Monitoring-as-a-Service

ABSTRACT

Monitoring-as-a-service is a framework that facilitates the deployment of monitoring functionalities for various other services and applications within the cloud. It offers multiple tools and applications meant to monitor a certain aspect of an application, server, system or any other IT component.

The reason of implementing this service for Intel internal use is huge. In today's microprocessor design world, the complexity of infrastructure is increasing in proportion to the complexity of design projects – the number of sites involved, the number of derivatives and the number of dependent teams. Design Computing Infrastructure is the backbone of any design project. This infrastructure consists of both Engineering Computing (EC) services as well as services from the Design Automation (DA) Teams. Improvements in this area can drive better Time to Market (TTM) and conversely, any issues affecting the infrastructure could have a negative impact on TTM. Currently, there is neither capability that shows the infrastructure dependencies for a design project nor one that provides end to end visibility of the environment status covering these dependencies.

So, "Monitoring-as-a-Service" (MaaS) can provide a holistic 'design project' centric view of the environment, mapping of all infrastructure dependencies globally and the ability to define customized thresholds and criticality levels while leveraging the existing IT monitoring capabilities and teams. Currently IT has many monitoring and management tools like iDSM (Intel Distributed Systems Management), Ganglia and so on which are discrete capabilities. MaaS provides an 'abstraction layer' preventing the need to go to multiple places to put together a global picture of the design infrastructure.

MaaS addresses the following issues:
- **Holistic Monitoring:** The ability to view overall environment health and status and drill-down to a detailed over of a specific issue or failure as well as the ability to include the infrastructure status as part of a more comprehensive status monitoring that may include other DA owned applications and databases.
- **User Experience:** Current monitoring requests have to be sent manually to IT or Design Automation teams may develop their own or users have to refer to multiple systems
- **Proactive Notifications:** After the machines gets crashed, overloaded or hung, then only the problem is notified.
- **MTTR:** Current solutions are loosely coupled so more time is needed to debug the root cause of the problem of failure.
- **Impact Assessment:** Most of the time, IT monitoring teams have to ask the design project contacts 'what is affected by these issues' before deciding on a course of action – many times, understanding the priority and impact can mean the difference between putting an immediate workaround in place versus taking the time to do a long term fix

The web based monitoring portal serves as one stop solution for "Monitoring as a Service". The objective of the portal is to provide the end user a unified platform for monitoring Design infrastructure globally for any design project.