

Auto updates

Here's how to setup your debian to update automatically

This page describes how to set up automatic security updates with unattended-upgrades and email notifications via msmtplib on Debian Linux systems.

[std](https://std.rocks/gnulinix_debian_auto_update.html)

1. Install unattended-upgrades and msmtplib

```
apt update
apt install -y unattended-upgrades msmtplib msmtplib-mta mailutils
dpkg-reconfigure -plow unattended-upgrades
```

Notes:

[freundschafter](<https://freundschafter.com/how-to-set-up-msmtplib-on-debian-to-use-a-mailhoster-with-smtp/>)

- msmtplib-mta provides /usr/sbin/sendmail so system mail (cron, unattended-upgrades, etc.) goes through msmtplib.
- mailutils provides the mail CLI for quick tests.

Check that sendmail points to msmtplib:

```
readlink -f /usr/sbin/sendmail
# should be /usr/bin/msmtplib or a msmtplib-mta symlink
```

2. Configure msmtplib

Create /etc/msmtplibrc:

```
cat >/etc/msmtplibrc <<'EOF'
# Global msmtplib config

defaults
auth            on
tls             on
tls_trust_file  /etc/ssl/certs/ca-certificates.crt
logfile         /var/log/msmtplib.log

account         default
host            smtp.yourdomain.tld
port           587
from            unattended@yourdomain.tld
user           user@yourdomain.tld
password       CHANGE_ME
```

```
EOF
```

```
chmod 600 /etc/msmtprc  
touch /var/log/msmtp.log  
chmod 640 /var/log/msmtp.log
```

Adjust: host, port, from, user, and password for your SMTP provider.
[gist.github](<https://gist.github.com/movd/7a9e3db63d076f85d16c7dcde62fe401>)

For providers using SMTPS (465/SSL) instead of STARTTLS on 587, change:

- port 465
- keep tls on
- add tls_starttls off

Optional: aliases for local users

Create /etc/msmtp-aliases:

```
cat >/etc/msmtp-aliases <<'EOF'  
root: user@yourdomain.tld  
default: user@yourdomain.tld  
EOF  
  
chmod 600 /etc/msmtp-aliases
```

Add the aliases line inside /etc/msmtprc (in the account default block):
[freundschafter](<https://freundschafter.com/how-to-set-up-msmtp-on-debian-to-use-a-mailhoster-with-smtp/>)

```
aliases /etc/msmtp-aliases
```

(optional) Make the mail(1) command use msmtp

Create /etc/mail.rc:

```
cat >/etc/mail.rc <<'EOF'  
set sendmail="/usr/bin/msmtp -t"  
set from=unattended@fortier.it  
EOF
```

3. Test msmtp and CLI mail

Direct msmtp test

```
echo "Hello from $(hostname)" | msmtp -d user@yourdomain.tld
```

If there is a problem, inspect:

```
tail -n 50 /var/log/msmtp.log
```

for SMTP / TLS / auth errors.

[manpages.debian](<https://manpages.debian.org/testing/msmtp/msmtp.1.en.html>)

Test via mail(1) (what unattended-upgrades uses)

```
echo "Test via mail from $(hostname)" | mail -s "msmtp mail test $(hostname)" arnaud@fortier.it
```

If this arrives, the system-wide mail path is working.

4. Configure unattended-upgrades mail and origins

Edit `/etc/apt/apt.conf.d/50unattended-upgrades` and make sure the following lines are present and not commented:

[techlabs](<https://techlabs.blog/categories/debian-linux/automatically-install-updates-using-unattended-upgrades-on-debian-11>)

```
Unattended-Upgrade::Mail "user@yourdomain.tld";
Unattended-Upgrade::MailReport "always";
```

Typical Origins-Pattern for Debian 13 (adjust for Raspbian or other origins):

```
Unattended-Upgrade::Origins-Pattern {
    "origin=Debian,codename=${distro_codename},label=Debian";
    "origin=Debian,codename=${distro_codename}-security,label=Debian-
Security";
    "origin=Debian,codename=${distro_codename}-updates,label=Debian";
};
```

5. Enable and check apt systemd timers

Enable the standard apt timers:

[exampleconfig](<https://exampleconfig.com/default/apt/etc-systemd-apt-daily-upgrade-timer>)

```
systemctl enable --now apt-daily.timer apt-daily-upgrade.timer
```

List timers:

```
systemctl list-timers 'apt-daily*'
```

You should see:

- `apt-daily.timer`
- `apt-daily-upgrade.timer`

with NEXT showing future times.

6. Live tests for unattended-upgrades

A. Manual debug run (immediate mail)

```
unattended-upgrades --dry-run --debug
```

At the end you should see lines similar to: [prezu](<https://prezu.ca/post/unattended-upgrades-debian/>)

- Sending mail to ...
- mail returned: 0

A notification email should arrive even if there are:

- No packages found that can be upgraded unattended and no pending auto-removals

B. Simulate a real timer run

Trigger the same service that the timer calls:

```
systemctl start apt-daily-upgrade.service  
journalctl -u apt-daily-upgrade.service -n 50
```

Then check the unattended-upgrades log:

```
tail -n 50 /var/log/unattended-upgrades/unattended-upgrades.log
```

You should see either:

- Packages that will be upgraded: ... All upgrades installed
- or
- No packages found that can be upgraded unattended and no pending auto-removals

In both cases a mail report should have been sent.

[std](https://std.rocks/gnulinux_debian_auto_update.html)

If something fails:

- Mail errors:

```
tail -n 50 /var/log/msmtp.log
```

- Apt / unattended-upgrades errors:

```
journalctl -u apt-daily-upgrade.service -n 50
```

7. Minimal checklist

1. Install:
 1. apt install unattended-upgrades msmtp msmtp-mta mailutils
2. Configure /etc/msmtp.rc (and optional /etc/msmtp-aliases, /etc/mail.rc); test with:
 1. echo test | msmtp -d you@example.com
 2. echo test | mail -s "test" you@example.com
3. Set in /etc/apt/apt.conf.d/50unattended-upgrades:
 1. Unattended-Upgrade::Mail "you@example.com";
 2. Unattended-Upgrade::MailReport "always";
4. Enable timers:
 1. systemctl enable --now apt-daily.timer apt-daily-upgrade.timer
5. Test unattended-upgrades:
 1. unattended-upgrades --dry-run --debug
 2. systemctl start apt-daily-upgrade.service

[techlabs](<https://techlabs.blog/categories/debian-linux/automatically-install-updates-using-unattended-upgrades-on-debian-11>)

!!! OLD !!! Below

Install

```
apt-get install -y unattended-upgrades apt-listchanges mailutils postfix
```

Config

```
vi /etc/apt/apt.conf.d/50unattended-upgrades
```

```
// Automatically upgrade packages from these (origin:archive) pairs
//
// Note that in Ubuntu security updates may pull in new dependencies
// from non-security sources (e.g. chromium). By allowing the release
// pocket these get automatically pulled in.
```

```
Unattended-Upgrade::Allowed-Origins {
    "${distro_id}:${distro_codename}";
    "${distro_id}:${distro_codename}-security";
    // Extended Security Maintenance; doesn't necessarily exist for
    // every release and this system may not have it installed, but if
    // available, the policy for updates is such that unattended-
    upgrades
    // should also install from here by default.
    //"${distro_id}ESM:${distro_codename}-apps-security";
    //"${distro_id}ESM:${distro_codename}-infra-security";
    "${distro_id}:${distro_codename}-updates";
    //"${distro_id}:${distro_codename}-proposed";
    //"${distro_id}:${distro_codename}-backports";
    "Docker:${distro_codename}";
};
// Send email to this address for problems or packages upgrades
// If empty or unset then no email is sent, make sure that you
// have a working mail setup on your system. A package that provides
// 'mailx' must be installed. E.g. "user@example.com"
Unattended-Upgrade::Mail "arnaud+XXXXXXXXXX@fortier-family.com";

// Set this value to one of:
//     "always", "only-on-error" or "on-change"
// If this is not set, then any legacy MailOnlyOnError (boolean) value
// is used to chose between "only-on-error" and "on-change"
Unattended-Upgrade::MailReport "on-change";

// Remove unused automatically installed kernel-related packages
// (kernel images, kernel headers and kernel version locked tools).
Unattended-Upgrade::Remove-Unused-Kernel-Packages "true";
```

Automate:

```
dpkg-reconfigure -plow unattended-upgrades
```

Mails:

```
dpkg-reconfigure postfix
systemctl reload postfix
```

Test:

```
unattended-upgrade -d
```

Reboot automatic when needed

```
vi /etc/apt/apt.conf.d/20auto-upgrades
```

```
APT::Periodic::Update-Package-Lists "1";  
APT::Periodic::Unattended-Upgrade "1";
```

Daily check packages & upgrade

```
vi /etc/apt/apt.conf.d/50unattended-upgrades
```

```
...  
Unattended-Upgrade::Automatic-Reboot "true";  
Unattended-Upgrade::Automatic-Reboot-Time "02:00";  
...
```

```
systemctl restart unattended-upgrades
```

Mail via msmtplib

```
apt install msmtplib msmtplib-mta mailutils  
vi /etc/msmtplibrc
```

```
defaults  
auth            on  
tls             on  
tls_starttls   off  
tls_trust_file /etc/ssl/certs/ca-certificates.crt  
  
# SMTP server config  
account         default  
host            mail.fortier-family.com  
port            465  
from            arnaud+SERV@fortier-family.com  
user            arnaud@fortier-family.com  
password        *****LOL*****
```

Test:

```
echo "Test mail from $(hostname)" | mail -s "Test subject"  
arnaud+srv1@fortier-family.com
```

Kali

Following <https://bugs.kali.org/view.php?id=8587>

Change in /etc/apt/apt.conf.d/50unattended-upgrades

```
// "origin=Debian,codename=${distro_codename},label=Debian-Security";  
// "origin=Debian,codename=${distro_codename}-security,label=Debian-
```

```
Security";  
  
"origin=Kali,codename=${distro_codename}";
```

Ubuntu

A bug prevent SIGTERM to be sent properly to containers:

<https://bugs.launchpad.net/ubuntu/+source/docker.io-app/+bug/2079006> Let's make a service for that:

```
vi /etc/systemd/system/docker-graceful-stop.service
```

```
[Unit]  
Description=Gracefully stop Docker containers before system shutdown or  
reboot  
DefaultDependencies=no  
Before=shutdown.target reboot.target halt.target  
Requires=docker.service  
After=network.target docker.service  
  
[Service]  
Type=oneshot  
ExecStart=/bin/true  
ExecStop=/usr/bin/docker stop $(/usr/bin/docker ps -q)  
RemainAfterExit=yes  
TimeoutStopSec=300  
  
[Install]  
WantedBy=halt.target reboot.target shutdown.target
```

```
systemctl daemon-reload  
systemctl enable docker-graceful-stop.service
```

As always it's not that simple...

apt-daily-upgrade.timer

```
systemctl list-timers apt-daily-upgrade.timer
```

```
systemctl edit apt-daily-upgrade.timer
```

```
[Timer]  
OnCalendar=  
OnCalendar=*-*-* 02:15  
RandomizedDelaySec=0
```

```
Persistent=true
```

```
systemctl daemon-reload
systemctl restart apt-daily-upgrade.timer
systemctl list-timers apt-daily-upgrade.timer
```

apt-daily.timer

Of course... if you haven't apt-update before...

```
systemctl edit apt-daily.timer
```

```
[Timer]
OnCalendar=
OnCalendar=*-*-* 01:45
RandomizedDelaySec=0
Persistent=true
```

```
systemctl daemon-reload
systemctl restart apt-daily.timer
systemctl list-timers apt-daily.timer
```

Reference

- <https://wiki.debian.org/UnattendedUpgrades>

From:

<https://wiki.fortier-family.com/> - Warnaud's Wiki

Permanent link:

<https://wiki.fortier-family.com/os/debian/unattendedupgrades?rev=1773816674>

Last update: **2026/03/18 07:51**

