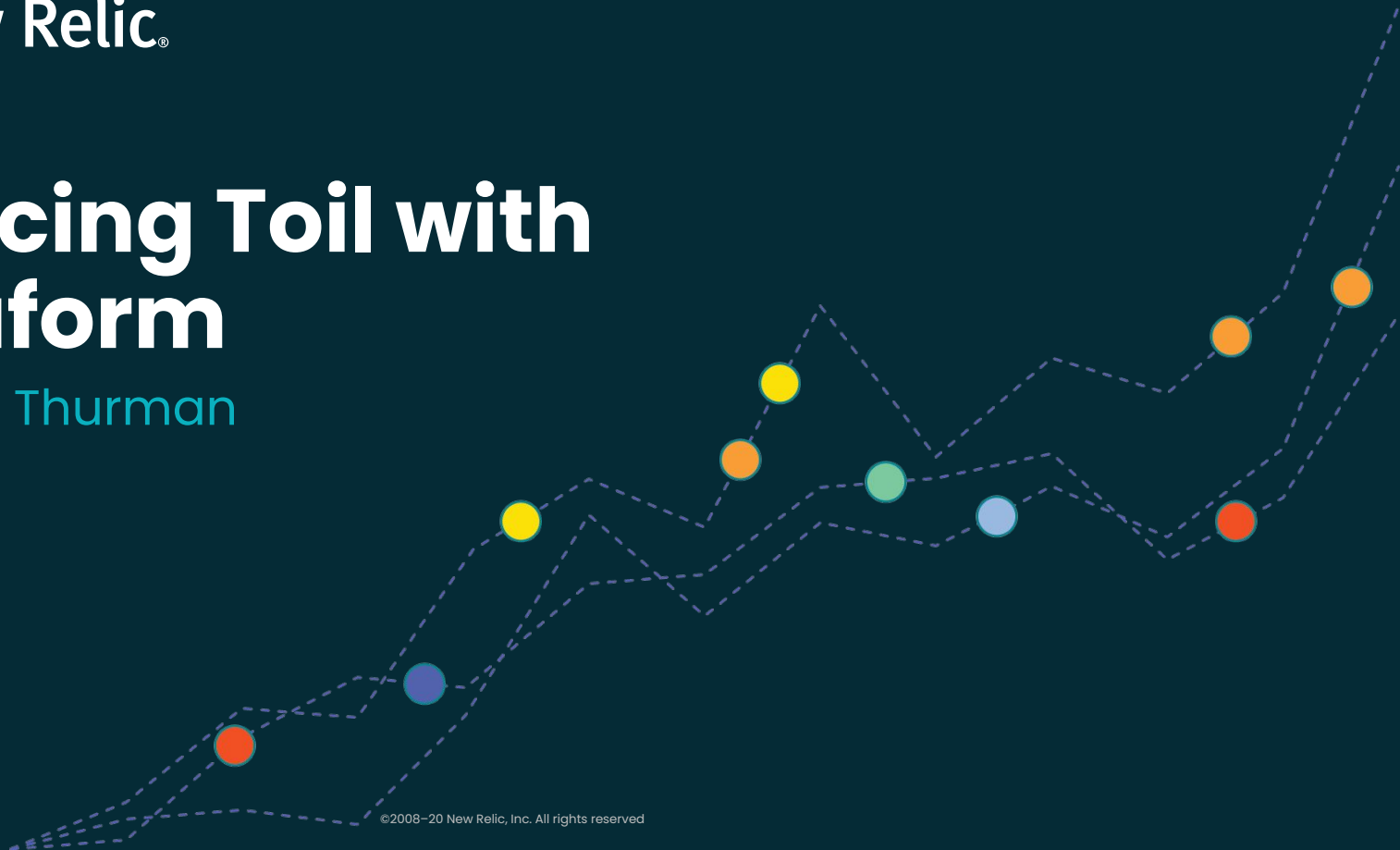# Reducing Toil with Terraform
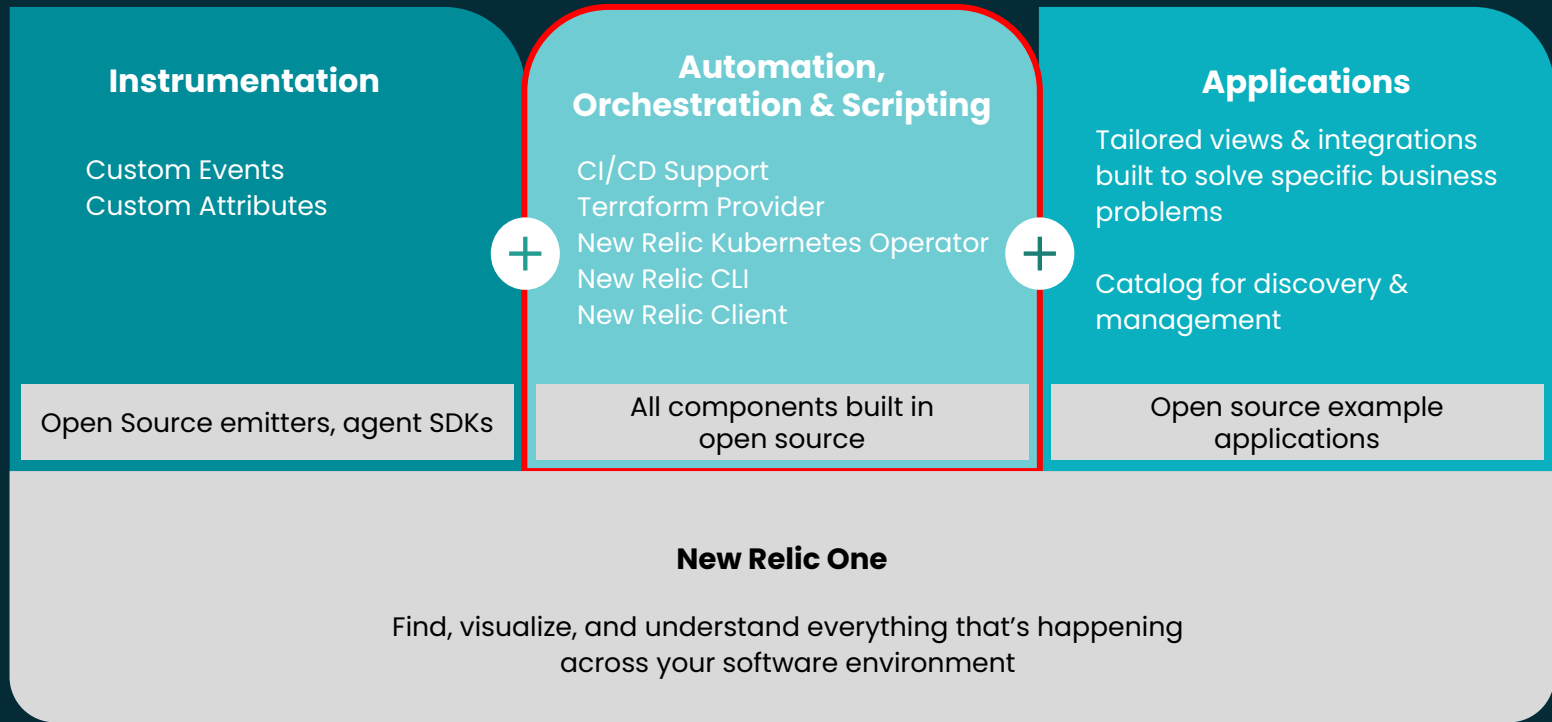
Jonathan Thurman

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Programmability: The Basics

Instrumentation

Custom Events
Custom Attributes

Open Source emitters, agent SDKs

+

Automation, Orchestration & Scripting

CI/CD Support
Terraform Provider
New Relic Kubernetes Operator
New Relic CLI
New Relic Client

All components built in open source

+

Applications

Tailored views & integrations built to solve specific business problems

Catalog for discovery & management

Open source example applications

New Relic One

Find, visualize, and understand everything that's happening across your software environment

New Relic.

What is Observability as Code?

INFRASTRUCTURE AS CODE

- Safely define the infrastructure for your applications

- Create consistent implementation and governance across environments

OBSERVABILITY AS CODE

- Takes into account the Golden Signals
  - Latency
  - Traffic
  - Errors
  - Saturation

- Better view of what your code is doing in production

Developer Toolkit

The New Relic Developer Toolkit is a suite of tools expressly built to ease the configuration, management, and usage of New Relic through automation.

Tool	Problem	Solution
Terraform Provider	Teams need an easy and consistent way to monitor their assets, following defined best practices.	Configure your stack with the New Relic Terraform Provider, which enables Observability as Code, reducing developer toil, and allows users to manage their entire ecosystem in a single place
New Relic CLI	When I deploy an application, I want to easily record the deployment in New Relic When service ownership changes, I want an easily automated way to change tags within New Relic	The New Relic CLI enables integration of New Relic into your existing workflows. Be it fetching data from your laptop while troubleshooting an issue, or adding New Relic into your CI/CD pipeline.
New Relic Kubernetes Operator	I use Kubernetes, how do I easily provision New Relic resources.	The New Relic Kubernetes Operator enables teams leveraging Kubernetes to easily provision a subset of New Relic resources as part of their existing workflow.

Terraform Provider 2.x Released

BREAKING CHANGE!
- API Key configuration changed **<=** Most confusing part
- Updated environment variables to match New Relic standards
- Deprecated unused / end of life items
- Latest documentation is here

Terraform Provider 2.x Released

New Data Sources
- ○ **newrelic_entity** - Enabling an entity centric view from within the provider is a natural extension of the platform

New and Updated Resources
- ○ **newrelic_entity_tags** - Manage the tags created on entities, easily use terraform variables to calculate and assign tags to resources dynamically
- ○ **newrelic_nrql_alert_condition** - Updated to include all NRQL condition types: Static, Baseline, Outlier
- ○ **newrelic_events_to_metrics_rule** - Events to Metrics allows you to aggregate your event data which is optimal for analyzing and monitoring trends over long time periods.

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Terraform Provider 2.x Released

Near-term items:
- ○ **Edge Tracing** - Planning for support for Edge Tracing in Terraform when Edge Tracing goes GA
- ○ **Cloud Integrations** - Configuration of Cloud integrations is a complex resource, and now that we have the ability to configure via NerdGraph, we can prioritize this.

Longer-term items:
- ○ **Better Dashboard support** - We're working with the Dashboards team to get access to an updated API, and unlock all NR1 dashboards capabilities.

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Lab Time!

https://github.com/newrelic-experimental/nerd-days-terraform

Thank You

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