

Preparations before installation

Before you install Asianux 2.0, there have some preparation work to do, to be concrete, these are installation plan, backing up data, checking up hardware, making an Installation Boor CD-ROM and drive and preparation for disk partitioning.

Installation plan

A systemic working plan must be made before installing Asianux 2.0. Including hardware equipment choice of the server, determining which service is going to provide as well as the expectation of the performance capability that the system now have and will have in future. According to enterprise level service platform based on the key task, we suggested to dispose big memory, adopt the SMP system as far as possible, and should establish some kind of redundant mechanism, like floppy disk redundant array---RAID.

Backing up data

Before installing Asianux 2.0, it is better to backing up the important data to floppy, CD or magnetic tape. It is aimed to avoid suddenness when installing, or it will bring unnecessary losing.

The contents that usually need backing-ups are partitioning table of system, the important files or data of system, and so on.

Know about the Hardware information and Net information of the computer

In order to make the following installing and configuring favoring, you should collect some machine information as the following aspects.

Configuring information of basic hardware:

Hard drive	Quantity, capacity, interface type(IDE or SCSI), parameter(quantity of cylinder, magnetic head and sector entries), if there have several hard disks, make it clear that which is primary
Memory	The memory size of the computer

CD-ROM	Interface type(IDE, SCSI or some other types); if it is non-IDE or non-SCSI, make it clear its maker and type; if it is IDE CD-ROM, make it clear which IDE interface it is connected to
SCSI devices	Record its maker and type
Mouse	Type (serial interface, PS/2, USB or bus-mouse), quantity of buttons, serial port number that the serial mouse connect
Display devices	
Video card	Manufacturer, type of video card(or CMOS chip numbers that used, display memory size)
Display	Manufacturer, type of display, the range of aclinic and upright refurbish frequency
Network configuring information:	
Network card	Manufacturer, type, abortive number and port address
Modem	Manufacturer, type, port number that connects
Others	Name of host computer, domain name, net mask, router (gateway) address, DNS address and so on

Asianux 2.0 has nicer compatibility of hardware, can be compatible with most hardware that produced in these years. However, technology criterion changes continually, so it can not be surely said that it can be compatible with all you hardware.

Concerning the up to date hardware supporting information, please visit the web site of Red Flag: <http://www.redflag-linux.com>

Making an installation boot CD-ROM

Generally, users just need to install thought installation boot CD. If user's machine cannot support boot CD or have some special installation requirements, it need to use an installation boot CD-ROM.

The /images catalog of the first installation CD of Asianux 2.0 supply some reflection files, it includes reflection of boot CD which is to lead installation procedure of system and some reflection of drivers that are needed to install load installation procedure from some unconventionality hardware. The most usually used

are bootdisk.img/bootefi.img and boot.iso, thereinto:

bootdisk.img	Installation boot CD-ROM. Can be written into U disk or other bootable MSF, used to lead the installation from native CDs, network, hardware or PCMCIA equipment
bootefi.img	Be used on machines that use Intel EFI boot mode, its function is similar with bootdisk.img
boot.iso	Lead installation CD. Be used in the situation that the same suit of software is installed in many machines thought network.

According to the difference among the host machine's hardware configure, boot mode and installation medium. Concerning how to choose the mode that boot and install Asianux 2.0, please consult chapter 2: Starting the installation program.



Drives CD append support for hardware that installation program do not support, installation program will clue on you to insert the installation CD opportunely.



The difference between this version and the old ones is that, because the volume of kernel and drive become bigger, result in that the 3.5 inch floppy cannot be used to deposit. So we combine boot CD and drives into a reflection. And this can make the installation more expediently.

Installation boot CD-ROM needs an available U disk. Please prepare an U disk, the capacity of which is more than 6M, and make sure that the computer can be boot from this facility. Next, we will introduce the establishing method of installation boot CD-ROM thought reflection file.

● Under the Linux environment

It also need a computer that have a 3.5 inch floppy drive and can run the dd tool in Linux environment.



The following demonstrations all use “/” (slash) to compart catalogs and files, this is the characteristic of Linux. In windows, the list separator is “\” (backslash character).

If it has already had a Linux environment in the computer or borrows Linux system from other host computer, carry out the following steps:

1. Install the CD to the catalog of /mnt/cdrom of the system:

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# mount /dev/cdrom /mnt/cdrom
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2. Put a floppy into floppy drive, then input:

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#dd if=/mnt/cdrom/images/bootdisk.img of=/dev/fd0 bs=1440k
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If other boot CDs or drive CDs are needed, run dd again and appoint felicitous reflection file.



When making drive CDs for block devices, network and PCMCIA devices, just replace the above command bootdiskRF.img with drvblock.img, drvnet.img or pcmciadd.img.

Prepare enough disk space

It will be better to install Red Flag Server into a separate hardware. If it has no such condition, it must also use a hard disk partition which is separated from other operating system (such as windows, OS/2 or other different versions of Linux).

It will cue you to distribute enough hard disk space for Asianux 2.0 during installing, it is very important to know about the current situation of using and prepare enough hard disk space for establishing these partitions.

Hard disk partition

One hard disk can be partitioned into many partitions; every partition is separated from each other, to visit different partitions seem like to visit different hard disks. There are three types of partitions: primary-partition, extended-partition and logical-partition. One hard disk can have four primary-partitions at most. If you want to have partitions more than four, you should establish extended-partition, and then establish logical-partition on extended-partitions. Asianux 2.0 can be installed on logical-partition as well as primary-partition.

Asianux 2.0 can support the coexistence of multi-system and carry multi-ply boot, but according to server, usually it must work for all day long, so additional system is unnecessary. It is better to partition on clean disk.



In order to install Asianux 2.0 successfully, it need to distribute more than 5G hard disk space for root (./) (exclude swap partition).

If the entire hard disk is used to install Asianux 2.0, or there has enough vacant space that has not been partitioned or space on unused partition for Asianux 2.0, you can slide over the following content, and start from the next chapter: Starting the installation program.



What is the vacant space that has not been partitioned?

The defined partition does not take up the entire hard disk; an unused hard disk is also the same type. Now, we can establish necessary partition on unused space.



What is the space on unused partition?

The space that one or more of its partitions have ever been used to install other systems, but does not be used now. These partitions should be deleted firstly, and then establish relevant Linux partitions. These can be completed by using command fdisk under DOS.

The method of repartitioning

If these installed some other operating system in the system, and all hard disk space is taken up by installed operating systems, this situation is troublesome. We can use the following method to establish hard disk for Asianux 2.0 besides adding a new hard disk.

- **Convenient installation method: do not need to make big change of hard disk**

Their must have one or more than one partitions that can be deleted. Delete this partition after moving the useful data to other partitions or backing up these data. Release enough space to install Asianux 2.0.

This method can only be used when their have two hard disk or partitions on the computer.

- **Devastating repartitioning**

Back up the important data firstly, and then repartition the hard disk. Leave enough space for Asianux 2.0 when partitioning. Reinstall all quondam operating system and internet applications before installing Asianux 2.0.

- **Use partitioning tools**

Using partitioning magicians PQMagic, FIPS can change the size of partitions safely at the same time when saving data.

PQMagic has a friendly interface and can run stably, it can discretionarily change the hard disk partitions and document system under the situation that it does not destroy the data on the disk. To get the detailed information, please refer to the explanation document of this tool.



It is a very dangerous thing to change hard disk partition of current system when operating. A very small mistake may lead to lose the entire hard disk data, so it is suggested to back up important data in advance!