



splunk>

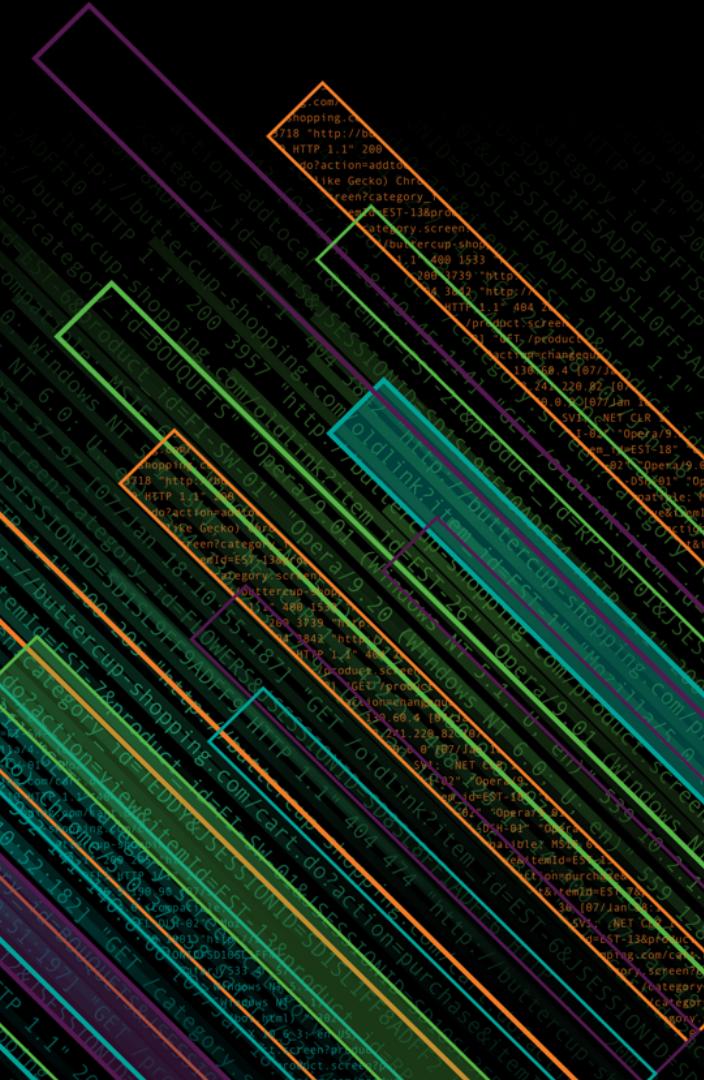
Transforming IT: From a Cost-Center to a Strategic Asset

City of Newberg & Splunk

Dave Brooks | Director of IT, City of Newberg

Joshua Marsh | Splunk Sales Engineer

May 2018 | Version 1.0



Forward-Looking Statements

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\$whoami: Dave Brooks

- ▶ Network Operations at Intel
 - ▶ Volunteer Police Officer, 16 years
 - ▶ Computer Forensics Investigator
for Newberg/Dundee Police
Department
 - ▶ Director of IT for City of Newberg



\$whoami: Joshua Marsh

- ▶ University of Colorado Buff
- ▶ University IT, web dev, VOIP, and network roles
- ▶ Over a decade with resellers as a consulting systems engineer—doing networks, VOIP, and video implementations—followed by various leadership and business development roles
- ▶ Splunk sales engineer since 2017



City of Newberg

Gateway to Oregon Wine Country

- ▶ Bedroom Community for Portland
- ▶ Experiencing rapid growth
- ▶ Home of George Fox University
- ▶ Population: ~24k
- ▶ 911 Center for Newberg and surrounding area



City of Newberg

Challenges for the city

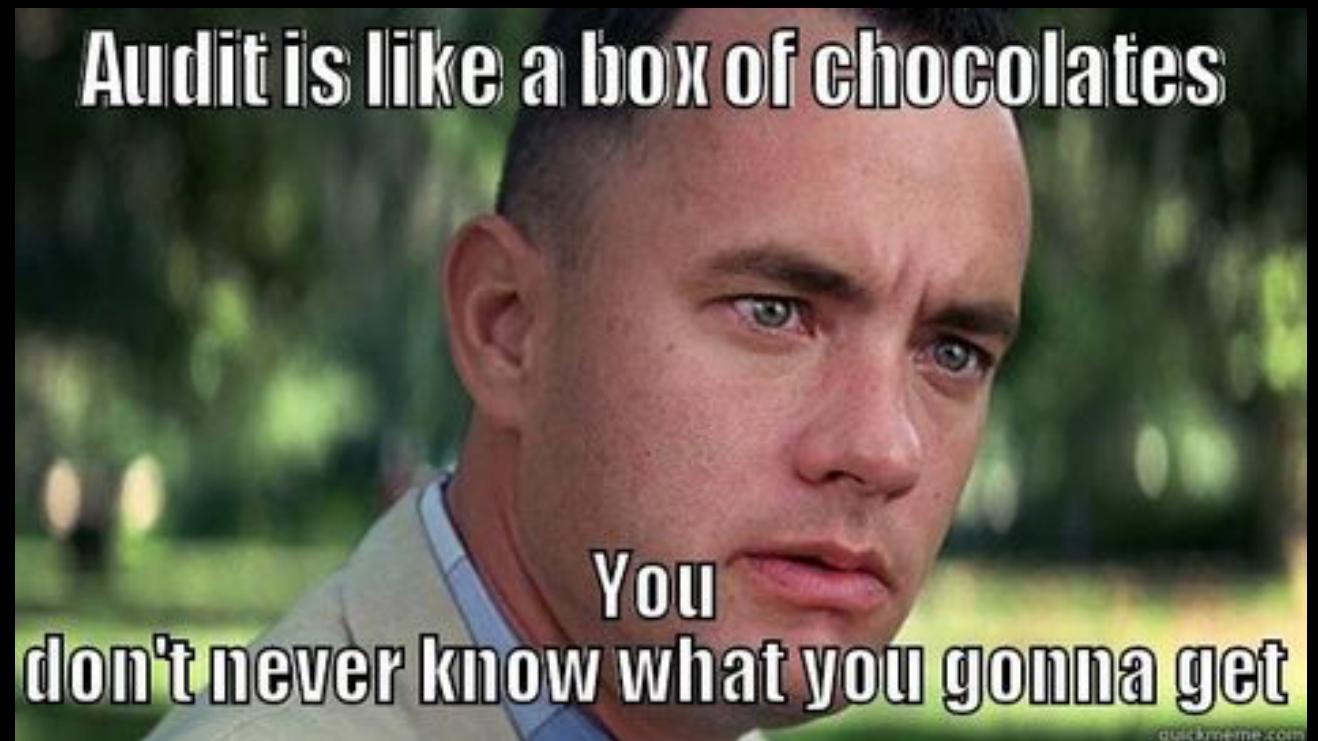
- Compliance
 - Security
 - IT Visibility
 - Resource Constraints
 - Money
 - People
 - Do more with less!



City of Newberg

Why Splunk?

- 2015 CJIS Audit
 - Log Review
 - SIEM Platform
 - IT Operations Visibility
 - Consolidation into one tool was critical



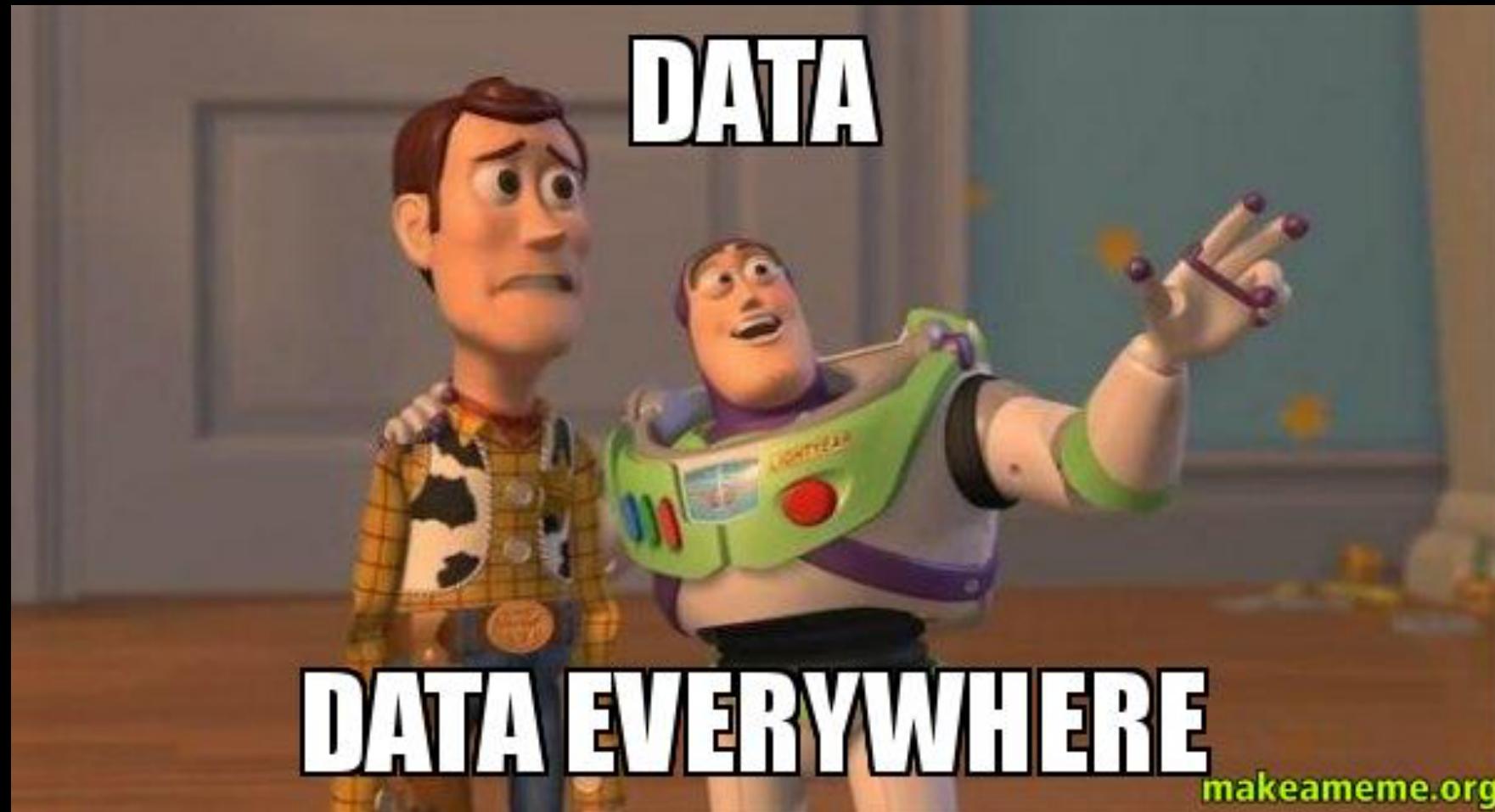
splunk> .conf18

Newberg's Splunk Journey Begins



- ▶ IT Operations = Meat
 - ▶ Security = Potatoes





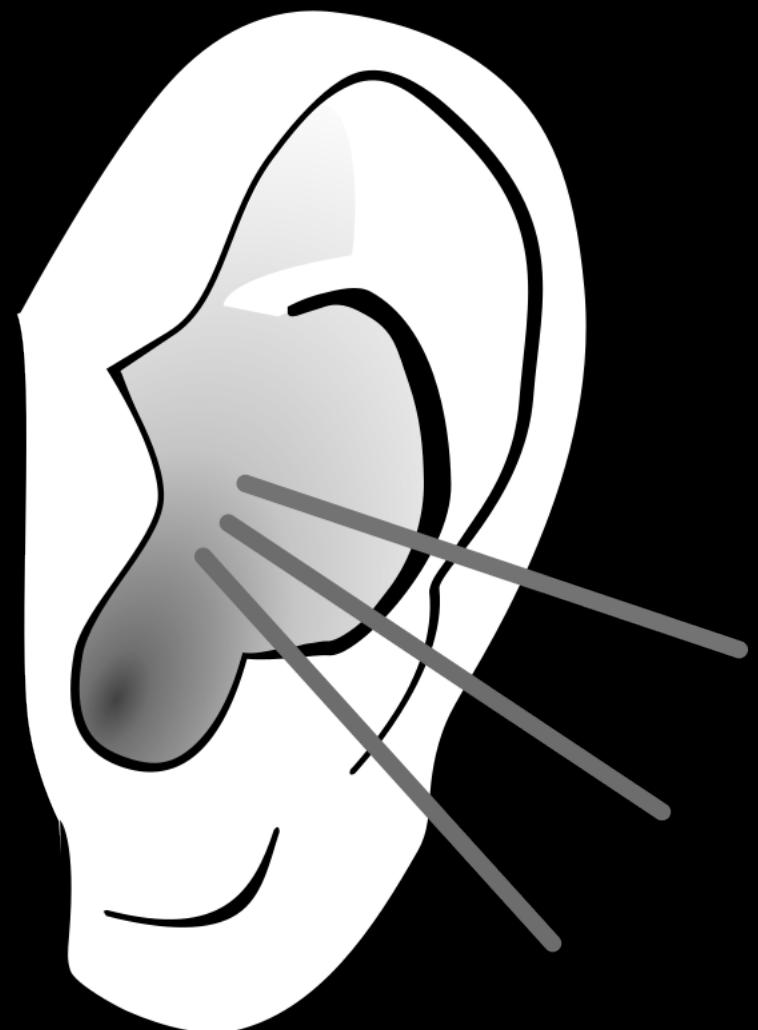
DATA EVERYWHERE

makeameme.org

splunk> .conf18

There is much more to solve outside of IT . . .

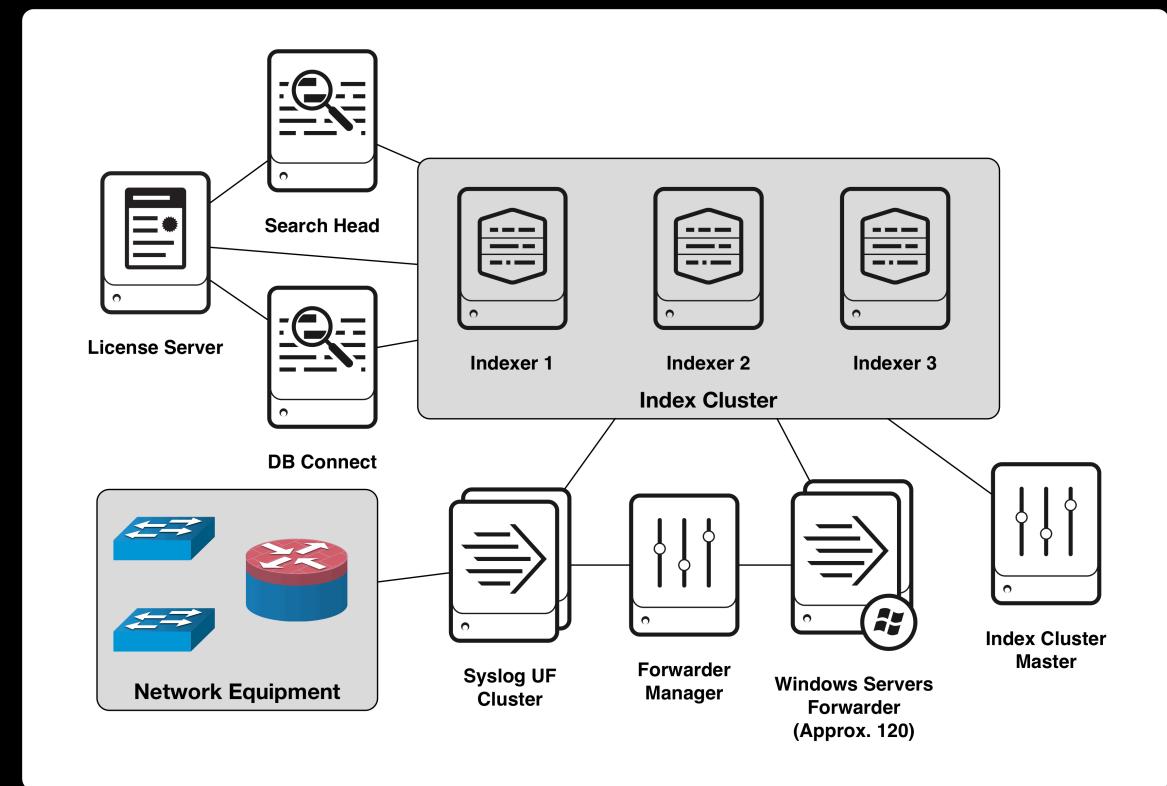




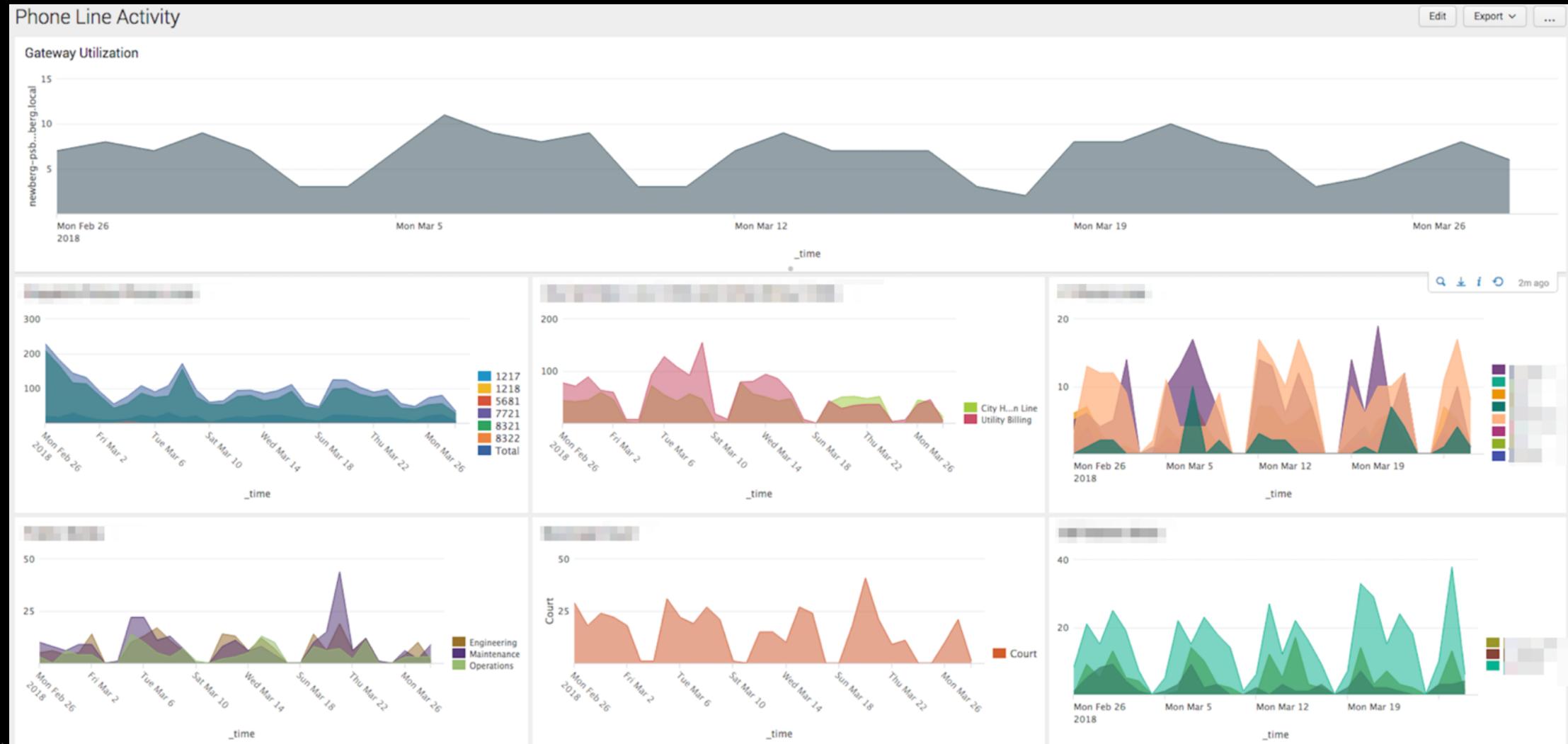
Culture of listening . . .

Some technical details

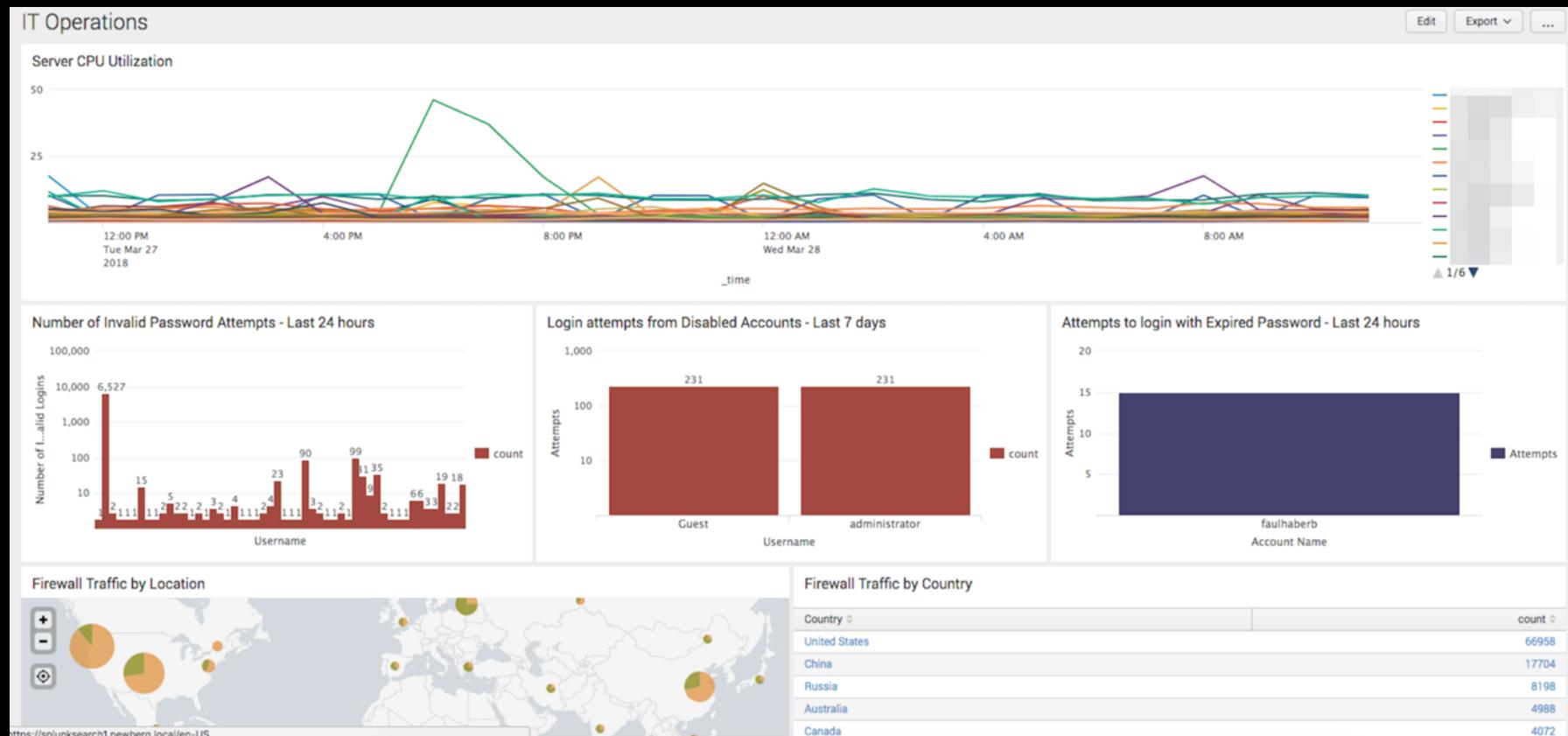
- ▶ MS SQL
 - Springbrook
 - Police Computer Aided Dispatch (CAD)
 - Police Records Management System (RMS)
 - IT Ticketing System
 - ▶ Windows Logs
 - ▶ Routers, Switches
 - ▶ Firewalls
 - ▶ Phone system
 - ▶ Varonis

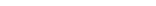


Phone System Visibility

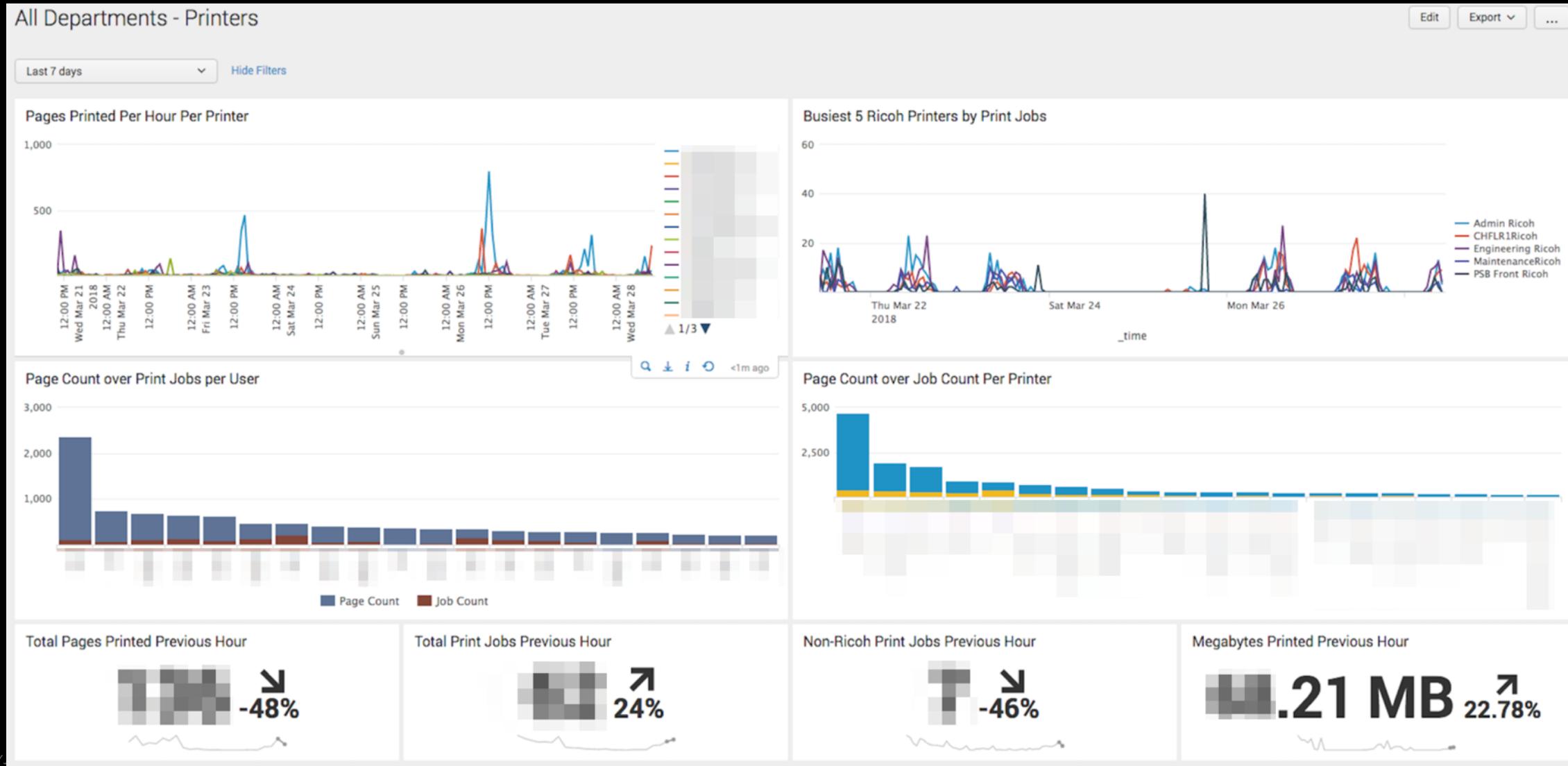


Security and Operational Visibility



Netapp Storage Status									
Controller	Used (TB)	Total (TB)	Used (%)	CPU (%)	Disk Read	Disk Write	Total Ops	Network Received	Network Sent
netapp01									
netapp02									

Proliferation of Printers on Desks



IT Team Performance

IT Director Dashboard

Tickets Closed Today

4

Tickets Closed Today

Tickets Closed Yesterday

15

Tickets closed yesterday

Afters Hours - Current Month

8

Afters Hours - Previous Month

4

Helpdesk calls vs Tickets closed per day



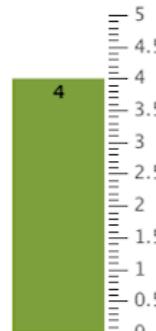
Monthly Tickets to Date



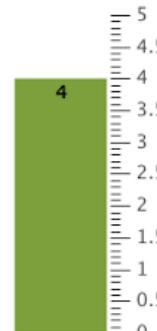
HelpDesk's Average



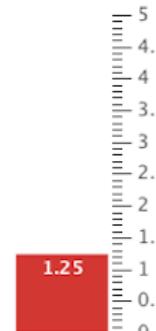
SysAdmin1's Average



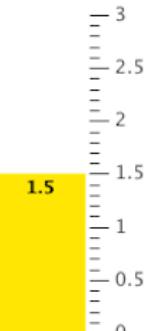
SysAdmin2's Average



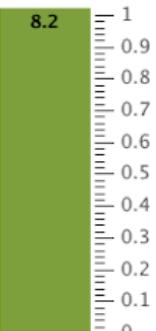
SysAdmin3's Average



NetAdmin's Average



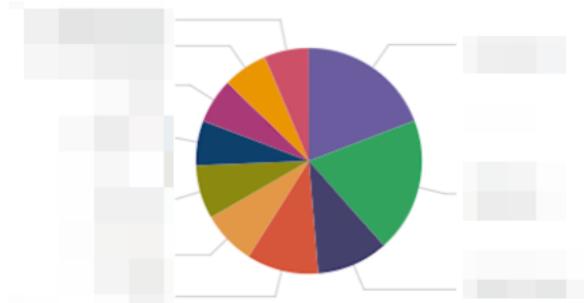
Admin Assist's Average



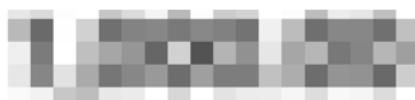
Help Desk Ticket Trends



Top Requestors Previous Month



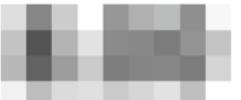
Sick Hours Available



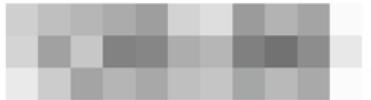
Vacation Hours Available



Floating Holiday Hours Available



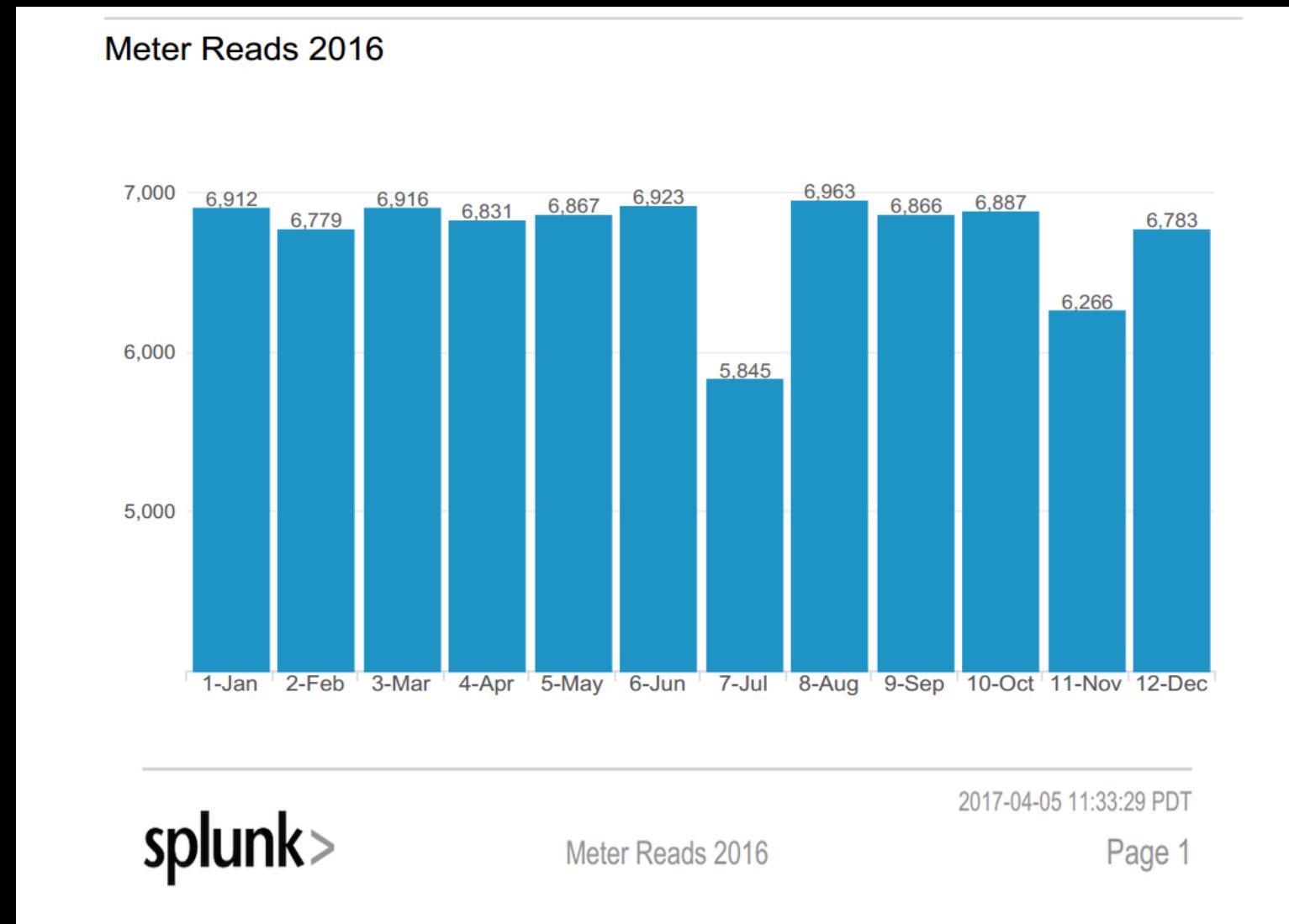
Admin Hours Available



Enhancing Citizen Experience & Optimizing Taxpayer Revenue

- ▶ Reducing customer complaints
- ▶ Identifying sources of lost revenue
- ▶ Providing real-time reports
- ▶ Citizen engagement
- ▶ Performance metrics
- ▶ Resource allocation
- ▶ Workload trending

Inconsistent Water Meter Reads



Financial Data



COTS Reporting Limitations/Manual Reporting

Department General Ledger Fiscal Year Summary

Select Fund No. Select Department Select Accounts Select a Fiscal Year

GL Summary - 2018 Fiscal Year

	Account #	Description	Budget	YTD	% Spent	Target %	Encumb	\$ Available after Encumb	Projected Year End Balance
1		Bicycle Route Improvements				100%			
2		College St Bikelane & Sidewalk				100%			
3		Villa Rd-Haworth to Crestview				100%			
4		Crestview Dr (Oxborg Lake)				100%			
5		Pavement Rehab				100%			
6		PW Maint Facility Improvements				100%			
7		Citywide Pavement Preservation				100%			
8	Totals					0.00%			

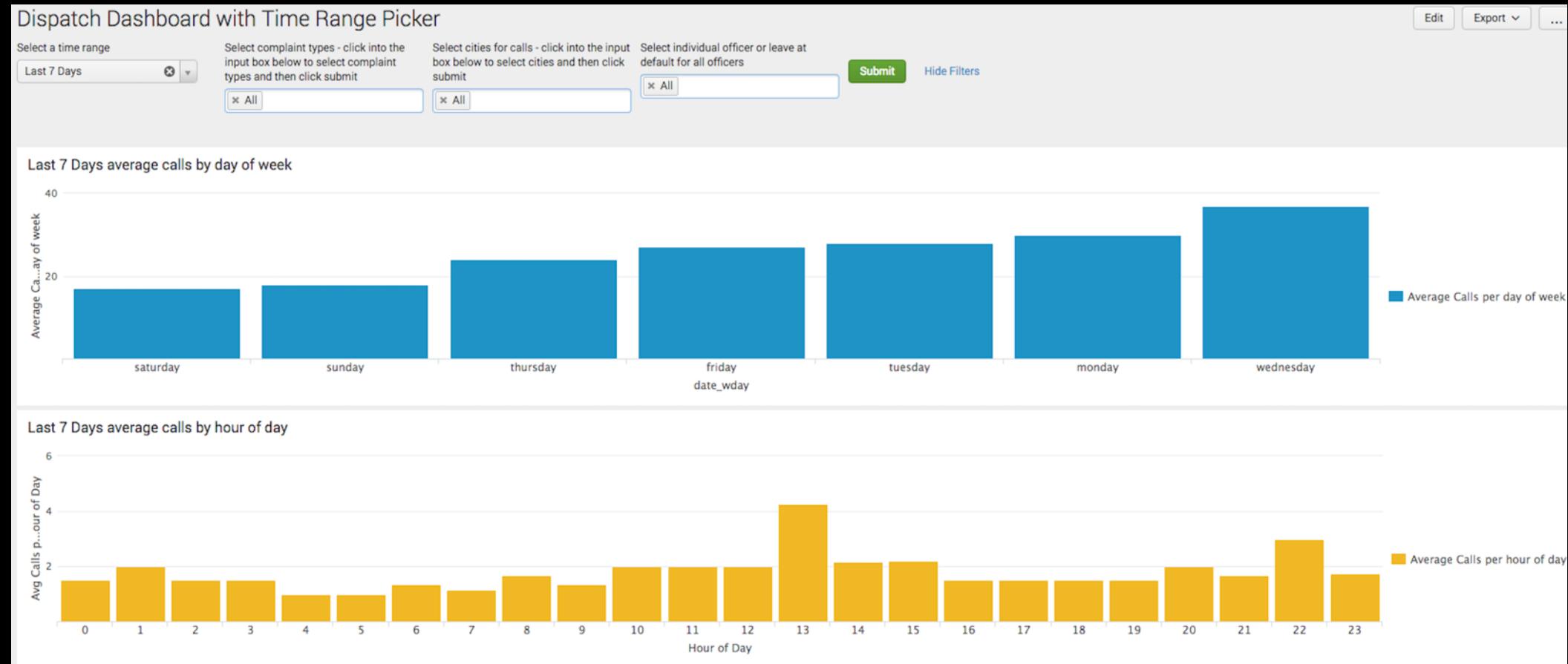
Finding Citizens Owed a Refund

City Facility Fees 01012015 to Present

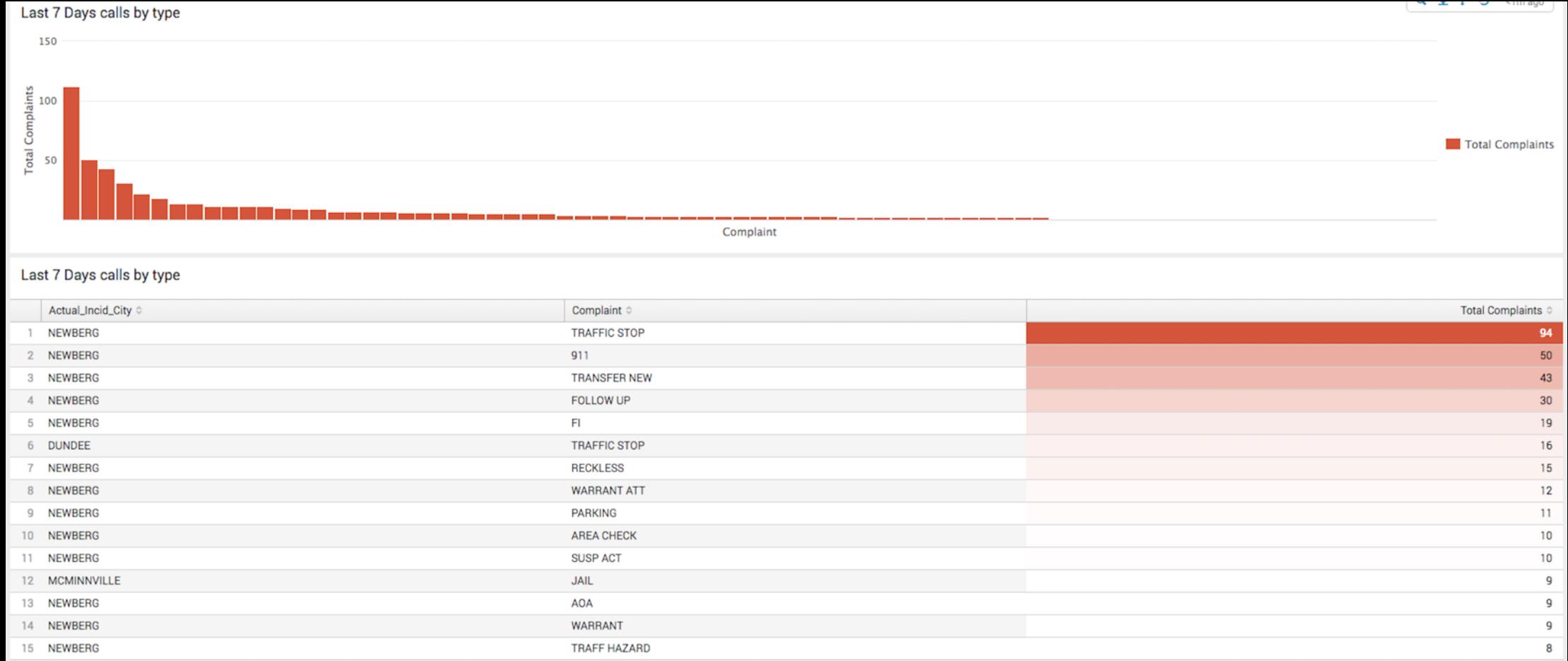
Permit number	Transaction date	Owner name	Fee type	Fee amount
623-17-0001	2017-06-21 12:22:27	[REDACTED]	City facility fee	\$529.38
623-17-0001	2017-06-21 12:12:01	[REDACTED]	City facility fee	\$537.08
623-17-0001	2017-06-19 09:26:56	[REDACTED]	City facility fee	\$212.31
623-17-0001	2017-06-16 10:35:15	[REDACTED]	City facility fee	\$47.86
623-17-0001	2017-06-14 11:02:39	[REDACTED]	City facility fee	\$554.68
623-17-0001	2017-06-14 10:55:16	[REDACTED]	City facility fee	\$493.99
623-17-0001	2017-06-13 15:01:24	[REDACTED]	City facility fee	\$790.27
623-17-0001	2017-06-13 13:45:39	[REDACTED]	City facility fee	\$30.00
623-17-0001	2017-06-02 13:12:41	[REDACTED]	City facility fee	\$7.50
623-16-0011	2017-06-01 15:10:05	[REDACTED]	City facility fee	\$535.24

Public Safety

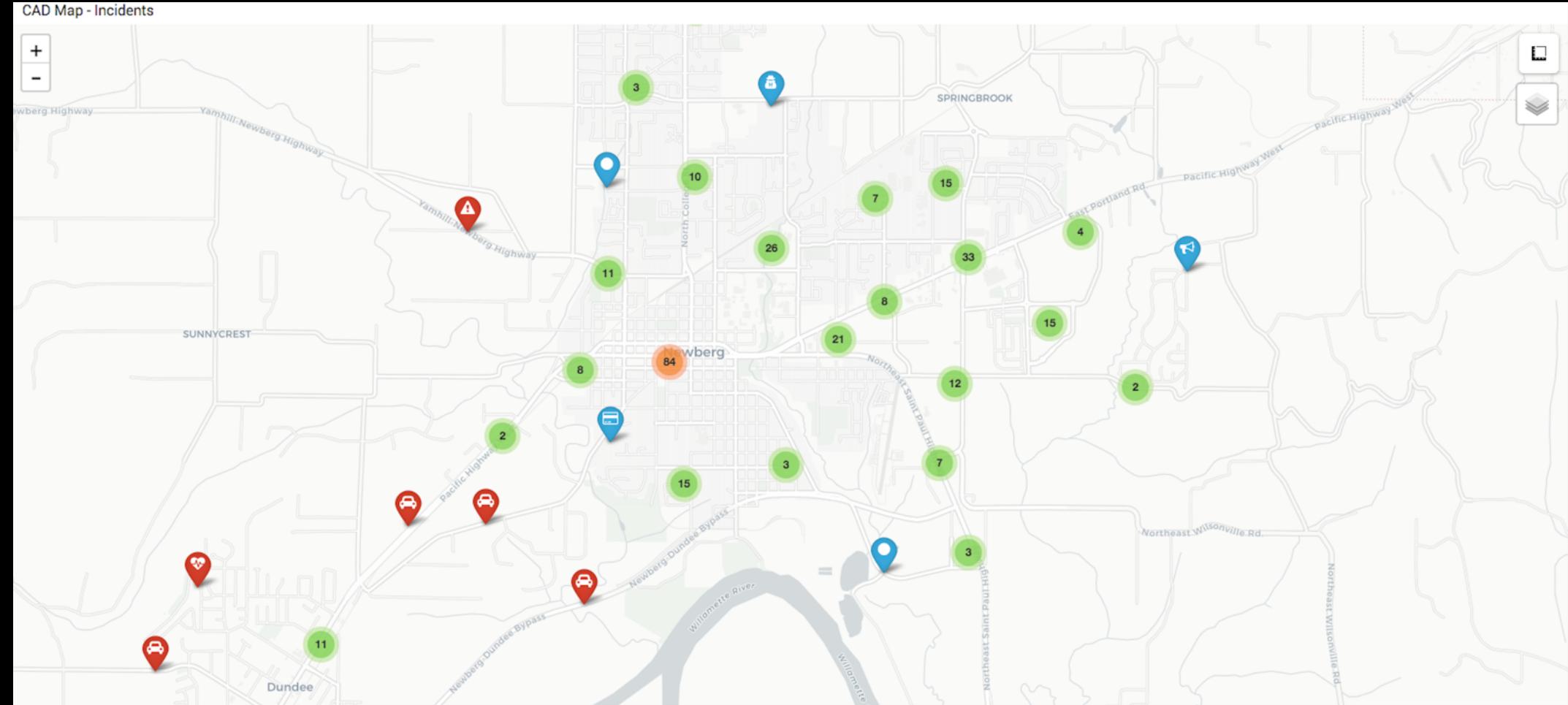
Understanding Dispatch Trends



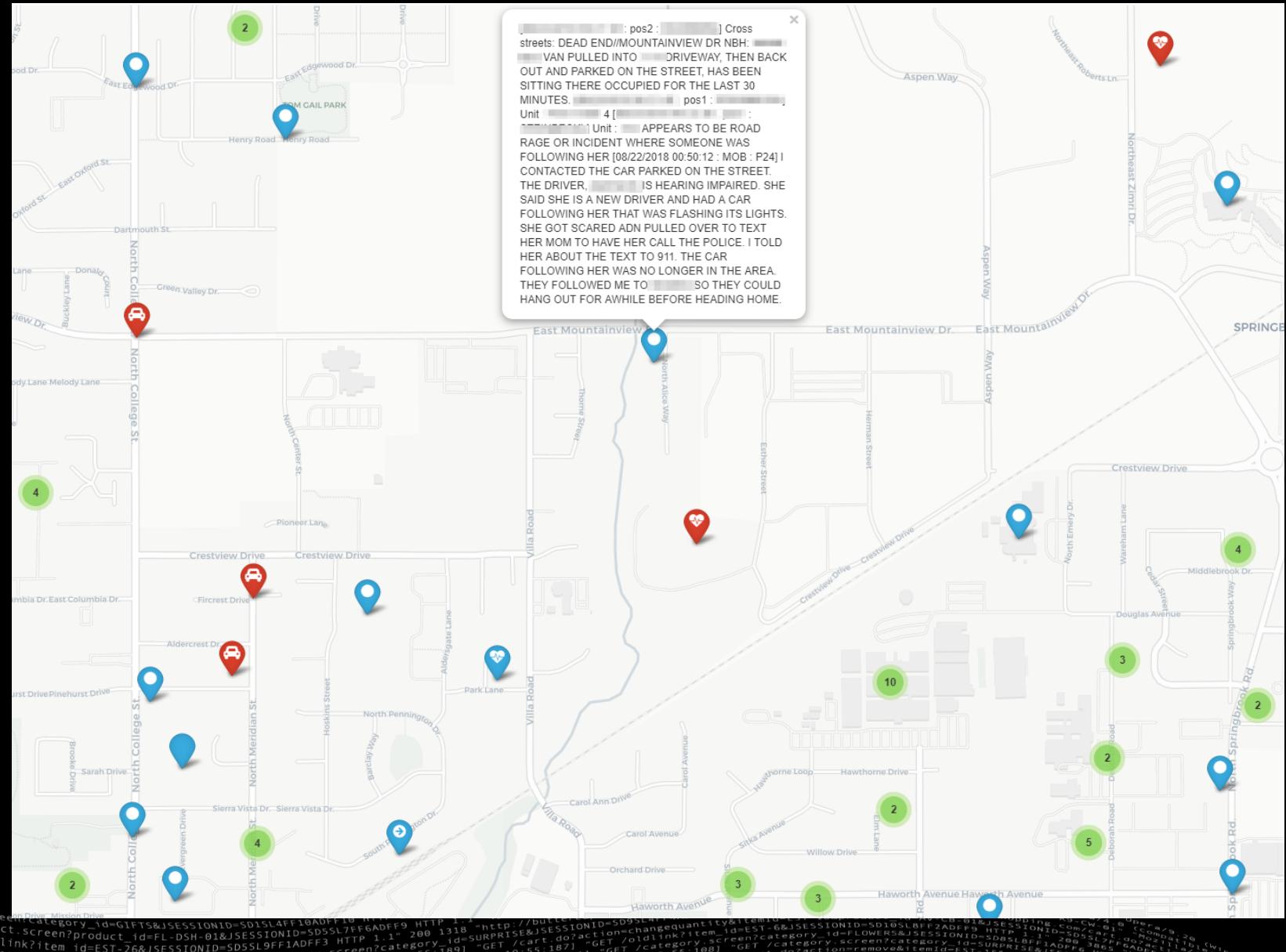
Understanding Dispatch Trends Continued



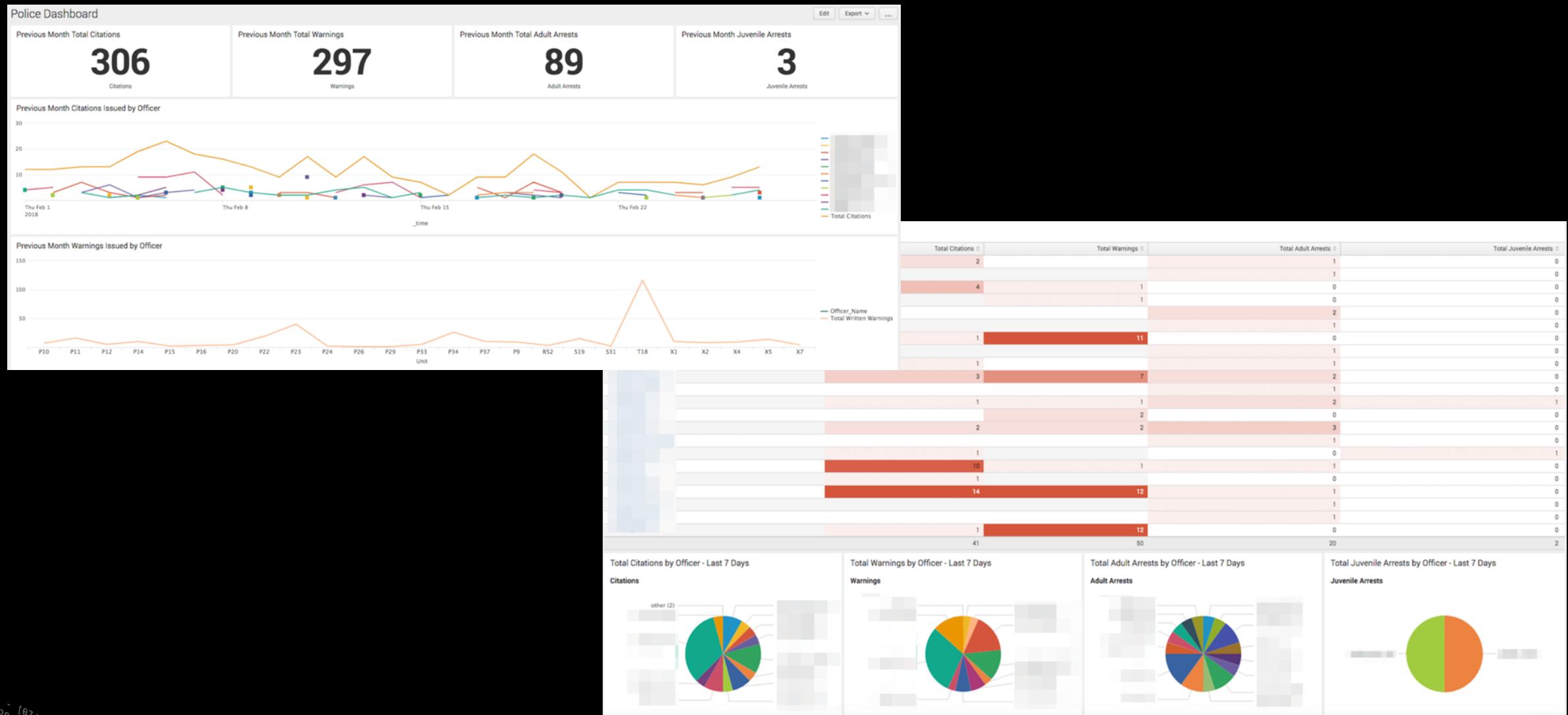
Responding to Citizen Inquiries



Detailing Incidents and Patterns

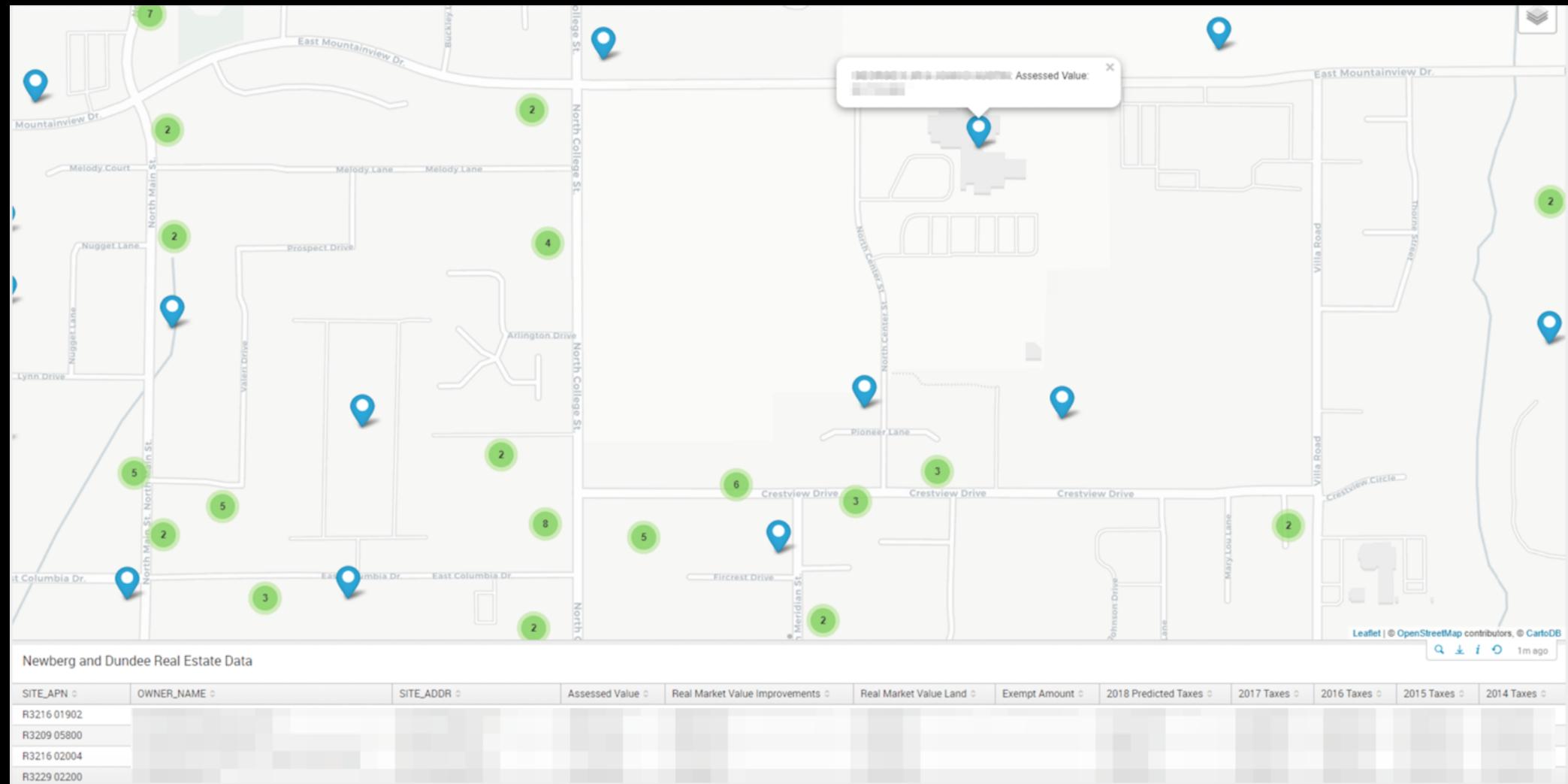


Tracking Officer Productivity

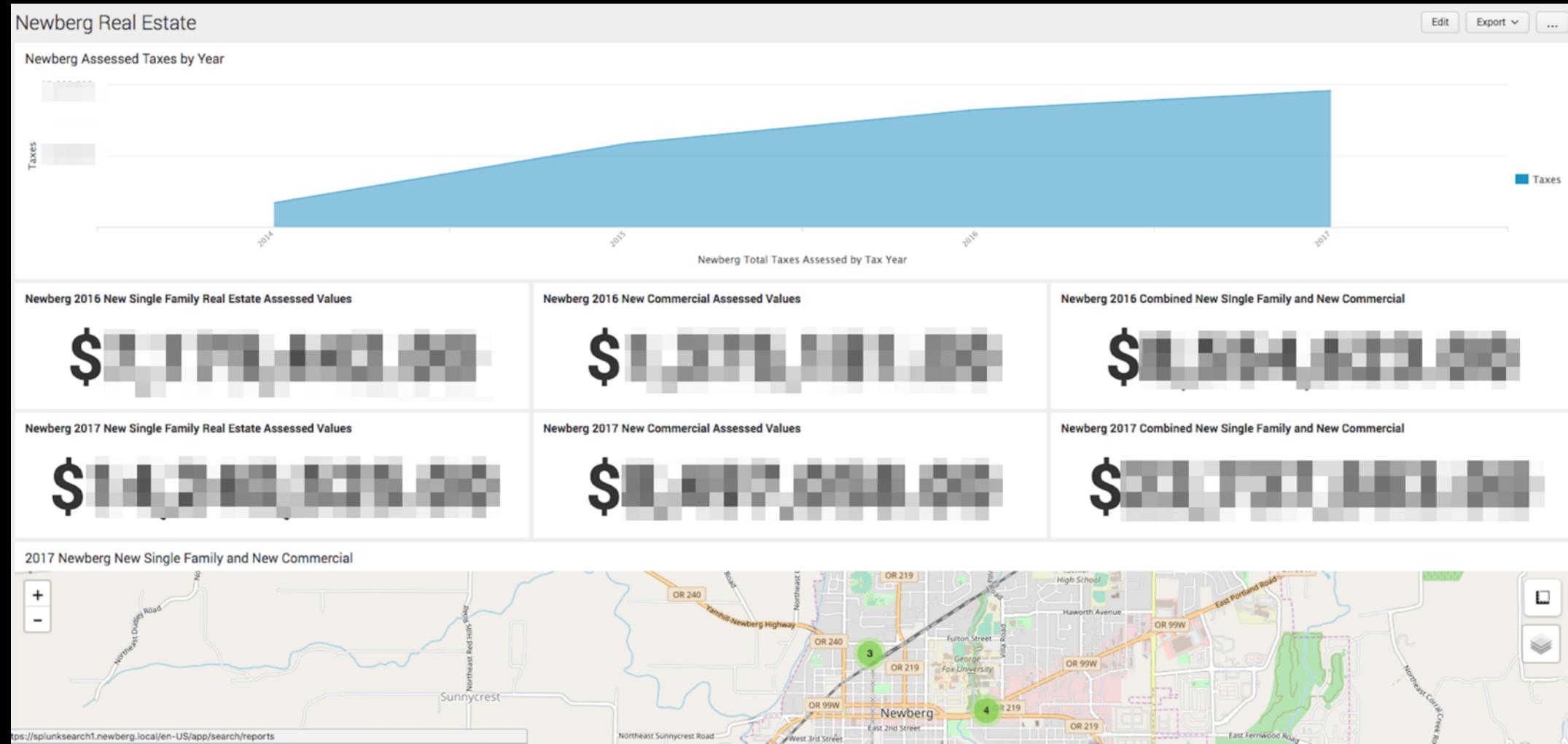


Community Development

Predicting Tax Revenue



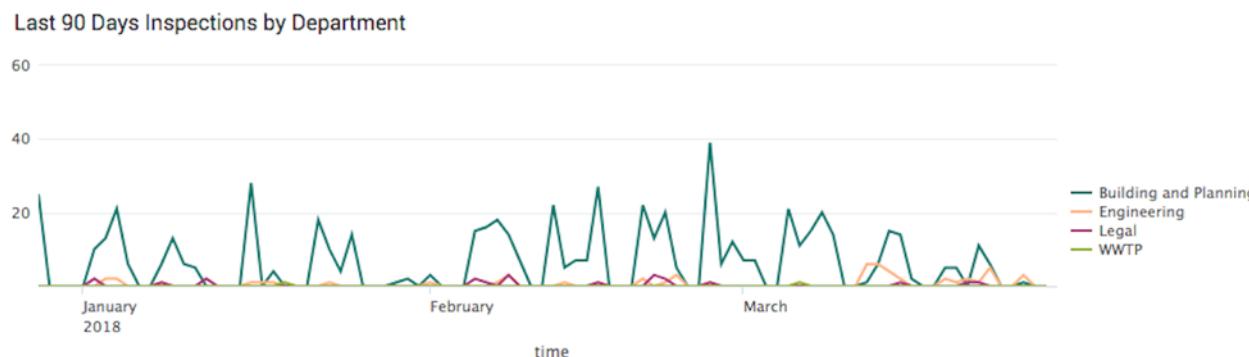
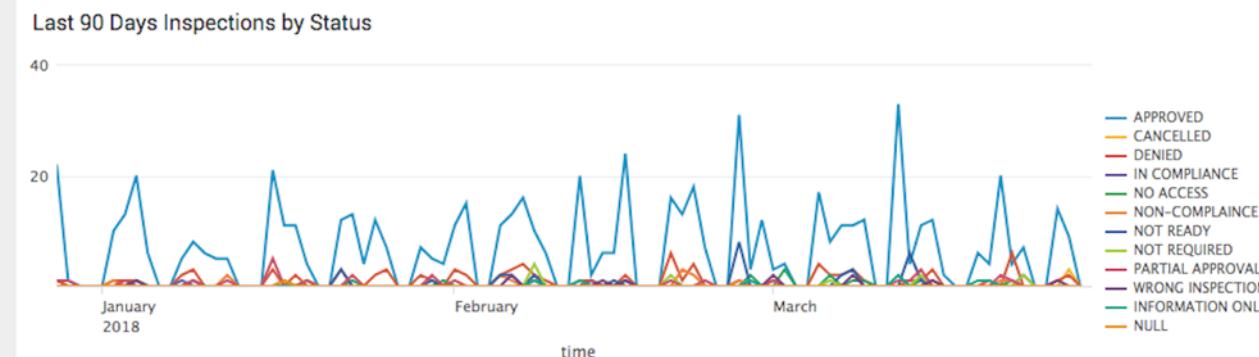
Predicting Tax Revenue



Tracking Inspection Issues

Trakit Inspections Dashboard

[Edit](#) [Export](#) [...](#)



Previous month approved inspections by department and type

Department	Inspection Type	Number of approved inspections
Building and Planning	ADMINISTRATIVE PROCESSING	1
Building and Planning	ARCHIVED-COM	4
Building and Planning	ARCHIVED-RES	3
Building and Planning	BUILDING FINAL-COM**	1
Building and Planning	BUILDING FINAL-RES**	6
Building and Planning	FIRE LINE FLUSH	1
Building and Planning	FIRE SPRINKLER FINAL**	1
Building and Planning	FOOTING	1
Building and Planning	FOUNDATION	7
Building and Planning	FRAMING	6

Previous month denied inspections by department and type

Department	Inspection Type	Number of denied inspections
Building and Planning	BUILDING FINAL-COM**	1
Building and Planning	BUILDING FINAL-RES**	3
Building and Planning	FIRE SPRINKLER FINAL**	1
Building and Planning	FRAMING	4
Building and Planning	INTERIOR SHEAR	1
Building and Planning	MECHANICAL COMPLETE	1
Building and Planning	PLUMBING COMPLETE	1
Building and Planning	PLUMBING FINAL-COM**	1
Building and Planning	ROUGH PLUMBING	2
Building and Planning	SHEAR WALL	1

Tracking Inspection Issues

Trakit Code Compliance Dashboard

Edit Export ...

YTD Code Enforcement Cases

15

Current Open Cases

377

Current Month Code Violations

1

Last 90 Days Code Violations

Month	Code Violations
December 2017	2
January 2018	2
February	2

Last 90 Days Code Cases by Type

Type	Count
TRIPPING HAZARD	1
RUBBISH	1
PRIVATE PROPERTY	1
PORTABLE/TEMPORARY SIGN	1
GARBAGE	1
ILLICIT DISCHARGE	1
JUNK	1
OCCUPANCY	1
FOG	1
GARBAGE	1

Last 90 Days Top Ten Code Violations by Type

Type	Count
Trees - obstruction of sidewalk or street	1
FOG	1
Prohibited parking and standing	1

Last 90 Days Code Incidents

Month	Code Violations non compliance
January 2018	0
February	1
March	1

Savings

► Missing Revenue

- Inconsistent month-to-month meter reads
 - Confirmed unbilled water usage:
 - Local business, \$1600/month

► Personnel Time Saved

- 1 FTE Saved
 - Police, Finance, Public Works, Community Development
 - Consultant
 - City Hall fee refund

Tax Revenue

- More accurate revenue projections

What does the future hold for Newberg and Splunk?

- ▶ Accurate tax revenue predictions
 - Current Assessor Data
 - Building permits
 - ▶ Predicting water use
 - Weather
 - Water Plant ICS
 - ▶ Resource allocation
 - Personnel Scheduling



Thank You

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