

# Reliable Events Pipeline





# No data, No problem!!!

-Jackson Argo, Slack



# No data, No problem!!!

-Jackson Argo, Slack



# Partial data, Big problem!!!

-Ananth Packkildurai, Slack

### **About Slack**



Public launch: 2014



1500+ employees across 10 offices in7 countries worldwide

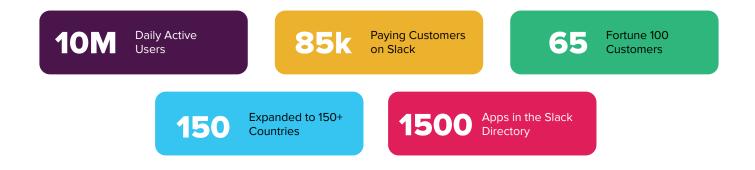
HQ in San Francisco



**Diverse set of industries** 

including software/technology, retail, media, telecom and professional services.

#### **Slack Stats**





### **Events**

"An event is a single occurrence within an environment, usually involving an attempted state change."



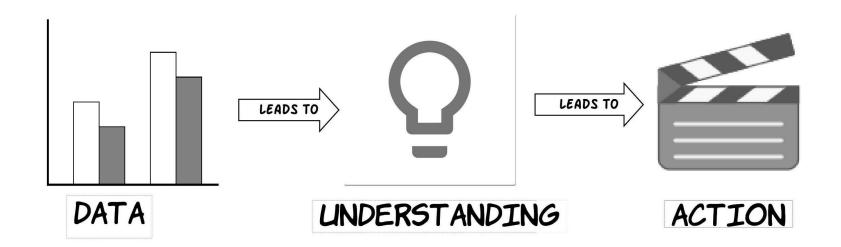


## Logs

"A log is a collection of event records"



### **Data Decisions**



# Logs @ Slack



## **Billing Metrics**

Slack Help Center > Workspace Administration > Manage billing, payments & plans

#### **Fair Billing Policy**

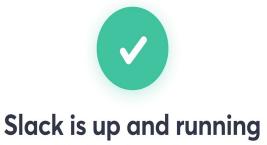
We believe you should only have to pay for members that are actively using Slack, so we offer a **Fair Billing Policy**.

#### The short version

- You'll only be charged for members that are active on the day that you upgrade to a paid plan.
- If all members become inactive, you will be charged for a minimum of one member, unless you decide to downgrade to the Free plan.
- Any changes to the number of active members will be reflected in your monthly statement.

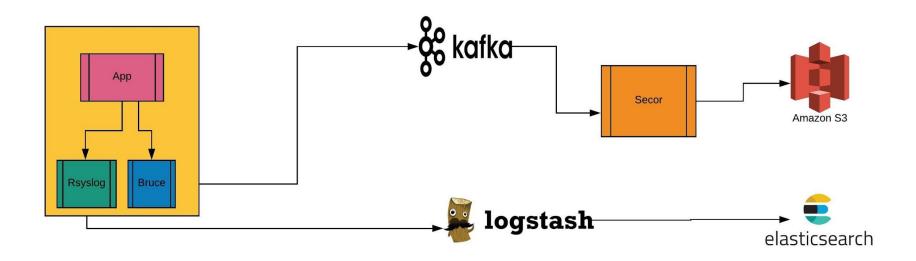
# **Service Quality Metrics**





Having trouble? <u>Troubleshoot connection issues</u> or email us at <u>feedback@slack.com</u>.

### How did we start?



### Is it reliable?

# escal-visibility © - Apr 20th, 2017



Paul Lloyd 11:38 AM

but who knows, maybe bruce is losing messages and I/we don't know it? I guess I'l wait for smitty when he gets in.

# **Trust in Logs**

**Trust in Logs** 

# **High Availability**

**Trust in Logs** 

# **Low Latency**

**High Availability** 

**Low Latency** 

**Trust in Logs** 

**High Availability** 



**Trust in Logs** 

**Low Latency** 

**High Availability** 

**Efficient** 

### **Murron Protocol**

Timestamp host ty	ype offset pid	message signature	tags
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**UID** 

Timestamp host type	offset pid	message	signature	tags	
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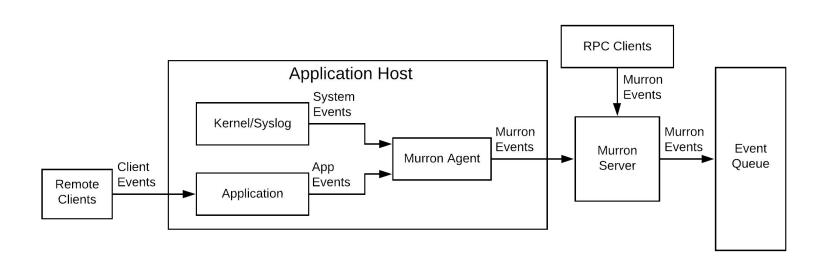
Unique identifier

# **Message Signature**

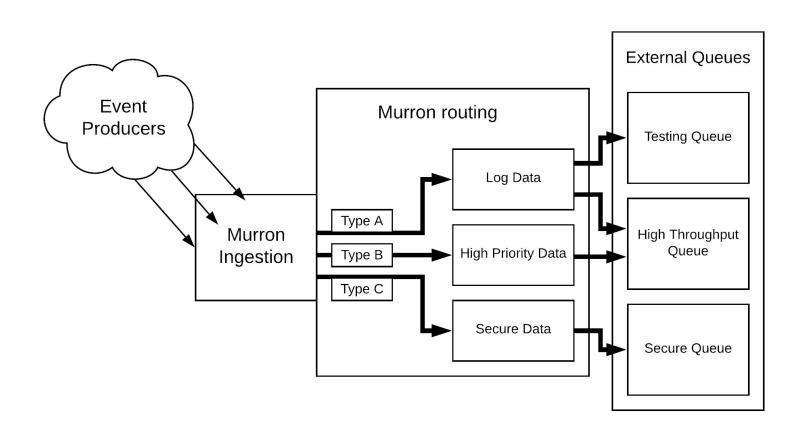
Timestamp host type	offset pid	message	signature	tags
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Secure Payload

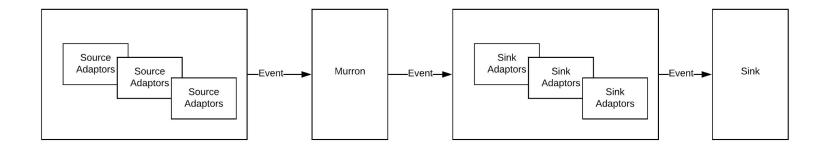
### **Murron Event Sourcing As a Service**



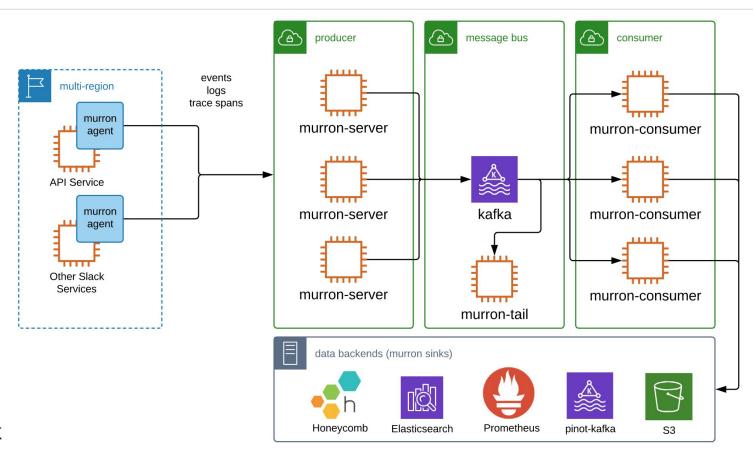
# **Murron Routing Protocol**



# **Murron Adaptors**

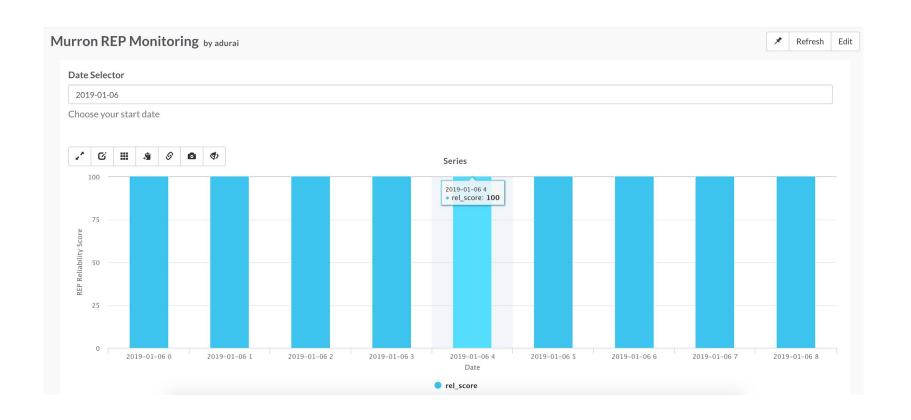


### **Murron Architecture**





# Log reliability



## Log reliability



#### Ananth Packkildurai 2:26 PM









Murron Reliability Index score (for slogs now):

Murron uses the cluster of the host, pid, offset and topic as the UUID for a given message. Murron reliability score finds the correlation between how many events we got vs. events we missed.

#### Calculation:

```
REP reliability score = ((Total messages - total missing sequence)/ total messages) * 100
```

#### Dashboard:

https://analytics.tinyspeck.com/v2/dashboard/447004703382

adurai

**Murron REP Monitoring** 

Oct 1st. 2018















7 replies Last reply 4 months ago



Jackson Argo 😇 2:28 PM

replied to a thread: Murron Reliability Index score (for slogs now):...

I'm seeing 100% across the board.







View newer replies

# What is next?

## **Murron DAB (Direct Acyclic Blueprint)**

```
// Ingestion
   murron_server.NewPipeline().
17
      In(MurronGRPC).
18
      FilterType(MyEvent).
19
     Out(MyEventQueue)
20
21
    // Sinks
22
   my_event_worker := NewEventWorker()
23
   my_event_worker.NewPipeline().In(MyEventQueue).
24
     WithRateLimitPerSecond(1000).
25
     WithSampleRate(5).
26
     Out(SidecarClient)
27
```

## **Murron Intelligent Sink**

- Auto Backfill
- Schema as a service





# **Thank You!**

For more information go to: slack.com

