



IMS Performance Benchmark

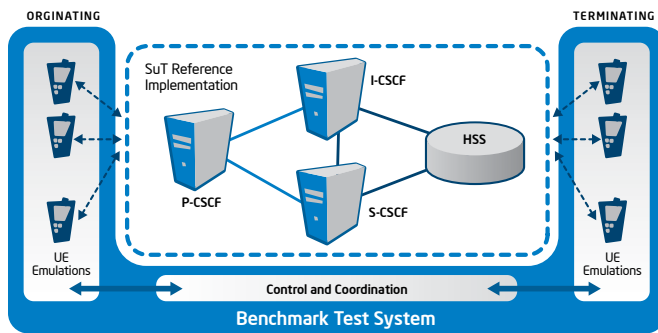
Building Out the Promise of Next-Generation Service Solutions

Overview

Top-tier service providers and equipment manufacturers in the telecom industry are embracing IP Multimedia Subsystem (IMS) as the architecture of choice for building next-generation wireless, wireline and converged service networks. The IMS promise is compelling: Service providers who deploy IMS can quickly and cost-effectively add new real-time IP multimedia services to their existing offerings. Plus, they can integrate solutions from numerous vendors into their offerings and deliver all the services that consumers want today in one rich package.

The problem is, service providers have had no common, reliable way to measure the performance of vendor systems and compare the results side by side. But a new IMS benchmark now makes it possible to choose network components that prove to have a very high performance profile for today's next-generation service solutions.

IMS Performance Benchmark



IMS Benchmark Architecture

Industry-Standard Benchmark

Developed by a standards-setting body called ETSI TISPAN, the IMS benchmark reference architecture is an IP-based model that consists of a test system and a system under test (SUT).

As depicted below, the test system generates user-equipment (UE) workloads and presents those to the SUT. In other words, the test system bombards the system being tested with a large number of simulated scenarios, then collects data on how it performs and reports the results. The scenarios focus on common IMS events associated with registration and de-registration, session set-up or tear-down, and page-mode messaging.

The IMS benchmark is designed to test a complete IMS subsystem, but it also allows for the testing of network sub-components available as discrete hardware and software IMS solutions from various suppliers. For example, hardware manufacturers, independent software vendors (ISVs) and silicon providers such as Intel can substitute the portions of the IMS subsystem that they don't commercially offer with stubs or open source stacks. This type of testing allows vendors to gain a relative understanding of how their sub-components perform from generation to generation, with the potential to optimize performance over time.

For complete details on the IMS/NGN Performance Benchmark (ETSI TS 186.008), visit the ETSI Web site at: <http://pda.etsi.org/pda/queryform.asp>. (Search for keyword 186008.) The specification is available for download in three sections:

- **Part 1:** Core Concepts: [ts_18600801v010101p.pdf](#)
- **Part 2:** Subsystem Configurations and Benchmarks: [ts_18600802v010101p.pdf](#)
- **Part 3:** Traffic Sets and Traffic Profiles: [ts_18600803v010101p.pdf](#)

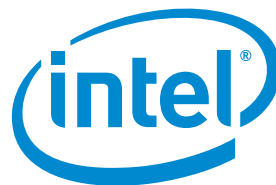
Start Testing Your Solution Today

Telecom service providers and telephony equipment manufacturers who are interested in IMS benchmarking have an easy option available to them.

Intel Corp. recently released an open source software benchmarking test tool designed to help service providers and vendors evaluate IMS and Session Initiation Protocol (SIP) solutions. The Intel® IMS Bench SIPP tool provides a standard way to evaluate solutions using realistic traffic patterns by implementing the ETSI IMS performance benchmark. For more information on this IMS benchmark tool, visit http://sipp.sourceforge.net/ims_bench.

For More Information

Intel has written a technical white paper that describes the first release of the IMS benchmark developed by the ETSI TISPAN working group. Available at www.intel.com/go/ipservices, the paper provides an in-depth explanation of the benchmark architecture, discusses many of the core concepts, and presents a set of sample test results showing the performance of subsequent generations of Intel® architecture platforms running IMS workloads.



www.intel.com/go/ipservices