Cloud Monitoring Manager supports DevOps teams to keep maximum control of their OpenStack Cloud.

OpenStack is complex and highly distributed. Gaining deep insight into such systems is a long process. Integrations with existing monitoring solutions are expensive and time-consuming. As OpenStack systems grow, the massive amount of generated monitoring and log data may lead to severe performance problems in traditional monitoring tools.

Fujitsu Software Cloud Monitoring Manager, CMM, is an entirely open software solution that provides all the means to collect, store, visualise and analyse the monitoring and log data of a productive OpenStack system. Extensively tested with selected target distributions, it provides a stable, enterprise-ready monitoring and log management solution avoiding tedious integration work, which is required by traditional monitoring tools. Its scalable architecture is capable of mastering both medium and large-size OpenStack deployments.

CMM is based on open source software, using the official “big tent” OpenStack project Monasca as the core technology. This makes it an optimal solution for enterprise-grade OpenStack monitoring.

The Cloud is growing in complexity. Managing the Cloud becomes increasingly difficult. CMM supports DevOps teams to keep maximum control of their OpenStack Cloud.

Do you want to manage, track and optimize your Cloud infrastructure?

Can you increase your revenues by proposing an optimized resource utilization to users?

Would you like to provide a single monitoring solution to all Cloud users?

Is your operating system working efficiently?

Are the newly deployed applications consuming too many resources?

Can you analyse and compare the performance of your data centres?
OpenStack Monitoring
- Pre-configured to collect all important data on OpenStack services, infrastructure and user workloads
- Scalable technologies and high-performance data processing
- Efficient data storage for historic data
- Configurable metrics combined with alarms and notifications
- Powerful dashboards for visualizing the health and status of Cloud resources
- Ensure availability and high quality of the OpenStack Cloud
- Support the growth of data centres through high levels of scalability
- Gain deep insights into the system by advanced data analysis

Log Management
- Based on Elasticsearch, Logstash and Kibana
- State-of-the-art technologies for searching and filtering log data
- Powerful graphical analysis
- Scalable architecture for high log throughput
- Identify problems early and find the root cause quickly
- Minimize time-to-fix: avoid downtimes and negative customer impact

Monitoring-as-a-Service
- VM monitoring for end users
- Increase the value proposition of an OpenStack Cloud offering
- Drive the degree of automation for end users

Multi-tenancy
- Application of the OpenStack tenant model
- Secure isolation of data
- Collaborative team work via OpenStack projects
- One monitoring service for all OpenStack users

Open Source
- All components based on open-source software
- Deliver the reliability, performance and high quality for production
- Transparency, control, no vendor lock-in
Topics

Fujitsu supports you in integrating Monasca into your OpenStack Cloud, developing the features you need and providing training to get the best out of Monasca.

CMM provides an intelligent presentation of real-time and historic data, which is an effective method to gain deep insight into the status of a system. This comprises the recognition of trends and anomalies, which is fundamental in detecting and avoiding errors or a lack of resources.

A large-scale OpenStack system may produce massive amounts of log data depending on its size and configuration. The sources of the log data are distributed over multiple services that may run on a large number of nodes. A common way to tackle this problem is to introduce a centralized log management tool. It features a state-of-the-art search engine, allowing efficient search queries on the entire collection of log records, and a dashboard for powerful graphical representation and analysis. CMM combines the two worlds of metrics and logs, giving the users one system for total control of their OpenStack Cloud.

"If I have seen further, it is by standing on the shoulders of giants."

Isaac Newton
## Technical details

### Monitoring Server

<table>
<thead>
<tr>
<th>Hardware</th>
<th>FUJITSU Server PRIMERGY RX, BX and TX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td>CPU: Intel® Xeon® E5-2630 v4, 2.20 GHz or higher</td>
</tr>
<tr>
<td></td>
<td>Memory: min. 32 GB, recommended 64 GB or higher</td>
</tr>
<tr>
<td></td>
<td>Installation directory: 2 GB</td>
</tr>
</tbody>
</table>

### Operating System

| Red Hat         | Red Hat Enterprise Linux 7.4 (for Intel64) (other operating systems available on request) |

### Supported OpenStack Distributions

| Red Hat         | Red Hat Enterprise Linux OpenStack Platform 10 (other platforms available on request) |

### Preset metrics for OpenStack

- System metrics, for example, CPU usage, disk space, or network traffic.
- OpenStack services. The agent can perform specific checks on each process that is part of an OpenStack service.
- Service checks. The agent can check middleware services, for example, MySQL, Kafka, or RabbitMQ.
- HTTP endpoint checks. The agent can perform up/down checks on HTTP endpoints by sending an HTTP request.
- Host alive checks. The agent can perform active checks on a host to determine whether it is alive using ping (ICMP) or SSH.
- Process checks. The agent can check and monitor a process, for example, the number of instances, memory size, or number of threads.
More information

Fujitsu platform solutions
In addition to Fujitsu Cloud Monitoring Manager, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing products
www.fujitsu.com/global/services/computing/
- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

Cloud Management Software

More information
To learn more about Fujitsu Enterprise Service Catalog Manager, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website. www.fujitsu.com/software/cmm

Fujitsu green policy innovation
Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at: www.fujitsu.com/global/about/environment/

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