



Intel Helps IT Manage Software Defined Infrastructure

SAN FRANCISCO, May 21, 2014 – Increasingly, cloud service administrators, whether they are IT managers or service providers, are seeking a data center infrastructure that is flexible, agile and efficient enough to manage the rapid delivery of new services. This vision, commonly known as software defined infrastructure (SDI), means that compute, network and storage resources are deployed as services that can reduce deployment time from weeks to minutes.

Intel is helping cloud service administrators pursue this vision with the launch of the Intel® Datacenter Manager: Service Assurance Administrator (Intel DCM: SAA), software that increases data center efficiency by allowing more services to be hosted in an SDI environment and enhancing OpenStack cloud operations. With Intel DCM: SAA, service providers can generate incremental revenue, while IT managers will have more confidence by optimizing how their infrastructure is utilized.

Enterprise workloads require toolsets such as Intel DCM: SAA that ensure workloads are running on a trusted infrastructure and meeting performance expectations in a shared environment. By rapidly provisioning SDI, cloud service administrators can achieve a high level of automation and efficiency with adequate resources to meet target service level objectives, such as availability and minimum amounts of latency. This also means that service level agreement (SLA) violations can quickly be identified to minimize the interruption of infrastructure operations and improve the management of cloud resources.

Agility, Automation and Efficiency

With Intel DCM: SAA, data center operations can be more agile, efficient and automated to ensure that a greater variety of new and legacy applications can be hosted in a multitenant environment supporting multiple business units.

- **Agility:** Improves business service deployment by rapidly importing or creating new applications and deploying workloads in a software-defined infrastructure. This allows workload needs to be matched to their platform, based on their capabilities and capacity, for more efficient cloud utilization. IT can run systems with confidence that they will meet the trust, compliance and overall performance needs as defined by the SLA.
- **Automation:** Assigns applications to resources maintaining SLAs without intervention via the infrastructure. This enables greater provisioning of enterprise workloads with SDI-enabled machines that predict how resources should be used within the data center and monitors machine flavors.
- **Efficiency:** Uses cloud infrastructure, while maintaining enterprise SLAs with capabilities that improve IT's understanding of the way resources are used and consumed. This is an integrated view of the way services are managed and monitored, resulting in more effective service assurance and administration. This also provides IT operations with the tools to quickly identify, report and remediate issues.

Intel Software Innovation

Intel DCM: SAA provides monitoring, remediation and reporting capabilities to help cloud machine instances continue to run and meet the service level objectives.

With trust attestation technology, cloud service administrators can be more confident of their virtual machines running on a shared, multitenant infrastructure, and can help safeguard BIOS and the hypervisor from being compromised on any given server. Cloud service administrators can also place and maintain workloads on infrastructure that meets the specific trust attestation requirements for that application.

Analytics software for identifying potential SLA violations, and taking remedial action, provides a more responsive infrastructure environment and predictable performance. The REST-based API gives the administrator easy access to all this data programmatically, along with a simple to use Web UI console.

Deep platform telemetry hardware in the processor and chipset allows Intel DCM: SAA to offer reliable and efficient resource management across legacy devices in multitenant environments. With this technology, resources can allocate more accurately, taking advantage of underutilized computing cycles while avoiding “noisy neighbors” and other situations that negatively affect the performance of nonrelated applications on the same server. The Intel DCM: SAA telemetry capabilities also provide cloud service administrators with deeper insight into performance metrics between the infrastructure and application.

Key Features

With Intel DCM: SAA, cloud service administrators have several capabilities at their fingertips that enable the effective management of SDI with deep platform telemetry, real-time analytics and service-level assurance.

- **Controller:** Optimizes the allocation of data center resources by collecting deep platform telemetry data from compute node agents and using that information to place application on the best server for optimal performance and assigned trust.
- **Assured performance:** As applications are provisioned in the OpenStack environment, a performance SLA is assigned to the application using an Intel DCM: SAA feature known as a Service Compute Unit (SCU). This SCU specifies the target performance for the application. Intel DCM: SAA then uses the hardware instrumentation to measure the delivered performance and adjust as needed.
- **Trust:** [Intel® Trusted Execution Technology \(Intel® TXT\)](#) obtains a measurement of a server at the time it boots up. The measurement is then used to determine the types of applications that can run on that server, allowing applications to effectively specify the infrastructure trust requirements.

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