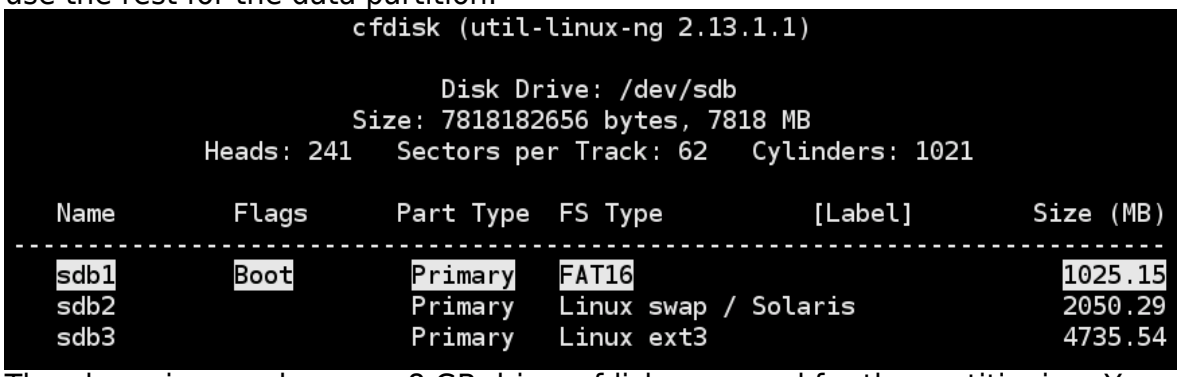
KVM server and document management (DMS) in your pocket
Pfaffhausen, 22 October 2011: *Almost exactly a year ago, we introduced the first beta of the new 64-bit ArchivistaBox. Today, we present two features that will make every ArchivistaBox significantly faster and more flexible. To get started you will* ***find a demo here,*** *which will show you in about 30 seconds how to install and start ArchivistaVM.* ***Please note that the entire setup and start of ArchivistaVM (including X-server) is completed in less than 30 seconds in RAM using a USB stick.***
ArchivistaRAM: Start the ArchivistaBox directly in RAM
The installation of ArchivistaBox is this fast because the entire installation process takes place in RAM. Accordingly, there is no need to mount a live CD first as we can start the installation directly in the memory. A prototype for this was **TinyCoreLinux.** In the case of this mini-Linux (approx. 10 MB), the whole Linux is loaded in the computer memory. As a result, the operational speed is very fast.
Naturally, we wanted to use the strong points of **TinyCoreLinux** in ArchivistaBox. The question that arose in this context was whether it would be possible, with reasonable effort, to pack a complete ArchivistaBox in RAM memory and execute it in a stable manner.
As anticipated, it works amazingly well and above all incredibly fast. Only 26 seconds elapse from being prompted to start the installer, i.e. until ArchivistaVM is completely installed in RAM and available to be used productively. To be clear: it takes 26 seconds to perform the whole ArchivistaVM installation. A reboot after the installation is not necessary: after 26 seconds, the VM Server is ready for productive use.
How do we start a RAM-based installation? Quite simply by selecting the "ram" option at the first prompt:





Thereafter, the complete installation is carried out in RAM. After that, you can then enter the IP address, mask, and DNS Gateway. When the process is

complete you will receive a message. Now you can either enter "go" to start an X server (in RAM!) directly and locally in order to work locally, or you can run the web interface from another computer via the previously entered IP address.
Important: ArchivistaRAM requires a minimum of 2 GB RAM to work. While it would be useful to have 4 GB RAM, it would be ideal to work with 8 or 16 GB RAM. The minimum requirements are 2 GB for ArchivistaVM, 4 GB for ArchivistaDMS and at least 8 GB for ArchivistaDesktop, as otherwise the system cannot be unpacked into RAM. You will need only about half of the RAM for any actual work you do later. However, you should reserve 2 or 4 GB for the system. If the RAM drive of the system becomes full, the whole system will come to a halt.
ArchivistaUSB: KVM and DMS servers in your pocket
ArchivistaRAM has a small flaw – you will still need a hard disk for the system. ArchivistaRAM will format either an empty hard disk (/dev/sda), or it will use the /dev/sda4 disk (if this partition has already been formatted).
ArchivistaUSB takes this one crucial step further. It is, however, necessary that you prepare a USB flash drive first. To clarify: while ArchivistaRAM does not necessarily require a USB stick, ArchivistaUSB (as the name suggests) does. The flash drive should have a minimum disk space of 8 GB. However, 16, 32 GB or larger drives would be ideal.
First set up the ArchivistaBox according to the **instructions for setting up a USB stick.** The first partition of the system has exactly 1 GB (1024 MB). After that, you should set up the second partition (2 GB SWAP are recommended) and use the rest for the data partition:



The above image shows an 8 GB drive, cfdisk was used for the partitioning. You can use any other software for this purpose, provided you use the correct formats for the first, second and third partition. Furthermore, it is important that you format the partitions two and three, once with "mkswap/dev/xxx2" and thereafter with "mkfs.ext4/dev/xxx3" for the data partition.
A USB drive prepared in this way can be booted. Enter the command "ram" after the first prompt.

ArchivistaBox 64Bit — in 100 seconds
to a ready to use server infrastructure



The "ramdisk" option determines that the second partition of the USB stick will be used as swap memory and the third partition as a data partition. In this way, we have set up an ArchivistaBox, which is 100% located on a USB stick, and which can be put into operation in approx. 30 seconds on any reasonably modern computer.
This can be used to set up any number of virtualised instances (as long as there is sufficient space on the USB drive), which will be available for the next portable session after a system shut down. Moreover, it is easy to produce a 100% portable ArchivistaDMS solution. **ArchivistaRAM and ArchivistaUSB together make a 100% portable ArchivistaBox for your USB flash drive. It does not take more than 30 seconds to start and set up the system. A USB flash drive fits in every pocket.** This gives you a mobile system which uses so little space that it can be carried around comfortably on a key chain just waiting to be inserted into a computer and started.
Please note: As we have already described in our **last linuxday.at presentation,** the installer can be configured in a number of ways depending on requirements. The existing ISO already includes several sets. Choose between **box244, box245, box246 and box247** in order to perform fully automated installations in RAM. Please pay attention to the IP addresses, which are set automatically. When adjusting the isolinux.cfg or syslinux.cfg file, please pay attention to the line APPEND, which must consist of exactly one line (not as shown incorrectly below).

```
label box244
kernel vmlinuz
APPEND initrd=initrd.img quiet ram ramdisk_size=4194304
keyboard.de_CH lang.de auto ip.192.168.2.244
submask.255.255.255.0 gw.192.168.2.1 dns.192.168.2.1 ramdisk
label box245
```

```
kernel vmlinuz
APPEND initrd=initrd.img quiet ram ramdisk_size=4194304
keyboard.de_CH lang.de auto ip.192.168.2.245
submask.255.255.255.0 gw.192.168.2.1 dns.192.168.2.1
label box246
kernel vmlinuz
APPEND initrd=initrd.img quiet ram ramdisk_size=4194304
keybo
ard.de_CH lang.de auto ip.192.168.0.246
submask.255.255.255.0 gw.192.168.0.2 dns.192.168.0.2 ramdisk
label box247
kernel vmlinuz
APPEND initrd=initrd.img quiet ram ramdisk_size=4194304
keyboard.de_CH lang.de auto ip.192.168.0.247
submask.255.255.255.0 gw.192.168.0.2 dns.192.168.0.2
```

Further, you can use **ramswap./dev/sdc4** and **ramdata./dev/sdk2** to access the internal drives. If you use the **ramdisk** option, it will have a higher priority. If you find all this too complicated or inconvenient, you can order ready-to-use ArchivistaBox USB sticks for a charge. All you need to do is send an email to **webmaster@archivista.ch.** In the meantime, have fun with ArchivistaRAM and ArchivistaUSB.

Please note: *In order to work with ArchivistaRAM and ArchivistaUSB, you will need the* ***new version from 25 October 2011. You will find the new versions here.*** *The new version includes the latest available version of kvm (0.15.1).*