The Hidden Costs of On-Call: False Alarms

Cody Wilbourn @codywilbourn



October 29–November 3, 2017 | San Francisco, CA www.usenix.org/lisa17 #lisa17





Hidden Costs



Investigation



Direct Investigation Costs \$100

+ Opportunity Cost of False \$200

+ Interruption Cost \$200 * 40%

Costs For 1 Hour \$380







Cognitive Load



Stress



More Stress Studies

- St. Paul Fire & Marine Insurance Company
 - Study 1: 50% decline in medication errors after stress prevention activities implemented
 - Study 2: 70% reduction in malpractice claims in 22 hospitals No reduction in control group of 22 hospitals that did not implement stress prevention activities



Sleep Deprivation



Work-Life Balance



Alarm Fatigue



Solutions



Identifying Problematic Alerts

- Read reports provided by monitoring and alerting systems
- Parse the alerting system logs
- Look at the e-mail folder you filtered all those alerts into



Prune Your Alerts

Are your alerts actionable? Are they urgent?





Update Scope

- Alerts Messages that go to your pager
- Notifications Don't go to pager, but may go to email or chat (Slack, IRC, etc)
- Informational Log messages that should not go to email or chat



Check the Right Things



Limit Reminders & Combine Related Alerts



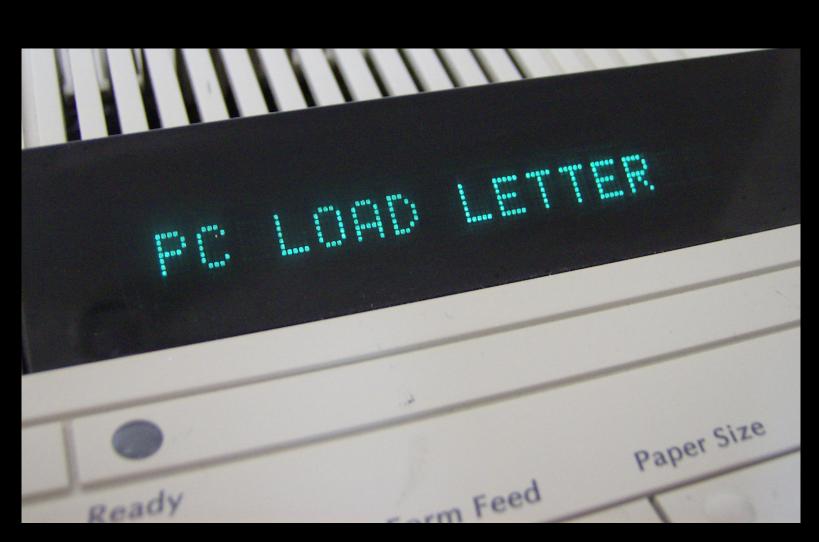
Automate

HOW LONG CAN YOU WORK ON MAKING A ROUTINE TASK MORE EFFICIENT BEFORE YOU'RE SPENDING MORE TIME THAN YOU SAVE? (ACROSS FIVE YEARS)							
		HOW OFTEN YOU DO THE TASK					
		50/ _{DAY}	5/DAY	DAILY	WEEKLY	MONTHLY	YEARLY
How Much Time You Shave Off	1 SECOND	1 DAY	2 HOURS	30 MINUTES	4 MINUTES	1 MINUTE	5 SECONDS
	5 SECONDS	5 DAYS	12 HOURS	2 HOURS	21 MINUTES	5 MINUTES	25 SECONDS
	30 SECONDS	4 WEEKS	3 DAYS	12 HOURS	2 HOURS	30 MINUTES	2 MINUTES
		8 WEEKS	6 DAYS	1 DAY	4 HOURS	1 HOUR	5 MINUTES
) S P(INDIES	9 MONTHS	4 WEEKS	6 DAYS	21 HOURS	5 HOURS	25 MINUTES
			6 MONTHS	5 WEEKS	5 DAYS	1 DAY	2 HOURS
	1 HOUR		10 months	2 MONTHS	10 DAYS	2 DAYS	5 HOURS
	6 HOURS				2 MONTHS	2 WEEKS	1 DAY
	1 DAY					8 WEEKS	5 DAYS



Fix System Fragilities







Your monitoring system is a constant reminder of work [not] put into it



Slides: <u>codywilbourn.com/lisa17</u>

Questions?

