Uila | GDS

GDS Services Deploys Uila to Reduce Customer Application Downtime

Uila helps GDS deliver IaaS service with greater levels of customer visibility and satisfaction

Customer Challenges

- IT staff hampered by limited operational visibility in the virtual data center

- Lack of visibility into customer application performance causes support staff to be completely reactive

- Support staff have no easy way to validate whether issues are related to GDS virtual resources, physical infrastructure, networking or to the customer's application

Solution Results

- Data center wide visibility from tenant applications to virtual/physical infrastructure (compute, storage and networking)

- Ability to identify application performance issue root cause to managed resources or to tenant application

- Automatic report generation and delivery saves time and resources and improves customer satisfaction

 "As a world-class high-availability IT service provider, GDS is held in high esteem by its customers. Uila has provided us with the tools to improve those satisfaction levels, while at the same time improving our operational efficiency"

Huadong Sun, IT Service Director, GDS

Established in 2000, GDS Services Ltd. is a high-availability IT service provider with world-class data centers, high-availability IT service experience and an excellent ability to integrate industry chains. GDS provides integrated solutions, consulting, service and training, including data center hosting, IT management and operation outsourcing, business continuity management, disaster recovery and cloud computing services. GDS pays close attention to the challenges faced by its customers and provides reliable, flexible and efficient high-availability data center services to them. GDS serves the banking, insurance, securities, energy, manufacturing, logistics, and Internet industries as well as government agencies.

The Challenge

GDS provides comprehensive IaaS (Infrastructure as a Service) and solutions ranging from virtualization, resilient computing, private cloud computing consulting, and implementation to public cloud, private cloud and even customized mixed cloud solution and prides itself on its high levels of customer satisfaction.

A key challenge in providing managed, virtualized resources to support tenant applications is visibility into the performance of the application, as customers are reluctant for service providers to add agents to the application. In addition, the high degree of virtualization required to economically deliver managed data center services limits the effectiveness of GDS traditional monitoring tools. Together these issues caused GDS IT Operations to be more reactive, having to wait for customer complaints, and to take longer than they believed to be acceptable to determine the root cause of the customer's application issue. GDS attempted to address customer issues by overprovisioning their infrastructure. Unfortunately, not only was this impractical for the scale of GDS' offerings but it also did not resolve their issue.

In addition to the complexity of resolving customer issues, GDS did not have a good way of providing tenant reporting due to the virtual nature of the offering. This forced the IT staff to manually create monthly service and operation reports, resulting in long hours of dedicated work. There was also no easy way to generate tenant requested reports.

Due to the intensive troubleshooting and reporting process, GDS IT operational staff were forced to be reactive rather than proactively improving the IaaS offering or engaging with customers to improve their experience.

The Solution

Uila's innovative virtualization and infrastructure management solution delivers application performance problem root-cause analysis to data center managers rapidly and accurately. Data centers have experienced faster resolution of infrastructure issues affecting application performance, as well as improved uptime and service levels.

The Uila solution was able to immediately identify and resolve four critical GDS IT problems.

- vCPU over provisioning to VMs resulting in overall physical CPUs and Cores under utilized spinning unnecessarily waiting for large number of Cores to be available to allocate to a single VM.   Tenant VMs suffers from high CPU Ready Time (time suspended and VM waiting for physical CPU resources)

- Upon tenant complaint Uila was able to visualize and demonstrate virtual and physical infrastructure health with well provisioned resources metrics. Application transaction details (the exact queries and responses) with slow response time are sent back to tenant for application level troubleshooting.

- Virtual network packet drop at virtual switch level was identified. Root cause was dated VMware virtualization network interface driver that needs upgrade.

- Through monthly reports, periodically repeated spikes of SOAP application response time in a Microsoft Back Office environment was spotted. Uila multi-tier application root cause analysis identified the root cause to the communication between two Active Directory Servers in their Kerberos authentication being often rejected at TCP connection level. Increasing connection pool resources at the Active Directory servers addressed the issue proactively before tenant complains.

Uila Value to GDS

Uila has provided GDS IT and Support Staff with data center wide visibility from tenant applications to virtual/physical infrastructure (compute, storage and networking). GDS IT and Support Staff are now confident and proactive in taking action and engaging with tenant on application support and resource optimization discussion. Uila has allowed GDS IT to quick identify root cause for applications issues, reduce down time and proactively improve application performance. Uila's automatic monthly report generation and delivery saves GDS time and resources and the option to provide more frequent delivery options (weekly or daily) allow GDS to improve customer satisfaction. Uila's analytic intelligence provides expert advise to improve GDS IT operation efficiency