

On the Importance of Visibility

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Visibility

01 The Basics

02 The Situation

03 The Incidents

Is...?

- A buzzword
- Not *that* one
- The bare minimum
- Often pre-provided

Definition

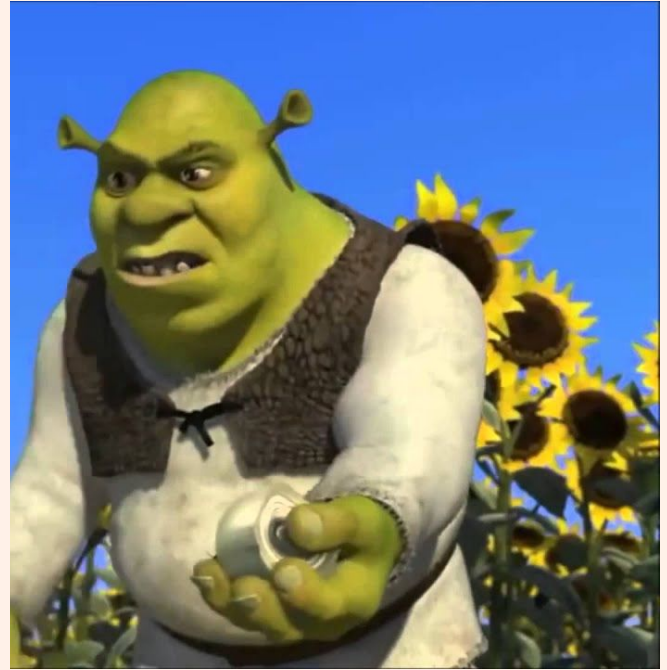
“The fact, state, or degree of being visible.”

Is Not!

- Observability
- Monitoring
- Tooling

The Situation

Visibility is like an onion...



<https://i.ytimg.com/vi/c9b5L3ivPDo/maxresdefault.jpg>

Problem

- Observability into existing systems was missing
- Available tooling was prohibitively expensive
- Specific scenarios were known

Solution

- Build our own tool
- Use composable components
- Integrate with existing workflows

Example

17:43 **security-alerts** APP

Monitor Alert! usage from unknown IP detected!

IP

Investigate

Whitelist IP Address?



Thoughts

- Worked for our needs
- Manage our own rules
- Only what we needed
- Full integrated
- How do we know it's working?

Example

22:03 **security-alerts** APP

Security Lambda Monitoring

Alarm

████████_Monitor_No_Invocation_Alarm

State

ALARM

Desc

Monitor for lack of invocations of the

████████_Monitor lambda function

Security Lambda Monitoring

████████_Monitor_No_Invocation_Alarm has recovered

More Thoughts

- When the function doesn't execute
- Minimal setup and overhead
- Same visibility
- Worked fine

It Works!



The Question

16:00 [REDACTED] Hey, why hasn't the [REDACTED] fired off any alerts for a while? Was something tied to [REDACTED] account?

Problem!

- Function invocations had been happening
- Metrics were being generated
- Configuration had not drifted
- Messages were not coming through

The Question

09:26 **incoming-webhook** APP

[REDACTED] Alert! Anomalous **[REDACTED]** activity detected!

Account

[REDACTED]

Address

[REDACTED]

User ARN

arn:aws:iam:**[REDACTED]**:root

Investigate

Whitelist IP Address?



Solution!

- Create a new Slack webhook
- Update the function configuration
- Re-test

The Incidents

You don't know what you don't
look for



https://s0.geograph.org.uk/geophotos/01/48/01/1480195_aac60f1f.jpg

Incidents

- Interruptions were chaotic
- Often in private discussions
- Typically involved the same handful of people
- Typically didn't have actions

Outcomes

- Created our Incident Management Framework
- Streamline handling interruptions
- Distribute the workload
- Make situations more visible
- Visible internally and externally

The Framework

- Roles and responsibilities
- Gives structure
- Facilitates communication
- Involve the right people
- Ensures we don't make the same mistakes

Effects

- Mayhem
- Confusion
- Interruptions galore
- Drop in confidence
- Visibility

Takeaways

Technical Things

- The basics should be *basic*
- Contemplate failure conditions
- Redundancy in visibility
- Cost isn't always in currency
- Standards can sometimes be good

Visibility Things

- Making something visible might be horrifying
- With data change can come
- Understand your community
- Visibility is a great pathway to building trust

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