Information Technology Laboratory

NATIONAL VULNERABILITY DATABASE

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CVSS Calculators

Vulnerability Metrics

The Common Vulnerability Scoring System (CVSS) is an open framework for communicating the characteri vulnerabilities. CVSS consists of three metric groups: Base, Temporal, and Environmental. The Base metric 0 to 10, which can then be modified by scoring the Temporal and Environmental metrics. A CVSS score is a string, a compressed textual representation of the values used to derive the score. Thus, CVSS is well suite system for industries, organizations, and governments that need accurate and consistent vulnerability sev of CVSS are calculating the severity of vulnerabilities discovered on one's systems and as a factor in priorit remediation activities. The National Vulnerability Database (NVD) provides CVSS scores for almost all know

The NVD supports both Common Vulnerability Scoring System (CVSS) v2.0 and v3.X standards. The NVD pr which represent the innate characteristics of each vulnerability. The NVD does not currently provide 'temp change over time due to events external to the vulnerability) or 'environmental scores' (scores customized vulnerability on your organization). However, the NVD does supply a CVSS calculator for both CVSS v2 and temporal and environmental score data.

CVSS is owned and managed by FIRST.Org, Inc. (FIRST), a US-based non-profit organization, whose missio incident response teams across the world. The official CVSS documentation can be found at https://www.f

NVD CVSS Calculators

NVD CVSS v2 Calculator **NVD CVSS v3 Calculator**

NVD Vulnerability Severity Ratings

NVD provides qualitative severity ratings of "Low", "Medium", and "High" for CVSS v2.0 base score ranges i
ratings for CVSS v3.0 as they are defined in the CVSS v3.0 specification.

CVSS v2.0 Ratings		**CVSS v3.0 Ratings**	
Severity	**Base Score Range**	**Severity**	**Base Score Range**
		None	0.0
Low	0.0-3.9	Low	0.1-3.9
Medium	4.0-6.9	Medium	4.0-6.9
High	7.0-10.0	High	7.0-8.9
		Critical	9.0-10.0

NVD Specific CVSS Information

Incomplete Data

With some vulnerabilities, all of the information needed to create CVSS scores may not be available. This t
vendor announces a vulnerability but declines to provide certain details. In such situations, NVD analysts a
worst case approach. Thus, if a vendor provides no details about a vulnerability, NVD will score that vulner
rating).

Collaboration with Industry

NVD staff are willing to work with the security community on CVSS impact scoring. If you wish to contribut
corrections regarding the NVD CVSS impact scores, please send email to nvd@nist.gov. We actively work w
feedback.

Legacy CVSS Information

The NVD will begin officially supporting the CVSS v3.1 guidance on September 10th, 2019. Due to the clari
be some changes to the scoring practices used by NVD analysts for CVSS v3. The NVD will not be offering C
for the same CVE. All new and re-analyzed CVEs will be done using the CVSS v3.1 guidance.

There are currently no plans to associate CVSS v3.0 vector strings to CVEs that were already analyzed in th
subset of CVEs from before this time may be given CVSS v3.0 vector strings due to special cases or existenc
documentation.

Vector strings for the CVE vulnerabilities published between to 11/10/2005 and 11/30/2006 have been upg
CVSS v1 metrics did not contain granularity of CVSS v2 and so these scores are marked as "Version 2.0 upg
While these scores are approximation, they are expected to be reasonably accurate CVSS v2 scores.

Vector strings provided for the 13,000 CVE vulnerabilities published prior to 11/9/2005 are approximated f
CVSS metric data. In particular, the following CVSS metrics are only partially available for these vulnerabili
values based on an approximation algorithm: Access Complexity, Authentication, Confidentiality Impact o
'partial', Availability Impact of 'partial', and the impact biases.

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