



eCSIRT.net The European CSIRT Network

**Status Update
TF-CSIRT, September 2003
Amsterdam, NL**

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Review of the current results

- **Statistics – Clearinghouse function**
- **Infrastructure – Alert function**

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Participation

- **Participation is restricted to teams that are:**
 - Partners of the eCSIRT.net project
 - Liaisons of the eCSIRT.net project
 - Any TI accredited team by default
 - Any other team by decision of the project partners
- **furthermore**
 - The Code-of-Conduct must be signed
 - The related Policies must be accepted

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Type 1 Statistics

- **(Meta) Information on the Workload**
 - Either a product of human assessment or
 - derived from tracking data by IH tools
 - Characteristic data points:
 - reports and incidents / attacks
 - affected systems, persons, organizations
 - time spent
 - Reporting ensures authenticity and confidentiality
 - Access of participating CSIRTs to aggregated data
 - Subset of aggregated data as public available statistics

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Type 1 Statistics Form

WP4 Type 1 Statistics - Mozilla (Build ID: 2002121215)
File Edit View Go Bookmarks Tools Window Help Debug QA
Back Forward Reload Stop
https://www.ecsirt.net/intra/forms/wp4-stats01-form.html
Home Bookmarks The Mozilla Organization Latest builds

eCSIRT
WP4 Statistic Form 01

(Partner) (Project) (News) (Background) (Service)
ecsirt.net > INTRANet > WP4 Statistics

WP4 Statistics: Type-1-Statistics

Please enter the required data into the following form. The data is first submitted and presented to you again to be checked for bugs. After checking the data has to be submitted again to be stored on the system.

General data

Time period of submitted data: January 2003

Incident and Report related data

Number of all reports:

- Monthly reporting
- Web form
- SSL Client Certificates

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Type 1 Statistics Form (2)

Incident and Report related data

Number of reported incidents:
Number of closed incidents:
Number of false reports:
Number of analyzed reports:
Number of analyzed systems:

Amounts of time spent

Time spent for analyzing (in hours):

Involved systems and organizations

Number of involved systems:
Number of attacked systems:
Number of involved organizations:
Number of attacked organizations:

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Type 2 Statistics

- Information on **Incidents** handled by CERTs:
 - Information submitted monthly by CERTs for closed incidents
 - Information submitted is based on IODEF classification scheme
 - Reporting ensures authenticity and confidentiality
 - Access of participating CSIRTs to aggregated data
 - Subset of aggregated data as public available statistics



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Type 2 Statistics Form

A screenshot of a Mozilla browser window displaying the "WP-4 Type 2 Statistics" form. The browser title is "WP-4 Type 2 Statistics - Mozilla (Build ID: 2002121215)". The address bar shows the URL "https://www.ecsirt.net/intra/forms/wp4-stats02-form.html". The page content includes a paragraph of text, a "General Data" section with a "Time period of submitted data:" label and two dropdown menus (one for "January" and one for "2003"), and a "Policy Violations" section with a table. The table has two columns: "primary type (mandatory)" and "additional types (optional)". The rows in the table are: "Violation of Acceptable Use Policy:", "Violation of Corporate Policy:", "Violation of National Laws:", "Hoaxes:", and "Harrasment:". The status bar at the bottom of the browser window shows "Done".

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Type 2 Statistics Form (2)

Malicious Code

Virus:	<input type="text"/>	<input type="text"/>
Worm:	<input type="text"/>	<input type="text"/>
Trojan:	<input type="text"/>	<input type="text"/>
Spyware:	<input type="text"/>	<input type="text"/>
Dialer:	<input type="text"/>	<input type="text"/>

Information Gathering

Scanning:	<input type="text"/>	<input type="text"/>
Probing:	<input type="text"/>	<input type="text"/>
Sniffing:	<input type="text"/>	<input type="text"/>
Social Engineering:	<input type="text"/>	<input type="text"/>

Intrusion Attempts

Exploiting of known Vulnerabilities:	<input type="text"/>	<input type="text"/>
Login attempts:	<input type="text"/>	<input type="text"/>
New attack signature:	<input type="text"/>	<input type="text"/>

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Type 2 Statistics Form (3)

Intrusions

Privileged Account Compromise:	<input type="text"/>	<input type="text"/>
Unprivileged Account Compromise:	<input type="text"/>	<input type="text"/>
Application Compromise:	<input type="text"/>	<input type="text"/>

Availability

DoS:	<input type="text"/>	<input type="text"/>
DDoS:	<input type="text"/>	<input type="text"/>
Sabotage:	<input type="text"/>	<input type="text"/>

Information Security

Unauthorised access to information:	<input type="text"/>	<input type="text"/>
Unauthorised modification of information:	<input type="text"/>	<input type="text"/>

Fraud

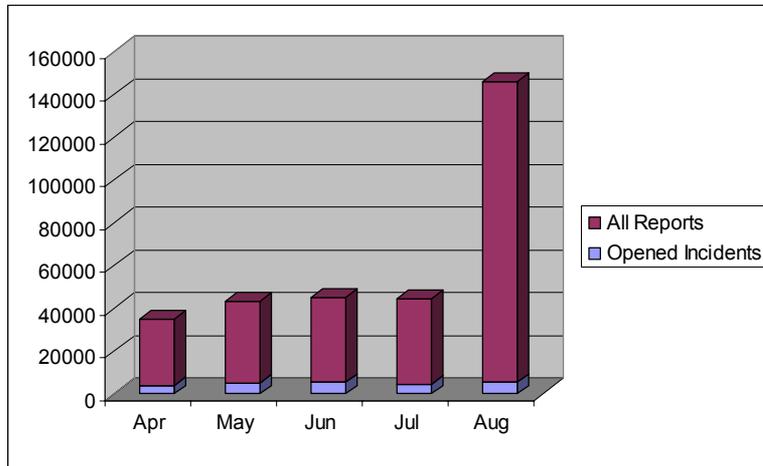
Unauthorized use of resources:	<input type="text"/>	<input type="text"/>
Copyright:	<input type="text"/>	<input type="text"/>
Masquerade:	<input type="text"/>	<input type="text"/>

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Statistical Results: Type 1 (5 Teams)

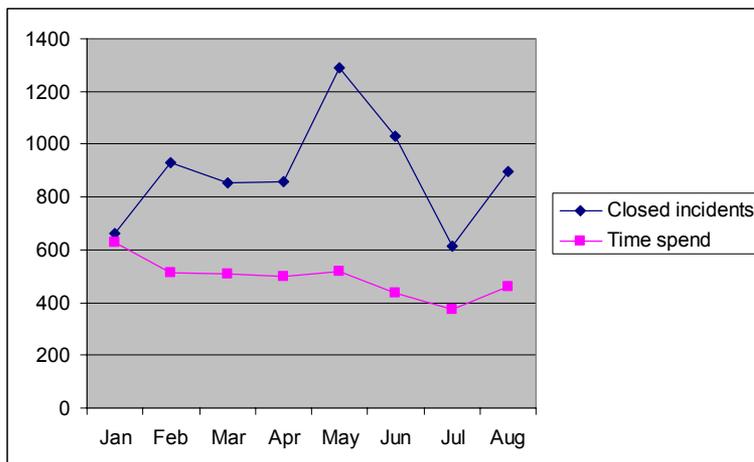


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Statistical Results: Type 1 (3 Teams)

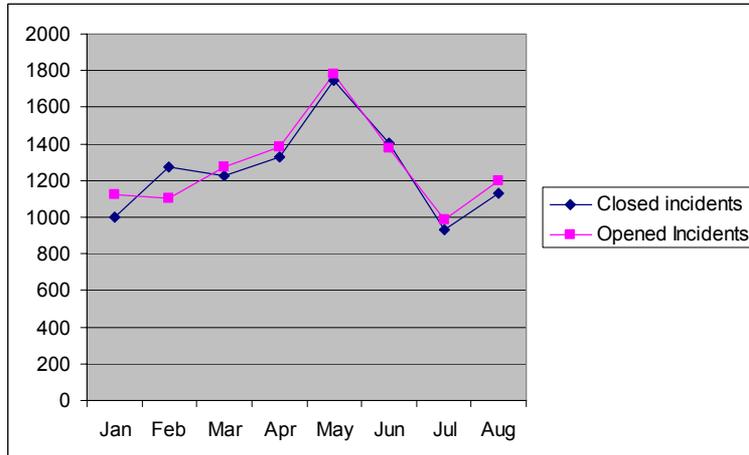


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Statistical Results: Type 1 (4 Teams)

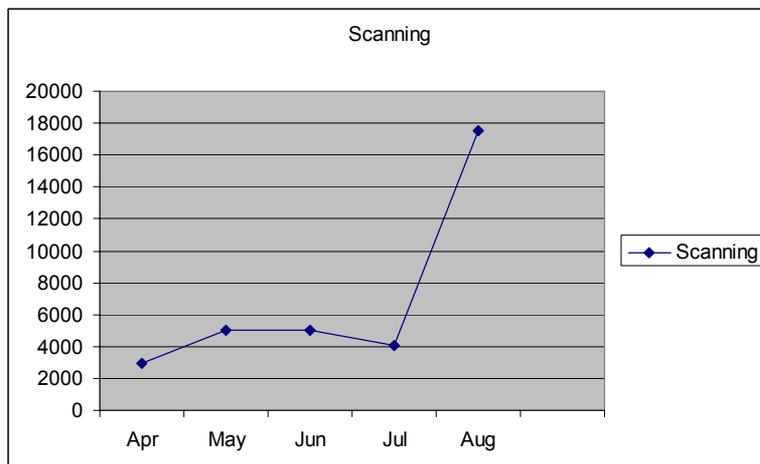


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Statistical Results: Type 2 (3 Teams)

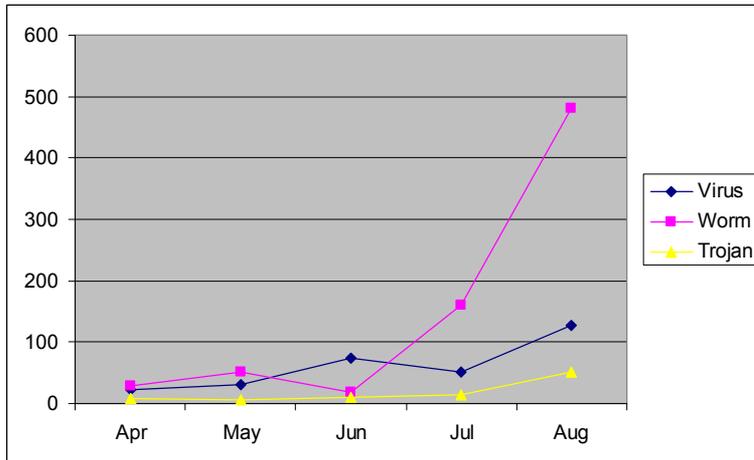


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Statistical Results: Type 2 (3 Teams)

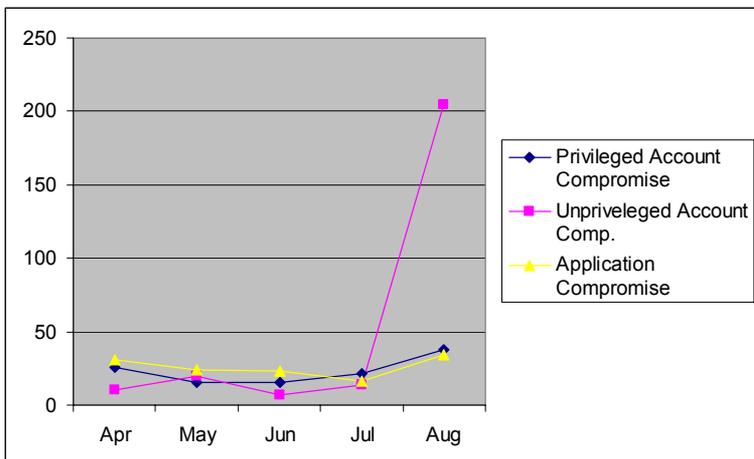


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Statistical Results: Type 2 (3 Teams)

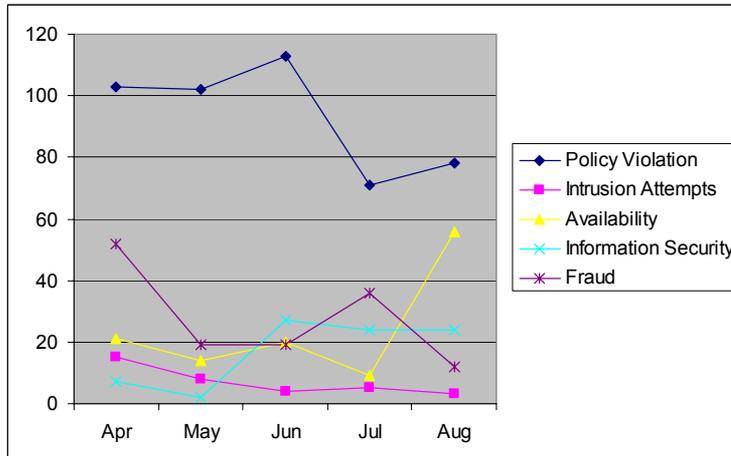


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Statistical Results: Type 2 (3 Teams)



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Type 3 Statistics

■ Information on **Events** on the Internet:

- Not necessarily handled by a CERT
- Not necessarily a successful intrusion
- Submission ensures authenticity (and confidentiality)
- Gathered and aggregated automatically
- Access of participating CSIRTs to aggregated data
- Subset of aggregated data as public available statistics

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Sensors for Type 3 Statistics

- **Sensor is located on not otherwise used system(s) reachable over the Internet**
 - HONEYD – to fake system (1 IP address)
 - Second IP address for reporting
- **Configuration of detection software**
 - Bootable CD-ROM image (GPL, free)
 - Configuration floppy (text based files)
 - Pregenerated public key pair for each sensor
- **Software**
 - PRELUDE – Network IDS with SNORT rule set
 - CRYPTO-NTP – to allow correlation
- **Exchange based on IDMEF**

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Centralized Collector for Type 3 Statistics

- **Services**
 - Crypto-NTP server
 - PRELUDE Collector
 - HTTPS protected web access to data
- **User Access via https and user certificates**
- **Manual key generation and management**
 - Sensor public key pairs
 - User und server certificates
 - CD-ROM image
 - Configuration files

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Type 3 Statistics Access

Alert List | HeartBeat | Top 15 Attackers | Top 15 Attacks | Statistics

Filter Factory | Edit current filter | DFN-CERT-Sensor | Load filter

Severity filter: high, medium, low

Sort by: timestamp, group by key

Results per page: 15

Delete: nothing, selected alerts, alerts matched by filter

Group by: Classification Name, Source Address, Target Port

Order: Desc, Asc

Since: 1 day

Process: nothing, selected alerts, alerts matched by filter, by program: None

submit

202 results for those filters

First Prev Last

P	Id	Classification	Impact	Type	Source	Destination	Sensor	Timestamp
	906	HTTP escape sequence hide another sequence	other	tcp	196.145.25.67:1353 (relief)	193.174.13.138:80 (http)	NIDS	2003-08-28 14:58:27
	905	HTTP escape sequence hide another sequence	other	tcp	196.145.25.67:1353 (relief)	193.174.13.138:80 (http)	NIDS	2003-08-28 14:58:27
	904	WEB-IIS cmd.exe access	other	tcp	196.145.25.67:1340 (sbook)	193.174.13.138:80 (http)	NIDS	2003-08-28 14:58:27
	903	WEB-IIS cmd.exe access	other	tcp	196.145.25.67:1347 (bbn-rmmc)	193.174.13.138:80 (http)	NIDS	2003-08-28 14:58:26
	902	WEB-IIS CodeRed v2 root.exe access	other	tcp	196.145.25.67:1345 (vqip)	193.174.13.138:80 (http)	NIDS	2003-08-28 14:58:26
	901	MS-SQL version overflow attempt	other	udp	213.77.250.225:1815 (mmpt)	193.174.13.138:1434 (ms-sql-m)	NIDS	2003-08-28 12:52:26

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Type 3 Statistics Access (2)

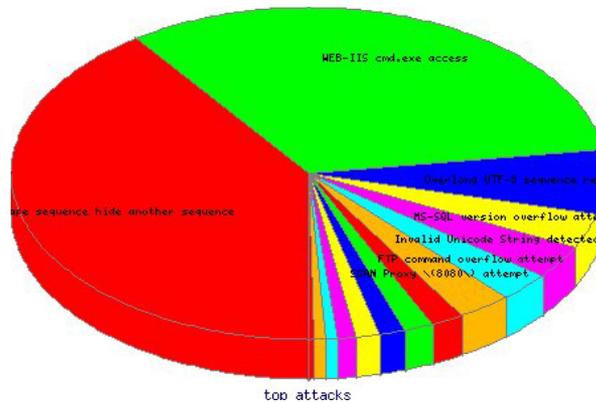
AttackNb	Attack name
250	HTTP escape sequence hide another sequence
202	WEB-IIS cmd.exe access
39	Overlong UTF-8 sequence received
21	MS-SQL version overflow attempt
20	Invalid Unicode String detected
18	FTP command overflow attempt
18	SCAN Proxy \(\8080\) attempt
11	ICMP PING NMAP
10	WEB-IIS ..\.. access
9	SCAN Squid Proxy attempt
8	WEB-IIS nsislog.dll access
6	ICMP PING CyberKit 2.2 Windows
4	ICMP superscan echo
4	WEB-IIS CodeRed v2 root.exe access
2	ICMP Destination Unreachable (Communication Administratively Prohibited)

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Type 3 Statistics Access (3)



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Attacking Hosts on multiple Sensors

```
$host> ./attackers_seen_per_sensor.pl -B
```

```
# 96240 attacks exist in database.
```

```
# alerts from 6 different sensors exist.
```

```
# alerts from 13332 different hosts exist.
```

```
13012 attacking hosts seen by 1 sensors.
```

```
242 attacking hosts seen by 2 sensors.
```

```
49 attacking hosts seen by 3 sensors.
```

```
23 attacking hosts seen by 4 sensors.
```

```
1 attacking hosts seen by 5 sensors.
```

```
5 attacking hosts seen by 6 sensors.
```

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Attack Methods per Host

```
$host> ./different_attacks_per_host.pl -B
```

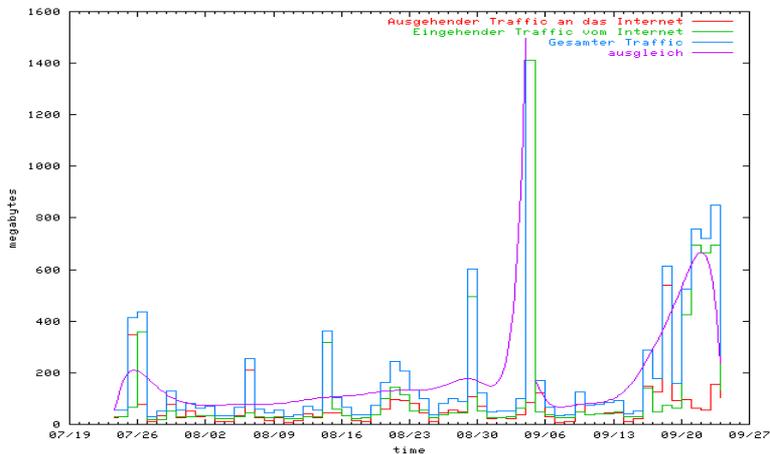
```
10075 hosts seen using 1 different attacks.  
1777 hosts seen using 2 different attacks.  
859 hosts seen using 3 different attacks.  
71 hosts seen using 4 different attacks.  
514 hosts seen using 5 different attacks.  
18 hosts seen using 6 different attacks.  
9 hosts seen using 7 different attacks.  
3 hosts seen using 9 different attacks.  
2 hosts seen using 10 different attacks.  
2 hosts seen using 11 different attacks.  
2 hosts seen using 14 different attacks.
```

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Our traffic has changed a little



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Alert Function - Status

- **Cryptographic secure mailing list**
 - Supports S/MIME and PGP
 - Based on commercial SMTP proxy
 - Secret key of mailing list for receiving emails
 - Public keys of subscribers for sending emails

- **Status**
 - Operational

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Use of the Alert Function

- **Whenever there is a legitimate interest of the participating CSIRTs**
- **If the impact can be foreseen and represents a widespread threat**
 - e.g. nationwide or international
- **Communication**
 - Native IODEF objects being send to the mailing list
 - Web form to facilitate common format for alerts

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Alert Form

Alert Form - Mozilla (Build ID: 2002121215)

File Edit View Go Bookmarks Tools Window Help Debug QA

Back Forward Reload Stop <https://www.ecsirt.net/tra/forms/wp5-alert-form.html> Search Print

Home Bookmarks The Mozilla Organization Latest Builds

WP5 Alert Function: version-1.0

Please enter the required data into the following form. The data is first submitted and presented to you again to be checked for bugs. After checking the data has to be submitted again to be distributed.

Incident

Restriction: eCSIRT.net need-to-know public

Incident ID:

Description:

Affected Platforms

Windows	Linux	Network	Other
95	IBM AIX	3com	Apple Mac OS
98	BSD	Alcatel	FSC BS 2000
ME	Debian	Allied Telesyn	IBM OS390/400
NT	FreeBSD	BinTec	HP OpenVMS

Systems:

<https://www.ecsirt.net/index.html>

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Alert Form (2)

Alert Form - Mozilla (Build ID: 2002121215)

File Edit View Go Bookmarks Tools Window Help Debug QA

Back Forward Reload Stop <https://www.ecsirt.net/tra/forms/wp5-alert-form.html> Search Print

Home Bookmarks The Mozilla Organization Latest Builds

Server	Client	Other Software - Version
Apache	GPG	
DB2	Java	
Bind	KDE	
Kerberos	Konqueror	

Assessment

Type	Severity	Confidence
user	<input type="radio"/> high	<input type="radio"/> high
none	<input type="radio"/> medium	<input type="radio"/> medium
unknown	<input type="radio"/> low	<input type="radio"/> low

Method

Origin	Url
bugtraqid	
cve	
certcc	

Description:

<https://www.ecsirt.net/index.html>

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Alert Form (3)

Alert Form - Mozilla (build ID: 2002121215)

File Edit View Go Bookmarks Tools Window Help Debug QA

Back Forward Reload Stop <https://www.ecsirt.net/entra/forms/wp5-alert-form.html> Search Print

Home Bookmarks The Mozilla Organization Latest Builds

Recommendation

Expectation

Action: inform constituency inform public other

Description:

Description

Start Time Stop Time Detect Time

<https://www.ecsirt.net/index.html>

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Alerts – Text format

Incident: FRE-CERT-0003
Date: 2003-08-28T10:56+00:00
Restriction: eCSIRT.net

Description: eCSIRT.net Test --- A buffer overrun vulnerability exists in the part of the Windows Remote Procedure Call (RPC) that deals with message exchange over TCP/IP (Port 135).

Affected systems
Windows: XP
NT, Windows 2000, Windows 2003 Server

Assessment
Severity: high
Type: admin
Confidence: high

Expectation: other: inform constituency

Method
Origin: vendor
Url: http://www.microsoft.com/security/security_bulletins/ms03-026.asp.
The risk is HIGH. A successful attacker needs only to be able to send an especially crafted packet to port 135 on the target machine. Sites that block port 135 at their incoming firewall are only vulnerable to attack by machines inside of the firewall.

Recommendation: Apply the respective Microsoft patches and block port 135 at your firewall.

Description: There is a vulnerability in the part of RPC that deals with message exchange over TCP/IP. The failure results because of incorrect handling of malformed messages. This particular vulnerability affects a Distributed Component Object Model (DCOM) interface with RPC, which listens on RPC enabled ports. This interface handles DCOM object activation requests that are sent by client machines to the server. An attacker who successfully exploited this vulnerability would be able to run code with Local System privileges on an affected system. The attacker would be able to take any action on the system, including installing programs, viewing changing or deleting data, or creating new accounts with full privileges. To exploit this vulnerability, an attacker would need to send a specially formed request to the remote computer on specific RPC ports.

Additional Data: <http://www.cert.org/advisories/CA-2003-19.html>

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Alerts – XML / IODEF format

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE IODEF-Document>

<IODEF-Document>
  <Incident restriction="eCSIRT.net" purpose="warning">
    <IncidentID>PRE-CERT-0003</IncidentID>
    <IncidentData>
      <Description>eCSIRT.net Test --- A buffer overrun vulnerability exists in the part of the Window
      <Contact role="irt" type="organisation">
        <name>PRE-CERT</name>
        <Email>precert@pre-secure.de</Email>
        <Telephone>+49 40 808077800</Telephone>
        <Fax>+49 40 808077877</Fax>
      </Contact>
      <ReportTime>2003-08-28T10:56+00:00</ReportTime>
      <Expectation category="other: inform constituency">
        </Expectation>
      <Method>
        <Classification origin="vendor">
          <url>http://www.microsoft.com/security/security_bulletins/ms03-026.asp.</url>
        </Classification>
        <Description>The risk is HIGH. A successful attacker needs only to be able to send an especial
        </Method>
      <Assessment>
        <Impact severity="admin" type="high" />
      </Assessment>
      <EventData>
        <Description>Windows: XP NT, Windows 2000, Windows 2003 Server - There is a vulnerability in
        </EventData>
      <AdditionalData>http://www.cert.org/advisories/CA-2003-19.html </AdditionalData>
    </IncidentData>
  </Incident>
</IODEF-Document>
```

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Out-of-the-Internet Alert Function

- **The out-of-band function shall be used only**
 - If the in-band function isn't available
 - Or outside business hours / during weekends
 - Last resort if no other communication means are available
- **Telecommunication application server**
 - Isolated LINUX server with GNU Bayonne
 - Caller identification with UID and PIN
- **Status**
 - Process will be extended based on first test results
 - Operational

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Outlook for the Alert Function

- **Further out-of-the-Internet services:**
 - Support of SMS
 - Automatic FAX distribution to allow transfer of large documents
- **Include teams from other areas:**
 - Live reports from other time zones
 - Early warning during out-of-hours in Europe

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