

Wyerless.NET Solutions Case Study

“The Crashing Cash Register”

The Original Assignment:

A POS (Point of Sale) terminal manufacturer had a DRAM based product that occasionally crashed. Although fairly reliable for its generation, there were many in the field and the customer complaint rate was high. The VP of engineering hired Wyerless.NET Solutions to look into the situation.

What We Discovered:

We found three problems. The first was a “garden variety” hardware, namely a marginal timing condition in the CPU. The other two were more interesting. The software problem seemed to occur more during holidays and weekends. It turned out that there was a subtle “hole” in the software that was not exercised by the more experienced weekday crews as much as the part time staff! Last, but not least, this design was done in the era of alpha particle related soft DRAM errors. (Yes, some of us are gray beards at WNS)

What We Did:

Redesigned the CPU and added error correcting RAM. WNS helped hire a senior hardware engineer who had a greater attention to detail to avoid this problem in the future. Had the software bug documented and fixed.

The Results:

Field complaints went way down; customer doubled his purchase of the terminal.