## 一、kvm虚拟机安装

qemu命令默认使用的模拟器很慢，建议使用kvm或qemu-system-x86\_64命令

安装包：sudo apt-get install qemu-kvm

启动示例命令：kvm -m 512 -hda ~/disk10g.img -cdrom ../myming-1.0-i386.iso

其中-hda参数后跟随的是硬盘镜像文件，可通过qemu-img create -f raw disk.img 8G 命令创建

-cdrom后跟的参数是要加载的光盘

-m 是设定内存大小。

## 二、Mint重装后需要安装的程序

sudo apt-get install vim

sudo apt-get install ssh

sudo apt-get install debhelper build-essential

sudo apt-get install git gitg bzr qbzr bzr-gtk

sudo apt-get install ibus

与包管理相关

Sudo apt-get install squashfs-tools

sudo apt-get install dpkg-dev debhelper dh-make build-essential

sudo apt-get install qemu-kvm

sudo apt-get install apt-rdepends

## 三、Git服务器与Repo

Git服务器已经正式搭建完成，请大家Clone项目仓库至本机并在Readme文档上签名。

在克隆前请大家更改git全局user 和 email，方式如下：

git config --global user.name "Your Name"

git config --global user.email "Your Email"

项目仓库克隆地址 : [git@192.168.162.142:project.git](mailto:git@192.168.162.142:project.git)

1 下载repo

wget http://192.168.162.142/repo

2. 增加repo可执行权限，并添加到path路径中

chmod a+x repo

(将repo移至path路径或将repo所在目录加入path中)

3. 初始化repo库

repo init -u git@192.168.162.142:manifest.git

4. 同步repo

repo sync

5. 设置分支为master分支

repo forall -c git checkout -b master remotes/m/master

## 四、buildlog邮件自动通知

搭建了一个每天自动向各位邮箱中发送编译日志的邮件群发系统，用的是mutt+msmtp的组合。其中申请了一个公共的163邮箱作为发送账号（这样的话不会被邮件服务器当做垃圾邮件过滤掉），不出意外的话每天凌晨0点45分左右会自动发送buildlog。

公共邮箱账号：cos\_desktop@163.com

密码：iscasztb

在shell中发送邮件的格式如下：

cat aaa.txt | mutt -s "主题名" bbb@iscas.ac.cn -a ccc.file

其中，aaa.txt 是邮件正文内容，bbb@iscas.ac.cn是收件方地址，ccc.file是邮件附件（要是没有可以不加）

## 五、Mint下安装deepin风格界面

$ sudo sh -c 'echo "deb http://packages.linuxdeepin.com/deepin raring main non-free universe" >> /etc/apt/sources.list'

$ sudo sh -c 'echo "deb-src http://packages.linuxdeepin.com/deepin raring main non-free universe" >> /etc/apt/sources.list'

$ sudo wget http://packages.linuxdeepin.com/deepin/project/deepin-keyring.gpg

$ sudo gpg --import deepin-keyring.gpg

$ sudo gpg --export --armor 209088E7 | sudo apt-key add -

$ sudo apt-get update

$ sudo apt-get install dde-meta-core

## 六、使用原有配置文件重新编译内核过程

sudo apt-get install build-essential kernel-package libncurses5-dev fakeroot wget bzip2

export CONCURRENCY\_LEVEL=2

export CHOST="x86-pc-Linux-gnu"

export CFLAGS="-march=native -O2 -pipe"

export CXXFLAGS="$CFLAGS"

mkdir kernel-build

cd kernel-build

下载源码，解压缩

cd linux-3.8.7

cp /boot/config-`uname -r` ./.config

make oldconfig

fakeroot make-kpkg --initrd --append-to-version=-mint-15-new kernel\_image kernel\_headers

cd ..

sudo dpkg -i linux-image-\*.deb

sudo dpkg -i linux-headers-\*.deb

sudo update-grub

**五、deepin桌面管理器**

mint@mint ~/Desktop $ sudo apt-get install dde-meta-core  
Reading package lists... Done  
Building dependency tree         
Reading state information... Done  
The following extra packages will be installed:  
  bamfdaemon compiz deepin-artwork deepin-default-wallpapers  
  deepin-desktop-environment deepin-desktop-environment-common  
  deepin-desktop-environment-desktop deepin-desktop-environment-dock  
  deepin-desktop-environment-launcher  
  deepin-desktop-environment-lightdm-greeter deepin-desktop-environment-lock  
  deepin-desktop-environment-plugins  
  deepin-desktop-environment-plugins-audio-helper  
  deepin-desktop-environment-plugins-clock  
  deepin-desktop-environment-plugins-weather deepin-extra-wallpapers  
  deepin-gtk-theme deepin-icon-theme deepin-notifications deepin-session  
  deepin-session-fastup deepin-system-settings  
  deepin-system-settings-module-a11y deepin-system-settings-module-account  
  deepin-system-settings-module-all  
  deepin-system-settings-module-application-associate  
  deepin-system-settings-module-bluetooth  
  deepin-system-settings-module-date-time  
  deepin-system-settings-module-desktop deepin-system-settings-module-display  
  deepin-system-settings-module-driver  
  deepin-system-settings-module-individuation  
  deepin-system-settings-module-keyboard  
  deepin-system-settings-module-mount-media  
  deepin-system-settings-module-mouse deepin-system-settings-module-network  
  deepin-system-settings-module-power deepin-system-settings-module-printer  
  deepin-system-settings-module-sound  
  deepin-system-settings-module-system-information  
  deepin-system-settings-module-touchpad  
  deepin-system-settings-module-tray-power deepin-system-tray deepin-ui  
  deepin-xsession-settings faenza-icon-theme g++ g++-4.7 gir1.2-unity-5.0  
  gnome-control-center gnome-control-center-data gnome-desktop3-data  
  gnome-session gnome-session-bin gnome-session-common indicator-datetime  
  indicator-power indicator-session indicator-sound libbamf3-1  
  libdeepin-webkit-3.0-0 libdtk-widget libexpat1-dev libgail-3-0 libgfortran3  
  libglib2.0-0 libglib2.0-bin libglibmm-2.4-1c2a libgnome-control-center1  
  libgnome-desktop-3-7 libgtk-3-0 libgtk-3-bin libgtk-3-common libharfbuzz0a  
  liblapack3 liblightdm-gobject-1-0 liblunar-calendar liblunar-date  
  libnux-4.0-common libopts25 libpango-1.0-0 libpango1.0-0 libpangocairo-1.0-0  
  libpangoft2-1.0-0 libpangox-1.0-0 libpangoxft-1.0-0 libplymouth2  
  libpython-dev libpython2.7-dev libstdc++6-4.7-dev libunity-webapps0 lightdm  
  lightdm-remote-session-freerdp nautilus nautilus-data network-manager-l2tp  
  network-manager-l2tp-gnome ntp openswan plymouth plymouth-label  
  python-deepin-gsettings python-deepin-lunar python-deepin-pulseaudio  
  python-deepin-utils python-deepin-xrandr python-dev python-gevent  
  python-greenlet python-gtop python-gudev python-keyring python-libdtk-widget  
  python-numpy python-psutil python-pystorm python-scipy python-tz  
  python-xklavier python-xlib python-zeitgeist python2.7-dev ttf-xhei-fonts  
  unity-common unity-greeter unity-webapps-service xautomation xl2tpd  
  zeitgeist-core  
Suggested packages:  
  grub2-theme-deepin g++-multilib g++-4.7-multilib gcc-4.7-doc  
  libstdc++6-4.7-dbg gnome-screensaver xscreensaver gnome-user-guide  
  ubuntu-docs desktop-base gnome-session-fallback ttf-baekmuk  
  ttf-arphic-gbsn00lp ttf-arphic-bsmi00lp ttf-arphic-gkai00mp  
  ttf-arphic-bkai00mp libstdc++6-4.7-doc apparmor gnome-sushi ntp-doc  
  openswan-modules-source openswan-modules-dkms openswan-doc curl  
  python-gevent-doc python-gevent-dbg python-greenlet-doc python-greenlet-dev  
  python-greenlet-dbg python-numpy-doc python-numpy-dbg python-nose gfortran  
  zeitgeist-datahub  
Recommended packages:  
  unity gnome-shell lightdm-remote-session-uccsconfigure  
The following packages will be REMOVED:  
  account-plugin-generic-oauth libdecoration0 libharfbuzz0  
The following NEW packages will be installed:  
  bamfdaemon compiz dde-meta-core deepin-artwork deepin-default-wallpapers  
  deepin-desktop-environment deepin-desktop-environment-common  
  deepin-desktop-environment-desktop deepin-desktop-environment-dock  
  deepin-desktop-environment-launcher  
  deepin-desktop-environment-lightdm-greeter deepin-desktop-environment-lock  
  deepin-desktop-environment-plugins  
  deepin-desktop-environment-plugins-audio-helper  
  deepin-desktop-environment-plugins-clock  
  deepin-desktop-environment-plugins-weather deepin-extra-wallpapers  
  deepin-gtk-theme deepin-icon-theme deepin-notifications deepin-session  
  deepin-session-fastup deepin-system-settings  
  deepin-system-settings-module-a11y deepin-system-settings-module-account  
  deepin-system-settings-module-all  
  deepin-system-settings-module-application-associate  
  deepin-system-settings-module-bluetooth  
  deepin-system-settings-module-date-time  
  deepin-system-settings-module-desktop deepin-system-settings-module-display  
  deepin-system-settings-module-driver  
  deepin-system-settings-module-individuation  
  deepin-system-settings-module-keyboard  
  deepin-system-settings-module-mount-media  
  deepin-system-settings-module-mouse deepin-system-settings-module-network  
  deepin-system-settings-module-power deepin-system-settings-module-printer  
  deepin-system-settings-module-sound  
  deepin-system-settings-module-system-information  
  deepin-system-settings-module-touchpad  
  deepin-system-settings-module-tray-power deepin-system-tray deepin-ui  
  deepin-xsession-settings faenza-icon-theme g++ g++-4.7 gir1.2-unity-5.0  
  gnome-control-center gnome-control-center-data gnome-session  
  indicator-datetime indicator-power indicator-session indicator-sound  
  libbamf3-1 libdeepin-webkit-3.0-0 libdtk-widget libexpat1-dev libgfortran3  
  libgnome-control-center1 libgnome-desktop-3-7 libharfbuzz0a liblapack3  
  liblightdm-gobject-1-0 liblunar-calendar liblunar-date libopts25  
  libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpangox-1.0-0  
  libpangoxft-1.0-0 libpython-dev libpython2.7-dev libstdc++6-4.7-dev  
  libunity-webapps0 lightdm lightdm-remote-session-freerdp nautilus  
  network-manager-l2tp network-manager-l2tp-gnome ntp openswan  
  python-deepin-gsettings python-deepin-lunar python-deepin-pulseaudio  
  python-deepin-utils python-deepin-xrandr python-dev python-gevent  
  python-greenlet python-gtop python-gudev python-keyring python-libdtk-widget  
  python-numpy python-psutil python-pystorm python-scipy python-tz  
  python-xklavier python-xlib python-zeitgeist python2.7-dev ttf-xhei-fonts  
  unity-common unity-greeter unity-webapps-service xautomation xl2tpd  
  zeitgeist-core  
The following packages will be upgraded:  
  gnome-desktop3-data gnome-session-bin gnome-session-common libgail-3-0  
  libglib2.0-0 libglib2.0-bin libglibmm-2.4-1c2a libgtk-3-0 libgtk-3-bin  
  libgtk-3-common libnux-4.0-common libpango1.0-0 libplymouth2 nautilus-data  
  plymouth plymouth-label  
16 upgraded, 114 newly installed, 3 to remove and 367 not upgraded.  
Need to get 234 MB of archives.  
After this operation, 465 MB of additional disk space will be used.  
Do you want to continue [Y/n]? y

## 七、Wiki安装

wiki使用LAMP架构。

deb些列发型版需要安装的包如下：

sudo apt-get install apache2 php5 php5-mysql mysql-server

一、mysql密码重置

1.1 进入msqld\_safe模式

/etc/init.d/mysql stop (service mysqld stop )

/usr/bin/mysqld\_safe --skip-grant-tables

1.2 使用root用户修改mysql的root密码

另外开个SSH连接

[root@localhost ~]# mysql

mysql>use mysql

mysql>update user set password=password("123456") where user="root";

mysql>flush privileges;

mysql>exit

1.3 关闭之前运行的窗口

用'ps aux | grep pts'查到你重置密码的SSH窗口。

pkill -KILL -t pts/\*，其中\*为上指令查到的pts号

1.4 开启mysql服务

service mysql start

二、PHP Fatal error: Class 'DOMDocument' not found in /home/cos/website/wiki/includes/cache/LocalisationCache.php on line 587, referer: http://124.16.141.172/wiki/

2.1、解决方案：

yum install php-xml

service httpd restart

## 八、pressed实现LiveCD自动安装

**首先是isolinux.cfg文件，此文件位于iso根目录/isolinux文件夹内**

default vesamenu.c32

timeout 1

menu background splash.jpg

menu title Welcome to COS Desktop 0.7 32-bit

menu color screen 37;40 #80ffffff #00000000 std

MENU COLOR border 30;44 #40ffffff #a0000000 std

MENU COLOR title 1;36;44 #ffffffff #a0000000 std

MENU COLOR sel 7;37;40 #e0ffffff #20ffffff all

MENU COLOR unsel 37;44 #50ffffff #a0000000 std

MENU COLOR help 37;40 #c0ffffff #a0000000 std

MENU COLOR timeout\_msg 37;40 #80ffffff #00000000 std

MENU COLOR timeout 1;37;40 #c0ffffff #00000000 std

MENU COLOR msg07 37;40 #90ffffff #a0000000 std

MENU COLOR tabmsg 31;40 #ffDEDEDE #00000000 std

MENU HIDDEN

MENU HIDDENROW 8

MENU WIDTH 78

MENU MARGIN 15

MENU ROWS 5

MENU VSHIFT 7

MENU TABMSGROW 11

MENU CMDLINEROW 11

MENU HELPMSGROW 16

MENU HELPMSGENDROW 29

label live

menu label Start COS Desktop

kernel /casper/vmlinuz

append file=/cdrom/preseed/custom.seed boot=casper automatic-ubiquity initrd=/casper/initrd.lz quiet splash --

menu default

label xforcevesa

menu label Start in compatibility mode

kernel /casper/vmlinuz

append file=/cdrom/preseed/mint.seed boot=casper xforcevesa nomodeset b43.blacklist=yes initrd=/casper/initrd.lz ramdisk\_size=1048576 root=/dev/ram rw noapic noapci nosplash irqpoll --

label check

menu label Integrity check

kernel /casper/vmlinuz

append boot=casper integrity-check initrd=/casper/initrd.lz quiet splash --

label memtest

menu label Memory test

kernel memtest

label local

menu label Boot from local drive

localboot 0x80

红字部分为修改的地方，其中在原来的基础上加入了automatic-ubiquity ，并将file的内容从file=/cdrom/preseed/mint.seed 修改为file=/cdrom/preseed/custom.seed

将timeout设置1是为了去除menu等待时间 此处数值1即为等待0.1s

**.seed文件 位于iso根目录/preseed文件夹中**

**COS原本的mint.seed文件为空文件，所以我们直接新建custom.seed文件（只要名称与isolinux.cfg中指定的名称一致即可）**

# 自定义安装文件 光盘/preseed/ubuntucn.seed

#

# 安装时的语言是简体中文

d-i debian-installer/locale string zh\_CN .UTF-8

#

# 键盘布局：标准美国英语

d-i console-setup/layoutcode string us

d-i keyboard-configuration/layoutcode string us

d-i console-keymaps-at/keymap select us

d-i console-setup/ask\_detect boolean false

#

d-i clock-setup/utc boolean false

# 时间、日期和时区设置。硬件时钟设为与UTC全球标准时间同步。默认为 true，

# 建议改为false, 否则安装完成后你会发现时间差了好几个小时。

#

d-i time/zone string Asia/Shanghai

# 时区设置。可以指定一个有效的$TZ时区变量值。这里选 亚洲/上海（代表中国）

#

d-i passwd/user-fullname string fst

d-i passwd/username string fst

# 新建一个叫全名叫“fst”,登陆名叫fst的普通权限的用户，

#

# Normal user's password, either in clear text

d-i passwd/user-password password fst

# 这个普通用户的密码设为fst。注意密码前后不要有多余的空格，否则可能报错密码不符

#

d-i passwd/user-password-again password fst

# 第二次输入密码fst 。一定要和上面第一次的密码相同。

#

# PARTION分区部分，默认将根目录挂载到整个磁盘

d-i partman-auto/disk string /dev/sda

d-i partman-auto/method string regular

d-i partman-auto/choose\_recipe \

select All files in one partition

d-i partman/confirm\_write\_new\_label boolean true

d-i partman/choose\_partition \

select Finish partitioning and write changes to disk

d-i partman/confirm boolean true

#FINISH FIRST初次完成安装，提示重启

d-i finish-install/reboot\_in\_progress note

## 九、招工-工作要求

一、工作任务

基于现有Linux发行版操作系统，根据项目需求，对系统相应部分进行修改、定制、完善，并生成一个可以安装运行的系统镜像。

二、岗位要求

熟悉Debian及其衍生系统的操作，如Ubuntu、Mint、Deepin、StartOS等。

熟悉deb包管理机制。了解deb打包机制，能找到并解决打包过程中遇到的问题；熟悉包的依赖关系、apt-get及dpkg指令实现机制。

有C/C++开发经验，熟悉makefile语法，针对源码的变更能修改对应的makefile文件。

熟练使用shell及python，编写完成一定功能的shell及python脚本。

热爱开源项目，具备在短时间了解开源项目架构，及定位相应功能在源码中位置的能力。

三、近期人员需求

对系统相应功能的修改和完善，最终会对应到开源项目完成某特定功能源码的修改。目前需要有编程爱好，具有阅读较大项目源码（包括C、shell、Python语言），并能进行相应修改能力的人员2~4人。

## 十、vpn搭建步骤

cat /dev/ppp

cat /dev/net/tun

yum install -y ppp iptables

rpm -ivh ftp://ftp.pbone.net/mirror/ftp.sourceforge.net/pub/sourceforge/p/po/poptop/pptpd/pptpd-1.3.3/pptpd-1.3.3-1.rhl9.i386.rpm

vi /etc/pptpd.conf

============

把下面字段前面的#去掉即可：

localip 192.168.0.1

remoteip 192.168.0.234-238,192.168.0.245

============

vi /etc/ppp/options.pptpd

============

去掉ms-dns前面的#，并修改成如下字段：

ms-dns 8.8.8.8

ms-dns 8.8.4.4

============

vi /etc/ppp/chap-secrets

============

cos pptpd cosvpn \*

============

vi /etc/sysctl.conf

============

将“net.ipv4.ip\_forward”改为1：

net.ipv4.ip\_forward=1

同时在“net.ipv4.tcp\_syncookies = 1”前面加# ：

# net.ipv4.tcp\_syncookies = 1

============

sysctl -p

iptables -t nat -A POSTROUTING -s 192.168.0.0/24 -j SNAT --to-source 124.16.141.172

iptables -t nat -A POSTROUTING -s 192.168.0.0/24 -o eth1 -j MASQUERADE

/etc/init.d/iptables save

/etc/init.d/iptables restart

/etc/init.d/pptpd restart

chkconfig pptpd on

chkconfig iptables on

--如果出现错误619则输入命令

rm /dev/ppp

mknod /dev/ppp c 108 0

--/var/log/messages 查看日志，最后发现：logwtmp插件版本不兼容出错了！

vi /etc/pptpd.conf

============

找到logwtmp，在前面加#

============

service pptpd restart

ps -ef | grep pptpd

netstat -nutap | grep pptpd