

How to Use Splunk to Automate Troubleshooting In A Call Center Environment

Travis McBee | Sr. Team Lead in Support September 2017 | Washington, DC

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Key Takeaways

1. How can you fix the problem?

2. What can your results look like?

3. What do you need to set this up?



Nightmare Support Experience

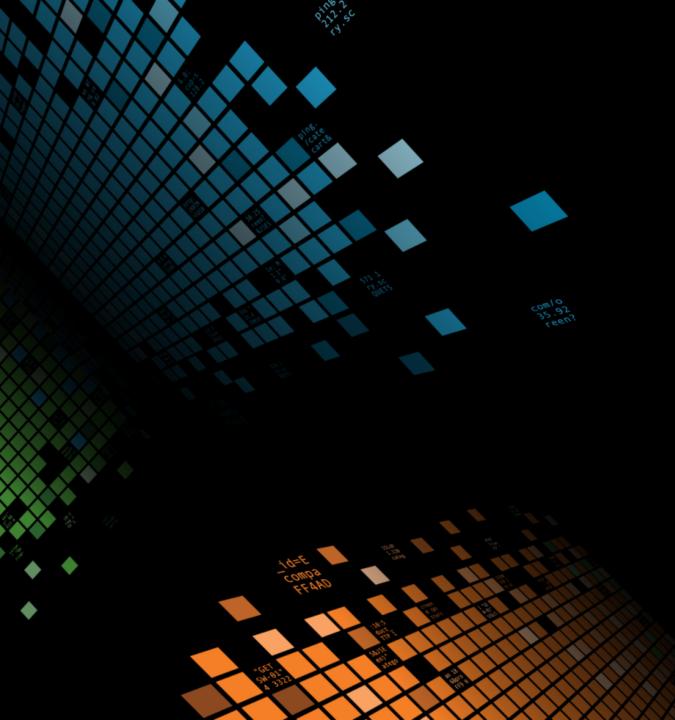
This is where the subtitle goes

12 Phone Calls	36 Repeated Processes	2 Escalations	2 On-site Visits	390 Wasted Minutes

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Who am I?



Travis McBee

- Husband and Father
- Engineering/Legal Background
- ▶ 10+ Years In IT Support
- 2 Years Splunk Experience
- Email: <u>Travis.McBee@Cerner.com</u>

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What is Cerner?

- Headquarters: Kansas City, MO
- Founded:1979
- Mission: Contribute to the systemic improvement of helath care delivery and the health of communities.
- > 24,000 Associates Globally
- 2016 Revenue : \$4.8 Billion



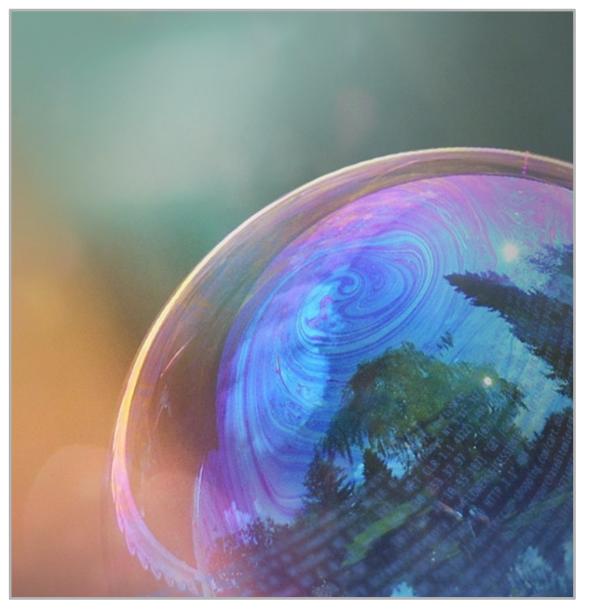


What is Consumer Care?

- ► 24/7 Inbound Call Center
- Approximately 25,000 Calls / Month

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- 2014: 12,000 Calls / Month
- Non-Technical Clientele
- ~33 Non-Technical Associates
- ► 3 Tier Support Structure
- Cloud Based Solutions





How Can You Utilize Non-technical Resources To Analyze Technical Logs?



We Have Data But Can Support Use It

Analytics vs. Support

Big Data Benefits

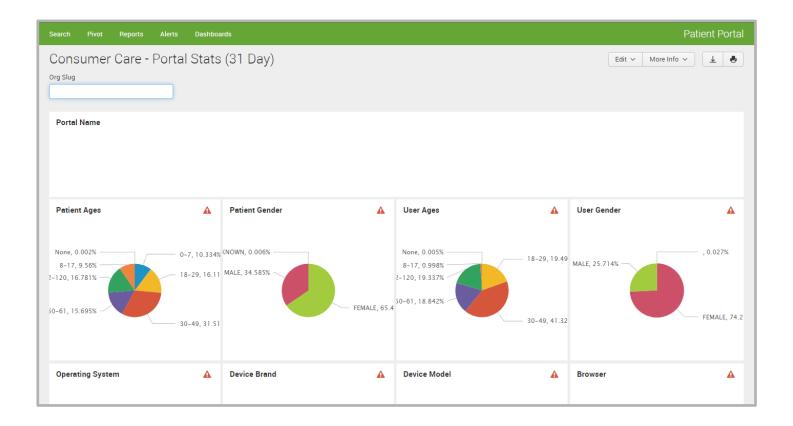
Data Sources

- Log Files (Avg. 6.6 GB/Day)
- Website Usage Information

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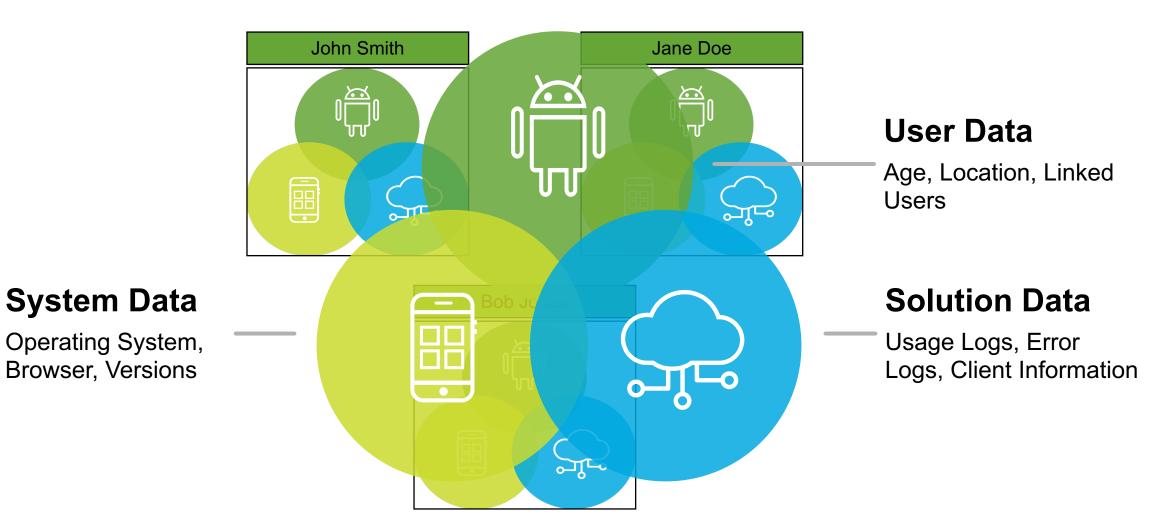
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Database Configurations



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Transforming Data To User Knowledge









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1. Translate Log Files (Event Types)





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1. Translate Log Files (Event Types)

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2. Link To Work Instructions (Lookups)





- 1. Translate Log Files (Event Types)
- 2. Link To Work Instructions (Lookups)
- 3. Event Monitoring (Alerts)

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1. Translate Log Files (Event Types)

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- 2. Link To Work Instructions (Lookups)
- 3. Event Monitoring (Alerts)
- 4. Run Automated Scripts







Bringing It Together



Bringing Support Information Together

			•			apped to l entifier	Unique	;
Time \circ R	Request	Traceback (most recent call last File "/opt/.virtualenvs/iqh/li	t): ib/python2.7/site-packages/clien	t_utils/mixins.py"	', line 163, in r	aise_for_status		
07/12/2017 c 03:06:49 PM	ad159a	response.raise_for_status() File "/opt/.virtualenvs/iqh/li raise HTTPError(http_error_m HTTPError: 409 Client Error: Cor		sts/models.py", li	ine 670, in raise	e_for_status		
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Universit	ty of Missouri							univ_mo								
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User Lo	ype Definiti	ons ime ≎	Duration (minutes) ≎	Browser 0	Browser Version ≎	Operating System 0			Language 🗘	Interface ≎	Hosting 0	iqh_person_ids ≎	Age 0	Gender 0	A	

 Different Dashboards By Tier

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► Transition Process

Bringing Client Information Together

Search Pivot Reports	Alerts Dashboards						Patient Portal
Consumer Care Pull up a client's information by Org Slug univ_mo					Edit	 ✓ More 	Info v 🛓 🖨
Client Information		Triage Informe	ation		Additional Cerner Solutions		
Field 0	Value 0	Field 0		Value 0	Field 0		Value 0
HealtheLife Mnemonic	univ_mo	GA Tracking ID			HealtheLife Engagement Enabled		Yes
Login Identity	SSO (Session Service)	Hosting		RHO	Bill Pay		Not Supported
Organization Name	University of Missouri	Last Extraction D	Date	June 16, 2017 02:07:36			
Client Website	www.muhealth.org	Millennium Dom	ain				
HealtheLife Login Page	muhealthe.iqhealth.com	Sensitive Data	_	True			
HealtheLife Mnemonic	univ_mo	OPTOUT_PACKA	GE	YES			
Navigator Mnemonic	UNIV_MO	US Only Client		No			
Organization Name	University Of Missouri						
Client Fever	۸	Registration Ir	nformation		Invitation Assistance		
		Field 0	Value 0		Field 0	Value 0	
	15	Self Enrollment		nrollment link is the login link and /self-	Database Emancipation Age	13	
10	20	Enabled	enroll		Client Provided Emancipation Age	13 and 1	В
		Challenge Question	Selected B	y Patient	Update Invite/PIN	Request	a new invitation online
— 5	25 —	Registration Process	http://www	muhealth.org/patient/mu-healthe/			
	³⁰ 0.51	Registration Requirements		will be called back within two business requesting an invite			

- Integrated Knowledgebase
 - DB Connect
- Client Health Tracking
- Support Created/Owned Tools

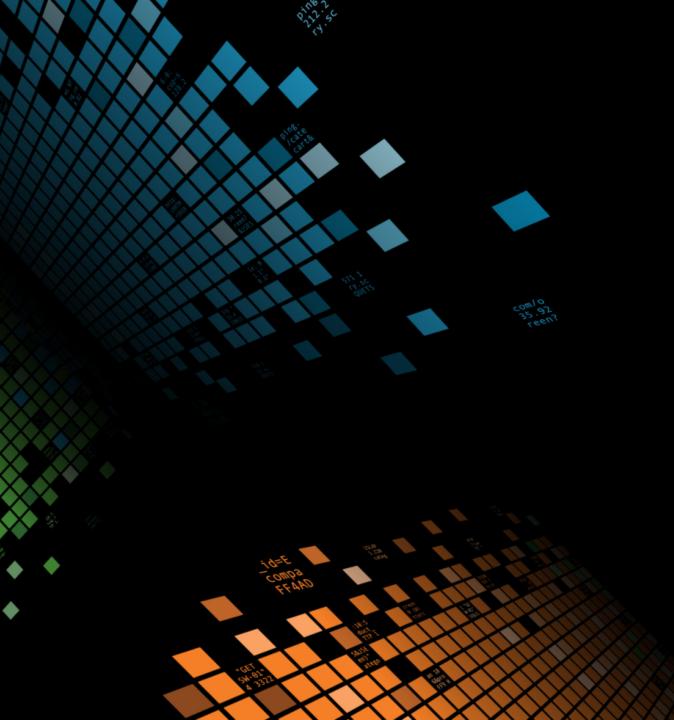


Bringing Proactive Support To The Table

earch Pivot Reports A	lerts Dashboards				Patient Port
HealtheLife SWX	heLife SWx for common iss	ues that we see		Edit V M	ore Info 🗸 🛓
Last 30 days	~				
Powerchart Ambulatory SV	Vx 🔺	Clinical Event SWx	A	Clinical Event SWx	A
Messaging Service		Document Service		Results service issue	
org_slug 0	count 0			org_slug ≎	count
lcox_mo	116			lac_ca	43
cerner-clinic	97	No result:	c found	bltm_wi	25
b_chw_ca	9	NO TESUIL	s iouiiu.	ahmi_wi	22
umc_tx	9			shcc_fl	1
cook_il	8			chld_dc	
samt_az2	5			ihc_ut	
rutl_vt	4			napl_fl	
unon_in	4			hmh_ca	
				mccg_ga_pwx	
				ric_il	
CAMM issue		A	erro	or opening a document (radiology	document) 🔥
			org_slug 0		count
org_slug 0		count 0	hmh_ca		1
trum_mo		200	stvn_nm		
ahau_tx		52	chid_va		

- Avoid Waiting For Phone Calls
- Easy Reporting
- Potential For Automated Alerts





Our Results

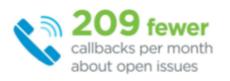


Improved confidence



"The amount of knowledge we have about our users is amazing. I've never been able to provide this level of support before."

Cerner associate



Reduced job complexity





"Our Consumer Care team is using Splunk to take the patient portal to the next level."

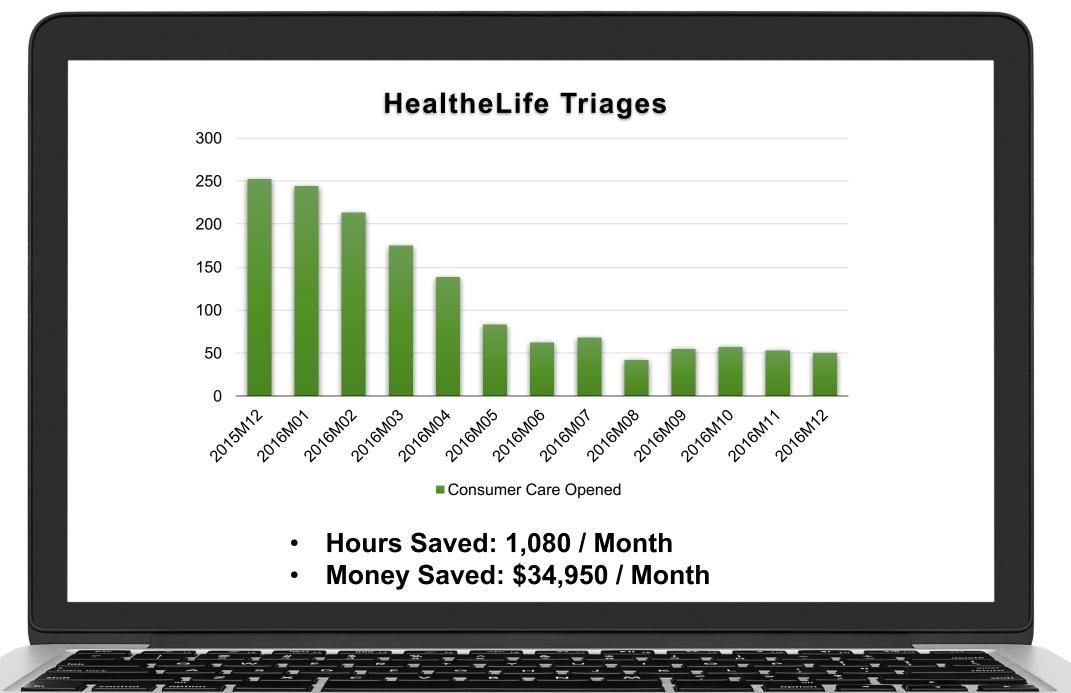




Greater understanding of the system

Cerner associate





Eliminating Questions

And Customer Frustration

Before Splunk

- Verify Identity
 - Can I get your first and last name?
 - Can I get your date of birth?
 - Can I get your email address?
- Things In The Data
 - How can I help you?
 - What does the error message say?
 - What type of device are you on?
 - What we browser are you using?

After Splunk

- Verify Identity
 - Can I get your first and last name?
 - Can I get your date of birth?
 - Can I get your email address?

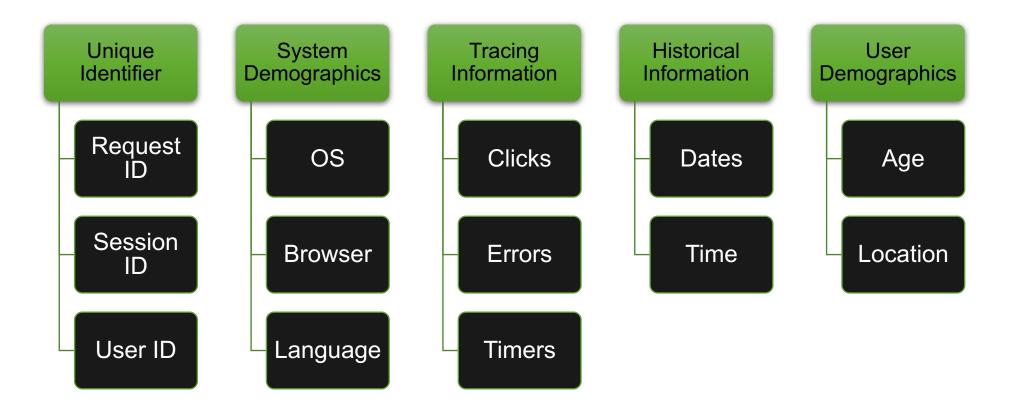


Setting It Up In Your Organization



What Do Your Logs Need To Look Like?

Cloud Based Web Applications



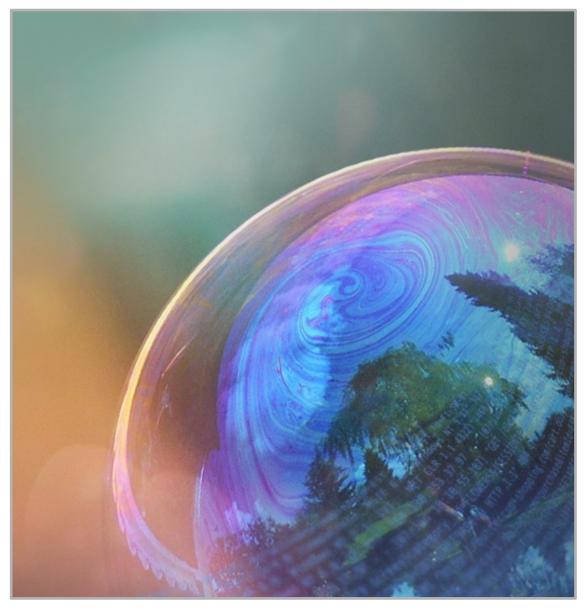


Strategy, Design, & Implementation

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- Stakeholders
- ► Tooling
- Communication
- ► Time Commitment
- ► Processes







Questions?



Travis McBee

- Husband and Father
- Engineering/Legal Background
- ▶ 10+ Years In IT Support
- 2 Years Splunk Experience
- Email: <u>Travis.McBee@Cerner.com</u>

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Thank You

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