



# openstack

## Monitor Your OpenStack Logs at Scale

OpenStack is a complex and evolving system that continuously generates vast amounts of metrics and log data. The more complex your software gets, the harder it is to understand its performance and troubleshoot problems, making monitoring a critical piece of the OpenStack control system. Digital businesses across the board struggle with accessing all that data and different piecemeal solutions have fallen short.



### Take a Different Approach to OpenStack

Loom Systems takes a different approach to OpenStack by offering a robust and structured monitoring system that gives you access to all of your data in real time and at scale. Loom systems natively integrates with the entire Openstack ecosystem, giving you deep visibility into your applications and microservices and the full picture of your dynamic infrastructure in real time, including automatic updates on any changes to your environment like virtual machine migrations.

Further, Loom Systems is built for dynamic environments. It is a microservice-focused monitoring solution that comfortably grows and shrinks in step with elastic services, without human intervention. When new containers spin up regularly throughout the day, Loom Systems will automatically analyze their new logs and metrics. Combined with comprehensive cross-correlation and alerts on abnormal behavior, Loom Systems gives digital businesses the power to anticipate and resolve everything that could impact their OpenStack performance.

### Full Visibility at Scale

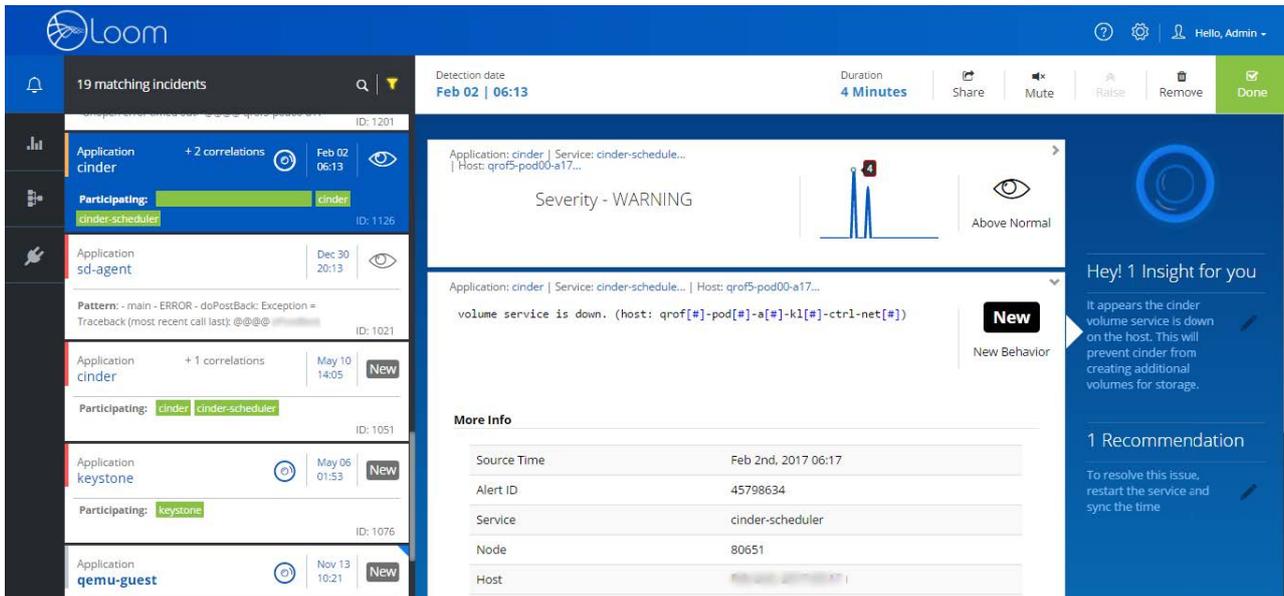
Loom Systems actively monitors all of the components that could impact OpenStack performance in real time so that IT Operations teams get instant, deep-level visibility into each microservice, including proprietary application logs. To ensure this, we've implemented all OpenStack services, including the underlying compute, storage and network infrastructures and OpenStack data-plane components, including:

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| ▶ <b>Nova</b> , the computational model of OpenStack, accounting for the majority of nodes in a typical deployment.                | ▶ <b>Neutron</b> , OpenStack's network fabric controller, created with the goal of simplifying OpenStack network configuration.            |
| ▶ <b>Cinder</b> , the Block Storage service, designed to present storage resources to end users that can be consumed by Nova.      | ▶ <b>Keystone</b> , the identity authentication service, through which all requests must go, much like Amazon's IAM service.               |
| ▶ <b>Ceilometer</b> , the Telemetry service that collects and meters event data related to OpenStack that can be used for billing. | ▶ <b>Heat</b> , the orchestration engine that launches multiple composite cloud applications based on templates in the form of text files. |

## Monitor Orchestration Systems

Increasingly, software deployment requires an orchestration system to “translate” a logical application blueprint into physical containers. Common orchestration systems include, for example, Heat. Some argue that the orchestration system is even more important than the containers. The actual containers matter only for the short time that they exist while your orchestration matters for the life of its usefulness.

Loom Systems leverages orchestration metadata to dynamically aggregate container and application logs and metrics. Depending on your orchestration tool, you probably have multiple layers that you’d like to drill into. With Loom Systems’ OpenStack integration, you have access to the logs and metrics you need to aggregate container and application data, coordinate loads across your Nova cluster, and properly tune your nodes. Your logs and metrics will no longer be a black box.



## API Monitoring

In OpenStack environments, APIs are the only elements of a service that are exposed to other teams. As a result, API monitoring is critical for the organization’s SLA. Loom Systems goes beyond binary up and down checks. It automatically understands the most frequently used endpoints and response times since these can be indicative of significant problems, or point to areas that need the most optimization in your system.

## Diagnose & Fix Issues Faster

With Loom Systems’ AI monitoring solution, you’ll automatically receive highly intelligent alerts based on any metric or log structure and you’ll only be notified when it matters. **No more noise.** You’ll get full operational insights without any manual configuration, including instant detection, isolation, and root cause analysis for any anomaly. But more than anything, with detailed information on performance issues and continuous self-learning capabilities, you’ll be able to address issues before they affect the customer experience while minimizing operational costs. **Stop spending time hunting for problems and focus on fixing them.**

Improve MTTT by <b>90%</b>	<b>4X</b> More Proactive	Cut The Noise by <b>93%</b>
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