

Collaborative Learning Discussion 2

Peer Response - 2

by [Gokul Kurunthasalam](#) - Friday, 21 October 2022, 3:57 PM

Thank you for the post. I appreciate your post on CVSS. In order to assign relative priority rankings as ratio values, CVSS uses ordinal data, such as unavailable, workaround, temporary remedy, and official fix. For instance, addition, multiplication, and division are not defined for an ordinal measurement such as the typical Likert scale of completely agree, agree, disagree, and completely disagree, which includes ordering but no distance between items. For instance, whether we label "fastest" as "1" or not, "fastest + smallest" is illogical.

The CVSS v3.0 documentation makes no claims about how reliable the construction process or formula is. The calculation process is straightforward but unjustified. The specification has the burden of proof because, strictly speaking, the formula asserts something along the lines of "faster + fastest = 1". The standard does not provide such a justification, either theoretically or empirically. (J. Spring, E. Hatleback, A. Householder, A. Manion and D. Shick, March-April 2021).

The CVSS v2.0 methodology aims to provide consistent and reliable measurement while letting users see the vulnerability traits that underlie the numerical scores. Industries, organisations, and governments needing precise and consistent vulnerability exploit and effect scores might use the CVSS v2.0 as a common measurement system. Calculating the severity and prioritising vulnerability mitigation efforts are two frequent uses of the CVSS v2.0.

The temporal and environmental metric categories, which offer significant context that is not present in the base metric group, may be optionally provided values by CVSS producers. For instance, the Target Distribution in the Environmental metrics may serve to represent exposure, while the Exploitability vector in the Temporal metrics may help to convey current danger information. (Joshua Franklin, Charles Wergin, Harold Booth, 2014)

References:

J. Spring, E. Hatleback, A. Householder, A. Manion and D. Shick, "Time to Change the CVSS?," in IEEE Security & Privacy, vol. 19, no. 2, pp. 74-78, March-April 2021, doi: 10.1109/MSEC.2020.3044475.

Joshua Franklin, Charles Wergin, Harold Booth "CVSS Implementation Guidance" NIST; April 2014. <http://dx.doi.org/10.6028/NIST.IR.7946>