

BLAMELESS

ARE WE THERE YET?

METRICS-DRIVEN PRIORITIZATION FOR YOUR RELIABILITY ROADMAP

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Agenda - Metrics-Driven Prioritization Framework

Categorize Areas of Impact for an SRE Organization

Ask the Right Questions

Measure What Suits You Most

Perform Gap Assessment

Create a Reliability Dashboard

Understand the Business Needs



Incident Management

Change Management

Alerting

Security

Rollbacks

Blue / Green Deployments

Automation

Retrospectives

Monitoring

Resilience

Incident Response

CI / CD

People

Canaries

Systems Design

A/B Testing

Follow up Actions

Cloud Providers

Reliability

SLIs / SLOs

Runbooks

Capacity Management

Chaos Engineering

Game Days

Observability

Infrastructure

On Call

Scalability

Disaster Recovery

Logging

Open Source

Metrics

Robustness

Load Testing

Synthetics

Architecture

Tracing

Operational Reviews

Continuous Improvement

Monitoring & Detection

Asking the right questions

What are the **business needs**?

For each category below, what matters most to us *right now*?

Change Management

Are we able to make changes quickly and with high confidence?

Monitoring & Detection

Do we know when there is a problem?

Incident Management

Do we respond quickly when there is a problem?

Continuous Improvement

Are we getting better?

Choose the Right Metrics to Answer the Questions

Change Management

Are we able to make changes quickly and with high confidence?

- Cycle time
- Deployment frequency
- Change failure rate

Monitoring & Detection

Do we know when there is a problem?

- SLIs / SLOs
- Error budget
- MTTD
- % customer detected issues

Incident Management

Do we respond quickly when there is a problem?

- MTTR
- # teams to resolve
- Incident frequency
- MTTA

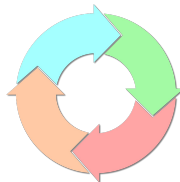
Continuous Improvement

Are we getting better?

- % incident action items completed
- % repeat incidents
- Incidents avoided

Example Metrics and Gap Assessment

Change Management



Change Lead Time (Cycle Time)

- Definition:
 - Time from First Commit to Deployment
- Dimensions:
 - Team, Product or Service
 - Change Type
- Calculation: Average over 30 days
- Target: < 72 hours
- Current Value: 96 hours
- Gap Assessment:
 - $(96 - 72) / 72 = 33\%$

Scale: < 25% 25-50% > 50%

Continuous Improvement



% Incident Action Items Complete

- Definition:
 - % Action Items from Incident Retrospectives completed within specified time window from incident
- Dimensions:
 - Team or Product or Service
 - Priority of Action Item
- Calculation: Average over 30 days
- Targets
 - 100% of Critical Complete in <1 week
- Current Status: 30%
- Gap Assessment:
 - $100\% - 30\% = 70\%$

Reliability Dashboard

Change Management			Monitoring and Detection			Incident Management			Continuous Improvement		
<i>Are we able to push changes quickly and with high confidence?</i>			<i>Do we know when there is a problem?</i>			<i>Do we respond quickly when there is a problem?</i>			<i>Are we getting better?</i>		
Current	Target	Gap	Current	Target	Gap	Current	Target	Gap	Current	Target	Gap
Change Lead Time			MTTD			MTTR			% Follow Up Completed		
96 hours	<72 hours	33%	60 min	<30 min	100%	35 min	<30 min	16.67%	30%	100%	70%
Deployment Frequency			Error Budget Usage			# Teams Involved			% Project Work		
11	>15	26.67%	Unknown	100%	Unknown	2.5	<2	25%	10%	50%	40%
Change Failure Rate			% Customer Reported			Incident Frequency			% Repeat Incidents		
10%	<10%	0%	75%	<20%	55%	16	<10	40%	50%	<10%	40%



Drill down Reliability Dashboard by Dimension

	Change Management			Monitoring and Detection			Incident Management			Continuous Improvement	
	<i>Are we able to push changes quickly and with high confidence?</i>			<i>Do we know when there is a problem?</i>			<i>Do we respond quickly when there is a problem?</i>			<i>Are we getting better?</i>	
Org	Change Lead Time	Deploy Frequency	Change Fail Rate	MTTD	Error Budget Usage	Customer Reported	MTTR	Teams Involved	Incident Frequency	Action Items Complete	Repeat Incidents
Service 1	120 hrs	6	5%	50 min	?	35%	20 min	1.5	16	24%	50%
Service 2	156 hrs	5	15%	45 min	?	100%	70 min	3.5	10	60%	20%
Service 3	96 hrs	7	36%	60 min	?	100%	20 min	2.5	16	0%	40%
Service 4	106 hrs	10	50%	75 min	?	90%	70 min	3	12	36%	10%
Service 5	50 hrs	18	20%	70 min	?	65%	15 min	1.5	22	20%	40%
Service 6	36 hrs	20	25%	60 min	0%	60%	15 min	2	20	40%	80%

Uncovering Business Needs

Questions	Department
When do we plan to include SLAs in contracts? What are the financial metrics that you are optimizing for?	Finance
What's the strategic importance of compliance, security, etc? What are the critical user paths?	Product
Do you have sufficient visibility of usage data for upsells/renewals?	Customer Success, Sales
How is the market sentiment of our product reliability compared to competitors'?	Sales, Marketing
What are our scale and capacity needs over the next 12 months?	Eng, Product
How much do you plan to grow the team size by in the next 12 months?	HR



How Evolving Business Needs Influence Reliability Priorities

Stage	Business Needs	Reliability Priorities
Early	Finding product-market fit	Time to prototype, ability to iterate quickly
	Renewals and upsells	Instrumentation of the user path
Growing	Marketing expansion/User growth	Scalability, extensibility
	Formulating an SLA	Observability of current reliability
	Customer Satisfaction/NPS	Meeting reliability expectations, proactive communication
	Team growth/Recruiting	Onboarding time, knowledge sharing, docs
Mature	Increase profit margin	Reduce infrastructure cost
	Brand reputation	Reduce incident impact for critical path user journeys



Asking the right questions

What are the business needs?

For each category below, what matters most to us **right now**?

Change Management

Are we able to make changes quickly and with high confidence?

Monitoring & Detection

Do we know when there is a problem?

Incident Management

Do we respond quickly when there is a problem?

Continuous Improvement

Are we getting better?

Asking the right questions - Revisited for Early Stage

What are the business needs?

For each category below, what matters most to us **right now**?

Change Management

Are we able to make changes quickly ~~and with high confidence?~~

Monitoring & Detection

~~Do we know when there is a problem?~~

Do we know our usage trends?

Incident Management

~~Do we respond quickly when there is a problem?~~

Do customers feel supported?

Continuous Improvement

Are we getting better?

Summary of Metrics-Driven Prioritization Framework



Create Structure



Ask the Right Questions



Measure and Share Results

Let us know how it works for your organization!

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