



INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

CVSS activities in Japan

2007/06/20 19

Masato Terada

m-terada@ipa.go.jp

<http://jvn.jp/>

Security Engineering Laboratory, IT Security Center (ISEC)

IPA (Information-technology Promotion Agency, Japan)

2004

2005

2006

2007

- ▲ Jul 7, 2004: the Guideline for Handling Vulnerability-related Information
- ▲ Jul 8, 2004: Portal Site, JVN started
<http://jvn.jp/>
- ▲ Jan 2006: Evaluating CVSS V1.0 for adoption
 - ▲ Sep 2006: CVSS V1.0 Calculator
<http://jvnrss.ise.chuo-u.ac.jp/jtg/cvss/>
 - ▲ Feb 22, 2007: CVSS V1.0 Japanese material
<http://www.ipa.go.jp/security/vuln/SeverityCVSS.html>
 - ▲ Apr 25, 2007: Adopted CVSS V1.0 in JVN iPedia
<http://jvndb.jvn.jp/>
 - ▲ Jun 2007: CVSS V2.0 Japanese material
http://www.ipa.go.jp/security/vuln/200706_CVSSv2.html
 - ▲ Jun 2007: CVSS V2.0 Calculator
<http://jvnrss.ise.chuo-u.ac.jp/jtg/cvss/en/CVSSv2.html>
 - ▲ Sep 2007: JVN iPedia will provide CVSS V2.0 Severity

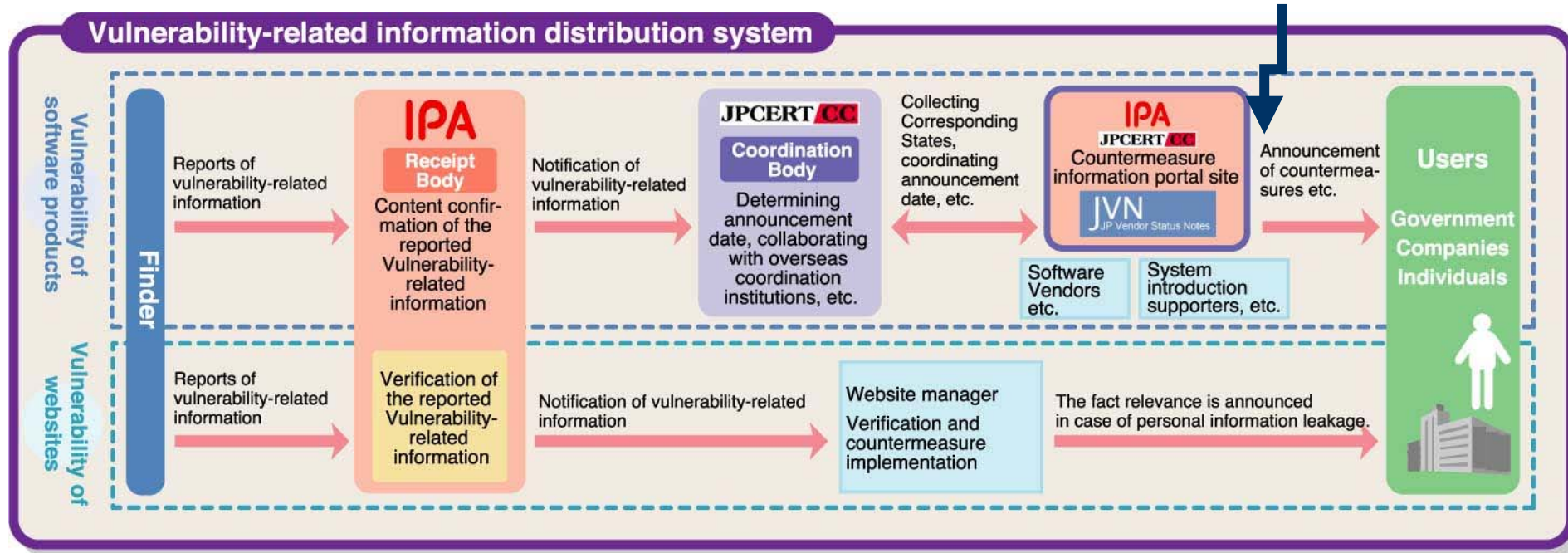
2.

Vulnerability Information Handling Framework



Under “the Guideline for Handling Vulnerability-related Information”
Announced on July 7, 2004, into Effect on July 8, 2004

Providing vulnerability
severity score by CVSS on Apr 25, 2007



Government-private sector cooperation to promote a smooth information flow concerning vulnerabilities and countermeasures of software products/web site applications. The first vulnerability information handling mechanism that is based on the official rules.

□ JVN characteristics



JVN Japan Vulnerability Notes

<http://jvn.jp/>

Providing Japan specific security information and Japanese vendor status for reported vulnerabilities by Vulnerability Information Handling Framework



JVN iPedia 脆弱性対策情報データベース

<http://jvndb.jvn.jp/>

Providing countermeasure information database (JVN iPedia) for covering overall vulnerabilities

<http://jvn.jp/>
Vendor Status Note

<http://jvndb.jvn.jp/>
Vulnerability Note
(JVN iPedia)

□ JVN iPedia characteristics

□ Providing CVSS Severity

□ Making relationship between Japanese security information

The screenshot shows a web browser window displaying a security advisory on the JVN iPedia website. The URL is <http://jvndb.jvn.jp>. The page title is "JVNDB-2007-000387 - JVN iPedia - 脆弱性対策情報データベース". The advisory details a vulnerability in IPv6 Type 0 Route Headers that allows a sender to control routing, leading to a Denial of Service (DoS) attack. The CVSS severity is 3.3 (Low). The affected system is kernel.org, specifically Linux Kernel 2.6.21 and earlier versions.

Annotations on the left side of the screenshot map specific parts of the page to labels:

- JVN iPedia Identifier**: Points to the header area containing the JVN iPedia logo and name.
- Title**: Points to the advisory title "JVNDB-2007-000387 IPv6 プロトコルの実装における IPv6 type 0 ルーティングヘッダによるサービス運用妨害 (DoS) の脆弱性".
- Overview**: Points to the summary text: "IPv6 プロトコルを実装するシステムにおいて、IPv6 type 0 ルーティングヘッダを処理することでサービス運用妨害 (DoS) 攻撃を受ける可能性があります。"
- CVSS Severity**: Points to the CVSS severity value: "基本値: 3.3 (注意) [NVD値]".
- CVSS Base Metrics**: Points to the list of CVSS base metrics: "攻撃元区分: リモート, 攻撃条件の複雑さ: 低, 攻撃前の認証要否: 不要, 機密性への影響(C): なし, 完全性への影響(I): なし, 可用性への影響(A): 全面的, CIAの重み: 全て同じ重みである".
- Affected System**: Points to the affected system information: "kernel.org" and "Linux Kernel 2.6.21 未満のバージョン".

Additional text on the right side of the screenshot:

- IPv6 Type 0 Route Headers allow sender to control routing CVSS V1.0 Severity 3.3 (Low)**: A summary of the vulnerability and its severity.
- JVN**: A sidebar menu with links to HOME, JVNとは, 脆弱性レポートの読み方, 脆弱性レポート一覧, VN-JP, VN-CERT/CC, VN-CPNI, TRnotes, JVN iPedia 脆弱性対策情報データベース, 検索, JVN iPediaとは, 使い方, JVNJS/RSS, ベンダ情報一覧, 脆弱性情報の届出, お問合せ先.

CVSS V2.0 Calculator characteristics

- Graphical user interface
- Multi languages supported

The image displays two screenshots of the JVN RSS CVSS V2.0 Calculator interface. The left screenshot shows a graphical overview for CVE-9999-9999-Example, featuring three gauges for Base Score (10.00), Temporal Score (7.32), and Environmental Score (7.67), along with an Overall Score gauge (7.67). The right screenshot provides a detailed breakdown of the calculation:

CVSS 2.0 Calculation Breakdown:

- Base Score:** 10.00
 - Impact = $10.41 * (1 - (1 - \text{ConfImpact}) * (1 - \text{InteImpact}) * (1 - \text{AvailImpact}))$
 - Exploitability = $20 * \text{AccessVector} * \text{AccessComplexity} * \text{Authentication}$
 - Base Score = $(0.6 * \text{Impact} + 0.4 * \text{Exploitability} - 1.5) + f(\text{Impact})$
- Temporal Score:** 7.32
 - Temporal Score = $\text{BaseScore} * \text{Exploitability} * \text{RemediationLevel} * \text{ReportConfidence}$
- Adjusted Base Score:** 10.41
 - AdjustedBase = $(0.6 * \text{AdjustedImpact} + 0.4 * \text{Exploitability} - 1.5) + f(\text{Impact})$
- Adjusted Temporal Score:** 7.32
 - AdjustedTemporal = $\text{AdjustedBase} * \text{Exploitability} * \text{RemediationLevel} * \text{ReportConfidence}$
- Environmental Score:** 7.67
 - Environmental Score = $(\text{AdjustedTemporal} + (10 - \text{AdjustedTemporal}) * \text{CollateralDamagePotential}) * \text{TargetDistribution}$
- Overall Score:** 7.6

The interface includes a sidebar with navigation links (Home, main, JVN RSS Activity, Specification, Tool, Document, Related Site) and a main panel with various input fields for metrics like Access Vector (AV), Access Complexity (AC), Authentication (Au), Confidentiality Impact (C), Integrity Impact (I), Availability Impact (A), Exploitability (E), Remediation Level (RL), Report Confidence (RC), Environmental Metrics (CDP, TD), and General Modifiers (CR, IR, AR). At the bottom, there are buttons for 'Reset' and 'Calculate'.



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Reference

- **IPA (Information-technology Promotion Agency, Japan)**
 - <http://www.ipa.go.jp/english/about/index.html>
 - <http://www.ipa.go.jp/english/security/index.html>
- **JVN**
 - <http://jvn.jp/> (Japanese)
 - <http://jvndb.jvn.jp/> (Japanese)
 - http://www.ipa.go.jp/security/english/jvn_e.html
- **Multi Languages supported CVSS Calculator**
 - <http://jvnrss.ise.chuo-u.ac.jp/jtg/>
 - <http://jvnrss.ise.chuo-u.ac.jp/jtg/cvss/>



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Thank you

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