

The background of the slide is a repeating pattern of 3D cubes. The cubes are arranged in a staggered grid. The color of the cubes transitions from a dark teal on the left to a bright green on the right. Each cube has a thin black line outlining its edges.

PagerDuty

Improve Automation to Reduce Toil

Mandi Walls | DevOps Advocate
Conf42 DevOps January 2024

Hi!

Mandi Walls

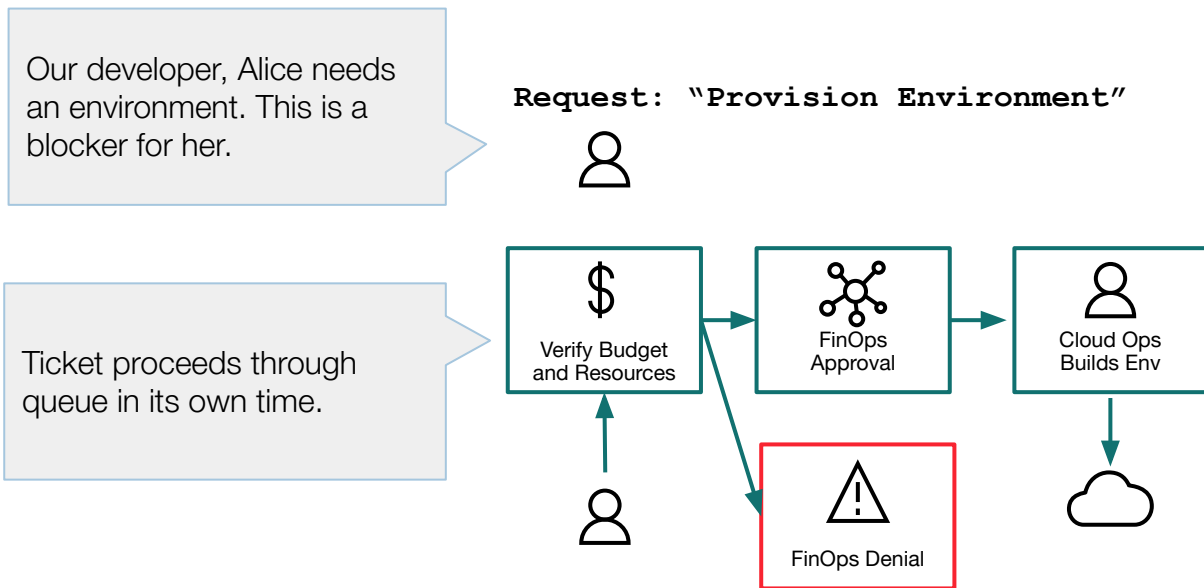
DevOps Advocate

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Our developer needs resources in the cloud...



Expertise

Development

- Do code
- Know libraries, runtimes, build process
- Want to get code to production

FinOps

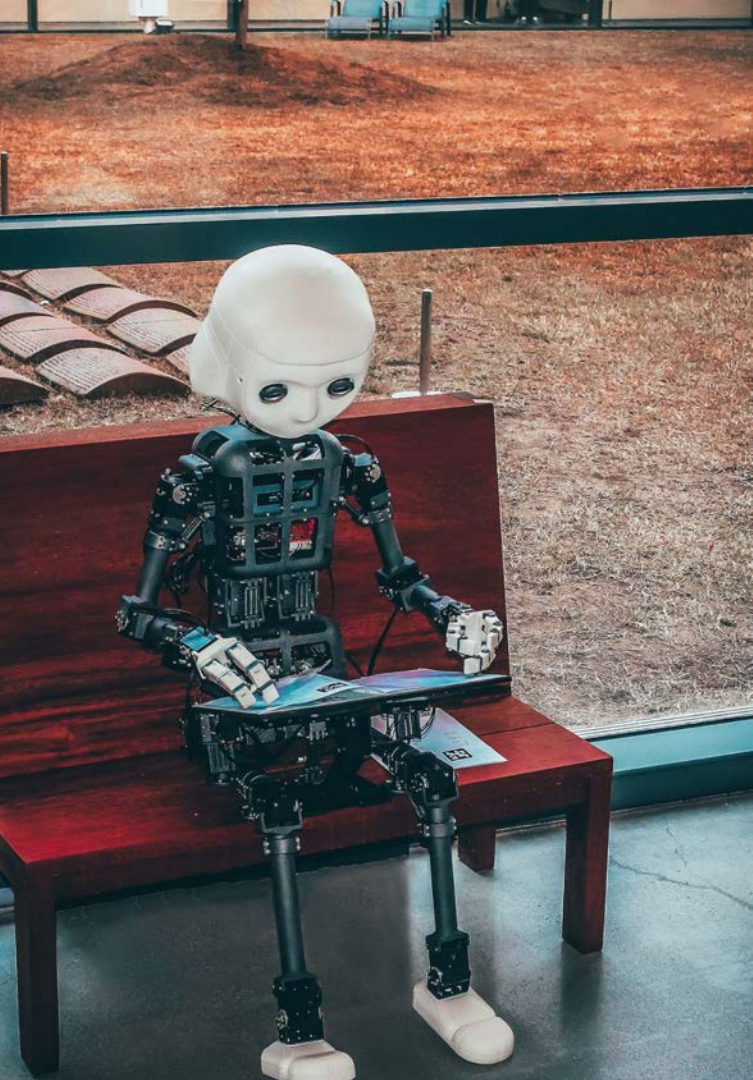
- Watch spend
- Estimate costs
- Manage Budgets

CloudOps

- Maintain access and security
- Update assets
- Provide environments

What is Automation?





**Is AI Automation?
Is Automation AI?**

Benefits of Automation



Complex
systems and
workflows



Cope with
change



Reduce
mistakes



Reduce Toil

Potential Drawbacks



Loss of
expertise



Brittleness



Detachment
from work

Goals for the Automation Itself

*Architecting
for Scale*

Lee Atchison

- **Testable**
- **Flexible** and implemented for future improvement
- **Reviewable** by someone else as a check
- Put under **version control**
- **Applicable** to related resources and not a one-off
- **Repeatable** and **auditable**

Automation for delegation

Automate Inter-Team Toil

Teams that could benefit from your automation



SRE



Support



Rel Eng



Developer



DBA



Knowledge gap



Skills gap



Access gap

Automation components available all over the organization

Scripts



Tools



APIs



Commands



Infrastructure



Design Automation for Delegation

- ✓ Support how your users work

- ✓ Provide results that make sense

- ✓ Provide consistency of experience

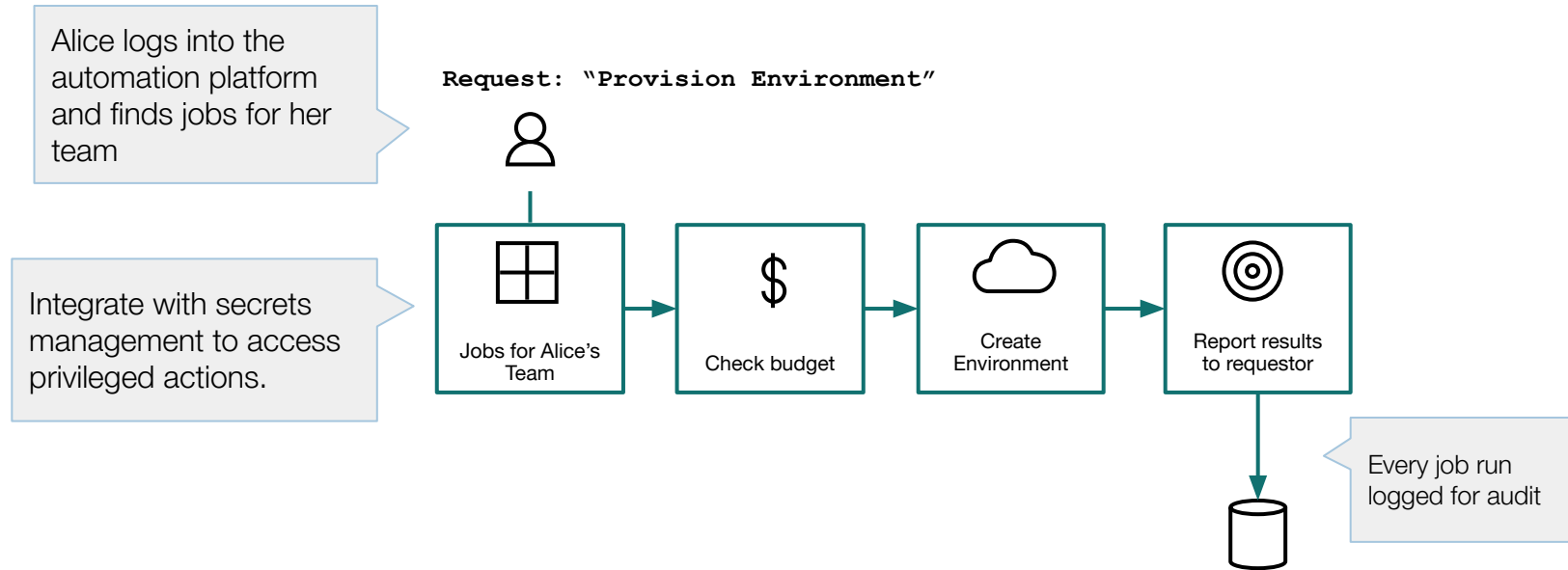
- ✓ Include documentation in context



Like any software design, have
empathy for your users

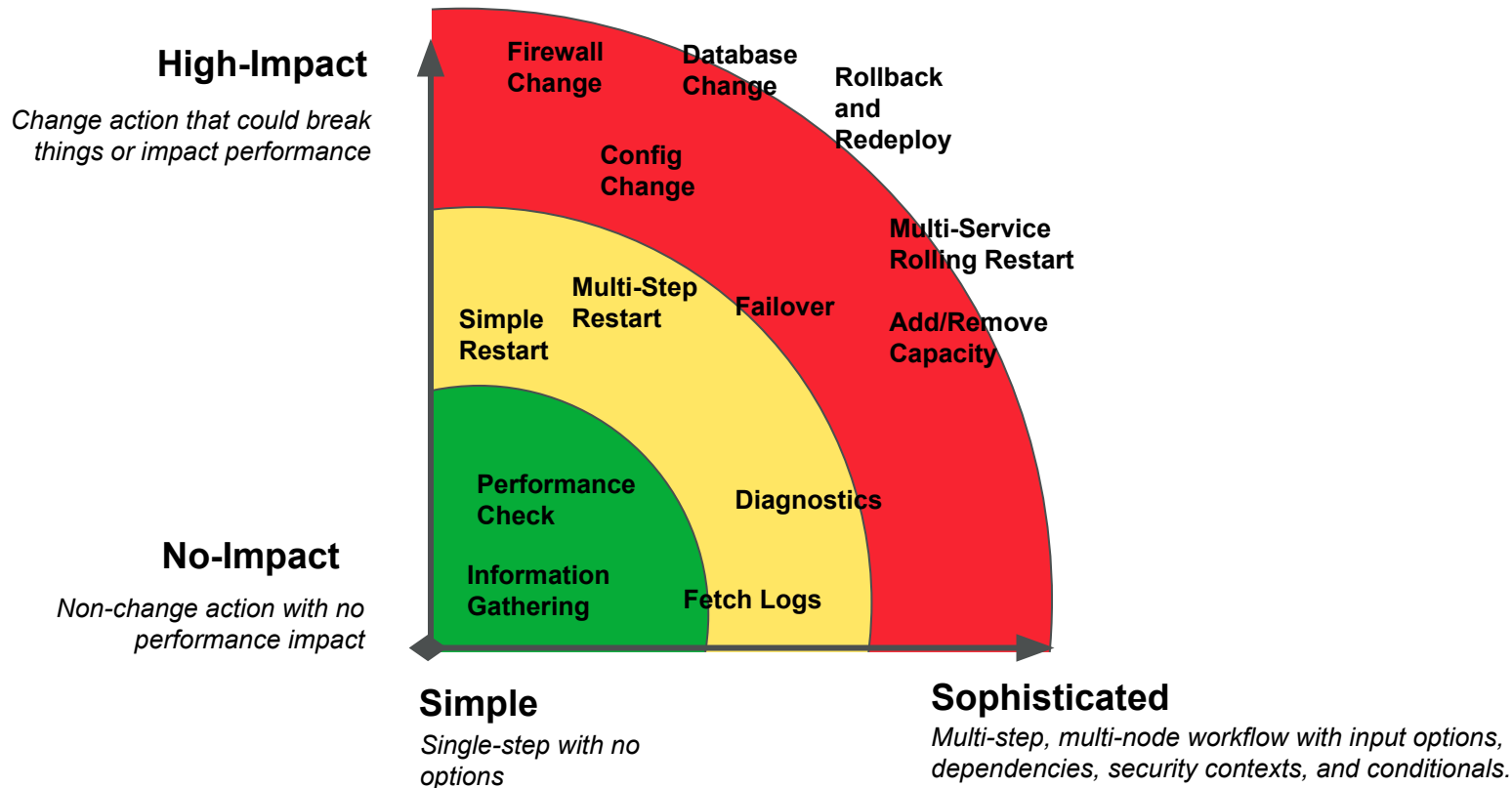
Turn Expertise into Automation

Make this automation safe to delegate as self-service actions to responders



What should we automate?

Example Automation Tasks for Incident Response



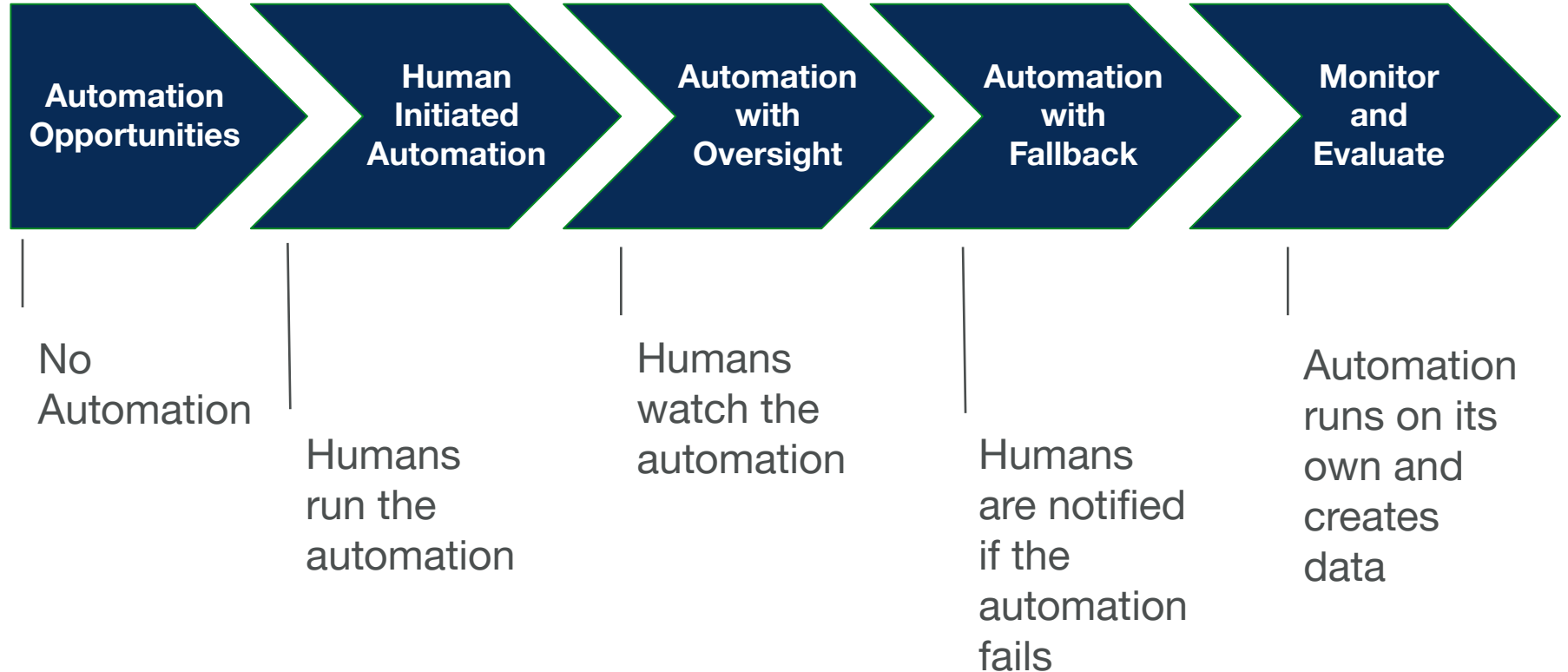
What should we automate?

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
	1 MINUTE	8 WEEKS	6 DAYS	1 DAY	4 HOURS	1 HOUR	5 MINUTES
	5 MINUTES	9 MONTHS	4 WEEKS	6 DAYS	21 HOURS	5 HOURS	25 MINUTES
	30 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

<https://xkcd.com/1205/>

Evolution of Automation



Resources

PagerDuty: <https://pagerduty.com>

Rundeck: <https://rundeck.com>

More Resources! Links! Code!

<https://bit.ly/SelfServeAuto>





Thank You

@LNCHK