Customer Profile

NovaDBA is a service provider that delivers a wide range of solutions such as database administration (DBA) and business intelligence (BI). NovaDBA’s focus is on helping customers maximize the business value of database environments, including Oracle, SQL and DB2, by improving their performance, security and availability. Relying on their partnership with NETSCOUT® and the use of the nGeniusONE platform, NovaDBA gains the integrated operational views needed to deliver a high level of service that customers today require.

Business Challenge

One of NovaDBA’s customers was test driving a new Enterprise Resource Planning (ERP) service and was experiencing poor performance. During specific periods of the day, the service had slowed to a crawl and was dropping connections to the database subsystem. From the customer’s point of view, everything was indicating there was a database problem - perhaps a slow running query or a SQL Server related problem. However, from the point of view of the database administrators (DBAs), the databases were running smoothly with little traffic. Further analysis was required.

NETSCOUT Solution

Using the nGeniusONE Service Assurance platform with Adaptive Service Intelligence (ASI)™ technology, NovaDBA customer service engineers examined the network traffic patterns during these periods. They did NOT find maxed out connections to the database servers, rather nGeniusONE discovered an alarmingly high volume of dropped and timed out Server Message Block (SMB) requests (thousands per hour) and hundreds of Domain Name Service (DNS) errors.

“These types of problems are a nightmare to figure out without the help of a professional network analysis solution like the nGeniusONE platform. This easily would have taken between 30 to 40 hours of manual work using network statistics instead of the 15 to 30 minutes it took us with nGeniusONE.” – Sr. Infrastructure Consultant – NovaDBA
Further investigation with conversation analysis helped to pinpoint the top ten offenders in DNS and SMB timeouts. There were multiple servers, as well as some ghosts servers, with many requests being sent to decommissioned servers. Further drill-down in the nGeniusONE platform was focused on the domain controllers for the customer, which handle DNS requests for every system on their network, among multiple other roles for the organization.

With the discovery and identification of the “lost queries” that were going to decommissioned servers, deeper analysis and diagnostics were performed to pinpoint some Active Directory (AD) problems and DNS misconfigurations on those domain controllers that were causing the multiple timeouts and access denial errors to various network resources. This had slowed the network infrastructure, thus impacting the performance of the SQL Servers that they were initially investigating. Once the AD service on the domain controllers was configured correctly, performance of the ERP service returned to normal.

**Business Value**

The value of the nGeniusONE solution for NovaDBA and their customer “was apparent as we found the ‘lost queries’ and our main culprits within 15 minutes of using the solution,” said Steven Redmond, senior infrastructure consultant of NovaDBA.

“As you can see, while this started as an investigation of a slow SQL implementation, it turned out to be something completely unrelated to the SQL Server and would have been extremely difficult to pinpoint using traditional investigative techniques. This scenario is not at all unique to SQL Servers and can happen on any database platform,” he explained.

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