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BOOM, MIDAS, MOSCITO - SPECTRE/MELTDOWN

There seems to be a lot of confusion and uncertainty regarding the Spectre/Meltdown Security Problems that are leading the headlines.

So far there is no scenario with Spectre or Meltdown that requires a patch of our above mentioned applications or the underlying Java engines. The problem is related to CPU Microcode issues and can only be fixed on Microcode and Operating System level.

Spectre and Meltdown allow unauthorized reading of the memory of other applications, kernel and even across virtual machines, resulting in the threat of information disclosure. The criticality of this problem depends heavily on your environment as the exposure requires the ability of an attacker to execute malicious code on the system or any of the virtual systems of a host. If the application is running on a physical system in a protected datacenter with only trusted user logins, the threat is probably low. If the application is running on a virtual system the threat is high since it can be exposed on any of the virtual systems to access the memory of all other virtual machines on this host.

For virtual systems it is mandatory to update the Hypervisor and the operating systems of all virtual systems with the according patches, as well as any additional patches that might be provided by AMD/ARM/Intel to fix the microcode issues.

For physical systems it is recommended to update the operating system with the according patches as well as any additional patches that might be provided by AMD/ARM/Intel to fix the microcode issues.

According to the information published on various sites, there will be an impact on the CPU and application performance ranging in degradation between 7% and 15%. This occurs because the patches will disable some of the performance features of the processors. It will of course reflect also on the performance of boom, MIDAS and Moscito. The real impact depends heavily on the operating system, used CPU type and where the application is bound to CPU intensive work. For the boom the tests on our systems showed a moderate impact of less than 10%.

Please feel free to contact us if you have any further questions:

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