



# Customer Success Story

**KPN ITNS** division facilitates internet, television, and network services via fiberglass. KPN ITNS provides wholesale services for a range of ISPs throughout the Netherlands, serving a rapidly-growing customer base.

## THE CHALLENGE

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.

## THE SOLUTION

Parasoft Virtualize now helps KPN accelerate delivery cycles and improve software quality. They have reduced costs and boosted morale by removing a major source of frustration across their group.

### Eliminating External Constraints for Efficient Testing

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.

### Using Service Virtualization to Remove Dependencies and Test More Completely

Parasoft Virtualize enabled KPN to eliminate the access constraints of these test environments. With constrained dependencies replaced by easy-to-use virtual assets providing realistic responses, the team could test faster, earlier, and more completely. Automated

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Using Parasoft Virtualize to simulate the behavior of dependencies, KPN can now test earlier, faster, and more completely — accelerating time-to-market while reducing application risks.

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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.**

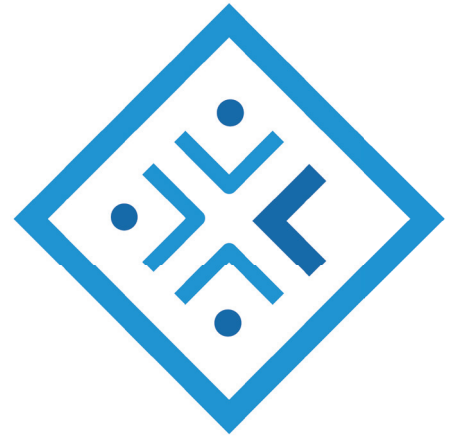
After this initial success with service virtualization, KPN further increased the efficiency of their testing process by creating virtual assets that simulated the behavior of additional third-party applications they

need to access for testing purposes. Once the team had unconstrained access to key dependencies, testing became a much more efficient (and less frustrating) process.

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.

Overall, Parasoft Virtualize 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.



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**Parasoft Virtualize** provides the perfect solution to our challenge. Not only have we saved precious time, but we are also able to test more thoroughly.

- Jenny van den Broek, Test Manager at KPN ITNS

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## ABOUT PARASOFT

Parasoft helps organizations perfect today's highly-connected applications by automating time-consuming testing tasks and providing management with intelligent analytics necessary to focus on what matters. Parasoft's technologies reduce the time, effort, and cost of delivering secure, reliable, and compliant software, by integrating static and runtime analysis; unit, functional, and API testing; and service virtualization. With developer testing tools, manager reporting/analytics, and executive dashboarding, Parasoft supports software organizations with the innovative tools they need to successfully develop and deploy applications in the embedded, enterprise, and IoT markets, all while enabling today's most strategic development initiatives — agile, continuous testing, DevOps, and security.

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