# Docker Engine安装配置指导

以下描述仅Docker在Ubuntu Precise 12.04 (LTS)、Ubuntu Trusty 14.04 (LTS)、Ubuntu Wily 15.10上的安装配置过程。其他类型的操作系统，请参考Docker官网：<https://docs.docker.com/>

## 内核升级

Docker要求Linux内核至少在3.10以上。查看系统内核版本：

|  |
| --- |
| # uname -r  3.16.0-30-generic |

如果不满足，需要升级系统内核。系统版本不同，升级方式、升级内容有差异。查看操作系统版本：

|  |
| --- |
| # cat /etc/issue  Ubuntu 14.04.2 LTS \n \l |

**升级步骤：**

* **Ubuntu Precise 12.04 (LTS)**

|  |
| --- |
| # sudo apt-get update  # sudo apt-get install linux-image-generic-lts-trusty -y  # sudo apt-get install linux-headers-generic-lts-trusty -y  # sudo reboot  # uname -r |

* **Ubuntu Trusty 14.04 (LTS)、Ubuntu Wily 15.10**

|  |
| --- |
| # sudo apt-get update  # sudo apt-get install linux-image-extra-$(uname -r) -y  # sudo apt-get install apparmor -y  # sudo reboot  # uname -r |

## 更新apt源

|  |
| --- |
| # sudo apt-get install apt-transport-https ca-certificates -y  # sudo apt-key adv --keyserver hkp://p80.pool.sks-keyservers.net:80 --recv-keys 58118E89F3A912897C070ADBF76221572C52609D |

* **Ubuntu Precise 12.04 (LTS)**

|  |
| --- |
| # sudo bash -c "echo deb https://apt.dockerproject.org/repo ubuntu-precise main > /etc/apt/sources.list.d/docker.list" |

* **Ubuntu Trusty 14.04 (LTS)**

|  |
| --- |
| # sudo bash -c "echo deb https://apt.dockerproject.org/repo ubuntu-trusty main > /etc/apt/sources.list.d/docker.list" |

* **Ubuntu Wily 15.10**

|  |
| --- |
| # sudo bash -c "echo deb https://apt.dockerproject.org/repo ubuntu-wily main > /etc/apt/sources.list.d/docker.list" |

开始更新：

|  |
| --- |
| # sudo apt-get update |

如果安装过旧版本，卸载：

|  |
| --- |
| # sudo apt-get purge lxc-docker |

## 安装Docker Engine

|  |
| --- |
| # sudo apt-get install docker-engine  # sudo service docker start |

验证：

|  |
| --- |
| # sudo docker run hello-world |

This command downloads a test image and runs it in a container. When the container runs, it prints an informational message. Then, it exits.

## 其他配置

### 1.4.1、打开memory、swap计量开关

编辑 /etc/default/grub 文件，

设置 GRUB\_CMDLINE\_LINUX 如下：

|  |
| --- |
| GRUB\_CMDLINE\_LINUX="cgroup\_enable=memory swapaccount=1" |

保存关闭，更新GRUB，重启生效：

|  |
| --- |
| # sudo update-grub  # sudo reboot |

### 1.4.2、配置添加DNS（临时DNS，后续IP可能变化）

编辑 vi /etc/resolvconf/resolv.conf.d/head 文件，添加nameserver如下：

|  |
| --- |
| # Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)  # DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN  nameserver 10.5.24.31 |

执行如下命令：

|  |
| --- |
| # resolvconf -u |

检查 /etc/resolv.conf 文件是否更新：

|  |
| --- |
| # Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)  # DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN  nameserver 10.5.24.31  nameserver 10.7.7.1  nameserver 8.8.8.8  search lab.intra.nsfocus.com |

编辑 /etc/default/docker 文件，修改Docker启动参数，添加DNS：

|  |
| --- |
| DOCKER\_OPTS="--dns 8.8.8.8 --dns 10.5.24.31 |

重启Docker进程：

|  |
| --- |
| # sudo restart docker |

### 1.4.3、配置Docker开机自启

* **Ubuntu Trusty 14.04 (LTS)、Ubuntu Precise 12.04 (LTS)——默认开机自启**
* **Ubuntu Wily 15.10**

|  |
| --- |
| # sudo systemctl enable docker |

### 1.4.4、配置添加insecure-registry（临时registry，后续地址可能变化）

编辑 /etc/default/docker 文件，修改Docker启动参数，添加insecure-registry：

|  |
| --- |
| DOCKER\_OPTS="--dns 8.8.8.8 --dns 10.5.24.31 --insecure-registry=10.5.24.46:80" |

重启Docker进程：

|  |
| --- |
| # sudo restart docker |

验证是否生效：

|  |
| --- |
| # docker run -it 10.5.24.46:80/docker/ubuntu:14.04 /bin/bash -c 'echo helloworld' |

## 1.5、Ubuntu安装配置官方文档

参考资料：<https://docs.docker.com/engine/installation/linux/ubuntulinux/>