

-- SAE2.03 --
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Study on video surveillance under linux

Available video surveillance infrastructures under linux

We have many softwares that we can use for video surveillance. We are interested in the most popular actually but to the more simple ones too.

ZoneMinder

This is an application set that gives a solution allowing image capture, analysis, recording and observation of a CCTV.

Reachable by any device that has wifi access as well as android and IOS phones, it can be used by multiple devices at the same time and is compatible with any type of camera .

It possesses an AI allowing the detection and the recognition of objects and people. Being open source, it's often updated. it's able to follow one camera by device to 25 frame per second, what decrease by approximately half with every additional camera on the same device.

BlueCherry



Connection with ip for cameras, possess a low memory footprint and can automatically connect itself thanks to a scan of cameras who support ONVIF and allow movement detection.

It means that a low end server with a GPU supported can support multiple flux with a low usage of the processor. Bluecherry possess at the same time a web interface for the configuration and the visualization in direct and a client multi-OS open source under license GPL. It can easily be installed on a virtual machine. It's available on Linux, Windows and Mac

There is an account system that restricts the access of cameras.

There is also multiple means of help if needed, like forums, live and emails.

Xeoma



A software of video surveillance which is based on a simple interface, flexible turnkey settings and a quality service. It possesses multiple functionality in some work like the police (recognition of license plate and face recognition). It functions on high end cameras listed on their website and on Windows 7,8,10 64 bit version and 32 bit version as well as Linux, Android 5,0, IOS 9+, MAC OS X version 10.9+.

It can support IP cameras and USB cameras with the UCV standard. The output seems dependable on numerous functionality available but for the base cameras, the software offer an output of 2MB/s.

They offer 6 editions with a variable price in function of the cameras. On principle we will give the price for a camera:

The test edition : (

Unlimited number of cameras and modules but the video archives subsists only one hour. Every option are free but the edition has only eight hours of work which is not sufficient for a long term use.

The free edition:

Unlimited number of cameras but only 3 modules. The videos of 2 cameras are stored in video archives. It subsists for 5 days. This edition does not have remote access to the cameras. It possesses unlimited work time and is impossible to create accounts.

The Starter edition:

Take back the sames terms of the free edition in addition to the functionality of remote access to the cameras and the création of accounts. Allow to add modules too.

The Standard edition:

A paying edition including a complete service with a big part of the functionalities without restriction:

- Remote access
- Unlimited archive
- Unlimited source and modules
- Possibility to have a repeater to prolong the distance of the cameras.

- Regular updates of the software

The standards edition cost 20.81€ for the software and a camera.

The lite edition:

The lite version is cheaper than the standard edition with a limit of 4 video sources as well as a limited number of modules of 3. The preservation of archives does not possess a limit and the remote access is possible with a repeater but without updates. That's a paying edition too.

The Lite edition cost 14.46€ for the software and a camera.

Ivideon

Ivideon is a hardware and software company for surveillance cameras on Linux, Window or Mac in cloud, whether for professionals or individuals. It offers either installed cameras based on the Ivideon cloud, or a free web camera using the webcam of a pc, a very economical solution because the user does not need to buy a camera. And finally the most interesting part, in case we have already installed a camera. Available on multiple platforms such as Android or IOS, the software is free if you already have a camera. The cameras connect with WIFI.

Here are some features of the Ivideon Server software service:

Recording on a cloud of the Server service and redirectable in a hard disk. The software supports the most renowned brands of cameras. The software allows you to plan video recordings

Enregistrement sur un cloud du service Server et dirigeable dans un disque dur. Le logiciel prend en charge les marques les plus renommées de caméras. Le logiciel permet de faire de planification des enregistrement vidéo

Legal mention of the use of the camera in

France

It's possible to use the CCTV for our home if everyone in it is conscious of them.

There exists some constraint: it's about making sure that everyone in their home is conscious about being recorded and the goal of the monitoring device won't interfere in their image rights that they have, let it be their family, their friends or their guests.

When salary men work for an individual, the work code applies and it's then necessary to inform them that a monitoring device is used. It's then forbidden to record a worker at home, monitoring their every gesture, the use of the CCTV must be restricted to the only place where it is judicious.

If a user has a use strictly personal of the video surveillance, no declaration is necessary. In contrast, if employees are working in their workplace and pictures are recorded, it become mandatory to carry out a declaration to the CNIL

After some research, we couldn't find any information on the output, the space memory, etc...