



SRECON Asia 2018

How Atlassian is Tackling Error Budgets, Agile Style



GUI VIEIRO | SRE TEAM LEAD | GVIEIRO@

SUCCESS

**Inspire you to drive adoption
of a new reliability practice in
your organization**

“

...(an) error budget provides a clear, objective metric that determines how unreliable the service is allowed to be...



Atlassian Values

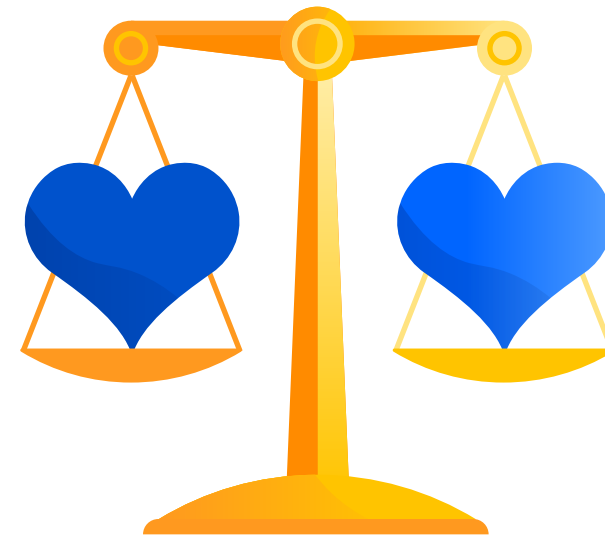
They guide what we do, why we create, and who we hire.



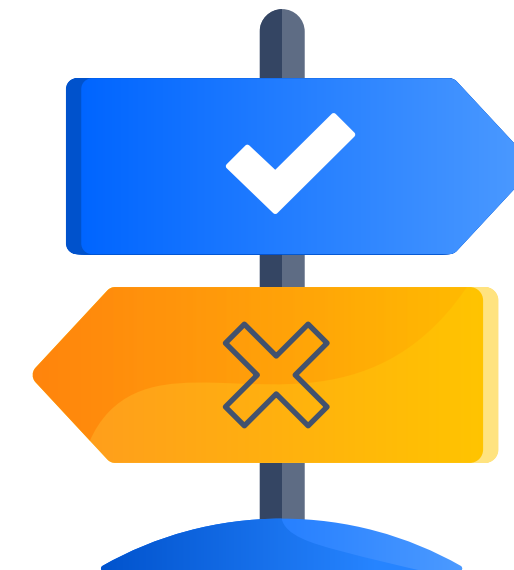
**Open company,
no bullshit**



**Play,
as a team**



**Build with heart
& balance**



**Be the change
you seek**



**Don't #@!%
the customer**

A person's hand is visible on the left side of the image, pointing towards a wall covered with various colored sticky notes. The sticky notes contain handwritten text, including words like 'Integrations', 'Landing Page', and 'External'. The background is a light-colored wall with a grid pattern.

Products

Micro Services

Platform as a Service

Cloud Infrastructure Partner

Thank goodness for SRE!

ATLASSIAN SRE



Observe

Tools and expertise in Monitoring, Logging, and Tracing



Prevent

Help Teams build reliable systems using best practices



Improve

Proactively seek out potential problem areas and work with our partners to improve them



Fix

If something breaks, fix it, make sure it doesn't happen again



Error Budget Story Time

CONTEXT

Services and their SLOs

SLO ATTAINMENT

% of Service Attaining SLO

Week 1	81%	

SLO ATTAINMENT

% of Service Attaining SLO

Week 1	81%	
Week 2	74%	

SLO ATTAINMENT

% of Service Attaining SLO

Week 1	81%	
Week 2	74%	
Week 3	70%	

SLO ATTAINMENT

% of Service Attaining SLO

Week 1	81%	
Week 2	74%	
Week 3	70%	
Week 4	67%	

SLO ATTAINMENT

	% of Service Attaining SLO	Feeling
Week 1	81%	
Week 2	74%	
Week 3	70%	
Week 4	67%	

SLO ATTAINMENT

	% of Service Attaining SLO	Feeling
Week 1	81%	Interested
Week 2	74%	
Week 3	70%	
Week 4	67%	

SLO ATTAINMENT

	% of Service Attaining SLO	Feeling
Week 1	81%	Interested
Week 2	74%	More Interested
Week 3	70%	
Week 4	67%	

SLO ATTAINMENT

	% of Service Attaining SLO	Feeling
Week 1	81%	Interested
Week 2	74%	More Interested
Week 3	70%	Concerned
Week 4	67%	

SLO ATTAINMENT

	% of Service Attaining SLO	Feeling
Week 1	81%	Interested
Week 2	74%	More Interested
Week 3	70%	Concerned
Week 4	67%	Worried

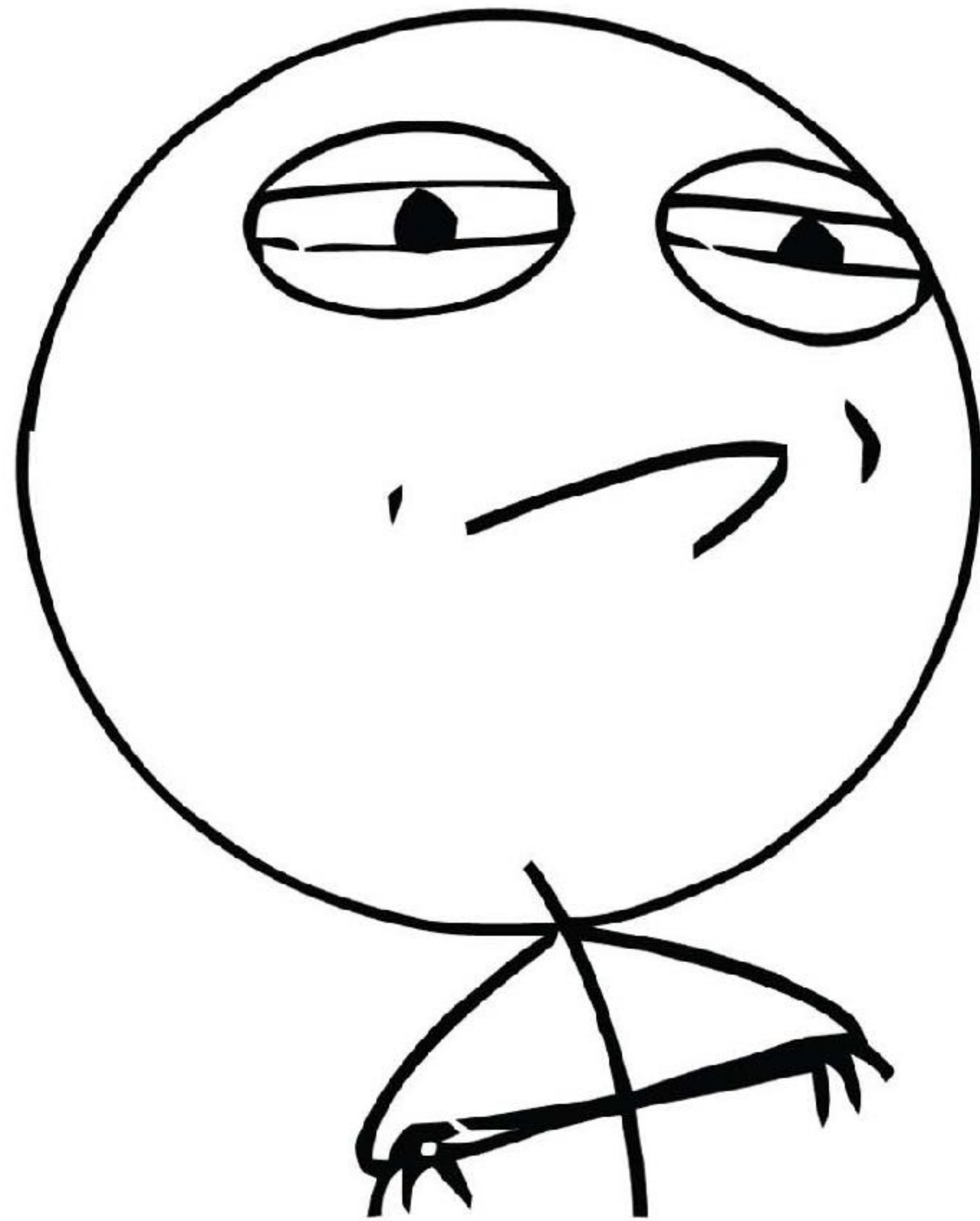
“

...(an) error budget provides a clear, objective metric that determines how unreliable the service is allowed to be...



Dev Mindset

SRE Mindset

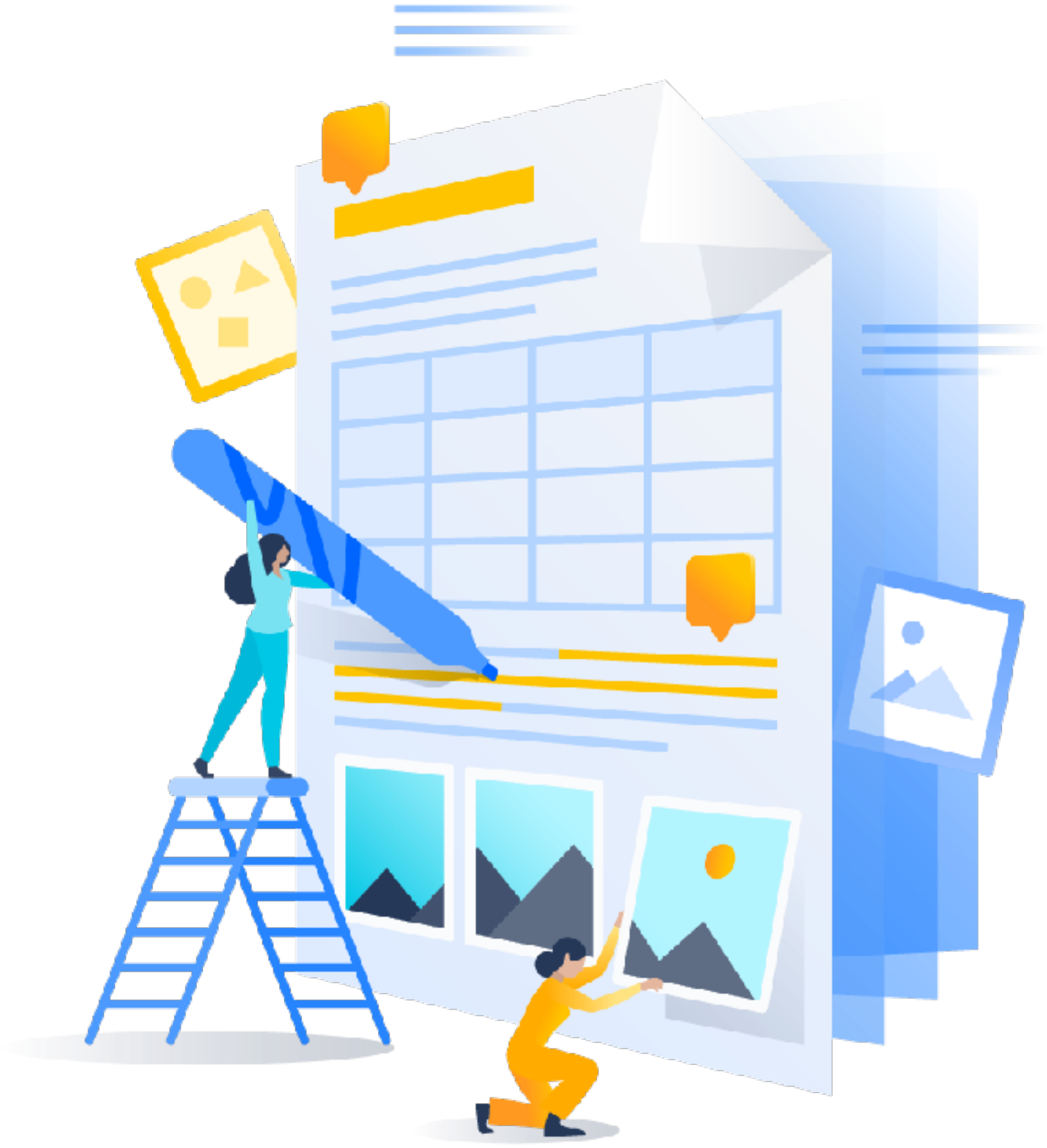


CHALLENGE ACCEPTED



Think Agile

MAKE IT VISIBLE



Going From Buzz To Process

Head of Engineering

Care to learn about ~~Error Budgets~~ a way to drive SLO attainment?

Start Small

Target the low achievers

Error Budgets 0.1

Continuing working on features AND address reliability issues

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Continuing working on features AND address reliability issues

SLOs

Measure

Data

Trend

Action

Need more 9s

SLO attainment measured by week

We share because we care

This is how we reach operational excellence

Summary

- **62%** of Identity's tier 0 and tier 1 services met their reliability SLO last week. Data: [Identity SLO Attainment](#)
- Identity PIR actions breaching SLA are down to **5** from **11** at the start of Q1
- Let's clean-up Identity's Stage environment and save ~~██████████~~ some \$\$\$: [Identity Staging Cleanup](#)

SLOs

Love Me Some Toil...

Weekly collection

DataDog and Google Sheets for the win

Measure

Data

Trend

Action

This list of services was found by searching for "identity" in Service Central on 13/9/2017
Reliability SLO: Tier 0 = 99.99% Tier 1 = 99.95%

[Gui's SLO Attainment Checker](#)

Service	Tier	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24	10/1
aid-account	Tier 0	n	y	y	y	y	y	y	y	y	y	y	y	y
aid-account-ondemand	Tier 0	y	y	y	y	y	y	y	y	n	y	y	y	y
aid-bcrypt	Tier 0	y	y	y	y	y	y	n	n	y	n	n	n	y
aid-crowd	Tier 0	y	y	y	y	y	y	y	y	y	y	y	y	y
aid-interceptor	Tier 0													
aid-management	Tier 0	n	y	n	n	n	y	n	n	n	n	n	n	n
aid-openid	Tier 0	n	y	y	y	y	y	y	y	y	y	n	y	y
aid-signup	Tier 0	n	n	n	n	n	n	n	n	n	n	n	n	n
arke	Tier 0	y	y	n	n	n	n	n	n	y	n	n	n	n

SLOs

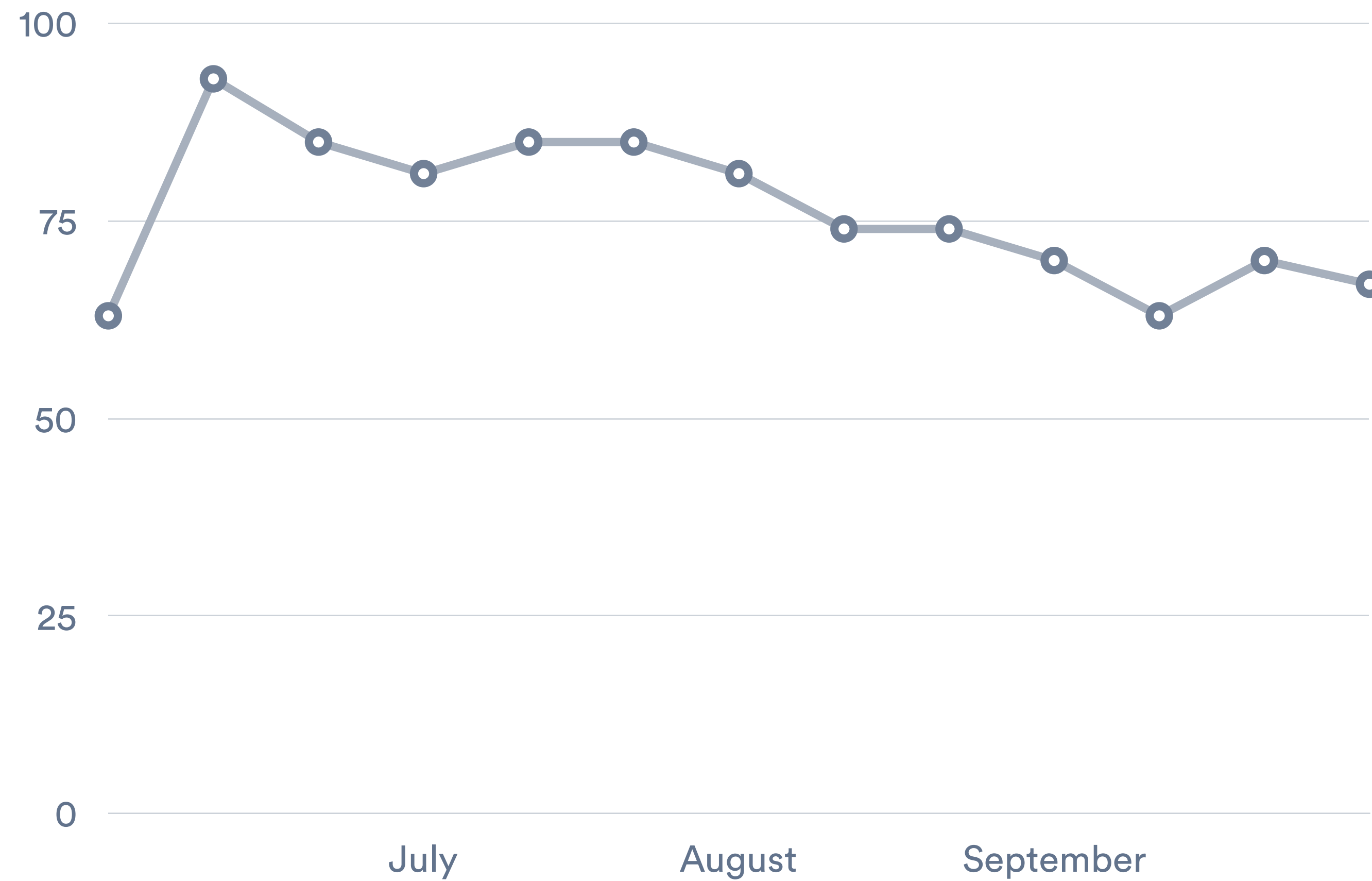
Measure

Data

Trend

Action

Worrisome Trend



SLOs

Measure

Data

Trend

Action

Error Budgets

Identity is the trail blazer

Trigger

Service fails to attain SLO for 7 out of 13 weeks in a given quarter

Process

Service owners will investigate and document the causes of low SLO attainment. Then service owners will generate the backlog tickets to bring the service within SLO and commit to a delivery date. The plan will be reviewed and approved by Will. A review of SLO attainment will be conducted upon the established delivery date.

Iterate



Next quarter we will shoot for 5 or fewer weeks of SLO attainment failure

WE LOVE BLOGS

Performance ratings
tied to number of
likes on your blogs



Error Budget Blog

 Identity is committed to ensuring its services meet their reliability SLO (service level objective) as specified on [go/tiers](#). To achieve this goal Identity announced the adoption of an Error Budget process on  06 Oct 2017 during the organization's inaugural quarterly ops review (see [Are We Operationally Excellent Yet?](#)). This page records the Identity services that breached their error budget in Q1, drives investigation into the reliability issues causing low SLO attainment, and documents the work that will take place to bring services within SLO.

The Budget For FY18Q1

Services that attained their reliability SLO for fewer than 8 of the 13 weeks in FY18Q1 are in scope for Identity's Error Budget process this quarter. Why 8 out of 13? This budget was chosen simply as a starting point. Identity's Error Budget will tighten with each passing quarter to drive operational excellence.

Data points were taken weekly and recorded [here](#) for SLO attainment of all tier 0 and tier 1 services. Services that attained SLO for fewer than 8 weeks in FY18Q1 are as follows:


Action Required

By  03 Nov 2017 the owners of the services listed below are to:

- Perform an investigation
- Develop a remediation plan

Action Required

By  03 Nov 2017 the owners of the services listed below are to:

- Perform an investigation
- Develop a remediation plan
- Commit to a delivery date
- Obtain approval from  @Willie

Remediation

-  
-  
-  

emails **RESOLVED**

Approvers

- @William
- @Noor D

Good Result

We are aware... This isn't new info!

We do not plan to invest...

APPROVED... LOL!

Not So Good Result

Action Required

By 📅 20 Jan 2018 the owners of the services listed below are to:

- Perform an investigation
- Develop a remediation plan
- Commit to a delivery date
- Obtain approval from [@Willi](#)

[aid-management](#) [user-management](#) [aid-crowd](#)

Investigation Findings

- We are aware aid-crowd does not meet SLOs. This has been historically the case.

Remediation

- We do not plan to invest much in this area as we plan to eagerly migrate all users to [A](#) (This is dependent on work from [A](#))

Timeline

- Eager migration 📅 31 Jan 2018 (Depends on [A](#) work ETA 📅 15 Jan 2018)
- SLO metrics to be reviewed on: 📅 23 Feb 2018

Approvers

- [@Willi](#)
- [@Noo](#)



Mistakes



Wins

SLOs



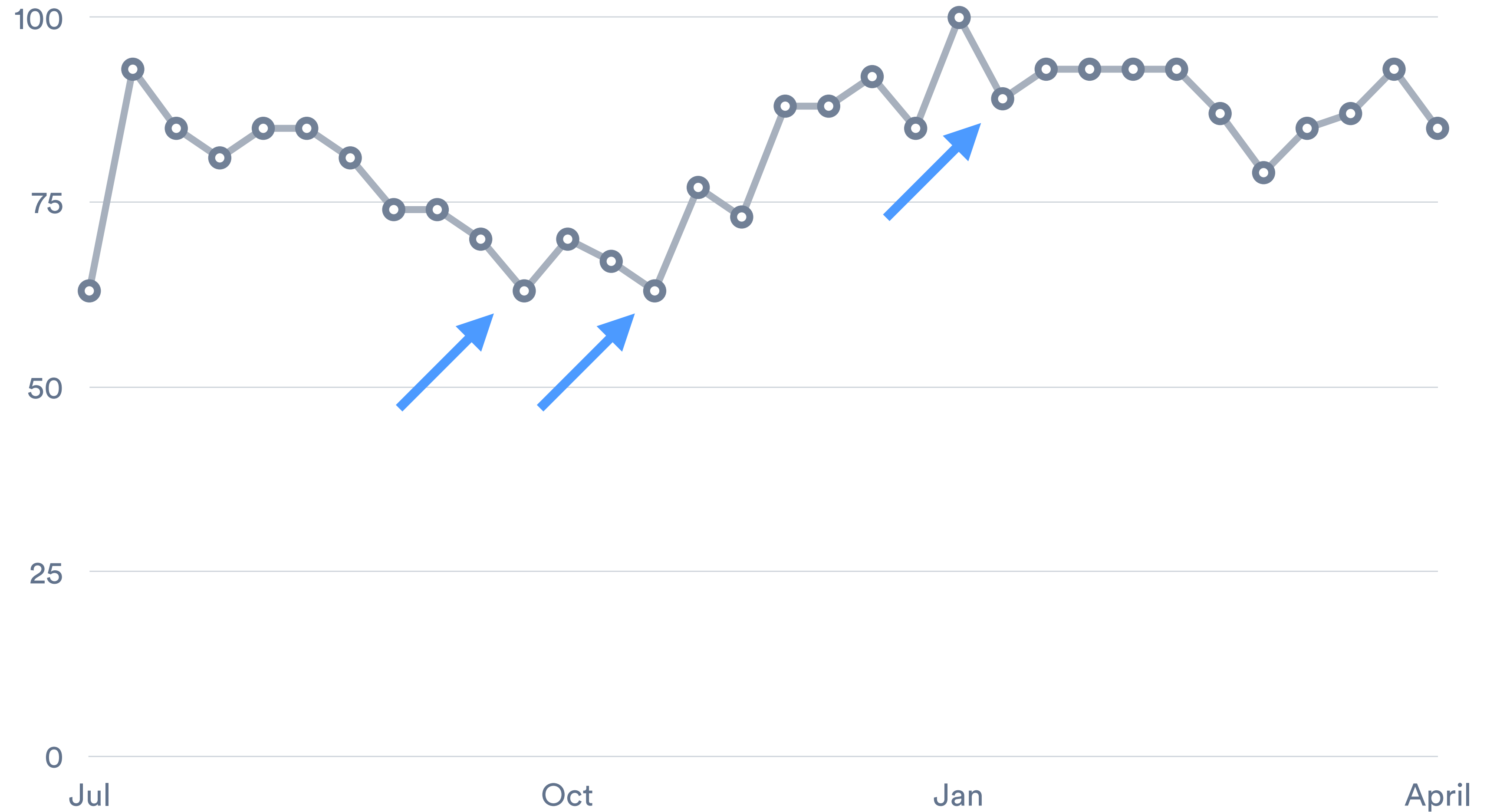
Measure

Data

Trend

Action

Awesome!





Where To Next?

Error Budgets take #2

Set a higher bar

Blog some more

CHANGE

SLO attainment

Tooling

Culture



“

Did you get around to real Error Budgets?

WELL...

Work In Progress



YOUR TURN

**Time for you to adopt Error
Budgets!**

BE CURIOUS

What data do you have?

SHARE

**How can you start a
conversation?**

INFLUENCE

Who can say “make it so”?

START SMALL

**What Agile steps might we
take?**



Thank you!

Go drive the adoption of reliability processes, Agile style!

Gui Vieiro

SRE Team Lead



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