How to do SRE
(When you’ve got no SRE)

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Why are you here?
Everyone else
Welcome to SREcon!
What do you mean “you’re not perfect”?!
A motivational grammar lesson...
Feel inspired! (not inadequate)

(Not the official motto of SREcon EMEA 2019)
How do we start?
When you wear your SRE HAT:

- Only pick small things to do
- Book some time for it
- Keep going
That could have been more helpful..
• Commit some time
• Review what you have
• Record all the terrible things
• Make small tasks
• Report it to your boss
• Keep going
• Rules
• Blameless Incident Reports
How is this different to my normal work?
C.Y.A.

- Tell your boss what you’re doing
- Informs them of workload
- Informs them of risk
- Chance of more resources
- Do NOT take on another full time job
- Don’t risk burn out
Your company will not hire more staff if you do this job too.
Let’s go!
What’s the worst thing that could happen to your company in particular?

- Security Breach?
- Data loss?
- Downtime?

Know what your Kryptonite is..
If you don’t know your limits, you can’t keep safe or plan your growth.

- Do you have capacity issues?
- Got any headroom?
- What’s the lead time to get more anything?
- Do you have peak traffic patterns?
Security

- Who has access to what?
- How many people can destroy you?
- Do people get offboarded?

- Password manager - get one
- Public buckets - should they be?
- Cloud accounts - turn on audit lots
- Fast Infrastructure diagram - just whiteboard it and take a photo
- Is there one of anything?
- Is it all reproducible?
- Test the backups
- Documentation
- Solve some mysteries
- Practise
Third Parties

- Pros/Cons
- Redundant/backup services - Risk-Cost Analysis
- Contact details - both ways
- Details on the Wiki
- Check invoices to find them all*

*Fun fact, you may also find services that you’re not using anymore but are still paying for.
Do you know them all?
Domain registrar logins
Again, contact details - both ways
Expiry notifications
Document update procedures
Renewal cadence - 3yrs? then everyone who knew how to do it is now gone
Release and Updates

- How many people can update your product?
- Individual releases/aggregates
- Visibility during updates
- Monitoring
- Can you revert updates?
- Can you block updates?
For when you ruin an important sales demo with a badly timed update...
What now?
Keep going
Record your work
Share your work
Get some allies
We’re not done yet!
What are your rules?
Everyone working from the same script improves reliability
Rules

- Publish them
- Share them with your peers
- Discuss them
- Update them

They’re not just for new hires..
Rule Examples

- “Do not push to production from a branch”
- “If you do an update, you must hang around to see if it worked”
- “The marketing team shouldn’t send messages to all our users at once, as it causes us to fall over”
- “Never/Only update code at the weekend”
- “If you break something big, please revert it immediately. Don’t go for lunch first.”
Surely everyone knows that?! People are not psychic. Or maybe you are boring and they weren’t listening...
Blameless Incident Reports
Incident Reports

- Why? Another step towards SRE
- Record of Progress
- Use templates
- RW not WO
- Get an executive sponsor
- No Blame
There are NO downsides to **Blameless** Incident Reports
Company size doesn’t matter
Fear causes mystery
No such thing as human error
Learn the lesson
Make it Better
And Finally..
It’s ok to not be ok
But no matter what I do, things keep breaking!!
Main causes of problems

- **Code changes**
  - Because you’re updating your product

- **Infrastructure change**
  - Because you’re making things better

- **Network and 3rd Party issues**
  - Bad luck and someone else has to fix it

- **Technical Debt**
  - Happens to us all, just try not to let it happen twice

- **Capacity Issues**
  - Congratulations, people actually want to use your product!
It doesn't have to be pretty, it just has to be BETTER.
Good Luck!