Oracle Infrastructure Monitoring Cloud Service

Oracle Infrastructure Monitoring Cloud Service is a software-as-a-service solution that monitors the status and health of your entire IT infrastructure – on-premises or on the cloud – from a single platform. Proactive monitoring across all your infrastructure tiers enables you to be alerted on issues, troubleshoot and resolve these before they impact end users.

Unified Visibility across a Heterogeneous Landscape

Today’s infrastructure is dynamic and ubiquitous. It can reside in your on-premises datacenter or be quickly provisioned on public clouds. The volume and variety of infrastructure can easily overwhelm your IT staff whose job it is to keep it up and running. With Oracle Infrastructure Monitoring, you can unify monitoring across different vendor technologies and locations with a single monitoring solution. Infrastructure Monitoring provides a single holistic view of the health of your entire IT infrastructure with the Enterprise Summary dashboard. It allows you to easily assess current availability status and performance across all your tiers -- hosts, databases, application servers, virtual servers, and load balancers. You can also review open alerts across all your infrastructure and drilldown to further investigate.

Figure 1 Enterprise Summary dashboard allows you to assess current status and performance across all your IT infrastructure.
Monitor Many by Exception

Monitoring large environments can be a challenge. It is not feasible to review performance charts for every single monitored entity. Likewise, viewing only the top N entities with slowest performance will create blind spots in understanding the health of the other parts of your IT estate. The Infrastructure Monitoring Service provides an inclusive view of your entire infrastructure, and is designed to highlight areas of concern. The Status region rolls up current status across all monitored entities, and visually highlights entities that are down. The Alerts region shows total open alerts by severity, with change indicators to let you know if these alerts have been increasing or decreasing over the last 24 hours. An increase in alert count may prompt you to further look at the alerts that came in recently.

IT infrastructure is typically managed by tiers, so tier-specific status and performance summaries are provided. Within each tier (hosts, databases, application servers, virtual servers, load balancers), current status is further broken down by platform type so you can quickly identify which type of entity is down. Scatter plot charts show current performance across all entities within the tier as measured by key performance metrics. In large environments, entities with the heaviest load or slowest performance will be visually seen as outliers in the chart. You can further examine any of these outliers and review performance over time to understand when the performance issue started. You can also switch the scatter plot chart to other performance metrics to review collective performance of the entities within that tier.

Figure 2 Quickly assess performance within a tier using key performance metrics

Simplified Monitoring Through Common Metrics

Infrastructure Monitoring simplifies monitoring by providing you a common set of metrics across different vendor technologies. For example, there are aspects to monitoring a relational database that apply to all types of relational databases and these are expressed through a common set of metrics: Storage Space Utilization, Transaction Rate, Executions Rate, IOPS, etc. Having a common set of metrics reduces the need to learn different vendor-specific metrics that semantically mean the same thing. This also allows you to easily compare performance across all entities of the same kind.
Oracle Management Cloud

• Oracle Infrastructure Monitoring Cloud Service is part of the Oracle Management Cloud
• Oracle Management Cloud (OMC) is a suite of next-generation, integrated monitoring, management and analytics solutions delivered as a service on Oracle Cloud. It is designed for today’s heterogeneous environments across on-premises, Oracle Cloud and third-party cloud services. OMC is built on a horizontally scalable big data platform with high throughput data processing for providing real-time analysis and deep insights across technical and business events.
• Data in OMC is automatically analyzed using machine learning and is correlated across all OMC services, thereby eliminating multiple information silos across end-user and infrastructure data, enabling faster trouble-shooting and providing the ability to run IT like a business.
• OMC eliminates the human effort associated with traditional management toolsets while achieving better performance. Autonomously monitor, detect, triage and proactively resolve issues across hybrid cloud environments, including heterogeneous technology on-premises, in Oracle Cloud and in third-party clouds.

TOP THREE CAPABILITIES

• Comprehensive, intelligent management platform
• Zero-effort operational insights
• Automated preventative and corrective actions

regardless of vendor technology:

In addition to common metrics, vendor-specific metrics are also added to monitor functionality that is specific to a vendor.

Proactive and Flexible Alerting

Lights out, continuous monitoring relies on alerts to be raised when a problem needs your attention. Infrastructure Monitoring automatically generates alerts when an entity is down (e.g. database down, application server down). To generate alerts for other conditions, you can create alert rules where you specify the metrics, comparison operator and thresholds against which the metrics will be evaluated, as well as notifications to be sent if an alert is raised.

When creating alert rules, you also specify the entities on which the alert conditions will be checked. You can leverage the entity type hierarchy to cover a specific set or broad range of entities. For example, you can create alert rules for a specific Oracle database, all MySQL databases, or for all relational databases across vendor types. If you are a sysadmin interested in an alert when any entity is using up CPU or Memory on a machine, you can create an alert rule on all ‘Hosted Targets’, which applies to any type of entity that runs on a host.

Figure 3 Alert rules on Relational Database apply to all relational database vendors

Extensible Monitoring

With the diversity in today’s IT infrastructure, it is important to provide a way to extend monitoring to any IT resource in your environment. You can extend monitoring by
adding custom metrics and/or new entity types. Using REST APIs, you can simply create an instance of any predefined generic type and upload metric data for that type. You can create new entity types and metrics for your new type. These new instances and metric data will be seamlessly integrated within the Infrastructure Monitoring UI and allow you to get the complete visibility into all your IT from within a single platform.