

## Case Study:

# Beechwoods Software Set-Top Box Integration and Bring-To-Market Process

### Challenge:

Typically, it takes 18 months to bring a new set-top box (STB) to market. Unfortunately, within that time, existing STB hardware has already become obsolete. New fabrication processes and better technology allow for STBs to be made cheaper and more quickly, and there is intense demand for upgraded versions all the time.

Whenever existing software is installed on hardware with new features and capabilities and higher speeds, something is bound to break. The process of integrating existing software with new STB hardware, then testing, debugging, and stabilizing the result, requires an extensive and specialized technical background. Further, bringing an STB to market calls for cooperation between distributed teams and organizations, many of which have conflicting interests.

### Solution:

The engineers at Beechwoods Software have the experience to handle any technical problems that arise during the process of STB integration quickly and completely. They are among the best in the world in dealing with the large, multi-lingual code bases of STB software. The engineering team has a wealth of knowledge on everything from compiler errors and timing holes to deadlocks and even hardware defects. They have expertise working in multi-processor, hyper-threaded, and multi-threaded environments.

Beechwoods steps through the entire process with its clients, from receipt of new hardware through shipment to market. This process includes jumping the Linux kernel to the current state of the art, using the latest compilers, integrating the software, and extensive longevity, stability, and stress testing. The company also provides support for stable products that are already in the marketplace.

Because of its small size and depth of experience, Beechwoods is able to effectively span relationships between vendors with opposing interests. The company brokers agreements, and can make rapid shifts in direction according to the changing needs of vendors and consumers.

### Results:

Beechwoods Software has successfully compressed the time for STB integration from start to ship to just 12 months, a 66% improvement over the industry standard. The company has coordinated its clients' various interests with integrity, debugging confidential source code to make one party's product communicate properly with another's without disclosing any sensitive data.

Beechwoods' technical expertise, speed, and relationship facilitation come together to allow clients to get their products to market ahead of the competition, and in stable condition. In fact, one major client reports that a recent Beechwoods project resulted in the most stable STB platform they've ever received.

