MIMOS is a strategic agency under the Ministry of Science, Technology & Innovation of Malaysia. MIMOS pursues exploratory and industry-driven applied research through multi-stakeholder smart partnerships with universities, research institutes, Government and industries with a focus on frontier technologies.

MIMOS’ applied research areas, based on real world trends, are cyberspace security, encryption systems, grid computing, communication technologies, MEMS/NEMS, advanced informatics, knowledge technology and micro energy. Recently, the Knowledge Technology lab started work on a new project aimed at delivering extreme enhancements to existing search engine capabilities with the use of semantics. This was MIMOS’ first project developed using service-oriented architecture (SOA).

Facing a Challenge under Strict Deadlines
The Testing Department of Software Development and Central Engineering (SDCE) at MIMOS was assigned to test every component of the search engine capabilities enhancement project in its Knowledge Technology research area. This project entailed about 5 applications with approximately 20 components.

The many components that make up the applications enable functionality that includes searching and data mining a main database. The Testing department’s SOA team—made up of just seven people—faced a strict deadline. All of the components needed to be completely tested within five months. Along with learning and thoroughly understanding every single component, testing activities included writing test cases for each component, testing the functionalities of each component and testing the connectivity between components.

Without automation in place, the small team had a big job ahead of them. They needed to manually test each component—one at a time. The MIMOS SOA Test team had to find a way to master and expedite the testing of the components. The daunting testing tasks prompted a search for an automated testing solution.

Automating with Ease
When compared against both open source tools and other testing products, Redzuan Abdullah, Senior Manager, MIMOS Testing Department states, “Parasoft SOA Quality Solution won hands down.” He emphasized that Parasoft not only offers more functionality, but also quality support and training.

“Weighed against other testing products,” Redzuan goes on, “there are certain features that Parasoft’s SOA solution offers in its standard package that other products don’t, like security testing.”
Upon their selection of Parasoft SOA Quality Solution, the Testing Department of SDCE started its deployment and implementation. Zakaria Alli, MIMOS Staff Engineer, recalls the deployment process, “It was very easy. It only took two weeks to deploy. We also had five days of comprehensive training to learn the solution.”

Discussing the learning curve of Parasoft SOA Quality Solution, Azmir Abdullah, MIMOS Test Engineer, affirm,”It has a friendly user interface and is easy to understand. We were able to catch on quickly.”

**Reducing Time, Cutting Costs, and Maintaining High Quality**
Parasoft SOA Quality Solution has been fully implemented at MIMOS since August 2007. Redzuan speaks about his team’s experience thus far. He says, “The time that it took us to test the components was approximately cut in half. It would have taken us twice as long if we had to do it manually. The scope of learning the components developed by the Knowledge Technology research area team was greatly reduced as well.”

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In addition to saving time, Parasoft SOA Quality Solution cut costs and helped MIMOS sustain high quality output. Regarding the cost reduction for MIMOS, Redzuan explains, “We were able to test with our current resources rather than getting additional help to do it manually.” Redzuan goes on, “Of course, when it comes to quality, there should not be any issues, thanks to the automated nature of Parasoft SOA Quality Solution.”