

Evaluating the effects of KAISER on operating system performance.

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Abstract

With the recent advent of the meltdown exploit a patch had to be made to prevent this. This patch was commonly known as KAISER. This patch was said to have about a 20% operating system performance hit. This was an investigation in whatever or not the performance hit existed and if it did how extreme was it.

Methodology

- Created 2 Ubuntu machines off the same ISO.
- Took one of the machines and patched the kernel to include KAISER and let the other one alone.
- Created multiple bash scripts with varying degrees of commands and length.
- Had each script run 100 times on each computer to get an average number of the run time and compared the times.

Results

After conducting the tests it was found that there was a significant difference between the averages of all of the tests. These differences were from about a 40% increase in the average time all the way to about 75% for the largest tests. These results showed that assuming there was no other major factor that the KAISER patch caused a major impact to the performance of the system.

