

accenture

StormTest



High performance. Delivered.

# Connected TV Application Testing

With Accenture StormTest

## Keeping Pace with Massive Growth

The Connected TV market is experiencing unprecedented, explosive growth. As a result, many of the services traditionally delivered via a separate Set-Top Box (STB) are increasingly being delivered directly to Connected TVs. To date these devices have been mostly excluded from conventional test automation techniques. Testing of these applications generally has been done manually—which limits test coverage, reduces confidence levels in test accuracy, and adds time to the process. To keep pace with the continued proliferation of new Connected TV Operating System (OS) platforms, Video Service Providers must address several key application testing challenges:

Managing the workload associated with testing services across multiple models

- Eliminating application testing outside of test frameworks to significantly reduce application release time
- Finding a better alternative to current methods of automating TV application tests, which are difficult to set up and typically generate unreliable and hard-to-replicate test results
- Accommodating disparate TV video outputs to accurately capture A/V during testing

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Comprehensively test new application releases across TV OS platforms while expediting test cycles.

## Automated Connected TV Application Testing

Accenture StormTest from Accenture Digital Video, helps Video Service Providers overcome these obstacles by automating the testing of Connected / Smart TV applications. With StormTest, operators can comprehensively test new application releases across TV OS platforms while expediting test cycles. StormTest helps in reducing the manual effort required to test these applications, captures errors in integrated video log files, and accelerates the release cycle by reusing test scripts across different TV OS platforms.

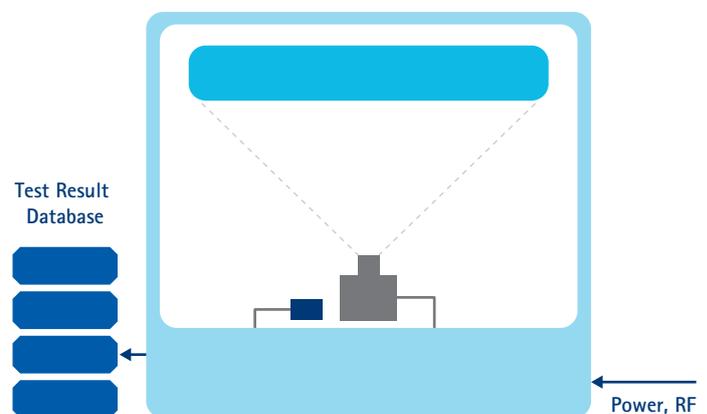
StormTest gives operators a reliable, repeatable, and automated way to dramatically improve the quality of their service delivery to Connected TVs by:

- Applying automated functional, regression, performance and a range of other testing to Connected TV applications
- Executing the same test scripts across TV models
- Providing better feedback to development teams through integrated video logging to quickly isolate and resolve bugs
- Providing frame-accurate performance measurement of applications to allow users to accurately monitor the performance of their device against benchmarks and previous releases
- Adjusting for differences in TV screen size or skew in the placement of the screen through automated calibration of the StormTest optics when a new device is loaded
- Supporting flexible scheduling to dynamically assign tests to run on any TV in the test facility
- Making it easy for testers to run test scripts from any location

StormTest tests a Connected TV via its HT01 hardware, a cabinet housing a fixed high-definition digital camera and the TV under test. The cabinet is "light tight," preventing ambient light from interfering with the capture of the image from the TV screen. It's also adjustable to accommodate any size of TV up to 43", and includes integrated external RF feeds, TV power supply, and an IR blaster that controls the TV. StormTest stores test results in its central database, enabling testers to build comprehensive reports to illustrate trends in test results over time, as well as pinpoint specific failures and probe the related logs to uncover the cause of failures.

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### Accenture StormTest: HT01 Hardware



## Comprehensive, Accurate, and Faster Testing

Connected TV application testing with StormTest delivers powerful benefits to Development and QA teams, who are concerned about functional and non-functional requirements and how they affect the end-user experience; as well as Operations groups responsible for real-time service availability monitoring. Specifically, StormTest:

- Automates manual testing of Connected TV applications, thus freeing up the QA team to focus on fault diagnosis
- Expedites the development test cycles while improving test coverage
- Provides detailed performance metrics for monitoring and enhancing the customer experience
- Leverages existing investment in StormTest to incorporate applications running on Connected TVs
- Supports tests written on one TV to be ported to smaller or larger TV
- Integrates with StormTest video logging for problem isolation and diagnosis

## A True End-to-End Validation Platform

Accenture StormTest uses advanced automation technologies to continuously and actively test new service releases across platforms and devices, in development and deployment. The insights it provides helps organizations to accelerate service innovation, optimize development processes and ultimately improve the viewer Quality of Experience.

### Solution Details

StormTest includes numerous industry-leading features that help service providers dramatically improve Connected TV application testing:

- Optical Character Recognition (OCR) for highly accurate onscreen text capture and comparison with reference text
- Advanced image handling for the comparison of expected versus actual on-screen graphics
- Navigator, an intuitive GUI, simplifies navigation map creation and maintenance
- HD A/V capture and analysis performs detailed A/V analysis, simultaneously and independently for all devices
- Synchronized and integrated video logging combines and synchronizes video file, serial log and test script
- Test scheduler supports granular, integrated, scheduled execution of tests across all test automation units
- Performance measurement frame accurate timing of events such as channel change and on-screen display refresh
- Centralized results storage and reporting provides detailed report generation and export capabilities across all test activities
- Test scripts independent of TV size

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## About Accenture Digital Video

Accenture Digital Video is a business unit within Accenture. We deliver business results for companies where video is of strategic importance, helping them pivot to capture new growth opportunities in an ever changing market. Partnering with clients, we use our agile methodologies, deep skills, and open technology platforms and apply them in every phase of a change journey—from thinking to doing. The end result: more predictability in the face of a complex and volatile landscape. Accenture Digital Video has a 20 year track record in driving video innovation through a global workforce of more than 2,000 dedicated professionals across strategy, delivery, business services and operations, all dedicated to helping clients grow profitably.

## About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world's largest delivery network— Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 375,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at [www.accenture.com](http://www.accenture.com).