Differential Diagnosis

Troubleshoot issues like an expert — no matter your experience level

Tedious guesswork is frustrating. Solving problems quickly with the right tools feels powerful, productive, and satisfying. Differential Diagnosis (DDx) brings clarity and speed to your investigations — so you can stop escalating, stop guessing, and start solving.

Challenges with Troubleshooting Today

Modern systems are complex, and troubleshooting them is harder than ever. Teams face persistent roadblocks that slow down investigations and erode confidence.

System and Data Complexity

Massive volumes of telemetry data, constantly evolving services, and complex interdependencies make it hard to know where to start.

Tribal Knowledge Bottlenecks

Investigations often depend on a few experts who know the system's design and history.

Slow, Manual Process

Manually digging through metrics, traces, and logs is slow and inconsistent.

Solution: Differential Diagnosis (DDx)

DDx transforms the troubleshooting process for both metrics and traces by removing guesswork and reducing cognitive overload. It does this by:

- **Automatically analyzing** all available attributes and dimensions related to a metric or trace.

- **Highlighting correlations**—surfacing what changed, what didn't, and what's most relevant to the performance issue.

- **Guiding your investigation** with a queryless workflow that enables fast, intuitive hypothesis testing—no prior system knowledge required.

cloud.region=us-west-1

◼	Current	90% (3,120/3,467)
▨	Immediately before	12.1% (385/3,189)

Benefits of DDx

Abstracts away System and Data complexity

DDx highlights what changed (and what didn't) across all metric and trace dimensions, giving you clear context—no matter how complex the system.

No Tribal Knowledge Required

DDx automates expert-level investigation techniques so anyone can consistently find the root cause—no handoffs or heroes required.

Faster, More Consistent Investigations

A structured, queryless workflow eliminates guesswork, enabling anyone to troubleshoot quickly and reliably.

DDx for Traces
Find what's slow—or broken— Quickly
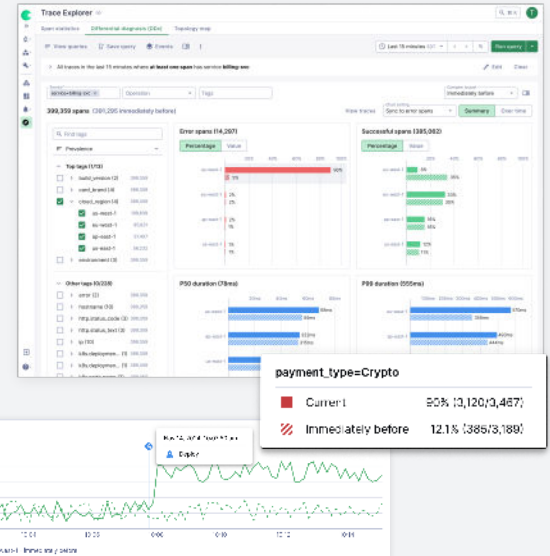
Unexpected error? Increasing Latency? DDx it!
One click and DDx automatically analyzes relevant spans and attributes to show you what changed.

Skip the guesswork – Guided exploration enables rapid hypothesis testing. Quickly understand why your system is struggling.

Built for you. Yes you! – Everyone on the team can use traces to troubleshoot - regardless of system knowledge.

DDx for Metrics
Faster metric anomaly analysis. Simpler dashboards

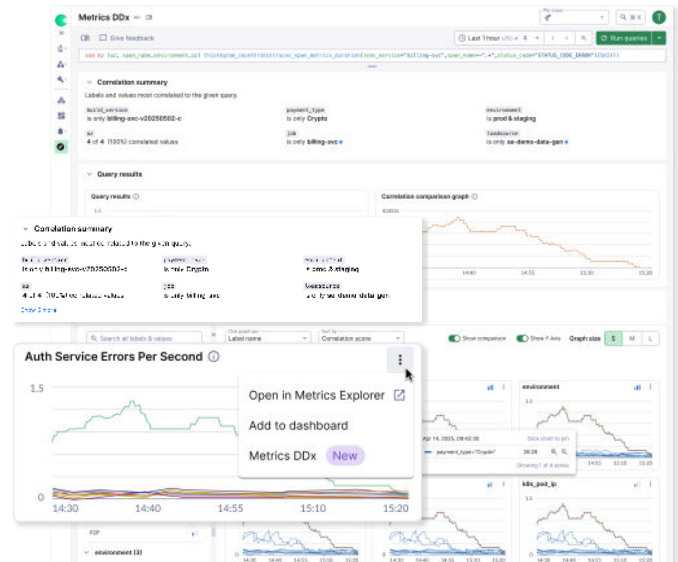**See something weird on a chart? DDx it!**
Automatic correlation across all metric dimensions shows you what changed—instantly.

No more blind spots – Reveal hidden dimensions in simplified metrics created from Recording Rules.

Find your metric monitoring zen – Ditch cluttered dashboards and noisy alerts. Limit the details and the required upkeep. When you need to dive deep, DDx has your back.

About Chronosphere

Chronosphere is the observability platform built for control in the modern, containerized world. Recognized as a leader by major analyst firms, Chronosphere empowers customers to focus on the data and insights that matter to reduce data complexity, optimize costs, and remediate issues faster.

"Differential Diagnosis is a great tool for identifying and resolving specific performance issues. Thanks to Chronosphere, we recently identified and resolved a deployment issue in just minutes."

- Carson Gee, Principal Software Engineer

DataRobot

Learn more at: chronosphere.io/platform/ddx