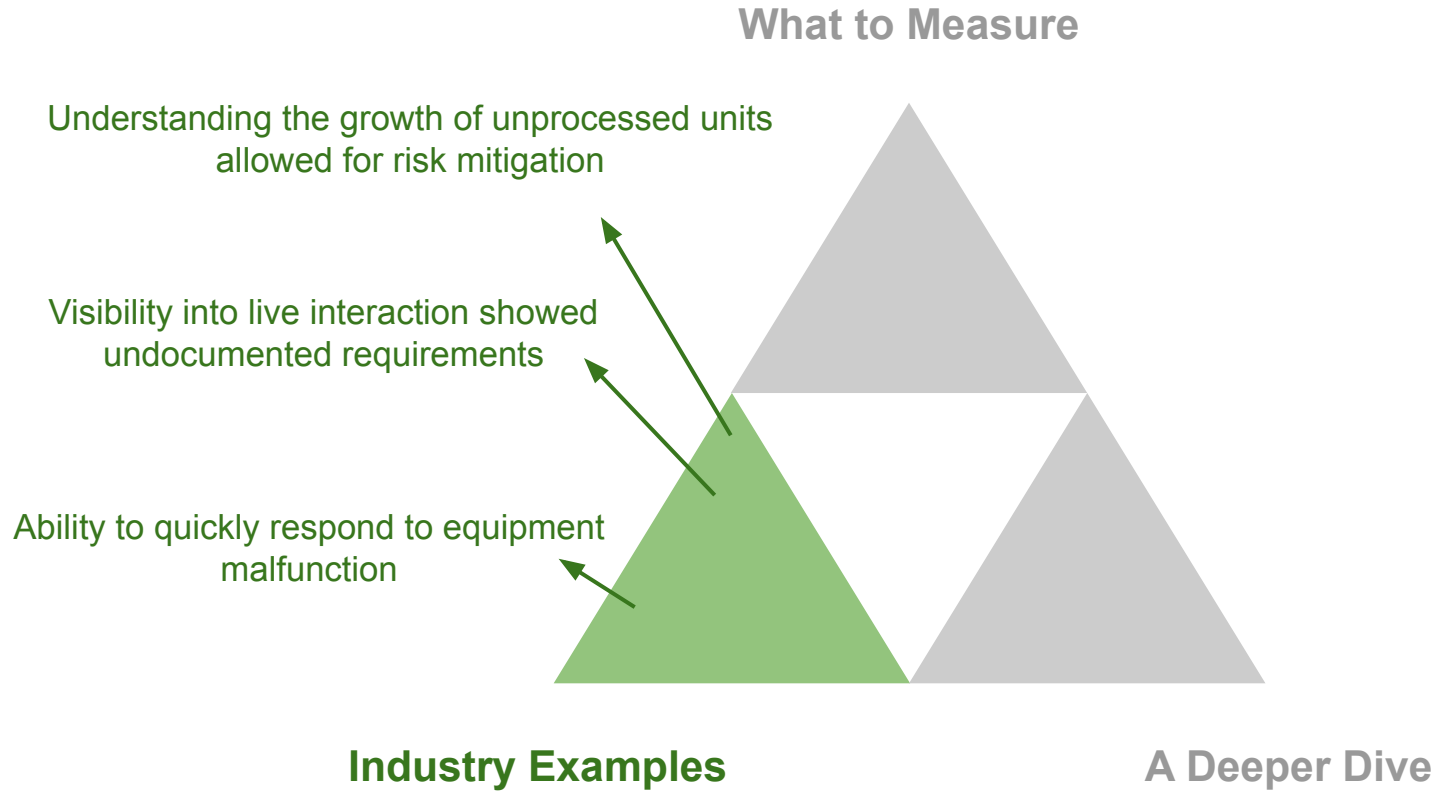
Understanding the growth of unprocessed units
allowed for risk mitigation

Visibility into live interaction showed
undocumented requirements

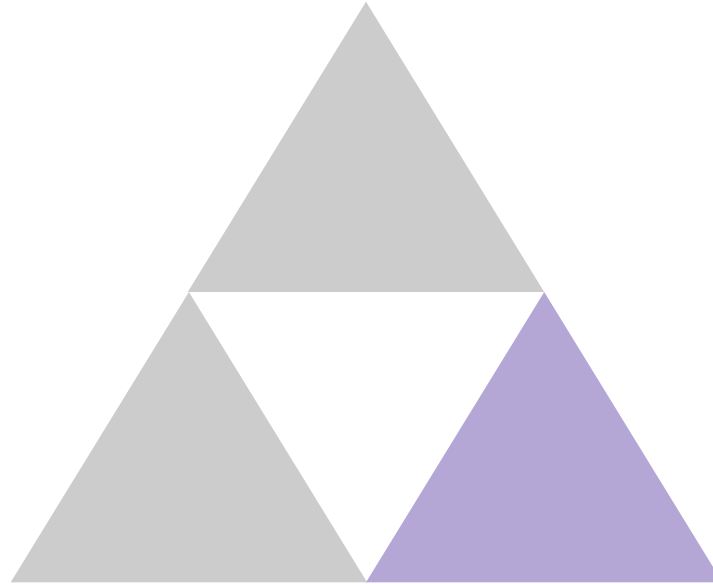


Industry Examples

A Deeper Dive



What to Measure



Industry Examples

A Deeper Dive

Presentation Layer



Datasource



elasticsearch

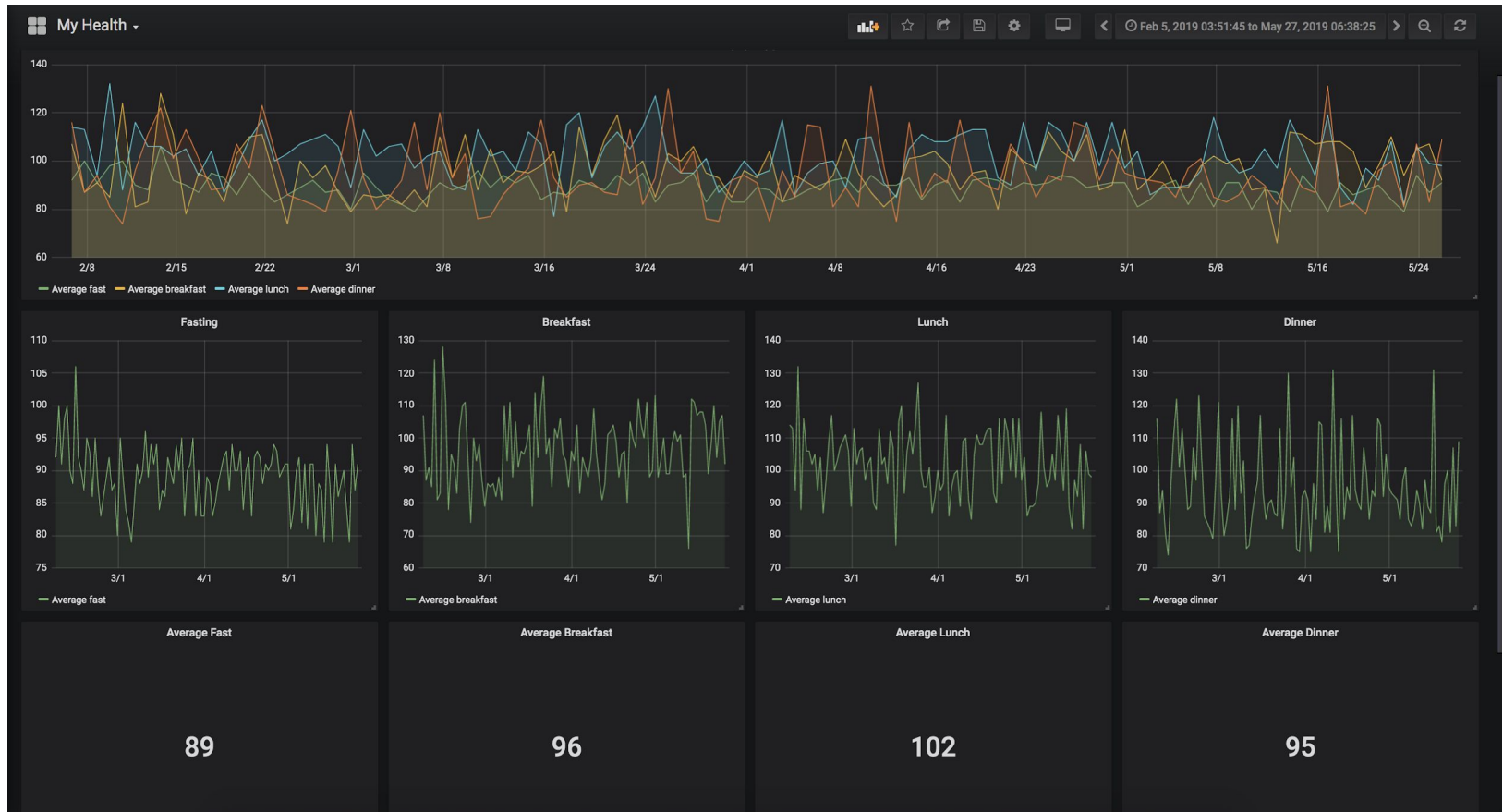
Data Collection and Aggregation



logstash

A Deeper Dive





Logstash




```
input {  
  file {  
    path => "PATH-TO-FILE"  
  }  
}
```



```
filter {  
  csv {  
    convert => {  
      "fast" => "integer"  
      "breakfast" => "integer"  
      "lunch" => "integer"  
      "dinner" => "integer"  
    }  
    separator => ","  
    columns => ["date", "fast", "breakfast", "lunch", "dinner"]  
  }  
  date {  
    match => ["date", "YYYY/MM/dd"]  
  }  
}
```



```
input {  
  jdbc {  
    jdbc_driver_library => "mysql-connector-java-5.1.36-bin.jar"  
    jdbc_driver_class => "com.mysql.jdbc.Driver"  
    jdbc_connection_string => "jdbc:mysql://localhost:3306/mydb"  
    jdbc_user => "mysql"  
    parameters => { "favorite_artist" => "Beethoven" }  
    schedule => "* * * * *"  
    statement => "SELECT * from songs where artist = 'artist'"  
  }  
}
```



```
output {  
  elasticsearch {  
    hosts => ["http://localhost:9200"]  
    index => "NAME-OF-INDEX"  
  }  
}
```



Elasticsearch



A Deeper Dive



GET <http://localhost:9200/> → Application Info

GET <http://localhost:9200/health?pretty> → Index Information

GET http://localhost:9200/_cat/indices?v → Index List

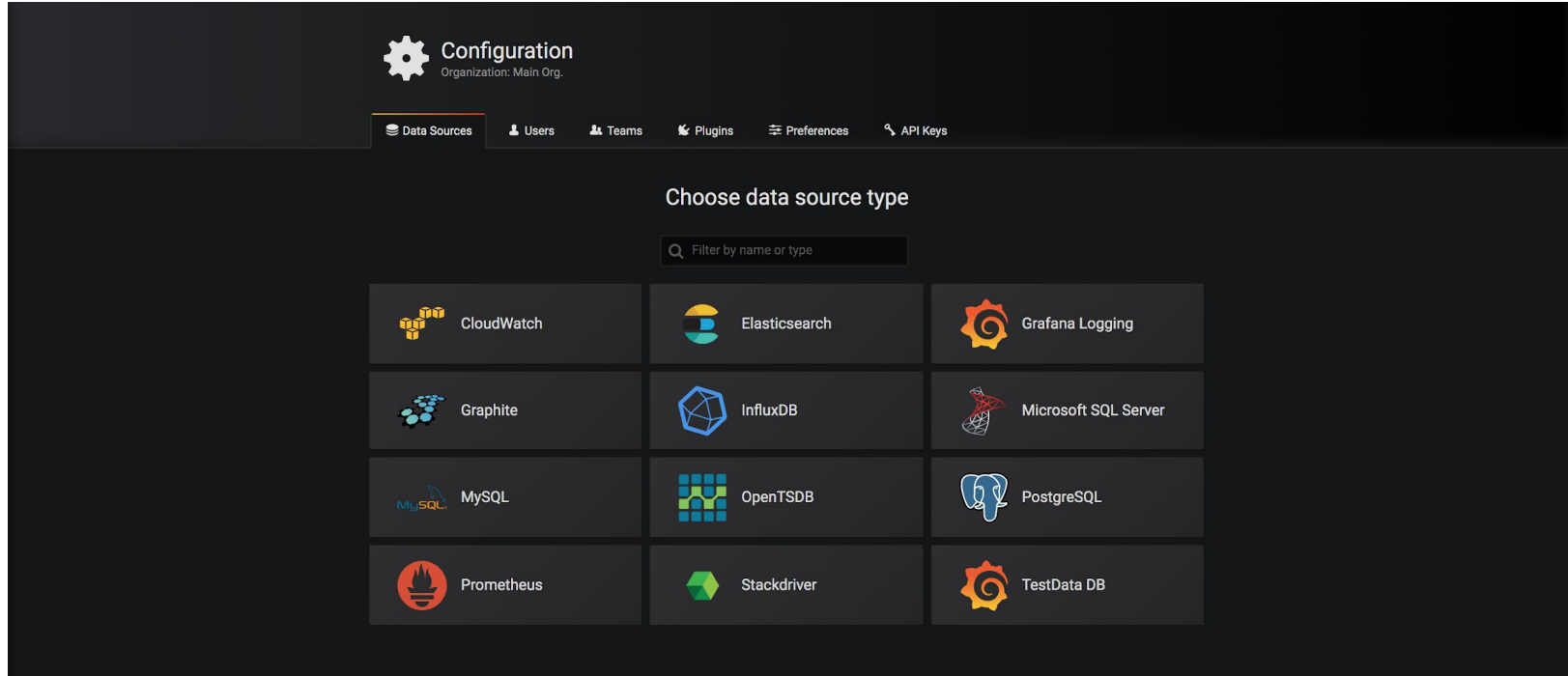



Grafana



A Deeper Dive





 **Data Sources / Elasticsearch**
Type: Elasticsearch

Settings

Settings

Name	Elasticsearch	Default	<input type="checkbox"/>
------	---------------	---------	--------------------------

HTTP

URL	http://localhost:9200	
Access	Server (Default)	Help
Whitelisted Cookies	Add Name	

Auth

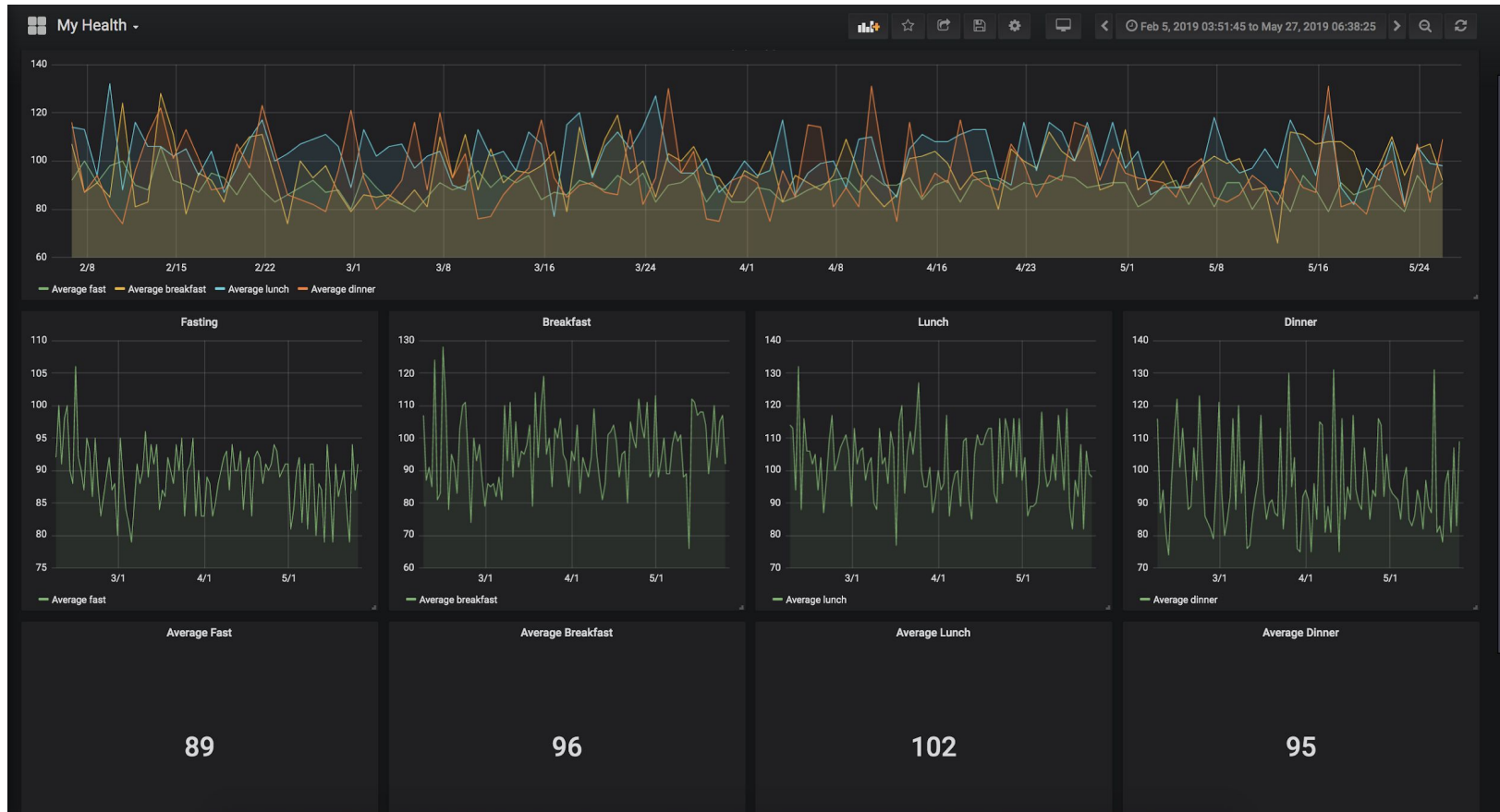
Basic Auth	<input type="checkbox"/>	With Credentials	<input type="checkbox"/>
TLS Client Auth	<input type="checkbox"/>	With CA Cert	<input type="checkbox"/>
Skip TLS Verify	<input type="checkbox"/>		

Elasticsearch details

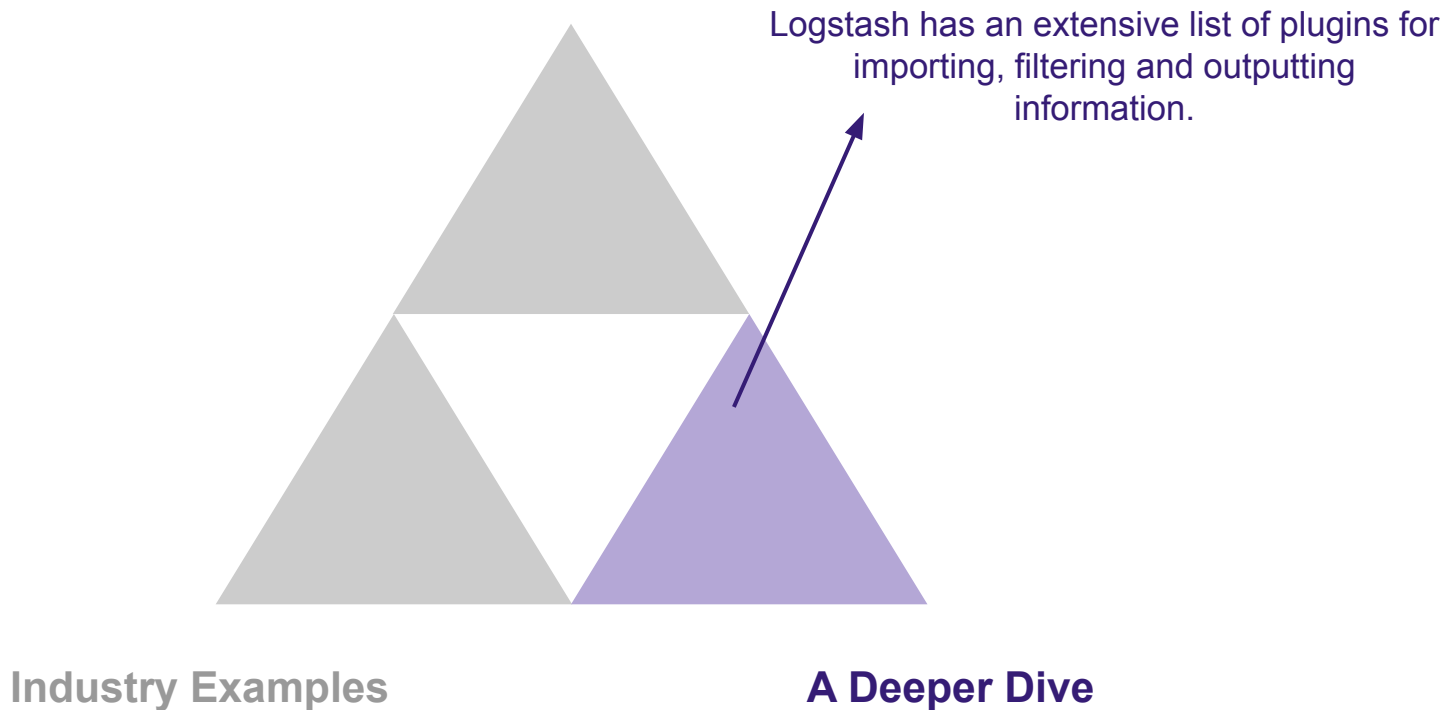
Index name	health	Pattern	No pattern
Time field name	date		
Version	6.0+		
Max concurrent Shard Requests	256		
Min time interval	10s		

[Save & Test](#) [Delete](#) [Back](#)

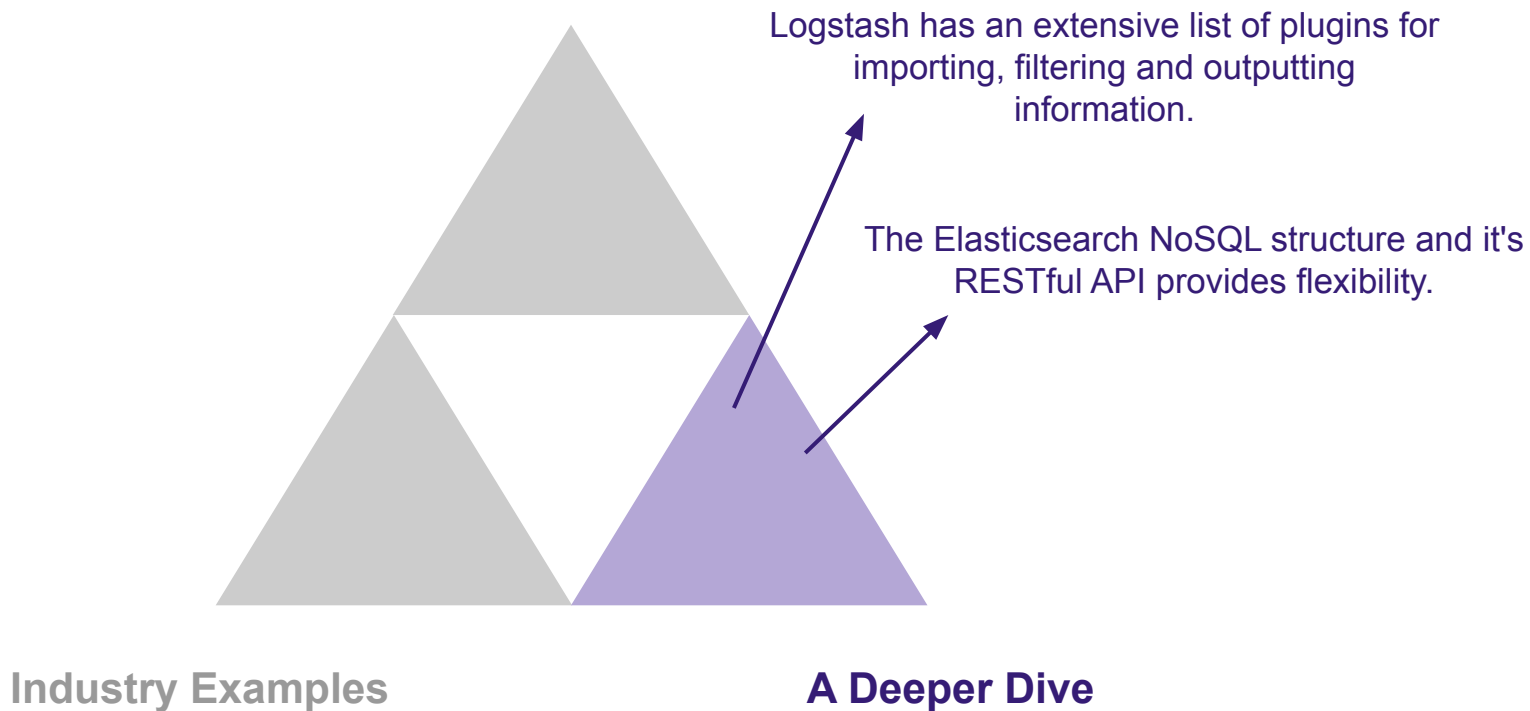




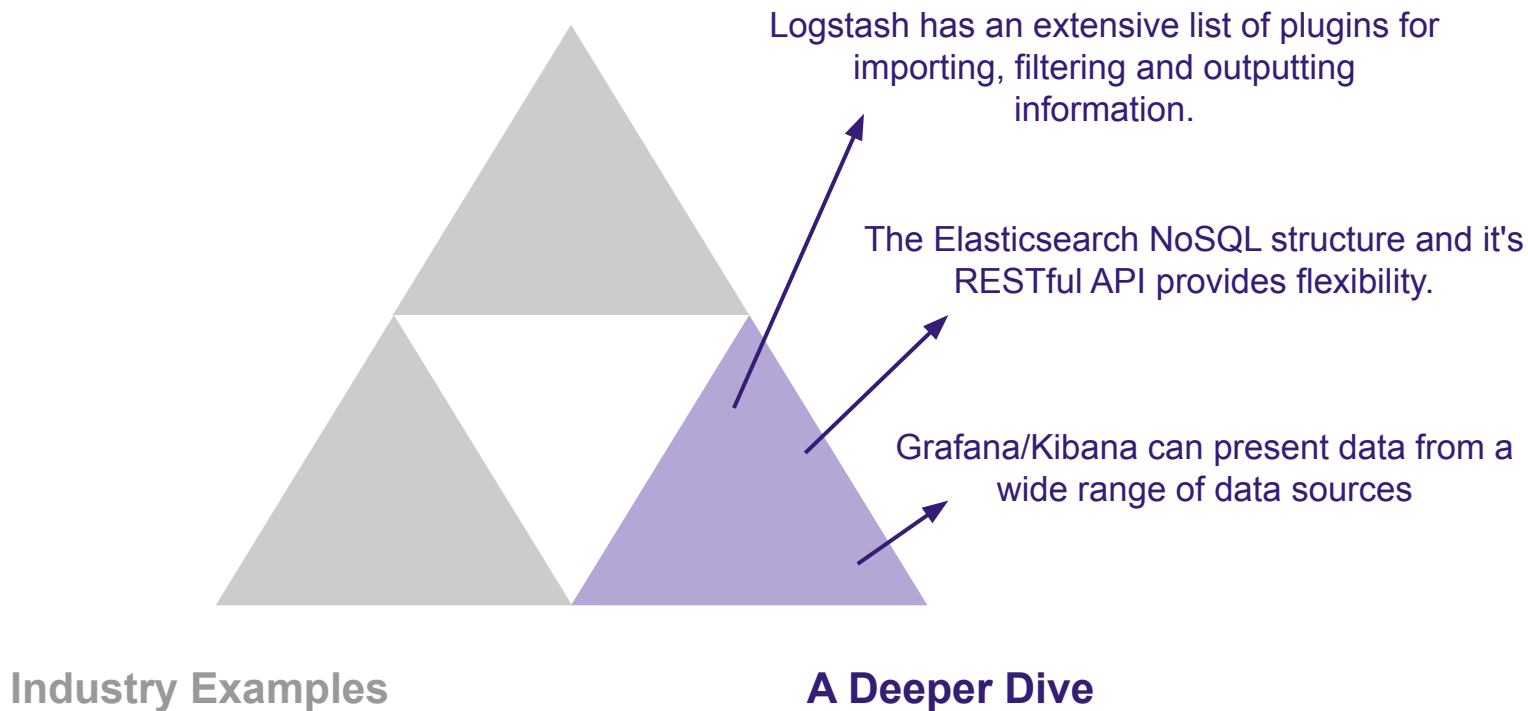
What to Measure



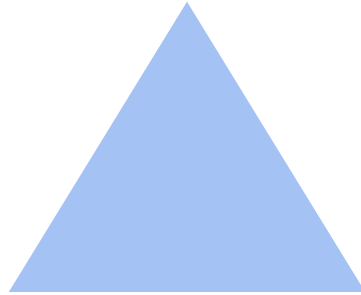
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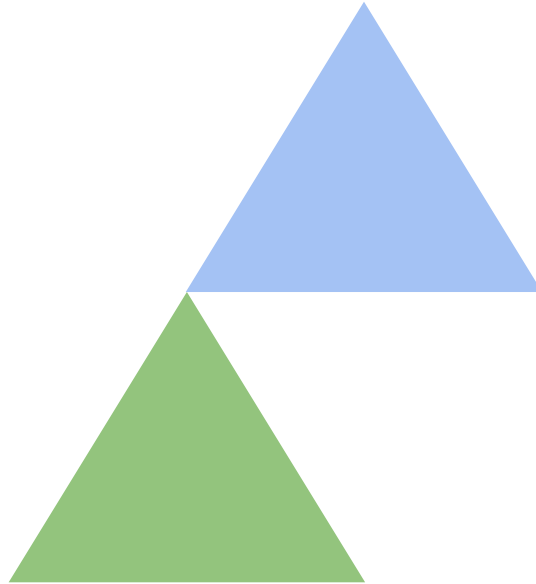
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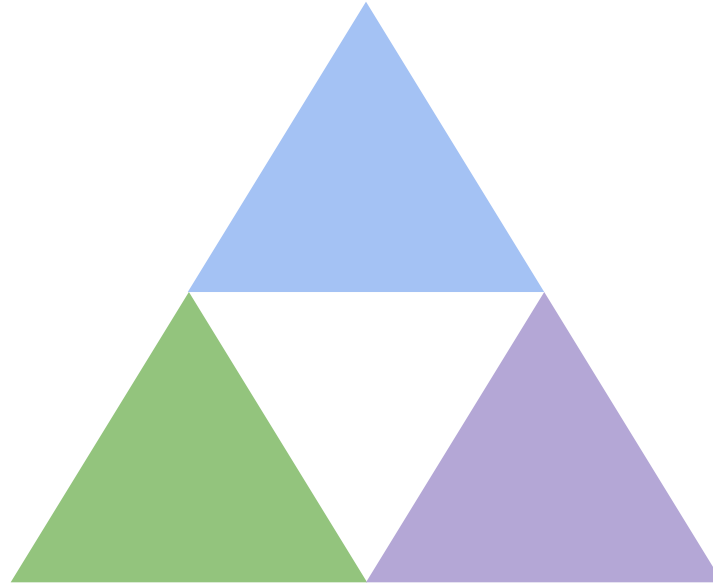


What to Measure



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Industry Examples

A Deeper Dive

Your Turn

