Why I Prefer Good Testing over Excellent Testing

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~~with enough time, we'll find every bug!~~

But...

Do testing, and also prepare for failure

Excellent Testing:

- Think of as many test cases as you can
- Try to run them all
- Keep testing until you run out of time

Good Testing:

- Think of as many test cases as you can
- Run the ones that will tell you the most about how well your product is working
- Spend remaining time planning failure handling

D2L™

brightspace

Defects I've Missed Lately

(and wouldn't have found with all the time in the world)

Story 1:

Monitoring user REALLY loves the home page

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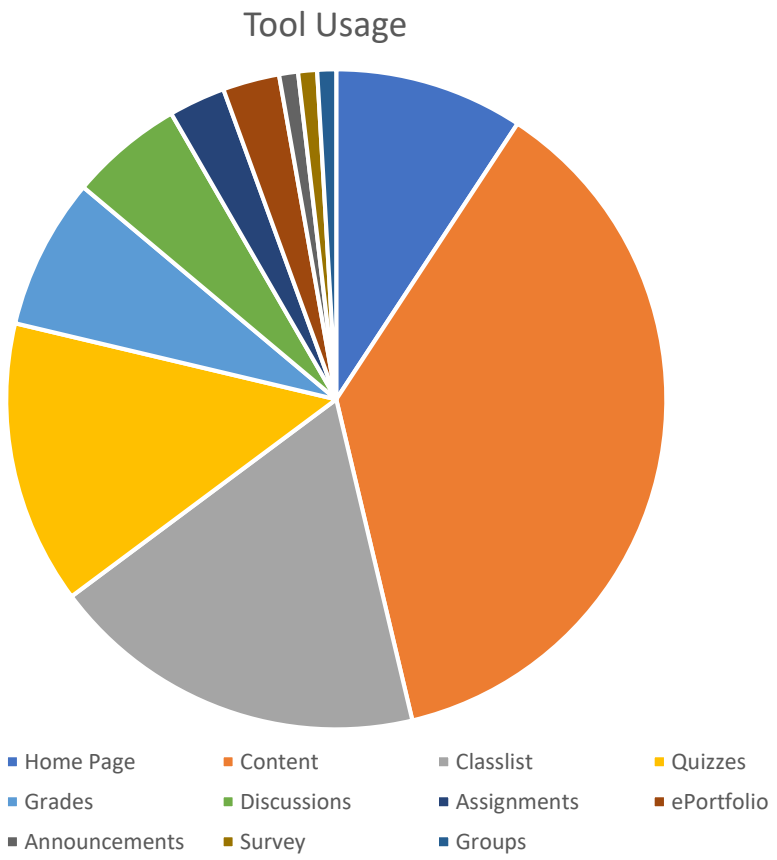
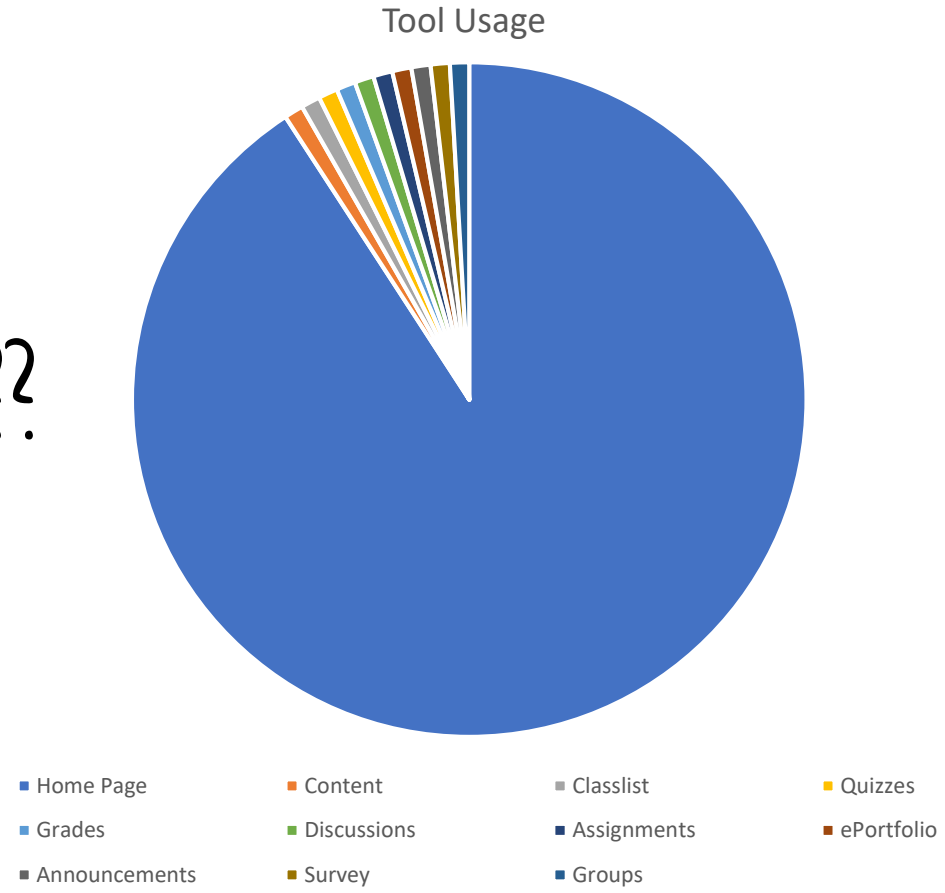


why??



Each school has an automated "monitoring" user that hits the home page tool once <u>every 5 minutes</u> to make sure the site is up.

Story 1: Monitoring user REALLY loves the home page

LESSON:

You don't know what you don't know.

(and you won't be testing for it)

Story 2:

The port that was closed for no reason

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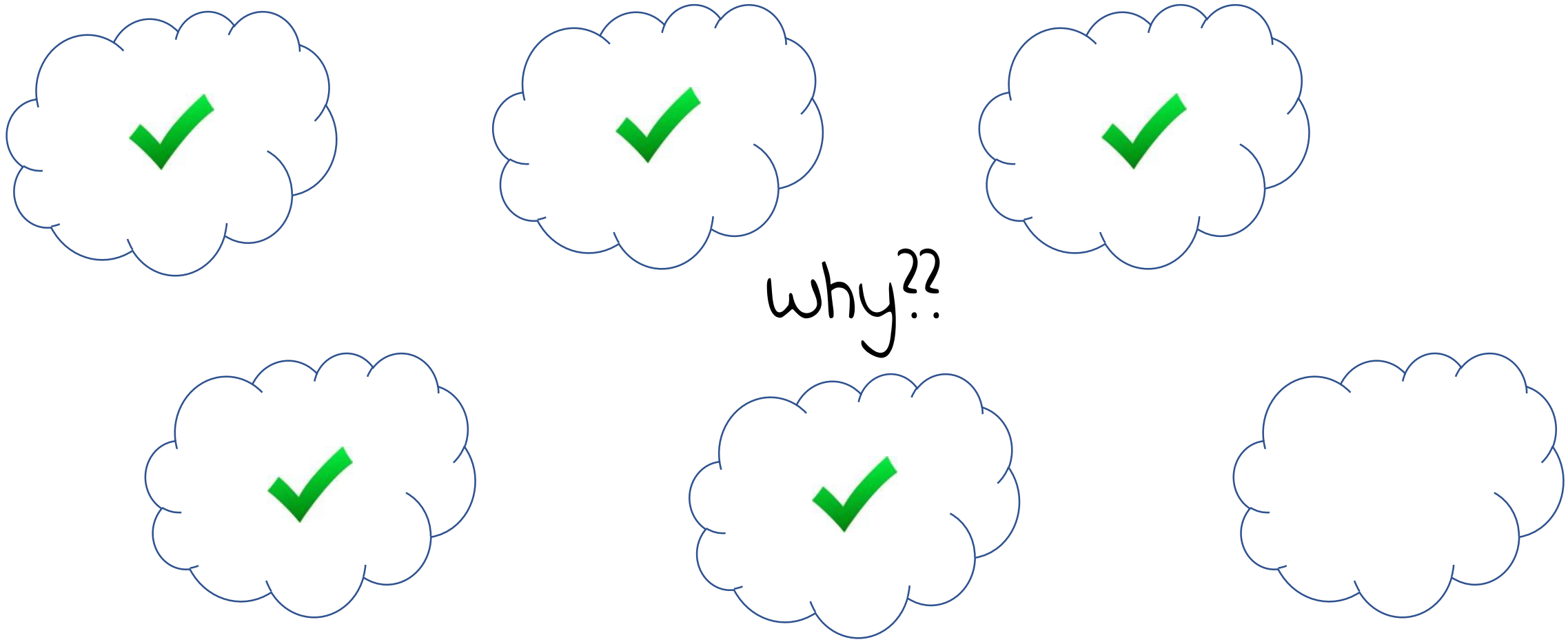

Port X was closed. But it was open when we last checked.

Story 2: The port that was closed for no reason

LESSON:

what's true today might not be true tomorrow.

Story 3:

Yeah, but S3 will never go down

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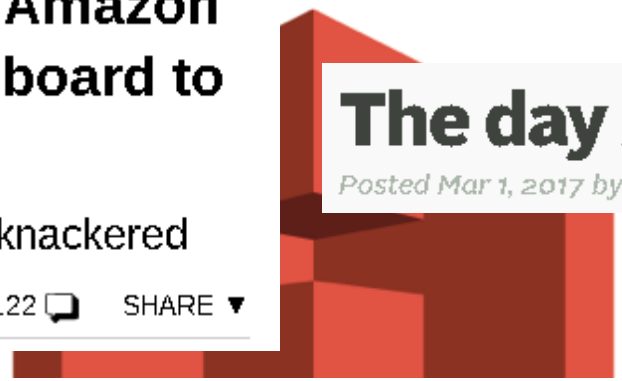
AWS's S3 outage was so bad Amazon couldn't get into its own dashboard to warn the world

Websites, apps, security cams, IoT gear knackered

By Shaun Nichols in San Francisco 1 Mar 2017 at 03:00 122 SHARE



The day Amazon S3 storage stood still

Posted Mar 1, 2017 by Ron Miller (@ron_miller)

FEB 28, 2017 @ 04:01 PM 29,059

The Little Black Book of Billionaire Secrets

Amazon S3 Outage Has Broken A Large Chunk Of The Internet

How a typo took down S3, the backbone of the internet

Hello, operator

By Casey Newton | @CaseyNewton | Mar 2, 2017, 1:24pm EST

S3

Amazon AWS S3 outage is breaking things for a lot of websites and apps

Posted Feb 28, 2017 by Darrell Etherington (@etherington)

Story 3: Yeah, but S3 will never go down

LESSON:

Things that are out of your control can impact you.

(and nothing is invincible)

Times I Have Been Saved By Solid Monitoring and Roll-Back Strategies

Story 4:

The off by 10,000 error

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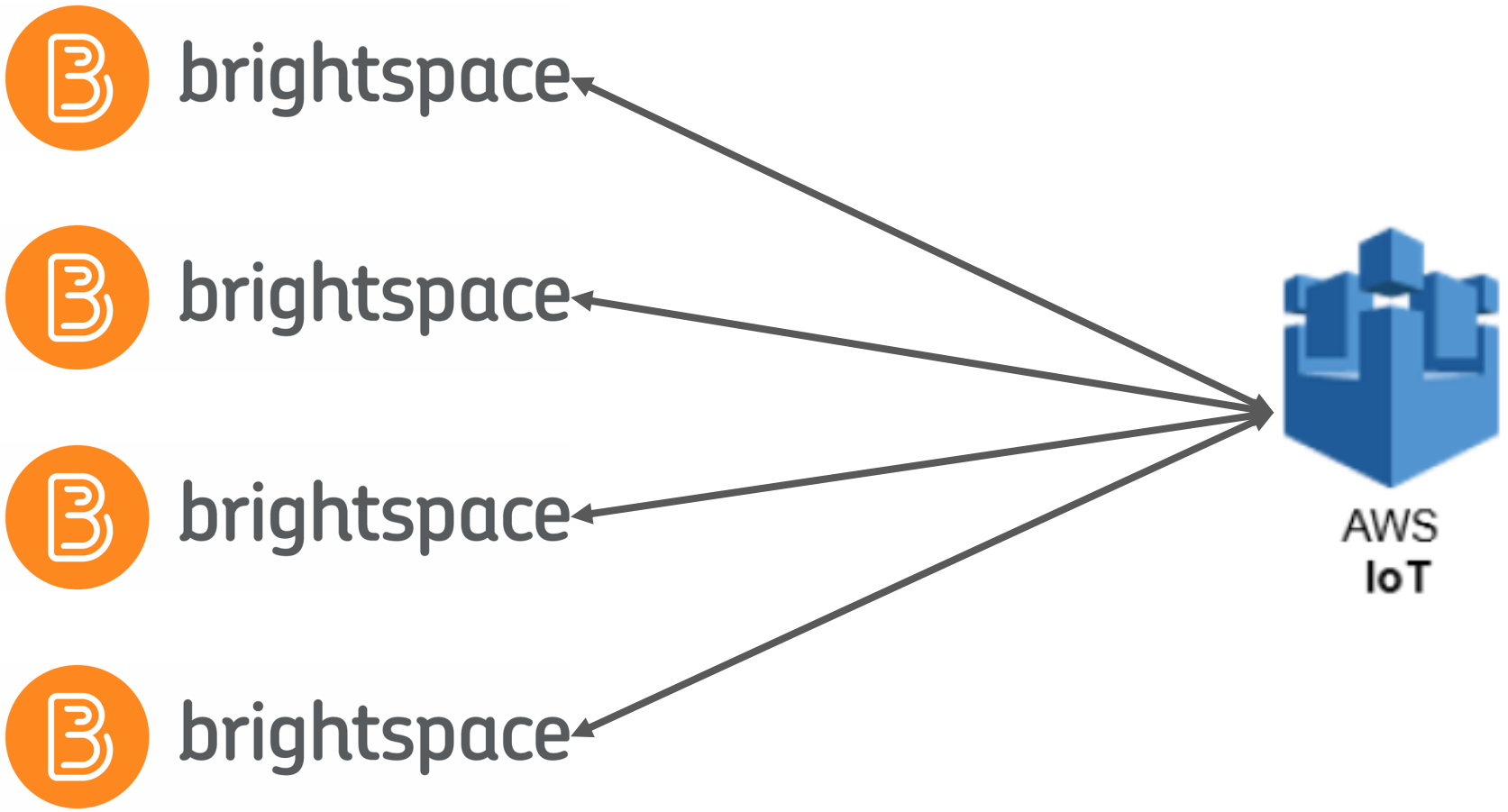
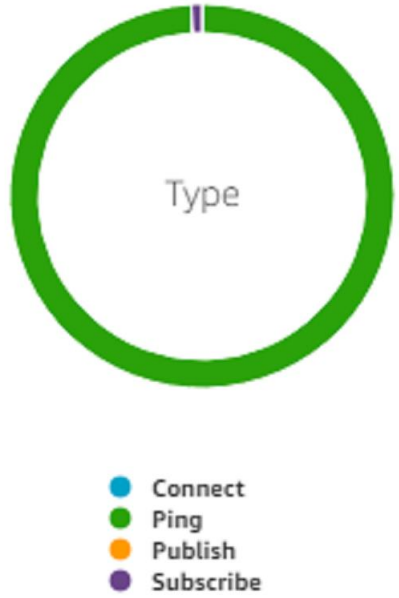


Story 4: The off by 10,000 error



Every instance of the software was pinging the message broker once every one second.

Story 4: The off by 10,000 error

LESSON:

If your thing is working fine, it doesn't mean there are no problems.

Story 5:

The calmest production failure ever

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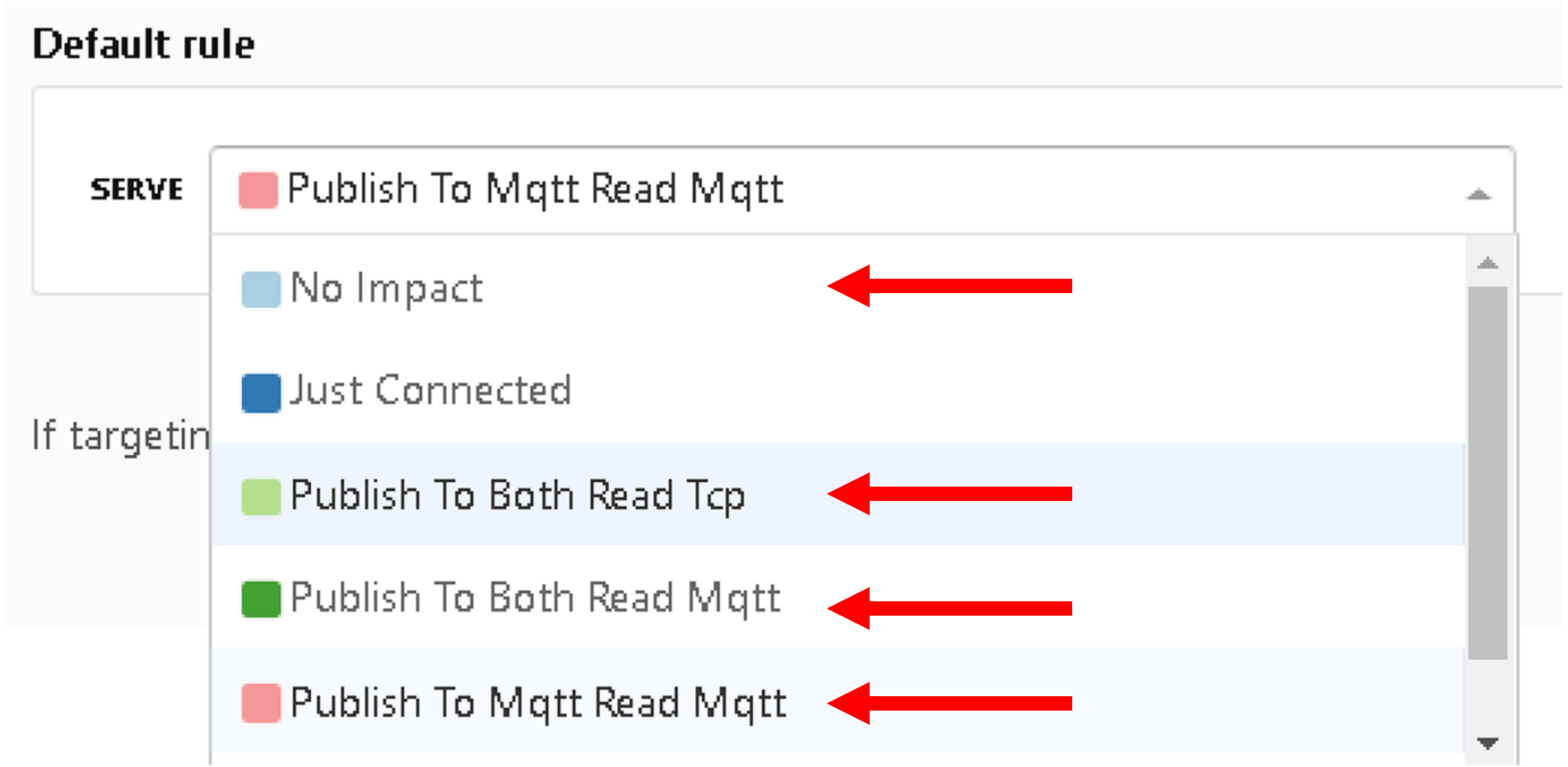

Story 5: The calmest production failure ever

LESSON:

Safe roll-out and roll-back strategies allow you the luxury of thinking clearly during "emergencies".

Conclusion:

How do I make "good testing" work for me?

1. Do good testing

- Test until you feel pretty confident
- Skip tests that are not "real" enough
- Skip tests that cost more than they're worth
- Skip tests where failure would not result in a bug fix

2. Plan for failure

- Is it possible to roll out our changes gradually?

- What information is needed to detect that something is going wrong?

- How will we be notified when things are going wrong?

2. Plan for failure

- who is responsible for responding to error notifications?

- what troubleshooting steps will we take when we get a notification?

- what communications should occur while we are dealing with issues?

2. Plan for failure

- Are there cases where fixes or solutions could be executed automatically?

- what's the fastest way we could roll back to an earlier version?

- what are our contingency plans when there are problems with external dependencies?

Remember:

Be ready to handle failure; you won't find all the bugs anyway

Thanks!

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