THE LEADING METRICS MONITORING SERVICE FOR CLOUD AND MODERN APPLICATIONS
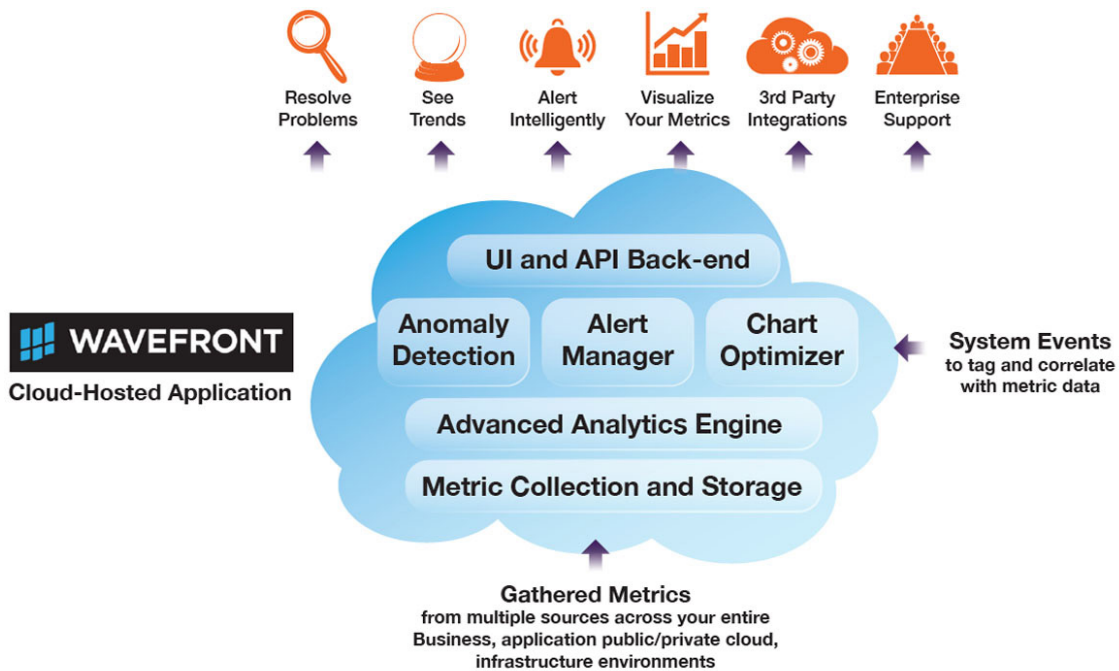
Wavefront enables DevOps functions at SaaS companies where power, scale, performance, and reliability are essential to their business.

WAVEFRONT

RE-ENGINEER INCIDENT MANAGEMENT WITH METRICS

Wavefront is a cloud-hosted service where you send your time-series (metric) data to: CollectD, StatsD, JMX, Ruby's logger, anything. Then, you can perform arbitrary mathematical operations on any number of those series, render charts to see anomalies or KPI dashboards, and ultimately create truly intelligent alerts to proactive watch over your entire stack. It scales seamlessly, it works all the time, it's feature complete, the support is great and it's well documented. It's everything you always want, but never get.

PREVENT · DETECT · DIAGNOSE · REMEDIATE · VALIDATE

Resolve Problems · See Trends · Alert Intelligently · Visualize Your Metrics · 3rd Party Integrations · Enterprise Support

WAVEFRONT
Cloud-Hosted Application

UI and API Back-end

Anomaly Detection · Alert Manager · Chart Optimizer

Advanced Analytics Engine

Metric Collection and Storage

System Events
to tag and correlate
with metric data

Gathered Metrics
from multiple sources across your entire
Business, application public/private cloud,
infrastructure environments

AT SAAS LEADERS, HUNDREDS OF PERSONNEL USE WAVEFRONT

intuit

GROUPON

Microsoft

CITRIX®

okta

lyft

workday®

box

WHY WAVEFRONT?

→ You want to see right into the heart of your system, at granular detail, however big and complicated that might be.

→ You want to create smarter, dynamic alerts off meaningful telemetry gathered from every corner of your estate.

→ Your current monitoring approach isn't scaling, i.e. it's taking too much time, expertise, and total cost to get what you want.

WHAT'S CHANGED
IN THE WORLD OF SAAS PRODUCTION OPERATIONS

New Technology **Explosion**

Stack **Fragmentation**

"Dev" and "Ops" **Divergence**

→

Every System Is A **Snowflake**

From **System Data** To All Data

Components Unmanageable In **Isolation**

RESULTING IN
→ Too many moving parts
→ Complicated interactions
→ Dynamic and unpredictable operations

INCREASING DYNAMIC COMPLEXITIES
ARE FORCING A COMPLETE RE-THINK OF MONITORING APPROACHES.

WHY TRADITIONAL TOOLS AND APPROACHES CAN'T DO
WHAT'S NEEDED

CUSTOMER COMPLAINTS

HEARTBEAT MONITORING

"Not Unified"
"Not Real-Time"
"No Analytics"

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LOG MONITORING

"Not Unified"
"Not Real-Time"
" Analytics Unusable"

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APM/NPM SILOS

"Not Unified"
"No Analytics"

	Log Monitoring	APM/NPM	Heartbeat Polling	Open Source Time Series DB
Analytics Driven	✅	❌	❌	❌
Unified, Open	✅	❌	❌	✅
Real-time, High Performance	❌	✅	✅	❌
Enterprise Scale	❌	✅	✅	❌
Developer API Friendly	❌	❌	❌	✅
Highly Reliable, Full Support	✅	✅	❌	❌
No Maintenance, -aaS	❌	❌	❌	❌

WHAT WOULD
UNIFIED, REAL-TIME ANALYTICS LOOK LIKE?

Wavefront delivers to Tech Ops and Development personnel the combination of the most powerful query language in monitoring running against a unified, full detail, big data metric store in real-time with no limits.

HOW WAVEFRONT WORKS

1. **INSTRUMENTATION:** Metrics are generated and gathered in your application, cloud, and infrastructure, pushed to Wavefront in a variety of supported formats and metric protocols. Example metric collections supported include: CollectD, SatsD, DropWizard, Nag105, DataDog, New Relic, JMX, Ruby's Logger and more...

2. **WAVEFRONT AGENT:** Software that sits inside your firewall to listen for the metrics you sent it and reports them to your Wavefront instance in the cloud. It also provides critical security protections (e.g. encryption) as well as local caching, providing data integrity if WAN link to cloud goes down.

ANOMALY DETECTION

ALERT CREATION

MOBILE DASHBOARDS
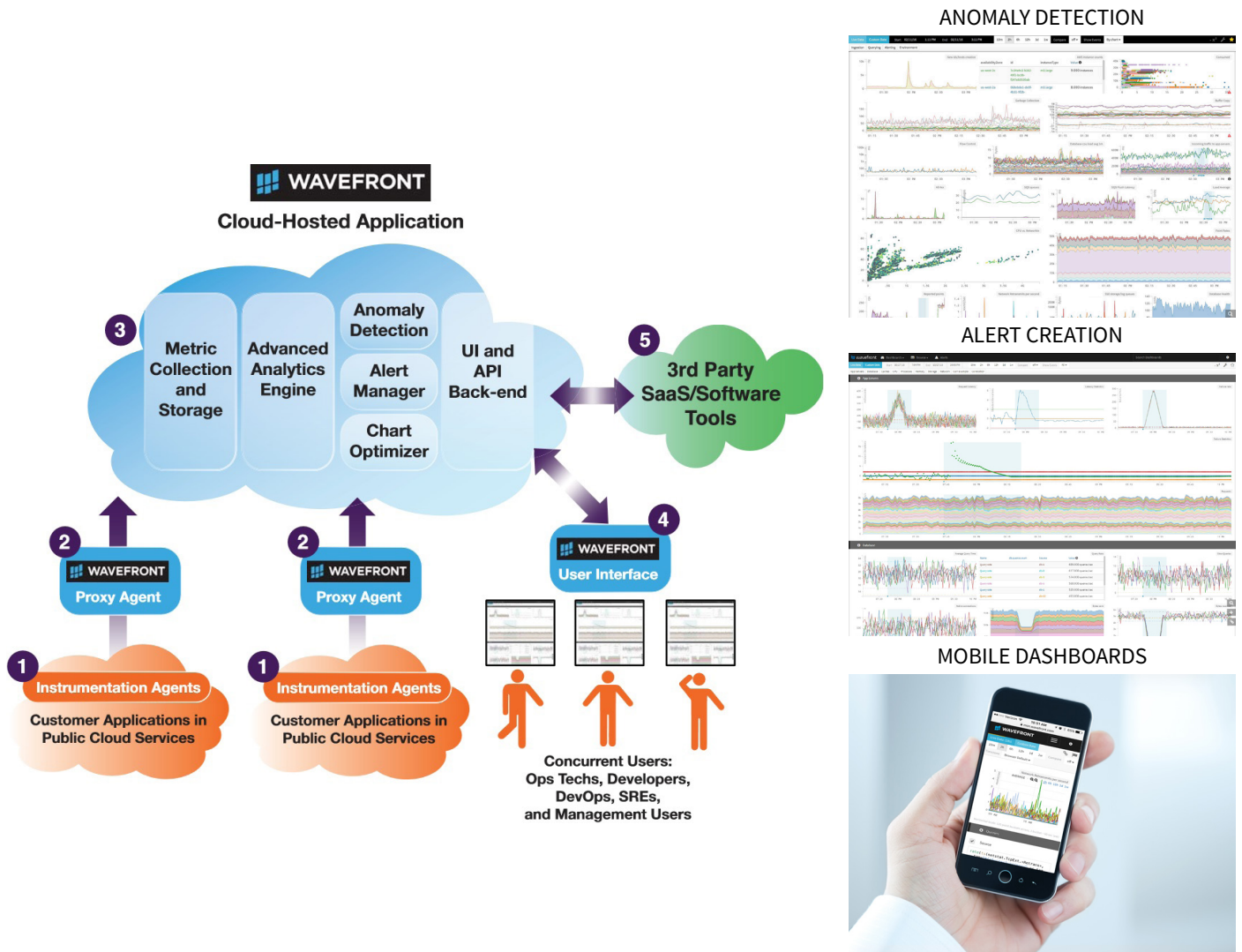
3. **WAVEFRONT APPLICATION:** A cloud-hosted service that ingests data streams from Wavefront Agents (also cloud service agents, e.g. AWS CloudWatch), and stores them in Wavefront's proprietary, database, optimized for lightning-fast access, query computation, and alert monitoring. It also includes the Wavefront Query engine that efficiently executes the metric queries for hundreds of concurrent users.

4. **WAVEFRONT UI :** Provides each user with customize data charts and dashboards, based on searches with the query language and creation of dynamic alerts. The UI is fully accessible via laptop or mobile phone device.

5. **WAVEFRONT API :** All actions available in the UI are also available via the API, giving developers unprecedented access to metric analytics and alerting, enabling greater system automation and intelligence.

HOW WAVEFRONT IS DIFFERENT?
WE ARE SOLVING TODAY'S MONITORING PROBLEMS!

1. MONITORING HAS BECOME AN ANALYTICS PROBLEM

→ You need a query engine and language to analyze, detect, predict, and alert on meaningful things.

→ Accelerate all aspects of: Detect > Diagnose > Remediate > Validate > Prevent.

→ You need this across all of your metrics (unified across the stack, metrics form all across your estate).

→ You need this in real-time (fast, at the speed of thought, as it's happening).

2. MONITORING HAS TO GO BEYOND STANDARD COOKIE-CUTTER METRICS TO APPLICATION METRICS CUSTOMIZED TO YOUR SPECIFIC BUSINESS AND ENVIRONMENT.

→ Every environment is a 'snowflake' today.

→ The Dev/Ops teams at revenue-producing SaaS companies are looking at custom application metrics 80-90% of the time because they are the most important indicators of customer experience.

→ Custom application metrics are not turn-key. No agent deployed can simply tell you what are the interesting metrics in your application.
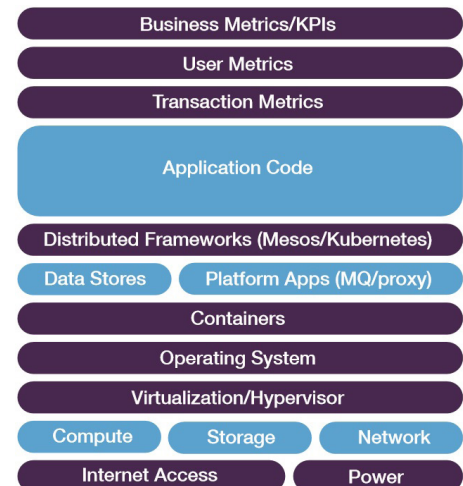
3. AND IT ALL HAS TO BE ENTERPRISE-CLASS SO IT CAN SCALE ACROSS YOUR ENTIRE ORGANIZATION

→ Increase team collaboration, shared visibility across thousands of users

→ Technical Operations

→ Cloud Operations

→ Software Development

→ DevOps

→ Observability & Tooling

→ Executive & Business Management

WAVEFRONT'S KEY CAPABILITIES

Wavefront is an enterprise-class, metrics monitoring service with unified real-time analytics, helping you gain unparalleled visibility into your SaaS operations. Wavefront provides immediate insights from time-series metric data – business, application, cloud, infrastructure metrics – into the hands of hundreds of users in your organization.

Unified Real-Time Analytics	Smarter Alerting	Advanced UX	Massively Integrated	Enterprise Grade
Diagnose-Remediate-Validate	Detect-Prevent	See Answers Fast	Automate-Simplify	Scale to Any Size
1. Instantly search data and render charts with the most powerful query language and the fastest query engine in the industry 2. Use our query builder to simplify and extend query-based analytics to a broader set of users 3. Transform aggregate data streams into single, system-wide plots to quickly pull signal from the noise 4. Quickly compare metrics by type, by time on one chart to isolate problem causes faster 5. Auto-overlay external system events to time-series metrics charts to easily correlate cause and effect 6. Search by behavior, not just by identity, to find needles in your haystack, auto-searching for anomalous patterns across multiple data streams	1. Create highly intelligent, dynamic alerts based on our query engine – significantly reduce false alarms, become more proactive 2. Increase alert quality faster, by back-testing new alerts on existing data, to see when they would fire in the past 3. Alert creation is easier and more intuitive, create alerts directly from chart and dashboard views, not from a separate, dis-jointed alert creation tool 4. Become more proactive with non-critical but highly information alerts, better predict how applications and environments will behave going forward 5. Improve alert consistency and operational scale by using a single monitoring system to create and manage all alerts 6. Scale alert management across your enterprise, manage alerts holistically with per user and aggregate views of active alert status	1. Drill-down/up on charted data with unbelievable detail, because Wavefront doesn't compress historical data, ever 2. Render charts and dashboards with the interactive-ness and vibrancy you have dreamed for 3. Simple, full-context chart and dashboard sharing via short URL improves collaboration. 4. Vary views of data streams as line, scatter, stacked area or histograms charts 5. Roll-out dashboard templates with variables to allow users to customize to their own preferences 6. Native mobile support, access charts and devices on your phone, wherever you are, without need to install an app.	1. Fully open architecture, send Wavefront data from practically any open source or commercial element 2. Ingest custom and standard metrics from: ▪ Applications ▪ Operating Systems ▪ Big Data Systems ▪ Caching ▪ Cloud ▪ Container ▪ Databases ▪ DNS ▪ Hypervisors ▪ Message Queues 3. Integrate with a variety of other tools: ▪ Notification Services ▪ Log Management ▪ 3rd Party Monitoring ▪ Auto-Deployment ▪ Auto-Remediation ▪ Trouble Ticketing ▪ SSO Services 4. Industry's most complete API – everything you can do in the UI, you can do in the API	1. **Unrivaled Scale** – millions of metrics per second; hundreds of concurrent users (we have customers with 500+ active users); no data roll-up, ever 2. **High-Availability** – quad data replication, fault-tolerance across multiple data centers 3. **Dedicated Clusters** – option to run in a dedicated, single-tenant environment 4. **Security** – ongoing penetration testing, data isolation procedures, data encryption in-flight/at-rest, whitelist traffic. 5. **Full Role-Based Access Control**, and per user histories of actions for audits 6. **Operational and Administrative Support** for central tooling and observability teams - full support of SSO identity mgmt. platforms, and full set of fine-grained user, groups, metric, and alert mgmt. tools

VISUALIZE YOUR METRICS FOR BETTER INSIGHTS

The ability to monitor cloud apps is the secret to operational success for both IT and the business. Metrics, as such as performance and transaction data, are extremely valuable for several reasons. You can trend the data and spot issues with the recent operations. You can use the data to provide predictive analytics. You can make your apps and systems in the cloud self-healing. Visualizing data with analytics allows you to glean insights so much faster, so you can detect anomalies sooner, resolve them faster, and optimize system performance to prevent problems in the future. Metrics monitoring is the future of SaaS production operations.

METRICS MONITORING MUST BE DONE
IN WAYS THAT ONLY WAVEFRONT CAN MATCH

	Wavefront	Log Monitoring	APM/NPM	Heartbeat Polling	Open Source Time Series DB
Analytics Driven	✅	✅	❌	❌	❌
Unified, Open	✅	✅	❌	❌	✅
Real-time, High Performance	✅	❌	✅	✅	❌
Enterprise Scale	✅	❌	✅	✅	❌
Developer API Friendly	✅	❌	❌	❌	✅
Highly Reliable, Full Support	✅	✅	✅	❌	❌
No Maintenance, -aaS	✅	❌	❌	❌	❌

WAVEFRONT SOLVES YOUR PAIN-POINTS

Troubleshoot Faster – Gain immediate visibility, relate customer experience to operational performance.

Find Hidden Anomalies – Manipulate views at 'speed of thought', quickly correlate across layers.

Reduce Alert Fatigue – Easily create dynamic, intelligent alerts from analytical queries.

Be Proactive vs. Reactive –Share all data to everyone who needs it, even remotely via a phone.

Automate Operations – Codify actions with complete API and a large set of integrations.

Go Faster, Do More with Less – Instant turn-key access to enterprise-grade monitoring and support.

TIRED OF BUILDING YOUR MONITORING TOOLS WITH OPEN SOURCE?

Build Apps, Not Monitoring

WAVEFRONT IS

MONITORING AT SCALE WITHOUT THE EFFORT

→ Maintaining in-house s/w is distracting

→ Address reliability and security, day one

→ Get world class monitoring faster, easier

RIDING THE CLOUD WAVE?
METRICS MONITORING
for a **SMOOTH RIDE**

ABOUT WAVEFRONT

Wavefront is the leading metrics monitoring service for cloud and modern application environments, used within DevOps functions at SaaS companies where power, scale, performance, and reliability are essential to their business.

Its founding technical team came from web-scale leaders like Google, Twitter, and Paypal. With first hand experience with the massively scalable, in-house monitoring platforms used at these companies, the Wavefront team developed a service to offers comparable functionality and scale in a way that other SaaS companies can quickly and economically adopt.

Wavefront customers include leading SaaS companies like Workday, Box, Groupon, Lyft, Okta, Microsoft, Intuit, Citrix, Medallia, Edmunds.com and more.

Founded in 2013, Wavefront is funded by leading venture capitalists and headquartered in Palo Alto, the heart of Silicon Valley.

WAVEFRONT ADVANTAGE

Wavefront delivers to tech ops and development personnel the combination of the most powerful query language in monitoring, running against a unified, full detail, big data metrics store in real-time with no limits. All of this capability is backed by an experienced enterprise team to support you.

This results are more intelligent alerts and crucially valuable insights that no other monitoring solution can offer, so your SaaS business experiences less degradation, less outages and more customer success.

With Wavefront, you can troubleshoot problems faster, find hidden anomalies sooner, reduce alert fatigue, become more proactive and less reactive, and automate better to achieve self-healing.

Wavefront is a fully open and API-driven service, ingesting metrics from all across your estate, integrations readily available for a growing set of open source and commercial metrics collectors.

WAVEFRONT

Be at the wavefront of monitoring.