The Evolution of Site Reliability Engineering
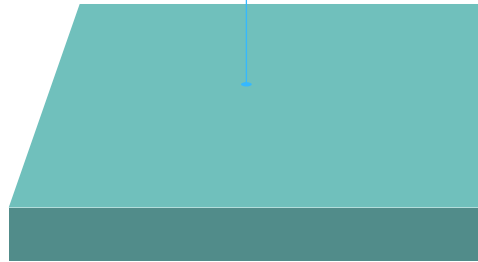
Ben Purgason

Director, Site Reliability

The Founding Principles
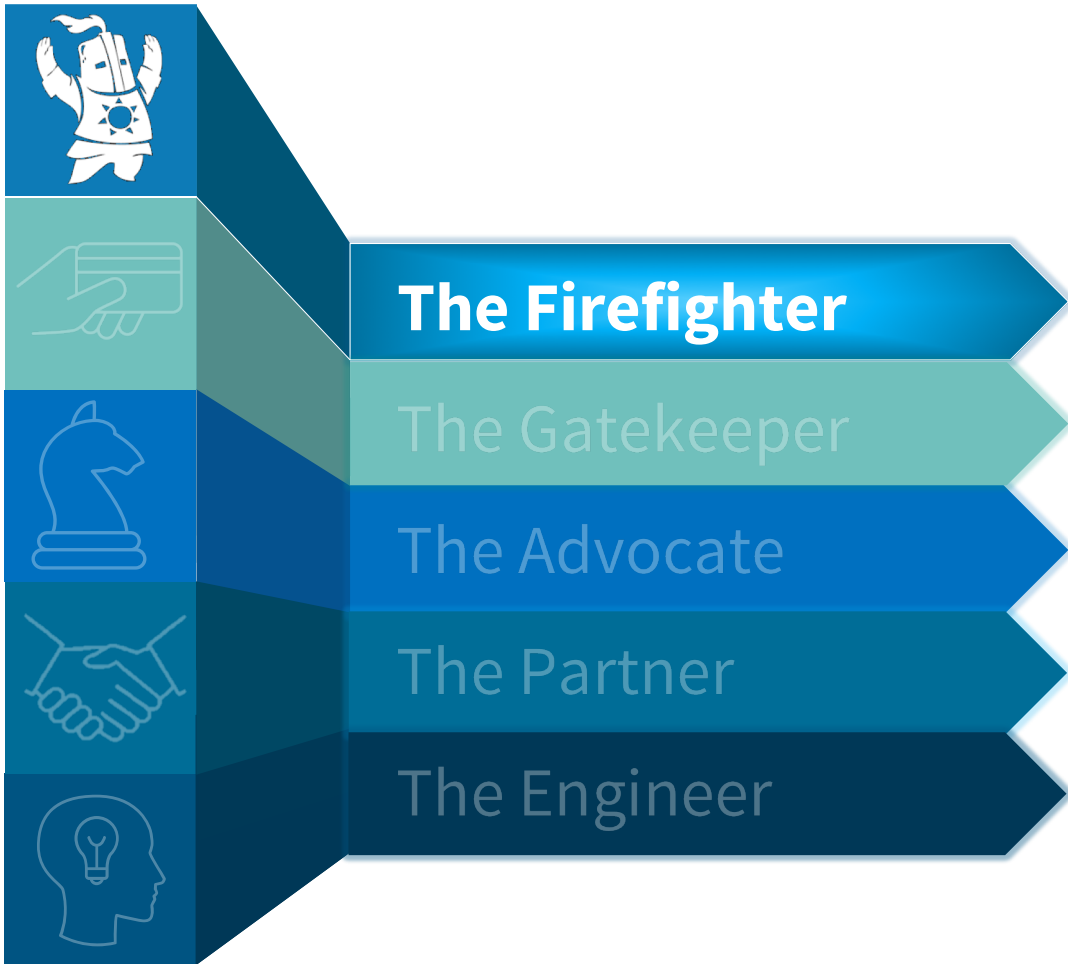
| Site Up | Empower Developer Ownership | Operations is an Engineering Problem |

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer

- Incident management
- Purely reactive
- Keeps the company alive one more day

SRE - SWE Roles and Responsibilities

SRE (Firefighter)

- Incident Management

- Automating manual fire suppression

- Seeking to understand the stack

- Monitoring

- Alerting

SWE

- Feature / Product Development

- Escalation Point for SRE
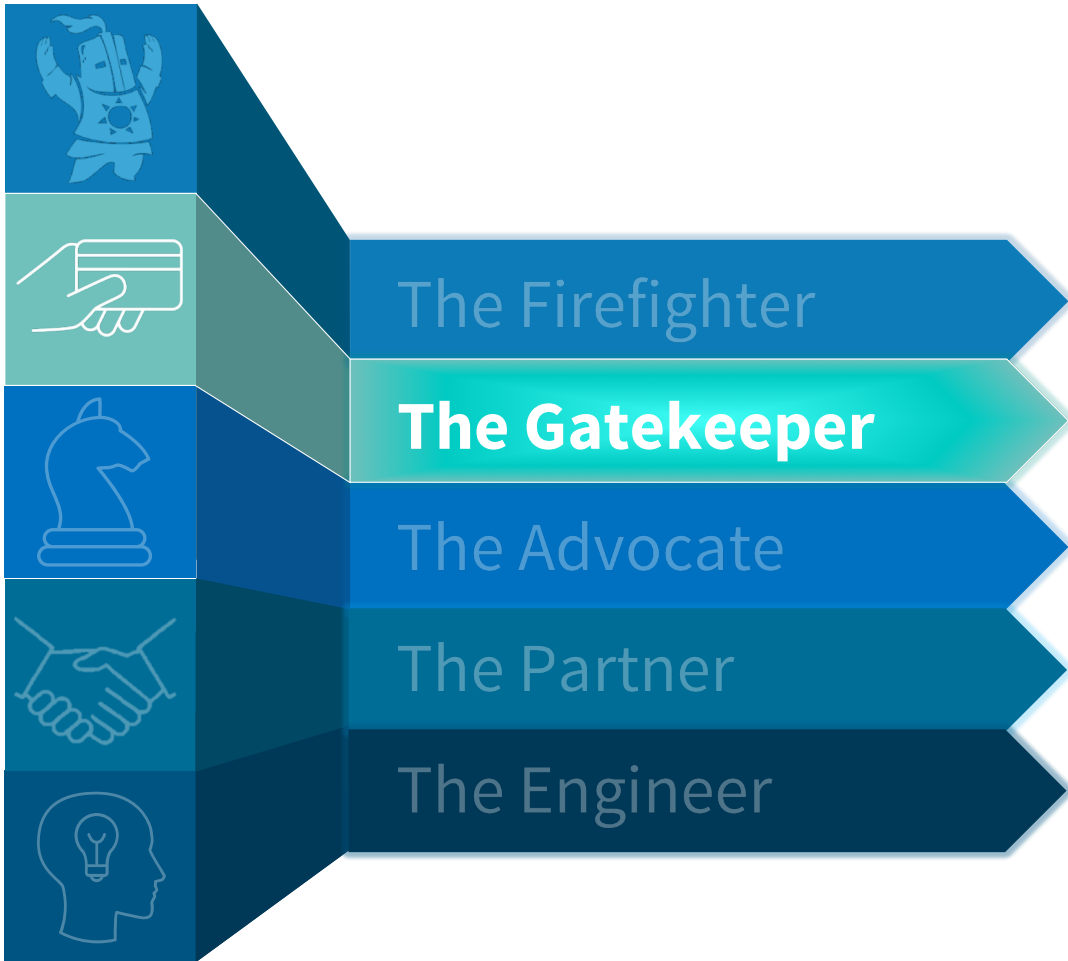
The Firefighters
Tools SRE

- Something was always broken, literally
- GCN, post mortem, action Items, repeat

If you can do just two things…

"If you're going through hell, keep going." – Winston Churchill

- Every day is Monday in Operations

- What gets measured gets fixed

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer

- Change control
- Reactive towards SWE plans
- Protect "our" site from "them"

SRE - SWE Roles and Responsibilities

SRE (Gatekeeper)

- Incident Management

- Deployments

- Change Control

- Monitoring

- Alerting

SWE

- Feature / Product Development

- Request Changes from SRE

- Escalation Point for SRE

The Gatekeepers
~~Tools SRE~~

- Human gatekeeping doesn't scale
- Service Guard, dividing users since 2014

If you can do just two things…

"There is no such thing as 'the hole is in your side of the boat.'" – Fred Kofman
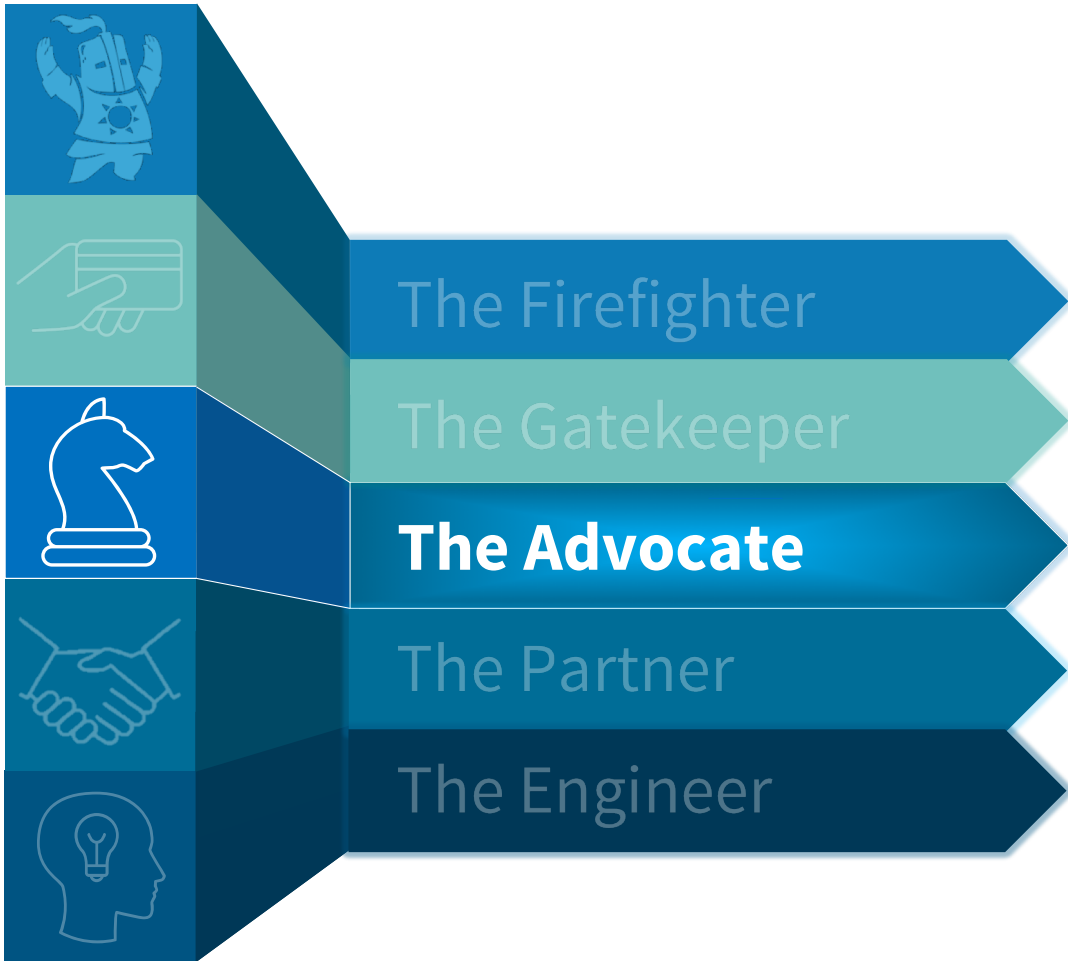
- **Attack the problem, not the person**

- No human gatekeepers. Build automated gatekeepers that use mutually agreed upon data.

The principle thing or activity that must be kept in balance or under control for an org to operate

"The ability to influence and be influenced by our partner teams"

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer

- Creating a site up culture
- Reactive towards SWE plans
- Rebuilds trusted relationships

SRE - SWE Roles and Responsibilities

SRE (Advocate)

- Incident Management

- Monitoring and Alerting

- Partnering in the creation of "gate keeping data"

- Developing systems that empower ownership

- Relentless propagation of Site Up culture

SWE

- Feature / Product Development

- Escalation Point for SRE

- Monitoring and Alerting

- Partnering in the creation of "gate keeping data"
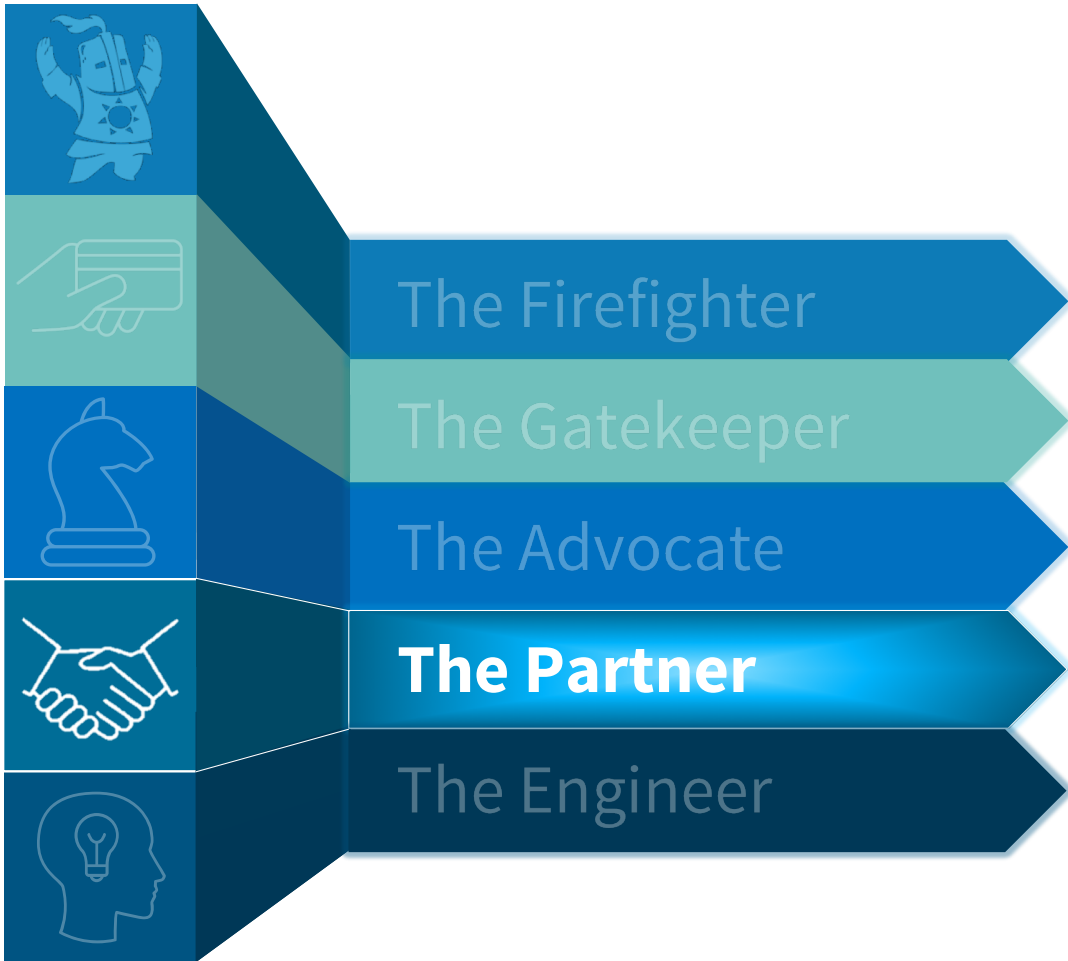
The Advocates
Tools SRE

- Site up helps everyone.

- Help us help you.

- How do you want to spend your time?

If you can do just two things…

"Consistency over time equals trust."
– Jeff Weiner

- Be an advocate – make an advocate

- Do not insulate, share the pain

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer

- Empowers intelligent risk

- Proactive, joint planning with SWE

- Collaborating to magnify impact

SRE - SWE Roles and Responsibilities

SRE (Partner)

- Incident Management

- Monitoring and Alerting

- Building products for reliability and scale

- Relentless propagation of Site Up culture

SWE

- Incident Management

- Monitoring and Alerting

- Building products for reliability and scale

- Feature / Product Development

The Partners
Tools SRE

- All teams plan together with partners
- Contributions to core libraries
- Contributions across org boundaries

If you can do just three things…

"We should operate on what needs to get done, not on an org structure!" – Dan Grillo

- Unified SRE and SWE planning

- Unified SRE and SWE priorities

- Contribute where it counts

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer
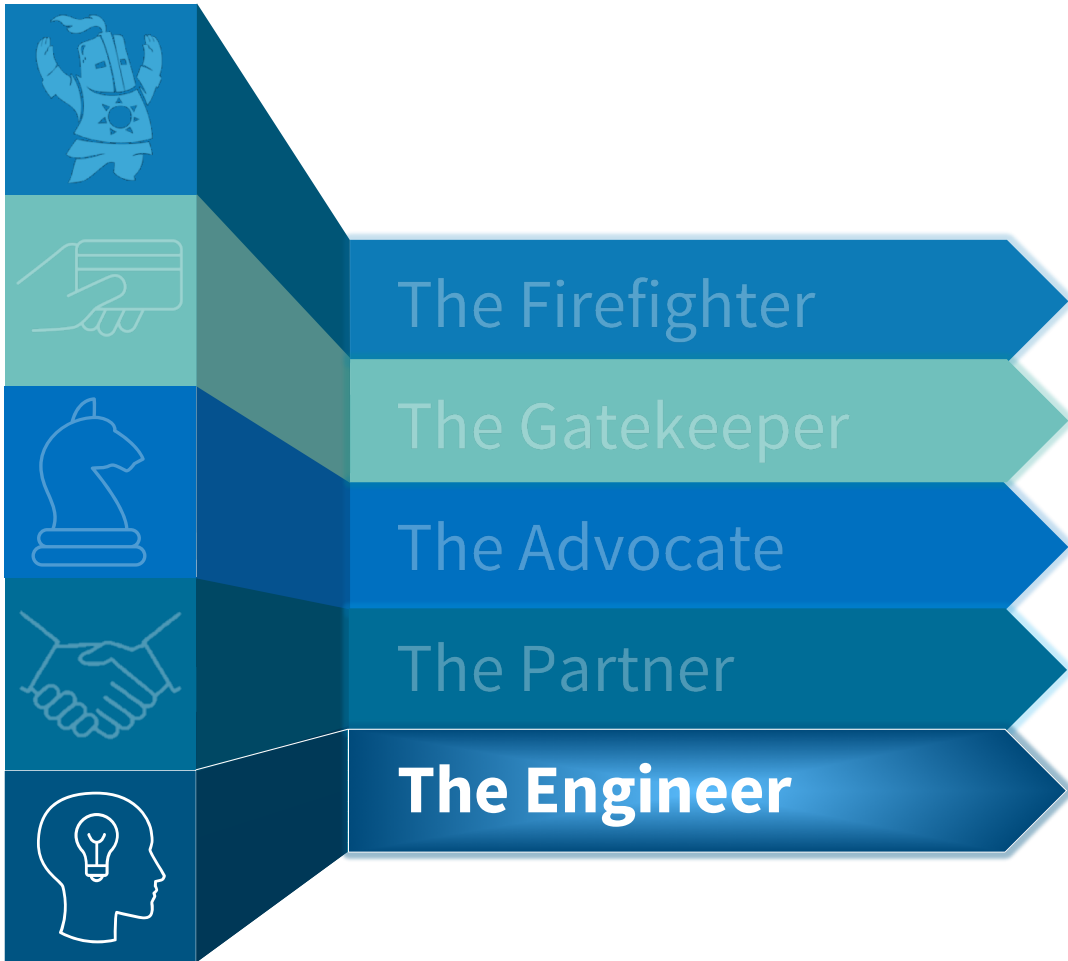
- Reliability throughout software lifecycle

- Proactive, one plan for SRE+SWE

- Everyone has the same job.

SRE Evolution

The Firefighter

The Gatekeeper

The Advocate

The Partner

The Engineer
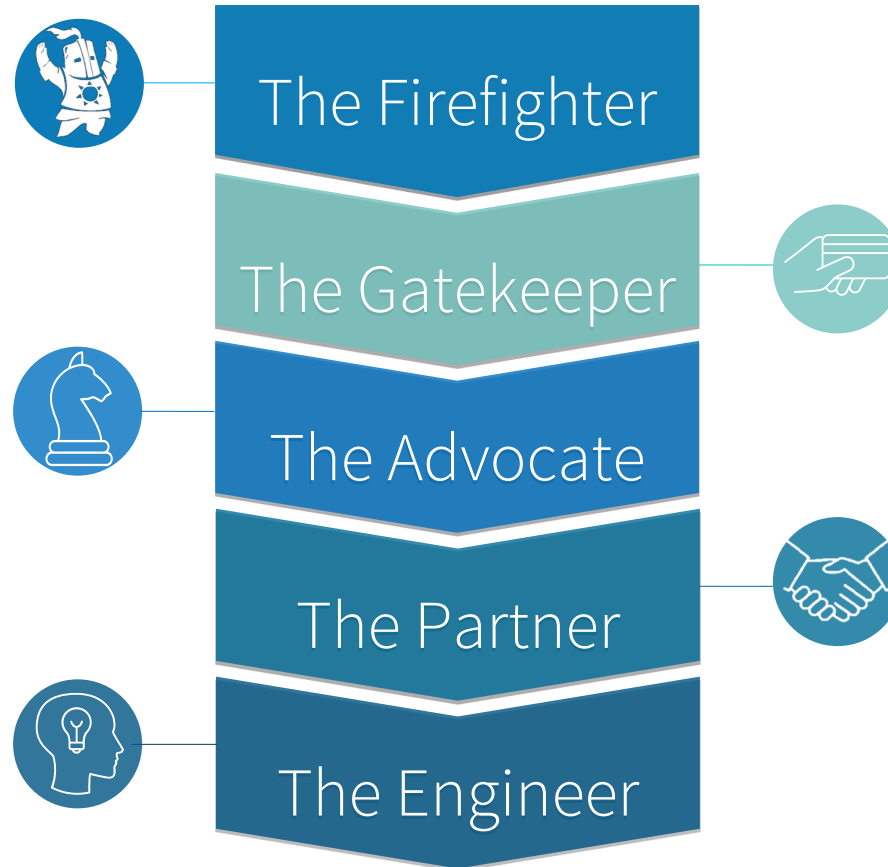
Want to have a conversation?

Thank you