

## The Key to Google TV and its Verification

Source : Allion Test Labs, Inc

Being one of the most anticipated high-tech gadgets for this year, “Google TV” is no longer a visionary invention. It has finally made its debut appearance at the Google I/O Convention earlier in May. Google TV is an integrated system which comprises the functions of a PC, Media Player and Internet Device all in one. While most of the details are yet to be released (including the SDK – Software Development Kit), the actual product will not be shipped until the end of this year. Nonetheless, through previewing its design structures we should be able to forecast how Google TV will withstand market competitions with its breakthrough design concepts:

First, let’s take a look at Google TV’s concept in design structures:



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Google TV is built upon the structure of complex **Hardware, Software, Technology Standards (Specifications), and Content Resources**. The combination of each structure needs to work seamlessly to achieve optimum performance; the compatibility and interoperability of each device or element must therefore become critical and essential.

### Hardware

Google TV’s core structure is built upon multiple hardware devices as the operating

environment; therefore, the interoperability among the connecting devices becomes significant. For example, an Android mobile phone, wireless keyboard and a mouse can all be connected to a Google TV. It is the manufacturers' responsibility to make sure that all devices can be connected properly and operable on the Google TV platform.

### **Software**

Google TV adopts its own Android and Chrome as its primary Operating System and Search Engine. With its strong intention to replace the functions of a PC, some of key checkpoints such as OS stability, application multitasking, and the friendliness to switch between a PC and TV should be thoroughly tested. The biggest challenge will remain with the release of the SDK, when a large quantity of software starts to emerge. Application testing procedures will become the key factor in determining its success.

### **Technology Standards**

Many of the leading industry standards in wired and wireless connecting technologies are specified in the Google TV devices (i.e. HDMI, DisplayPort, Wi-Fi, Bluetooth, DLNA and more). Google TV is also designed to support the playback of cutting edge video and audio in high resolution. Whether it be in 3D Graphics, MPEG4 Streaming or the proper decoding of HDCP, meeting the basic compliance test guidelines to achieve its compliance certificate should all be the minimum requirement during the QA stage.

### **Content Resources**

Finally, streaming content should be able to be downloaded, decoded and played back smoothly at the specified quality level. The content providers such as Hulu, YouTube and others should endeavor to streamline the test procedure in order to maintain the program and broadcasting quality.

An innovative product without quality will only remain visionary. To many people, Google TV is the first step for a PC and TV to finally integrate as one into our living room. Unlike many transitional products in the past, the Google TV adopts leading edge technologies and is aiming to revolutionize the way people watch and utilize television. It will only be meaningful when each and every feature can impeccably work to prove that Google TV is not just another flash in the pan product.