

# FreeBSD Security Officer funktionen

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AAUUG, 22 August 2006

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FreeBSD®

# Oversigt

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- FreeBSD introduktion
- FreeBSD sikkerhedshåndtering
- Hold dig opdateret
- Eksempel - Apache CVE-2006-3747

# FreeBSD introduction

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- BSD nedarvet open source operativsystem
- Base system
  - CURRENT/STABLE "branches"
- Ports Collection
- Committers har adgang til CVS
- Core team, valgt "politisk" ledelse

# Security Team organising

(August 2006)

Security Officer  
Colin Percival

Security Officer Team (so@)  
Jacques Vitrine, Simon L. Nielsen,  
Robert Watson

Security Team (secteam@)  
Marcus Alves Grando, Remko Lodder,  
George V. Neville-Neil, Philip Paeps,  
Christian S.J. Peron, Dag-Erling C. Smørgrav

# Autoritet

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- Security Officer valgt af tidlige Security Officer
- Security Officer accepteret af Core
- Security Officer vælger Security Team

# Security Officer Charter

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- Keeping the community informed of bugs, exploits, popular attacks, and other risks.
- Acting as a liaison on behalf of the FreeBSD Project with external organizations regarding sensitive, non-public security issues.
- Monitoring the appropriate channels for reports of bugs, exploits, and other circumstances that may affect the security of a FreeBSD system.
- ... <http://security.FreeBSD.org/charter.html>

# Håndtering af sikkerheds issues

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- Orientering om problem
- Evaluering af alvorlighed
- Adviser evt. FreeBSD.org Admins Team
- Evt. kontakt af "ekspert"
- Test / lav fejlrettelse (patch)
- Forbered security advisory
- Koordinerer med andre vendors
- "Commit" fix og send advisory ud

# Orientering om problem

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- Offentligt
  - Bugtraq, full-disclosure
  - Secunia
  - FreeBSD post lister, GNATS
- Privat
  - secteam@, so@
- Vendor koordinering
  - vendor-sec, US-CERT, NISCC

# Understøttede versioner

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- Normal support – 1 år
- Udvidet support – 2 år
- 4.11, 4-STABLE (EoL January 31, 2007)
- 5.3, 5.4, 5.5, 5-STABLE (EoL May 31, 2008)
- 6.0, 6.1, 6-STABLE (EoL May 31, 2008...)

# Sårbarheds type

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- Remote code execution
- Remote denial of service (DoS)
- Local privilege escalation
- Local denial of service

# Security Advisory

FreeBSD-SA-06:17.sendmail

Security Advisory  
The FreeBSD Project

Topic: Incorrect multipart message handling in Sendmail

Category: contrib

Module: contrib\_sendmail

Announced: 2006-06-14

Affects: All FreeBSD releases.

Corrected: 2006-06-14 15:58:23 UTC (RELENG\_6, 6.1-STABLE)

2006-06-14 15:59:28 UTC (RELENG\_6\_1, 6.1-RELEASE-p2)

2006-06-14 15:59:37 UTC (RELENG\_6\_0, 6.0-RELEASE-p9)

2006-06-14 16:00:02 UTC (RELENG\_5, 5.5-STABLE)

2006-06-14 16:00:22 UTC (RELENG\_5\_5, 5.5-RELEASE-p2)

2006-06-14 16:00:42 UTC (RELENG\_5\_4, 5.4-RELEASE-p16)

2006-06-14 16:00:56 UTC (RELENG\_5\_3, 5.3-RELEASE-p31)

2006-06-14 16:01:06 UTC (RELENG\_4, 4.11-STABLE)

2006-06-14 16:01:21 UTC (RELENG\_4\_11, 4.11-RELEASE-p19)

CVE Name: CVE-2006-1173

# Security Advisory...

## I. Background

FreeBSD includes sendmail(8), a general purpose internetwork mail routing facility, as the default Mail Transfer Agent (MTA).

## II. Problem Description

A suitably malformed multipart MIME message can cause sendmail to exceed predefined limits on its stack usage.

## III. Impact

An attacker able to send mail to, or via, a server can cause queued messages on the system to not be delivered, by causing the sendmail process which handles queued messages to crash. Note that this will not stop new messages from entering the queue (either from local processes, or incoming via SMTP).

## IV. Workaround

No workaround is available, but systems which do not receive email from untrusted sources are not vulnerable.

# Security Advisory...

## V. Solution

Perform one of the following:

- 1) Upgrade your vulnerable system to 4-STABLE, 5-STABLE, or 6-STABLE, or to the RELENG\_6\_1, RELENG\_6\_0, RELENG\_5\_5, RELENG\_5\_4, RELENG\_5\_3, or RELENG\_4\_11 security branch dated after the correction date.
- 2) To patch your present system:

The following patches have been verified to apply to FreeBSD 4.11, 5.3, 5.4, 5.5, 6.0, and 6.1 systems.

- a) Download the relevant patch from the location below, and verify the detached PGP signature using your PGP utility.

```
# fetch http://security.FreeBSD.org/patches/SA-06:17/sendmail.patch  
# fetch http://security.FreeBSD.org/patches/SA-06:17/sendmail.patch.asc
```

- b) Execute the following commands as root:

```
# cd /usr/src  
# patch < /path/to/patch  
...
```

# Security Advisory...

## VI. Correction details

The following list contains the revision numbers of each file that was corrected in FreeBSD.

| Branch      | Path                                | Revision         |
|-------------|-------------------------------------|------------------|
| -           |                                     |                  |
| <hr/>       |                                     |                  |
| RELENG_4    |                                     |                  |
|             | src/contrib/sendmail/src/deliver.c  | 1.1.1.3.2.24     |
|             | src/contrib/sendmail/src/mime.c     | 1.1.1.3.2.14     |
|             | src/contrib/sendmail/src/sendmail.h | 1.1.1.4.2.31     |
| RELENG_4_11 |                                     |                  |
|             | src/UPDATING                        | 1.73.2.91.2.19   |
|             | src/sys/conf/newvers.sh             | 1.44.2.39.2.22   |
|             | src/contrib/sendmail/src/deliver.c  | 1.1.1.3.2.17.2.2 |
|             | src/contrib/sendmail/src/mime.c     | 1.1.1.3.2.8.2.2  |
|             | src/contrib/sendmail/src/sendmail.h | 1.1.1.4.2.19.2.2 |
| ...         |                                     |                  |

# Security Advisory...

## VII. References

<http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2006-1173>

The latest revision of this advisory is available at

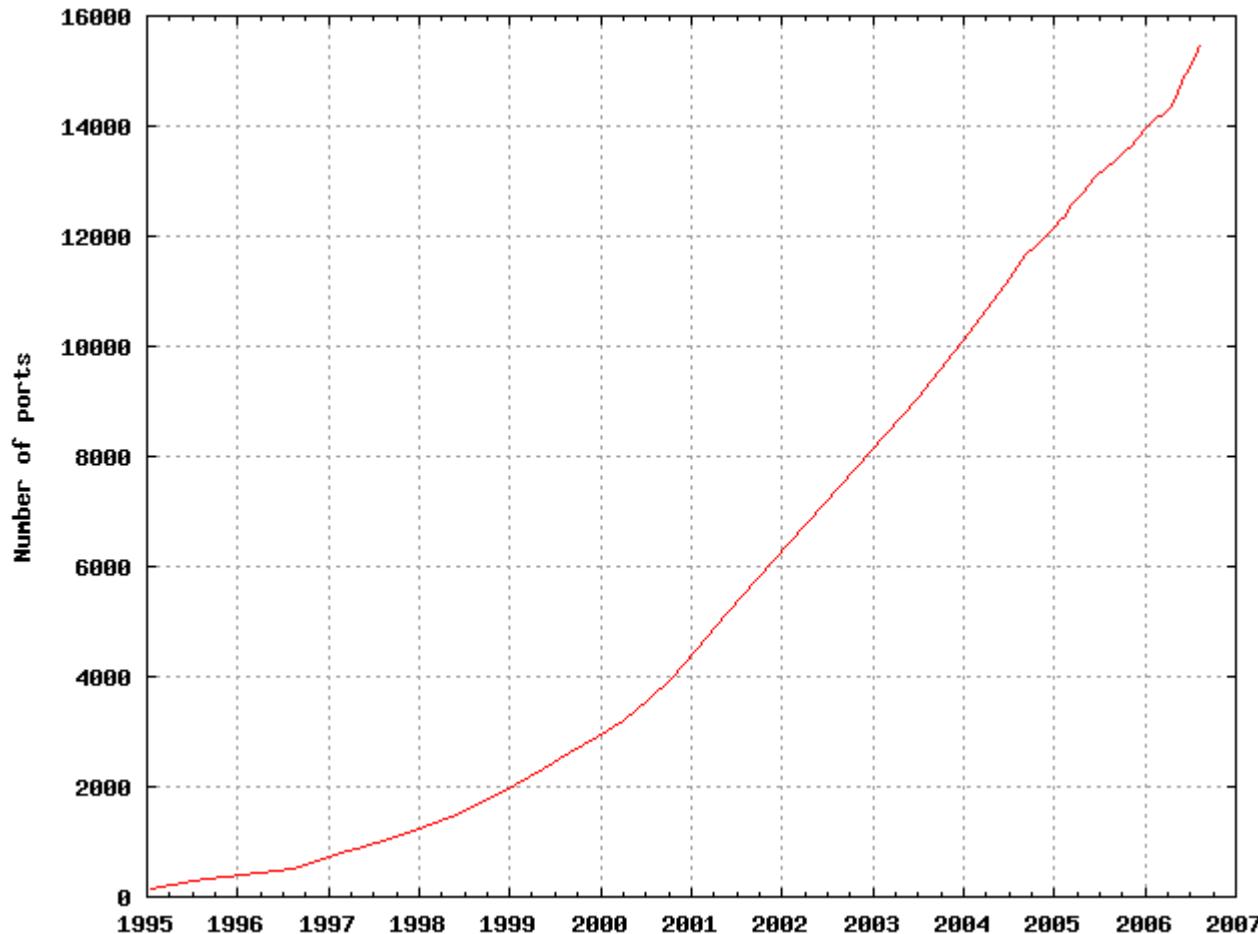
<http://security.FreeBSD.org/advisories/FreeBSD-SA-06:17.sendmail.asc>

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.3 (FreeBSD)

iD8DBQFEkDVJFdaIBMps37IRaqUCAJwKg8UZ2a5oO9XLXpPwgsBi+YdQcACgj2IY  
D5jN+o1IfjomEK4IIY+xiR8=  
=t7Wz  
-----END PGP SIGNATURE-----

# FreeBSD Ports Collection



Kilde: <http://www.FreeBSD.org/ports/growth/status.png>

# Ports Collection sikkerhed

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- Ca. 15.500 ports
- Security advisory
- Security notes
- VuXML (Vulnerability and eXposure Markup Language)
- "Maintainer" retter normalt ports
- Maintainer bypass

# VuXML eksempel

```
<vuln vid="dc8c08c7-1e7c-11db-88cf-000c6ec775d9">
  <topic>apache -- mod_rewrite buffer overflow vulnerability</topic>
  <affects>
    <package>
      <name>apache</name>
      <range><ge>1.3.28</ge><lt>1.3.36_1</lt></range>
      <range><ge>2.0.46</ge><lt>2.0.58_2</lt></range>
      <range><ge>2.2.0</ge><lt>2.2.2_1</lt></range>
    </package>
  </affects>
  <description>
    <body xmlns="http://www.w3.org/1999/xhtml">
      <p>The Apache Software Foundation and The Apache HTTP Server
        Project reports:</p>
      <blockquote cite="http://marc.theaimsgroup.com/?l=apache-httpd-
        announce&amp;m=115409818602955">
        <p>An off-by-one flaw exists in the Rewrite module,
          mod_rewrite, as shipped with Apache 1.3 since 1.3.28, 2.0
          since 2.0.46, and 2.2 since 2.2.0.</p>
    ...
  </description>
</vuln>
```

# VuXML eksempel

```
...
<p>The Apache HTTP Server project thanks Mark Dowd of McAfee
Avert Labs for the responsible reporting of this
vulnerability.</p>
</blockquote>
</body>
</description>
<references>
  <certvu>395412</certvu>
  <cvename>CVE-2006-3747</cvename>
  <mlist
    msgid="44CA22D9.6020200@apache.org">http://marc.theaimsgroup.com/?l=apache-httpd-announce&m=115409818602955</mlist>
</references>
<dates>
  <discovery>2006-07-27</discovery>
  <entry>2006-07-28</entry>
</dates>
</vuln>
```

# VuXML.org web site

## FreeBSD VuXML

*Documenting security issues in FreeBSD and the FreeBSD Ports Collection*

Security issues that affect the FreeBSD operating system or applications in the FreeBSD Ports Collection are documented using the **Vulnerabilities and Exposures Markup Language (VuXML)**. The current VuXML document that serves as the source for the content of this site can be found:

- in the FreeBSD Ports Collection repository, path [ports/security/vuxml/vuln.xml](#)
- as a [local copy](#)
- as a [local copy, compressed with bzip2](#)

Please report security issues to the FreeBSD Security Team at [<security-team@FreeBSD.org>](mailto:<security-team@FreeBSD.org>). Full contact details, including information handling policies and PGP key, can be found on [the FreeBSD Security page](#).

## entry date index

|                                 |                          |                             |                               |                                  |                             |
|---------------------------------|--------------------------|-----------------------------|-------------------------------|----------------------------------|-----------------------------|
| <a href="#">by package name</a> | <a href="#">by topic</a> | <a href="#">by CVE name</a> | <a href="#">by entry date</a> | <a href="#">by modified date</a> | <a href="#">by VuXML ID</a> |
|---------------------------------|--------------------------|-----------------------------|-------------------------------|----------------------------------|-----------------------------|

| Entered    | Topic  |
|------------|--|
| 2006-08-17 | horde -- Phishing and Cross-Site Scripting Vulnerabilities |
| 2006-08-15 | globus -- Multiple tmpfile races                           |
| 2006-08-13 | alsaplayer -- multiple vulnerabilities                     |
|            | mysql -- format string vulnerability                       |
|            | postgresql -- encoding based SQL injection                 |

# VuXML.org web site

## x11vnc -- authentication bypass vulnerability

FreeBSD VuXML:  
Documenting  
security issues in  
FreeBSD and the  
FreeBSD Ports  
Collection

|                   |
|-------------------|
| Affected packages |
| x11vnc < 0.8.2    |

### Details

|           |                                      |
|-----------|--------------------------------------|
| VuXML ID  | 9dda3ff1-2b02-11db-a6e2-000e0c2e438a |
| Discovery | 2006-08-08                           |
| Entry     | 2006-08-13                           |

Ludwig Nussel reports that x11vnc is vulnerable to an authentication bypass vulnerability. The vulnerability is caused by an error in auth.c. This could allow a remote attacker to gain unauthorized and unauthenticated access to the system.

### References

|            |   |
|------------|---|
| Bugtraq ID | 18977   |
| CVE Name   | CVE-2006-2450   |
| URL        | <a href="http://bugs.debian.org/376824">http://bugs.debian.org/376824</a> |

# portaudit

```
$ portaudit -a
Affected package: cacti-0.8.6g_41
Type of problem: cacti -- ADODB "server.php" Insecure Test Script
Security Issue.
Reference: <http://www.FreeBSD.org/ports/portaudit/79c1154d-d5a5-11da-8098-00123ffe8333.html>

Affected package: ghostscript-gnu-7.07_13
Type of problem: ghostscript -- insecure temporary file creation
vulnerability.
Reference: <http://www.FreeBSD.org/ports/portaudit/27a70a01-5f6c-11da-8d54-000cf18bbe54.html>

2 problem(s) in your installed packages found.

You are advised to update or deinstall the affected package(s)
immediately.
```

# Andre opgaver

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- Vedligeholder secteam maskiner
- Portsnap
- freebsd-update

# Hold dig opdateret

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- Tilmeld -announce
- Portaudit
- freebsd-update
- Bugtraq, full-disclosure, Secunia

# Apache - CVE-2006-3747

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- 07-25 NISCC
- 07-25 Fix FreeBSD.org systemer
- 07-25 vendor-sec
- 07-27 Adviser port maintainers...
- 07-27 Fix committet

# Patch CVE-2006-3747

```
--- src/modules/standard/mod_rewrite.c      (revision 421288)
+++ src/modules/standard/mod_rewrite.c      (working copy)
@@ -2736,7 +2736,7 @@
         int c = 0;

         token[0] = cp = ap_pstrdup(p, cp);
-
-        while (*cp && c < 5) {
+
+        while (*cp && c < 4) {
                if (*cp == '?') {
                    token[++c] = cp + 1;
                    *cp = '\0';
```

# The End

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