ABSTRACT

An apparatus and method for protecting BIOS stored on a direct access storage device (62) into a personal computer system (10). The personal computer system (10) comprises a system processor (26), a system planar (24), a random access main memory (32), a read only memory (36), a protection means and at least one direct access storage device (62). The read only memory (36) includes a first portion of BIOS and data representing the type of system processor (26) and system planar (24) I/O configuration. The first portion of BIOS initializes the system (10) and the direct access storage device (62), and resets the protection means in order to read in a master boot record into the random access memory (32) from a protectable partition on the direct access storage device (62). The master boot record includes a data segment and an executable code segment. The data segment includes data representing system hardware and a system configuration which is supported by the master boot record. The first BIOS portion confirms the master boot record is compatible with the system hardware by verifying that the data from the data segment of the master boot record agrees with the system processor (26), system planar (24), and planar (24) I/O configuration. If the master boot record is compatible with the system hardware, the first BIOS portion vectors the system processor (26) to execute the executable code segment of the master boot record. The executable code segment confirms that the system configuration has not changed and loads in the remaining BIOS portion from the same protectable partition on the direct access storage device (62) into random access memory (32). The executable code segment then verifies the authenticity of the remaining BIOS portion and vectors the system processor (26) to begin executing the BIOS now in random access memory. BIOS, executing in random access memory (32), then activates the protection means to prevent further access to the protectable partition. BIOS boots up the operating system to begin operation of the personal computer system.

This Sheet Has Been Replaced

