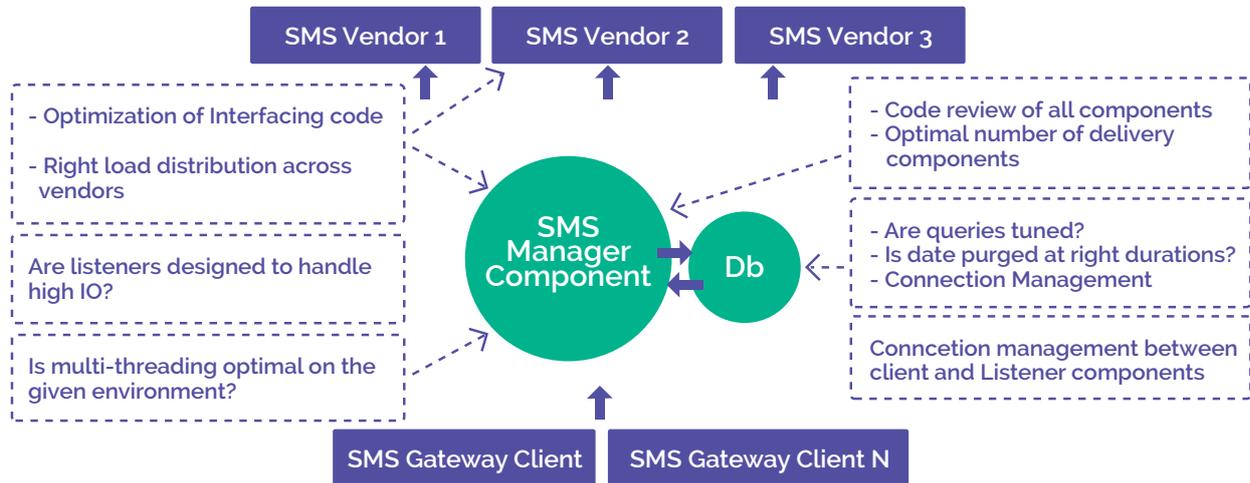


P-A-S-S™ Consulting – 200% increase in throughput for SMS gateway without hardware augmentation

Challenge : Improving the performance of SMS Gateway choking on heavy traffic (1 MILLION+ SMSs in a 6 hour window)



Results:

200%

increase in SMS throughput without any hardware augmentation.

80%

Database load reduction Resulting in significant response time improvement

A large financial institution had a single gateway handling the SMS traffic of all its divisions, including banking, insurance and stock trading. The system was expected to handle more than 1 million messages a day, instead of an expected delivery time of under 30 seconds for a message, it often took 5 minutes for an SMS to be delivered.

Avekshaa's Solution :

The Avekshaa team conducted a comprehensive audit leveraging its P-A-S-S™ platform to implement a strategy for optimizing the performance of the SMS gateway. This included analysing the system configuration and the current load patterns. Key messaging components across the tech stack were examined with a view to optimizing the message route in various ways.

Additionally, vendor interfaces used by the SMS gateway were monitored for their performance, and the execution environment (the system hardware and runtime layers) was reviewed for threading and memory related issues, and bottlenecks in the CPU, disk and network utilization. The Avekshaa team produced a detailed audit report along with clear recommendations to address the system's weaknesses.

Results :

Implementing Avekshaa's performance assurance recommendations resulted in a 200% increase in SMS throughput without any hardware augmentation. Optimizing the data retrieval mechanisms reduced the load on the database by more than 80%, thereby drastically improving response times.

Recommendations for further performance improvements included implementing appropriate load balancing techniques as well as an I/O framework specifically designed to handle high volumes of messages.