Parasoft Service Virtualization Eliminates Dependencies for Faster, Earlier, and More Complete Testing

To accelerate application release cycles, KPN needed to address a critical bottleneck in the testing process. Their end-to-end test scenarios interacted with dependencies controlled by other divisions and external entities, and gaining access to the required dependencies was a slow and frustrating process. Due to these test environment access constraints, testing efforts were regularly delayed and cut short. "Using Parasoft Service Virtualization to simulate the behavior of these dependencies, KPN can now test earlier, faster, and more completely—accelerating time to market while reducing application risks" said Everhard Wienke, Manager of Development at KPN-ITNS.

The Challenge: Eliminating External Constraints for Efficient Testing

The KPN ITNS division facilitates Internet, television and network services via fiberglass. KPN-IT NS provides wholesale services for a range of ISPs throughout the Netherlands. They serve a rapidly-growing customer base.

KPN's current corporate focus is to strengthen market position by more rapidly responding to the constant changes and trends in the telecom and IT sector. For the ITNS division, this means accelerating the delivery of software innovations that improve quality while enhancing the available services. Their primary responsibility is evolving the AXE application for facilitating DSL/Fiber-optic connection and services. This application processes all orders requested by their vast user base.

Testing end-to-end transactions originating from the AXE application requires access to a number of dependencies outside of the ITNS division. When KPN approached Parasoft, the amount of testing that could be performed in any given test cycle was limited by the availability of resources in divisions and organizations beyond their "geo-political control." Due to the coordination required between ITNS and other KPN divisions, the delay between planning and executing a single test case could be up to a week. Not surprisingly, their testing process was often delayed and there was insufficient time to complete the expected breadth and depth of testing.

To accelerate delivery of new functionality that satisfied their strict quality standards, the division needed a way to move beyond these test environment access constraints. They needed easy access to a complete test environment so they could begin testing as soon as they were ready—and continue testing until their test plan was fully completed.

Service Virtualization Enables the Team to Test Faster, Earlier, and More Completely

Parasoft Service Virtualization enabled KPN to eliminate these test environment access constraints. With constrained dependencies replaced by easy-to-use "virtual assets" providing realistic responses, the team could test faster, earlier, and more completely. Automated regression testing, which was not feasible in the past, could now become an integral part of their testing process.

The initial focus of KPN's service virtualization efforts centered on creating virtual assets emulating the synchronous responses and asynchronous status updates from their Wholesale Broadband Access (WBA) test environment. These virtual assets eliminated the need for the time-consuming coordination between ITNS and the WBA environment. As a result, test scenarios that previously took weeks to set up can now be started in a matter of minutes. Removing this bottleneck has significantly increased the amount of testing that can be completed in each release cycle.

After this initial success with service virtualization, KPN further increased the efficiency of their testing process by creating virtual assets that simulate the behavior of additional third-party applications they need to access for testing purposes. Now that team has unconstrained access to key dependencies, testing has become a much more efficient (and less frustrating) process.

Extending Service Virtualization to the Development Team

KPN is currently introducing service virtualization across the ITNS development teams. Soon, the entire development team will have flexible, continuous access to the same set of virtual assets and simulated test environments that have become so central to the testing team's efforts.

KPN expects that extending their service virtualization adoption to the development team will lead to earlier discovery of software defects and increased optimization of the software delivery process.
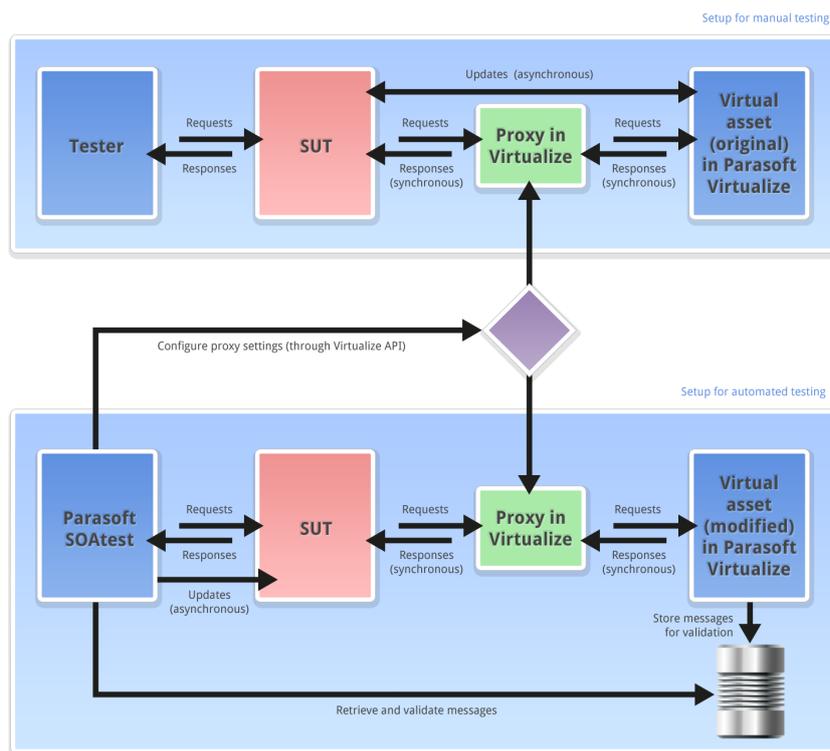
Real Results: Reduced Risks with Accelerated Time to Market

Overall, Parasoft Service Virtualization has helped KPN accelerate delivery cycles as well as improve software quality. They have reduced costs and boosted morale by removing a major source of frustration across their group.

Jenny van den Broek, Test Manager at KPN-ITNS concludes: "Parasoft Service Virtualization provides the perfect solution to our challenge. Not only have we saved precious time, but we are also able to test more thoroughly."

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