

## Expected Issue

Computer will not boot into the desktop. When turning the computer on from the standby state, upon boot screen after 5-10 minutes the computer screen flashes blacking up. In the weeks preceding the client reports that the computer is acting "fussy" sometimes taking up to 10 minutes. The client believed that the computer might be evidence of viruses and malicious software attack. The client did not make any difference.

## Diagnosis

There are two causes based with the computer hardware that were causing the problem:

1. One of the memory modules malfunctioning. The client's computer memory was composed of the modules and quite a few computer and the first computer booting then started displaying many of the same issues the client reported experiencing. The computer would boot up at random times and generally was unstable.
2. Hard drive has some bad sectors. This is the reason the computer would not boot up.

## Resolution

Although only one memory module is bad, both need to be replaced. Memory modules of this type need to be "matched" pairs in replacing only one module is not an option. I would also recommend that the memory modules are be increased to the maximum allow using the motherboard figure. The cost of both has fallen dramatically over the past few years and increasing RAM size is one of the easiest ways to increase the performance of a computer.

The hard drive will also need to be replaced. The bad sectors on the hard drive can be mapped and skipped over by the operating system but it is highly likely that additional sectors will corrupt before long. Now the full replacement to the size of the hard drive recorder and will add very little if any additional cost. Wiped out all of the data from the bad hard drive should the data be saved and transferred to the new hard drive.