ALEX HIDALGO

IMPLEMENTING SERVICE LEVEL OBJECTIVES

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EPISODE 548: ALEX HIDALGO ON IMPLEMENTING SERVICE-LEVEL OBJECTIVES

Alex provides an introduction to SLOs and talks about the benefits of SLOs, such as aligning engineering teams with business goals.

The episode provides a comprehensive overview of SLOs and offers valuable insights for software engineers and managers who are interested in implementing them to improve service reliability and customer satisfaction.

ALEX HIDALGO

Hidalgo is originally from Peru and went to the United States to pursue his education in computer science.

Hidalgo spent most of his twenties working in the service industry.

Hidalgo is the CEO and co-founder of Nobl9, a software company that provides a platform for managing and improving service level objectives (SLOs) for cloud-native applications.

PROFESSIONAL EXPERIENCE

Hidalgo worked on several projects related to network security and high-performance computing.

He worked a project called "GRID Engine," which was a high-performance computing software system that allowed users to run parallel jobs on clusters of computers.

Alex Hidalgo co-founded Nobl9 in 2018 with Marcin Kurc and Brian Singer.

Hidalgo has played a key role in managing the performance of cloud-based applications, which uses machine learning and data analysis to identify performance issues and suggest solutions.

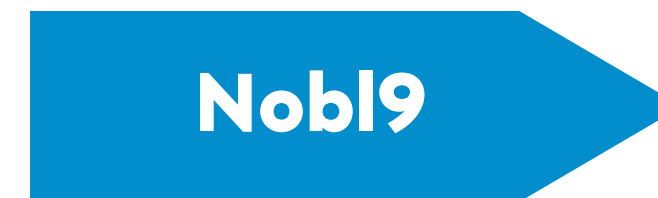**Sun Microsystems** → **eBay** → **Nobl9** → **Google**

Hidalgo was instrumental in leading the development of the company's cloud computing platform, which supported eBay's e-commerce applications and services.

This gave him deep expertise in cloud computing, DevOps, and service-oriented architectures.

Hidalgo became one of the primary developers of the Google IT Professional Certification program and joined Google's elite Customer Reliability Engineering team, which was tasked with teaching Google's largest cloud customers "how to SRE."

RELIABILITY STACK

- The layers of a system that are designed to ensure its reliability.

- It helps ensure that the system is resilient to failures and can deliver its intended functionality consistently.

- **Is a metric used to measure the performance or reliability of a software service.**

  Typically used to track key performance indicators (KPIs) such as response time, error rate, or availability.

SLI(SERVICE-LEVEL INDICATOR)

SLO
(SERVICE-LEVEL OBJECTIVE)

Target level of performance or reliability that a software service aims to achieve. SLOs are typically defined in terms of SLIs and are used to set goals for the service.
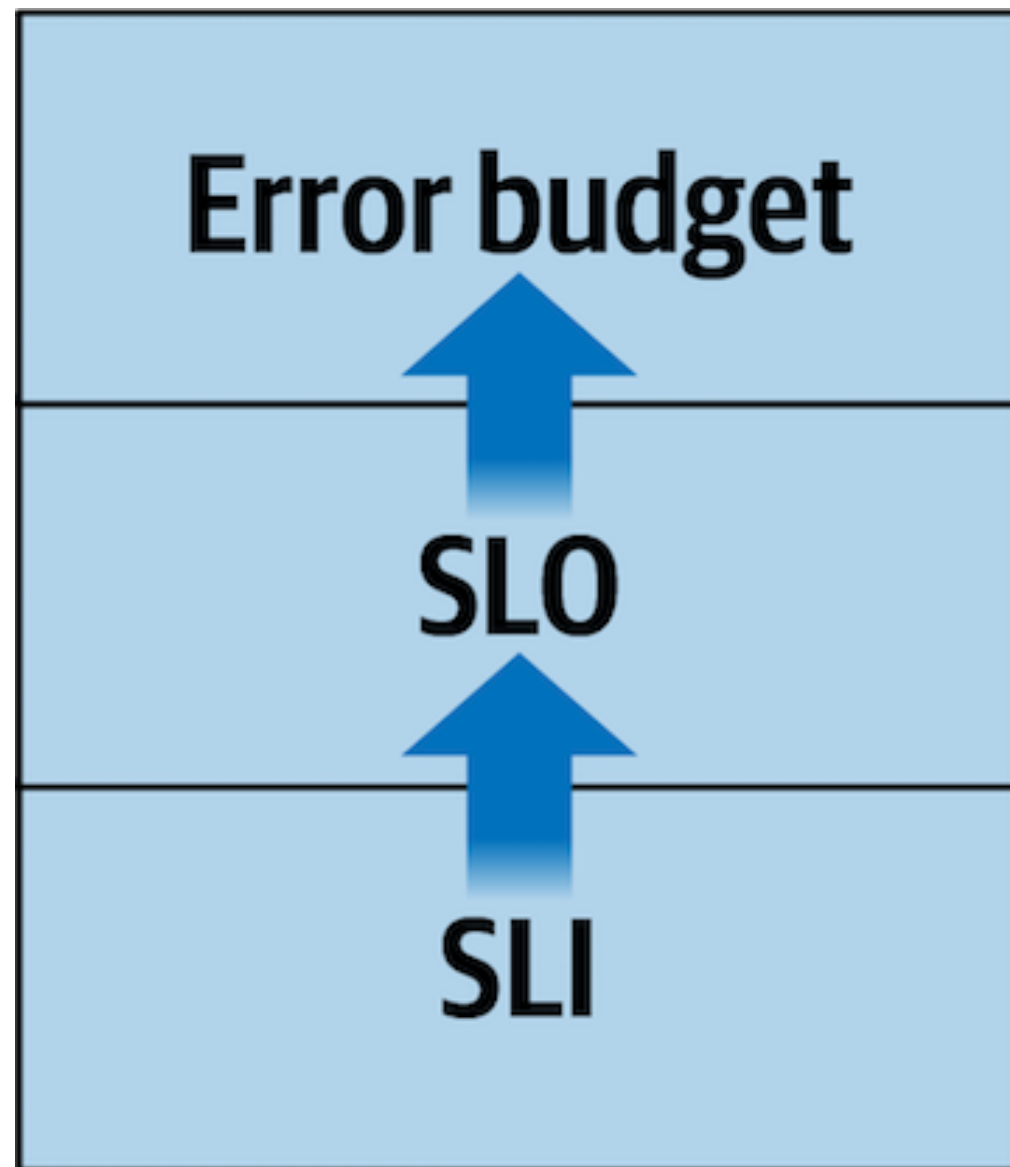
SLA
(SERVICE-LEVEL AGREEMENT)

- Is a formal agreement between a software service provider and a customer that specifies the level of service that will be provided

  Include SLOs, as well as other details such as service availability and support hours.

ERROR BUDGET

- Is a budget of acceptable errors that can occur while still meeting the SLO.

Error budget

↑

SLO

↑

SLI

- Can be used to balance the need for reliability with the need for innovation.

ERROR BUDGET

1

THE INVERSE OF A SLO TARGET

"Everything is good as long as we do not exceed the error budget"

2

OFTEN MEASURED THROUGH A TIME WINDOW

The percentage could be translated into time leading to better understanding.

3

NOTHING IS EVER PERFECT

Even the SLO approach!

```
If    error    budget    is    not
exceeded {
    work on project work
} else {
    fix stuff
} // really?
```

NOT THAT SIMPLE

Be meaningful in decisions, everything is a tradeoff

"It depends" could be the best answer in plenty of cases

What if you are too reliable for too long?

What if what is needed to be fixed depends on hardware?

Maybe you want to reset your error budget and make adjustments

You could even ignore the data...

ERROR BUDGETS ARE ALSO FOR SPENDING

THANK YOU