**二木运维**

**centos7系统部署redmine**

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文档版本修改历史

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| 版本号 | 修订日期 | 修订人 | 变更内容 | 备注 |
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审核

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# 文档说明

## 1.1 文档目的

撰写此文档目的是记录部署redmine环境的配置过程，其他工程师可供参考。

## 1.2 使用范围

文档主要适用于centos7和redhat7版本，其他系统或是低版本系统小部分适用。

## 1.3术语及缩写解释

|  |  |
| --- | --- |
| 术语、缩写 | 解释 |
| 主机 | Centos7.4系统 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# 第二章 组织与工作安排

## 2.1前期准备概述

优化前安装好centos7系统，下方是本人环境

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 操作系统 | IP地址 | CPU | 内存 | 硬盘 |
| Centos7.4 | 192.168.179.141 | 1核 | 2G | 20G |

Redmine官网地址

|  |
| --- |
| https://www.redmine.org/ |

资料参考

|  |
| --- |
| <https://www.bilibili.com/video/BV1at4y1s7yC?spm_id_from=333.337.search-card.all.click&vd_source=ab0cf7e684d98828f63d1a5e63c2c0d8>  <https://www.nosblog.cn/324.html> |

镜像的下载地址：

|  |
| --- |
| https://mirrors.tuna.tsinghua.edu.cn/centos/7.6.1810/isos/x86\_64/CentOS-7-x86\_64-DVD-1810.iso |

## 2.2 工作思路

首先安装必要软件包，然后安装redmine、mysql5.7安装并创建redmine数据库，安装gems、安装passenger，配置httpd后重启。

## 2.3 人员组织

人员信息如下

|  |  |  |  |
| --- | --- | --- | --- |
| **姓名** | **单位** | **联系方式** | **职责** |
| 林令 | 二木工作室 | 13672781335 | 现场实施 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## 2.4 职责分工

由二木工作室工程师负责实施过程。

# 第三章 实施步骤

## 3.1 Linux系统初始化

### 3.1.1 主机名修改

查看主机名

|  |
| --- |
| hostname |

临时修改主机名

|  |
| --- |
| hostname redmine.ermu.com |

永久修改主机名(主机重启后生效)

|  |
| --- |
| hostnamectl set-hostname redmine.ermu.com |

修改建议：临时修改后再永久修改，避免重启主机

### 3.1.2 配置静态IP

备份当前的网卡配置(注意网卡与配置的对应)

|  |
| --- |
| cp /etc/sysconfig/network-scripts/ifcfg-ens33 /etc/sysconfig/ifcfg-ens33.`date +%Y-%m-%d` |

配置静态ip地址

|  |
| --- |
| cat<<\EOF > /etc/sysconfig/network-scripts/ifcfg-ens33  TYPE="Ethernet"  BOOTPROTO="static"  IPADDR=192.168.179.125  NETMASK=255.255.255.0  GATEWAY=192.168.179.2  DEFROUTE="yes"  NAME="ens33"  DEVICE="ens33"  ONBOOT="yes"  DNS1=114.114.114.114  EOF |

重启生效

|  |
| --- |
| systemctl restart network |

查看

|  |
| --- |
| ip addr show |

### 3.1.3 hosts文件

将修改的主机名和静态ip写入hosts文件

|  |
| --- |
| echo "192.168.179.125 redmine.ermu.com" >> /etc/hosts |

通过脚本写入

|  |
| --- |
| cat<<\EOF > /root/host.sh  #!/bin/bash  #Filename: hosts.shell  #auto Get the host name and IP address  #by authors linling 2019  IP=`ip addr show|grep ens33|grep global|awk '{print $2}'|awk -F '/' '{print $1}'`  Hostname=`hostname`  echo "$IP" "$Hostname" >> /etc/hosts  EOF  chmod +x /root/host.sh  sh /root/host.sh |

### 3.1.4关闭SElinux

查看selinux

|  |
| --- |
| getenforce |

临时修改

|  |
| --- |
| setenforce 0 |

备份主机当前selinux配置文件

|  |
| --- |
| cp /etc/selinux/config /etc/selinux/config.`date +%Y-%m-%d` |

永久修改(主机重启后生效)

|  |
| --- |
| sed -i 's/SELINUX=enforcing/SELINUX=disabled/g' /etc/selinux/config |

修改建议：临时修改后永久修改，避免主机重启

### 3.1.5配置yum源

备份默认yum源

|  |
| --- |
| cp -r /etc/yum.repos.d/ /etc/yum.repos.d.`date +%Y-%m-%d` |

配置yum源

|  |
| --- |
| rm -rf /etc/yum.repos.d/\*  cat<<\EOF > /etc/yum.repos.d/dvd.repo  [dvd]  name=dvd  baseurl=https://mirrors.tuna.tsinghua.edu.cn/centos/7/os/x86\_64/  enabled=1  gpgcheck=0  [dvd1]  name=dvd1  baseurl=https://mirrors.tuna.tsinghua.edu.cn/epel/7/x86\_64/  enabled=1  gpgcheck=0  [dvd2]  name=dvd2  baseurl=https://mirrors.tuna.tsinghua.edu.cn/centos/7/extras/x86\_64/  enabled=1  gpgcheck=0  EOF |

清理缓存

|  |
| --- |
| yum clean all |

显示可用仓库

|  |
| --- |
| yum makecache all |

### 3.1.6普通用户sudo管理

创建普通用户

|  |
| --- |
| useradd -u 1050 ai  echo ai | passwd ai --stdin > /dev/null 2>&1 |

备份默认的sudo文件

|  |
| --- |
| cp /etc/sudoers /etc/sudoers.`date +%Y-%m-%d` |

添加普通用户至sudo

|  |
| --- |
| echo "ai ALL=(ALL) NOPASSWD: ALL" >> /etc/sudoers |

配置sudo日志

|  |
| --- |
| touch /var/log/sudolog  echo \*.debug /var/log/sudolog >> /etc/rsyslog.conf |

重启日志服务

|  |
| --- |
| systemctl restart rsyslog |

### 3.1.7 ssh服务配置

备份默认的ssh服务配置

|  |
| --- |
| cp /etc/ssh/sshd\_config /etc/ssh/sshd\_config.`date +%Y-%m-%d` |

配置

|  |
| --- |
| cat<<\EOF > /etc/ssh/sshd\_config  Port 918  PermitRootLogin yes  PermitEmptyPasswords no  PasswordAuthentication yes  X11Forwarding yes  UseDNS no  GSSAPIAuthentication no  Subsystem sftp /usr/libexec/openssh/sftp-server  EOF |

配置说明

|  |  |
| --- | --- |
| Port | 端口号修改为918，默认22 |
| PermitRootLogin | 不允许root远程登录 |
| PermitEmptyPasswords | 不允许用口令为空的账号登录系统 |
| PasswordAuthentication | 允许密码登录 |

重启服务

|  |
| --- |
| systemctl restart sshd |

查看

|  |
| --- |
| netstat -ntl |grep 918 |

### 3.1.8安装必要软件

软件安装

|  |
| --- |
| yum install lrzsz ntpdate sysstat net-tools wget unzip -y |

说明

|  |  |
| --- | --- |
| lrzsz | 上传下载的软件 |
| sysstat | 用来检测系统性能及效率的工具 |
| net-tools | 没有ifconfig命令时候需要安装工具 |

### 3.1.9主机自动更新时间

安装ntp

|  |
| --- |
| yum install -y ntp |

关闭chronyd服务

|  |
| --- |
| systemctl stop chronyd  systemctl disable chronyd |

备份默认配置文件

|  |
| --- |
| cp /etc/ntp.conf /etc/ntp.conf.`date +%Y-%m-%d` |

配置

|  |
| --- |
| sed -i '/server 0/d' /etc/ntp.conf  sed -i '/server 1/d' /etc/ntp.conf  sed -i '/server 2/d' /etc/ntp.conf  sed -i '/server 3/d' /etc/ntp.conf  sed -i '/Please/a server ntp.aliyun.com iburst' /etc/ntp.conf |

服务重启并设置开机自启

|  |
| --- |
| systemctl restart ntpd  systemctl enable ntpd |

### 3.1.10设置主机最大打开数

查看

|  |
| --- |
| ulimit -a |

临时修改

|  |
| --- |
| ulimit -HSn 65535 |

永久修改(主机重启后生效)

|  |
| --- |
| echo "\* soft nofile 65535" >> /etc/security/limits.conf  echo "\* hard nofile 65535" >> /etc/security/limits.conf |

修改建议：临时修改后永久修改，避免主机重启

### 3.1.11防火墙管理

关闭并禁止开机自启firewalld防火墙服务

|  |
| --- |
| systemctl stop firewalld  systemctl disable firewalld |

## 3.2 安装必要的资源包

安装软件包

|  |
| --- |
| yum install -y gcc-c++ patch readline readline-devel zlib zlib-devel libyaml-devel libffi-devel openssl-devel make bzip2 autoconf automake libtool bison iconv-devel sqlite-devel wget mysql-devel httpd mod\_ssl |

## 3.3安装Ruby2.7.3

### 3.3.1公钥节点

国外节点--国内可能无法安装

|  |
| --- |
| gpg2 --keyserver hkp://pool.sks-keyservers.net --recv-keys 409B6B1796C275462A1703113804BB82D39DC0E3 7D2BAF1CF37B13E2069D6956105BD0E739499BDB |

国内节点-密钥可能无法找回，重启网络或主机重试

|  |
| --- |
| gpg2 --keyserver hkp://pgp.mit.edu --recv-keys 409B6B1796C275462A1703113804BB82D39DC0E3 7D2BAF1CF37B13E2069D6956105BD0E739499BDB |

### 3.3.2安装rvm

脚本下载并执行

|  |
| --- |
| curl -L get.rvm.io | bash -s stable |

重新加载环境变量

|  |
| --- |
| source .bashrc  source .bash\_profile |

修改RVM的Ruby安装源

|  |
| --- |
| echo "ruby\_url=https://cache.ruby-china.com/pub/ruby" > /usr/local/rvm/user/db |

加载rvm环境变量

|  |
| --- |
| source /etc/profile.d/rvm.sh && rvm reload && rvm requirements run |

rvm安装ruby-2.7.3

|  |
| --- |
| rvm install 2.7.3 |

验证Ruby安装成功

|  |
| --- |
| rvm list && ruby --version |

## 3.4安装Redmine4.2.2

下载redmine包

|  |
| --- |
| wget -P /var/www https://redmine.org/releases/redmine-4.2.2.tar.gz --no-check-certificate |

解药redmine包

|  |
| --- |
| cd /var/www/ && tar -zxvf redmine-4.2.2.tar.gz |

设定redmine根路径变量

|  |
| --- |
| export REDMINE=/var/www/redmine-4.2.2 |

拷贝数据库配置文件

|  |
| --- |
| echo $REDMINE && cd $REDMINE && cp config/database.yml.example config/database.yml |

## 3.5安装mysql5.7.35

卸载mariadb

|  |
| --- |
| rpm -e --nodeps `rpm -qa |grep -i mariadb` |

检查是否卸载干净

|  |
| --- |
| rpm -qa |grep mysql |

下载mysql5.7rpm包

|  |
| --- |
| wget https://dev.mysql.com/get/mysql57-community-release-el7-9.noarch.rpm |

安装rpm包

|  |
| --- |
| rpm -ivh mysql57-community-release-el7-9.noarch.rpm |

导入yum源key

|  |
| --- |
| rpm --import https://repo.mysql.com/RPM-GPG-KEY-mysql-2022 |

安装mysql-server

|  |
| --- |
| cd /etc/yum.repos.d/ && yum install -y mysql-server |

启用开机自启并开启服务

|  |
| --- |
| systemctl start mysqld && systemctl enable mysqld |

获取安装时的临时密码

|  |
| --- |
| grep 'temporary password' /var/log/mysqld.log |

数据库登陆

|  |
| --- |
| mysql -uroot -p |

更新数据库密码

|  |
| --- |
| ALTER USER 'root'@'localhost' IDENTIFIED BY 'Xiaowei@123456'; |

创建redmine数据库

|  |
| --- |
| CREATE DATABASE redmine CHARACTER SET utf8mb4; |

创建redmine用户并设置密码

|  |
| --- |
| CREATE USER 'redmine'@'localhost' IDENTIFIED BY 'Xiaowei@123456'; |

授权

|  |
| --- |
| GRANT ALL PRIVILEGES ON redmine.\* TO 'redmine'@'localhost'; |

查询创建的数据库

|  |
| --- |
| show databases; |

更新数据库配置文件

|  |
| --- |
| cd $REDMINE && vim config/database.yml  production:  adapter: mysql2  database: redmine  host: localhost  username: redmine  password: "Xiaowei@123456"  # Use "utf8" instead of "utfmb4" for MySQL prior to 5.7.7  encoding: utf8mb4 |

## 3.6安装Gems和创建Database Schema

gem安装bundler

|  |
| --- |
| cd /var/www/redmine-4.2.2 && gem install bundler |

yum安装mysql-devel和bundle安装

|  |
| --- |
| yum install -y mysql-devel && bundle install --without development test |

生成令牌

|  |
| --- |
| bundle exec rake generate\_secret\_token |

数据库建表并插入初始数据

|  |
| --- |
| RAILS\_ENV=production REDMINE\_LANG=en bundle exec rake db:migrate  RAILS\_ENV=production REDMINE\_LANG=en bundle exec rake redmine:load\_default\_data |

## 3.7安装Passenger6.0.8

gem安装passenger

|  |
| --- |
| gem install passenger -v 6.0.8 |

安装epel源和yum工具包

|  |
| --- |
| yum install -y epel-release yum-utils |

指定epel源

|  |
| --- |
| yum-config-manager --enable epel |

清除yum缓存和系统更新

|  |
| --- |
| yum clean all && sudo yum update -y |

安装pygpgme，curl

|  |
| --- |
| yum install -y pygpgme curl |

下载passenger源

|  |
| --- |
| curl --fail -sSLo /etc/yum.repos.d/passenger.repo https://oss-binaries.phusionpassenger.com/yum/definitions/el-passenger.repo |

安装mod\_passenger

|  |
| --- |
| yum install -y mod\_passenger |

验证安装是否成功

|  |
| --- |
| /usr/bin/passenger-config validate-install |

验证安装

|  |
| --- |
| /usr/bin/passenger-config --ruby-command |

## 3.8创建新的配置文件，配置redmine网站连接

配置文件创建

|  |
| --- |
| cat<<\EOF > /etc/httpd/conf.d/redmine.conf  PassengerRuby /usr/local/rvm/gems/ruby-2.7.3/wrappers/ruby  <VirtualHost \*:80>  ServerName 192.168.179.141  DocumentRoot "/var/www/redmine-4.2.2/public"  ErrorLog logs/redmine\_error\_log  LogLevel warn  <Directory "/var/www/redmine-4.2.2/public">  Options Indexes ExecCGI FollowSymLinks  Require all granted  AllowOverride all  </Directory>  </VirtualHost>  EOF |

## 3.9配置权限

配置

|  |
| --- |
| cd /var/www/  chown -R apache:apache redmine-4.2.2  chcon -R -t httpd\_log\_t redmine-4.2.2/log/  chcon -R -t httpd\_tmpfs\_t redmine-4.2.2/tmp/  chcon -R -t httpd\_sys\_script\_rw\_t redmine-4.2.2/files/  chcon -R -t httpd\_sys\_script\_rw\_t redmine-4.2.2/public/plugin\_assets/  restorecon -Rv redmine-4.2.2/ |

## 3.10配置环境变量并重启

配置环境变量

|  |
| --- |
| echo "PASSENGER\_COMPILE\_NATIVE\_SUPPORT\_BINARY=0" >> /etc/sysconfig/httpd  echo "PASSENGER\_DOWNLOAD\_NATIVE\_SUPPORT\_BINARY=0" >> /etc/sysconfig/httpd |

重启

|  |
| --- |
| systemctl restart httpd |