

Optiplex 755's

Issue / Problem:

Dell's Optiplex business line computer, running Windows Vista Business and its network card manufactured by Intel, which is built into the MLB (motherboard) and is controlled by the extended BIOS feature, was dropping the network connection consistently. The library had bought 20 of these computers to roll out as replacements for several of their older computers but the new ones couldn't connect to the network due to a bug within the extended BIOS.

Background Information you should know about:

What is the BIOS? The BIOS stands for Basic Input Output System and is the software written to control the MLB (Motherboard). What is the MLB? The MLB is the main logic that connects together all of the computer components such as the HDD (Hard Disk Drive), CPU (Central Processing Unit or brain of the computer), sound card and CD-ROM drive. The extended BIOS is the extra software, which is located on a lot of newer MLB's, and is an extra set of BIOS functions that control parts such as built in network cards (like the ones in this Dell Optiplex 755).

Resolution / How we solved the problem:

There were a couple of workaround issues. The first in line was to try to turn off the features of the extended BIOS for the network card. This is done by hitting the Ctrl+P option at the beginning of the boot process. This takes you into the management of the extended feature. In this case, according to Dell, this feature allows you to control the regular BIOS if you also have the software for this feature installed on say a server in your network. Under normal circumstances, to get into the BIOS you would need to be at the computer to log into it and usually press the F2, DEL, or some other combination of keys. For Dell computers it is usually F2. This extended BIOS feature is so appealing because you can log into the BIOS to all the computers on your network from one central location instead of going to each individual computer. If you have several computers on the network, let's say over 100 then something like this would seem like a no brainer if you need to make changes to the BIOS. But for us, it was the root of our problems. Something that they forgot to write into the code was causing the built in network card to drop connection from the network. This feature was turned off, but it was still dropping its network connection. After further research into the problem I found out I wasn't alone. There were several people who were running into the same issue and all of them determined the only fix was to wait for a new BIOS update from Dell, which would update the Firmware in the BIOS and extended BIOS. One can also put in a new network card and disable the onboard network connection. Luckily for us, Dell was just about to release a new revision for this problem. Once it was out I downloaded it from the support page of Dell's website and rolled out the new BIOS patch to all the computers at this library, and the issue was resolved. If you decide to order a 755 from Dell, make sure you download the newest BIOS revision, A09 or later and update your BIOS's so you don't run into this issue. It is recommended by several computer techs and manufacturers to always update to the latest BIOS revisions.