Neurotechnology SentiVeillance Cluster

Installation guide

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Installation

Single machine

OS

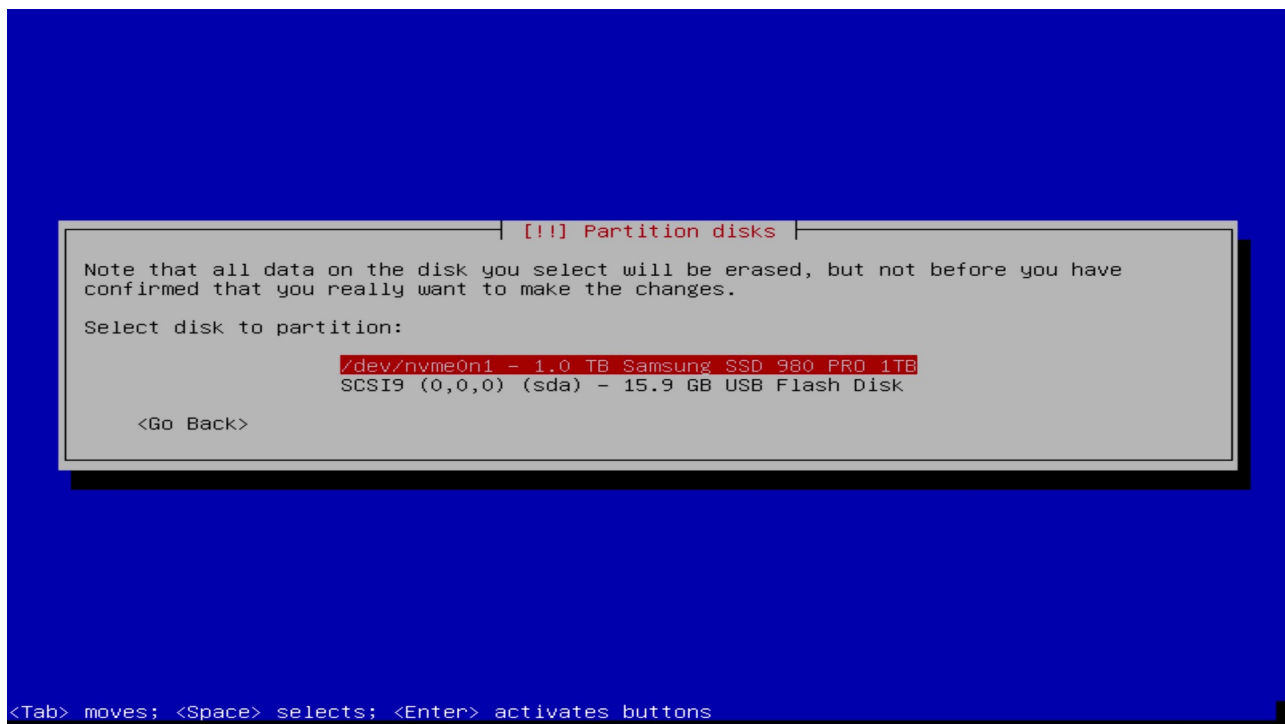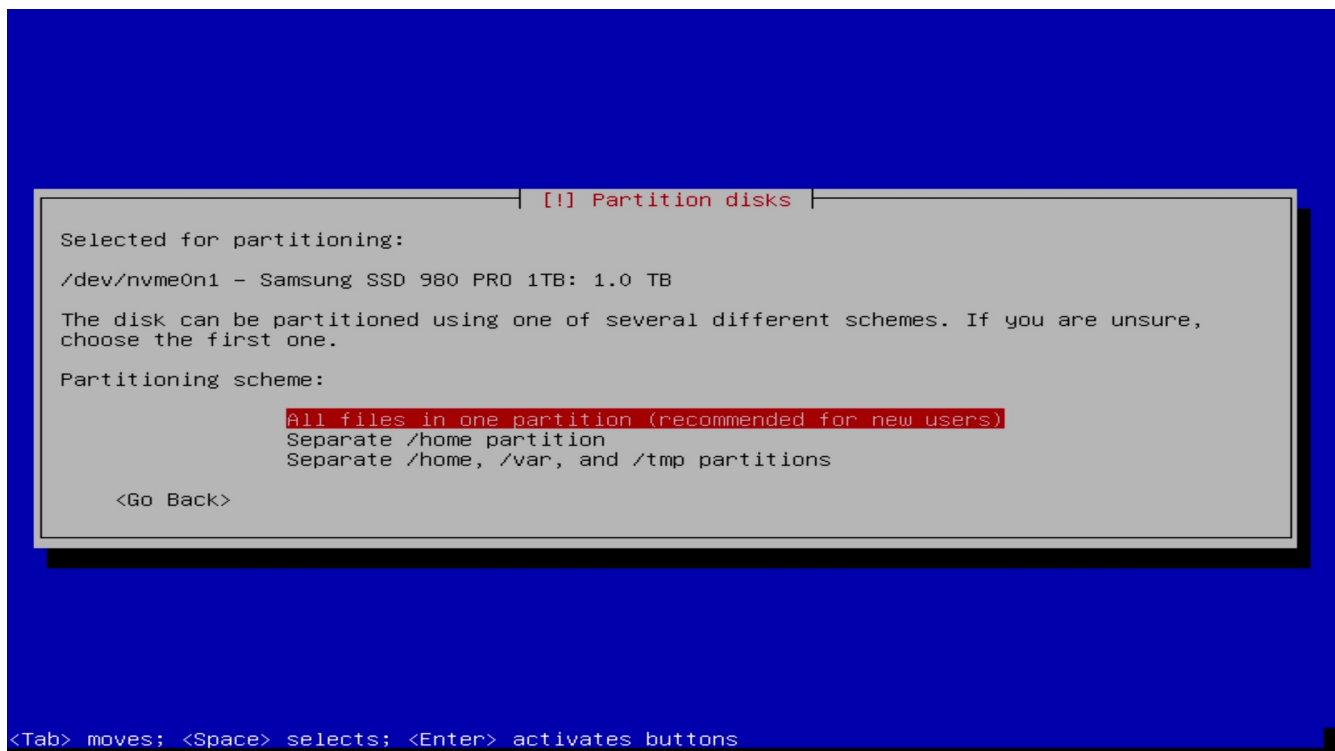1. Install Debian Linux distribution **debian-11.2.0-2-amd64-with-nvidia-docker.iso** with Docker.

2. Make bootable USB key if you are installing into physical computer and start the installation.


```
                    Debian GNU/Linux 11.2.0-2

                         Debian GNU/Linux UEFI Installer menu




            Graphical install
            Install
            Advanced options ...
            Accessible dark contrast installer menu ..
            Install with speech synthesis




    Enter: Select
    E:    Edit Selection              C:    GRUB Command line
```
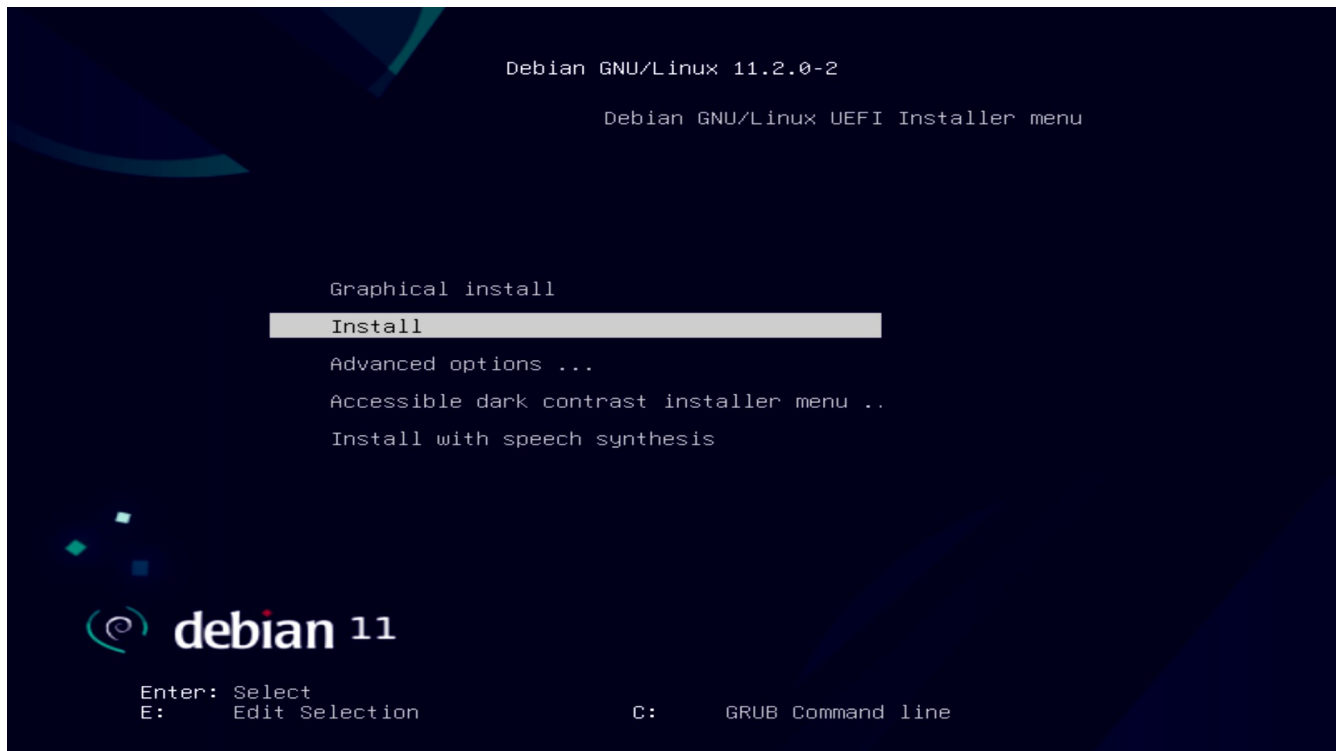
3. Choose where to install Debian

```
                         ┤ [!!] Partition disks ├
 Note that all data on the disk you select will be erased, but not before you have
 confirmed that you really want to make the changes.

 Select disk to partition:

                    /dev/nvme0n1 — 1.0 TB Samsung SSD 980 PRO 1TB
                    SCSI9 (0,0,0) (sda) — 15.9 GB USB Flash Disk

        <Go Back>
```

<Tab> moves; <Space> selects; <Enter> activates buttons

4. Continue.

```
                         ┤ [!] Partition disks ├
 Selected for partitioning:

 /dev/nvme0n1 — Samsung SSD 980 PRO 1TB: 1.0 TB

 The disk can be partitioned using one of several different schemes. If you are unsure,
 choose the first one.

 Partitioning scheme:

                    All files in one partition (recommended for new users)
                    Separate /home partition
                    Separate /home, /var, and /tmp partitions

        <Go Back>
```

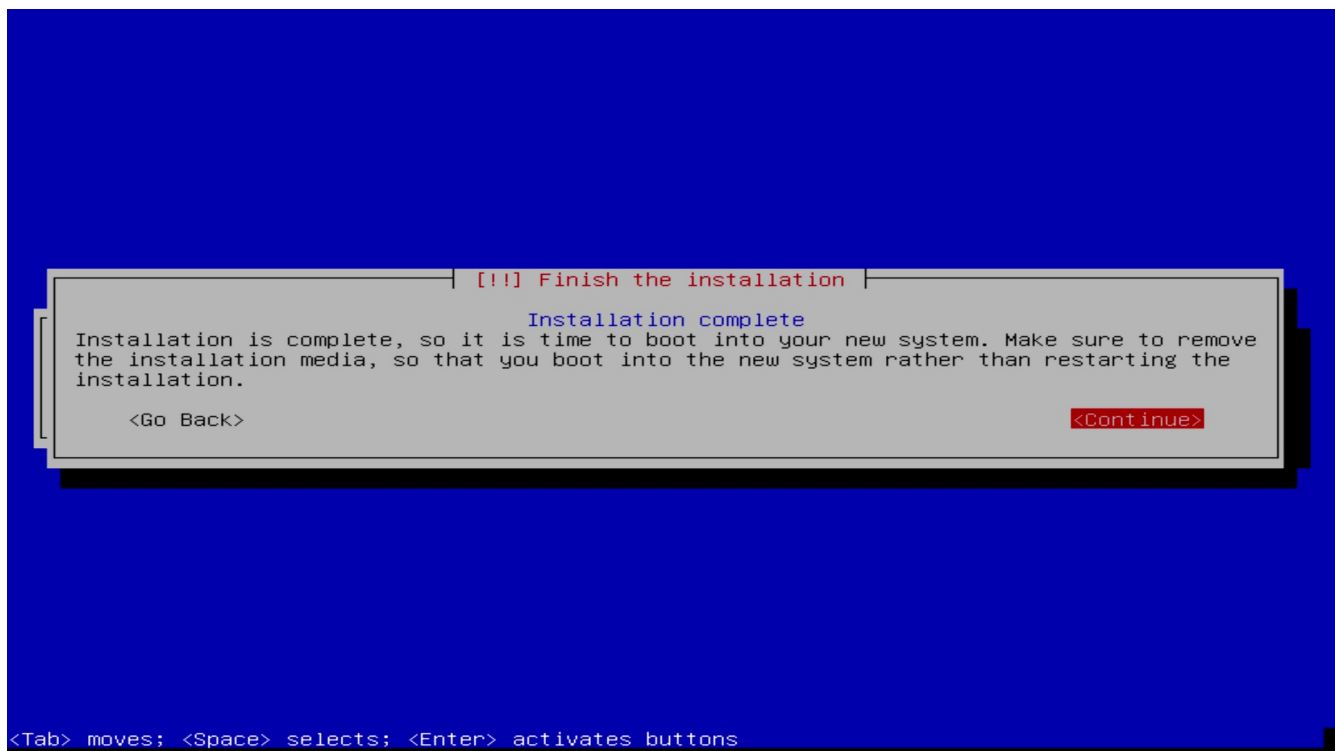<Tab> moves; <Space> selects; <Enter> activates buttons

5. Check if there is a bootable partition and continue
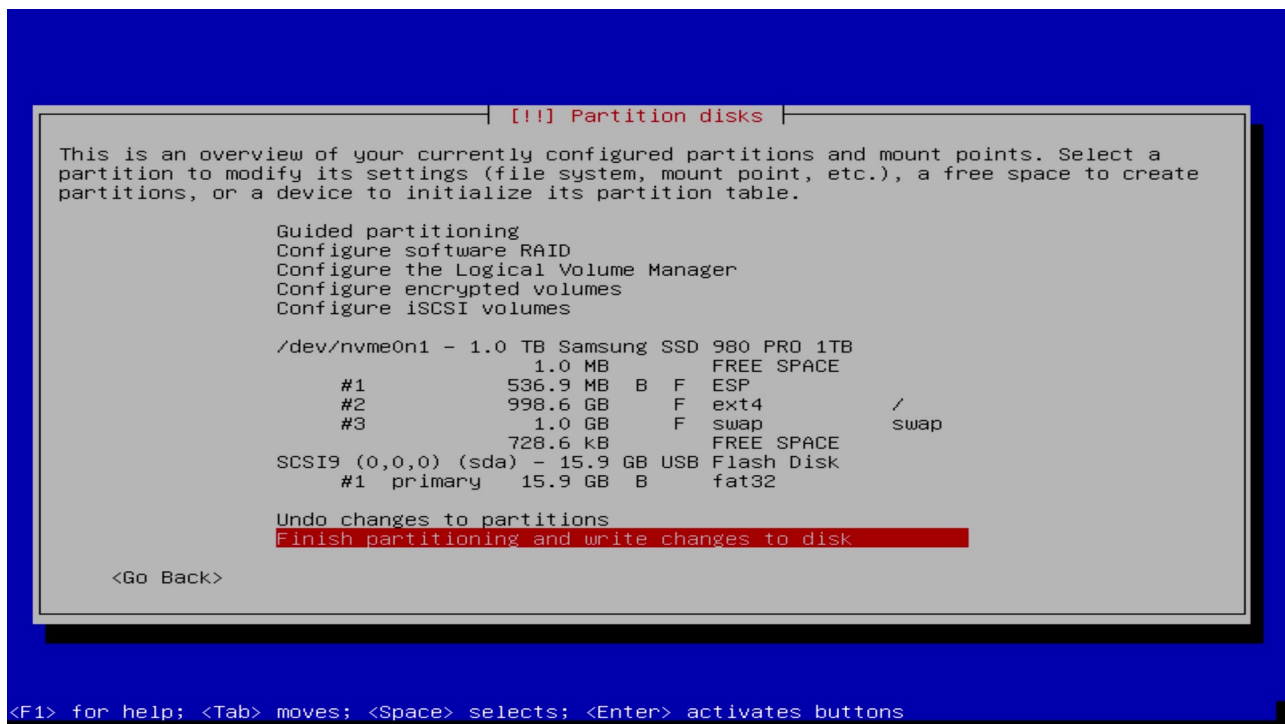
6. Finish the installation

7. Reboot and remember the computer IP

```
Debian GNU/Linux 10 debian-5BRVKUjCug tty1
My IP address: 172.16.1.121
debian-5BRVKUjCug login: _
```

NVidia GPU driver

Install NVidia GPU driver.

1. `$ sudo ./NVIDIA-Linux-x86_64-515.48.07.run`

Choose `Yes` to disable Nouveau driver during NVidia GPU driver installation, reboot OS and run NVidia GPU driver installation again. Select default choices during installation.

Check installed NVidia driver.

2. `$ nvidia-smi`

SentiVeillance Cluster

1. Install the *SentiVeillance Cluster* from file **SentiVeillance_8_2_Cluster_Linux_x86_64.zip**.
   Extract and run the following instructions:

   ```
   cd SentiVeillance_8_2_Cluster
   $ sudo ./sentiveillance-cluster-ctl.sh install
   ```

   Installation options:
   `--trial VALUE` - specify 0 to configure to use non trial licensing service, if you have
   licenses in USB Dongle.
   ```
   $ sudo ./sentiveillance-cluster-ctl.sh install --trial 0
   ```

   `--ssl` - Enable ssl to secure communication with server. This will create Certificate
   Authority (CA) and self signed certificates. Do note that you need install created CA authority
   on client devices.
   ```
   $ sudo ./sentiveillance-cluster-ctl.sh install --ssl
   ```

   Choose to use default ip address.

2. If your network has no DNS server, you need to update configuration in
   /opt/neurotec/sentiveillance-cluster-unit/docker-compose.yml so that video stream can be
   retrieved from Milestone VMS.
   Find *extra_hosts* **sections** and enter name and address:
   ```
   extra_hosts:
   - milestone-pc1-name:172.16.0.100
   - milestone-pc2-name:172.16.0.101
   ```

3. Once installed and configured, start the *SentiVeillance Cluster*:
   ```
   $ sudo ./sentiveillance-cluster-ctl.sh start
   ```

4. Open in browser `http://pc_ip_address/` *SentiVeillance Cluster* web panel.

5. Login with ***admin*** with password ***admin***.
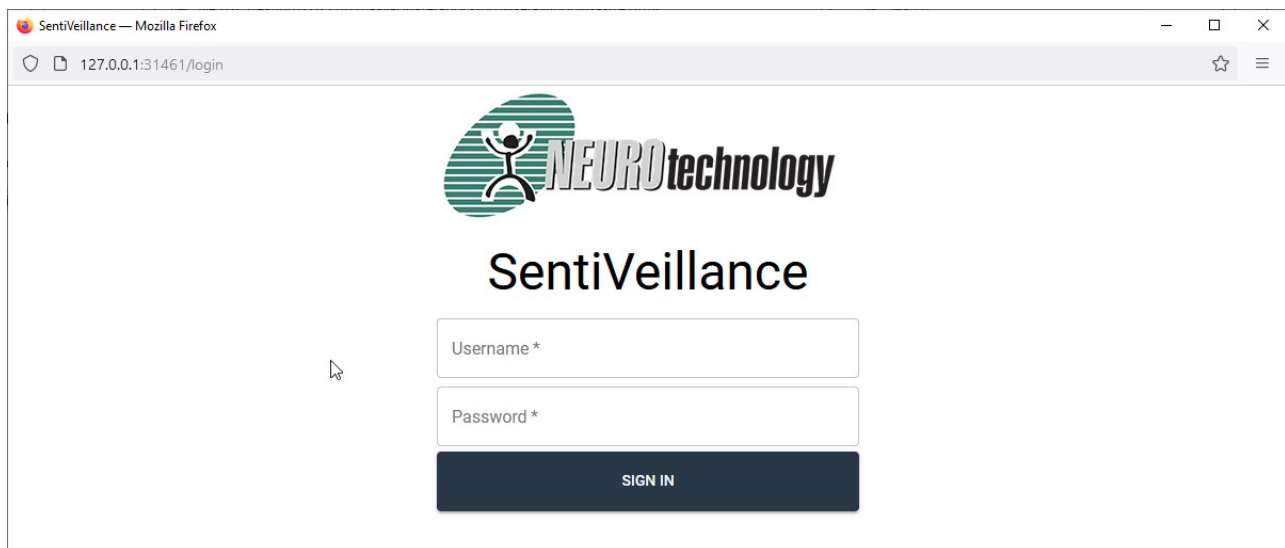
Read the *SentiVeillance Cluster* user guide to configure *SentiVeillance Cluster*.

Kubernetes

For larger installations with many cameras, *SentiVeillance Cluster* should be installed on [Kubernetes](#) cluster. Installation can be performed using provided [Helm](#) charts.

Extract SentiVeillance_8_2_Cluster_Linux_x86_64.zip file and see *charts/sentiveillance-cluster/README.md* for more detailed instructions

Licensing

Your installed computer must have access to internet to acquire Trial licenses to try SentiVeillance Cluster or you must have Dongle with licenses.

If you have Dongle with SentiVeillance Cluster licenses

- Install *SentiVeillance Cluster SentiVeillance Cluster*

- Connect Dongle to the installed PC. Restart service *systemctl restart npgadmin*

If you have already installed SentiVeillance Cluster with trial and now want to switch to licenses from Dongle.

- Connect Dongle to computer

- Modify value *Trial=false* to false in */opt/neurotec/sentiveillance-cluster-unit/activation/pgd.conf* and restart service *systemctl restart npgadmin*

Configuration

Services configuration can be changed by editing `/opt/neurotec/sentiveillance-cluster-unit/docker-compose.yml` file.

Trusted Certificate Authorities

SentiVeillance Cluster may need to communicate using TLS with external services (Milestone VMS or event server). Self signed certificates are accepted by default. This behavior can be changed by setting `SSL_VERIFY_PEER` to true. If set to true, self signed certificates will only be accepted when Certificate Authority certificate (*.crt)* files are provided (place files in `/opt/neurotec/sentiveillance-cluster-unit/service/config/tls/trusted_3d_party_ca/`).