



Cracker Probing-Eyes®

Proposal of ASP type external vulnerability
diagnosis service



株式会社ブロードバンドセキュリティ



Incidents and vulnerabilities on the rise

All kinds of companies in Japan are being victimized one after another (according to recent cases)

More than 230 cases of unauthorized use of electronic payment services Leakage of information Total damage of more than 29 million yen

Cybercriminal groups attack game companies Fear of leakage of up to 390,000 pieces of personal information

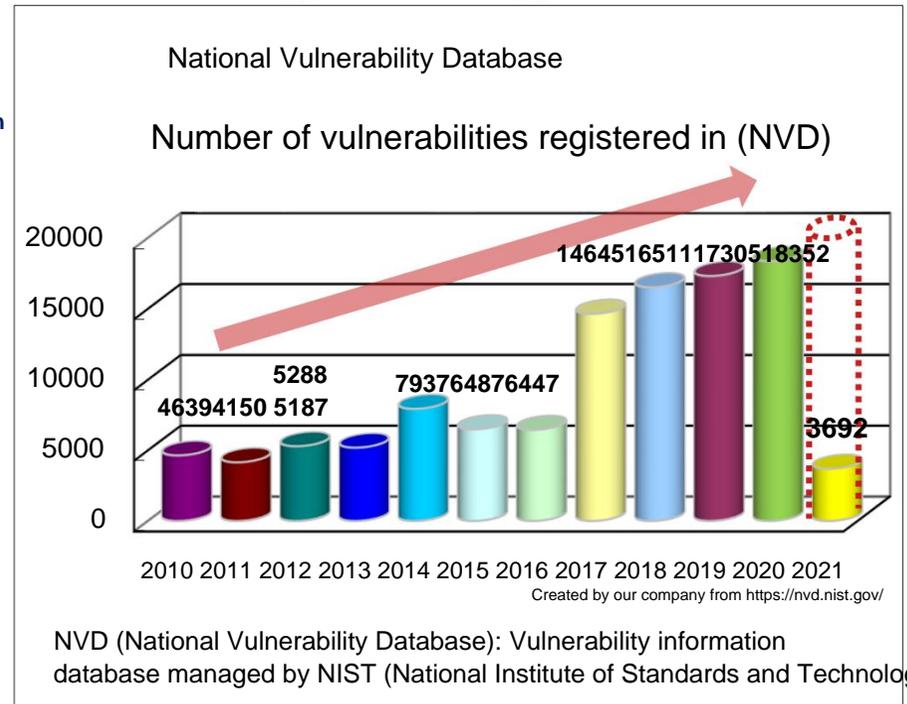
Two attacks on a general electronics manufacturer Leakage of defense information Leakage of 8,000 customer account information

It is important to obtain the latest vulnerability

information and take countermeasures!

Continued rapid increase from 2017

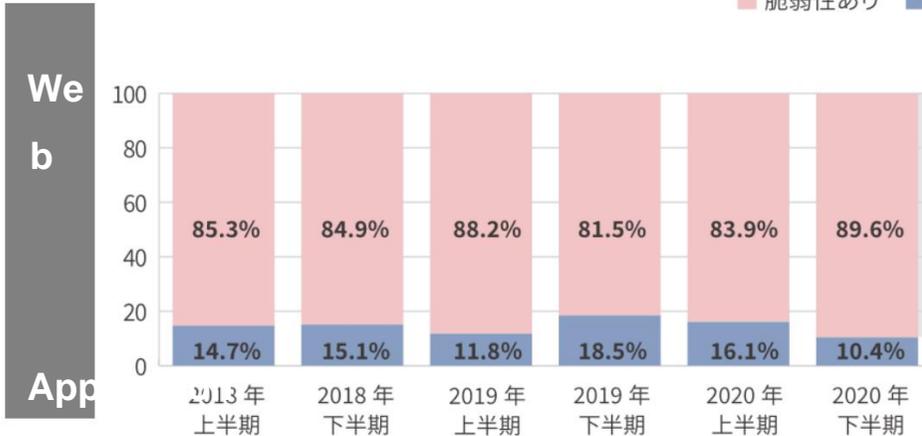
Increasing complexity of software, increasing number of connected hosts and IoT





Over 80% of systems have vulnerabilities! *

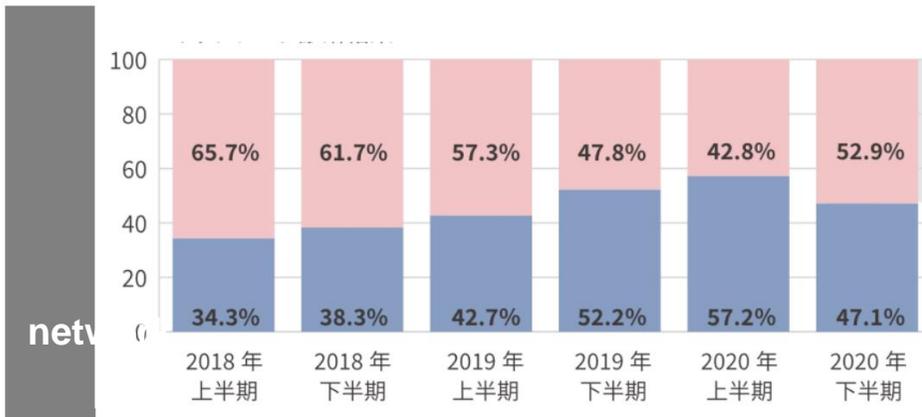
*Based on our diagnostic results



Major Vulnerabilities of High Risk Level and above:

- SQL injection
- cross-site scripting
- HTML tag injection
- Allowing Weak Passwords

There is a vulnerability that may lead to damage such as leakage of confidential information or guidance to unauthorized sites.



Major Vulnerabilities of High Risk Level and above:

- End of support/older version
- Use of OS/middleware
- Continued use of factory ID/password
- Use of vulnerable network services

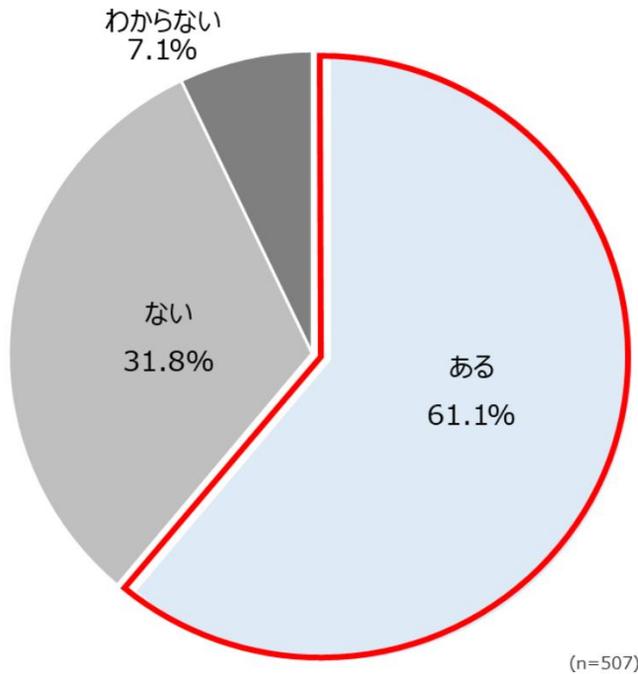
You may be targeted by attackers, and you need to upgrade your version or update your platform .



The reality of patch management

More than 60% of systems have not been patched!

The application rate of "security patches" to fill the holes of "vulnerability" is not high



The reason why there are patches that have not been applied...

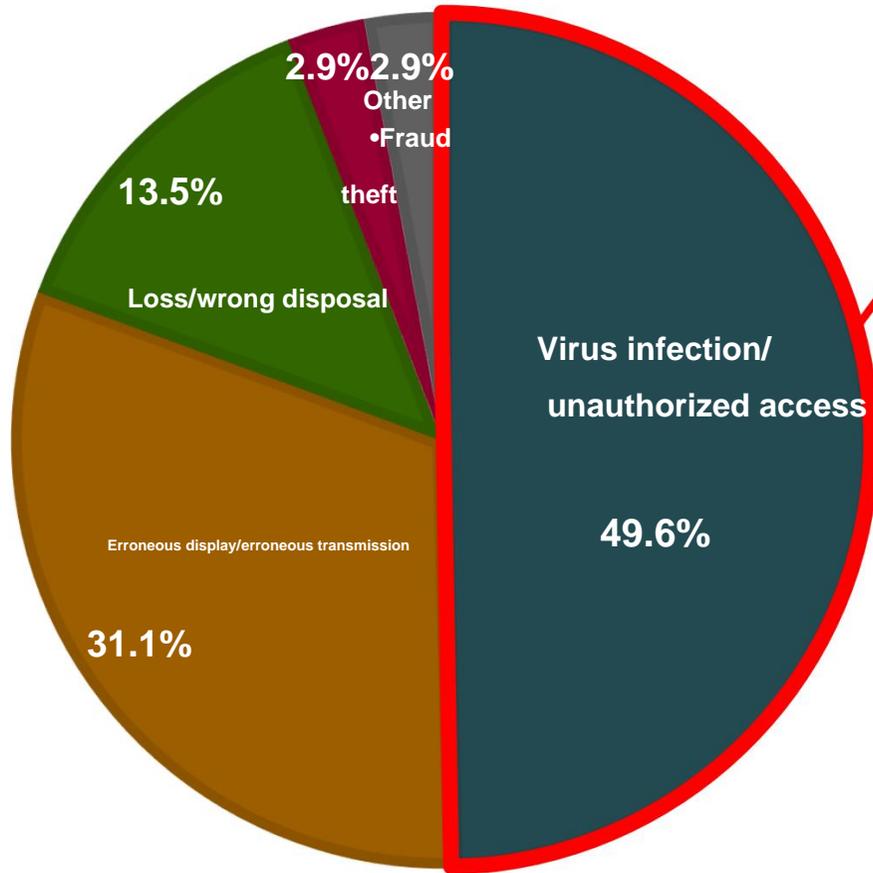
The main reasons are "lack of asset management/confirmation," "lack of understanding/coordination," and "lack of resources/environment."



Broadband Security Co., Ltd. x IID Co., Ltd. (survey conducted in August 2020) "We asked 500 people, 'Is your company doing vulnerability management and patch management well?'"



Cause of information leakage



About 50% of information leaks are caused by cyberattacks

- Targeted attacks
- Ransomware
- Spear phishing
- Improper security settings
- Leakage/theft of authentication information
- Component vul

Tokyo Shoko Research Co., Ltd.
"Personal Information Leakage/Loss Accidents of Listed Companies" Survey (2020)



Recent cyber attacks - how to deal with them?



Increasingly sophisticated and sophisticated attack methods



Vulnerability increasing day by day



Anyone can be a target



How can I always know the security status of my system?

Know the state of your system and take necessary measures!
自分のシステムの状態を知り、必要な対策を！

"Ignorance is the greatest vulnerability", and "knowing" is important for information security



Vulnerability diagnosis allows you to check the security status of your system against threats that change daily, so you can implement timely and appropriate countermeasures.

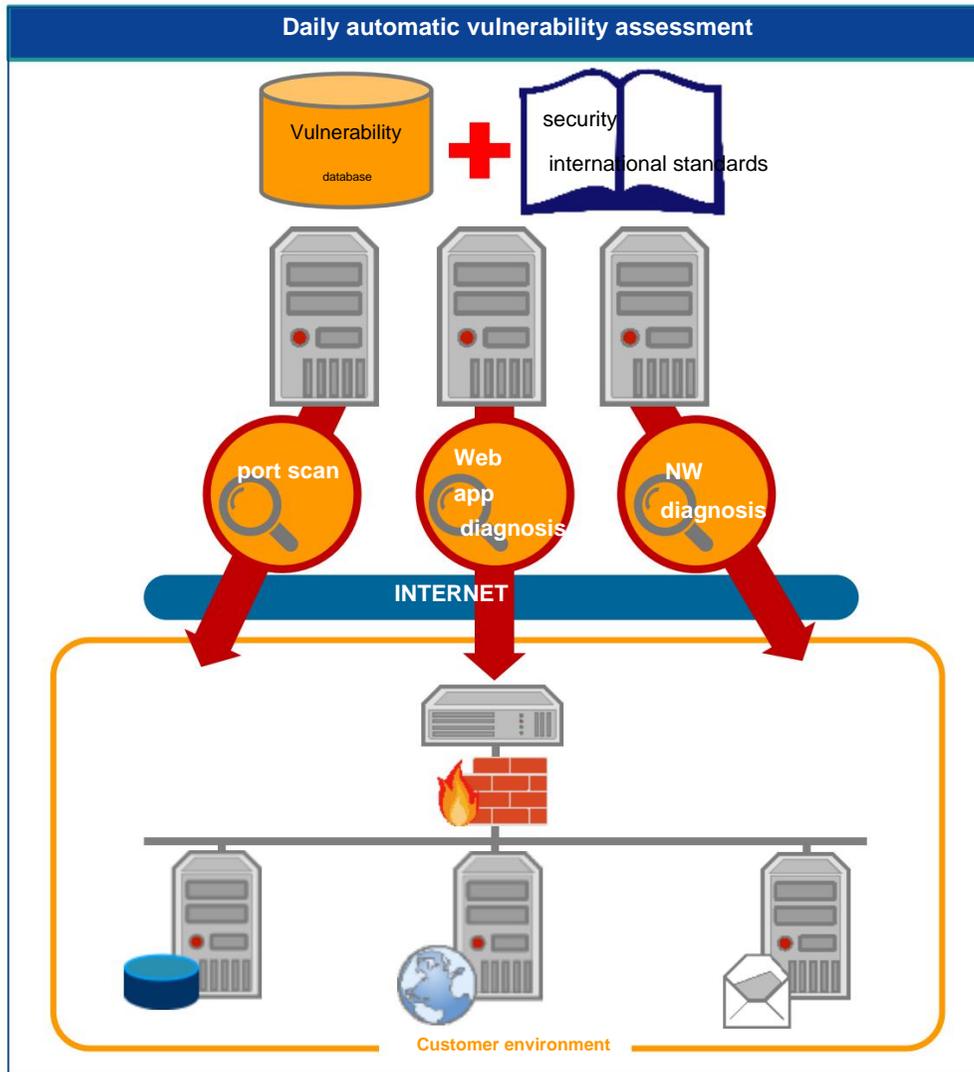


Cracker Probing-Eyes® (CPE)

ASP type external vulnerability diagnosis service

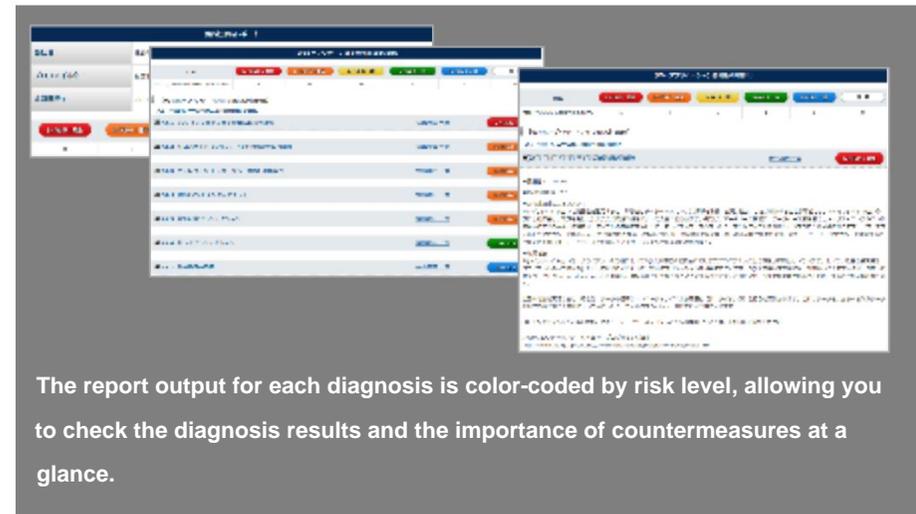


About CPEs



Diagnosis is performed daily, so new vulnerabilities can be discovered quickly

diagnosis result Can be checked at any time on the web



The report output for each diagnosis is color-coded by risk level, allowing you to check the diagnosis results and the importance of countermeasures at a glance.

Overview of CPE service ý

Automatic diagnosis service from outside (daily diagnosis)

Diagnosis target

ý Global IP address: 5

ý URL address (FQDN): 1

ý Diagnosis targets are devices with global IP addresses

Basic service

Basic **scan** : Annual service

ý **Full scan** : Annual service

*Provided with a one-year service license Consumption tax is not included

point

Points

1 network all port scan

- Port scan of all TCP and UDP ports
- Investigation of possible denial of service (DoS)
- Identification of operating system

Points

2 network vulnerability diagnosis

- Backdoor investigation
- Default password investigation
- DNS investigation
- FTP probe
- General firewall probe
- Simple Mail Transfer Protocol (SMTP) probe
- NFS probe
- Remote Procedure Call (RPC) Server Message Block (SMB)/NetBIOS probe
- Simple Network Management Protocol (SNMP) probe
- Database (DB) server inspection
- UNIX/LINUX vulnerability investigation
- Windows vulnerability research, etc.

Points

3 Web application vulnerability diagnosis

- Cross-site scripting
- Directory traversal
- OS command injection
- iframe injection
- Link injection
- Improper exception handling
- Passive Scan
- Problems related to SQL injection, session management, etc.



Overview of CPE service

Inspection method and service overview

- Diagnosis method: Tool diagnosis
- Diagnosis location: Diagnosis performed from outside (BBSec)
- Diagnosis time: Either 6:00 to 18:00 or 18:00 to 6:00 the next day
- Contents provided: Diagnosis results from the portal site
- Reference /Support: (Paid option) Up to 5 inquiries.

Customer benefits

- ASP-type tool diagnosis does not require the customer to purchase equipment or install software.
- Daily diagnosis results can be immediately checked on the web, enabling countermeasures to be taken before threats become a reality.

Diagnostic signatures/test patterns are constantly updated



OWASP TOP10
Adopt global security standards such as SANS TOP20

Superiority of this method

- Daily diagnosis is possible.
- Web Application Diagnosis -

Diagnosis service for vulnerabilities such as cross-site scripting and SQL injection, which account for more than 80% of current attacks. - In manual diagnosis, the estimate is usually based on the dynamic page transition unit.

This service can be used at a low cost because the fee is set per URL (FQDN). •Network diagnosis

- Inspection signatures are updated once a week, so new known vulnerabilities can be detected.
 - In the manual diagnosis, the estimate is based on the premise of the penetration test.
- Since this service is based on diagnostics using tools, it can be used inexpensively for a large number of servers.



Strengths of CPE



easy-to-understand reports

Since it is a purely Japanese tool, the details of vulnerabilities and countermeasures in the report are clear.

BBSec security engineers perform over-detection checks on the diagnostic results of the **highly accurate detection result** tool, so unnecessary findings that tend to occur in diagnostic tools are not posted.

Easy diagnosis No preparations such as system changes are required for diagnosis.



Vulnerability scores are standardized because **standardized result** CVSS values are output . The security level can be easily grasped even when the results are reported to upper management or outside, or when the person in charge is changed .

Extensive support

In response to inquiries from customers , BBSec security professionals are available directly via email and phone.



Difference between Basic Scan/Full Scan

Basic service

The difference is due to the "diagnosis target range" of the Web application diagnosis.

• Basic scan

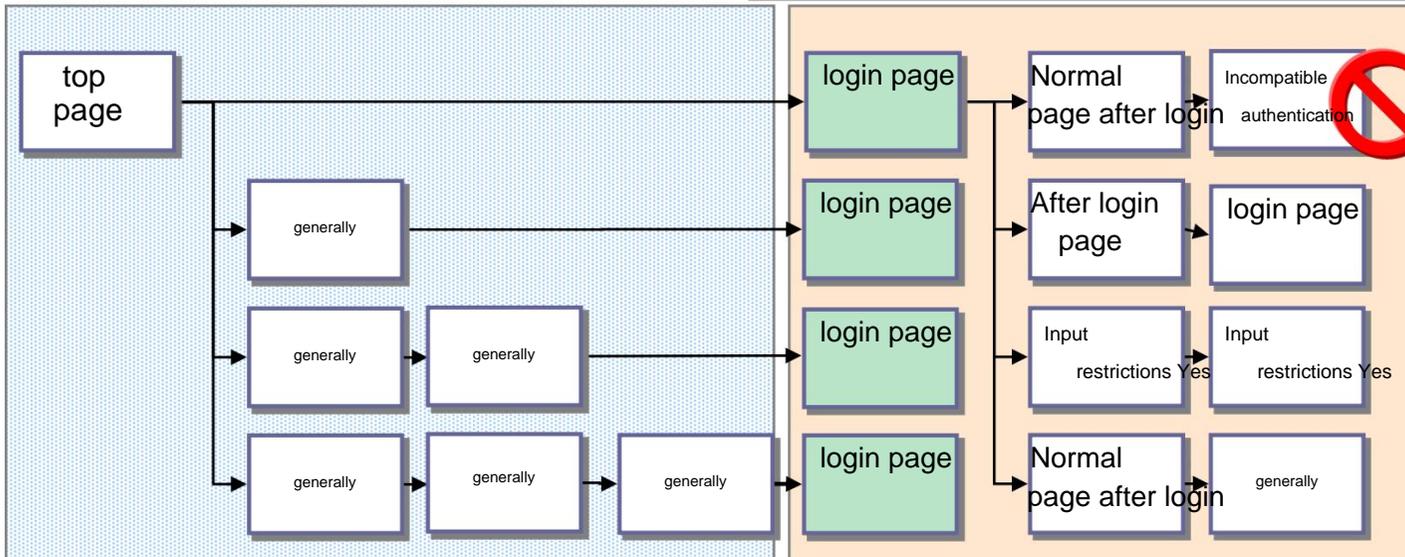
Vulnerability diagnosis before authentication page

• Full scan

Automatically diagnose pages after login authentication

From the top page to the authentication page

After the login authentication page



However, some pages cannot be scanned depending on the authentication method or page generation method. Please refer to the next page to see if the site is compatible .

Automatic diagnosis by the system is limited. If you need a complicated page or a full-fledged investigation, please use the separate manual diagnosis .



CPE restrictions

ÿ Authentication methods supported by CPE

Authentication method	Authentication method (details)	availability
Basic authentication		•
Form authentication	ID/PASS	•
	ID/PASS + device-specific information	•
	ID/PASS + user agent (screen for mobile phones)	•
	ID/PASS + user agent + terminal identification number (screen for mobile phones)	•
	ID/PASS + one-time token	×
	Combined authentication with CAPTCHA	×
DIGEST certification		×
CLIENT-CERT authentication (SSL certificate)		×

ÿ Other configurations that cannot be supported by CPE (page)

Unsupported configuration (page)	availability
Page transitions that require JavaScript processing	ÿ
Ajax generated page	ÿ
Page transitions that require processing in JSON format requests	×
Pages that control transitions with tokens, etc.	×
Pages generated by Flash, Java applets	×



CPE restrictions

ÿ Targets that cannot be diagnosed

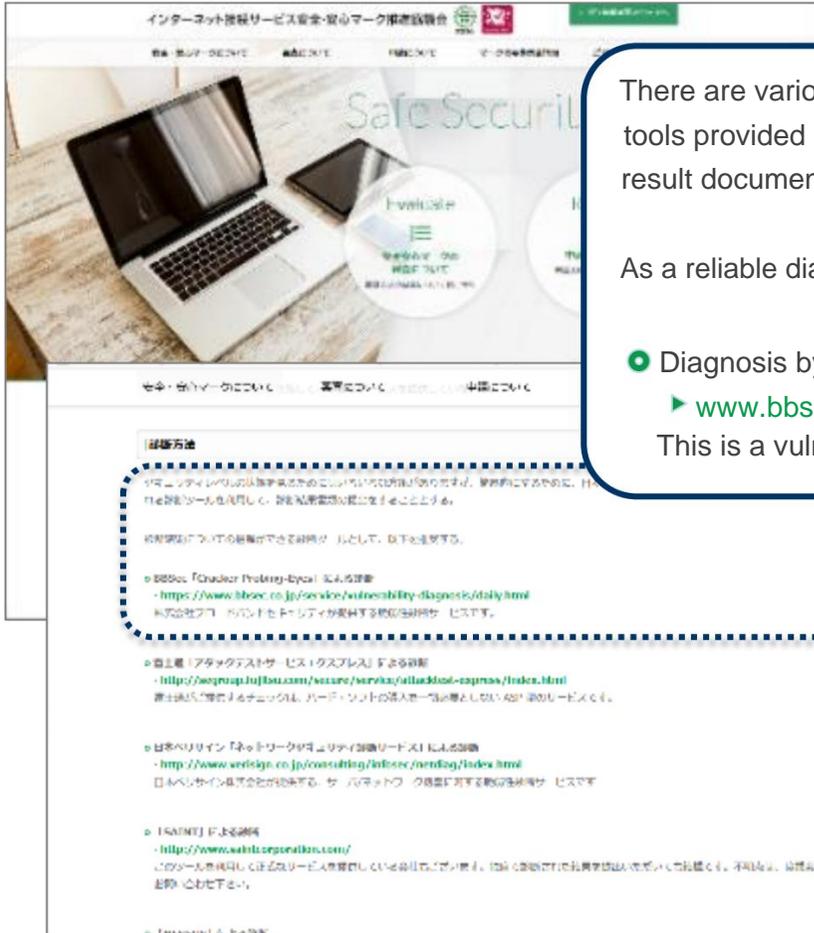
composition	detail	example
Functions that cannot be executed multiple times	Diagnosis is not possible because multiple patterns are inspected for the same request.	<ul style="list-style-type: none"> • Withdrawal • Deletion of data • Functions with processing limits
It is necessary to take over the session with an FQDN that is different from the diagnosis target	Diagnosis is not possible because it is not possible to transition across different FQDNs.	<ul style="list-style-type: none"> • FQDN of diagnosis target and login site different • The FQDN of the diagnosis target and the site issuing the session are different

ÿ Targets requiring attention in diagnosis

composition	detail	example
Data registration, update	Since multiple patterns of inspection are performed for the same request, a large number of registrations and updates are performed , which may affect the target system and the customer's business.	<ul style="list-style-type: none"> • Send inquiry • Register new data • Update existing data

Tools recommended by the Safety and Security Mark Promotion Council

"Cracker Probing-Eyes®" is a vulnerability diagnosis tool recommended by the Internet Connection Service Safety and Security Mark Promotion Council .



There are various measures to check the security level status, but to make it simple, use diagnostic tools provided by vendors etc. for diagnostic items that are updated daily, and submit diagnostic result documents. I decided to.

As a reliable diagnostic tool for diagnostic results, we recommend the following:

- Diagnosis by BBSec "Cracker Probing-Eyes" <https://www.bbsec.co.jp/service/vulnerability-diagnosis/daily.html>
 ▶ www.bbsec.co.jp/service/vulnerability-diagnosis/daily.html
 This is a vulnerability diagnosis service provided by Broadband Security Co., Ltd.

Safety and security mark

An Internet connection service provider that has met the licensing screening criteria of the screening committee of the Internet Connection Service Safety and Security Mark Promotion Council, with the aim of providing a guideline for users to be able to use the Internet with peace of mind. mark given to The expiration date of the mark is one year from the date of issue, and it is necessary to pass the renewal examination for continued use .

Website of the Internet Connection Service Safety and Security Mark Promotion Council <https://www.isp-ss.jp/> | <https://www.isp-ss.jp/examination/item/>



Manual diagnostics and tool diagnostics – your needs

The Manual Diagnostics Service and the Tool Diagnostics Service each have specific usage needs. Many of our customers use both services depending on their circumstances.

 manual diagnosis		tool diagnostic 
A dynamic and highly functional website equipped with an authentication mechanism, DB linkage, etc.	Features of Sites to be Diagnosed	A static website displaying boilerplate content
EC site Financial transaction site	Examples of sites to be diagnosed	Corporate site information distribution site
Before a new release or during a refurbishment	Example of diagnostic timing	Maintenance period after release
Spot implementation only when necessary	Example of diagnostic frequency	Conducted on a regular basis, such as daily and weekly
Comprehensive vulnerability detection results and risk analysis according to system characteristics	Desired reporting quality	Detected presence or absence of major vulnerabilities and general risk assessment results

*This table is for reference only and does not apply to all cases.



Differences between CPE and manual diagnosis (WEB)

Item number	item	explanation	Service comparison				
			Diagnostic range	diagnostic category	False positive over-positive	Risk determination	diagnostic report
1	manual diagnosis	This is a diagnosis performed by our diagnostic engineers. We have the widest range of diagnosis and diagnosis categories, and we will submit the diagnosis report in the same format and appearance as before.	<ul style="list-style-type: none"> It is possible to cover diagnosis targets under all kinds of conditions. 	<ul style="list-style-type: none"> All possibilities are examined and reported at the time of diagnosis. 	<ul style="list-style-type: none"> We will check whether there is false detection or over-detection of the problem area. 	<ul style="list-style-type: none"> We will report the overall results of the tool judgment results and the diagnosis engineer's judgment. 	<ul style="list-style-type: none"> We will provide you with a report prepared by our diagnostic engineers.
2	CPEs	We will conduct a diagnosis using a commercial tool that we use for vulnerability diagnosis and report the results. Our diagnostic engineers will set up and operate the tool, and check for over-detection and false detection. We do not examine the risk judgment based on the system characteristics. Inspection results will be submitted in a report generated by the tool (in BBSec specifications).	<ul style="list-style-type: none"> Due to the characteristics of tool diagnostics, there may be diagnostic screens that cannot be covered by tool diagnostics, such as screens that cannot be moved unless under specific conditions (see the following pages). 	<ul style="list-style-type: none"> Although it discovers major vulnerabilities, it is advantageous to manually respond to the latest techniques, and it is not good at diagnosing session management (see the following pages). 	<ul style="list-style-type: none"> False detection of problem parts We will check whether there is false detection. 	<ul style="list-style-type: none"> We will present the judgment result of the tool as it is. 	<ul style="list-style-type: none"> We will submit a report generated by the tool (format customized to BBSec specifications).



Overview of Inspection Items (WEB)

Response to OWASP TOP10 2017

*Specific examples of each survey item are only major examples and are not intended to limit the content of the diagnosis. In addition, there is a part where the accuracy of tool diagnosis is inferior to that of manual diagnosis.

OWASP TOP 10	Example	Manual	Tool diagnosis
A1 – Injection	SQL injection	diagnosis •	•
	command injection	•	•
	HTML injection Email	•	•
	header injection	•	×
	HTTP header injection Inspection	•	×
A2 – Poor Authentication and Session Management	of authentication method Handling	•	•
	of user IDs, passwords, and session information Display of information	•	•
A3 – Sensitive data exposure	that should not be disclosed Detection of application paths that should not	•	•
	be disclosed Detection of platform paths that should not be disclosed	•	•
		•	•
A4 – XML External Entity Reference (XXE)	XML external entity	•	Verifying signature
A5 – Poor Access Control	reference (XXE) file	•	×
	inclusion Path traversal	•	•
	Forced browsing Privilege	•	×
	escalation Robots.txt	•	×
	detection	•	Supported by NW diagnosis
A6 – Mistakes in security settings	Publish admin page	•	•
	Directory listing	•	•
	Allow deprecated	•	Supported by NW diagnosis
	methods Unrestricted file upload	•	×
A7 – Cross Site Scripting (XSS)	capabilities Cross-site scripting (XSS)	•	•
A8 – Insecure deserialization	Object and data structure related attacks Typical	•	×
	data tampering Use of components with known vulnerabilities	•	×
A9 – Use of components with known vulnerabilities	such as access control related attacks	•	Supported by NW diagnosis Supported by CPECORE
A10 – Poor Logging and Monitoring	Check log files	Supported by GlassBox	Supported by CPECORE
	Log monitoring	×	×



Difference between CPE and manual diagnosis (NW)

Item number	item	explanation	Service comparison				
			Diagnostic range	diagnostic category	False positive over-positive	Risk determination	diagnostic report
1	manual diagnosis	This is a diagnosis performed by our diagnostic engineers. We have the widest range of diagnosis and diagnosis categories, and we will submit the diagnosis report in the same format and appearance as before.	<ul style="list-style-type: none"> It is possible to cover diagnosis targets under all kinds of conditions. 	<ul style="list-style-type: none"> All possibilities are examined and reported at the time of diagnosis. 	<ul style="list-style-type: none"> We will check whether there is false detection or over-detection of the problem area. 	<ul style="list-style-type: none"> We will report the overall results of the tool judgment results and the diagnosis engineer's judgment. 	<ul style="list-style-type: none"> We will provide you with a report prepared by our diagnostic engineers.
2	CPEs	Diagnosis is performed using a tool equipped with an engine developed independently by our company, and the results are reported. Our diagnostic engineers will set up and operate the tool, and check for over-detection and false detection. We do not examine the risk judgment based on the system characteristics. Inspection results will be submitted in a report generated by the tool (in BBsec specifications).	<ul style="list-style-type: none"> Port scan and network vulnerability diagnosis are performed in the same way as manual diagnosis. 	<ul style="list-style-type: none"> Some items that can lead to server stoppages that cannot be verified by tool diagnosis have lower accuracy than manual diagnosis. 	<ul style="list-style-type: none"> False detection of problem parts We will check whether there is false detection. 	<ul style="list-style-type: none"> We will present the judgment result of the tool as it is. 	<ul style="list-style-type: none"> We will submit a report generated by the tool (format customized to BBsec specifications).



Overview of Inspection Items (Network)

Overview of inspection items for [Network Diagnosis]

*Specific examples of each survey item are only major examples and are not intended to limit the content of the diagnosis. In addition, there is a part where the accuracy of tool diagnosis is inferior to that of manual diagnosis.

category	Action Item	Example of Implementation	Manual diagnosis Tool
Host scan	TCP, UDP, ICMP port scanning	TCP: Perform full port scan UDP: Performs TOP1000 port scan with high detection frequency (full port if necessary) Response	diagnosis
	Discover running services	confirmation for various protocols (HTTP, SMTP, FTP, etc.) Response confirmation for custom packets (SNMP, NTP, etc.) Not
network service vulnerabilities	Research on DNS	Verification of DNS recursive query behavior Extracting information from DNS cache	implemented Not implemented Not
	Research on mail servers	Verification of relay control in SMTP service Account investigation using EXPN/VERFY commands	implemented Not implemented Not
	Survey on FTP	Verification of AnonymousFTP Version identification of vsFTPD - Verification of known vulnerabilities	implemented Not implemented Not
	RPC research	Execution service identification by RPC service Extracting information from DCE/RPC services	implemented Not implemented
	File sharing research	Verification of access control on SMB services Validating Null Session Issues	
	Survey on SNMP	Verify default settings in SNMP service Information extraction using SNMP	
	Survey on SSH server	Validation of acceptable encryption methods and MAC algorithms Verification of plaintext recovery attack in	
	Research on database servers	SSH Default account investigation Identification of database server and version by fingerprinting	
	Research on other services	Disclosure of system information by NTPD Validating ICMP Timestamp Responses	
	Web server vulnerabilities	Web server vulnerabilities	Verification of cross-site scripting, etc. in ApacheKiller and Expect headers Validation of encryption in SSL/TLS (heartbleed, RC4 algorithm acceptance, etc.)
Web application server vulnerabilities		Validating Arbitrary Command Execution in ApacheStruts Detecting EasterEgg information in PHP	
Allowed HTTP methods		Validating deprecated methods (TRACE, DELETE, PUT, etc.) Checking usage of	
Various OS vulnerabilities	Windows Known Vulnerabilities	Windows after vendor support ends Information extraction via NetBIOS	
	Known vulnerabilities of	Patch level verification via fingerprinting	
	Solaris Known vulnerabilities of various Linux distributions Verification of usage status of old kernels Known vulnerabilities of other various OS	VMware ESXi version identification to known vulnerability verification	
malicious software	Investigating backdoors	Detection of unintended services and applications (TCP Port 0 release, etc.) Matching with backdoor program databases Matching with P2P application databases such as gnutella	
	Investigation of P2P software		
Vulnerability of network equipment	Known vulnerabilities of various router devices	Problems related to DNS settings (DNS poisoning)	
	Known vulnerabilities of various firewall devices	Problems caused by default settings (internal web server disclosure)	
	Known vulnerabilities of various other network devices	Checking for known vulnerabilities by fingerprinting Detecting various logins	
others	Investigation of other entire hosts	and management screens	
Unusual surveys	Denial of Service (DoS) attacks	ClassLoader operations on ApacheStruts SYN flood attack	
	Brute force attack	Brute Force Attack on SSH, FTP Brute Force Attack on Web Login Screen	



WordPress diagnostic check summary

WordPress vulnerability check for WordPress is possible

* Please contact us for details, as each option item will be quoted separately.

Inspection item	detail
WordPress vulnerability scan	Check if you are using a vulnerable version of WordPress
Vulnerability check for WordPress plugins Installed plugins are checked for vulnerabilities*	
Vulnerability check for WordPress theme Checks for vulnerabilities in installed themes*	

* Detailed inspection cannot be performed if the content/plugin directory cannot be accessed from the CPE diagnosis source IP address due to access permissions, etc. Please set permission in advance.

No	脆弱性	リスクの重大性	CVSSv2	CVSSv3
WordPress脆弱性診断				
A1	http://www.example.com/wordpress/			
A1.1	WordPressのインストールディレクトリ	脆弱	10.0	10.0
A1.2	WordPressにおけるWordPress運用管理の脆弱性	脆弱	7.5	7.5
A1.3	WordPressにおける任意のPHPコードを実行される脆弱性	脆弱	7.5	0.0
A1.4	レポートが終了したバージョンのPHP実行の可能性	脆弱	10.0	9.8
A1.5	サポートが終了したバージョンのOpenSSL使用の可能性	脆弱	0.0	0.0
A1.6	サポートが終了したバージョンのApache使用の可能性 (2.6)	脆弱	10.0	9.8
A1.7	レポートが終了したバージョンのPython実行の可能性 (2.6)	脆弱	10.0	9.8
A1.8	クロスサイトスクリプティングの脆弱性	脆弱	7.5	7.1
A1.9	WordPressのwp-includes/http.phpにおけるサーバーサイドのリクエストフォージェリの脆弱性	脆弱	6.4	6.4
A1.10	WordPressのwp-includes/feed.phpにおけるクロスサイトスクリプティングの脆弱性	脆弱	3.5	3.4
A1.11	WordPressのwp-mail.phpにおける任意のPHPコードを実行される脆弱性	脆弱	5.0	5.3
A1.12	WordPressのwp-includes/feed.phpにおけるサーバーサイドのリクエストフォージェリの脆弱性	脆弱	5.0	0.0
A1.13	WordPressのwp-includes/feed.phpにおけるサーバーサイドのリクエストフォージェリの脆弱性	脆弱	4.3	0.0
A1.14	WordPressのwp-admin/post.phpにおける任意のPHPコードを実行される脆弱性	脆弱	4.0	0.0
A1.15	WordPressのwp-includes/comment.phpにおける任意のPHPコードを実行される脆弱性	脆弱	5.8	0.0
A1.16	WordPressのwp-includes/feed.phpにおけるクロスサイトスクリプティングの脆弱性	脆弱	4.3	0.0
A1.17	WordPressのwp-admin/post.phpにおけるクロスサイトスクリプティングの脆弱性	脆弱	4.3	0.0
A1.18	WordPressのwp-includes/topabilities.phpにおける任意のPHPコードを実行される脆弱性	脆弱	4.0	0.0

A1.3 WordPressにおける任意のPHPコードを実行される脆弱性

脆弱性ID: 80102

CVSSv2: 7.5 (AV:N / ACL:AUN / CP:IP / LP:AT)

CVSSv3: 0.0 (AV:未設定 / AC:未設定 / PR:未設定 / UI:未設定 / S:未設定 / C:未設定 / E:未設定 / A:未設定)

現象

2007年2月から3月に公式の配布サイトからダウンロードされたWordPressは、外から追加されたバックアップを含んでいるため、任意のPHPコードを実行される脆弱性が存在します。

この脆弱性によるリスク

第三者により、以下を介して、任意のPHPコードを実行され (1) wp-includes/feed.php への \$cパラメータの eval インジエクト (2) wp-includes/themes.php への \$tパラメータのインジエクト

対策方法

ベンダより正式な対策が公開されています。ベンダ情報を参照してください。

A1.8 WordPressのwp-includes/http.phpにおけるサーバーサイドのリクエストフォージェリの脆弱性

脆弱性ID: 80067

CVSSv2: 6.4 (AV:N / ACL:AUN / CP:IP / LP:AT)

CVSSv3: 0.0 (AV:未設定 / AC:未設定 / PR:未設定 / UI:未設定 / S:未設定 / C:未設定 / E:未設定 / A:未設定)

現象

WordPressのwp-includes/http.phpには、サーバーサイドのリクエストフォージェリの脆弱性が存在します。

この脆弱性によるリスク

第三者により、127.0.0.1のリソースを参照されることで、サーバーサイドのリクエストフォージェリ攻撃を実行される可能性があります。

対策方法

ベンダより正式な対策が公開されています。ベンダ情報を参照して適切な対策を実施してください。

WordPress Blog: WordPress 4.0.1 Security Release <https://wordpress.org/news/2014/11/wordpress-4-0-1/>

WordPress.org: ChangeSet 30444 <https://core.trac.wordpress.org/changeset/30444>



Signature update frequency

ÿ [Platform (network) diagnosis] signature update frequency (normal time)

regular work: once a week

- Updating platform signatures after release validation.
- High frequency due to frequent occurrence of vulnerabilities related to middleware.

ÿ [Web Application Diagnosis] signature update frequency

(Normal time) Periodic work: once a month (addition of new diagnostic items once a quarter)

- Reviewing valid signatures at signature review meetings and updating signatures.
- Vulnerabilities related to Web applications rarely generate new diagnostic items.

ÿ Emergency (Temporary) Signature Update (Emergency)

Temporary work: Implemented each time it occurs (approximately one week after signature analysis and verification)



Report screen image

1. Login screen

Customers from the dedicated portal site
You can use it by logging in with your ID/PW.



2. Diagnosis report

viewing screen Vulnerabilities found in drill-down format for each IP address and URL are ranked, You can see reports of risks and countermeasures.

診断報告レポート

会社名: 株式会社プロ・コンパイルシステム
 プロファイル名: 株式会社プロ
 診断日時: 2024/09/24 14:23

【Webアプリケーション脆弱性診断結果】

URL	レベル: 致命	レベル: 重大	レベル: 中	レベル: 軽	備考
http://www01.example.com/	1	4	0	1	0

【Webアプリケーション脆弱性診断】
 A1 http://www01.example.com/

A1.1 SQLインジェクションの脆弱性の同定

脆弱性の詳細: 10009
 CVE識別子: CVE-2013-0116

この脆弱性によるリスク:
 SQLインジェクションの脆弱性と同定された、攻撃者はデータベースサーバの権限を悪用、変更、追加、または削除することが可能です。SQLインジェクション攻撃による影響は、攻撃者によりシステムの状態を悪化させることで大きく及びます。例えば、データベース接続、データベースが管理されているアプリケーションが実行されている場合、攻撃者は、テーブルの内容を変更したり、新しいテーブルを作成したり、またはテーブルを削除したりすることが可能になります。一方、データベースのアカウントであるrootが使用される場合、攻撃者はデータベースの完全な管理を行う可能性があります。また、(ユーザーアカウントを偽造すること)がデータベースを攻撃しているサーバを攻撃される可能性があります。

対策方法:
 SQLインジェクションは、ウェブアプリケーションの脆弱性によって発生する可能性がある脆弱性の一種として認識されています。また、最新の修正パッチ、クライアントの入力値が90%以上として適切でない限り、Webアプリケーションを脆弱にする必要があります。90%未満の脆弱性は、脆弱性の入力データは、7マントオブジェクトのprepared statementを利用し、悪意のある入力値を挿入するのを防ぐことができます。これにより、SQLが実行されるのを防止することが可能になります。

上記の方法を実行できない場合は、データの送信をエンコーディング(サニタイズ)を行う必要があります。これはデータを、あるべき入力データの形式に近い形式でエンコードしたり、フィルタリングといった処理を行う事になります。

SQLインジェクション対策は、データベースサーバのログ監視の継続については、下記URLを参照ください。

IPアドレス: 192.168.1.100
 IPアドレス: 192.168.1.100
 http://www.example.com/program/index.html

3. Vulnerability statistics

viewing screen Daily vulnerability reports can be managed for one year. You can also view vulnerability statistics, such as the extent to which vulnerabilities have been fixed and how often new vulnerabilities are discovered.



*Screen specifications are subject to change without notice.

Notes

Frequency of access to target systems (approximate)

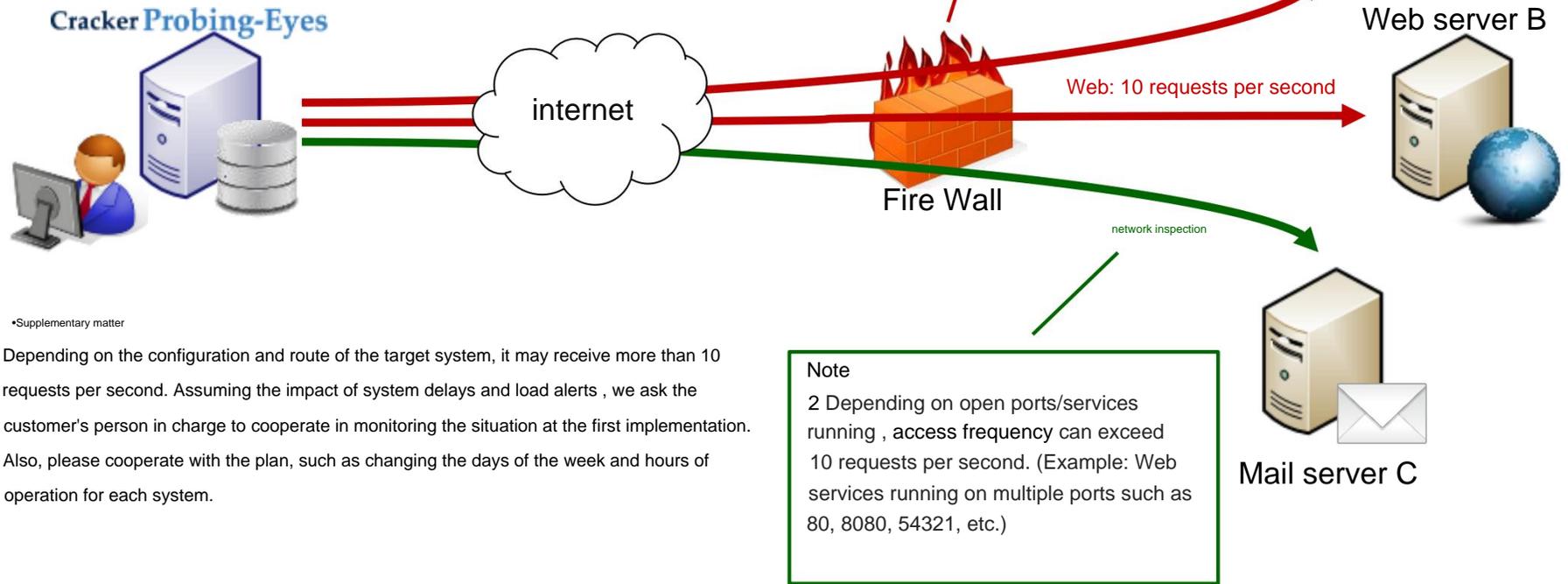
•Web application diagnosis A maximum

of 10 requests per second per diagnosis target unit (1 FQDN) (Note 1)

•Network diagnosis About

10 requests per second per diagnosis target unit (1 IP address) (Note 2)

*1 If web diagnostics are performed on web servers A and B at the same time, there is a possibility that 20 requests per second will be sent to the monitored FW .



•Supplementary matter

Depending on the configuration and route of the target system, it may receive more than 10 requests per second. Assuming the impact of system delays and load alerts , we ask the customer's person in charge to cooperate in monitoring the situation at the first implementation. Also, please cooperate with the plan, such as changing the days of the week and hours of operation for each system.

Note
2 Depending on open ports/services running , access frequency can exceed 10 requests per second. (Example: Web services running on multiple ports such as 80, 8080, 54321, etc.)



Notes

About access interval

In Web application diagnostics, access intervals can be set as follows. (Set value: 0.1 second interval) In the case of the following settings, after confirming the response of the target server, sleep for 0.1 seconds and send the next request, so it will not exceed 10 accesses per second.

アクセス間隔	0.1	秒
リンク階層数指定 (無制限:0 指定)	15	階層
リダイレクト回数指定 (無制限:0 指定)	3	回数
1リクエストに対する応答遅延の閾値	経過時間の遅延: 10 秒以上 結果のレスポンスがない場合に、診断スキャンを中断する。	
遷移割合の閾値	遷移割合の閾値を指定して適用	

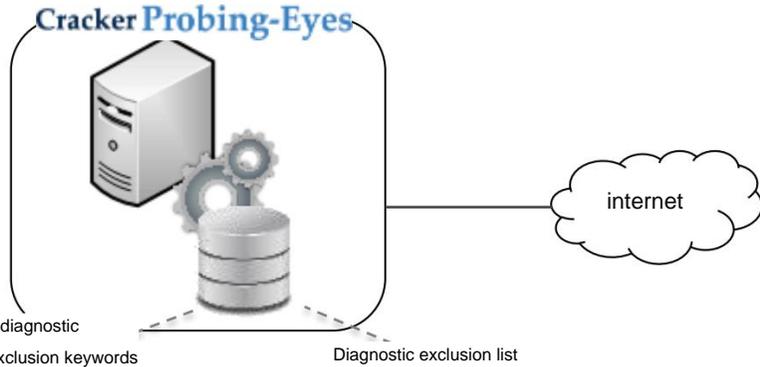


Note

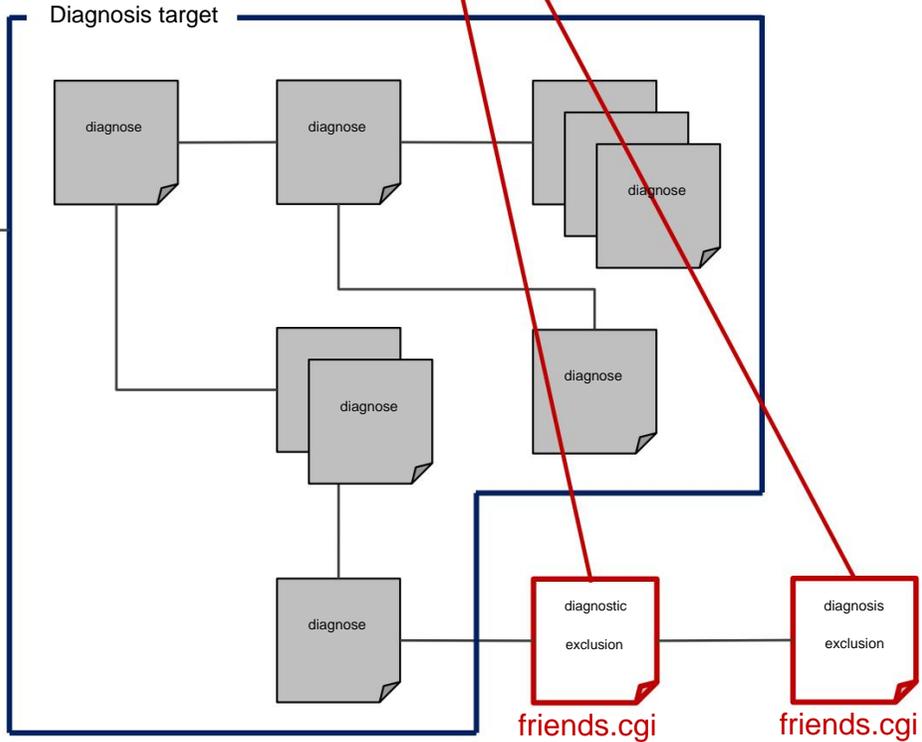
Access control (diagnosis/crawling)

In Web application diagnosis, the system automatically explores and accesses the screen to be diagnosed. Therefore, unintended data registration (sending from the inquiry form, updating user information, etc.) may occur. It is also possible to set diagnostic exclusions based on specific keywords and URLs.

In order to exclude from the system (blacklist registration) the targets and screens that you do not want to access, please provide the characteristics of the function and URL information. (Example: If you use the ●● function, other users can view it, so exclude it. URL is <http://example.com/friends.cgi> etc.)



1	1 http://foo.com/regist?id=123
register 2	http://foo.com/complete 3 http://
complete 3 send	foo.com/send 4 http://foo.com/
4 finish	finish 5 http://foo .com/update 6
5 update 6	http://foo.com/delete 7 ●●
delete	
7...	





Preparations on the customer side

The following preparations are mainly required on the customer side between ordering and scanning.

• CPE diagnosis confirmation work (before ordering)

- If you wish to perform a web diagnosis, it may not be possible depending on the target HTML structure and request content, so our engineers will confirm the feasibility in advance. (It takes about 2-3 business days per URL.)
 - Access preparation (after placing an order)
 - Access permission to CPE diagnosis source IP address
 - Authentication information
 - Account preparation (if you want a full scan)
 - Application Fill out and send the form (after ordering)
 - Select the desired time for diagnosis
- The following is only for annual contracts
- Confirm the email address to be notified of diagnosis completion, suspension, failure, and maintenance emails
 - To log in to the CPE portal
 - Confirmation of e-mail address for account (ML not available)
 - Confirmation of desired diagnosis cycle
- Response to various inquiries (during crawling period)
- Questions and confirmation from CPE support (continued during diagnosis period)
 - Details of crawling results
 - Confirmation and response to whether or not scanning can be executed



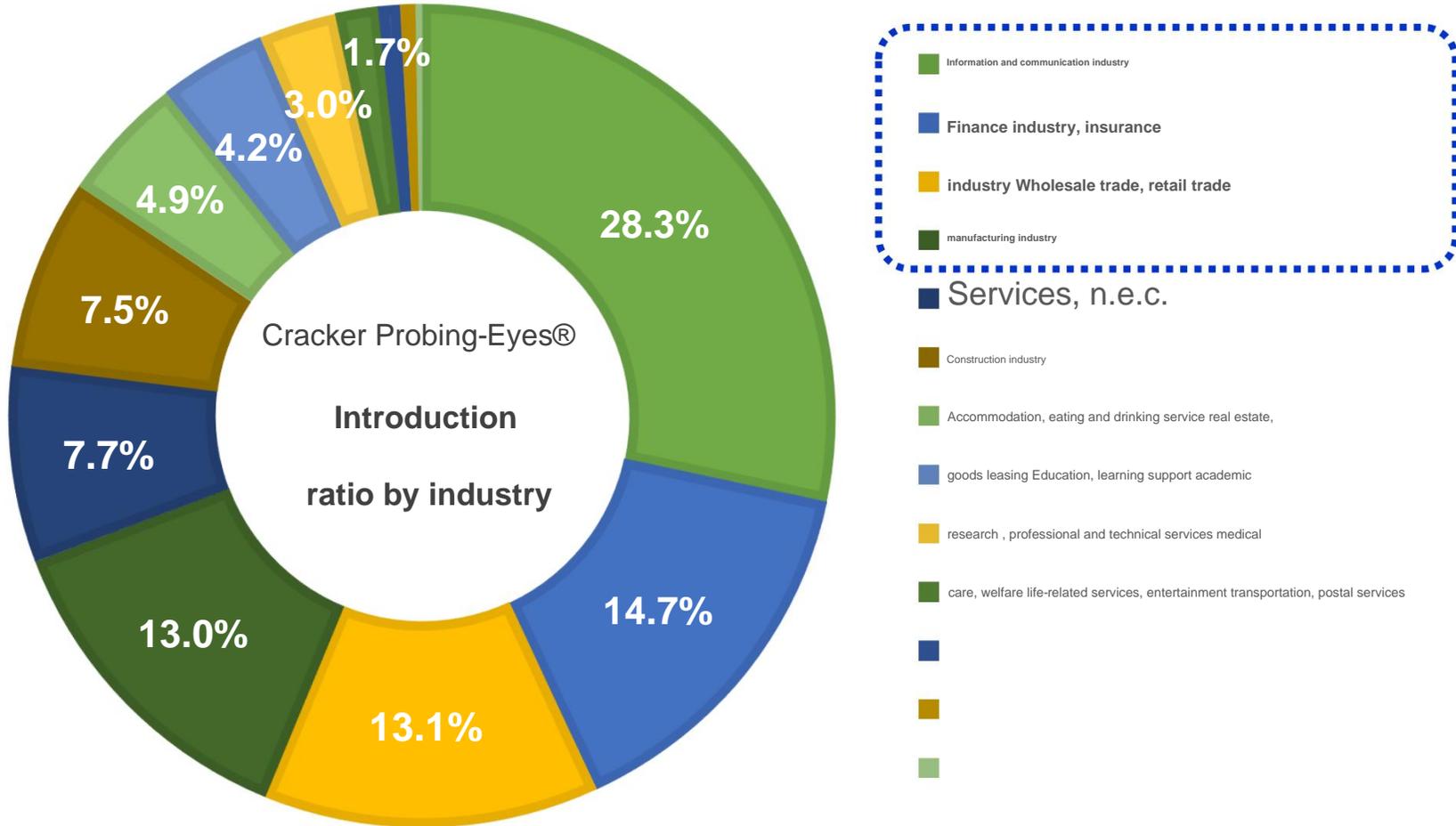
Cracker Probing-Eyes®

Case study



Implementation results by industry

It is mainly used for regular diagnostics on Web application development and provision, company product / service introduction sites, EC / community sites, etc.





Introduction case list

Industry	Company Name	scale	use case
 wholesale, retail	A certain EC site operating company: Company S	about 20 sites	It is used for regular scanning after manual diagnosis for online shopping sites .
 Professional and technical services	Certain IT solution company: Company F	about 10 sites	It is used for prior confirmation of the developed website before providing this service .
 manufacturing industry	Certain steel company: Company J	about 30 sites	It is used for simple scanning of corporate websites that introduce steel-related products and product information.
 entertainment industry	Certain game company: Company S	about 30 sites	It is used to regularly scan the platform for community sites for game-related content.
 Insurance business	Certain insurance company: Company A	about 5 sites	It is used for regular scanning of members' sites for insurance-related information .
 real estate business	Certain real estate company: Company T	about 20 sites	It is used for simple scanning of corporate websites with real estate-related information.
 entertainment industry	Certain entertainment company: Company A	about 20 sites	It is used for regular scanning of community sites that distribute entertainment information.

There are many other examples.