Market Insight Report Reprint

# Coverage Initiation: Nobl9 automates SLO and error budgeting so enterprises can balance availability and innovation

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Site reliability engineering has introduced many organizations to the concept of service-level objectives and error budgets. Nobl9 is aiming to help organizations adopt the SLO framework by streamlining the SLO creation process and making it simpler to monitor whether objectives are being met.

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## Introduction

Nobl9 has developed a system to provide what some observability vendors promise to already deliver: the ability to easily define and adhere to service-level objectives (SLOs), connecting the needs of a business and the demands on IT through realistic error budgeting. The company offers a stand-alone platform for SLOs and does not do monitoring or incident response, instead focusing on SLO-related automation built on data ingested from the observability tooling already being leveraged in customers' environments.

## THE 451 TAKE

Nobl9 is connecting the dots between operational data and impacts on the business and customer experience. The biggest hurdle for the firm is likely to be the change in mindset needed to shift to an SLO and error budget-driven approach instead of a focus solely on service-level agreements (SLAs) and the drive for uptime at all costs, which can command significant time and budget from IT ops teams. By streamlining the process of managing SLOs and turning telemetry into service-level indicators (SLIs), Nobl9 is seeking to enable organizations to devote more resources to innovating rather than trying to meet steep SLA requirements.

Additionally, Nobl9 seizes on one of the prominent pain points that observability and AIOps vendors have been attacking – the volume of operational data and resulting storage costs. By focusing on metrics that are relevant to chosen KPIs and SLIs, the vendor is seeking to help customers avoid long-term storage of unneeded telemetry to impart significant cost savings. Its offer to measure success by SLOs and business objectives and outcomes may appeal to many in the enterprise IT market that have grown apathetic to SLAs.

## Context

Founded in 2019, Nobl9 is a young startup but it has already raised two rounds of funding totaling $28.5m. Investors include Battery Ventures, CRV, Sorenson, Harmony, Bonfire and Resolute Ventures. The company is based in Waltham, Massachusetts, and has 80 employees working out of its headquarters and a development center in Poland. The founders mostly come from Google by way of cloud-service marketplace startup Orbitera, which Google acquired for $100m in 2016. Former Orbitera CEO Marcin Kurc is Nobl9's CEO.

The vendor's team is well-versed in SLOs and error budgets, which are often associated with site reliability engineering (SRE) practices that originated at Google. SREs are a target audience for Nobl9 since they automate some of the processes common to SRE frameworks; however, they are in relatively short supply. According to 451 Research's Voice of the Enterprise, Cloud, Hosting and Managed Services, Organizational Dynamics survey, only 15% of organizations have SREs as a job role currently, while 13% plan to add them in the next year.

SLOs are essentially a target set for a given system's desired availability over time. Tracking SLO adherence is dependent on SLIs, which are a way to measure if an SLO is being met or not. If a system or service is not meeting its SLO, then there are consequences such as performance degradation, outages, or impact to customers. SLOs balance the possible negative repercussions and the lack of availability to determine a reasonable uptime goal for that service, with the downtime afforded in that SLO as the error budget.

They are sometimes compared with SLAs: commonly, an SLO would be an internal metric used by operators whereas an SLA would be an agreement of availability and associated contractual obligation with that organization's customers. The practice of using SLOs and error budgets is in part an acceptance that 100% uptime is an impossibility (often implied by the many nines in SLAs, for example 99.999% availability but never 100%) and that downtime will happen and this risk should be budgeted for and accepted as a realistic part of operating.

## Products

Nobl9 takes the processes needed to create, maintain and act on SLOs and packages them into one platform to streamline implementation. Observability data (logs, metrics and traces) is ingested from tools already in use by customers, whether it is from a third-party proprietary agent or an open standard such as OpenTelementry. Integrations with observability providers include AppDynamics, Datadog, Dynatrace, Elasticsearch, Lightstep (recently acquired by ServiceNow), New Relic, Splunk and ThousandEyes. Once data passes through Nobl9, it is normalized into SLIs and analyzed in relation to set SLOs. Users declare SLOs in the form of YAML files; however, they can also leverage the web-based GUI (which also provides visualizations of SLOs and error rates) to manage SLOs. Once SLOs are configured, the Nobl9 platform leverages the ingested telemetry to calculate whether the SLOs are being met.

Based on how well SLOs and error budgets are being adhered to, alerts can then be triggered. The platform can be configured so that different characteristics of errors can trigger different kinds of alerts; for example, a sporadic issue could result in a Jira ticket for a bug fix while a sustained error that causes the error budget to be greatly exceeded could result in more urgent action such as issuing PagerDuty alerts to on-call staff. Integrations for alert generation include a mix of platforms such as Discord, Jira, Opsgenie, PagerDuty, ServiceNow and Slack. Additionally, NObl9 can deploy webhooks and customers can use them to interface with feature flags or canary deployments to trigger the rollback of a release if it fails to meet an SLO caused by recently shipped code. SLO-related data from Nobl9 can also be exported to AWS S3, GCP Cloud Storage and Snowflake for later analysis.

Finally, Nobl9 has launched an open source effort called OpenSLO that offers the framework for configuring SLOs as Yaml under an Apache 2.0 license to build community and try to establish an open standard for SLOs.

## Competition

To an extent, Nobl9 will vie with observability vendors, including some of the same ones it relies on to fuel its platform, because these vendors increasingly want to be the one-stop shop for providing insights on business and customer experience impacts. However, the level of automation leveraged in relation to the processes of SLO creation and management varies between observability vendors with a focus largely on offering the data that is critical to tracking SLIs. There will be a sense of 'co-opetition' with firms such as Splunk and DataDog. Honeycomb allows users to define and monitor SLOs. Blameless is an incident-response specialist that also offers SLO and SLI management as part of its platform.

To an extent, Nobl9 will also overlap with some vendors branded as AIOps given the way the platform unites various monitoring tools and then filters that telemetry down to the most useful insights, bringing an element of noise reduction. AI capabilities are common in observability providers, and they are the cornerstone of AIOps firms such as Big Panda, Moogsoft and Zebrium that provide an overlay across multiple observability vendors. However, such providers do not automate the process of SLO creation and management.

## SWOT Analysis

### STRENGTHS

Nobl9 simplifies the process of creating and maintaining SLOs while providing customers with guidance based on historical data related to their SLOs. Because of its stand-alone nature, the platform can be an overlay for a variety of observability and monitoring tools in a customer environment.

### WEAKNESSES

Nobl9 is a recent entrant and although it provides training materials for SLOs and error budgeting, acceptance of the platform will require a shift in mindset for some customers.

### OPPORTUNITIES

With SREs in short supply, it would be prudent to target a range of audiences with equal emphasis, and the SLO approach may appeal to DevOps and developer teams especially in organizations adhering to service ownership models where teams are directly responsible for specific services.

### THREATS

There may not be an abundance of pure-play SLO automation platforms, but some observability vendors offer the ability to define and monitor SLOs within their platforms, which may result in overlap with some of the same vendors collecting the data Nobl9 would leverage in its own platform.

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