DCM Infotech

Case Study

Bigfix Implementation Services

A defense customer reduced costs by more than 19% by ensuring end to end monitoring of their applications and transactions

Our customer is a part of Ministry of defense and is a global company operating from more than 300 locations from which users are conducting their critical and routine transactions on their SAP and other applications.

In the process, there are a lot of transactions which refer from one application database to another and hence make it difficult for the customer to identify and isolate transactions that fail at the time of operation. Since there were so many applications interfacing with each other, to do root cause analysis of what causes failure in the application and transaction level was becoming complicated.

Company Overview

Our customer is a part of Ministry of defense

Globally operating more than 300 locations

The customer is responsible in the context of the country's defense.

IT Environment

Using SAP and other applications.

Oracle and Microsoft SQL on messaging there was Lotus Domino.

Operating Servers: Windows hyper-v Linux VMware Apache Tomcat along with Java

CHALLENGES

Managing diverse applications and platforms like SAP, Dot Net, Windows, and Linux was challenging.

Monitoring and integrating dependencies was challenging.

Finding one tool for integrated monitoring and root cause analysis across environments was difficult.

SOLUTIONS

Mapped the IT landscape with application and infrastructure dependencies.

Mapped IT dependencies across applications and infrastructure.

Set transaction thresholds to track times, failures, and analyze root causes.

IMPACT

Centralized monitoring enables efficient infrastructure and application analysis.

Early monitoring prevents failures, ensures system reliability.

Shift-left policy reduces tickets, saves costs.

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END TO END APPLICATION MONITORING

Customer was looking forward to a solution that can not only monitor their applications or transactions but also to enable them be proactive in their approach of monitoring of applications. Eventually they wanted to be able to do complete monitoring of transactions to avoid application failures and eliminate performance bottlenecks. Once the transaction monitoring had been enabled they wanted to be able to do a root cause analysis of failures.

EXPLORE CHOOSING THE RIGHT SOLUTION

As we mentioned earlier in the customer environment the customer had multiple applications running on different Technologies. The SAP was on IBM AIX while there were other applications which were using Dot net architecture. Each of these architectures had their own underlying operating systems and hypervisors. So while there was AIX for the SAP environment, they had Windows hyper-v Linux VMware Apache Tomcat along with Java. The database site was Oracle and Microsoft SQL on messaging there was Lotus Domino.

To be able to run monitoring in such a heterogeneous environment and also be able to drill down across various infrastructure dependencies and application dependencies was the biggest challenge while architecting the solution

To start off with, we mapped their complete IT landscape of the computer Department that was a complete Service Delivery in mapping their dependencies between applications and the infrastructure. Because of the heterogeneous nature of the customer environment, we decided to use IBM application performance management tools that gives the ability to monitor all web based applications as well as Legacy applications across Unix Windows Linux environment as well as a plethora of databases.

We implemented monitoring for all the operating systems namely Windows Linux and it's and the hypervisors VMware and hyper-v and on AIX LPARs. Next, we moved to the data bases which are predominantly Oracle and Microsoft SQL then graduated to the SAP and web applications along with Lotus Domino. Once the base monitoring was implemented and stabilized we moved ahead with the transaction tracking. CRV started by initiative standard expected transaction X and put those as the thresholds whenever those transaction times were exceeded analysis of the reasons of the failure was started. Based on this data we were able to identify at the top level the expected transaction X and the failures in the base infrastructure.

BENEFITS & IMPACTS

The biggest benefit for the customer damage that he has one single pane of Glass from which he is able to monitor is complete infrastructure as well as applications and transactions. The customer is now able to Deep dive from the top right to the granular level of the infrastructure or go in the reverse direction from the best network and hard disc all the way to the application.

All the alerts are now captured in a common dashboard so there is an executive view of the dashboard which has been created and then operation views so each user depending on his or her role can see their respective dashboards.

Proactive monitoring has been implemented and the response time monitoring of transactions and individual transactions as well as synthetic transactions are getting monitored. This has resulted in now being able to identify failures and performance bottlenecks and also take preemptive measures to handle problems before the customers feel the challenge.

Post implementing this, lot of the customer's problems which used to get escalated 2 Level 3 support are now moving towards level 2 and level 1 he is actually being able to implement a shift left policy. Due to this the requirements for the support tickets have fallen. And the overall up time for the applications has gone up resulting in major savings for the customer.

While the customer had a lot of aspirations of wanting to do proactive monitoring and synthetic monitoring of transactions and we made it possible for them.