

Splunk Contact Center Analytics

Genesys Cloud App

2022-03-10

Splunk

splunk® turn data into doing™



Welcome to Splunk Genesys Cloud Analysis App!

Please get your browser and logins
for Splunk workshop server.

Training Objective

After the training, you should...

- Understand the types of data integrated from Genesys, gain understanding of what insights can be derived.
- Gain skills on how to access and explore Genesys cloud data from Splunk
- Learn how to apply analysis to Genesys data-set
- Learn how to create dashboards and alerts for Genesys cloud data.

Prerequisites / Recommendations (Free Trainings) :

- Introduction to Splunk
 - URL : https://www.splunk.com/en_us/training/courses/intro-to-splunk.html

Agenda, Day 1

- **Genesys Cloud App Overview** (15 min)
 - Data Catalog
 - Data Exploration / Stats Definition
 - Queue and Agent operation
 - IVR operation
 - Deposit Dashboard
- **Review major data types from Genesys cloud** (15 min)
 - Conversation Aggregate
 - Queue Observations
 - Conversation Details
 - Conversation Details, Attribute analysis
 - Conversation Details : Flow & segments
- **Access data from Splunk** (15 min)
 - Data Exploration - Formatted data
- **Analysis** (20 min)
 - Queue and agent analysis
 - Connected – Total amount of call connected
 - Wait - Average wait times, Split by Queue / Agent
 - Abandon - Total abandon, Split by Queue / Agent
 - Handle time - Average handle time, Split by Queue / Agent
 - Queue Observations
 - Active agents on queue
 - Conversation level analytics
 - Call statistics by various fields
 - Custom Attributes reporting
 - Line of business – Deposit calls.

Agenda, Day 2

- **SPL Basics for Geneys** (20 min)
 - Fields exploration
 - Explore Genesys data using search
 - Analysis command
- **Exploring data from Splunk** (15 min)
 - Splunk Search - Raw data
 - → Conversation Aggregates, Details, Attributes, Queue observations
- **Analysis** (20 min)
 - Queue and agent analysis
 - Connected – Total amount of call connected
 - Wait - Average wait times, Split by Queue / Agent
 - Abandon - Total abandon, Split by Queue / Agent
 - Handle time - Average handle time, Split by Queue / Agent
 - Queue Observations
 - Active agents on queue
 - Conversation level analytics
 - Call statistics by various fields
- **Dashboarding & Alerting** (15 min)
 - Queue and agent operation dashboard
 - Singles view
 - Trending
 - Stats
 - Alerting based on analysis and threshold
 - Based on patterns
 - Based on total count
 - Based on calculation stats, like average

Splunk Search Interface Intro

splunk> turn data into doing™

Edit

Export ▾

...

Conversation Aggregate Metrics 1

Queue Observation Metrics

Conversation Details - Notification

Info

Participant Attributes : Queue Only Sessions

Participant Attributes : IVR+Queue

✓ Pivot to stats

Selected Metric : n*

Analytics

			direction	mediaType	metric	originatingDirection	purpose	stats.count
		5162b61b-24fa-4e4e-9008-4455304dd841	outbound	voice	nError	outbound	agent	1
2022-03-07 20:25:34	###REDACTED_ANI###	fe6308fd-805c-43b8-942b-2521013bddf3	outbound	voice	nOutbound	outbound	agent	1
2022-03-07 20:25:34	###REDACTED_ANI###	fe6308fd-805c-43b8-942b-2521013bddf3	outbound	voice	nError	outbound	agent	1
2022-03-07 20:25:34	###REDACTED_ANI###	fe6308fd-805c-43b8-942b-2521013bddf3	outbound	voice	nOutbound	outbound	agent	1

< Prev 1 2 3 4 5 6 7 8 9 10 Next >

Visualization Type

Area

Split By

metric

Visualization Type

pie

Top N count :

15

N Count Statistics

1,000

Selected Metric : n*, applying timechart sum(stats.count) by metric

N Count Statistics

nOverSla

Selected Metric : n*, applying stats sum(stats.count) by metric

Analysis

Queue and agent analysis – Conversation Aggregates

- Connected – Total amount of call connected

Statistics Navigator

ALL

filter

ALL

nConnected (highlighted)

nOffered

nError

nOutbound

nOutboundAttempted

nConsult

nBlindTransferred

nTransferred

nOverSla

nConsultTransferred

N Stats : Counts (highlighted)

T Stats : Time and Duration

O Stats : Service Levels

Select Count Metric Type: ALL (highlighted)

1

2

Split By: metric (highlighted)

Visualization Type: Area

Selected Metric: n*, applying timechart sum(stats.count) by metric

N Count Statistics (Area chart)

Selected Metric: n*, applying stats sum(stats.count) by metric

N Count Statistics (Pie chart)

_time	ani	conversationId	direction	mediaType	metric	originatingDirection	purpose	stats
2022-03-07 20:25:34	###REDACTED_ANI##	5162b61b-24fa-4e4e-9008-4455304dd841	outbound	voice	nError	outbound	agent	
2022-03-07 20:25:34	###REDACTED_ANI##	5162b61b-24fa-4e4e-9008-4455304dd841	outbound	voice	nOutbound	outbound	agent	
2022-03-07 20:25:34	###REDACTED_ANI##	fe6308fd-805c-43b8-942b-2521013bddf3	outbound	voice	nError	outbound	agent	
2022-03-07 20:25:34	###REDACTED_ANI##	fe6308fd-805c-43b8-942b-2521013bddf3	outbound	voice	nOutbound	outbound	agent	

metric

ani

conversationId

direction (highlighted)

mediaType

originatingDirection

purpose

Queue name

queueld

requestedRoutingSkillId

userId

division.name

filter

purpose (highlighted)

Selected Metric: n*, applying stats sum(stats.count) by metric

Search

1 enter search here...

Last 24 hours ▾



No Event Sampling ▾

Verbose Mode ▾

> Search History

How to Search

If you are not familiar with the search features, or want to learn more, or see your available data, see one of the following resources.

1

Documentation 

Tutorial 

Data Summary 

Analyze Your Data with Table Views New!

Table Views let you prepare data without using SPL. First, use a point-and-click interface to select data. Then, clean and transform it for analysis in Analytics Workspace, Search, or Pivot!

Create Table View

Learn more  about Table Views, or view and manage your Table Views with the [Datasets listing page](#).

splunk>enterprise Apps ▾

Administrator ▾ Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Search Data Exploration ▾ Alert Management Contact Center Operations Overview Queue Operations ▾ Automation / IVR Operations ▾ System Operations ▾

Genesys Cloud Analytics App

Genesys Cloud Data-set ▾ Others ▾

Search

1 enter search here...

No Event Sampling ▾

> Search History ⓘ

How to Search

If you are not familiar with the search features, o
following resources.

Documentation ⓘ Tutorial ⓘ Data

Data Summary

1 Hosts (21) Sources (19,264) Sourcetypes (72)

2 genesys ×

Sourcetype	Count	Last Update
genesys:cloud:api:conversation_aggregate	9,412	3/25/22 3:46:38.000 AM
genesys:cloud:api:conversation_details	16,479	3/25/22 3:59:51.000 AM
genesys:cloud:api:conversation_details_ivr	1,949	3/25/22 3:49:51.000 AM
genesys:cloud:api:edge_server_metrics	435,335	3/25/22 4:06:38.000 AM
genesys:cloud:api:edge_trunks_metrics	2,824,002	3/25/22 4:06:37.000 AM
genesys:cloud:api:queue_list	8,720	3/25/22 2:30:02.000 AM
genesys:cloud:api:user_list	13,339	3/25/22 2:30:02.000 AM
genesys:cloud:notification	19,767	12/15/21 6:36:40.000 PM
genesys:cloud:notification:conv_activity	450,769	3/25/22 4:06:39.000 AM
genesys:cloud:notification:queue_observation	316,589	3/25/22 4:06:39.000 AM

Last 24 hours ▾

Verbose Mode ▾

Create Table View

Sourcetype	Count	Last Update
genesys:cloud:api:conversation_aggregate	9,412	3/25/22 3:46:38.000 AM
genesys:cloud:api:conversation_details	16,479	3/25/22 3:59:51.000 AM
genesys:cloud:api:conversation_details_ivr	1,949	3/25/22 3:49:51.000 AM
genesys:cloud:api:edge_server_metrics	435,335	3/25/22 4:06:38.000 AM
genesys:cloud:api:edge_trunks_metrics	2,824,002	3/25/22 4:06:37.000 AM
genesys:cloud:api:queue_list	8,720	3/25/22 2:30:02.000 AM
genesys:cloud:api:user_list	13,339	3/25/22 2:30:02.000 AM
genesys:cloud:notification	19,767	12/15/21 6:36:40.000 PM
genesys:cloud:notification:conv_activity	450,769	3/25/22 4:06:39.000 AM
genesys:cloud:notification:queue_observation	316,589	3/25/22 4:06:39.000 AM

New Search

Save As ▾ Create Table View Close

1 index=genesys_cloud sourcetype="genesys:cloud:api:conversation_aggregate"

2

Last 7 days ▾

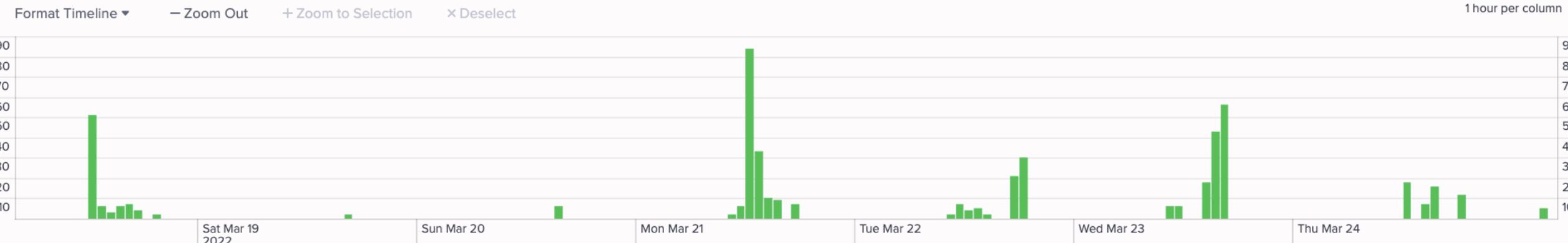


✓ 496 events (3/18/22 4:00:00.000 AM to 3/25/22 4:01:12.000 AM) No Event Sampling ▾

Job ▾ II ■ ↻ ↺ ↻ ↻ ↻ Verbose Mode ▾

Events (496) Patterns Statistics Visualization

3



Raw ▾ Format 20 Per Page ▾

< Prev 1 2 3 4 5 6 7 8 ... Next >

< Hide Fields

All Fields

i Event

SELECTED FIELDS
a eventtype 1
a host 1
a source 1
a sourcetype 1

INTERESTING FIELDS

a data@.interval 100+
a data@.metrics@.metric 27
a data@.metrics@.qualifier 1
data@.metrics@.stats.count 5
a data@.metrics@.stats.count_negative 1
a data@.metrics@.stats.count_positive 1
a data@.metrics@.stats.current 2
a data@.metrics@.stats.denominator 2
a data@.metrics@.stats.max 100+
a data@.metrics@.stats.sum 100+

4 5

>{"group": {"ani": "tel:+18772472559", "conversationId": "aa94916e-5fd7-4f96-910d-2fec5b92543b", "direction": "inbound", "mediaType": "voice", "originatingDirection": "inbound", "purpose": "acd", "queueId": "d3b4c336-68ce-4642-ae25-7feb0a840654", "requestedRoutingSkillId": "7219f300-810c-4210-b336-0ea842a3c48b"}, "data": [{"interval": "2022-03-25T06:45:00.000Z/2022-03-25T06:46:00.000Z", "metrics": [{"metric": "tAbandon", "qualifier": null, "stats": {"max": 36068.0, "min": 36068.0, "count": 1, "count_negative": null, "count_positive": null, "sum": 36068.0, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}, {"metric": "tAcd", "qualifier": null, "stats": {"max": 36068.0, "min": 36068.0, "count": 1, "count_negative": null, "count_positive": null, "sum": 36068.0, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}, {"metric": "oServiceLevel", "qualifier": null, "stats": {"max": null, "min": null, "count": null, "count_negative": null, "count_positive": null, "sum": null, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}, {"metric": "tWait", "qualifier": null, "stats": {"max": 36068.0, "min": 36068.0, "count": 1, "count_negative": null, "count_positive": null, "sum": 36068.0, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}, {"metric": "oServiceTarget", "qualifier": null, "stats": {"max": null, "min": null, "count": null, "count_negative": null, "count_positive": null, "sum": null, "current": 0.8, "ratio": null, "numerator": null, "denominator": null, "target": null}}], "views": null}}}

Show syntax highlighted

>{"group": {"ani": "tel:+18772472559", "conversationId": "aa94916e-5fd7-4f96-910d-2fec5b92543b", "direction": "inbound", "mediaType": "voice", "originatingDirection": "inbound", "purpose": "ivr"}, "data": [{"interval": "2022-03-25T06:44:00.000Z/2022-03-25T06:45:00.000Z", "metrics": [{"metric": "tIvr", "qualifier": null, "stats": {"max": 1259.0, "min": 1259.0, "count": 1, "count_negative": null, "count_positive": null, "sum": 1259.0, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}], "views": null}}}

Show syntax highlighted

>{"group": {"ani": "tel:+18772472559", "conversationId": "aa94916e-5fd7-4f96-910d-2fec5b92543b", "direction": "inbound", "mediaType": "voice", "originatingDirection": "inbound", "purpose": "ivr"}, "data": [{"interval": "2022-03-25T06:45:00.000Z/2022-03-25T06:46:00.000Z", "metrics": [{"metric": "tIvr", "qualifier": null, "stats": {"max": 1259.0, "min": 1259.0, "count": 1, "count_negative": null, "count_positive": null, "sum": 1259.0, "current": null, "ratio": null, "numerator": null, "denominator": null, "target": null}}], "views": null}}}

Genesys Data in Detail

splunk> turn data into doing™

Genesys data in detail

Conversation Aggregates

```
{ [-]
  interval: 2022-03-25T06:45:00.000Z/2022-03-25T06:46:00.000Z
  metrics: [ [-]
    { [-]
      metric: tAbandon
      qualifier: null
      stats: { [-]
        count: 1
        count_negative: null
        count_positive: null
        current: null
        denominator: null
        max: 36068
        min: 36068
        numerator: null
        ratio: null
      }
    }
  ]
}
```

Genesys data in detail

Conversation Details

```
{ [-]
  address: tel:+12105363906
  divisions: [ [-]
    { [-]
      division: { [+]
      }
      entities: [ [+]
      ]
    }
  ]
  endTime: 2022-03-16T01:55:02.542Z
  id: b9cb02db-b8ac-4e03-9630-7beaf711d1dc
  participants: [ [-]
    { [-]
      address: tel:+12157026084
      ani: tel:+12157026084
    }
  ]
}
```

Genesys data in detail

Queue Observation

```
eventBody: { [-]
  data: [ [-]
    { [-]
      interval: 2022-03-24T20:14:34.326Z/2022-03-24T20:14:34.326Z
      metrics: [ [-]
        { [-]
          metric: oActiveUsers
          stats: { [-]
            count: 4
          }
        }
      ]
    }
  ]
}
```

Genesys data in detail

Edge node trunk metrics

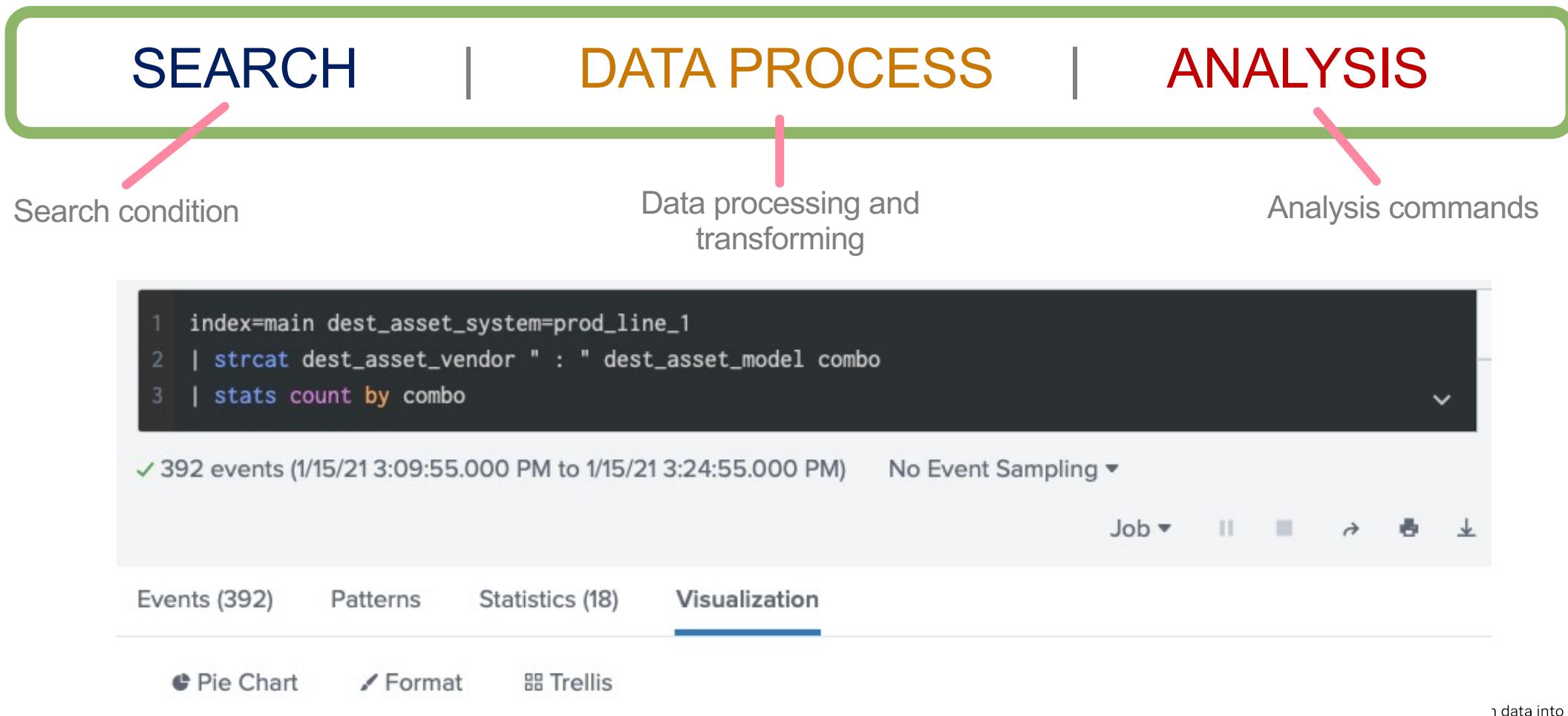
```
{ [-]
  calls: { [-]
    inboundCallCount: 0
    outboundCallCount: 0
  }
  eventTime: 2022-03-25T07:18:46.869Z
  logicalInterface: { [-]
    id: eno1
    name: Port 1 (WAN)
    selfUri: /api/v2/telephony/providers/edges/362e4875-5853-4b0f-8320-8016c77a3432/logicalinterfaces/eno1
  }
  qos: { [-]
    mismatchCount: 0
  }
  trunk: { [-]
    id: f17be3fc-bfec-4ffa-9b34-6a9eebd30018
    selfUri: /api/v2/telephony/providers/edges/trunks/f17be3fc-bfec-4ffa-9b34-6a9eebd30018
  }
}
```

Splunk Search Intro

splunk> turn data into doing™

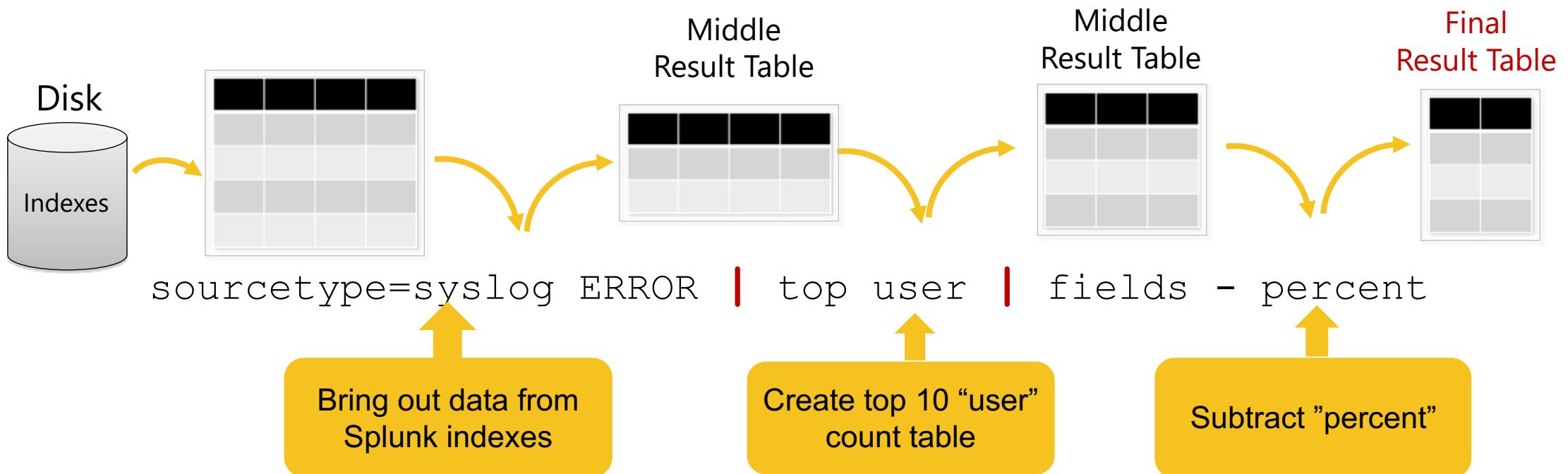
Search High Level Structure

Splunk search language high level usage structure



How SPL search pipeline works

- Search in the front bring out the data from Splunk indexes.
- Searched data goes through “pipeline” then passed on.



100 + Splunk Processing Language (SPL)

Powerful language to process, analyze and apply logic

Command	Description
transaction	
eval	
fields	abstract accum addcoltotals addinfo addtotals af analyzefields anomalies anomalousvalue append appendcols ar associate audit autoregress bin bucket chart
stats	cluster collect common contingency convert correlate counttable crawl ctable dbinspect dedup delete delta diff discretize erex eval eventcount eventstats excerpt extract file fillnull folderize format gentimes head highlight iconify input inputcsv inputlookup iplocation join kmeans kv kvform loadjob localize localop lookup macro
head	makecontinuous makemv maketable map metadata multikv mvcombine mvexpand nomv outlier outlierfilter outputcsv outputlookup outputtext overlap rangemap rare regex relevancy rename replace reverse run savedsearch savedsplunk script scrub selfjoin sendemail set sichart sirare sistats sitimechart sitop slc stash strcat streamstats sumindex summaryindex tail test timechart top transaction transam trendline typeahead
dedup	typelearner typer uniq untable xmlkv xmlunescape xpath xyseries
multikv	split multi-lined tabular events into single-lined events

SPL : Commonly used SPL commands

Field processing / evaluation / calculation

- multikv
- eval
- strcat

Data transformation

- rename
- replace

Filtering data

- dedup
- regex
- search

Analysis / Cubing

- stats
- chart
- timechart

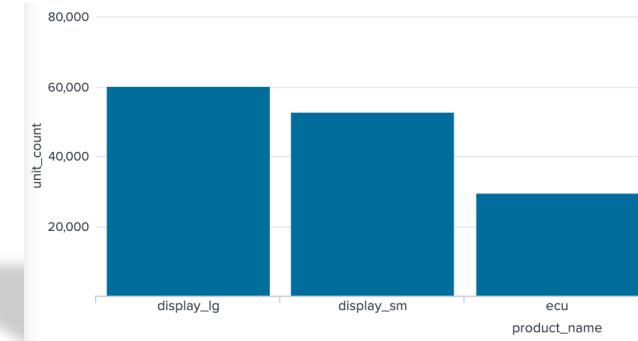
Splunk Analysis Method Intro

splunk> turn data into doing™

Analysis Method Introduction

1. Distribution analysis : **stats**

- Compare one to another (Example : Performance comparison between one machine to another, or one type vs another)



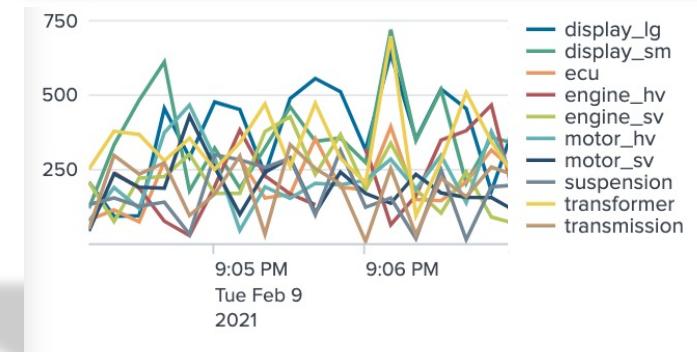
2. Matrix analysis : **chart**

- Create analysis matrix using 2 different data entity (Example : Compare performance between machines broken down into dimension)



3. 3D Matrix analysis: **timechart**

- Analyzing trend and also compare the trend of different entities in data. (Example : Seeing the trend of either one or more machine's pressure changes over time)





Technique 1

Distribution Analysis

Analysis Technique 1 : Distribution

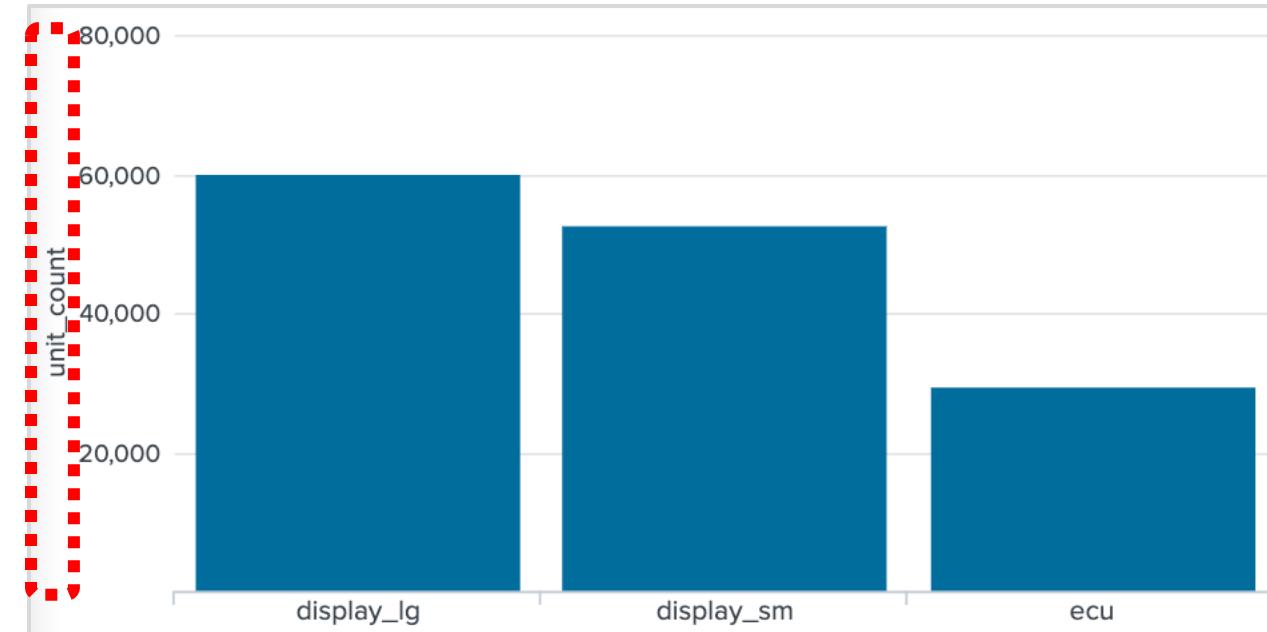
- Using **stats** Command
- 2D Distribution / comparison
- Goal : Compare between different **entities** with a single or multiple defined calculation **function**.

Function

stats sum(unit_count) by product_name

Group by segmentation

sum(unit_count)



product_name

by product_name

Analysis / Statistics Functions

FUNCTION	DESCRIPTION
avg (X)	Returns the average of the values of field X.
count (X)	Returns the number of occurrences of the field X. To indicate a specific field value to match, format X as eval(field="value").
dc (X)	Returns the count of distinct values of the field X.
first (X)	Returns the first seen value of the field X. In general, the first seen value of the field is the chronologically most recent instance of field.
last (X)	Returns the last seen value of the field X.
list (X)	Returns the list of all values of the field X as a multi-value entry. The order of the values reflects the order of input events.
max (X)	Returns the maximum value of the field X. If the values of X are non-numeric, the max is found from lexicographic ordering.
median (X)	Returns the middle-most value of the field X.
min (X)	Returns the minimum value of the field X. If the values of X are non-numeric, the min is found from lexicographic ordering.
mode (X)	Returns the most frequent value of the field X.
perc<X> (Y)	Returns the X-th percentile value of the field Y. For example, perc5(total) returns the 5th percentile value of a field "total".
range (X)	Returns the difference between the max and min values of the field X.
stdev (X)	Returns the sample standard deviation of the field X.
stdevp (X)	Returns the population standard deviation of the field X.
sum (X)	Returns the sum of the values of the field X.
sumsq (X)	Returns the sum of the squares of the values of the field X.
values (X)	Returns the list of all distinct values of the field X as a multi-value entry. The order of the values is lexicographical.
var (X)	Returns the sample variance of the field X.

Analysis Technique 1 : Distribution

Syntax :

```
stats func(field), func(field), .. by field_1, field_2 ..
```

Examples :

```
* | stats count  
* | stats count by result_code  
* | stats sum(unit_count), sum(price) by product_name  
* | stats sum(unit_count), sum(price) by product_name  
     user_add
```

EXERCISE #1

New Search

```
1 sourcetype=access_combined  
2 | table _time host serial category product_id product_name result_code price unit_count uri_path user_agent  
3 | stats sum(unit_count) as unit_count by product_name
```

Last 24 hours ▾

✓ 17,571 events (2/15/21 3:00:00.000 PM to 2/16/21 3:42:18.000 PM) No Event Sampling ▾ Job ▾ Verbose Mode ▾

Events (17,571) Patterns Statistics (10) **Visualization**

Format Trellis

Splunk Visualizations
More
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Bar Chart
Compare values or fields.
Search Fragment
| stats count by comparison_category

product_name	unit_count
Product A	94397
Product B	94937
Product C	47758
Product D	47374

Analysis

Calculating SLA per queue – Conversation Aggregates

- SLA – Formula : $(\text{total_answer_count} - \text{total_over_sla}) / (\text{total_answer_count} + \text{cnt_abandon})$

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| eval queueFlow.id=mvdedup(queueFlow.id)
| eval queueFlow.name=mvdedup(queueFlow.name)
| eval queueFlow.selfUri=mvdedup(queueFlow.selfUri)
| eval queueId=mvdedup(queueId)
| fields + *
| table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count queueId name
| rename stats.count as stats_count
| stats sum(eval(if(metric == "tAnswered", stats_count,0))) as cnt_answer, sum(eval(if(metric == "nOverSla", stats_count,0))) as cnt_over_sla,
sum(eval(if(metric == "tAbandon", stats_count,0))) as cnt_abandon by queueId name
| eval SLA=((cnt_answer-cnt_over_sla)/(cnt_answer+cnt_abandon))*100
```

	queueId	name	cnt_answer	cnt_over_sla	cnt_abandon	SLA
1	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	2	0	5	28.57
2	9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General	1	0	0	100.00
3	c4fc8106-c993-4e1b-8766-a80e20c42d82	BNK - Trust	0	0	2	0.00
4	d3b4c336-68ce-4642-ae25-7feb0a840654	BNK - CMG	1	0	1	50.00
5	e4011625-cb01-4122-9e6d-e79dbe25d9cd	BNK - IRA	0	0	5	0.00
6	eca0f49f-186c-4e84-8221-ae3b92f9c0c5	INV - Advanced Trading	1	1	1	0.00
7	f339e61e-fc59-4152-bab3-a205693e3417	INV - Select Service	1	0	0	100.00

New Search

```

1 `genesys_cloud_index` sourcetype="genesys_callcenter"
2 | spath path="data{}.metrics{}" output=rec_group
3 | spath path="group" output=rec_group
4 | spath input=rec_group
5 | mvexpand rec_metric
6 | spath input=rec_metric
7 | eval queueFlow.id=mvedup(queueFlow.id)
8 | eval queueFlow.name=mvedup(queueFlow.name)
9 | eval queueFlow.selfUri=mvedup(queueFlow.selfUri)
10 | eval queueId=mvedup(queueId)
11 | fields + *
12 | table _time ani conversationId direction
13 | rename stats.count as stats_count
14 | stats sum(eval(if(metric == "tAnswered" || metric == "tAbandon", stats_count, 0))) as count_over_sla
15 | eval SLA=((cnt_answer-cnt_over_sla)/cnt_answer)*100

```

✓ 544 events (3/22/22 4:00:00.000 AM to 3/29/22 11:59:59.999 PM)

Events (544) Patterns Statistics (7)

100 Per Page ▾ Format Preview ▾

queuelid
0610d5f0-feb7-4e6f-b27a-8a0246c03dfb
9c50ad26-62a8-4f84-818f-4b0d8d402e88
c4fc8106-c993-4e1b-8766-a80e20c42d82
d3b4c336-68ce-4642-ae25-7feb0a840654
e4011625-cb01-4122-9e6d-e79dbe25d9cd
eca0f49f-186c-4e84-8221-ae3b92f9c0c5

Save Panel to New Dashboard

Dashboard Title: Queue SLA Dashboard
queue_sla_dashboard [Edit ID](#)

Description: Last 24 Hrs

Permissions: Private

How do you want to build your dashboard?

Classic Dashboards
The traditional Splunk dashboard builder

Dashboard Studio NEW
A new builder to create visually-rich, customizable dashboards

Panel Title: SLA Stats Per Queue

Visualization Type: Statistics Table

> Advanced Panel Settings

[Cancel](#) [Save to Dashboard](#) 2

1 [Save As ▾](#) Create Table View Close

Report
Alert
Existing Dashboard
New Dashboard 
Event Type

cnt_over_sla,0)) as cnt_over_sla, sum(eval(if(metric == "tAnswered" || metric == "tAbandon", stats_count, 0))) as count_over_sla

Job ▾ II □ ↗ ↘ Verbose Mode ▾

	cnt_over_sla	cnt_abandon	SLA
2	0	5	28.57
1	0	0	100.00
0	0	2	0.00
1	0	1	50.00
0	0	5	0.00
1	1	1	0.00

INV - Advanced Trading

Queue SLA Dashboard

[Edit](#)[Export ▾](#)

...

Last 24 Hrs

SLA Stats Per Queue

	queuelid	name	cnt_answer	cnt_over_sla	cnt_abandon	SLA
1	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	2	0	5	28.57
2	9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General	1	0	0	100.00
3	c4fc8106-c993-4e1b-8766-a80e20c42d82	BNK - Trust	0	0	2	0.00
4	d3b4c336-68ce-4642-ae25-7feb0a840654	BNK - CMG	1	0	1	50.00
5	e4011625-cb01-4122-9e6d-e79dbe25d9cd	BNK - IRA	0	0	5	0.00
6	eca0f49f-186c-4e84-8221-ae3b92f9c0c5	INV - Advanced Trading	1	1	1	0.00
7	f339e61e-fc59-4152-bab3-a205693e3417	INV - Select Service	1	0	0	100.00

Analysis

Calculating SLA per queue – Conversation Aggregates

- SLA – Formula : $(\text{total_answer_count} - \text{total_over_sla}) / (\text{total_answer_count} + \text{cnt_abandon})$

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| eval queueFlow.id=mvdedup(queueFlow.id)
| eval queueFlow.name=mvdedup(queueFlow.name)
| eval queueFlow.selfUri=mvdedup(queueFlow.selfUri)
| eval queueId=mvdedup(queueId)
| fields +
| table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count queueId name
| rename stats.count as stats_count
| stats sum(eval(if(metric == "tAnswered", stats_count,0))) as cnt_answer, sum(eval(if(metric == "nOverSla", stats_count,0))) as cnt_over_sla,
sum(eval(if(metric == "tAbandon", stats_count,0))) as cnt_abandon by queueId name
| eval SLA=((cnt_answer-cnt_over_sla)/(cnt_answer+cnt_abandon))*100
| table name SLA
```

1 `genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
 2 | spath path="data{}.metrics{}" output=rec_metric
 3 | spath path="group" output=rec_group
 4 | spath input=rec_group
 5 | mvexpand rec_metric
 6 | spath input=rec_metric
 7 | eval queueFlow.id=mvedup(queueFlow.id)
 8 | eval queueFlow.name=mvedup(queueFlow.name)
 9 | eval queueFlow.selfUri=mvedup(queueFlow.selfU
 10 | eval queueId=mvedup(queueId)
 11 | fields + *
 12 | table _time ani conversationId direction media
 13 | rename stats.count as stats_count
 14 | stats sum(eval(if(metric == "tAnswered", stats
 "tAbandon", stats_count,0))) as cnt_abandon
 15 | eval SLA=(cnt_answer-cnt_over_sla)/(cnt_answer
 16 | table name SLA
 17 | sort - SLA

✓ 544 events (3/22/22 4:00:00.000 AM to 3/29/22 4:56:26.000 AM)

Last 7 days ▾ 

 Bar Chart  Format  Trellis

Splunk Visualizations



More



Bar Chart

Compare values or fields.

Search Fragment

```
| stats count by comparison_category
```

Events Patterns Statistics  Visualization

100 Per Page ▾  Format 

	name	SLA
1	BNK - General	100
2	INV - Select Service	100
3	BNK - CMG	50
4	INV - General Service	28.57142857142857
5	BNK - Trust	0
6	BNK - IRA	0
7	INV - Advanced Trading	0

Job ▾       Fast Mode ▾

splunk > turn data into doing

New Search

```
1 `genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
2 | spath path="data{}.metrics{}" output=rec_metric
3 | spath path="group" output=rec_group
4 | spath input=rec_group
5 | mvexpand rec_metric
6 | spath input=rec_metric
7 | eval queueFlow.id=mvdedup(queueFlow.
8 | eval queueFlow.name=mvdedup(queueFlow.
9 | eval queueFlow.selfUri=mvdedup(queueFlow.
10 | eval queueId=mvdedup(queueId)
11 | fields + *
12 | table _time ani conversationId direct
13 | rename stats.count as stats_count
14 | stats sum(eval(if(metric == "tAnswer
    "tAbandon", stats_count,0))) as count
15 | eval SLA=((cnt_answer-cnt_over_sla)/
16 | table name SLA
17 | sort - SLA
```

Save Panel to Existing Dashboard

Select an Existing Dashboard Sort: Title (A - Z) ▾

X

✓ Queue **SLA Dashboard**

✓ 544 events (3/22/22 4:00:00.000 AM to 3/29/2

Events Patterns Statistics (7) Visualiz

Bar Chart Format Trolls

BNK - General

ANSWER

INV - Select Service

[View Details](#)

For more information about the study, please contact Dr. Michael J. Koenig at (314) 747-2146 or via email at koenig@dfci.harvard.edu.

INV - General Service

Digitized by srujanika@gmail.com

BNK - Trust

Save Panel to Existing Dashboard

Panel Title	Top SLA Queues	
Visualization Type	<input checked="" type="radio"/> Bar Chart	<input type="radio"/> Statistics Table
Advanced Panel Settings		
Cancel		Save to Dashboard

A horizontal bar chart comparing two data series. The x-axis ranges from 0 to 100. The first bar, colored dark blue, represents the SLA metric and spans from approximately 10 to 80. The second bar, also colored dark blue, represents another metric and spans from approximately 20 to 70. A legend in the bottom right corner identifies the top bar as SLA.

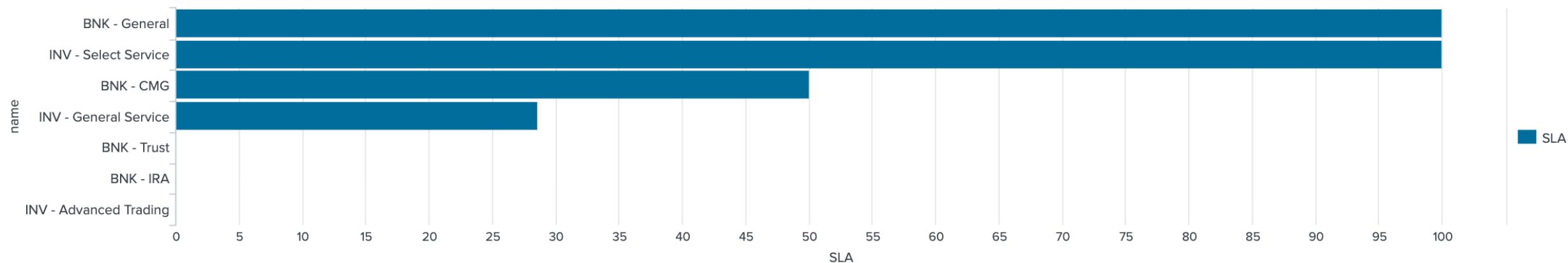
Metric	Approximate Range
SLA	10 - 80
Other Metric	20 - 70

Queue SLA Dashboard

[Edit](#)
[Export ▾](#)
[...](#)

Last 24 Hrs

Top SLA Queues



SLA Stats Per Queue

	queuelid	name	cnt_answer	cnt_over_sla	cnt_abandon	SLA
1	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	2	0	5	28.57
2	9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General	1	0	0	100.00
3	c4fc8106-c993-4e1b-8766-a80e20c42d82	BNK - Trust	0	0	2	0.00
4	d3b4c336-68ce-4642-ae25-7feb0a840654	BNK - CMG	1	0	1	50.00
5	e4011625-cb01-4122-9e6d-e79dbe25d9cd	BNK - IRA	0	0	5	0.00
6	eca0f49f-186c-4e84-8221-ae3b92f9c0c5	INV - Advanced Trading	1	1	1	0.00

Analysis

Extra Examples – Conversation Aggregates

- Total Statistical Summary Per Queue

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| fields +
| table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count stats.sum queueId name ````queueFlow.id queueFlow.name
queueFlow.selfUri queueId```
| rename stats.count as stats_count, stats.sum as stats_sum
| stats
    sum(eval(if(metric == "nBlindTransferred", stats_count,0))) as nBlindTransferred, sum(eval(if(metric == "nConnected", stats_count,0))) as nConnected,
sum(eval(if(metric == "nConsult", stats_count,0))) as nConsult, sum(eval(if(metric == "nConsultTransferred", stats_count,0))) as nConsultTransferred,
sum(eval(if(metric == "nError", stats_count,0))) as nError, sum(eval(if(metric == "nOffered", stats_count,0))) as nOffered, sum(eval(if(metric == "nOutbound",
stats_count,0))) as nOutbound, sum(eval(if(metric == "nOutboundAttempted", stats_count,0))) as nOutboundAttempted, sum(eval(if(metric == "nOverSla", stats_count,0)))
as nOverSla, sum(eval(if(metric == "nTransferred", stats_count,0))) as nTransferred, sum(eval(if(metric == "tAbandon", stats_count,0))) as nAbandon, sum(eval(if(metric ==
"tAlert", stats_count,0))) as nAlert, sum(eval(if(metric == "tAnswered", stats_count,0))) as nAnswered, sum(eval(if(metric == "tContacting", stats_count,0))) as
nContacting, sum(eval(if(metric == "tDialing", stats_count,0))) as nDialing, sum(eval(if(metric == "tHandle", stats_count,0))) as nHandle, sum(eval(if(metric ==
"tHeld", stats_count,0))) as nHeld, sum(eval(if(metric == "tHeldComplete", stats_count,0))) as nHeldComplete, sum(eval(if(metric == "tIvr", stats_count,0))) as nIvr,
sum(eval(if(metric == "tNotResponding", stats_count,0))) as nNotResponding, sum(eval(if(metric == "tShortAbandon", stats_count,0))) as nShortAbandon,
sum(eval(if(metric == "tTalk", stats_count,0))) as nTalk, sum(eval(if(metric == "tTalkComplete", stats_count,0))) as nTalkComplete, sum(eval(if(metric == "tVoicemail",
stats_count,0))) as nVoicemail, sum(eval(if(metric == "tWait", stats_count,0))) as nWait,
    sum(eval(if(metric == "tAbandon", stats_sum,0))) as tAbandon, sum(eval(if(metric == "tAcd", stats_sum,0))) as tAcd, sum(eval(if(metric == "tAcw", stats_sum,0)))
as tAcw, sum(eval(if(metric == "tAlert", stats_sum,0))) as tAlert, sum(eval(if(metric == "tAnswered", stats_sum,0))) as tAnswered, sum(eval(if(metric == "tContacting",
stats_sum,0))) as tContacting, sum(eval(if(metric == "tDialing", stats_sum,0))) as tDialing, sum(eval(if(metric == "tHandle", stats_sum,0))) as tHandle,
sum(eval(if(metric == "tHeld", stats_sum,0))) as tHeld, sum(eval(if(metric == "tHeldComplete", stats_sum,0))) as tHeldComplete, sum(eval(if(metric == "tIvr",
stats_sum,0))) as tIvr, sum(eval(if(metric == "tNotResponding", stats_sum,0))) as tNotResponding, sum(eval(if(metric == "tShortAbandon", stats_sum,0))) as
tShortAbandon, sum(eval(if(metric == "tTalk", stats_sum,0))) as tTalk, sum(eval(if(metric == "tTalkComplete", stats_sum,0))) as tTalkComplete, sum(eval(if(metric ==
"tVoicemail", stats_sum,0))) as tVoicemail, sum(eval(if(metric == "tWait", stats_sum,0))) as tWait
by queueId name
```

```
1 `genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
2 | spath path="data{}.metrics{}" output=rec_metric
3 | spath path="group" output=rec_group
4 | spath input=rec_group
5 | mvexpand rec_metric
6 | spath input=rec_metric
7 | fields + *
8 | table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count stats.sum queueId name `` queueFlow.id queueFlow.name queueFlow.selfUri queueId```
9 | rename stats.count as stats_count, stats.sum as stats_sum
10 | stats
11     sum(eval(if(metric == "nBlindTransferred", stats_count,0))) as nBlindTransferred, sum(eval(if(metric == "nConnected", stats_count,0))) as nConnected, sum(eval(if(metric == "nConsult", stats_count,0))) as nConsult, sum(eval(if(metric == "nConsultTransferred", stats_count,0))) as nConsultTransferred, sum(eval(if(metric == "nError", stats_count,0))) as nError, sum(eval(if(metric == "nOffered", stats_count,0))) as nOffered, sum(eval(if(metric == "nOutbound", stats_count,0))) as nOutbound, sum(eval(if(metric == "nOutboundAttempted", stats_count,0))) as nOutboundAttempted, sum(eval(if(metric == "nOverSla", stats_count,0))) as nOverSla, sum(eval(if(metric == "nTransferred", stats_count,0))) as nTransferred, sum(eval(if(metric == "tAbandon", stats_count,0))) as nAbandon, sum(eval(if(metric == "tAlert", stats_count,0))) as nAlert, sum(eval(if(metric == "tAnswered", stats_count,0))) as nAnswered, sum(eval(if(metric == "tContacting", stats_count,0))) as nContacting, sum(eval(if(metric == "tDialing", stats_count,0))) as nDialing, sum(eval(if(metric == "tHandle", stats_count,0))) as nHandle, sum(eval(if(metric == "tHeld", stats_count,0))) as nHeld, sum(eval(if(metric == "tHeldComplete", stats_count,0))) as nHeldComplete, sum(eval(if(metric == "tIvr", stats_count,0))) as nIvr, sum(eval(if(metric == "tNotResponding", stats_count,0))) as nNotResponding, sum(eval(if(metric == "tShortAbandon", stats_count,0))) as nShortAbandon, sum(eval(if(metric == "tTalk", stats_count,0))) as nTalk, sum(eval(if(metric == "tTalkComplete", stats_count,0))) as nTalkComplete, sum(eval(if(metric == "tVoicemail", stats_count,0))) as nVoicemail, sum(eval(if(metric == "tWait", stats_count,0))) as nWait,
12     sum(eval(if(metric == "tAbandon", stats_sum,0))) as tAbandon, sum(eval(if(metric == "tAcd", stats_sum,0))) as tAcd, sum(eval(if(metric == "tAcw", stats_sum,0))) as tAcw, sum(eval(if(metric == "tAlert", stats_sum,0))) as tAlert, sum(eval(if(metric == "tAnswered", stats_sum,0))) as tAnswered, sum(eval(if(metric == "tContacting", stats_sum,0))) as tContacting, sum(eval(if(metric == "tDialing", stats_sum,0))) as tDialing, sum(eval(if(metric == "tHandle", stats_sum,0))) as tHandle, sum(eval(if(metric == "tHeld", stats_sum,0))) as tHeld, sum(eval(if(metric == "tHeldComplete", stats_sum,0))) as tHeldComplete, sum(eval(if(metric == "tIvr", stats_sum,0))) as tIvr, sum(eval(if(metric == "tNotResponding", stats_sum,0))) as tNotResponding, sum(eval(if(metric == "tShortAbandon", stats_sum,0))) as tShortAbandon, sum(eval(if(metric == "tTalk", stats_sum,0))) as tTalk, sum(eval(if(metric == "tTalkComplete", stats_sum,0))) as tTalkComplete, sum(eval(if(metric == "tVoicemail", stats_sum,0))) as tVoicemail, sum(eval(if(metric == "tWait", stats_sum,0))) as tWait
13 by queueId name
```

✓ 2,837 events (2/27/22 12:00:00 AM to 3/29/22 7:04:53 AM) No Event Sampling ▾

Job ▾ | II | ⏪ | ⏵ | ⏹ | Verbose Mode ▾

Events (2 837) Patterns Statistics (19) Visualization

100 Per Page ▾ Format Preview ▾

File | Open | Save | Print | Format | Preview

	queueld	name	nBlindTransferred	nConnected	nConsult	nConsultTransferred	nError	nOffered	nOutbound	nOutboundAttempted	nOverSla	nTransferred	nAbandon	nAlert	nAnswered	nContacting	nDialing
1	02e8dfaf-2826-4fd5-a5f6-cc47ff7d1f63	Bryan De La Cruz	0	0	0	0	2	0	3	0	0	0	0	0	0	3	2
2	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	1	1	1	0	3	10	1	0	0	1	5	5	5	1	1

	queueld	name	nBlindTransferred	nConnected	nConsult	nConsultTransferred	nError	nOffered	nOutbound	nOutboundAttempted	nOverSla	nTransferred	nAbandon	nAlert	nAnswered	nContacting	nDialing	
1	02e8dfaf-2826-4fd5-a5f6-cc47ff7d1f63	Bryan De La Cruz	0	0	0	0	2	0	3	0	0	0	0	0	0	3	2	
2	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	1	1	1	0	3	10	1	0	0	1	5	5	5	1	1	
3	1ca15917-4afb-443d-a391-dda2adfa6f2f	WA - Shephard	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	
4	1cc04684-382b-4503-b07a-925aff1d79f3	WA - Wealth Select	2	0	0	0	0	3	9	0	0	1	2	6	3	3	0	0
5	24b54558-7955-41ef-a73c-6473ccd5748e	INV_BACK - Account Management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	3859637c-a3d7-4c0e-a44a-8522134ba231	INV_BACK - New Accounts	3	1	1	1	1	9	1	0	0	4	3	8	6	1	1	
7	3b486f2e-8ae6-4fe9-88c7-c0eb3ff16008	WA - Service Captain	1	0	0	0	0	0	4	0	0	1	0	4	4	0	0	
8	9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General	0	1	1	1	4	9	1	0	0	1	0	12	9	1	1	
9	a2639a8e-d9fa-4caa-946e-3e4275d61a96	WA - Senior Advisor 1	0	0	0	0	1	2	0	0	0	0	0	2	2	0	0	
10	bf086215-d523-41e2-a948-	INV_BACK - ACATS	0	1	1	1	0	0	1	0	0	1	0	0	0	1	1	



Technique 2

Matrix / Pivot Analysis

Analysis Technique 2 : Matrix / Pivot

- Using **chart** command
- Matrix analysis, pivot analysis
- Goal : Compare using **2 different entity segmentation** for a single calculation **function**.

Function

chart sum(unit_count) by product_name, result_code

Entity 1 **Entity 2**

product_name **result_code**

display_lg cancelled 7295
 display_sm completed 7193
 ecu failed 7798
 engine_hv 6695 5734 6255
 engine_sv 4092 2973 3457
 motor_hv 4512 3188 3661
 3024 4359 3604
 3434 3563 3779

⋮

sum(unit_count)

2 Different group by segmentation

Entity 1 product_name	Entity 2 result_code		
	cancelled	completed	failed
display_lg	7295	7193	7798
display_sm	6695	5734	6255
ecu	4092	2973	3457
engine_hv	4512	3188	3661
engine_sv	3024	4359	3604
motor_hv	3434	3563	3779

Analysis Technique 2 : Matrix / Pivot

Syntax :

```
chart func(field_3) over field_1 by field_2  
chart func(field_3) by field_1, field_2
```

Examples :

```
* | chart sum(unit_count) by product_name, result_code
```

product_name	cancelled	completed	failed
display_lg	7295	7193	7798
display_sm	6695	5734	6255
ecu	4092	2973	3457
engine_hv	4512	3188	3661

Field Name product_name

Field Name result_code

sum(unit_count)

EXERCISE #2

New Search

```
1 sourcetype=access_combined product_name=* result_code=*
2 | table _time host serial category product_id product_name result_code price unit_count uri_path
3 | chart sum(unit_count) as unit_count by product_name result_code
```

Last 24 hours 

✓ 14,927 events (2/15/21 4:00:00.000 PM to 2/16/21 4:46:57.000 PM) No Event Sampling ▾ Job ▾ II ■ ↗ ↘ ↙ ↘ Verbose Mode ▾

Events (14,927) Patterns Statistics (10) Visualization

product_name mat Preview ▾

product_name	cancelled	completed	failed	progress	rerun
display_lg	18852	19498	20537	19419	18932
display_sm	19668	20159	19668	19330	18620
ecu	9156	9822	8976	10705	9191
engine_hv	9249	8077	10048	10066	10602
engine_sv	10359	9910	9242	8975	9389
motor_hv	9120	8724	8329	9421	8621
motor_sv	10159	10268	10289	9161	9345
suspension	9287	11442	10513	9699	12374
transformer	18793	22916	19520	18932	18583
transmission	8703	9038	8344	9067	8872

Analysis

Pivot Chart Analysis – Conversation Details

- Total numbers session by queue, split by "Opt_Out_Reason_Code"

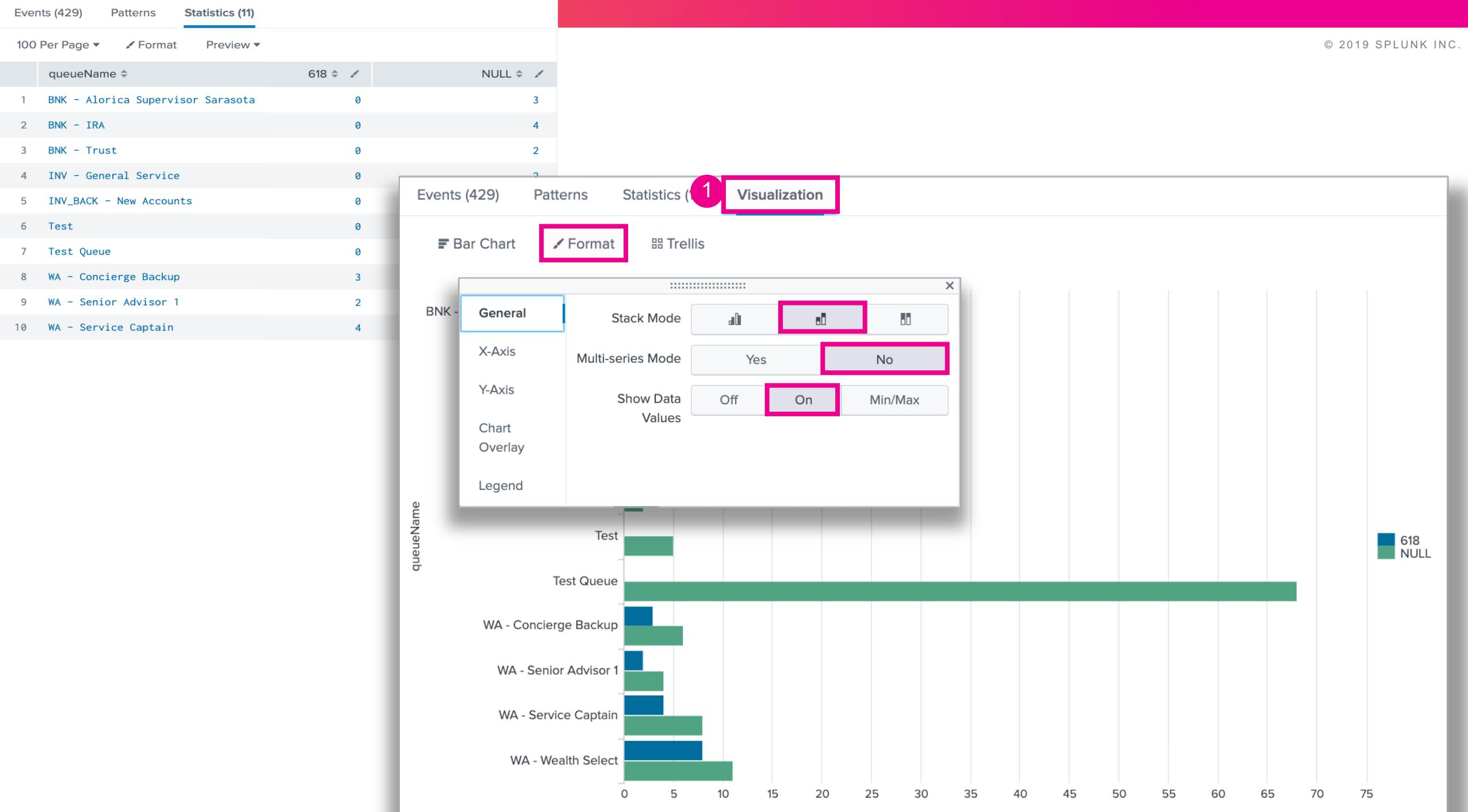
```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_details" startTime
| dedup id
| rename id as conversation_id, address as caller_address
| spath path="participants{}" output=rec_participant
| spath path="divisions{}" output=rec_division
| spath input="rec_participant"
| rename id as participant_id,
| spath input="rec_division"
| table _time conversation_id participant_id id caller_address address startTime endTime selfUri recordingState entities{}.id rec_*
| mvexpand rec_participant
| spath input="rec_participant"
| lookup genesys_cloud_queue_info id AS participants{}.queueId
| fields - rec_* calls{*} startTime
| fields +
| chart count by queueName attributes.Opt_Out_Reason_Code
```

Events (429) Patterns Statistics (11) Visualization

100 Per Page ▾ Format Preview ▾

	queueName	618	NULL
1	BNK - Alorica Supervisor Sarasota	0	3
2	BNK - IRA	0	4
3	BNK - Trust	0	2
4	INV - General Service	0	2
5	INV_BACK - New Accounts	0	2
6	Test	0	5
7	Test Queue	0	68





Queue SLA Dashboard

Last 24 Hrs

1

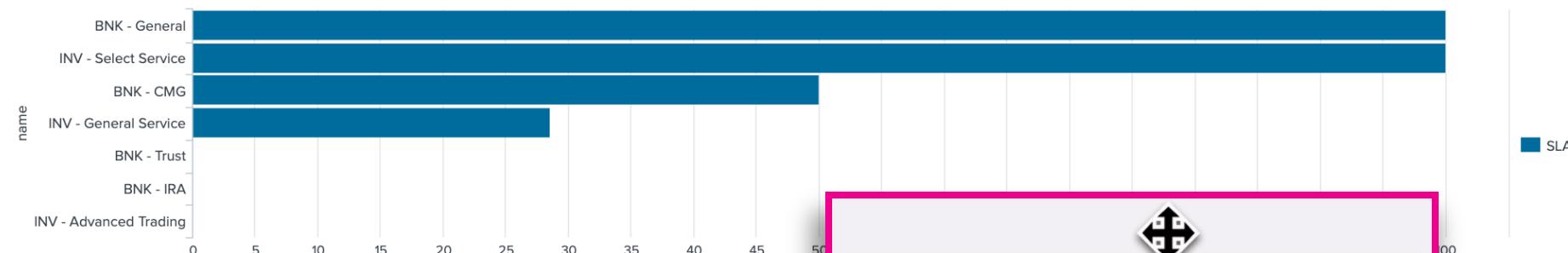
Edit

Export ▾

...

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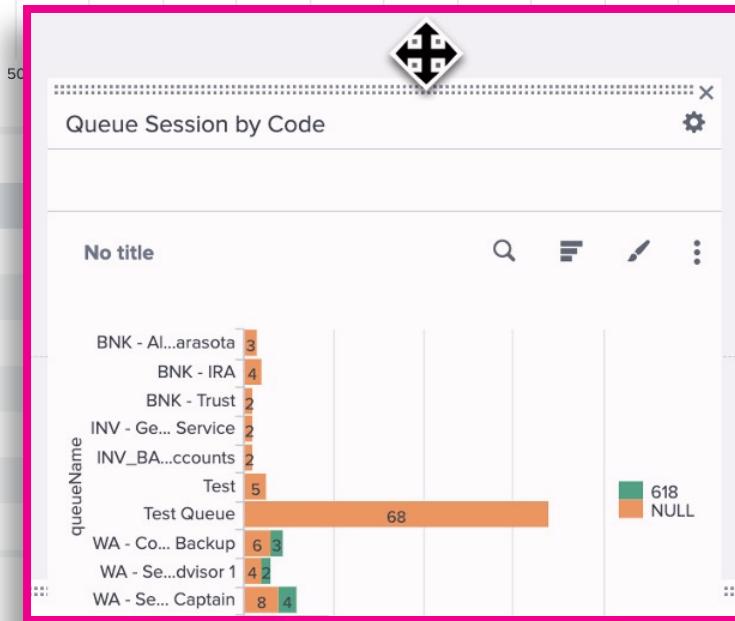
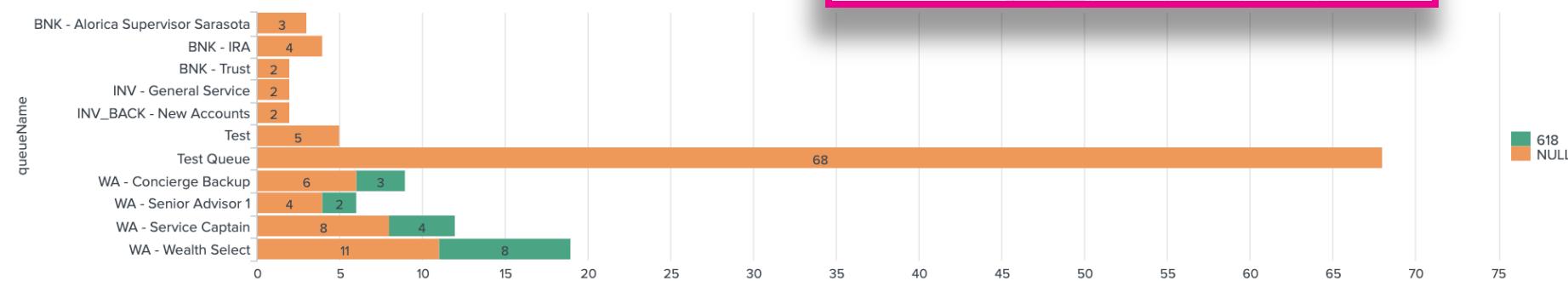
Top SLA Queues



SLA Stats Per Queue

queueId	name
1 0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service
2 9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General
3 c4fc8106-c993-4e1b-8766-a80e20c42d82	BNK - Trust
4 d3b4c336-68ce-4642-ae25-7feb0a840654	BNK - CMG
5 e4011625-cb01-4122-9e6d-e79dbe25d9cd	BNK - IRA
6 eca0f49f-186c-4e84-8221-ae3b92f9c0c5	INV - Advanced Trading
7 f339e61e-fc59-4152-bab3-a205693e3417	INV - Select Service

Queue Session by Code



turn data into doing

Queue SLA Dashboard

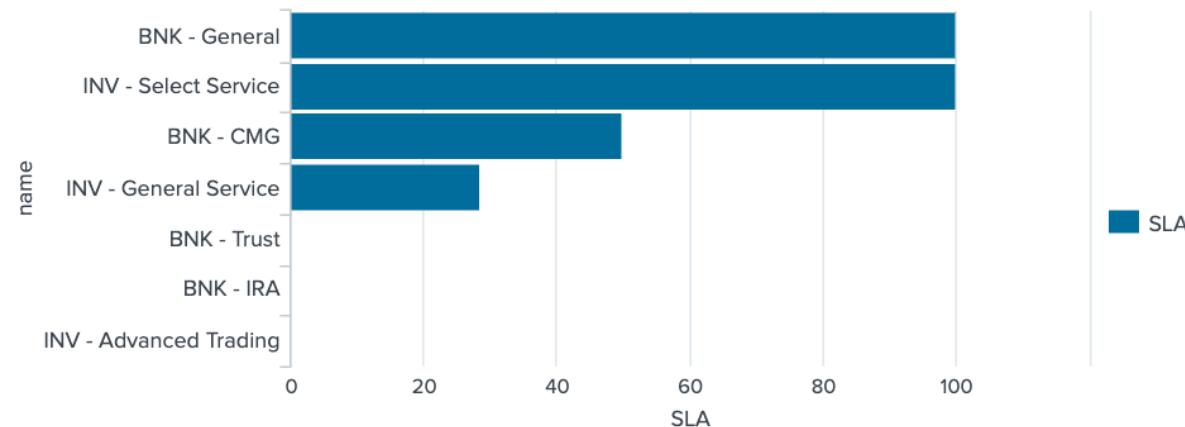
Edit

Export ▾

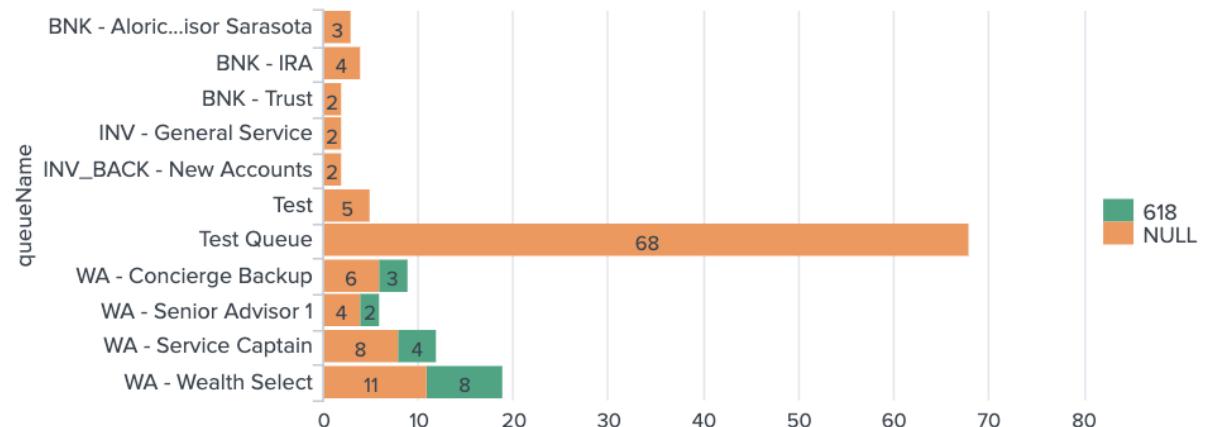
...

Last 24 Hrs

Top SLA Queues



Queue Session by Code



SLA Stats Per Queue

	queueId	name	cnt_answer	cnt_over_sla	cnt_abandon	SLA
1	0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	INV - General Service	2	0	5	28.57
2	9c50ad26-62a8-4f84-818f-4b0d8d402e88	BNK - General	1	0	0	100.00
3	c4fc8106-c993-4e1b-8766-a80e20c42d82	BNK - Trust	0	0	2	0.00
4	d3b4c336-68ce-4642-ae25-7feb0a840654	BNK - CMG	1	0	1	50.00
5	e4011625-cb01-4122-9e6d-e79dbe25d9cd	BNK - IRA	0	0	5	0.00
6	eca0f49f-186c-4e84-8221-ae3b92f9c0c5	INV - Advanced Trading	1	1	1	0.00
7	f339e61e-fc59-4152-bab3-a205693e3417	INV - Select Service	1	0	0	100.00



Technique 3 3D Matrix / Trend Analysis

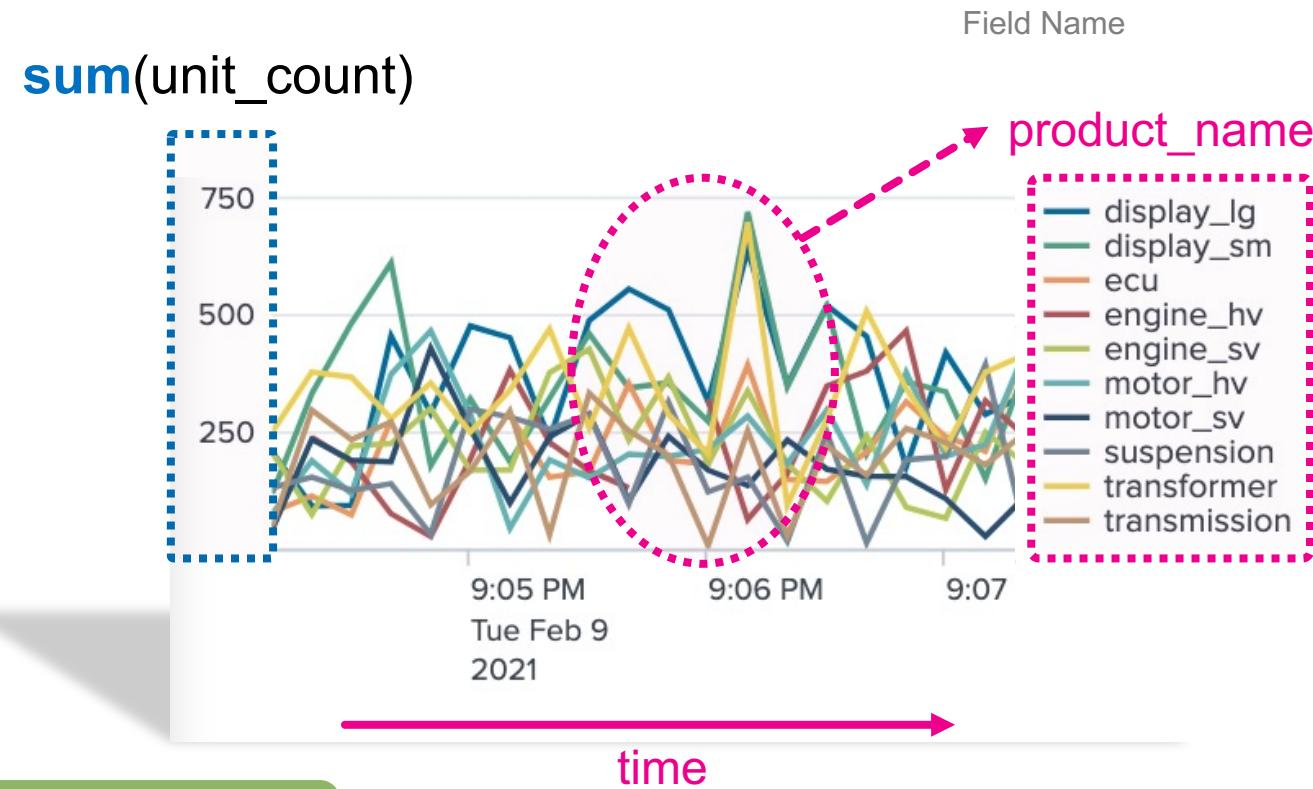
Analysis Technique 3 : 3D Matrix / Trend

- Using **timechart** Command
- 3D Matrix / trend analysis
- Goal : Visualize a **single trend** or compare **multiple trends** group by a **single entity segmentation**.

Function

timechart sum(unit_count) by product_name

Group by segmentation



Analysis Technique 3 : 3D Matrix, Trend

Syntax :

```
timechart func(field), func(field), ... by field
```

Examples :

```
* | timechart count by host  
* | timechart sum(unit_count) by product_name  
* | timechart sum(unit_count), sum(price) by product_name
```

```
* | timechart count(eval(result_code="completed")) as SUCCESS,  
count(eval(result_code="failed")) as FAILS by product_name
```

EXERCISE #3

New Search

```
1 sourcetype=access_combined product_name=* result_code=*
2 | table _time host serial category product_id product_name result_code price unit_count uri_path user_add
3 | timechart sum(unit_count) as unit_count by result_code
```

127 of 237 events matched No Event Sampling ▾

Events (127) Patterns Statistics (60) **Visualization**

Line Chart Format Trellis

REAL-TIME RELATIVE OTHER

REAL-TIME	RELATIVE	OTHER
30 second window	Today	Last 15 minutes
1 minute window	Week to date	Last 60 minutes
5 minute Window	Business week to date	Last 4 hours
30 minute window	Month to date	Last 24 hours
1 hour window	Year to date	Last 7 days
All time (real-time)	Yesterday	Last 30 days
	Previous week	
	Previous business week	
	Previous month	
	Previous year	

Presets

- > Relative
- > Real-time
- > Date Range
- > Date & Time Range
- > Advanced

Save As ▾ Create Table View Close

1 minute window ▾ 1 minute window Q

1

2

Analysis

All trends over time – Conversation Aggregates

- All major KPIs over time trend

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| fields +
| table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count queueId ```queueFlow.id queueFlow.name
queueFlow.selfUri ```
| rename stats.count as stats_count
| timechart sum(stats_count) as count by metric
```

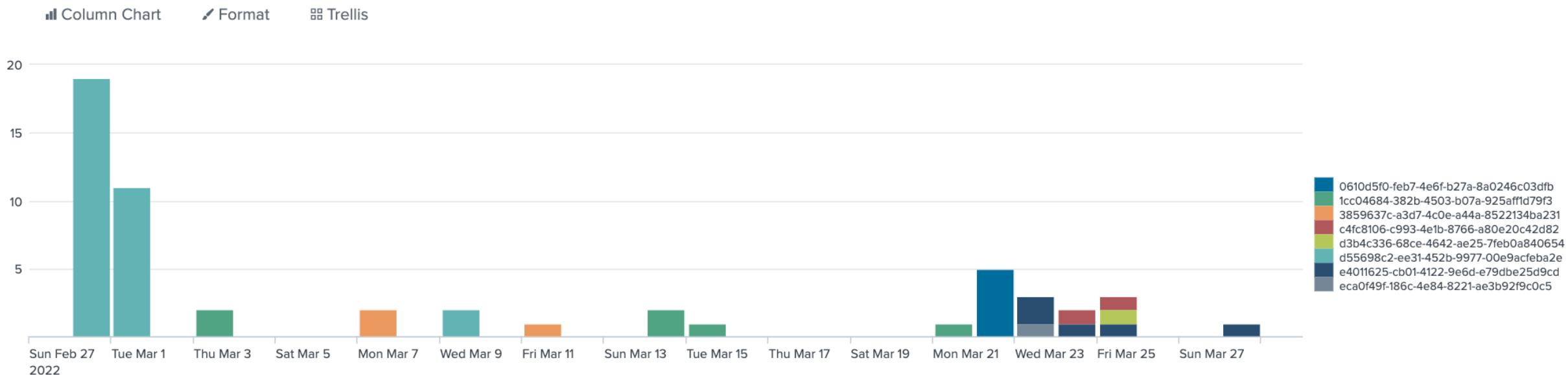


Analysis

All trends over time – Conversation Aggregates

- All major KPIs over time trend

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| fields +
| search metric=tAbandon
| table _time ani conversationId direction mediaType metric originatingDirection purpose stats.count queueId ````queueFlow.id queueFlow.name
queueFlow.selfUri ````
| rename stats.count as stats_count
| timechart sum(stats_count) as count by queueId
```





Defining Alerting

Alert Management [Show Filters](#)[Edit](#) [Export ▾](#) ... [New Incident](#)

Todays number of incidents, compared to yesterday



Recent Incidents

Owner:	Alert:	Category:	Subcategory:	Tags:	Status:	Incident ID:
All	All	All	All	All × [Untagged] ×	All open ×	
Title:	Impact:	Urgency:	Priority:	Group:	Filter?	
	All ×	All ×	All ×	All		

Search produced no results.

[Select All](#) | [Edit Selected](#) | [Edit All 5 Matching Incidents](#) | [Reset Selection](#)

i					_time ▾	owner ▾	status_description ▾	title ▾	app ▾	category ▾	subcategory ▾	tags ▾	priority ▾
>	<input type="checkbox"/>				2022-03-29 04:08:07.023	unassigned	New	Excessive Abandon Calls Detected : eca0f49f-186c-4e84-8221-ae3b92f9c0c5 : 1	genesys_cloud_app			[Untagged]	medium
>	<input type="checkbox"/>				2022-03-29 04:08:06.095	unassigned	New	Excessive Abandon Calls Detected : d3b4c336-68ce-4642-ae25-7feb0a840654 : 1	genesys_cloud_app			[Untagged]	medium
>	<input type="checkbox"/>				2022-03-29 04:08:05.243	unassigned	New	Excessive Abandon Calls Detected : c4fc8106-c993-4e1b-8766-a80e20c42d82 : 2	genesys_cloud_app			[Untagged]	medium
>	<input type="checkbox"/>				2022-03-29 04:08:04.363	unassigned	New	Excessive Abandon Calls Detected : e4011625-cb01-4122-9e6d-e79dbe25d9cd : 5	genesys_cloud_app			[Untagged]	medium
>	<input type="checkbox"/>				2022-03-29 04:08:03.511	unassigned	New	Excessive Abandon Calls Detected : 0610d5f0-feb7-4e6f-b27a-8a0246c03dfb : 5	genesys_cloud_app			[Untagged]	medium

Alerting

Excessive abandon calls – Conversation Aggregates

- When a queue has more than X number of abandon calls

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"  
| spath path="data{}.metrics{}" output=rec_metric  
| spath path="group" output=rec_group  
| spath input=rec_group  
| mvexpand rec_metric  
| spath input=rec_metric  
| search metric="tAbandon"  
| fields + *  
| stats sum(stats.count) AS value by queueId  
| sort - value
```

Events (14) Patterns Statistics (5) Visualization

100 Per Page ▾ Format Preview ▾

queueId	value
0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	5
e4011625-cb01-4122-9e6d-e79dbe25d9cd	5
c4fc8106-c993-4e1b-8766-a80e20c42d82	2
d3b4c336-68ce-4642-ae25-7feb0a840654	1
eca0f49f-186c-4e84-8221-ae3b92f9c0c5	1

Excessive Number of Abandon Calls Detected

Save **1** Save As ▾ View Create Table View Close

```
1 `genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
2 | spath path="data{}.metrics{}" output=rec_metric
3 | spath path="group" output=rec_group
4 | spath input=rec_group
5 | mvexpand rec_metric
6 | spath input=rec_metric
7 | search metric="tAbandon"
8 | eval queueFlow.id=mvdedup(queueFlow.id)
9 | eval queueFlow.name=mvdedup(queueFlow.name)
10 | eval queueFlow.selfUri=mvdedup(queueFlow.selfUri)
11 | eval queueId=mvdedup(queueId)
12 | fields + *
13 | stats sum(stats.count) AS value by queueId
14 | sort - value
```

- Report
- Alert
- Existing Dashboard** 
- New Dashboard
- Event Type

Last 7 days ▾



✓ 14 events (3/22/22 6:00:00.000 AM to 3/29/22 6:48:20.000 AM) No Event Sampling ▾

Job ▾ II ■ ↗ ↘ Verbose Mode ▾

Events (14) Patterns **Statistics (5)** Visualization

100 Per Page ▾ Format Preview ▾

queueId	value
0610d5f0-feb7-4e6f-b27a-8a0246c03dfb	5
e4011625-cb01-4122-9e6d-e79dbe25d9cd	5
c4fc8106-c993-4e1b-8766-a80e20c42d82	2
d3b4c336-68ce-4642-ae25-7feb0a840654	1
eca0f49f-186c-4e84-8221-ae3b92f9c0c5	1

Edit Alert



Settings

Alert

Excessive Number of Abandon Calls Detected

Description

Optional

Search

```

1 `genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate"
   group.ani="***" group.conversationId="***"
2 | spath path="data{}.metrics{}" output=rec_metric
3 | spath path="group" output=rec_group
4 | spath input=rec_group
5 | mexpand rec_metric
6 | spath input=rec_metric
7 | search metric="tAbandon"
8 | eval queueFlow.id=mvedup(queueFlow.id)
9 | eval queueFlow.name=mvedup(queueFlow.name)
10 | eval queueFlow.selfUri=mvedup(queueFlow.selfUri)
11 | eval queueId=mvedup(queueId)
12 | fields + *
13 | stats sum(stats.count) AS value by queueId
14 | sort - value

```

Alert type

Scheduled

Real-time

Time Range

Run on Cron Schedule ▾

Last 7 days ▾

Cron Expression

*/2 * * * *

e.g. 00 18 *** (every day at 6PM). [Learn More](#)

Expires

24

hour(s) ▾

Trigger Conditions

Trigger alert when

Custom ▾

search value>2

e.g. "search count > 10". Evaluated against the results of the base search.

Cancel

Save

Suppress results containing field value

queueld

Suppress triggering for

60

minute(s) ▾

Trigger Actions

+ Add Actions ▾

When triggered



Remove

Title

Excessive Abandon Calls Dete

Enter the title for Incidents created by this alert. The title can include tokens that insert text based on the results of the search.
[Learn More](#)

Impact

Medium

Default impact for incidents of this alert.

Note: The impact can be overridden by a field from search results named 'Impact'. Later, the alert manager calculates a priority based on the impact and urgency. [Learn More](#)

Urgency

Medium

Default urgency for incidents of this alert.

Note: The urgency can be overridden by a field from search results named 'urgency'. Later, the alert manager calculates a priority based on the impact and urgency. [Learn More](#)

Owner

unassigned



If specified, automatically assign new incidents from this alerts to a certain user. Type in the username from the [list](#).

Cancel

Save

Alerting

Excessive abandon calls – Conversation Aggregates

- When a queue has more than X number of abandon calls

```
`genesys_cloud_index` sourcetype="genesys:cloud:api:conversation_aggregate" group.ani="***" group.conversationId="***"
| spath path="data{}.metrics{}" output=rec_metric
| spath path="group" output=rec_group
| spath input=rec_group
| mvexpand rec_metric
| spath input=rec_metric
| search metric="tAbandon"
| fields +
| stats sum(stats.count) AS value by queueId
| sort - value
```

Other Alert Setting Details

- Excessive Number of Abandon Calls Detected
- Alert type : Run on Cron Schedule
- Time Range : Last 7 Days
- Cron Expression : */2 * * * *
- Trigger alert when : Custom, search value>2
- Trigger : For Each Results
- Throttle : Checked
- Suppress results containing field value : queueId
- Suppress triggering for : 60
- Trigger Actions : Alert Manager
- Title : Excessive Abandon Calls Detected : \$result.queueId\$: \$result.value\$
- Impact : Medium
- Urgency : Medium
- Owner : Unassigned

Agenda, Day 2

- **SPL Basics for Geneys** (20 min)
 - Fields exploration
 - Explore Genesys data using search
 - Analysis command
- **Exploring data from Splunk** (15 min)
 - Splunk Search - Raw data
 - → Conversation Aggregates, Details, Attributes, Queue observations
- **Analysis** (20 min)
 - Queue and agent analysis
 - Connected – Total amount of call connected
 - Wait - Average wait times, Split by Queue / Agent
 - Abandon - Total abandon, Split by Queue / Agent
 - Handle time - Average handle time, Split by Queue / Agent
 - Queue Observations
 - Active agents on queue
 - Conversation level analytics
 - Call statistics by various fields
- **Dashboarding & Alerting** (15 min)
 - Queue and agent operation dashboard
 - Singles view
 - Trending
 - Stats
 - Alerting based on analysis and threshold
 - Based on patterns
 - Based on total count
 - Based on calculation stats, like average