THE ON-CALL FIREFIGHT
SURVIVAL GUIDE

DOWN & DIRTY IN
THE DEVOPS TRENCHES

**Being on-call sucks
but with these tips, it can get better.**

VictorOps

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SUFFERING FROM GHOST PAGER LEG?

(also known as Phantom Cellphone Vibrations or Phantom Vibration Syndrome)

"With the phantom vibrations, the brain sometimes misinterprets sensory input according to the preconceived hypothesis that a vibrating sensation will be coming from the phone. In other words, it seems smartphone users are just so primed for, and attentive to, the sensation of their phone going off that they simply experience the occasional false alarm."

HOW TO STOP PHANTOM VIBRATIONS

Use a different device

50%

Use audible ringer

63%

Change location of device

75%

WHAT HAPPENS TO YOUR SLEEP...

(When on-call.)

"*Rated sleep quality was lower, and sleepiness was higher during the subsequent day. It was suggested that the effects were due to apprehension/ uneasiness induced by the prospect of being awakened by an alarm.*"

HERE'S WHAT HAPPENS

Less Rapid Eye Movement (REM) sleep

Less Slow Wave Sleep (SWS)

Higher Heart Rate

PSYCHOLOGICAL IMPACTS OF WORKING ON-CALL, LONG-TERM

(Being on-call can affect...)

On-shift performance

Recovery

Long term health & well-being

ALL OF THE RESEARCH MEANS NOTHING WHEN YOU'RE IN THE MIDDLE OF FIGHTING A FIRE.

(Some steps to follow.)

BEFORE, DURING and AFTER a critical incident takes place...

STEP #1.
SETTING UP ALERTS.

The correct configuration of your alerts is crucial.

Personal contact methods: Be sure that the alerts are getting to you the way you prefer by customizing how you get notified, whether that's SMS, email or phone. You can also use more than one way of communicating if you're afraid of missing anything. (For example, first send a text and then call me if I don't respond in 5 minutes.)

Escalation rules: The feeling of having no back-up can bring a person to a panicked state where they begin making bad decisions. You can easily avoid this by having an escalation plan in place ahead of time. These sort of escalation policies are easy to set up so that everyone on the team knows when more people need to be involved.

Alert routing: It can be beneficial if certain alerts can be seen by certain people, so when setting up alerts, be sure to route them to the team that is most capable of solving the problem. Additionally, there are times when specific alerts should be seen by different people, simply for the sake of knowing what's happening with the infrastructure, as in the case of a CTO or SVP of Engineering.

Personal contact methods:

Escalation rules:

Alert routing:

STEP #2
PICK THE RIGHT HAND OFF DAY

WEDNESDAY, FTW!

Wed.

Try doing the on-call handoff on Wednesday. Most everyone will be in the office, and you won't have the distractions of the previous or the coming weekend interfering with an orderly handoff.

(What a difference a day makes.)

Mondays and Fridays are frequently interrupted by long weekends and holidays. If your handoff is a manual process or you're passing a physical pager around, forgetting to do the switch on a Friday could mean someone's stuck with an extra weekend on-call.

STEP #3
HOLD A HAND-OFF MEETING

(All together now, kumbaya!)

Most people don't pay too much attention to the monitoring system when they're not on-call. This is a good thing. We all need to regain our sanity and tune out when we can. But this means that when your turn does come up, you may not be prepared for everything that's happening. New issues you haven't heard about may have arisen in the past week.

SHARE THE KNOWLEDGE

Getting everyone on the team together for a short weekly meeting on handoff day can greatly ease the transition. Whoever was on-call can talk about the big events of the previous week and if they've noticed anything trending in the wrong direction, they can provide some early warning. This is also a chance for the whole team to see and hear who is on-call, and to check in on how the platform is doing.

STEP #4
USE THE BUDDY SYSTEM

2 HEADS ARE BETTER THAN ONE.

A second set of eyes with a different perspective can be invaluable in a firefight when every minute counts.

(Do you see what I see?)

If you work in a large enough organization, consider having someone from each of the disciplines (development, infrastructure, database management) on-call at the same time. You can split up alerts based on who should be responding, and everyone on-call will know they can contact the others if they need help out of a jam.

STEP #5
GO MOBILE

LIFE SAVERS

By adopting technologies and policies that allow for remote problem solving you can reduce time-to-resolution and save marriages at the same time.

(All in the palm of your hand.)

These days, most people carry a computer in their pocket. Smart phones may not be an ideal way to manage complex systems, but apps exist that can enable remediation for many problems without having to go home or hunt for a wifi hotspot.
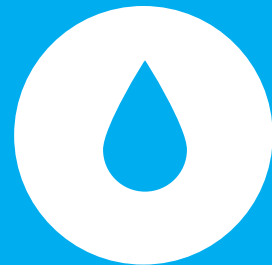
CRISIS MANAGEMENT:

Tips to remember when you're in the trenches

TIP #1
CLEAR HEADS SOLVE PROBLEMS

WAYS TO LET GO OF DISTRACTIONS

Get a drink of water.

Go for a walk around the block.

Take some deep breaths.

The time you take to get into a problem-solving mode will more than pay for itself in quicker, better, more creative solutions.

(It's right in front of you.)

We've all experienced the situation where the solution to a problem is staring you in the face but you're too distracted to see it. Jumping right into a problem when you're still thinking about that jerk that cut you off in traffic will only increase your stress and decrease your focus.

TIP #2
DONT TRY TO TAKE THE HILL BY YOURSELF.

(Be wary of hero culture.)

Techies love to tell stories of when they single-handedly saved their Fortune-500 company from disaster using only their wits. Here's a hint: most of these stories are nonsense. Taking sole responsibility for solving a major problem puts too much pressure on you, and makes it harder to focus.

DID YOU SEE THAT?
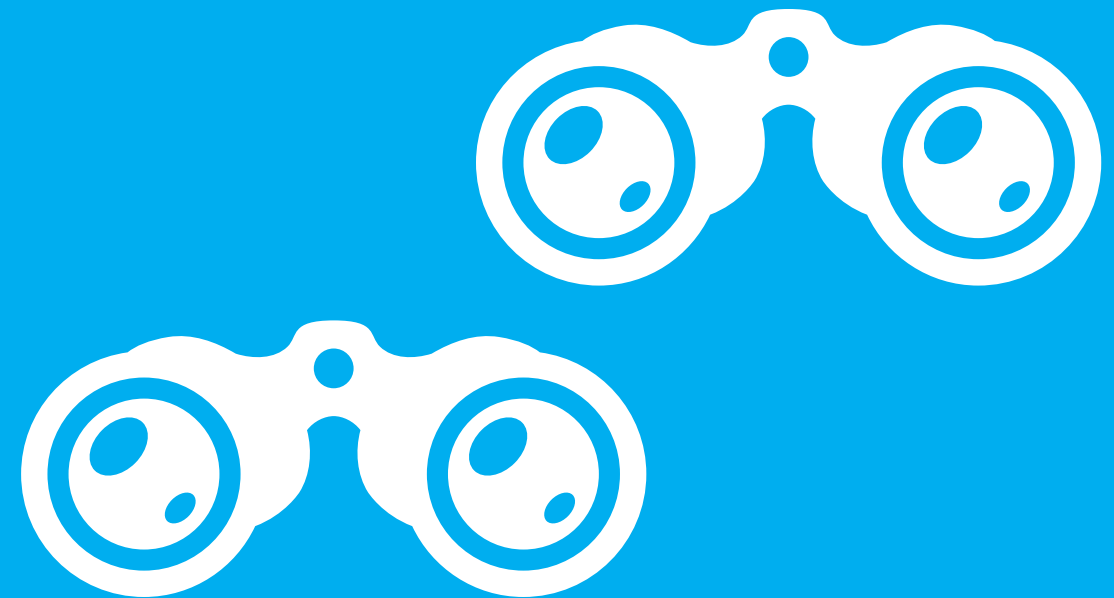
Besides, you're managing a big distributed platform, right? There's a good chance that no one in your organization perfectly understands every moving part. Even if you are dealing with things you know, a second set of eyes might notice that minor typo in the config that you didn't see.

TIP #3
DON'T WAKE UP THE WHOLE TEAM.

PRESERVE THE RESERVES.

12

When you reach hour 12 of the recovery process, you'll be grateful that there are fresh, rested people ready to take over and give the first responders a break.

(Work in shifts for extended crises.)

Sometimes the problem is so serious that, even when the root cause is found, it's clear that it will take hours or even days to get it fixed. Get enough people on the problem to fix the problem, and let everyone else keep on with whatever they're doing.

TIP #4
YOUR TEAM IS JUST AS TIRED AND STRESSED-OUT...

(as you are.)

When you're in the thick of things, it's easy to get angry. Maybe someone seems more distracted than you'd like. Maybe someone makes a joke to ease the tension and you don't think it's funny. Maybe someone gets short-tempered with you. Relax, and put things in perspective.

IN 100 YEARS, NO ONE WILL CARE WHAT HAPPENED TODAY.
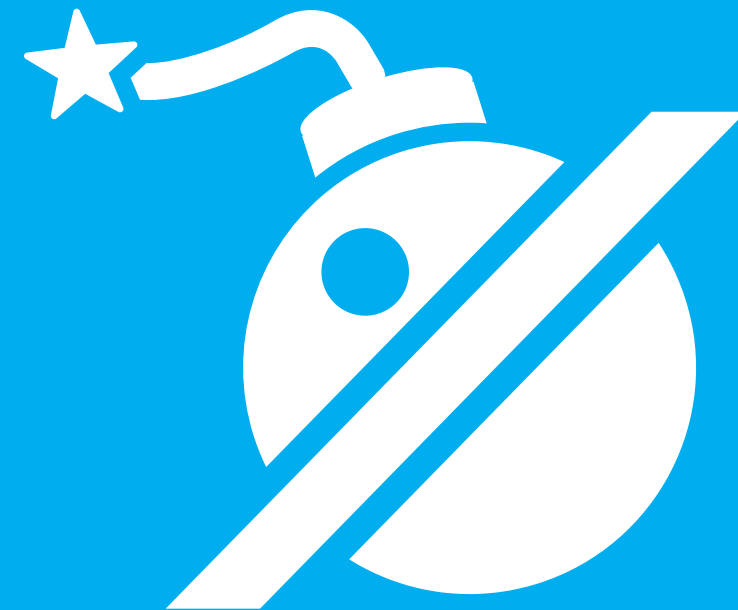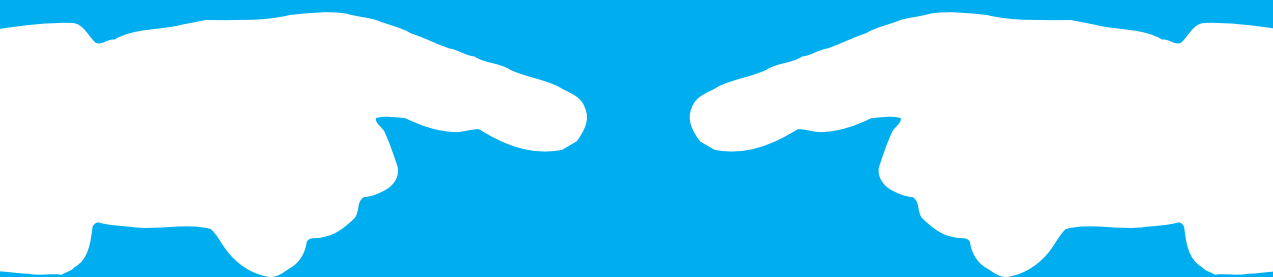
Remember that everyone who's dealing with the issue is feeling the pressure, maybe even more than you are. Lashing out in anger will only escalate the stress on everyone, so don't do it. Try to keep an even keel, and you'll notice that your calm demeanor can help diffuse other people's panic and anger.

TIP #5
PUT OFF THE BLAME DISCUSSION.

WHY FINGER-POINTING
IS COUNTER-PRODUCTIIVE

(Try to foster a culture where troubleshooting happens in a safe space.)

Sometimes, a problem will arise because of a human error. It's important to know what happened to cause the problem so that everyone can learn from the mistake. But that doesn't mean that the troubleshooting and repair process should grind to a halt in favor of finger-pointing.

- It takes the team's focus away from where it should be.

- It creates a tense atmosphere that can cause people to fear sharing.

RESOURCES:

Tools for the next incident, just in case.

POST MORTEM CHECKLIST

Generally, as a team...
....

• **What happened?**

• **Who was affected?**

• **What was done to fix it?**

• **How was the business affected?**

• **What can be done to prevent this from happening again?**

Participants should be able to account for the following, without fear of punishment or retribution…
....

• **What actions they took at what time?**

• **What effects they observed?**

• **What expectations did they have?**

• **What assumptions did they make?**

• **What is their understanding of the timeline of events as they occurred?**

ADDITIONAL RESOURCES

http://puppetlabs.com/blog/devops-developers-resource-bridging-gap

http://art.cim3.org/pm_workshop/Project_Post_Mortem/Postmortem_Template--MSF.html

http://velocityconf.com/velocity2013/public/schedule/detail/28251

http://victorops.force.com/knowledgebase

http://codeascraft.com/2012/05/22/blameless-postmortems/

http://www.continentalmessage.com/blog/best-practices-for-establishing-on-call-contact-procedures

Be victorious.
victorops.com/survival