

Achieve Faster MTTR with AI and Machine Learning

WHAT IS SIGNIFAI?

A correlation engine for SREs by SREs

- Predictive insights
- Accurate root cause analysis
- Alert noise reduction

ENTERPRISE IT IS COMPLEX

The rapid adoption of containers, microservices, DevOps and the cloud have led to a proliferation of monitoring tools. However, as any site reliability engineer will tell you, downtime still happens.

DOWNTIME IS INEVITABLE

Human errors, software bugs, external dependencies, cyber attacks, and completely random events are a reality. This is why an operations team that can't deliver consistently fast Mean Time to Resolve (MTTR) risks magnifying the damage downtime can cause to their company's brand, reputation and bottom line.

DATA SILOS HURT MTTR

The hallmark of a modern enterprise IT environment has been the creation of "data silos" and "islands of automation." Data that can't be correlated hurt a company's MTTR KPI because it leads to:

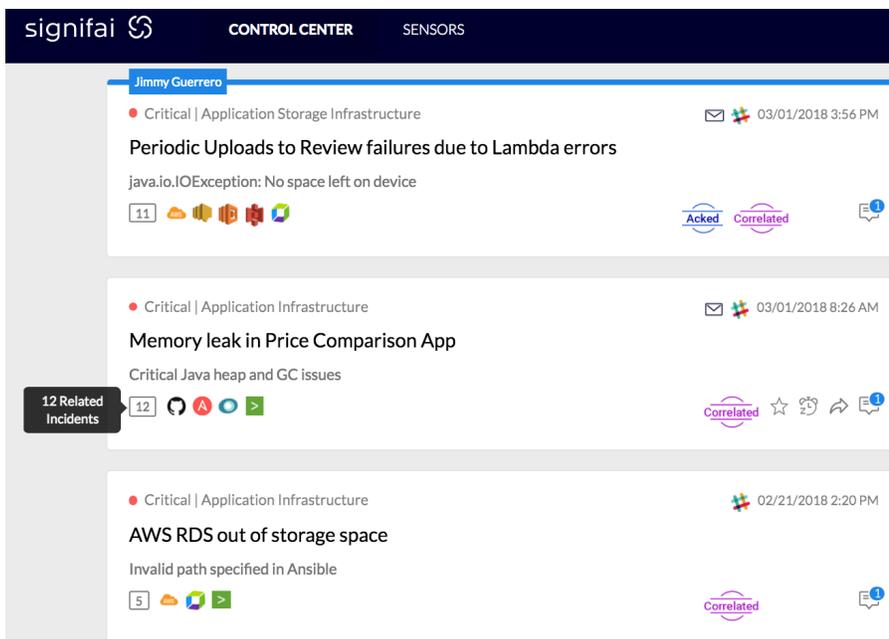
- **Alert Noise:** Attempting to "monitor everything" leads to meaningless and redundant alerts that distract SREs from working on issues that really matter.
- **Inefficient Root Cause Analysis:** Identifying the root cause of an issue in a complex IT environment becomes time consuming when the relevant data is inaccessible to the SRE in real-time.
- **Poor Reuse of Solutions:** Knowledge bases, runbooks and archived solutions that can't be correlated with issues in real-time force SREs to "reinvent the wheel."
- **Constantly Fighting Fires:** An SRE team that goes from one crisis to another, never has the time to work proactively against threats to uptime.

HOW SIGNIFAI HELPS IT OPERATIONS

SignifAI helps mitigate the negative consequences of downtime by creating dramatic efficiencies in how teams identify, triage, diagnose and fix both critical AND non-critical issues.

SignifAI is a purpose-built correlation engine designed to analyze ALL the data found in complex enterprise IT environments. With SignifAI you achieve faster MTTR because you are able to:

- **Correlate Data:** Whether it be logs, metrics, events, alerts or unstructured data.
- **Reduce Alert Noise:** By automatically aggregating and prioritizing alerts without losing any of the details.
- **Efficiently Find Root Causes:** Issues are automatically enriched with the relevant data you need, regardless of the timeframe or origin.
- **Get Ahead of Downtime:** With SignifAI's Predictive Insights you can start to operate in a proactive vs reactive mode.



The screenshot shows the SignifAI Control Center interface. At the top, there's a navigation bar with the SignifAI logo, 'CONTROL CENTER', and 'SENSORS'. Below this, a user profile for 'Jimmy Guerrero' is visible. The main area displays a list of critical incidents:

- Incident 1:** Critical | Application Storage Infrastructure. Title: 'Periodic Uploads to Review failures due to Lambda errors'. Description: 'java.io.IOException: No space left on device'. Includes a '11' icon, 'Acked' status, and 'Correlated' status. Timestamp: 03/01/2018 3:56 PM.
- Incident 2:** Critical | Application Infrastructure. Title: 'Memory leak in Price Comparison App'. Description: 'Critical Java heap and GC issues'. Includes a '12 Related Incidents' tooltip, 'Correlated' status, and other icons. Timestamp: 03/01/2018 8:26 AM.
- Incident 3:** Critical | Application Infrastructure. Title: 'AWS RDS out of storage space'. Description: 'Invalid path specified in Ansible'. Includes a '5' icon and 'Correlated' status. Timestamp: 02/21/2018 2:20 PM.

Insight
📍 Insight - Prediction Insight 03/04/2017 1:43 AM

Out of memory

This insight runs a prediction model on every host memory utilization and predicts the next week's utilization. In case of a high increasing demand for the resource, it alerts.

Recommendation:

Take a look at the following hosts and make sure everything looks stable:

- shopping001.cluster1
- shopping002.cluster1

In case this is a natural growth or due to increase in application demand, consider upgrading the memory by changing the instance type or by changing the physical hardware. You could also consider increasing the entire cluster size in case it is behind a load of requests.

Predication Insight 03/04/2017 1:43 AM

Out of Memory

5 out of your hosts in cluster shopping.com will run out of memory in ~4 days

“Uptime is mission critical to our organization. AI and machine learning give us the ability to avoid downtime by pointing to potential issues that could affect our customers ahead of time.”



LIOR GAVISH
 VP, Barracuda Networks

HOW SIGNIFAI WORKS

SignifAI is a SaaS-based correlation engine that leverages AI and machine learning to break down the data silos found in complex enterprise IT environments. SignifAI's automated platform requires no previous AI or machine learning expertise to use. Connecting your monitoring tools to the SignifAI platform is accomplished via APIs or webhooks. There are no agents to install and no data tagging is required. SignifAI automatically transforms the data to find relationships, correlations, anomalies and trends. These results are then presented in a UI in the form of issue cards and Predictive Insights. Users also have the ability to input their own logic ("train the model") to increase the accuracy of the correlations and to trigger any corrective actions which may be desired if certain conditions are met.

 **Recommendation**

Your diagnosis

Based on feedback provided for 'Periodic Uploads to Review failures due to Lambda errors' this issue's potential root cause is:

- 3rd Party API or Resource Dependency

And the following systems are possibly involved:

- Physical Servers/Virtual Instances/Containers
- One or More Applications

Relevant Comments:

Var 01 4:10 PM @ 👤 Lambda functions start to sporadically fail because of a 512 MB limit on Lambda's ephemeral disk capacity (/tmp). I did clean up my /tmp sp [Show more](#)

Feedback provided by Jimmy Guerrero

Similar Issues

Title	Score 
Periodic Uploads to Review failures due to Lambda errors 	10

ABOUT SIGNIFAI

SignifAI is an AI and machine learning powered correlation engine for DevOps and Site Reliability Engineering teams. SignifAI's correlation engine eliminates alert noise, makes root cause analysis more accurate and efficient, facilitates knowledge base creation, recommends solutions, automates remediation and delivers predictive insights. SignifAI is backed by Highland Capital Partners, Bloomberg Beta and Correlation Ventures.

Learn more: signifai.io

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Ready to deliver more uptime with AI and machine learning?

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