

TAKT Engine for Telecoms and Media

Automated testing accelerates the validation of new products and services



As the complexity of devices such as set-top boxes (TV decoders) increases, so does the potential for faults and the importance of rigorous testing to ensure market readiness.

Are your customers receiving the best user experience?

End user satisfaction is critical to success in Telecoms and Media. However, increasingly sophisticated and interactive audiovisual services, applications and equipment demand ever more expensive and complex test phases. This can slow down the regular release of innovative user-friendly products and features.

Now there's a new way to speed up your time-consuming testing. TAKT (Test Automation & Knowledge Tools) Engine from Sogeti ensures you get to market quickly and cost effectively, without compromising quality and accuracy.



Reduce the workload for non-regression testing by up to 60% when you test and validate your equipment, services and applications from a true user perspective.

Test better, test faster, and cut costs

TAKT Engine is a faster, more thorough and cost-effective alternative to manual testing. A test automation solution, it can double the global volume of your functional tests and reduce the time needed to generate and execute test scripts.

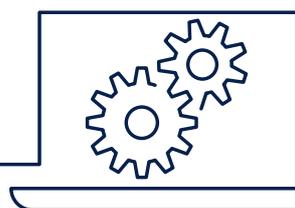
With TAKT Engine you become the user. It is based on unique technology that reproduces the behavior of users when they're using their domestic equipment, such as a set-top box and TV, or internet access box and computer. It is ideal for multi-play operators, internet service providers, content and services broadcasters, box manufacturers, and technical component (application, portal, access control, etc.) developers.

Using automated multiservice test scenarios, TAKT Engine measures the actual quality of the service provided. It achieves this by accessing service platforms in the same way as an end user.

The result? You get to market quickly and cost effectively with products and services of the highest quality.

TAKT Engine allows you to:

- Shorten test runs while increasing test coverage
- Optimize the use of your resources by focusing on value-added activities, such as the definition of test strategies and analysis of test run results
- Reduce the time-to-market of your new services, applications and devices by automating tests before they are put into production
- Ensure and optimize the non-regression of new versions and allow tests to be run continuously on your services, applications and equipment during production
- Automatically generate test reports, with screenshots and evidence of the progress of each test, to instantly identify faults encountered by end users
- Connect to other testing tools in your environment.



TAKT Engine is an innovative and exciting response to the rapid changes in Telecoms & Media industry. These include convergence between service providers and the media, with triple or quadruple-play 'box' solutions, growth in the optical fiber market, and development of video on demand (VoD) services.

How TAKT Engine works

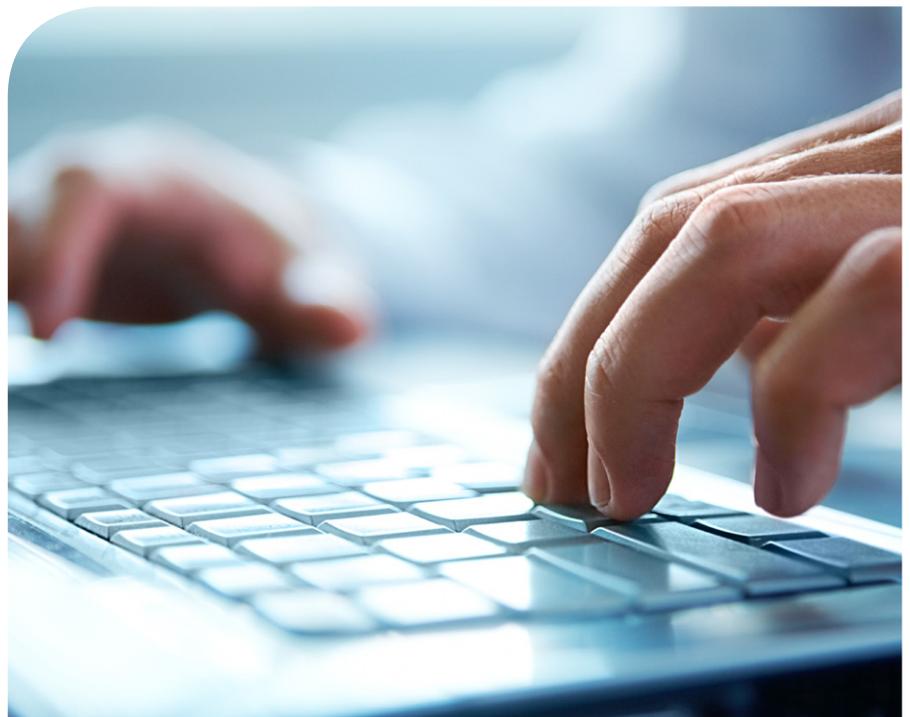
TAKT Engine takes an innovative approach to understanding the user experience. It runs automated test scenarios that mimic human behavior. It operates on graphical, audio and video user interfaces, databases, network protocols and computer files.

Whatever the device being tested, TAKT Engine:

- Connects to the device, such as a set-top box, computer, etc.
- Takes control of the human machine interface (HMI), such as the keyboard, mouse, or remote control
- Accesses services through the same graphical user interface (GUI) as users, such as TV screens and internet browsers.

For example, in the case of a set-top box:

- TAKT Engine controls the set-top box using an infrared remote control box acting as the remote control
- It "watches" TV and changes channels like a TV viewer
- The engine continuously tests the set-top box's behavior and analyzes any deviations from predefined test scenarios.



What TAKT Engine tests

Using a functional validation approach, TAKT Engine provides quality assurance for:

- Tests involving automation, such as black-box type functional testing and non-regression testing, as well as cross OS and browser testing, and stress, endurance and performance tests
- Digital TV decoders (set-top box), including validation of software updates, channel installation, intensive use via the GUI, and on-the-fly detection of regressions caused by application updates
- Internet access gateways (gateway box), including functional validation of user-accessible settings management, connections, and equipment robustness, and automatic validation for systematic testing, such as all possible settings for wireless connection modes
- Content on demand supply portals (VOD/COD), including end-to-end validation of the film purchasing process through a test portal, and automatic validation of advanced testing scenarios for the entire distribution system.

More than an off the-shelf solution

TAKT Engine is not just a commercial software solution. Sogeti puts its professional test teams at your disposal to give you a decisive advantage in your test automation projects:

- Analysis of the maturity level of your testing processes and provision of an improvement process in accordance with the TPI® (Test Process Improvement) methodology
- Test automation consulting and deployment support, to help you identify what, how and when to test, what organization and skills you need to have in place, and how to handle maintenance
- Customization of the TAKT Engine solution according to the specifics of your business environment
- Automation testing and script maintenance support services, together with automated testing, audit and best practices consulting services
- Outsourced testing services from Sogeti in accordance with the MTS (Managed Testing Services) model
- Training in the use of TAKT Engine.



When you use TAKT Engine to transform your testing, you're working with the very best.

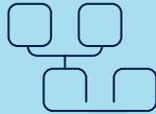
A wealth of features to make you market-ready

TAKT Engine is part of the Sogeti Testing solution based on the TMap® (Test Management Approach) methodology. TMap® is recognized by market experts and analysts, while Capgemini is a global leader for outsourced testing services.

Make sure your products and services are market-ready with TAKT Engine. You will be able to carry out real black-box type tests with a unique combination of features:



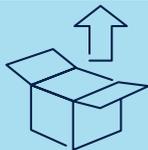
- **Non-intrusive:** the engine operates independently of the product or system being tested, with no need for changes to your IT environment and no drivers to install



- **End-to-end:** control up to 10 interconnected subsystems to test and validate a service end-to-end. For example, TAKT Engine can perform actions on a service platform and analyze the result at the other end of the distribution chain, such as the viewing portal connected to the home network gateway



- **Single script for cross technology testing:** automate the testing of several technologies using just one script. For example you can test the same web page on several versions of web browsers



- **On the fly approach:** carry out non-regression tests with on-the-fly comparisons of two versions of the same box or application



- **Rich media:** operates on graphical, audio and video content, even if included within web page or software component, for example as an advertising banner



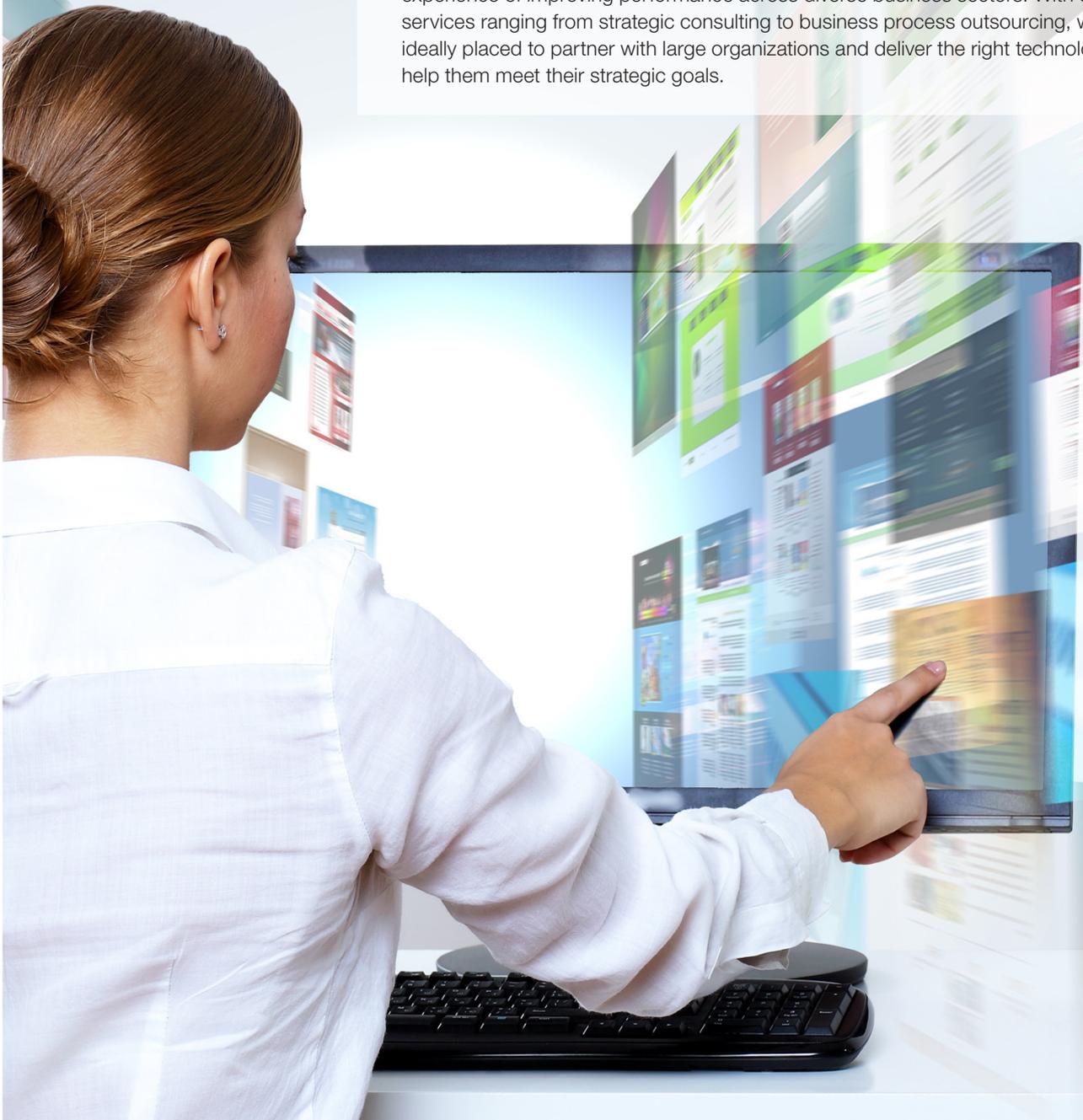
- **Compatibility:** most commercially available test management tools (HP ALM QC, Salome, Excel, etc.) and software continuous integration factories are compatible with TAKT Engine



- **24/7 automated test scenarios:** replicate test scenarios throughout the lifecycle of the product or system tested

Learn More

TAKT Engine has been developed by Sogeti, specialists in providing the Telecoms and Media industry with innovative methodologies and testing tools. Our customers gain access to unique testing skills combined with Capgemini's decades of experience of improving performance across diverse business sectors. With our services ranging from strategic consulting to business process outsourcing, we are ideally placed to partner with large organizations and deliver the right technology to help them meet their strategic goals.





About Capgemini and Sogeti

With more than 130,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2013 global revenues of EUR 10.1 billion. Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™ and draws on Rightshore®, its worldwide delivery model.

Sogeti is a leading provider of technology and software testing, specializing in Application, Infrastructure and Engineering Services. Sogeti offers cutting-edge solutions around Testing, Business Intelligence & Analytics, Mobile, Cloud and Cyber Security. Sogeti brings together more than 20,000 professionals in 15 countries and has a strong local presence in over 100 locations in Europe, USA and India. Sogeti is a wholly-owned subsidiary of Cap Gemini S.A., listed on the Paris Stock Exchange.

Together Capgemini and Sogeti have developed innovative, business-driven quality assurance (QA) and Testing services, combining best-in-class testing methodologies (TMap® and TPI®) to help organizations achieve their testing and QA goals. The Capgemini Group has created one of the largest dedicated testing practices in the world, with over 12,300 test professionals and a further 14,500 application specialists, notably through a common center of excellence with testing specialists developed in India.

The Ready2Series is a new label from Capgemini and Sogeti, bringing a range of innovative products which we commit to implement quickly, affordably, and at low risk.

For more information, please visit:

www.capgemini.com/ready2series
www.sogeti.com