Research: Consulting Service- Monitoring & Observability SOSIVIO

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SOSIVIO – “Eliminate ambiguity in Kubernetes with a tightly coupled data collection and AI tool. Predict and prevent performance issues”

In terms of benefits:

1. The simplicity of the UI could help teams with minimum k8s knowledge to monitor their environments.
2. Sosivio used application profiling (kind of AI) to suggest a “recommendation” to improve the performance which could be applied live (in most of the cases) directly from the UI (*)
3. Sosivio claims that it has several levels of analysis that will identify potential errors before it happens, unfortunately in our test cases we did not see this prediction. But in their demo they showed a prepared scenario.

In terms of technical usage:

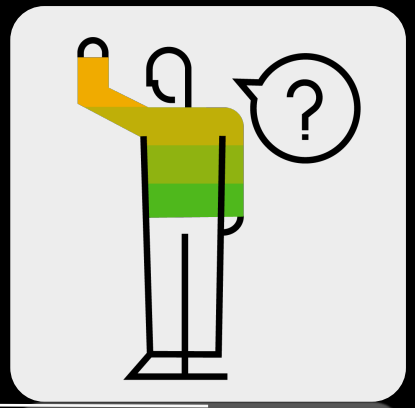
- Sosivio it’s an on-prem tool and not a SAAS.
- Sosivio requires to be installed on any K8s that needs to be monitor and it consumes around 2% to 5% of the total resources in the cluster, which is very low comparing with other tools.
- Sosivio is not intrusive to applications running in the K8S (there is not injection of code)
- The installation/uninstall process is very simple as all microservices are deployed on its own namespace
- Sosivio do not require additional storage as it’s only showing live Metrics (-2 min) and do not collect history metrics

CONS:

1. Currently SOSIVIO is not integrated to a Pipeline (CI/CD) to approve the recommendations (*), therefore the recommendations are not permanent and will be lost if the deployment or pod is recreated, they mentioned that in the future it can be integrated to GitOps Pipeline.
2. In the current release-1.4.1.1, there is limited information for Network performance.

SOSIVIO – Research conclusion

Do you think there is a valid use case for us (GLDS or any other team in SAP) with this solution?



- Scrape metrics from Prometheus/Maia to Dynatrace
- Probably yes, if we (GLDS) are planning to have first level support team for K8S, then SOSIVIO could be useful for this team.
  - only if your team wants to focus in K8S information as SOSIVIO is not capable to get BareMetal, VM's, etc. existing GLDS landscapes included VMs not just K8S.
- Out of the Box, Gardener provides Grafana dashboards & Kubernetes dashboards for analysis, but this requires having some deeper knowledge or expertise on K8S.
- For any or development team in SAP I don't think they will be interested as they already have the tools, e.g., Prometheus, Grafana, Octobus, BTP CLS, Kubernetes Dashboard, etc.

Do you think worthwhile to demo ?

- Yes, the Vendor demo was very useful to understand what their logic on the prediction and the AI.

Do you think Gardener team will be interest ?

- **Probably No** as Gardener team is responsible to provide the framework to deploy standard K8S (via automation in the different cloud providers), so they do not monitor K8S environments their self's , this is an activity for the LoBs who runs the applications.

97% Overall Health

localhost:8088
License status Active

Last Update:
Aug 25th, 8:49 AM

Health Scores

Platform 100%

Application 98%

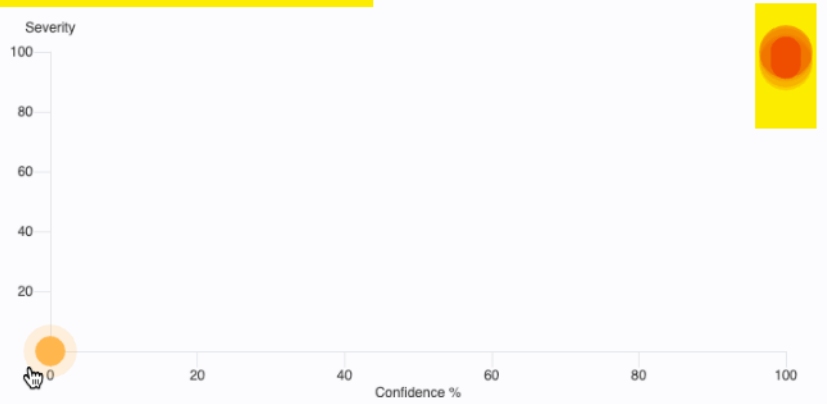
Deployment 93%

Failed Tests

Section	Name	Time
Application	Deployment Pod Running	9:20 AM
Application	Deployment Pod Running	9:20 AM
Application	Deployment Pod Running	9:20 AM
Application	Application Pod Stability	9:20 AM
Application	Application Pod Stability	9:20 AM
Application	Application Pod Stability	9:20 AM
Application	Application Pod Stability	9:20 AM

A.I. Predicted Failures

Total 7



Pods 303 7 5

Nodes 9 0 0

Namespaces 22

Node Load Average

Node Name	Load Avg.
shoot--gtlcdevqa--devqa-us-dev...	1.04
shoot--gtlcdevqa--devqa-us-dev...	0.9
shoot--gtlcdevqa--devqa-us-dev...	0.83
shoot--gtlcdevqa--devqa-us-dev...	0.79
shoot--gtlcdevqa--devqa-us-dev...	0.79
shoot--gtlcdevqa--devqa-us-dev...	0.55
shoot--gtlcdevqa--devqa-us-dev...	0.52

High-Priority Resource Reductions (Over-Allocated)

App Name	Resource Type	Resource ...
sw360	CPU Limit	Over-Alloc...
couchdb-lucene	CPU Limit	Over-Alloc...
correlation-entities	Memory Limit	Over-Alloc...
notifier	Memory Limit	Over-Alloc...
postgres	CPU Limit	Over-Alloc...
couchdb-lucene	CPU Limit	Over-Alloc...
sosiviodb	Memory Limit	Over-Alloc...

High-Priority Resource Additions (Under-Allocated)

App Name	Resource Type	Resource ...
sosivio-node-exporter	CPU Request	Under-Allo...
dynatrace-operator	Memory Request	Under-Allo...
velero	Memory Limit	Under-Allo...

SOSIVIO contacts

- COO Adam Weiner located in SF
- Stephen Thorn solution architects located in the US east coast.
- COO liran cohen <liran@sosiv.io>