END-TO-END INFRASTRUCTURE MONITORING SOFTWARE

CLIENT OVERVIEW

Our client is a provider of Operational Analytics and Visualization solutions for cloud/datacenters that enables IT function of an organization to monitor, and plan complex cloud and data center environments. Our client's operational analytics solution provides near real time correlation, analytics and visualization across legacy and modern NFV, SDN and OpenStack environments. It is focused on end-to-end monitoring of the hardware and software infrastructure through automated correlation within short time and few resources as compared to any traditional mechanism.

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KEY REQUIREMENTS

- Build a standards based monitoring system with APIs to fetch runtime values from various sources like software servers, databases, and applications.
- Develop a mechanism for performance monitoring of networking and storage components.
- Implement a rules engine that would perform correlation for various metric parameters such as Memory, CPU, Disk usage etc.
- Build a system that can easily incorporate new hardware and software with minimal configuration / customization.

KEY CONTRIBUTIONS

- Developed monitoring components and API's using Java standards such as Java Management Extensions and Java Database Connectivity.
- Designed and implemented key performance indicators (KPIs) tracking tools like Apache-Cassandra, Weblogic.
- Defined metric to capture key health indicators and acceptable threshold values/range for each health indicator.
- Implemented an on-screen alert generation functionality based on the metric data and acceptable threshold ranges/values metadata stored in MySQL datastore.
- Built monitoring component with the required visualization by retrieving software component details related to General Information, Metric Definition, Accessing Metric Data, Accessing Event Logs, and Alert Generation.
- On-screen alerts functionality was incorporated in the system for the users.
- Implemented Vert.x framework as a message bus for distributed communication across the platform in the form of events and event handlers.

KEY BENEFITS

- Ensured business continuity through product monitoring system eliminated manual management of parameters for prospective hardware and software failures.

- Reduced system outages by 23%.

- Improved productivity of IT staff by 35%.

- Reduced capital investment in IT infrastructure monitoring by 30%.

- Improved financial savings on business processes as well as decision-making owing to minimal datacentre downtime.

- Enhanced system flexibility by incorporating connection pools for various data sources.

- Centralized management system ensured secured and controlled access to the data, no data leaks and improved mean time to repair.

HIGH LEVEL ARCHITECTURE
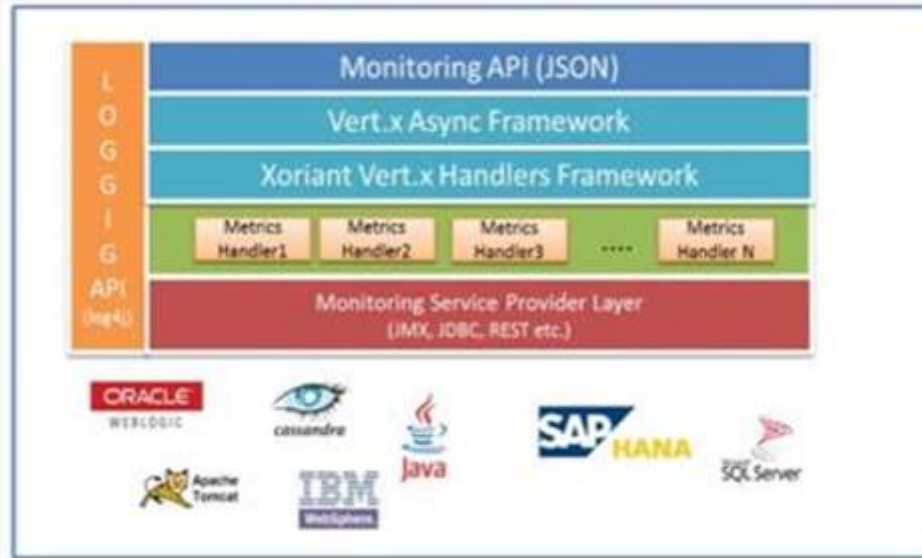
TECHNOLOGY STACK

- Oracle WebLogic
- Apache Tomcat
- Cassandra

- SQL Server
- Java JVM
- Vert.x

About Xoriant:

Xoriant Corporation is a Product Development, Engineering and Consulting Services Company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2000 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.