

Reporting Status of Vulnerability-related Information about Software Products and Websites

- 4th Quarter of 2024 (October - December) -

Information-technology Promotion Agency, Japan (IPA) and Japan Computer Emergency Response Team Coordination Center (JPCERT/CC), initiated to handle vulnerability-related information in July 2004.

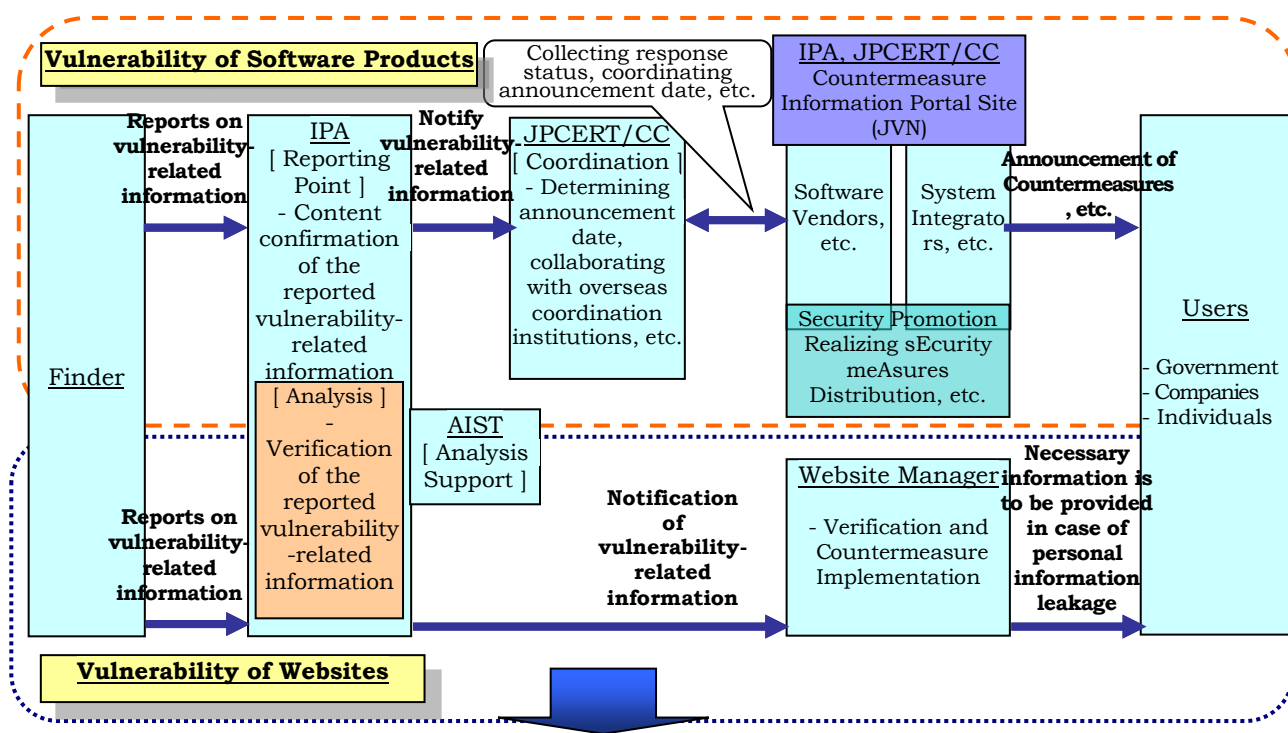
With the authority given by the Public Notice, Standards for Handling Software Vulnerability Information and Others (Directive #19, 2017) by the Ministry of Economy, Trade and Industry (METI), IPA has been collecting reports on the following vulnerability-related information:

1: Vulnerability-related Information about Software Products:

Vulnerabilities against client Software such as OS and browser, server Software such as Web server, Software embedded in hardware such as IC card, and so on. Other than vulnerability itself, information on verification methods, attacking methods and workarounds are also accepted. IPA will notify this vulnerability-related information to JPCERT/CC and then JPCERT/CC will communicate this information to concerned organizations such as domestic product vendors.

2: Vulnerability-related Information about Websites (Web Applications):

Vulnerabilities against Websites which provide services to the public through the Internet. IPA will notify such vulnerability-related information to Website managers to prompt modification.



Effect Expected:

1. Encourage vendors and Website managers to implement countermeasures against vulnerabilities.
2. Prevent vulnerabilities from being carelessly publicized or left unsolved.
3. Prevent important information, such as personal information, from being disclosed and/or critical systems from being shut down.

“Information Security Early Warning Partnership” (Framework for Handling Vulnerability-related Information)

Source: Handouts from explanatory session on handling vulnerability-related information (General introduction to the standards for handling Software vulnerability-related information and its guidelines) by the Ministry of Economy, Trade and Industry

The statistics for the 4th Quarter of 2024 (October - December) from the data collected under the framework is summarized as follows.

1. Reported Number and Handling Status of Reports:

The total number of vulnerability-related information reported to IPA from October 1 to December 31, 2024 was 163: 56 of them were about Software products and the rest 107 were about Websites. The cumulative number of reports made to IPA since the framework started (July 8, 2004) was 19286: 5960 of them were about Software products and the rest 13326 were about Websites. The Chart 1-1 shows the reporting status for respective quarters.

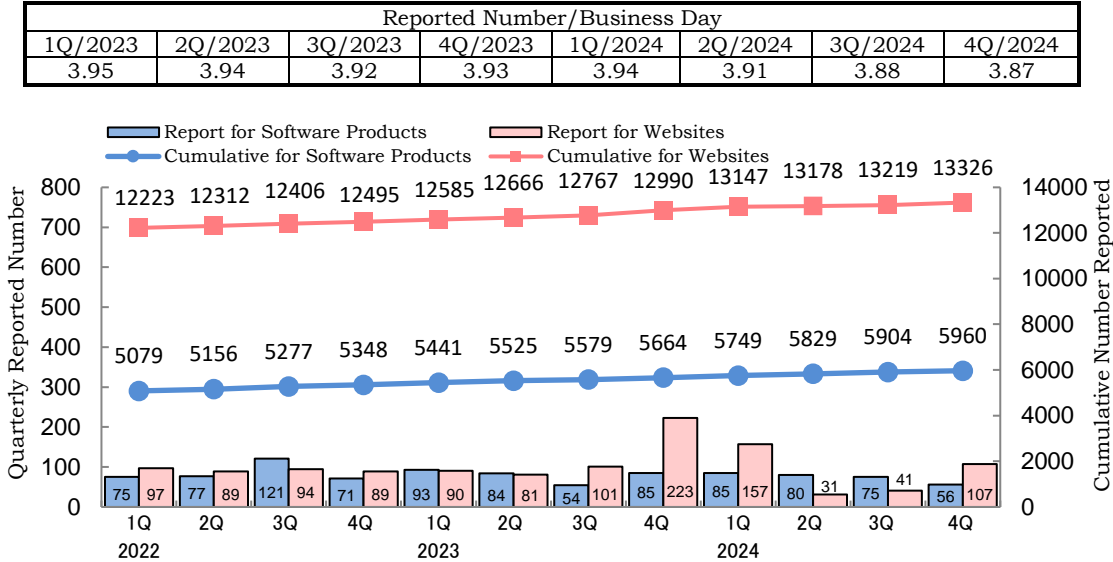


Chart 1-1: Quarterly Number of Vulnerability-related Information

The Chart 1-2 shows the processing status of reports on the vulnerability-related information as of the end of December, 2024. As for Software products, 54% (2912) of the reports being accepted as vulnerability (5382) have been fixed and publicized. As for Websites, 67% (8793) of the reports being accepted as vulnerability (13034) have been fixed.

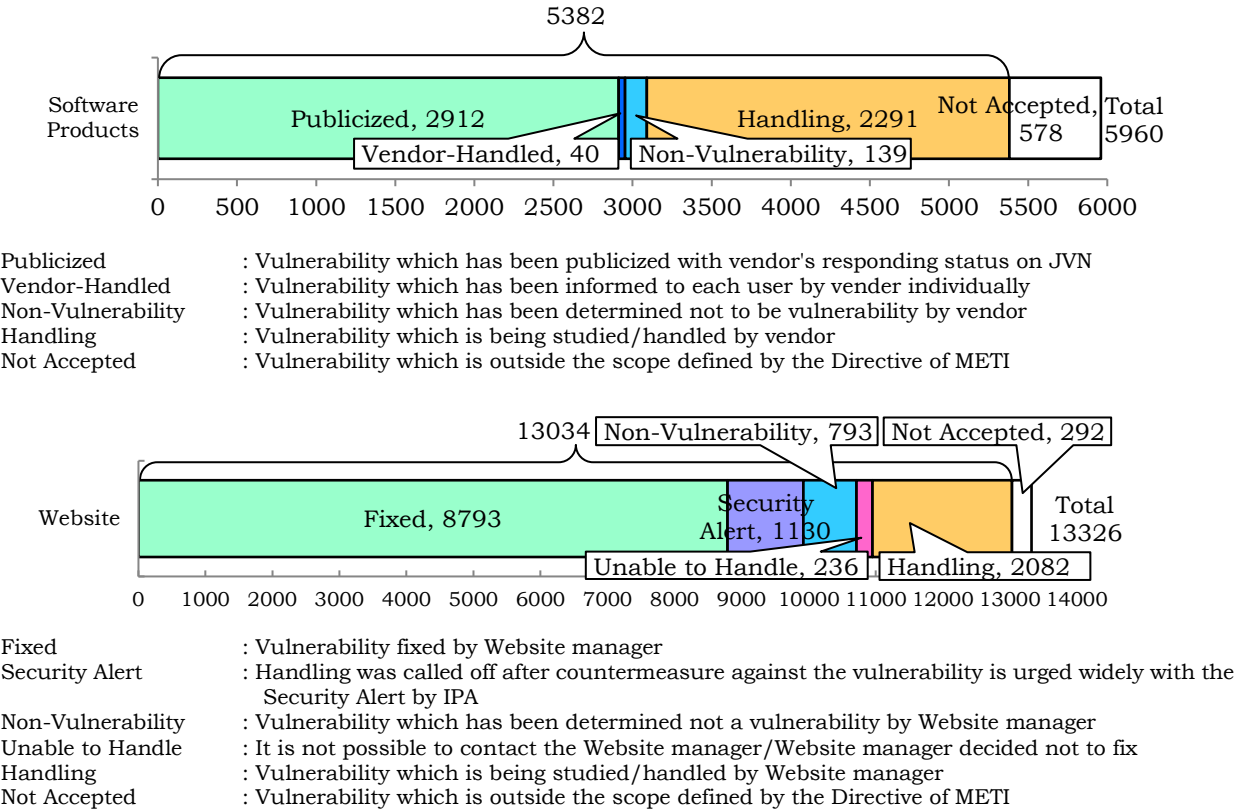


Chart 1-2: Processing Status of Reporting for Vulnerability-related Information (As of the End of December, 2024)

2. Handling and Coordination of Vulnerability-related Information on Software Products:

The total number of information related to vulnerabilities in Software Products reported to IPA since the framework started (July 8, 2004), was 5960. The cumulative number of published vulnerability advisories was 2315.

The Chart 2-1 shows the breakdown of 21 vulnerabilities published this quarter.

The vulnerabilities are organized according to their severity, determined by the Common Vulnerability Scoring System (CVSS v3) standard. The scale of low, medium, high, and critical severity corresponds to the following scores:

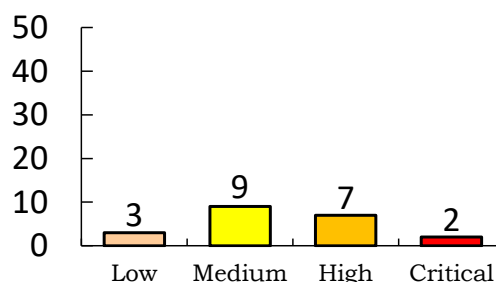
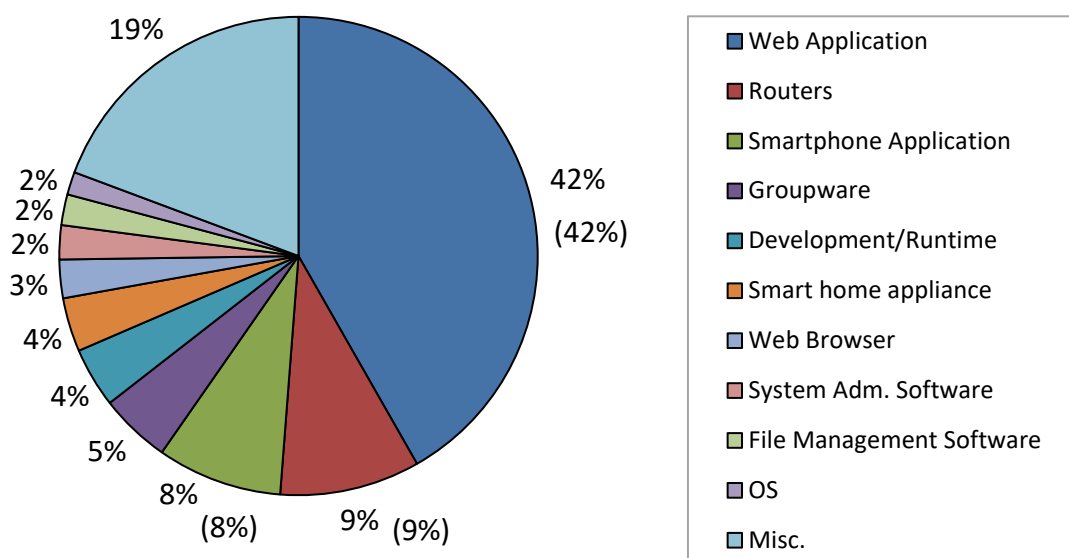


Chart 2-1 : Severity of vulnerabilities in Software Products on JVN published this quarter

Several reports may be summarized in one on JVN.

- Low : Vulnerabilities will be labeled the Low severity if they have a CVSS base score of 0.1 - 3.9.
On this report, vulnerabilities which have no CVSS base score are included in Low.
- Medium : Vulnerabilities will be labeled the Medium severity if they have a CVSS base score of 4.0 - 6.9.
- High : Vulnerabilities will be labeled the High severity if they have a CVSS base score of 7.0 - 8.9.
- Critical : Vulnerabilities will be labeled the Critical severity if they have a CVSS base score of 9.0 - 10.0.

The Chart 2-2 shows the breakdown of 5382 reports (Total 5960 minus Not Accepted 578). The most reported type of software was Web Application and subsequently followed by Routers and those listed below.



Misc. in this graph includes Software for Database, etc.

(Breakdown of 5382: Numbers in parenthesis are for the previous quarter)

Chart 2-2: Breakdown of the Vulnerabilities in Software Products (from July 8, 2004 to the End of December, 2024)

The Chart 2-3 shows the time required for the announcement of vulnerabilities in Software products. 29% of the reports was addressed within 45 days from its initial reporting to announcement.

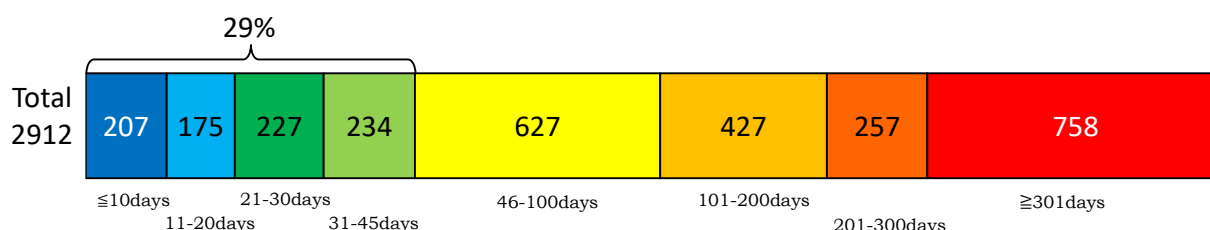
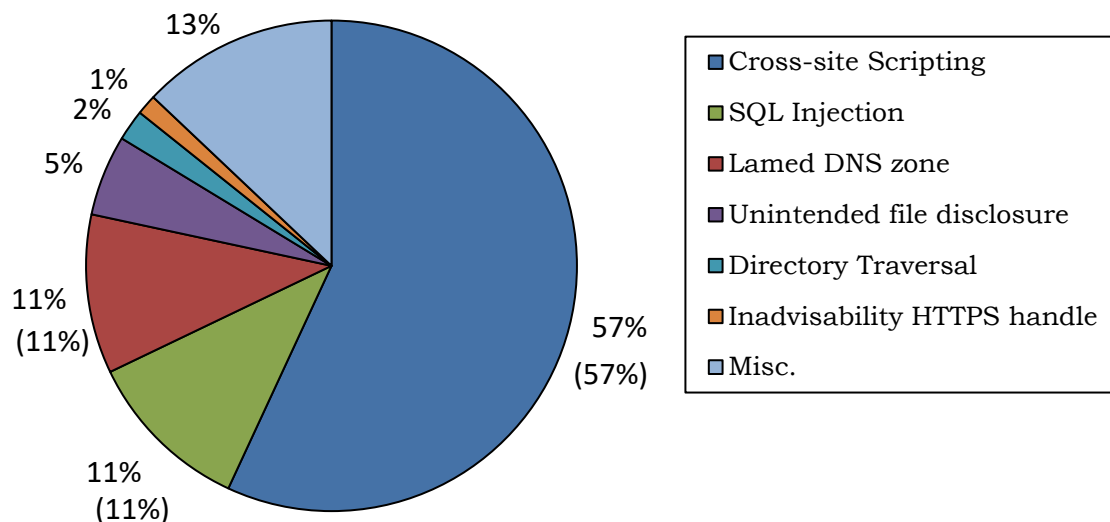


Chart 2-3: Time Required for the Announcement of Vulnerabilities in Software Products

3. Handling of Vulnerability-related Information on Websites:

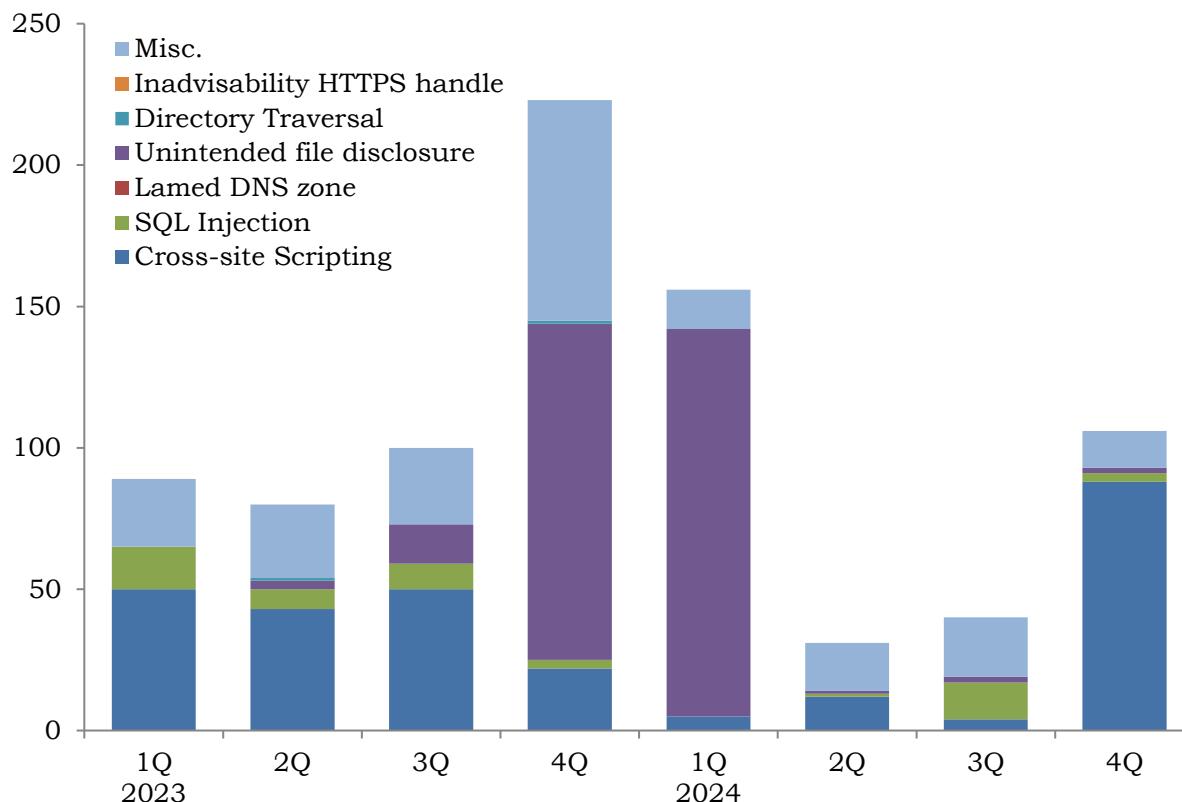
The number of information related to vulnerabilities in websites reported to IPA since the framework started (July 8, 2004), was 13326. Removing those not accepted as vulnerabilities, the total number of the vulnerabilities was 13034. Chart 3-1 shows the breakdown of the vulnerabilities and Chart 3-2 shows the quarterly shift in their proportion found in last two years.

As for the type of vulnerabilities, “Cross-site Scripting”, “SQL Injection” and “Lamed DNS zone” account for 79% of the entire vulnerabilities.



- Breakdown of 13034: Numbers in the parenthesis are for the previous quarter

**Chart 3-1: Breakdown of Vulnerabilities in Websites by Type
(from July 8, 2004 to the End of December, 2024)**



**Chart 3-2: Shift in Number of Vulnerabilities in Websites by Type
(from January 1, 2023 to the End of December, 2024)**

The Chart 3-3 and 3-4 show the time required to fix vulnerabilities by type after notification of detailed information of the vulnerabilities to Website managers. 70% of vulnerabilities reported was fixed within 90 days.

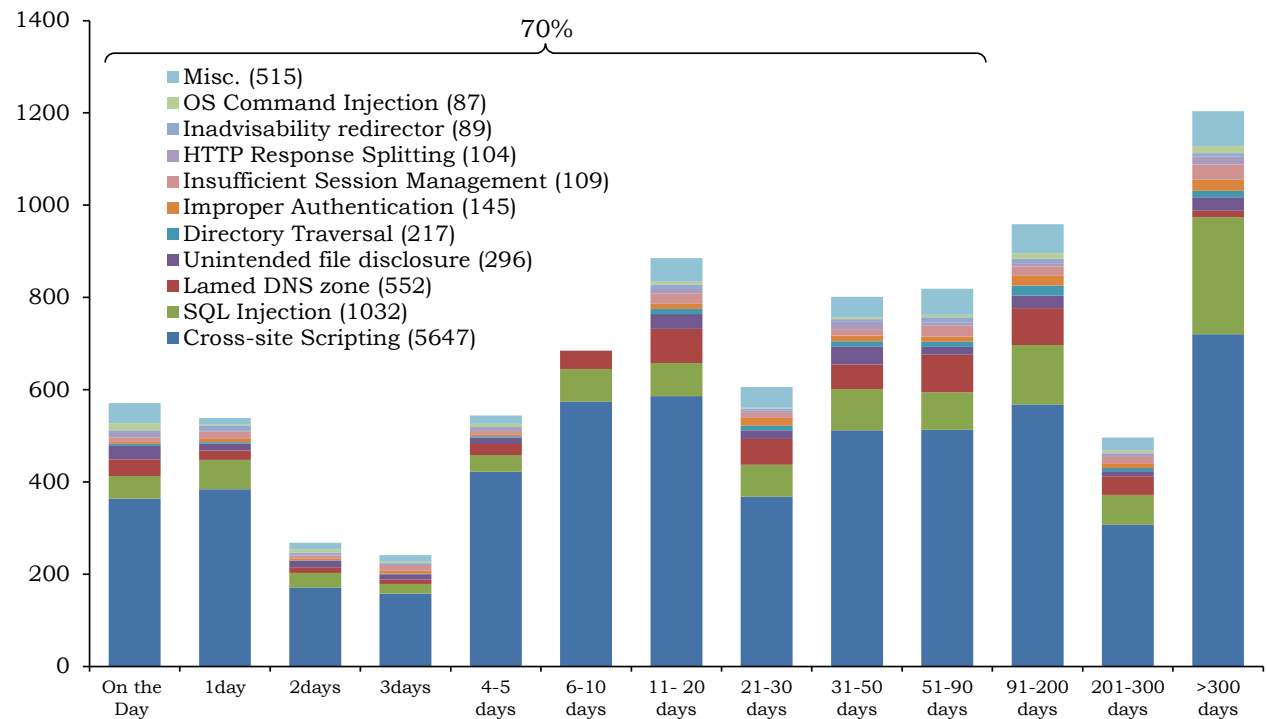


Chart 3-3: Time Required to Fix Vulnerabilities in Websites

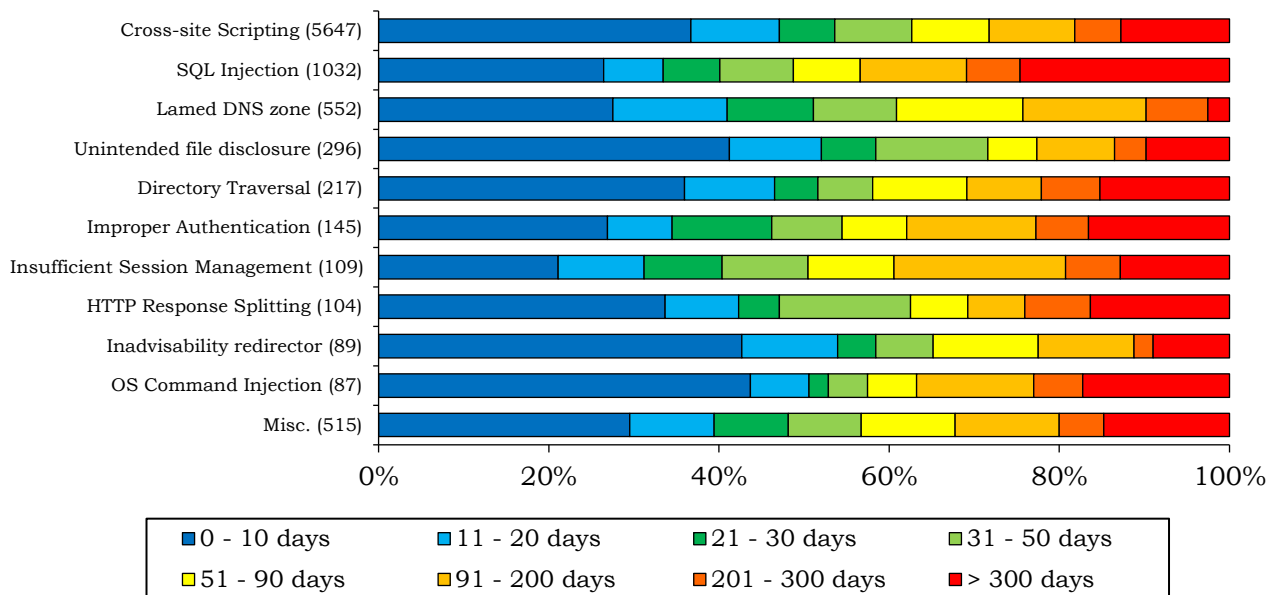


Chart 3-4: Time Required to Fix Vulnerabilities in Websites by Type

Contact

IT Security Center,
Information-technology Promotion Agency, Japan (IPA/ISEC)
Tel : +81-(0)3-5978-7527
Fax : +81-(0)3-5978-7552
E-mail : vuln-inq@ipa.go.jp