# Virtualised GESA upgrade - Debian 11 to Debian 12

## Introduction

The upgrade process may take some time, your services depending on this GESA (Unity, Svalinn) could go to Unknown status during this upgrade.

If you have SSH access to your GESA and you wish, you can disable the alert system during the GESA update. (see this step in the chapter Pre-update preparation)

The rest of the tutorial deals with :

- **2. Prerequisites** Necessary to start the update.
- **3. Updating process** Steps required to complete the update.
- **4. Configuration** Configuration: Configuration of the new features introduced by the update.
- **5. Cleanup** To recover disk space after the update.

It is highly recommended, if not necessary, to have read this tutorial in its entirety at least once before starting the production update.

**ℹ This update concerns :**

- Unity virtuelle(x86)
- Svalinn virtuelle(x86)

## Prerequisites

Before starting the update, all of the following points must be met:

- Have an internet connection to download the update packages.
- **Make a snapshot of the VM beforehand** in order to quickly return to the previous state in the event of MAJOR problems.

## Update steps

### Pre-update preparation

#### Take a snapshot of the VM

So that you can come back quickly in the event of a complete crash.

**Disable the alerting system on the Esia server (Optional)**

To avoid receiving false positives during the update.

Connect using SSH **root** on your Esia server and type :

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```
chmod -x /usr/local/esia/plugins/alerting/*
```

## Update

Updating works like this:

1. Modify the package source file to indicate that you are switching to bullseye (command **sed**)
2. Update the system database containing the list of packages (command **apt update**)
3. Update the system (command **apt dist-upgrade**)

**Prepare the update :**

Check the source apt file using the following command:

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```
cat /etc/apt/sources.list
```

You should get the following lines:

```
deb http://deb.debian.org/debian bullseye main contrib non-free
deb-src http://deb.debian.org/debian bullseye main contrib non-free
deb http://stable.repository.esia-sa.com/esia bullseye contrib non-free
```

If necessary, edit the file with the nano command (ctrl + o to save and ctrl +x to exit).

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```
nano /etc/apt/sources.list
```

We are now going to replace all bullseye with bookworm and update the list of packages.

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```
sed -i s/bullseye/bookworm/g /etc/apt/sources.list
apt update
```

**Example**

```
root@unity-x86:~# sed -i s/bullseye/bookworm/g /etc/apt/sources.list
root@unity-x86:~# apt update
Get:1 http://security.debian.org/debian-security bookworm-security InRelease
[48.4 kB]
Hit:2 http://stable.repository.esia-sa.com/esia bookworm InRelease
Hit:3 http://deb.debian.org/debian bookworm InRelease
Get:4 http://security.debian.org/debian-security bookworm-security/main
Sources [159 kB]
Get:5 http://security.debian.org/debian-security bookworm-security/main
amd64 Packages [256 kB]
Get:6 http://security.debian.org/debian-security bookworm-security/main
Translation-en [165 kB]
Fetched 628 kB in 1s (903 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
415 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@unity-x86:~#
```

**Check the current state of your system:**

Check the system disk space using the command below:

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```
df -h |grep -v tmpfs|grep -v udev|grep -v /boot
```

Example:

```
root@unity-x86:~# df -h |grep -v tmpfs|grep -v udev|grep -v /boot
Filesystem Size Used Avail Use% Mounted on
/dev/mapper/debian--buster--vg-root 15G 1.7G 13G 12% /
root@unity-x86:~#
```

**Running the update :**

To download the GESA + OS update

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```
apt -d dist-upgrade
```

**Before confirming, check that you have enough disk space:**

Then run the following command to apply and configure the packages:

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```
apt dist-upgrade
```

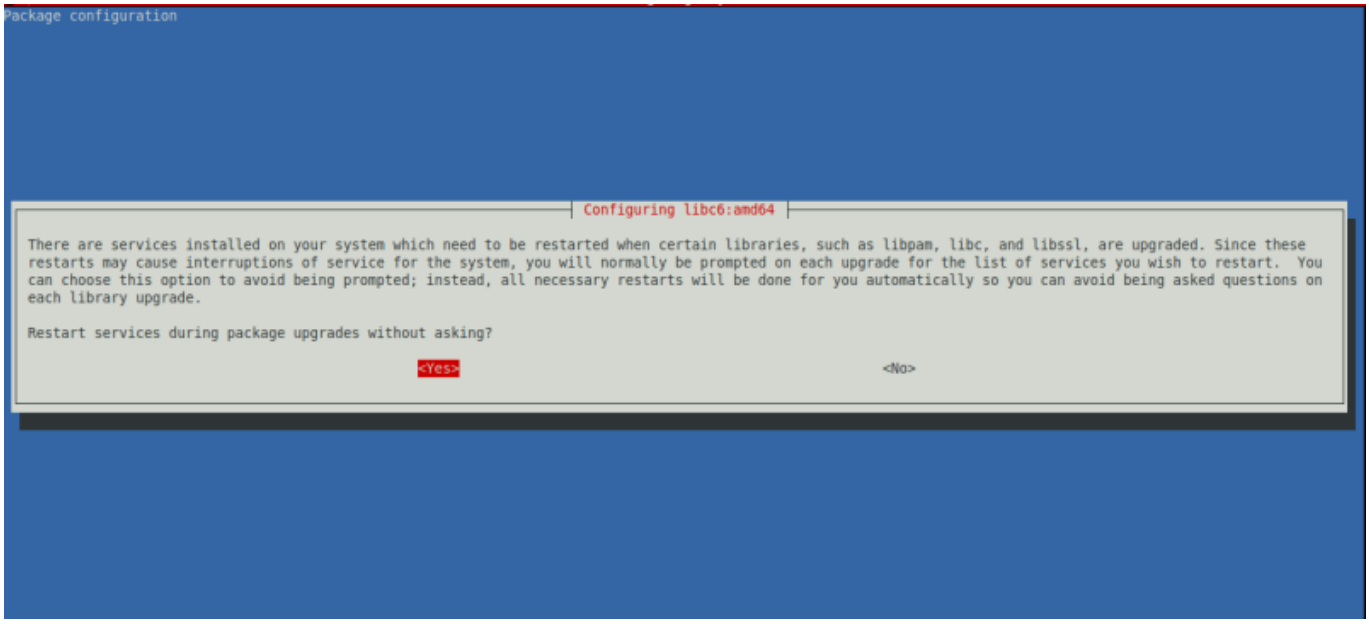
In the example below, 392 MB + 935 MB will be required during installation.

```
498 upgraded, 148 newly installed, 5 to remove and 0 not upgraded.
Need to get 0 B/323 MB of archives.
After this operation, 652 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

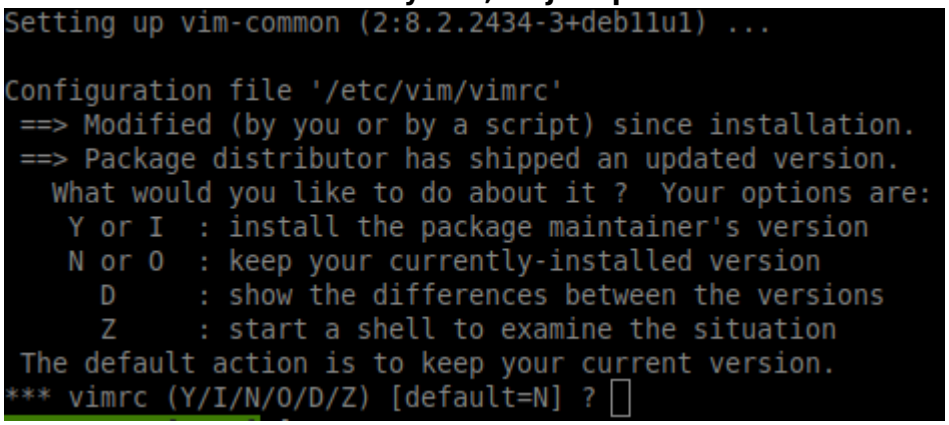
- For all questions, leave the default answer.
- If there is a question about **GRUB**it is important not to make a mistake and to check off the correct **the correct VM boot disk**. Otherwise it might not boot anymore.

#### Examples of questions asked

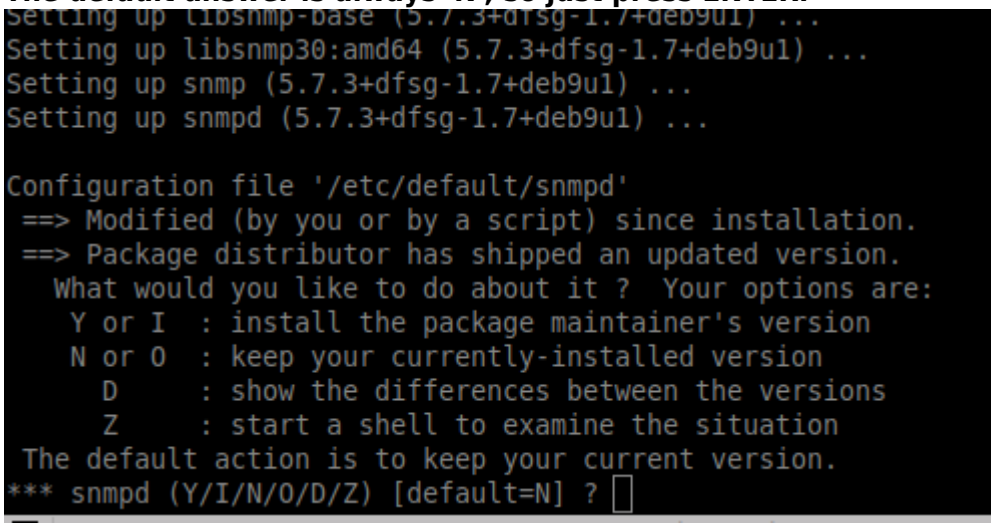
**Answer with “Yes” then ENTER**



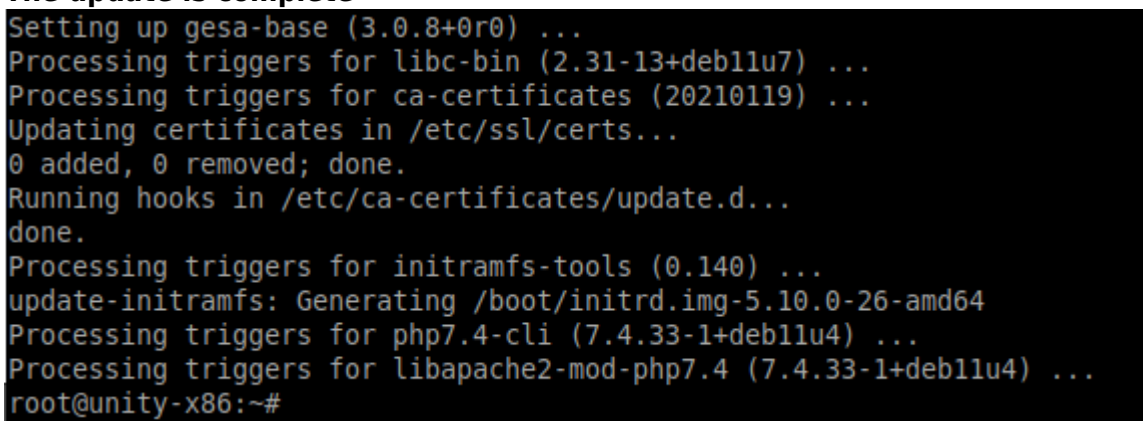

**The default answer is always 'N', so just press ENTER.**



**The default answer is always 'N', so just press ENTER.**




**The update is complete**




## Post-update tasks

### Remove old Debian buster packages

This step is necessary, in addition to saving disk space, keeping old versions of packages could :

- Cause bugs in Esia
- Cause problems in future updates.

It is therefore strongly recommended that you carry out this step even if your Esia is now working correctly. In addition, it also helps to highlight problems/bugs that could occur later at random.

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```
apt autoremove
```

Confirm deletion.

## Essential tasks at the end of the update

### Check if your VM restarts

Restart your VM and check that the restart works. A configuration error in GRUB or in the system update could cause the VM to stop booting. Or the ECATP connection to the Esia server does not restart automatically.

To reboot cleanly, enter the following command:

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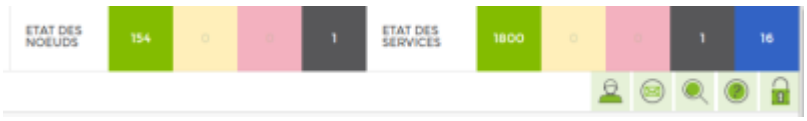
```
reboot
```

### Check the status of your services

Log on to your Esia to check that the services linked to this GESA are working properly.

1. Check the status of nodes and services




2. Check for new alerts

If there are new services in error, check that they are on nodes linked to the GESA concerned.

If some of your plugins no longer work after the update. (In this case, contact our support)

### Reactivate the alert system

If you had deactivated alerting at step Preparing the pre-update step, don't forget to reactivate it on the Esia server (using SSH **root**). Otherwise, you can skip this step.

#### Activation :

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```
chmod +x /usr/local/esia/plugins/alerting/*
```

**Check if it is activated :**

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```
ls --color -l /usr/local/esia/plugins/alerting/*
```

In the examples below, the green colour indicates that the scripts are executable. They are therefore activated.

**Examples :**

Alerting disabled

```
root@debian-jessie:~# ls --color -l /usr/local/esia/plugins/alerting/*
-rw-r--r-- 1 root root 6062 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_mail_html.pl
-rw-r--r-- 1 root root 4372 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_mail.pl
-rw-r--r-- 1 root root 6141 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_sms.pl
root@debian-jessie:~#
```

Alerting on

```
root@debian-jessie:~# ls --color -l /usr/local/esia/plugins/alerting/*
-rwxr-xr-x 1 root root 6062 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_mail_html.pl
-rwxr-xr-x 1 root root 4372 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_mail.pl
-rwxr-xr-x 1 root root 6141 Aug 26 09:44 /usr/local/esia/plugins/alerting/send_sms.pl
root@debian-jessie:~#
```

# Configuration

## esia user configuration (optional)

Each GESA, whether physical or virtual, now has a new web interface. This interface is accessible via the IP of the GESA in http.


You log in with a user who can access both the command line and the web interface. Remember that it is the same user for the command line and the web.

Here are the default credentials:

- User : **esia**
- Password: gesa **gesa**

If this user **esia** was present on the OS before the update, the previous password will not have been changed and will have to be used instead of the default password.

No other SSH user will be able to connect to the web interface.

If you wish to change the password for this esia user, there are two possible methods:

#### On the command line

Type the following command:

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```
passwd esia
```

Enter your new password and confirm it:

```
root@unity-x86:~# passwd esia
New password:
Retype new password:
passwd: password updated successfully
root@unity-x86:~#
```

#### Via the web interface

Log in, then click on the « utilisateur » menu in the left-hand bar.


## Clean up

You can now delete the snapshot