

Ingenuity @work

Speedy, flexible firmware configuration

problem

Consumers have little patience for device unresponsiveness – they want gadgets to start instantly when they flip the switch. Designers also desire quick results in terms of configurable and verifiable base designs that allow fast time to market.

solution

Implementing quick-booting firmware that can Power-On Self-Test (POST), set up I/O devices, and quickly launch the operating system or application code minimizes development time. Design teams can easily configure and verify this type of modular firmware.



BIOS targets diverse markets

Consumer electronics devices pose reliability problems when they hang, display blue screen errors, and require reboot. These high-performance devices also consume a great deal of power and often generate too much heat.

With quick boot times as low as 85 milliseconds, high-performance wire-speed disk I/O services built into the firmware, and power management expertise in confined spaces such as those encountered by electronic entertainment centers, General Software's Embedded BIOS with StrongFrame Technology can improve consumer electronics devices' behavior and extend battery life.

General Software's ability to selectively enable code paths within the BIOS eases the certification process by removing unused code paths during the build, reducing the code coverage burden, and eliminating automatic functionality in POST that might otherwise run unnecessarily on systems that do not use the functionality.

While the purpose of a BIOS in a desktop or notebook computer is to make the system look the same and provide the same behaviors

Quick
facts

General Software, Inc.

Founded: 1990

Management: Craig Husa, president and CEO, and Steve Jones, founder and CTO

Headquarters: Bellevue, Washington

URL: www.gensw.com

across the industry, the purpose of a BIOS in an embedded or targeted IT computer design is to implement specific behavioral policies. As products shift from generalized PCs to more targeted devices, BIOS is moving away from offering the generic set of PC architecture building blocks to application-specific building blocks, such as continuous health monitoring, security, and provisioning functions previously relegated to the operating systems' domain.

General Software's perspective on BIOS is unique because the company handles many different designs with various behavioral requirements. Its primary market segments include large systems like Networked Attached Storage (NAS)/Server Attached Storage (SAN) servers and telecommunications equipment, scaling all the way down to Ultra-Mobile PCs (UMPCs).