

The Accenture logo, featuring the word "accenture" in a white, lowercase, sans-serif font with a blue chevron symbol above the letter 'u'.

accenture

The StormTest logo, featuring a blue circular icon with a white eye-like shape inside, followed by the word "StormTest" in a white, sans-serif font.

StormTest

A large, blue, 3D-style arrow pointing to the right, with a slight shadow and a gradient effect.

High performance. Delivered.

# Mobile Video Application Testing

With Accenture StormTest

## Mobile Devices: the New TV Screen

There's no doubting that mobile devices have become more central to consumers. And more than ever, they're using these devices to both to watch video and to control and interact with video services. That's why it more critical than ever for Video Service Providers to deliver video applications that support consumers watching what they want, on the screen of their choice, at any time of their choosing.

Doing so, however, is not without its challenges—especially when it comes to testing. With today's consumers exhibiting little patience for a less-than-flawless experience, service providers are under immense pressure to improve their mobile video application testing. Among their biggest challenges are:

- Shortening release cycles to test an application's functionality and performance
- Consistently enforcing content and personal entitlements across device platforms
- More effectively testing the interactivity between a mobile application and Set-Top Box (STB), e.g., PVR recording testing
- Minimizing the difficulty and errors associated with synchronizing content play-out between STB and the mobile video application

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## Mobile Video Application Testing

Accenture StormTest, part of Accenture Digital Video, helps Video Service Providers overcome these obstacles by automating the testing of Pay-TV mobile video applications deployed on the Apple iOS and Google Android OS. It simulates user gestures to enable the automated execution of a library of functional and non-functional requirement tests. It helps accelerate release cycles by employing a common test script interface to test video services and different types of inter-device interactions (including device handoff and remote control) to help enhance customer Quality of Experience (QoE).

StormTest gives operators a reliable, repeatable, and automated way to dramatically improve the user QoE by:

- Automating the testing of touch screen-controlled apps
- Using the same test scripting environment for both traditional and OTT-delivered services, thus maximizing the reuse of the test framework
- Tracking application performance to accurately monitor device performance metrics against benchmarks and previous releases
- Incorporating sophisticated OCR and image handling to test A/V outputs and successfully navigate the UI
- Efficiently reusing test libraries across devices
- Supporting integrated video logging to quickly isolate bugs and provide better feedback to development teams
- Coordinating test coverage across software versions and devices
- Evaluating video quality to identify issues that affect the customer experience, including blockiness, blurring, contrast at macro-block frontiers, and jerkiness.

Mobile application testing via StormTest is supported using a Mobile Proxy Server, which interfaces with the app being tested. By using this communication channel, a tester sends "touch" commands—which simulate the touch events on a touch-screen device—to the application. The audio and video from the app under test is captured by the Mobile Proxy Server and routed to the StormTest server to be captured and analyzed by StormTest's standard tools.

Importantly, no extra test code or plugins are needed to test applications on iOS devices; the app simply must be signed with a developer profile. StormTest supports testing of Android applications, including built-in system applications. This supports the development of complex tests, including those involving the changing of device settings.

## Comprehensive, Accurate, and Faster Testing

Mobile video app testing with StormTest delivers powerful benefits to Development and Quality Assurance (QA) teams, who are concerned about functional and non-functional requirements and how they affect the end-user QoE; as well as Operations groups responsible for real-time service availability monitoring. Specifically, StormTest:

- Automates manual testing of mobile video applications, thus freeing up the QA team to focus on fault diagnosis
- Uses the same test script interface for all multiscreen Customer Premises Equipment (CPE) devices and applications
- Simplifies complex test scenarios involving the interaction of receiver devices and applications
- Coordinates testing between application and Set-Top Box (STB) software, thus bringing all testing into the existing test framework
- Accelerates problem isolation and diagnosis with integrated video logging

Supports the development of complex tests, including those involving the changing of device settings.

## A True End-to-End Validation Platform

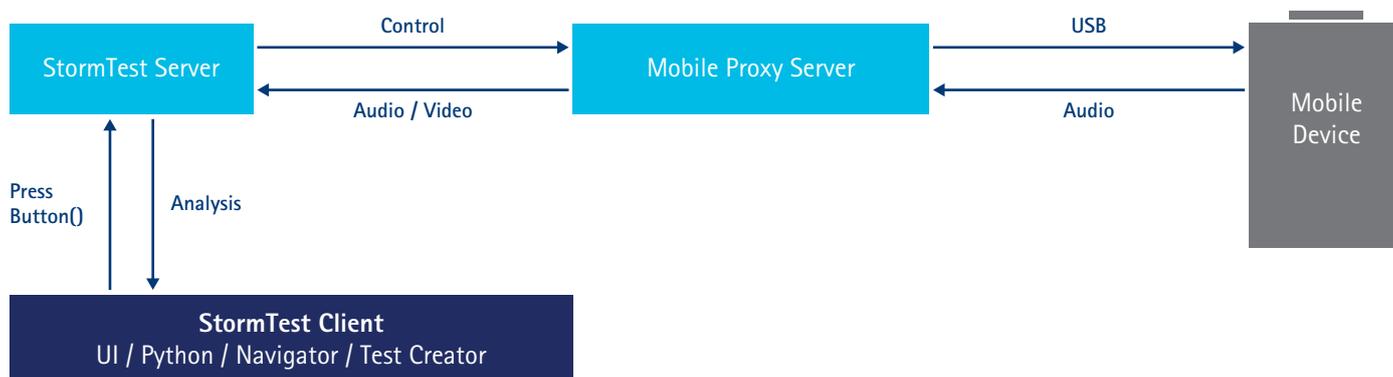
Accenture StormTest uses advanced automation technologies to continuously and actively test new service releases across platforms and devices, in development and deployment. The insights it provides helps organizations to accelerate service innovation, optimize development processes and ultimately improve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

### Solution Details

StormTest includes numerous advanced features that supports improved mobile video applications testing:

- HD A/V capture and analysis performs detailed A/V analysis, simultaneously and independently for all devices
- OCR provides highly accurate on-screen text capture and comparison with reference text
- Advanced image handling to compare expected versus actual on-screen graphics
- Synchronized and integrated video logging combines and synchronizes video file, serial log and test script
- Navigator, an intuitive GUI, simplifies navigation map creation and maintenance
- Centralized results storage and reporting provides detailed report generation and export capabilities across all test activities
- Facility-wide test scheduling supports numerous types of scheduling from one-off to regular

## Accenture StormTest: Mobile Video



## 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).