

! " # \$ % & ' () * + , - . / : ;

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! "

() * +

===

\$ % & '

Chapter 1. Zabbix

() CentOS 7

1.1. zabbix

1.1.1. * +

! " zabbix [source,console]

```
yum [source, console]
```

,

```
rpm -Uvh https://repo.zabbix.com/zabbix/4.4/rhel/7/x86_64/zabbix-release-4.4-1.el7.noarch.rpm  
yum -y install zabbix-server-mysql zabbix-web-mysql zabbix-apache-conf  
zabbix-agent
```

\$ % & ' () *

```
[root@redas_core ~]# rpm -aq |grep zabbix  
zabbix-web-mysql-4.4.4-1.el7.noarch  
zabbix-get-4.4.4-1.el7.x86_64  
zabbix-server-mysql-4.4.4-1.el7.x86_64  
zabbix-agent-4.4.4-1.el7.x86_64  
zabbix-release-4.4-1.el7.noarch  
zabbix-web-4.4.4-1.el7.noarch
```

! " + , - .

```
systemctl enable zabbix-server [source, console]
```

1.1.2. , - mysql. / O

/ O 1 2 3

```
CREATE DATABASE zabbix DEFAULT CHARACTER SET utf8mb4 DEFAULT COLLATE  
utf8mb4_unicode_ci ; [source, console]
```

\$123

```
mysql> show databases;
+-----+
| Database                |
+-----+
| information_schema      |
| mysql                   |
| performance_schema      |
| redas                   |
| sys                     |
| zabbi x                 |
+-----+
```

4056

```
mysql -uroot -pgeek -e "CREATE USER zabbi x@l ocal host i denti fi ed wi th
mysql _nati ve_password by 'geek' ; "[source, consol e]
```

```
mysql -uroot -pgeek -e "GRANT ALL ON zabbi x. * TO 'zabbi x'@'l ocal host' WI TH
GRANT OPTI ON; "[source, consol e]
```

\$56

```
[root@redas_core ~]# mysql -uzabbi x -pgeek zabbi x -e "show tabl es"
+-----+
| Tabl es_i n_zabbi x      |
+-----+
| acknowl edges            |
| acti ons                 |
| al erts                  |
| ...                      |
+-----+
```

7812

```
gzi p -d /usr/share/doc/zabbi x-server-mysql -
4. 4. 4/create. sql . gz[source, consol e]
```

```
mysql -uzabbi x -pgeek zabbi x < /usr/share/doc/zabbi x-server-mysql -
4. 4. 4/create. sql [source, consol e]
```


\$ 7 8 1 2

```
mysql> show tables;
+-----+
| Tables_in_zabbix |
+-----+
| acknowledges      |
| actions           |
| alerts            |
| ...               |
```

1.1.3. , - 1 2 3

9: /etc/zabbix/zabbix_server.conf ;)

```
sed -i '124s/# DBPassword=/DBPassword=geek/'
/etc/zabbix/zabbix_server.conf[source, console]
```

< " = >

```
sed -i '20s@          # php_value date.timezone Europe/Riga@php_value
date.timezone Asia/Shanghai@'
/etc/httpd/conf.d/zabbix.conf[source, console]
```

1.1.4. 4 5 6 7 8

! " zabbix yum ?

```
rpm -Uvh https://repo.zabbix.com/zabbix/4.4/rhel/7/x86_64/zabbix-release-
4.4-1.el7.noarch.rpm[source, console]

yum -y install zabbix-agent[source, console]
```

! " + , - .

```
systemctl enable zabbix-agent[source, console]
```

1.1.5. , - 6 7 8

@AB, ipCD6EFG

```
sed -i '98s/Server=/Server=192.168.2.8/' /etc/zabbix/zabbix_agentd.conf

sed -i '139s/ServerActive=/ServerActive=192.168.2.8/'
/etc/zabbix/zabbix_agentd.conf

sed -i '150s/Hostname=/Hostname=yixinn/'
/etc/zabbix/zabbix_agentd.conf[source, console]
```

1.1.6.9: 12

HI E

```
systemctl start zabbix-server[source, console]
```

D6E

```
systemctl start zabbix-server[source, console]
```

#\$HI JK

```
systemctl status zabbix-server[source, console]
```

LMNOP

```
http://192.168.2.8/zabbix/setup.php[source, console]
```

!

- ./O12

3windows/Windows/fonts/simkai.ttf 456789 /usr/share/zabbix/assets/fonts: ; <
3/usr/share/zabbix/include/defines.inc.phpO= < > graphfont? @A simkai

QRST

```
BCID
ww496d47cc707b7239
AgentId
1000003
Secret
ebxky-GfkJKXI_o0eKQ2zdw_P2I KLUYoRZ5g6FM0I 24
```

```
{ITEM.NAME}DE
IP: {HOST.HOST}
DEFG: {TRIGGER.NAME}
```

```
HI J K: {ITEM. LASTVALUE}  
L MNO: {EVENT. DATE} {EVENT. TIME}
```

```
PQ: {HOST. NAME}DE  
RS: {HOSTNAME1}  
TUVW: {ITEM. NAME}  
HI J K: {ITEM. LASTVALUE}  
L MFG: {TRIGGER. NAME}  
L MNO: {EVENT. DATE} {EVENT. TIME}
```

```
#!/bin/bash  
CorplD="ww496d47cc707b7239" #BC<X>CorplD  
Secret="ebxky-GfkJKXI_o0eKQ2zdw_P2l KLUYoRZ5g6FM0l 24"  
#YZ>[ \ ] ^Secret  
GURL="https://qyapi.wei.xi.n.qq.com/cgi-  
bin/gettoken?corpld=$CorplD&corpsecret=$Secret"  
Token=$(/usr/bin/curl -s -G $GURL |awk -F\: '{print $4}'|awk -F\" '{print  
$2}')  
#echo $Token  
PURL="https://qyapi.wei.xi.n.qq.com/cgi-  
bin/message/send?access_token=$Token"
```

```
function body(){  
    local int agentid=1000003 #_AAgentId `YZ>[ \ ] a b  
    local UserID=$1 #cd>\efg$1>hi j  
    local PartyID=2 #klmb>no; />pqld  
    local Msg=$(echo "$@" | cut -d" " -f3-)  
    printf '{\n'  
    printf '\t"touser": "'"$UserID"'\n",\n"  
    printf '\t"toparty": "'"$PartyID"'\n",\n"  
    printf '\t"msgtype": "text",\n'  
    printf '\t"agentid": "'"$agentid"'\n",\n"  
    printf '\t"text": {\n'  
    printf '\t\t"content": "'"$Msg"'\n"\n"  
    printf '\t},\n'  
    printf '\t"safe": "0"\n'  
    printf '}\n'  
}
```

```
/usr/bin/curl --data-ascii "$(body $1 $2 $3)" $PURL  
BCID  
ww496d47cc707b7239  
AgentId  
1000003  
Secret  
ebxky-GfkJKXI_o0eKQ2zdw_P2l KLUYoRZ5g6FM0l 24
```

```
{ITEM. NAME}DE
IP: {HOST. HOST}
DEFG: {TRIGGER. NAME}
HIJK: {ITEM. LASTVALUE}
LMNO: {EVENT. DATE} {EVENT. TIME}
```

```
PQ: {HOST. NAME}DE
RS: {HOSTNAME1}
TUVW: {ITEM. NAME}
HIJK: {ITEM. LASTVALUE}
LMFG: {TRIGGER. NAME}
LMNO: {EVENT. DATE} {EVENT. TIME}
```

```
#!/bin/bash
CorplD="ww496d47cc707b7239" #BC<X>CorplD
Secret="ebxky-GfkJKXI_o0eKQ2zdw_P2lKLUYoRZ5g6FM0l24"
#YZ>[\ ] ^Secret
GURL="https://qyapi.weixin.qq.com/cgi-bin/gettoken?corpld=$CorplD&corpsecret=$Secret"
Token=$(/usr/bin/curl -s -G $GURL |awk -F\: '{print $4}'|awk -F\" '{print $2}')
#echo $Token
PURL="https://qyapi.weixin.qq.com/cgi-bin/message/send?access_token=$Token"
```

```
function body(){
    local int agentid=1000003 #_AAgentId `YZ>[\ ] ab
    local UserID=$1 #cd>\efg$1>hi j
    local PartyID=2 #klmb>no; />pqlD
    local Msg=$(echo "$@" | cut -d" " -f3-)
    printf '\n'
    printf '\t"touser": "'"$UserID"'\n', \n"
    printf '\t"toparty": "'"$PartyID"'\n', \n"
    printf '\t"msgtype": "text", \n'
    printf '\t"agentid": "'"$agentid"'\n', \n"
    printf '\t"text": {\n'
    printf '\t\t"content": "'"$Msg"'\n\n'
    printf '\t}, \n'
    printf '\t"safe": "0"\n'
    printf '}\n'
}
/usr/bin/curl --data-ascii "$(body $1 $2 $3)" $PURL
```

!

\ r a s t Z zabbix\ 25u v c w = x N y z
{ | } ~ • € • , f „ ... 7 8 9 Telnet smtp.exmail.qq.com 25u v f c † 25u v ~ n f ‡ ^
%oC Š < Œ x N •
Ž • • , • r a s ' l ' " w = f " • 25u v 7 8 f – — ~ \ ssl™ Š > 465u v > œ w = > c
d •

Chapter 2. Gitlab

() CentOS 7

2.1. Gitlab

2.1.1. ; < * +

UVWXRPM*

```
wget https://packages.gitlab.com/gitlab/gitlab-ce/packages/el/7/gitlab-ce-12.8.7-ce.0.el7.x86_64.rpm
```

yum %&

```
yum localinstall gitlab-ce-12.8.7-ce.0.el7.x86_64.rpm
```

2.1.2. = > ?

nginx E Y Z [\] ^ _ ` nginx H I

```
systemctl stop nginx
systemctl disable nginx
```

a b c gitlab

```
gitlabctl reconfigure
```

- .

```
gitlabctl start
```

d e

```
gitlabctl stop
```


2.1.3. @A, -

git f g` h i j _ , IP` h

```
sed -i '13s/      host: gitlab.example.com/      host: 192.168.2.7/'
/opt/gitlab/embedded/service/gitlab-rails/config/gitlab.yml
```

D6EOP

```
192.168.2.7
```



- ž \ e Ÿ root
- i 2ϕ^ £

2.1.4. B7C-

@A [source,console]

```
Access Tokens
```

```
\e --> settings --> Access Tokens

⌘ ¥ Ÿ | :

$'' api
Ē      read_user

©^ Create personal access token

+; access token
PhY2RK4spkepP9g_3yf9
```

<" k l

\ e --> settings --> SSH Keys

```
cd ~/.ssh/ Ź b ¢ª >« ¬ - ® 6gi t l ab, n ¯ • —. pub° ± > O =  
ssh-rsa
```

```
AAAAB3NzaC1yc2EAAAADAQABAAQDAQDKhTFrj T3qhHAKhQDaU1ZKkI YANi ByqFYXA+3L+thfgh  
kwt3+hrCNZ17LU+/vI l O l n4pbgj tkYuI 7wVVUW9Z7PeNRVMSy6QI 70RD6ZF9BdfCBnPoNs3Ad  
3S2I VQ3Wkql rXKfKDcypLi bSECR8+7yQagnxA0XI 2qj Eeywv06M3Z2TudUJ9VgSagZ0vTvQB3h  
4SEuJ3Rxi nhkRNi uWwUcx3Q1t2Bf2VTvBkCfZHTADXc0+uKVwHGuTHZzP+Y1hK9Pqpb3pv4qUc  
q4Pu0dcLS8HEI 0e2xo8DXu7yXvDGOJrDbN0ytk/+bzc3wml GI kr8SKvuEVZ+nD32D2byCyNnP9  
1d root@vir19
```

² ³ Add key

```
789- ®« ¬ ´ ³ ` µ Q- ®« ¬ ¬ ¶  
cat << EOF > ~/.ssh/config  
Host 192.168.2.7  
É IdentityFile ~/.ssh/mk  
EOF
```

/ Omn

Create new project --> ✕ ¥ · : Ÿ | --> Create project --> clone

/ O [source,console]

webhook[source,console]

```
Projects --> redas_lib --> settings --> Integrations  
Jenkins --> · : --> Build when a change is pushed to GitLab. GitLab  
webhook URL: ¹  
url: http://192.168.2.19:8080/project/redas_lib  
§ ¨ Push events  
É Merge request events  
© ° - ®
```

op_` q r s t

Admin Area --> settings --> Network --> Outbound requests --> Expand
§ ¨ Allow requests to the local network from web hooks and services

Chapter 3. Jenkins

☐ CentOS 7

3.1. Jenkins

3.1.1.; $<^* +$

UVWX RPM*

```
wget https://pkg.jenkins.io/redhat-stable/jenkins-2.204.5-1.1.noarch.rpm
```

yum %&

```
yum localinstall jenkins-2.204.5-1.1.noarch.rpm
```

3.1.2. 9:

u# java v_

java -version

```
@A javav_j 1.8
```

```
sudo update-alternatives --config java
```

java 1.8%&

```
yum install -y java-1.8.0-openjdk java-1.8.0-openjdk-devel java-1.8.0-openjdk-headless[source,console]
```

WX - .

```
java -jar /usr/lib/jenkins/jenkins.war
```

$$yz \in \{ - \}.$$

```
java -DsocksProxyHost=192.168.2.5 -DsocksProxyPort=1080 -jar  
jenkins.war[source,console]
```

!

... \ » ¼½¾f Jenkins • ž Ā Á Â Ã Ä Å Æ Ç È = f È = Â Ã É ³ Ê Ë » ¼f Ì - ½¾

3.1.3. => ?

%&|)

```
gitlab
gitlab hook
```

} A SSH ~I

```
Í Î --> ! " --> Ĩ ĐÍ Î -->- ®Í Î

kind SSH Username with private key
description:jenkins_ssh_key
Enter directly, $''^1
Private Key: (~/.ssh/: ; Ž b €ª > Ñ¬ƒ - ®)

ÒÓ
```

} A API token

```
Í Î --> ! " --> Ĩ ĐÍ Î -->- ®Í Î

kind Gitlab api token
API token: (gitlab789YZ > API token)
ÔÕ gitlab_api_token

©^
```

• i } A

```
! " ' ¼ -> ! " Öx ->
Enable authentication for '/project' end-point (web hook 403
ØÛyz ÊË Û§)
Gitlab
Ê Connection name : gitlab7

Ê Gitlab host URL : http://192.168.2.7 (gitlab789RS)
Ê Credentials API Token for accessing Gitlab , '' Öx Û> API token¹

Ê Test Connection(ÜÝ Þ ß ƒ à á SuccessAĬ ©)
Ê Success
```

Chapter 4. Mysql

() CentOS 7

4.1. web D E F G

4.1.1. mysql IDE HI

€ •

```
mysql dump -uroot -p'geek' --add-drop-table dedecms_foo_com > /data/db/dedecms_foo_com.sql
```

€ • ' , f 1 2! " insert , ...

```
mysql dump -uroot -p'geek' --extended-insert=FALSE dedecms_foo_com>dedecms_foo_com.sql
```

† ‡

```
mysql -uroot -p'geek' dedecms_foo_com < /data/db/dedecms_foo_com.sql
```

^ * %Š

```
tar -zcvf /data/db/dedecms_foo_com.sql.tar.gz -C /data/db/dedecms_foo_com.sql
```

€ • < HI N

```
rsync -a --log-file=/tmp/rsync.log /data/db/ root@192.168.2.8: /data/backup/db/
```

4.1.2. web J K D E

€ • < HI N

```
rsync -a --log-file=/tmp/rsync.log /data/web/ root@192.168.2.8: /data/backup/web/
```

4.1.3. L M N. O P

mysqldump

```

--add-drop-database ` ä ä CREATE DATABASE ä ä ´ æ- ® DROP DATABASE ä ä
--add-drop-table ` ä ä CREATE TABLE ä ä ´ æ- ® DROP TABLE ä ä
--add-drop-trigger ` ä ä CREATE TRIGGER ä ä ´ æ- ® DROP TRIGGER ä ä
--add-locks \ LOCK TABLES ç UNLOCK TABLES ä ä è é ä ä table è è
--all-databases è è ì ^ í î ï / > ì ^ table
--allow-keywords ` ÿ ÄYZ ð Å ñ ò ð > ó ÿ
--apply-slave-statements ` CHANGE MASTER ä ä ´ æ è ò STOP
SLAVE f ` ò ò ° ÷ N è ò START SLAVE
--bind-address ` \ ø ^ > ç ù æ v < æ 6 MySQL Server
--character-sets-dir ` hi ú > Å Å : ;
--comments - ® Comments 6 è è O =
--compact ` ù Š ù ý þ > ò ò
--compatible ` ù Š ý ! " í î ï ! " # ù $ > MySQL 789 ù % & > ò ò
--complete-insert ` \ è ò ó ÿ | > É ' INSERT ä ä
--compress ( ) Client u ç 789 ´ O c d > ì ^ F G
--create-options ` CREATE TABLE ä ä / è * ì ^ + ^ g MySQL > table ``.
--databases 3 ì ^ ÿ | , í - - A í î ï ÿ |
--debug . ¥ / ß * O
--debug-check $ 1 2 ö N Ú 3 / ß F G
--debug-info $ 1 2 ö N Ú 3 / ß F G f 4 Ó ç CPU " 5 F G
--default-auth 6 7 8 9 È = ~ \
--default-character-set ø ^ : ° hi ú
--defaults-extra-file ` ; ` < ``. O = æ f = > J ? ÿ > ``. O =
--defaults-file @ > ? ÿ > ``. O =
--defaults-group-suffix ``. A ³ B K
--delete-master-logs ` P C D 7 8 9 E f F æ è è G ð ³ H ; I > D * O
--disable-keys J g ä ä table f ` INSERT ä ä K é ® E \ g L \ ç ½ \ ò > ä ä
--dump-date M N O ö --comments f P 3 è è * Q è * A ò è è É R g Ó Comments
--dump-slave ` è ò CHANGE MASTER ä ä f S ä ä ó ö • T U P Q > I > D * O V W
--enable-claertext-plugin ` ½ \ X O 6 7 8 9 È = 5.7.10
--events ` T è è > í î ï / è è Y =
--extended-insert ` \ Å æ INSERT ä ä
--fields-enclosed-by ` S ``. ý --tab ``. I [ ~ \ f ! ô £ ý LOAD DATA
> \ [ ] ä \ ^
--fields-escaped-by S ``. ý --tab ``. I [ ~ \ f ! ô £ ý LOAD DATA > \ [ ] ä \ ^
--fields-optimally-enclosed-by S ``. ý --tab ``. I [ ~ \ f ! ô £ ý LOAD DATA
> \ [ ] ä \ ^
--fields-terminated-by ` S ``. ý --tab ``. I [ ~ \ f ! ô £ ý LOAD DATA
> \ [ ] ä \ ^
--flush-logs ` _ ž è è ´ æ ` a MySQL 789 * O O =
--flush-privileges ` è è mysql í î ï ³ c ö FLUSH PRIVILEGES ä ä
--force-b ` ` table è è Q O c Š SQL c d f e Á continue
--get-server-public-key T 7 8 9 f g RSA « ¬ 5.7.23
--help hi j k F G } 2 ö
--hex-blob ` \ I m > D table i Z è è I > D ó
--host MySQL 789 ì ` > P Q
--ignore-error ` n o ø ^ > c d
--ignore-table ` ~ Å è è O ^ > table
--include-master-host-port ` p --dump-slave Š R > CHANGE MASTER ä ä / è *

```

```

MASTER_HOST/MASTER_PORT ...
--insert-ignore . ¥ INSERT IGNORE q~• INSERT ä å
--lines-terminated-by S... ÿ--tab ... | [ ~ \ f! ô £ ÿ LOAD DATA
> \ [ ] å \ ^
--lock-all-tables r ^ î ^ í î î / > î ^ table
--lock-tables ê ë ´ æ r ^ î ^ table
--log-error 3MLçcds®6?ÿO=
--log-in-path T.mylogi n.cnf / > J t ; uv ...
--master-data 3I > D* OO=>ÿ| ç f x ¥ w õ ö
--max-allowed-packet cd6789#T789Æx>²yí î è z {
--net-buffer-length TCP/IP ç | Æh n F > } ~• y €
--no-autocommit 3â ã ê ë table > INSERT ä å è ô ` SET autocommit = 0 ç
COMMIT ä å 4
--no-create-db ~Á¥ CREATE DATABASE ä å
--no-create-info ~Á. ¥• aYZâ ã ê ë table > CREATE TABLE ä å
--no-data ~Áê ë table 4&
--no-defaults ~>J ... O=
--no-set-names ÿ--skip-set-charset \ ^
--no-tablespaces ~Á` ö ö / ¥ w, f CREATE LOGFILE GROUP # CREATE
TABLESPACE ä å
--opt --add-drop-table --add-locks --create-options --disable-keys
--extended-insert --lock-tables --quick --set-charset > „ ¥
--order-by-primary ê ë ... P ö # k l ã † l ‡ ^ ( 1 > â ã table > œ
--password < Æ789N~ \ > j 2
--pipe ~ \ ? ÿ ' % < Æ6789(Š Wi ndows)
--plugin-dir ÄÄË=>: ;
--port \ g < Æ > TCP/IP uv <
--print-defaults Ú3: ° ...
--protocol ~ \ > Æ ö • Ž
--quick l • T789• ‡ table > œ
--quote-names ' ^ < h i 4 > ^ < W' i
--replace . ¥ REPLACE ä å q~• INSERT ä å
--result-file " Æ ö ö 6 O ^ O =
--routines T ê ë > í î î / ê ë Ó ë > " $(• $ç-í )
--secure-auth ~Á—$(4.1 ´ æ)—š ~ 789cdj 2 Yes
--server-public-key-path è ô RSA « ¬ > O=> uv ÿ 5.7.23
--set-charset 3 SET NAMES default_character_set - ®6ö ö
--set-gtid-purged • ™3 SET @@ GLOBAL.GTID_PURGED - ®6ö ö
--shared-memory-base-name š > 4 Ó < Æ > š > 4 Ó ÿ | (Š Wi ndows)
--single-transaction T789ê ë í î ´ æ c ö BEGIN SQL ä å
--skip-add-drop-table ~Á` â ã CREATE TABLE ä å ´ æ-® DROP TABLE ä å
--skip-add-locks ~ - ® r
--skip-comments ~Á- ® Comments 6ê ë O=
--skip-compact ~Áû Š ü ý þ > ö ö
--skip-disable-keys ~ÁL \ ... ö
--skip-extended-insert ñ œ • Ž È w
--skip-opt ñ œ--opt ÿ x > ...
--skip-quick ~Ál • T789• ‡ table > œ
--skip-quote-names ~ ^ \ W' i

```

```

--skip-set-charset --A¥ SET NAMES ää
--skip-triggers ~Áêë c9
--skip-tz-utc ñœ tz-utc
--socket Unix | ÆhO=# Windows ?Ÿ' %~ \
--ssl ½\ < Æ®j
--ssl-ca èôj F, > SSL 9¢£cQ¤ó table >O=
--ssl-capath èôj F, > SSL 9¢£cQ¤9¢O=>: ;
--ssl-cert èô X.509 9¢>O=
--ssl-cipher < Æ®j >ï Äj 2
--ssl-crl èô9¢¥| ó table >O=
--ssl-crlpath èô9¢¥| ó table O=>: ;
--ssl-key èô X.509 j ¬>O=
--ssl-mode Ÿ789< Æ>ï ÄÃİ §¨ 5.7.11
--ssl-verify-server-cert ©Î 7899¢>n\Ÿ6789PQŸ
--tab ûŠD table i ª « >í Î O=
--tables ¬ - -í Î î #-B ¨ .
--tls-version ï Ä> TLS • Ž> œ®j < Æ 5.7.10
--triggers âãêë table >êë c9
--tz-utc - ® SET TIME_ZONE ='00:00' ®êëO=
--user < Æ789N~ \> MySQL \eŸ
--verbose Verbose mode
--version hi ~ µFG} 2ö
--where ŠêëO^ WHERE ° =¨ ±>œ
--xml ûŠ XML öö

```

mysql

i "

```
mysql dump -uroot -pgeek --add-drop-table db_name > db_name.sql
```

```

, í - -
-h mysql789>ipRS#PQŸ
-u < Æmysql789>\eŸ
-e Fœmysql4p?²
-p < Æmysql789>j 2
-D ~ \³ äí Î î

```

4.1.4. tar

i "

Úè

```
tar -zcvf test.tar.gz -C /root/document/test
```

óöö´

```
tar -tf test.tar
```

µJO´

```
tar -xf test.tar
```

```
, í - -  
-c YZ¶´  
-f ø^¶´O=  
-v hi ø² Fæ• $  
-z n• gzipø² ( ) /- ( ) O= fO= Y² ÛA*.tar.gz  
-C _· #ð: ;  
-t óö¶´O=>4&  
-x T¶´O=/µJO=
```

4.1.5. crontab

```
crontab
```

```
?² , \®µ¹ ç´ ¼\ e>ÀÁKQ° Fæ>, 8
```

i "

```
[root@cky ~]# crontab -l  
*/1 * * * * /bin/sh /usr/bin/vnstat_dump.sh  
#1 2 * * * /bin/sh /bak/local_bak/script/tar_mysql_bin.sh  
1 3 * * * /bin/sh /bak/local_bak/script/rsync_from_local.sh  
1 4 * * * /bin/sh /bak/local_bak/script/full_db_bak.sh  
  
#*/1 * * * * /bin/sh /bak/script/kill_query_timeout.sh  
#*/10 * * * * /etc/init.d/php-fpm_www restart  
  
1 */1 * * * /bin/sh /opt/git_pull_new_ck.sh  
59 23 * * 0,6 /bin/sh /bak/script/renew.sh
```

```
, í - -  
-e . » S\ e>5N9Yx  
-l óöS\ e>5N9Yx
```

!

crontabO=>ô£ \eì Z¼>crontabO=/fâl œ½»¾l · , 8fâœ>âãh
 ¿»¾l · ÿxfÀ>—ššª Amãh¿fæÁ¿•NOÿ^¿fkm¿•ÁFœ>?²
 ¿f—šM<

minute hour day month week command Ã1ª N* ÃK?²¿

minute¾iª Äf—•T0659´O>,f'í

hour¾i∈Nf—•T0623´O>,f'í

day¾i*Qf—•T1631´O>,f'í

month¾iÃ7f—•T1612´O>,f'í

week¾iÅQÆf—•T067´O>,f'ífÇa>0#7»¾ÅQ*

command ÁFœ>?²f—•!"?²fe—•¢ª.¥>ÈµO=

`—EÉãh¿/f=—~\—<+Êhi

*»¾ì^—U>Kf" Mmonthh¿MN•Å<fP¾i`Èì!Àh¿>DÍ°=³ã
 Å½FœS?²GÖ

, —\Î<«_>Kø^lãó¾ìéf" MfÒ1,2,5,7,8,9Ó

- —\'í´O>/Ð¾i lã'íĭéf" MÒ2-6Ó¾i Ò2,3,4,5,6Ó

/ —\ÌÑÒø^NO>O«ÓÔf" MÒ0-23/2Ó¾i âÕ∈NFœl••^NìÑÒ
 —ÇÅ<l[~\f" M*/10fMN\`minuteh¿f¾i âlªÄFœl•

4.2. Mysql QR

mysql Ver 8.0.19 for Linux on x86_64 (MySQL Community Server - GPL)

master RS 192.168.43.3 slave RS 192.168.43.114

4.2.1. GTIDQR, -

} A master

```
vim /etc/my.cnf
[mysql d]
default-authentication-plugin=mysql_native_password
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
log-error=/var/log/mysql/mysql.log
pid-file=/var/run/mysql/mysql.pid
user=mysql
port=3306
server-id=1
gtid-mode=ON
enforce-gtid-consistency=ON
binlog_format=row
```

œ- mysql HI \] ^ • Ž •

systemctl restart mysqld systemctl stop firewalld systemctl mask firewalld.service

} A slave

```
vim /etc/my.cnf
[mysql d]
default-authentication-plugin=mysql_native_password
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
log-error=/var/log/mysql/mysql.log
pid-file=/var/run/mysql/mysql.pid
user=mysql
port=3306
server-id=2
gtid-mode=ON
enforce-gtid-consistency=ON
binlog_format=row
```

œ- mysql HI \] ^ • Ž •

```
systemctl restart mysqld
systemctl stop firewalld
systemctl mask firewalld.service
```

master/056• '

```
mysql -uroot -pgeek
set global validate_password_policy=0;
set global validate_password_length=1;
flush privileges;
CREATE USER 'slave123'@'%' IDENTIFIED BY 'geek';
GRANT REPLICATION SLAVE ON *.* TO 'slave123'@'%';
flush privileges;
```

\$masterJK

```
mysql > show master status;
```

slave' " @A

mysql -uroot -pgeek

```
mysql -uroot -pgeek
CREATE USER 'slave123'@'%' IDENTIFIED BY 'geek';
GRANT REPLICATION SLAVE ON *.* TO 'slave123'@'%';
flush privileges;
stop slave;
change master to master_host='192.168.2.17',
master_user='slave123',master_password='geek',master_port=3306,master_auto
_position=1;
start slave;

#Ž bslave$ ``
show slave status\G
```

mysql8" X%• — —

```
UNINSTALL COMPONENT 'file://component_validate_password';
```

```

master:
Ê create database test1;
Ê show master status;

slave:
Ê show databases;
Ê show slave status\G
***** 1. row *****
Ê Slave_IO_State: Waiting for master to send event
Ê Master_Host: 192.168.43.3
Ê Master_User: slave123
Ê Master_Port: 3306
Ê Connect_Retry: 60
Ê Master_Log_File: binlog.000035
Ê Read_Master_Log_Pos: 1687
Ê Relay_Log_File: dbslave-relay-bin.000005
Ê Relay_Log_Pos: 1895
Ê Relay_Master_Log_File: binlog.000035
Ê Slave_IO_Running: Yes
Ê Slave_SQL_Running: Yes
Ê Last_IO_Errno: 0
Ê Last_IO_Error:
Ê Last_SQL_Errno: 0
Ê Last_SQL_Error:
Ê Replicate_Ignore_Server_Ids:
Ê Master_Server_Id: 1
Ê Master_UUID: 76475db1-5150-11ea-8853-0800275e2671
Ê Master_Info_File: mysql.slave_master_info
Ê SQL_Delay: 0
Ê SQL_Remaining_Delay: NULL
Ê Slave_SQL_Running_State: Slave has read all relay log; waiting for
more updates
Ê Master_Retry_Count: 86400
Ê Master_SSL_Crlpath:
Ê Retrieved_Gtid_Set: 76475db1-5150-11ea-8853-0800275e2671: 88-99
Ê Executed_Gtid_Set: 76475db1-5150-11ea-8853-0800275e2671: 1-99,
93a238d7-5150-11ea-9fb7-080027da57dd: 1-66

```

> œLast_IO_Error• 1236ž Ÿ

```

RESET MASTER;
set global gtid_purged = 'xxxx'; -- Ça xxxx• Master
> Executed_Gtid_Set
start slave;
show slave status\G;

```

4.3. Mycat

4.3.1. * + mycat

install

```
wget -c wget -c http://dl.mycat.io/1.6.7.3/Mycat-server-1.6.7.3-release-20190828135747-linux.tar.gz
tar xf Mycat-server-1.6.7.3-release-20190828135747-linux.tar.gz
mv mycat /usr/local/
rm -rf mycat
```

%& java 1.8

```
yum install -y java-1.8.0-openjdk java-1.8.0-openjdk-devel java-1.8.0-openjdk-headless
```

- i } A;) /usr/local/mycat/conf/schema.xml

```
<?xml version="1.0"?>
<!DOCTYPE mycat:schema SYSTEM "schema.dtd">
<mycat:schema xmlns:mycat="http://io.mycat/">

  <schema name="db1" checkSQLschema="true" sqlMaxLimit="1000"
dataNode="data_node1" />

  <dataNode name="data_node1" dataHost="db_host1" database="db1"/>

  <dataHost name="db_host1" maxCon="1000" minCon="10" balance="1"
  <writeType="0" dbType="mysql" dbDriver="native" switchType="1" slaveThreshold="100">

    <heartbeat>select user()</heartbeat>

    <writeHost host="host_write" url="192.168.43.3:3306"
user="slave123" password="geek">
      <readHost host="host_read" url="192.168.43.114:3306"
user="slave123" password="geek"/>
    </writeHost>

  </dataHost>
</mycat:schema>
```

• i } A /usr/local/mycat/conf/server.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE mycat:server SYSTEM "server.dtd">
<mycat:server xmlns:mycat="http://io.mycat/">

  <system>
    <property name="bindIp">0.0.0.0</property>
  </system>

  <filter>
    <whitelist>
      <host host="127.0.0.1" user="slave123"/>
      <host host="192.168.43.*" user="slave123"/>
    </whitelist>
    <blacklist check="false">
    </blacklist>
  </filter>

  <user name="slave123" defaultAccount="true">
    <property name="password">geek</property>
    <property name="schemas">db1</property>
  </user>
</mycat:server>
```

i \$B, F " 8HOSTS;)

```
echo "127.0.0.1 dbmaster" >> /etc/hosts
```

```
. mycat 1/2 3/4
[source,txt]
```

/usr/local/mycat/bin/mycat start

⌘-

```
/usr/local/mycat/bin/mycat restart
```

de

```
/usr/local/mycat/bin/mycat stop
```

\$J K

```
/usr/local/mycat/bin/mycat status
```

£ ¤ 1 2 3

```
mysql -h127.0.0.1 -P9066 -uslave123 -pgeek db1
```

\$ ¥ | § ``

```
show @@datasource;
```

u © ª « ¬

```
show @@heartbeat;
```

Chapter 5. Centos

5.1. Centos7 = > ?

```
#Ž b PQŸ
hostnamectl status

#Ö_ PQŸ
hostnamectl set-hostname PQŸ

#L \ SELI NUXf x Ø• ½| UŠ Û
echo SELI NUX=di sabl ed>/etc/sel i nux/confi g
echo SELI NUXTYPE=targeted>>/etc/sel i nux/confi g

#Ú Nñ œSEI i nuxf ~ Ä Á• ½
setenforce 0

#MNÛÜ~ \ ¢ª > iptabl es Ý¨ Þßà < P, ] á f ÄÃ iptabl es-servi ces } â L \
fi rewal ld f ½\ iptabl es
systemctl stop fi rewal ld
systemctl mask fi rewal ld.servi ce

systemctl mask NetworkManager

#² y – —Ú_ > O=
echo "*" soft nofi le 65535" >>
/etc/securi ty/li mi ts.conf
echo "*" hard nofi le 65535" >>
/etc/securi ty/li mi ts.conf

# ssht ; Nf t ; i p, %' ~ - ã A ä Ÿ f å æssht ; } ç
sed -i "s/#UseDNS yes/UseDNS no/" /etc/ssh/sshd_conf i g
sed -i "s/GSSAPI Authenti cation yes/GSSAPI Authenti cation no/"
/etc/ssh/sshd_conf i g
sed -i "s/GSSAPI Cl eanupCredenti al s yes/GSSAPI Cl eanupCredenti al s no/"
/etc/ssh/sshd_conf i g
sed -i "s/#MaxAuthTri es 6/MaxAuthTri es 10/" /etc/ssh/sshd_conf i g
# serverâ « 30è c d l • f g Ocl i entf é³ cl i entê [ f T q Ò è < Œ
sed -i "s/#Cl i entAl i veInterval 0/Cl i entAl i veInterval 30/"
/etc/ssh/sshd_conf i g
# serverc ö f g³ f i e u í ^ ê [ î • í ï 63f ð ¢¾ñ_ < Œ f l ~ ò ó < f
cl i ent~%~ ê [
sed -i "s/#Cl i entAl i veCountMax 3/Cl i entAl i veCountMax 10/"
/etc/ssh/sshd_conf i g

#ô ë gbkO=h i
```

```
echo "set fencs=utf-8,gbk" >> /etc/vimrc
```

```
#ÿ^! " N•
```

```
yes|cp /usr/share/zoneinfo/Asia/Chongqing /etc/localtime
```

```
#MN• x86_64! " f( ; 32fè
```

```
echo "exclude=*.i386 *.i586 *.i686" >> /etc/yum.conf
```

```
# $ - ® + ° ± E Y
```

```
firewall-cmd --list-services
```

```
# $ † ² ° ± H I ³ ´ ^ +
```

```
firewall-cmd --get-services
```

```
< " μ ¶ H I < firewall
```

```
firewall-cmd --add-service=http
```

5.2. CentOS7 Install LNMP

5.2.1. * + Nginx

```
! " Nginx UV?
```

```
cat << EOF > /etc/yum.repos.d/nginx.repo
```

```
[nginx-stable]
```

```
name=nginx stable repo
```

```
baseurl=http://nginx.org/packages/centos/$releasever/$basearch/
```

```
gpgcheck=1
```

```
enabled=1
```

```
gpgkey=https://nginx.org/keys/nginx_signing.key
```

```
module_hotfixes=true
```

```
[nginx-mainline]
```

```
name=nginx mainline repo
```

```
baseurl=http://nginx.org/packages/mainline/centos/$releasever/$basearch/
```

```
gpgcheck=1
```

```
enabled=0
```

```
gpgkey=https://nginx.org/keys/nginx_signing.key
```

```
module_hotfixes=true
```

```
EOF
```




EPEL , / > ----nginx.service ---- pg ----KILL ---- , í y z f ½¾³ ö Z ö ÷ f ~ Z Ž ~
 \ •

%&Nginx

```
yum install -y nginx
```

€ • Nginx} A;)

```
echo y|cp /etc/nginx/nginx.conf /etc/nginx/nginx.conf.default
```

• i nginx.conf

```
cat << EOF > /etc/nginx/nginx.conf
# For more information on configuration, see:
# * Official English Documentation: http://nginx.org/en/docs/
# * Official Russian Documentation: http://nginx.org/ru/docs/

user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log warn;
pid /var/run/nginx.pid;

worker_rlimit_nofile 65535;

events {
    worker_connections 65535;
}

http {
    include /etc/nginx/mime.types;
    default_type application/octet-stream;

    log_format main '$host $server_port $remote_addr - $remote_user
[$time_local] "$request" '
    '$status $request_time $body_bytes_sent
"$http_referer" '
    '"$http_user_agent" "$http_x_forwarded_for"';

    access_log /var/log/nginx/access.log main;

    sendfile on;
    tcp_nopush on;
    tcp_nodelay on;
    keepalive_timeout 65;
    types_hash_max_size 2048;
```

```

# server_names_hash_bucket_size 128;
# server_name_in_redirect off;
# client_header_buffer_size 32k;
# large_client_header_buffers 4 32k;

# client_header_timeout 3m;
# client_body_timeout 3m;
# client_max_body_size 50m;
# client_body_buffer_size 256k;
# send_timeout 3m;

# gzip on;
# gzip_min_length 1k;
# gzip_buffers 4 16k;
# gzip_http_version 1.0;
# gzip_comp_level 2;
# gzip_types text/plain application/x-javascript text/css
application/xml;
# gzip_vary on;

# proxy_redirect off;
# proxy_set_header Host $host;
# proxy_set_header X-Real-IP $remote_addr;
# proxy_set_header REMOTE-HOST $remote_addr;
# proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
# proxy_connect_timeout 60;
# proxy_send_timeout 60;
# proxy_read_timeout 60;
# proxy_buffer_size 256k;
# proxy_buffers 4 256k;
# proxy_busy_buffers_size 256k;
# proxy_temp_file_write_size 256k;
# proxy_next_upstream error timeout invalid_header http_500 http_503
http_404;
# proxy_max_temp_file_size 128m;
# #ø»¼78u~ÁP¾ñœï eu><Œf•kù¼499àá»2yz
# proxy_ignore_client_abort on;

# fastcgi_buffer_size 64k;
# fastcgi_buffers 4 64k;
# fastcgi_busy_buffers_size 128k;

# index index.html index.htm index.php default.html default.htm
default.php;

# Load modular configuration files from the /etc/nginx/conf.d
# directory.
# See http://nginx.org/en/docs/nginx_core_module.html #include
# for more information.

```

```
    include /etc/nginx/conf.d/*.conf;
}
EOF
```

! " . Host

```
mkdir /etc/nginx/conf.d

cat << EOF > /etc/nginx/conf.d/default.conf
server {
    listen      80 default_server;
    listen      [::]:80 default_server;
    server_name _;
    root         /usr/share/nginx/html;

    # Load configuration files for the default server block.
    include /etc/nginx/default.d/*.conf;

    location / {

    }

    error_page 404 /404.html;
        location = /40x.html {

    }

    error_page 500 502 503 504 /50x.html;
        location = /50x.html {

    }
}
EOF
```

u©} A

```
nginx -t && rm -f /var/run/nginx.pid
```



```
nginx -t /var/run/nginx.pid O=%l " Öû f q nginx.service} ~ Uû ¼ PIDFileA ú >
ò ó f å æ ½¾ ü ý • Æ Á þ ¾ H; /var/run/nginx.pid

from nginx/1.16.1
```

- . Nginx

```
systemctl start nginx
```

\$NginxJ K

```
# systemctl status nginx
nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor
   preset: disabled)
   Active: active (running) since Fri 2019-11-29 14:02:31 CST; 1h 18min
   ago
   Main PID: 15759 (nginx)
   CGroup: /system.slice/nginx.service
           ! " 15759 nginx: master process /usr/sbin/nginx
           # " 17285 nginx: worker process
```

```
Nov 29 14:02:31 iZ6weebcmroarpx8rrxscrZ systemd[1]: Starting The nginx
HTTP and reverse proxy server...
Nov 29 14:02:31 iZ6weebcmroarpx8rrxscrZ nginx[15753]: nginx: the
configuration file /etc/nginx/nginx.conf syntax is ok
Nov 29 14:02:31 iZ6weebcmroarpx8rrxscrZ nginx[15753]: nginx: configuration
file /etc/nginx/nginx.conf test is successful
Nov 29 14:02:31 iZ6weebcmroarpx8rrxscrZ systemd[1]: Failed to parse PID
from file /run/nginx.pid: Invalid argument
Nov 29 14:02:31 iZ6weebcmroarpx8rrxscrZ systemd[1]: Started The nginx HTTP
and reverse proxy server.
```

```
# ss -antpl |grep nginx
LISTEN      0          128          *:80          *: *
users: (("nginx", pid=17285, fd=6), ("nginx", pid=15759, fd=6))
LISTEN      0          128          :::80         ::: *
users: (("nginx", pid=17285, fd=7), ("nginx", pid=15759, fd=7))
```

! " + , - .

```
systemctl enable nginx
```

5.2.2. * + MySQL

%& MySQL

```
yum install -y mariadb-server
```

€ • my.cnf

```
cp /etc/my.cnf /etc/my.cnf.default
```

• i

```

cat << EOF > /etc/my.cnf
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
# Disabling symbolic-links is recommended to prevent assorted security
risks
symbolic-links=0
# Settings user and group are ignored when systemd is used.
# If you need to run mysqld under a different user or group,
# customize your systemd unit file for mariadb according to the
# instructions in http://fedoraproject.org/wiki/Systemd

max_allowed_packet=20M
max_heap_table_size = 100M
read_buffer_size = 2M
read_rnd_buffer_size = 16M
sort_buffer_size = 8M
join_buffer_size = 8M
tmp_table_size = 100M

# !}
#query_cache_limit=4M
#query_cache_type=on
#query_cache_size=2G

bind-address = 127.0.0.1
# $PQY - āf%Ml ocal host ffoo.com´ &f®' ( y
skip-name-resolve

# SQLF æ* O
general_log=off
general_log_file=/var/log/mariadb/general.log

# SQLÇ Ž• * O
slow_query_log=off
slow_query_log_file=/var/log/mariadb/slowquery.log
long_query_time = 5

max_connections = 1000

# %&) MySQL» 2f%M˘ \úhi j » ? NULLÈwí Î
sql_mode = ""

[mysqld_safe]
log-error=/var/log/mariadb/mariadb.log
pid-file=/var/run/mariadb/mariadb.pid

```

```
#
# include all files from the config directory
#
!includedir /etc/my.cnf.d
EOF
```

} A mysqldump

? 2 , í

```
sed -i 's/16 a quick\quote-names\max_allowed_packet = 100M'/
/etc/my.cnf.d/mysql-clients.cnf
```

/O¹º;)

```
touch /var/log/mariadb/general.log /var/log/mariadb/slowquery.log
chown mysql:mysql /var/log/mariadb/general.log
/var/log/mariadb/slowquery.log
```

! " + , - .

```
systemctl enable mariadb
```

- . MySQL HI

```
systemctl start mariadb
```

\$ MySQL HI J K

```
# systemctl status mariadb
● mariadb.service - MariaDB database server
   Loaded: loaded (/usr/lib/systemd/system/mariadb.service; enabled;
   vendor preset: disabled)
   Active: active (running) since Fri 2019-11-29 14:18:12 CST; 1h 7min ago
   Process: 16688 ExecStartPost=/usr/libexec/mariadb-wait-ready $MAINPID
   (code=exited, status=0/SUCCESS)
   Process: 16653 ExecStartPre=/usr/libexec/mariadb-prepare-db-dir %n
   (code=exited, status=0/SUCCESS)
   Main PID: 16687 (mysqld_safe)
   CGroup: /system.slice/mariadb.service
           ! " 16687 /bin/sh /usr/bin/mysqld_safe --basedir=/usr
           # " 17043 /usr/libexec/mysqld --basedir=/usr
           --datadir=/var/lib/mysql --plugin-dir=/usr/lib64/mysql/plugin --log
           -error=/var/log/mariadb/mariadb.log...
```

```
Nov 29 14:18:10 iZ6weebcmroarpx8rrxscrZ systemd[1]: Starting MariaDB
database server...
Nov 29 14:18:10 iZ6weebcmroarpx8rrxscrZ mariadb-prepare-db-dir[16653]:
Database MariaDB is probably initialized in /var/lib/mysql already,
nothing is done.
Nov 29 14:18:11 iZ6weebcmroarpx8rrxscrZ mysqld_safe[16687]: 191129
14:18:11 mysqld_safe Logging to '/var/log/mariadb/mariadb.log'.
Nov 29 14:18:11 iZ6weebcmroarpx8rrxscrZ mysqld_safe[16687]: 191129
14:18:11 mysqld_safe Starting mysqld daemon with databases from
/var/lib/mysql
Nov 29 14:18:12 iZ6weebcmroarpx8rrxscrZ systemd[1]: Started MariaDB
database server.
```

```
# ss -antpl | grep mysql
LISTEN      0          50          127.0.0.1:3306          *:*
users: (("mysqld", pid=17043, fd=14))
```

• i root~ »

```
mysqladmin -uroot password "geek"
```

¼½©¾123C¿ ~ » 56

```
mysql -uroot -pgeek -e 'show databases;'
mysql -uroot -pgeek -e 'drop database test;'
mysql -uroot -pgeek mysql -e 'delete from db;'
mysql -uroot -pgeek mysql -e 'delete from user where Password="";'
mysql -uroot -pgeek -e 'flush privileges;'
```

5.2.3. * + PHP7

! " SCL?

```
yum install -y centos-release-scl
```

%&PHP7.2

```
yum install -y rh-php72 \  
rh-php72-php \  
rh-php72-php-bcmath \  
rh-php72-php-fpm \  
rh-php72-php-gd \  
rh-php72-php-intl \  
rh-php72-php-mbstring \  
rh-php72-php-mysqlnd \  
rh-php72-php-opcache \  
rh-php72-php-pdo \  
rh-php72-php-pecl-apcu \  
rh-php72-php-xmldrpc \  
rh-php72-php-devel
```

À 8 rh-php72 Á

```
scl enable rh-php72 bash
```

Ã , PHPJK

```
# php -v  
PHP 7.2.24 (cli) (built: Nov  4 2019 10:23:08) ( NTS )  
Copyright (c) 1997-2018 The PHP Group  
Zend Engine v3.2.0, Copyright (c) 1998-2018 Zend Technologies  
with Zend OPcache v7.2.24, Copyright (c) 1999-2018, by Zend  
Technologies
```

€ • php.ini

```
cp /etc/opt/rh/rh-php72/php.ini /etc/opt/rh/rh-php72/php.ini.default
```


- i php.ini

```
# ½\ ' <? ... ?>' » 2* —
sed -i '197s/short_open_tag = Off/short_open_tag = On/' /etc/opt/rh/rh-
php72/php.ini

# L ÷ l +, - ° . > - í
sed -i '314s/disable_functions =/disable_functions =
system,exec,shell_exec,passthru,set_time_limit,ini_alter,dl,openlog,sylog
,readlink,symlink,link,leak,popen,escapeshellcmd,virtual,socket_create,mai
l,eval/' /etc/opt/rh/rh-php72/php.ini

# Öx // N•
sed -i '902s#;date.timezone =#date.timezone = Asia/Shanghai #'
/etc/opt/rh/rh-php72/php.ini
```

! " +, - .

```
systemctl enable rh-php72-php-fpm
```

- . PHP-FPM HI

```
systemctl start rh-php72-php-fpm
```

```
# $ PHP-FPM HI J K
```

```
# systemctl status rh-php72-php-fpm
ÿ rh-php72-php-fpm.service - The PHP FastCGI Process Manager
Ê Loaded: loaded (/usr/lib/systemd/system/rh-php72-php-fpm.service;
enabled; vendor preset: disabled)
Ê Active: active (running) since Fri 2019-11-29 13:36:03 CST; 1h 56min
ago
Ê Main PID: 15360 (php-fpm)
Ê Status: "Processes active: 0, idle: 6, Requests: 56, slow: 0, Traffic:
0req/sec"
Ê CGroup: /system.slice/rh-php72-php-fpm.service
Ê          ! " 15360 php-fpm: master process (/etc/opt/rh/rh-php72/php-
fpm.conf)
Ê          ! " 15361 php-fpm: pool www
Ê          ! " 15362 php-fpm: pool www
Ê          ! " 15363 php-fpm: pool www
Ê          ! " 15364 php-fpm: pool www
Ê          ! " 15365 php-fpm: pool www
Ê          # " 17211 php-fpm: pool www
```

```
Nov 29 13:36:03 iZ6weebcmroarpx8rrxscrZ systemd[1]: Starting The PHP
FastCGI Process Manager...
```

```
Nov 29 13:36:03 iZ6weebcmroarpx8rrxscrZ systemd[1]: Started The PHP
FastCGI Process Manager.
```

```
# ss -antpl | grep php-fpm
LISTEN      0          128        127.0.0.1:9000                *: *
users: (("php-fpm", pi d=17211, fd=9), ("php-fpm", pi d=15365, fd=9), ("php-
fpm", pi d=15364, fd=9), ("php-fpm", pi d=15363, fd=9), ("php-
fpm", pi d=15362, fd=9), ("php-fpm", pi d=15361, fd=9), ("php-
fpm", pi d=15360, fd=7))
```

5.2.4. LNMP S T UV

```
! " 1 2 3
```

```
mysql -uroot -pgeek -e 'create database drupal;grant all privileges on
drupal.* to drupal@"local host" identi fied by "drupal_password";flush
pri vi leges;'
```

! " Nginx Host@A

```
cat << EOF > /etc/nginx/conf.d/drupal.foo.com.conf
server {
    listen      80;

    server_name drupal.foo.com;
    root        /data/web/drupal.foo.com;
    error_log   /var/log/nginx/drupal.foo.com_error.log;
    access_log  /var/log/nginx/drupal.foo.com_access.log main;

    location / {
        try_files $uri /index.php$args$query_string;
    }

    location ~ \.php$ {
        try_files $uri $uri/ 404;

        fastcgi_pass 127.0.0.1:9000;
        include fastcgi.conf;
    }
}
EOF

# • ONginxÖ×
nginx -t && nginx -s reload
```

Ä€ Drupal

```
mkdir -p /data/web/drupal.foo.com

# ~ \ -0 , í ø^ ÒÓO=ÿf%1D¬- 23Ó` >O=
wget https://ftp.drupal.org/files/projects/drupal-8.7.10.tar.gz -O drupal-8.7.10.tar.gz
tar xf drupal-8.7.10.tar.gz

mv drupal-8.7.10/* /data/web/drupal.foo.com
rm -rf drupal-8.7.10
chown -R apache:nginx /data/web/drupal.foo.com
chmod -R 755 /data/web/drupal.foo.com
```

drupal-8.7.10/core/INSTALL.txt

Drupal requires:

- ✧ A web server with PHP support, for example:
- ✧ Apache 2.0 (or greater) (<http://httpd.apache.org/>).
- ✧ Nginx 1.1 (or greater) (<http://nginx.com/>).
- ✧ PHP 5.5.9 (or greater) (<http://php.net/>). For better security support it is recommended to update to at least 5.5.21 or 5.6.5.
- ✧ One of the following databases:
- ✧ MySQL 5.5.3 (or greater) (<http://www.mysql.com/>).
- ✧ MariaDB 5.5.20 (or greater) (<https://mariadb.org/>). MariaDB is a fully compatible drop-in replacement for MySQL.
- ✧ Percona Server 5.5.8 (or greater) (<http://www.percona.com/>). Percona Server is a backwards-compatible replacement for MySQL.
- ✧ PostgreSQL 9.1.2 (or greater) (<http://www.postgresql.org/>).
- ✧ SQLite 3.7.11 (or greater) (<http://www.sqlite.org/>).

@A_` > Å

```
echo '47.74.60.161 drupal.foo.com' >> /etc/hosts
```

/etc/hosts (Linux)

C:\Windows\System32\drivers\etc\hosts , Windows¹

² ³ f (y <http://drupal.foo.com> É RÃÃ •

Drupalí Î î \ ñ F G

✧ í Î î 789 localhost

✧ í Î î uv 3306

✧ í Î î Ÿ! drupal

✧ í Î î \ eŸ drupal

✧ í Î î i 2 drupal_password

5.3. Centos8LNMP

5.3.1. * + Nginx

! " EPEL?

```
dnf install -y epel-release
```

€ • Nginx} A;)

```
echo y|cp /etc/nginx/nginx.conf /etc/nginx/nginx.conf.default
```

• i nginx.conf

```
cat << EOF > /etc/nginx/nginx.conf
# For more information on configuration, see:
# * Official English Documentation: http://nginx.org/en/docs/
# * Official Russian Documentation: http://nginx.org/ru/docs/

user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;

worker_rlimit_nofile 65535;

events {
    worker_connections 65535;
}

http {
    include /etc/nginx/mime.types;
    default_type application/octet-stream;

    log_format main '$host $server_port $remote_addr - $remote_user [$time_local] "$request" '
        '$status $request_time $body_bytes_sent "$http_referer" '
        '"$http_user_agent" "$http_x_forwarded_for"';

    access_log /var/log/nginx/access.log main;

    sendfile on;
    tcp_nopush on;
```

```

Ê      tcp_nodelay          on;
Ê      keepalive_timeout    65;
Ê      types_hash_max_size  2048;

Ê      server_names_hash_bucket_size 128;
Ê      server_name_in_redirect off;
Ê      client_header_buffer_size 32k;
Ê      large_client_header_buffers 4 32k;

Ê      client_header_timeout 3m;
Ê      client_body_timeout    3m;
Ê      client_max_body_size   50m;
Ê      client_body_buffer_size 256k;
Ê      send_timeout           3m;

Ê      gzip    on;
Ê      gzip_min_length  1k;
Ê      gzip_buffers      4 16k;
Ê      gzip_http_version 1.0;
Ê      gzip_comp_level    2;
Ê      gzip_types text/plain application/javascript text/css
application/xml;
Ê      gzip_vary on;

Ê      proxy_redirect off;
Ê      proxy_set_header Host        \${host};
Ê      proxy_set_header X-Real-IP    \${remote_addr};
Ê      proxy_set_header REMOTE-HOST \${remote_addr};
Ê      proxy_set_header X-Forwarded-For \${proxy_add_x_forwarded_for};
Ê      proxy_connect_timeout 60;
Ê      proxy_send_timeout    60;
Ê      proxy_read_timeout    60;
Ê      proxy_buffer_size     256k;
Ê      proxy_buffers          4 256k;
Ê      proxy_busy_buffers_size 256k;
Ê      proxy_temp_file_write_size 256k;
Ê      proxy_next_upstream error timeout invalid_header http_500 http_503
http_404;
Ê      proxy_max_temp_file_size 128m;
Ê      #0»¼78u~ÁP¾ñœì e u>< Æf•k ù¼499à á»2yz
Ê      proxy_ignore_client_abort on;

Ê      fastcgi_buffer_size 64k;
Ê      fastcgi_buffers      4 64k;
Ê      fastcgi_busy_buffers_size 128k;

Ê      index index.html index.htm index.php default.html default.htm
default.php;

```

```

# Load modular configuration files from the /etc/nginx/conf.d
directory.
# See http://nginx.org/en/docs/nginx_core_module.html#include
# for more information.
include /etc/nginx/conf.d/*.conf;
}
EOF

```

! " . Host

```

mkdir /etc/nginx/conf.d

cat << EOF > /etc/nginx/conf.d/default.conf
server {
    listen      80 default_server;
    listen      [::]:80 default_server;
    server_name _;
    root        /usr/share/nginx/html;

    # Load configuration files for the default server block.
    include /etc/nginx/default.d/*.conf;

    location / {

    }

    error_page 404 /404.html;
        location = /40x.html {

    }

    error_page 500 502 503 504 /50x.html;
        location = /50x.html {

    }
}
EOF

```

u#} A

```
nginx -t
```

- . Nginx

```
systemctl start nginx
```

\$NginxJ K

```
systemctl status nginx
```

! " + , - .

```
systemctl enable nginx
```

\$v _Æ

```
nginx -v
```

" Xnginx

```
dnf remove nginx
```

5.3.2. * + MySQL

%& MySQL

```
yum install -y mariadb-server
```

€ • my.cnf

```
cp /etc/my.cnf /etc/my.cnf.default
```

• i my.cnf

```
cat << EOF > /etc/my.cnf
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0
# Settings user and group are ignored when systemd is used.
# If you need to run mysqld under a different user or group,
# customize your systemd unit file for mariadb according to the
# instructions in http://fedoraproject.org/wiki/Systemd

max_allowed_packet=20M
max_heap_table_size = 100M
read_buffer_size = 2M
read_rnd_buffer_size = 16M
sort_buffer_size = 8M
join_buffer_size = 8M
tmp_table_size = 100M

# Ž • } Ó
```



```
#query_cache_limit=4M
#query_cache_type=on
#query_cache_size=2G

bind-address = 127.0.0.1
# $• PQÿ - ã f %Ml ocal host f foo.com´ &f ®' ( y
skip-name-resolve

# SQLF œ* O
general_log=off
general_log_file=/var/log/mariadb/general.log

# SQLÇ Ž • * O
slow_query_log=off
slow_query_log_file=/var/log/mariadb/slowquery.log
long_query_time = 5

max_connections = 1000

# %&) MySQL» 2 f %M˘ \ ú h i j » ? NULL È w í Î
sql_mode = ""

[mysqld_safe]
log-error=/var/log/mariadb/mariadb.log
pid-file=/var/run/mariadb/mariadb.pid

#
# include all files from the config directory
#
!includedir /etc/my.cnf.d
EOF
```

! " + , - .

```
systemctl enable mariadb
```

- . MySQL

```
systemctl start mariadb
```

\$ MySQL HI J K

```
systemctl status mariadb
```

• i root~ »

```
mysqladmin -uroot password "geek"
```

¼½©¾1 23C¿ ~ » 56

```
mysql -uroot -pgeek -e 'show databases;'
mysql -uroot -pgeek -e 'drop database test;'
mysql -uroot -pgeek mysql -e 'delete from db;'
mysql -uroot -pgeek mysql -e 'delete from user where Password="";'
mysql -uroot -pgeek -e 'flush privileges;'
```

5.3.3. * + PHP7

! " SCL?

```
yum install -y centos-release-scl
```

%&PHP7.2

```
dnf install -y \
    php \
    php-bcmath \
    php-fpm \
    php-gd \
    php-intl \
    php-mbstring \
    php-mysqlnd \
    php-opcache \
    php-pdo \
    php-pecl-apcu \
    php-xmlrpc \
    php-devel
```

%&mlocate

```
dnf install -y mlocate
```

Ç4

```
updatedb
```

È } A;) É È

```
locate php.ini
```

- i php.ini

```
sed -i '197s/short_open_tag = Off/short_open_tag = On/' /etc/opt/rh/rh-php72/php.ini
```

```
# L ÷ l +, - ° . > - í
```

```
sed -i '314s/disable_functions =/disable_functions =  
system,exec,shell_exec,passthru,set_time_limit,ini_alter,dl,openlog,sylog  
,readlink,symlink,link,leak,popen,escapeshellcmd,virtual,socket_create,mail,eval/' /etc/opt/rh/rh-php72/php.ini
```

```
# Ö x / / N •
```

```
sed -i '902s#;date.timezone =#date.timezone = Asia/Shanghai #'  
/etc/opt/rh/rh-php72/php.ini
```

! " +, - .

```
systemctl enable php-fpm
```

- . PHP-FPM HI

```
systemctl start php-fpm
```

\$ PHP-FPM HI J K

```
systemctl status php-fpm
```

5.3.4. LNMPSTUV

! " 1 2 3

```
mysql -uroot -pgeek -e 'create database drupal;grant all privileges on  
drupal.* to drupal@"localhost" identified by "drupal_password";flush  
privileges;'
```

! " Nginx Host@A

```
cat << EOF > /etc/nginx/conf.d/drupal.foo.com.conf
server {
    listen      80;

    server_name drupal.foo.com;
    root        /data/web/drupal.foo.com;
    error_log   /var/log/nginx/drupal.foo.com_error.log;
    access_log  /var/log/nginx/drupal.foo.com_access.log main;

    location / {
        try_files $uri /index.php$args$query_string;
    }

    include /etc/nginx/default.d/php.conf;
}
EOF
```

œXNginx} A

```
nginx -s reload
```

Ä€ Drupal

```
mkdir -p /data/web/drupal.foo.com
```

Ë 5 -0l 1Í Î Ï Ð;) F \ Ñ Ò Ó Ô Õ Ö × Ø Ø' ;)

```
wget https://ftp.drupal.org/files/projects/drupal-8.7.10.tar.gz -O drupal-8.7.10.tar.gz
tar xf drupal-8.7.10.tar.gz
mv drupal-8.7.10/* /data/web/drupal.foo.com
rm -rf drupal-8.7.10
chown -R apache:nginx /data/web/drupal.foo.com
chmod -R 755 /data/web/drupal.foo.com
```

@A_` > Å

```
echo '47.74.60.161 drupal.foo.com' >> /etc/hosts
```

Chapter 6. XXL-JOB

6.1. * + , -

6.1.1. * + WX

Git

```
yum install -y git
```

Maven && Java 8

!

Maven è : ° 45 Java 8 • —< Java 3 , ÃÃ

¥ java-1.8.0-openjdk

¥ java-1.8.0-openjdk-devel

¥ java-1.8.0-openjdk-headless

%& Maven

```
yum install -y maven
```

Ž b Maven ~ μ

```
[root@geekcamp ~]# mvn --version
Apache Maven 3.0.5 (Red Hat 3.0.5-17)
Maven home: /usr/share/maven
Java version: 1.8.0_232, vendor: Oracle Corporation
Java home: /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.232.b09-0.el7_7.x86_64/jre
Default locale: en_US, platform encoding: UTF-8
OS name: "linux", version: "3.10.0-1062.el7.x86_64", arch: "amd64",
family: "unix"
```

Ž b Java ~ μ

```
[root@geekcamp ~]# java -version
openjdk version "1.8.0_232"
OpenJDK Runtime Environment (build 1.8.0_232-b09)
OpenJDK 64-Bit Server VM (build 25.232-b09, mixed mode)
```

```
mkdir ~/.m2

cat << EOF > ~/.m2/settings.xml
<settings>
  <mirrors>
    <mirror>
      <id>aliyun</id>
      <name>Aliyun Central</name>
      <url>http://maven.aliyun.com/nexus/content/groups/public</url>
      <mirrorOf>central</mirrorOf>
    </mirror>
  </mirrors>
</settings>
EOF
```

Java 11 Y Z [\

ÃÃ Java 11

```
yum install -y java-11-openjdk java-11-openjdk-devel java-11-openjdk-headless
```

Ž b 6 æ: ° Java ¯ μ

```
[root@geekcamp ~]# java -version
openjdk version "1.8.0_232"
OpenJDK Runtime Environment (build 1.8.0_232-b09)
OpenJDK 64-Bit Server VM (build 25.232-b09, mixed mode)

[root@geekcamp ~]# alternatives --display java
java - status is auto.
  link currently points to /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.232.b09-0.el7_7.x86_64/jre/bin/java
  /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.232.b09-0.el7_7.x86_64/jre/bin/java
  - family java-1.8.0-openjdk.x86_64 priority 1800232
  slave jre: /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.232.b09-0.el7_7.x86_64/jre
  .....
  Current

best version is /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.232.b09-0.el7_7.x86_64/jre/bin/java.
```

Ÿ × Java11A: ° ¯ μ

```
alternatives --set java
ls /usr/lib/jvm/java-11-openjdk-*/bin/java
```

```
alternatives --set jre_openjdk
ls -d /usr/lib/jvm/java-11-openjdk-*
```

```
alternatives --set java_sdk_openjdk
ls -d /usr/lib/jvm/java-11-openjdk-*
```

Žb6æ: ° Java - μ

```
[root@geekcamp ~]# java -version
openjdk version "11.0.6" 2020-01-14 LTS
OpenJDK Runtime Environment 18.9 (build 11.0.6+10-LTS)
OpenJDK 64-Bit Server VM 18.9 (build 11.0.6+10-LTS, mixed mode, sharing)
```

MySQL

ÃÃ MySQL

```
yum install -y mariadb-server mariadb
```

Ÿ × _ Q½¾

```
systemctl enable mariadb
```

½¾ MySQL 78

```
systemctl start mariadb
```

Ÿ × j 2

```
mysqladmin -uroot password "geek"
```

!

: ° Mysql • ž ĸ } ½¾³ f — ~ \ ú j 2 t ; •

Ðß Mysql

```
[root@geekcamp ~]# mysql -uroot -pgeek -e "show databases;"
+-----+
| Database                |
+-----+
| information_schema      |
| mysql                   |
| performance_schema     |
| test                    |
+-----+
```

6.1.2. XXL-JOB * +

⌘ Z

```
[ ! -d "~/downloads/" ] && mkdir ~/downloads/
cd ~/downloads/
git clone https://github.com/xuxueli/xxl-job.git
cd xxl-job
mvn -T 4 package
```

ÃÃ

```
[ ! -d "/data/xxl-job/admin" ] && mkdir -p /data/xxl-job/admin
[ ! -d "/data/xxl-job/executor" ] && mkdir -p /data/xxl-job/executor
[ ! -d "/data/applogs" ] && mkdir -p /data/applogs

echo y | cp xxl-job-admin/target/xxl-job-admin-2.2.0-SNAPSHOT.jar
/data/xxl-job/admin
echo y | cp xxl-job-admin/src/main/resources/application.properties
/data/xxl-job/admin

echo y | cp xxl-job-executor-samples/xxl-job-executor-sample-
springboot/target/xxl-job-executor-sample-springboot-2.2.0-SNAPSHOT.jar
/data/xxl-job/executor
echo y | cp xxl-job-executor-samples/xxl-job-executor-sample-
springboot/src/main/resources/application.properties /data/xxl-
job/executor
```

©° ÃÃ


```
[root@geekcamp xxl-job]# find /data/xxl-job/*
/data/xxl-job/admin
/data/xxl-job/admin/xxl-job-admin-2.2.0-SNAPSHOT.jar
/data/xxl-job/admin/application.properties
/data/xxl-job/executor
/data/xxl-job/executor/xxl-job-executor-sample-springboot-2.2.0-SNAPSHOT.jar
/data/xxl-job/executor/application.properties
```

6.1.3. XXL-JOB 安装

XXL-JOB 1.28

MySQL, -

YZ xxl-job 安装

```
mysql -uroot -pgeek -e "CREATE DATABASE xxl_job DEFAULT CHARACTER SET
utf8mb4 DEFAULT COLLATE utf8mb4_unicode_ci;"
```

YZ xxl-job 安装

```
mysql -uroot -pgeek -e "CREATE USER 'xxl_job'@'localhost' IDENTIFIED BY
'geek';"
mysql -uroot -pgeek -e "GRANT ALL ON xxl_job.* TO 'xxl_job'@'localhost'
WITH GRANT OPTION;"
```

78 SQL;) •

```
mysql -u xxl_job -pgeek xxl_job < doc/db/tables_xxl_job.sql
```

\$ xxl_job Ü•

```
[root@geekcamp xxl -j ob]# mysql -uxxl _j ob -pgeek xxl _j ob -e "show tables;"
+-----+
| Tables_in_xxl _j ob |
+-----+
| xxl _j ob_group      |
| xxl _j ob_info       |
| xxl _j ob_lock       |
| xxl _j ob_log        |
| xxl _j ob_log_report |
| xxl _j ob_logglue    |
| xxl _j ob_registry   |
| xxl _j ob_user       |
+-----+
```

C- , - J K

```
sed -i
'26s/spri ng. datasource. username=root/spri ng. datasource. username=xxl _j ob/'
/data/xxl -j ob/admi n/appl i cati on. properti es

sed -i
'27s/spri ng. datasource. password=root_pwd/spri ng. datasource. password=geek/'
/data/xxl -j ob/admi n/appl i cati on. properti es
```

_` a b B 7

```
useradd --user-group --no-create-home --shell /sbin/nologin --comment
"XXL-JOB" xxl _j ob
chown -R xxl _j ob: xxl _j ob /data/appl ogs /data/xxl -j ob
```

c 5 systemd J K

```

cat << EOF > /usr/lib/systemd/system/xxl-job-admin.service
[Unit]
Description=XXL-JOB Admin Service
After=network.target remote-fs.target nss-lookup.target

[Service]
Type=simple
Environment="PORT=8080"
Environment="CONFIG_FILE=/data/xxl-job/admin/application.properties"
Environment="JAR_FILE=/data/xxl-job/admin/xxl-job-admin-2.2.0-SNAPSHOT.jar"

User=xxl-job
Group=xxl-job
WorkingDirectory=/data/xxl-job/admin
ExecStart=/usr/bin/java -Dserver.port=${PORT}
-Dspring.config.location=${CONFIG_FILE} -jar ${JAR_FILE}
SuccessExitStatus=143
StandardOutput=null
StandardError=journal

[Install]
WantedBy=multi-user.target
EOF

```

XXL-JOB 678

_`de

```

[ ! -d "/data/xxl-job/executor" ] && mkdir -p /data/xxl-job/executor
[ ! -d "/data/applogs" ] && mkdir -p /data/applogs

```

C- , - J K

```

sed -i '9s#xxl-job-admin.addresses=http://127.0.0.1:8080/xxl-job-admin#xxl-job-admin.addresses=http://192.168.2.11:8080/xxl-job-admin#' \
/data/xxl-job/executor/application.properties

appname=xxl-job-executor-s01

sed -i "12s/xxl-job.executor.appname=xxl-job-executor-sample/xxl-job.executor.appname=${appname}/" \
/data/xxl-job/executor/application.properties

```



ÝÞÇİ İ 1

xxl.job.admin.addresses=http://127.0.0.1:8080/xxl-job-admin

_` a b B 7

```
useradd --user-group --no-create-home --shell /sbin/nologin --comment  
"XXL-JOB" xxl_job  
chown -R xxl_job:xxl_job /data/appl ogs /data/xxl -job/executor
```

c 5 systemd J K

```
cat << EOF > /usr/lib/systemd/system/xxl_job_executor.service  
[Unit]  
Description=XXL-JOB Executor Service  
After=network.target remote-fs.target nss-lookup.target  
  
[Service]  
Type=simple  
Environment="PORT=8081"  
Environment="CONFIG_FILE=/data/xxl-job/executor/application.properties"  
Environment="JAR_FILE=/data/xxl-job/executor/xxl-job-executor-sample-  
springboot-2.2.0-SNAPSHOT.jar"  
  
User=xxl_job  
Group=xxl_job  
WorkingDirectory=/data/xxl-job/executor  
ExecStart=/usr/bin/java -Dserver.port=${PORT}  
-Dspring.config.location=${CONFIG_FILE} -jar ${JAR_FILE}  
SuccessExitStatus=143  
StandardOutput=null  
StandardError=journal  
  
[Install]  
WantedBy=multi-user.target  
EOF
```

6.1.4. 9: XXL-JOB 1 2 8

```
systemctl enable xxl_job_admin  
systemctl start xxl_job_admin
```

©° 7æðó

```
[root@geekcamp xxl-job]# systemctl status xxl-job-admin
● xxl-job.service - XXL-JOB Service
   Loaded: loaded (/usr/lib/systemd/system/xxl-job.service; enabled;
   vendor preset: disabled)
   Active: active (running) since Thu 2020-01-16 13:56:05 CST; 1s ago
   Main PID: 3015 (java)
   CGroup: /system.slice/xxl-job.service
           # " 3015 /usr/bin/java -Dserver.port=8080
           -Dspring.config.location=/data/xxl-job/application.properties -jar
           /data/xxl-job/xxl-job-admin-2.2.0-SNA...
```

Jan 16 13:56:05 geekcamp systemd[1]: Started XXL-JOB Service.

```
[root@geekcamp xxl-job]# ss -antpl |grep 8080
LISTEN      0          100          [::]:8080          [::]:*
users: (("java", pid=2288, fd=21))
```

2 3 f899(y <http://localhost:8080/xxl-job-admin>

!

XXL-JOB: ° : < admin
XXL-JOB: ° j 2 123456

6.1.5. 9: XXL-JOB 678

```
systemctl enable xxl-job-executor
systemctl start xxl-job-executor
```

©° 7æðó

```

[root@localhost admin]# systemctl status xxl_job_executor
● xxl_job_client.service - XXL-JOB Client
   Loaded: loaded (/usr/lib/systemd/system/xxl_job_client.service;
   enabled; vendor preset: disabled)
   Active: active (running) since Thu 2020-01-16 18:49:43 CST; 4s ago
   Main PID: 2876 (java)
   CGroup: /system.slice/xxl_job_client.service
           # " 2876 /usr/bin/java -Dserver.port=8081
           -Dspring.config.location=/data/xxl-job-executor/application.properties
           -jar /data/xxl-job-executor/xxl-j...

Jan 16 18:49:43 localhost.localdomain systemd[1]: Started XXL-JOB Client.

[root@localhost admin]# ss -antpl |grep 8081
LISTEN      0          100          [::]:8081          [::]:*
users: (("java", pid=4679, fd=11))

```

6.1.6. f g h i j k

(y <http://192.168.2.11:8080/xxl-job-admin/jobgroup> } t ; f © ° ° N y < ; l æ

Figure 1. XXL-JOB ʒ à N á â

Chapter 7. Kvm

() CentOS 7

7.1. * + , -

7.1.1. * + kvmST

```
yum install -y virt-manager libvirt virt-install qemu-kvm bridge-utils
```

```
# lsmod | grep kvm
kvm_intel      138567  0
kvm            441119  1 kvm_intel
```

```
systemctl start libvirtd

systemctl enable libvirtd

echo "net.ipv4.ip_forward = 1" >> /etc/sysctl.conf
sysctl -p
```

7.1.2. C- l m

C- n l l mo DHCP

```
. » /etc/libvirt/qemu/networks/default.xml f Ö_IP¿ A 192.168.122.0/24
fstp='on'
```

```
<network>
Ê <name>default</name>
Ê <uuid>9719a6f8-7e16-4e7b-a592-909337ddaf73</uuid>
Ê <forward mode='nat' />
Ê <bridge name='virbr0' stp='on' delay='0' />
Ê <mac address='52:54:00:dd:9e:e0' />
Ê <ip address='192.168.122.1' netmask='255.255.255.0' >
Ê   <dhcp>
Ê     <range start='192.168.122.2' end='192.168.122.254' />
Ê   </dhcp>
Ê </ip>
</network>
```

. »

```
/var/lib/libvirt/dnsmasq/default.conf
```

```
dhcp-range=192.168.122.2,192.168.122.254
```

œ- libvirtd

```
systemctl restart libvirtd  
brctl stp virbr0 on
```

pqrkl mvirbr0

```
# ip a  
4: virbr0: <NO-CARRIER, BROADCAST, MULTICAST, UP> mtu 1500 qdisc noqueue  
state DOWN  
Ê link/ether 52:54:00:dd:9e:e0 brd ff:ff:ff:ff:ff:ff  
Ê inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0  
Ê valid_lft forever preferred_lft forever  
5: virbr0-nic: <BROADCAST, MULTICAST> mtu 1500 qdisc pfifo_fast master  
virbr0 state DOWN qlen 500  
Ê link/ether 52:54:00:dd:9e:e0 brd ff:ff:ff:ff:ff:ff  
  
# brctl show  
bridge name bridge id STP enabled interfaces  
virbr0 8000.525400dd9ee0 off virbr0-nic
```

7.1.3., - sl lmt uvwxZyz { sl IP

nmcliã ä å NetworkManagerHI

```
systemctl unmask NetworkManager  
systemctl start NetworkManager  
systemctl status NetworkManager
```


< " æz q Ç

```
nmcli c add type Ethernet autoconnect yes con-name eth2 ifname eth2
nmcli c add type bridge autoconnect yes con-name br1 ifname br1
nmcli c modify br1 bridge.stp no
nmcli c modify br1 ipv6.method ignore
nmcli c modify br1 ipv4.addresses 182.131.21.23/28 ipv4.method manual
nmcli c modify br1 ipv4.gateway 182.131.21.1
nmcli c modify br1 ipv4.dns "223.5.5.5 223.6.6.6"
```

H; < ¼Ç=em1f 3Ç= ®wÇ>• em1>IPRS e ¢¾®w6• Ç>• —< 3° ? ² x Ø^ NF œf ² Û?
6Èµa XF œ• , Af deleteÇ= ³ f – U%ñ Ç• • ½Çù 78# ½¾Ç>³ | U@C

||

3em1@R ¢ª > Ç=

```
cat << EOF > /tmp/set_br1.sh
nmcli c delete em1
nmcli c add type bridge-slave autoconnect yes con-name em1 ifname em1
master br1
nmcli c up br1
EOF

chmod 755 /tmp/set_br1.sh
sh /tmp/set_br1.sh &
rm -f /tmp/set_br1.sh
```

Æ- qr

```
systemctl restart NetworkManager

systemctl status NetworkManager

reboot
```

||

CentOS 7 E AÆñ œ• NetworkManager 78f• ½³ å æõ Z (y Çù• B Af Ò
ë NetworkManager_ Q7œ•

7.2. KVMv wx

7.2.1. | < } ~

\$è é

```
fdisk -l
```

è é § >

```
fdisk /dev/sdb
```

ê { c

```
mkfs.xfs -n ftype=1 -f /dev/sdb1
```

\$uuid

```
blkid
```

< " < /etc/fstab

```
UUID=0836d695-2bb4-48db-a440-faccc6131761 /mnt xfs
defaults 0 0
```

+ , - .

```
mount -a
```

7.2.2. vwx * +

! " ë ì , è é

```
qemu-img create -f qcow2 /var/lib/libvirt/images/vm192168122253.img 100G
```

%& vir

```
virt-install \
--name centos_kvm \
--ram 4096 \
--disk path=/var/lib/libvirt/images/vm192168122253.img, size=100 \
--vcpus 2 \
--os-type linux \
--os-variant centos7.0 \
--network bridge=br1 \
--console pty,target_type=serial \
--cdrom=/data/CentOS-7-x86_64-Minimal-1908.iso \
--graphics vnc,password=geek,port=-1,listen=0.0.0.0
```

Ö² ëì , úû%&

```
virt-install \
--name gitlab \
--ram 2048 \
--disk path=/data/package/gitlab-centos7.img \
--vcpus 4 \
--os-type linux \
--os-variant centos7.0 \
--network bridge=br1 \
--console pty,target_type=serial \
--import \
--graphics vnc,password=geek,port=5901,listen=0.0.0.0
```

l 1 > í

```
Ê --name centos_kvm
CDQŸ |
```

```
--ram 4096
```

CDQ4Ó

```
--disk path=/var/lib/libvirt/images/vm192168122253.img,size=100
```

E F f × y ∈

```
--vcpus 2
```

cpuí G

```
--os-type linux
```

! " &H

```
--os-variant centos7.0
```

¨ ±J [! "

```
--network bridge=br1
```

Ç>ÿ |

```
--console pty, target_type=serial
```

: ° , í

```
--cdrom=/data/CentOS-7-x86_64-Minimal-1908.iso
```

iosf ×

```
--graphics vnc, password=geek, port=-1, listen=0.0.0.0
```

vnc78f; 2fuvf-1~ø^uv

#î ï ðñ

```
osinfo-query os|grep -i centos
```

+ - ëì ,

```
virsh start vir-name
```

#\$ëì ,

```
virsh list --all
```

¼½ëì ,

```
virsh undefine centos_kvm
```

@A+ , - .

```
virsh autostart vir_name
```

] ^+ , - .

```
virsh autostart --disable vir_name
```

Chapter 8. Service

() CentOS 7

8.1. systemd

8.1.1. .service J K

!

` /usr/lib/systemd/system : ; < Y Z 7 8Öx backdump.service O=

9: backdump.service ;)

```
[Unit]
Description=mysql dump

[Service]
Type=oneshot
ExecStart=/usr/lib/loc ale/mysql dump. sh
IOSchedul ingCl ass=idle

[Install]
WantedBy=mul ti -user. target
```

İ 1 > İ

```
[Unit] n ^ • ÖxO=>kI ã • Wf\ ® ^ £ Uni t >I İ İ
Description ñ g 7 8 > „ J ÖÖ

[Service] servi ce >Öx • Wf . ¥Öx

Type ^ £ > $ ½¾N>œA f oneshot I • ° > $ f , İ M<

Type=simple : ° K f F œExecStartø ^ > ? ² f ½¾P> $
Type=forking — fork ™šTK> $YZ ] > $ f YZ ³ K> $ %¼b 2Ö
Type=oneshot I • ° > $ f Systemd %oL 6æ7 8 2ö f MNOP< F œ
Type=dbus 6æ7 8 n • D-Bus½¾
Type=noti fy 6æ7 8 ½¾É Q f %n RSystemd f MNOP< F œ
Type=idle S ^ ! " , 8 F œÉ Q f 6æ7 8 | %o7œ

ExecStart ½¾6æ7 8 > ? ² f ® ? ² > T J u v

[Install] ÖxO=>² ³ I ã • Wf\ ® ^ £ M f ½¾ f — U • ™ _ Q ½¾

WantedBy ¾i S 7 8 İ ` > Target f WantedBy=mul ti -user. target ø > • f sshd İ ` >
Target • mul ti -user. target
```

8.1.2. .timer { \$3J K

` /usr/lib/systemd/system: ; <YZ 78Öx .timer O=

```
mkdir /usr/lib/systemd/system/backdump.timer
```

9: backdump.timer;)

[Unit]
Description=mysql dump

[Timer]
OnCalendar=hourly

[Install]
WantedBy=timers.target

l 1> í

[Unit] n⁻ • ÖxO=>kI ã • Wf\ ®[^] £ Unit >I í Î

Description ñg78>, J ÔÕ

[Service] service >Öx • Wf. ¥Öx

OnCalendar ^ £VgWÄNO

(wallclock)> * X[^] N9fK • I ã * XY =¾ï Šfø[^] NO c

=>

```
Ė minutely Y *-*-* *: *: 00
Ė hourly Y *-*-* *: 00: 00
Ė daily Y *-*-* 00: 00: 00
Ė monthly Y *-*-01 00: 00: 00
Ė weekly Y Mon *-*-* 00: 00: 00
Ė yearly Y *-01-01 00: 00: 00
Ė quarterly Y *-01, 04, 07, 10-01 00: 00: 00
semiannually Y *-01, 07-01 00: 00: 00
```

```
\ñ>78f, í M<
[Timer]p^ ^ D^ N9• Systemd μZ—<I +h¿•
```

```
OnActiveSec ^ N9ŠÛ³ fÅ[ NO_ž Fœ, 8
OnBootSec ! " ½¾³ fÅ[ NO_ž Fœ, 8
OnStartupSec Systemd > $½¾³ fÅ[ NO_ž Fœ, 8
OnUnitActiveSec S\I E• Fœ³ fLÅ[ NOM• Fœ
OnUnitInactiveSec ^ N9E• ñœ³ Å[ NOfM• Fœ
OnCalendar VgTJ NOfq~• \J NOFœ
AccuracySec MN, AÉ ] • , f, 8×Ø^_Fœf^_>² yèí f: ° • 60è
Unit `Ì ÁFœ>, 8f: ° • ^Ÿ>a^ .service³ B>\I
Persistent MNŸ x• Sh¿fb~ ^ N96Ní ^ ½¾³ fe%ø¢¾Fœ\ [ >\I
WakeSystem MN! " bc f• ™¢¾de! "
```

```
WantedBy ¾i S78ì ` > TargetfWantedBy=timers.target ø>• fsshd ì ` >
Target • timers.target
```

8.1.3. 9: service

- . backdump.service

```
systemctl start backdump
```

\$HI JK

```
systemctl status backdump
```

! " +, ó-

```
systemctl enable backdump
```

• i HI ;) ôÆXHI

```
systemctl daemon-reload
```

8.1.4. 9: timer 1 2

- . backdump.timer

```
systemctl start backdump.timer
```

\$ ð² Ö- 5' Î =N

```
systemctl list-timers
```

! " +, Ó -

```
systemctl enable backdump.timer
```

Œ- backdump.timer

```
systemctl restart backdump.timer
```


Chapter 9. Python38

9.1. CentOS7 Install Python38

9.1.1. • € • , f „ * +

```
wget http://dl.cdggeekcamp.com/centos/7/python/3/python-3.8.1-1.el7.x86_64.tar.gz -O python-3.8.1-1.el7.x86_64.tar.gz

tar xf python-3.8.1-1.el7.x86_64.tar.gz

rm -rf /usr/local/python-3.8.1
mv python-3.8.1 /usr/local/python-3.8.1

ln -s /usr/local/python-3.8.1 /usr/local/python3
ln -s /usr/local/python3/bin/pip3 /usr/local/bin/pip3
ln -s /usr/local/python3/bin/python3 /usr/local/bin/python3

pip3 install --upgrade -i https://pypi.tuna.tsinghua.edu.cn/simple pip
pip3 config set global.index-url https://pypi.tuna.tsinghua.edu.cn/simple
```

9.1.2. ...† * + Python383

```

# Centos7. f ÃÃ python38.3

mkdir ~/downloads
cd ~/downloads
wget https://www.python.org/ftp/python/3.8.3/Python-3.8.3.tar.xz -O
Python-3.8.3.tar.xz
tar xf Python-3.8.3.tar.xz
cd Python-3.8.3

# libffi-devel - . cd "ImportError: No module named '_ctypes'"
yum install -y gcc make openssl-devel libffi-devel

./configure --prefix=/usr/local/python-3.8.3 \
    --with-openssl=/usr \
    --with-ssl-default-suites=openssl \
    --with-ensurepip \
    --enable-loadable-sqlite-extensions
make -j 32
make install

ln -s /usr/local/python-3.8.3 /usr/local/python3

ln -s /usr/local/python3/bin/pip3 /usr/local/bin/pip3
ln -s /usr/local/python3/bin/python3 /usr/local/bin/python3

pip3 install --upgrade -i https://pypi.tuna.tsinghua.edu.cn/simple pip
pip3 config set global.index-url https://pypi.tuna.tsinghua.edu.cn/simple

```

9.2. CentOS8 Install Python38

9.2.1. • € • , f „ * +

```
wget http://dl.cdggeekcamp.com/centos/8/python/3/python-3.8.1-1.el8.x86_64.tar.gz -O python-3.8.1-1.el8.x86_64.tar.gz

tar xf python-3.8.1-1.el8.x86_64.tar.gz

rm -rf /usr/local/python-3.8.1
mv python-3.8.1 /usr/local/python-3.8.1

ln -s /usr/local/python-3.8.1 /usr/local/python3
ln -s /usr/local/python3/bin/pip3 /usr/local/bin/pip3
ln -s /usr/local/python3/bin/python3 /usr/local/bin/python3

pip3 install --upgrade -i https://pypi.tuna.tsinghua.edu.cn/simple pip
pip3 config set global.index-url https://pypi.tuna.tsinghua.edu.cn/simple
```

9.2.2. Python_`vwST

python3.3—³.YZCDgh

```
python38 -m venv env
```

À8ëì ÁÂ

```
source env/bin/activate
```

Ö ÷

```
deactivate
```

ëì ÁÂø%&* Ě5ùúÉĚ (ëì ÁÂûüýpĚ5)

```
/data/env/bin/pip3 install pymysql
```

Chapter 10. Java

10.1. maven * +

%&maven {} AÁÃÿ!)

```
wget http://ftp.mei.sei-u.ac.jp/mirror/apache/dist/maven/maven-3/3.6.3/binaries/apache-maven-3.6.3-bin.tar.gz
tar -xf apache-maven-3.6.3-bin.tar.gz
mv apache-maven-3.6.3-bin.tar.gz /usr/local/

#- @gh· G
ln -s /usr/local/apache-maven-3.6.3/bin/mvn /usr/local/bin/

#Žb~µ
mvn -v
```

- Û?

```
cat << EOF > ~/.m2/settings.xml
<settings>
  <mirrors>
    <mirror>
      <id>aliyun</id>
      <name>Aliyun Central</name>
      <url>http://maven.aliyun.com/nexus/content/groups/public</url>
      <mirrorOf>central</mirrorOf>
    </mirror>
  </mirrors>
</settings>
EOF
```

10.2. nodejs * +

```
wget https://nodejs.org/dist/v12.16.1/node-v12.16.1-linux-x64.tar.xz
tar -xf node-v12.16.1-linux-x64.tar.xz
mv node-v12.16.1-linux-x64 nodejs
mv nodejs /usr/local/
```

#gh· G

```
ln -s /usr/local/nodejs/bin/npm /usr/local/bin/
```

```
ln -s /usr/local/nodejs/bin/node /usr/local/bin/
```

#ÿ×ij ,

```
npm config set registry https://registry.npm.taobao.org
```

Chapter 11. DNS

11.1. DNS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

%& bind

```
yum install bind-chroot bind-utils  
systemctl enable named-chroot
```

} A bind

```
options {
    listen-on port 53 { any; };
    listen-on-v6 port 53 { ::1; };
    directory "/var/named";
    dump-file "/var/named/data/cache_dump.db";
    statistics-file "/var/named/data/named_stats.txt";
    memstatistics-file "/var/named/data/named_mem_stats.txt";
    # recursing-file "/var/named/data/named.recursing";
    # secroots-file "/var/named/data/named.secroots";
    allow-query { any; };
    recursion yes;

    dnssec-enable no;
    dnssec-validation no;

    /* Path to ISC DLV key */
    bindkeys-file "/etc/named.root.key";

    managed-keys-directory "/var/named/dynamic";

    pid-file "/run/named/named.pid";
    session-keyfile "/run/named/session.key";
};

logging {
    channel default_debug {
        file "data/named.run";
        severity dynamic;
    };
};

zone "." IN {
    type hint;
    file "named.ca";
};

include "/etc/named.rfc1912.zones";
include "/etc/named.root.key";
```

< " w" > Å#

```
vim /etc/named.rfc1912.zones
```

```
zone "xyt.com" IN {  
    type master;  
    file "xyt.com.zone";  
    allow-update { none; };  
};
```

```
cat /var/named/xyt.com.zone
```

```
$TTL 86400  
@           IN      SOA      xytdt.com.    admi n.xytdt.com. (   
    102310111  
    1D  
    1H  
    1W  
    3H )  
  
@           IN      NS       xytdt.com.  
@           IN      A        10.10.10.11  
oa          IN      A        10.10.10.13  
cl oud      IN      A        10.10.10.18
```

- . `bind

```
systemctl start named-chroot
```

u#} A

```
[root@localhost ~]# named-checkzone "ooxx.com" /var/named/ooxx.com.zone  
zone ooxx.com/IN: loaded serial 0  
OK
```


Chapter 12. Docker

12.1. Docker

12.1.1. * +

%&

```
sudo yum install -y yum-utils
sudo yum-config-manager \
    --add-repo \
    https://mirrors.ustc.edu.cn/docker-ce/linux/centos/docker-ce.repo

sudo sed -i 's/download.docker.com/mirrors.ustc.edu.cn/docker-ce/g'
/etc/yum.repos.d/docker-ce.repo

# k™,
# $ sudo yum-config-manager \
#     --add-repo \
#     https://download.docker.com/linux/centos/docker-ce.repo

sudo yum install -y docker-ce docker-ce-cli containerd.io

sudo systemctl enable docker
sudo systemctl start docker
```

ó. c \$ _ %&

```
# $ curl -fsSL test.docker.com -o get-docker.sh
curl -fsSL get.docker.com -o get-docker.sh
sudo sh get-docker.sh --mirror Aliyun
# $ sudo sh get-docker.sh --mirror AzureChinaCloud
```

12.1.2. ^ B L M

%&ÚÚ

```
docker pull [REPOSITORY] [Docker Registry RS[:u/v< ]/]I î Ÿ[:Wm]
```

' à

```
docker run -i td --name nginx1 test/ubuntu:v1.0 /bin/bash
```

, í - -

-i

1 nš Gō

-t

ou

-d

3 p 7œ

--name

&9Ÿ |

(e

```
docker stop ID
```

Œ-

```
docker restart ID
```

À 8) N, attach ö ÷ Ñ7 *) N(e \

```
docker attach ID
```

```
docker exec -i t ID /bin/bash
```

+ ÷ ÚÛ

```
docker images
```

```
docker image ls -a
```

+ ÷ Ö²) N

```
docker container ls -a
```

, &) N' - ÷ T.

```
docker container logs ID
```

ÚÛ/ O

```
docker system df
```

¼½ÚÛ

```
docker image rm [". . ."] <qr 1> [<qr 2> ...]
```

7 ÷) N

```
docker export 7691a814370e > ubuntu.tar
```

78) N1 2

```
cat ubuntu.tar | docker import - test/ubuntu:v1.0
```

12.1.3. Dockerfile { • %Š

;) Dockerfile

```
$ mkdir mynginx
$ cd mynginx
$ touch Dockerfile

dockerfile

FROM debian:stretch

RUN apt-get update
COPY package.json /usr/src/app/ #CDO=f, uv : Wu v
ADD ubuntu-xenial-core-cloudimg-amd64-root.tar.gz /
#. s O=CDf ( ) O=¢¾- ( f ù ¼ØÛ
CMD echo $HOME #&9½¾? ²
USER <\ e Ÿ>[: <\ e A>] #ø^ 6æ\ e
```

3 OÚÛ

` DockerfileO=ì ` : ; Fæf-tø^ qr Ÿ!

```
docker build -t nginx:v3 .
```

12.1.4. Docker

Ubuntu

```
docker search centos
```

```
docker pull centos
```

Ubuntu (67895)

```
$ docker tag ubuntu:18.04 username/ubuntu:18.04
```

```
$ docker image ls
```

REPOSITORY	IMAGE ID	CREATED	SIZE	TAG
ubuntu	275d79972a86	6 days ago	94.6MB	18.04
username/ubuntu	275d79972a86	6 days ago	94.6MB	18.04

```
$ docker push username/ubuntu:18.04
```

```
$ docker search username
```

NAME	STARS	DESCRIPTION	OFFICIAL	AUTOMATED
username/ubuntu				

12.1.5. / Docker

Docker 1.2:

```
docker volume create my-vol
```

Docker 1.2:

```
docker volume ls
```

Docker 1.2: 'T.

```
docker volume inspect first
```

- . μ¶; X1 2: ') N

```
docker run -d -P \
  --name web \
  # -v my-vol:/usr/share/nginx/html \
  --mount source=my-vol,target=/usr/share/nginx/html \
  nginx:alpine
```

¼½1 2:

```
docker volume rm my-vol
```

<z 1 2:

õP>í Î t – U%uÎ v ÅúO

```
docker volume prune
```

12.1.6. Ž • • ' ' 3

Chapter 13. Ansible

13.1. Ansible

13.1.1. * +

< " ?

```
yum -y install epel-release
```

%&

```
yum -y install ansible
```

!

ansible.cfg • Ansible # w> Ö× O= x
hosts \ ®Ö× ‚ ¼> Q9x
roles • l ã : ; fplaybook 3~ \ Ä

13.2. SSH" " k •

= > ~l

```
ssh-keygen -N "" -f ~/.ssh/mk
```

? @SSHK l ;)

```
ssh-copy-id -i ~/.ssh/mk.pub root@118.24.186.166
```

/ O} A;)

```
cat << EOF > ~/.ssh/config  
IdentityFile ~/.ssh/mk  
EOF
```

13.3. 45– €• Qx

< " B,

```
vim /etc/ansible/hosts

[test]
10.23.101.x
10.23.101.x

[ss]
192.168.102.12 ansible_ssh_user=tt ansible_ssh_port=28529
[ss:vars]
ansible_ssh_user=tt
ansible_ssh_pass=thcl@123      #tt\e
ansible_become_pass=thcl@123  #root\e
```

©34ansible

```
[root@localhost ~]# ansible "test" -m ping
10.23.101.x | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
```

13.4. ansible^ B—~

} A;) /etc/ansible/hosts

```
Ê # < Æ: WPQ>RS
Ê ansible_ssh_host
Ê # < Æ: WPQ>uvf: ° 22 NõÀø^
Ê ansible_ssh_port
Ê # < Æ: WPQ: ° \e
Ê ansible_ssh_user
Ê # < Æ: WPQ: ° \e; 2
Ê ansible_ssh_pass
Ê # : WPQ< Æ&Hf—• local yssh # paramiko
Ê ansible_ssh_connection
Ê # < Æ: WPQ> ssh Ñ~
Ê ansible_ssh_private_key_file
Ê # ø^z\{ Python >! " Êµä| fM Ruby yPerl #! " &}
ansible_python_interpreter - - 9
Ê ansible_*_interpreter
```

ABE 5 command

```
ansible hostname -m command -a "free -m"
```

CDBà_` \$__script

```
script>TU•`~$PQFœPI uÓë>shellÈµO=f\6g scp+shellA••
```

```
ansible hostname -m script -a "/home/test.sh 12 34"
```

shellEFG_CcommandH' \I J shellKLMNO

```
ansible hostname -m shell -a "/home/test.sh"
```

copyEF ðPåSCP

```
~ Client A/PQ45 test.sh 6 /tmp <fUPy AA root fØÙA 0755
```

```
ansible hostname -m copy -a "src=/home/test.sh dest=/tmp/ owner=root
group=root mode=0755"
```

CDB, î ï HI Mz

```
ansible Client -m service -a "name=nginx state=stoped"
ansible Client -m service -a "name=nginx state=restarted"
ansible Client -m service -a "name=nginx state=reloaded"
```

13.5. ansible-playbook

YAML, p

```
YAMLO=•žŸnˆA.yaml#€.yamlfI^ÁJ•f@Uˆ\ú—
```

```
[root@local host ~]# cat /etc/ansible/hello.yml
---
- hosts: ss
  remote_user: tt      #tt \et,
  become: yes          #~ \ rootØÙ
  become_method: su    #~ \ rootØÙ

  tasks:
  - name: touch aa.txt
    shell: touch /root/aa.txt
```


' à

```
[root@localhost ~]# ansible-playbook /etc/ansible/hello.yml

PLAY [say 'hello world'] *****

TASK [Gathering Facts] *****
ok: [10.23.101.x]

TASK [echo 'hello world'] *****
changed: [10.23.101.x]

TASK [print stdout] *****
ok: [10.23.101.x] => {
  "msg": ""
}

PLAY RECAP *****
10.23.101.x      : ok=3    changed=1    unreachable=0    failed=0
skipped=0      rescued=0    ignored=0
```

Chapter 14. Elasticsearch

14.1. Elasticsearch

14.1.1. (™)uB

ELK%&* WX

```
https://artifacts.elastic.co/downloads/kibana/kibana-7.8.0-x86_64.rpm
```

```
https://artifacts.elastic.co/downloads/elasticsearch/kibana-7.8.0-x86_64.rpm
```

```
https://artifacts.elastic.co/downloads/logstash/logstash-7.8.0-x86_64.rpm
```

```
https://artifacts.elastic.co/downloads/beats/filebeat/filebeat-7.8.0-x86_64.rpm
```

©¾

```
curl 'http://localhost:9200/?pretty'
```

QRu#

```
[root@elk1 ~]# curl 'localhost:9200/_cluster/health?pretty'
{
  "cluster_name" : "master-node",
  "status" : "green",
  "timed_out" : false,
  "number_of_nodes" : 3,
  "number_of_data_nodes" : 2,
  "active_primary_shards" : 26,
  "active_shards" : 52,
  "relocating_shards" : 0,
  "initializing_shards" : 0,
  "unassigned_shards" : 0,
  "delayed_unassigned_shards" : 0,
  "number_of_pending_tasks" : 0,
  "number_of_in_flight_fetch" : 0,
  "task_max_waiting_in_queue_millis" : 0,
  "active_shards_percent_as_number" : 100.0
}
```

\$STT.

```
curl 'localhost: 9200/_cluster/state?pretty'
[source, bash]
```

uU; VJ WÐØ

```
curl -i -XHEAD http://localhost: 9200/test/test1/123
[source, bash]
```

¿ #X

```
[root@elk1 ~]# curl GET 'localhost: 9200/_search?pretty'
curl: (6) Could not resolve host: GET; Unknown error
{
  Ê "took" : 9,                #f g f , > ...è í
  Ê "timed_out" : false,
  Ê "_shards" : {              #, ÿ Ž • > ^ † í , total h ¿ ^ f Å [ RT f Å [ ü ý
  Ê   "total" : 26,
  Ê   "successful" : 26,
  Ê   "skipped" : 0,
  Ê   "failed" : 0
  Ê },
  Ê "hits" : {
  Ê   "total" : 58145,         # O ^ † í
  Ê   "max_score" : 1.0,
  Ê   "hits" : [
  Ê     ...
```

Ø ð² UY' ð² ð ñ Ø Z U

```
curl GET 'localhost: 9200/_search
```

Ø UY gb' ð² ð ñ Ø Z U

```
curl GET 'localhost: 9200/gb/_search
```

Ø UY gb C us' ð² ð ñ Ø Z U

```
curl GET 'localhost: 9200/gb,us/_search
```

Ø ´ g[u + \ ' UY' ð² ð ñ Ø Z U

```
curl GET 'localhost: 9200/g*,u*/_search
```

ØUY gb' ðñ user ØZ U

```
curl GET 'localhost: 9200/gb/user/_search'
```

ØUY gb C us' ðñj user C tweet ØZ U

```
curl GET 'localhost: 9200/gb,us/user,tweet/_search'
```

§] \,] ^ _ 5 ¶ ` a \] » š 1 < 3

```
curl GET 'localhost: 9200/_search?size=5'
curl GET 'localhost: 9200/_search?size=5&from=5'
curl GET 'localhost: 9200/_search?size=5&from=10'
```

14.1.2. Š > æp •

b Oc # X

```
curl GET 'localhost: 9200/index_2014*/type1,type2/_search
{'
```

Posts t

```
curl POST 'localhost: 9200/_search
{
  "from": 30,
  "size": 10
}'
```

14.1.3. ž Ÿ ? p •

@d query ĺ 1 Å à # X

```
GET /_search
{
  "query": YOUR_QUERY_HERE
}
```

¿ # X

```
GET /_search
{
  "query": {
    "match_all": {}
  }
}
```

Xe ...

```
GET /_search
{
  "query": {
    "match": {
      "tweet": "el asti csearch"
    }
  }
}
```

14.1.4. p • i Φ

term f g,Bh 5å i Ãj } ° ±k

```
{ "term": { "age": 26 }}
{ "term": { "date": "2014-09-01" }}
{ "term": { "public": true }}
{ "term": { "tag": "full_text" }}

#terms i Äø^ Åã ^ Ö° =
{
  "terms": {
    "tag": [ "search", "full_text", "nosql" ]
  }
}
```

range Ý 2Í Î I m# È 1 2

```
{
  "range": {
    "age": {
      "gte": 20,
      "lt": 30
    }
  }
}
```

l mnoO* p•

gt

y g

gte

y g L g

lt

€ g

lte

€ g L g

exists C missing

Ž %oO´ / • ™è ô ø ^ h ¿ # í ^ Š ã h ¿

```
{
  "exists": {
    "field": "title"
  }
}
```

bool f g

bool • < – — \ ® • } Å ã • < ° = Ž • ° N > Æ • Ž » f À è ô — < G ð i

must

Å ã Ž • ° = > É Ĭ ^ Ö , \ 6 g and •

must_not

Å ã Ž • ° = > \ ' ^ Ö f \ 6 g not •

should

• [^ Ĭ ã Ž • ° = ^ Ö , \ 6 g or • Ç + , í — ^a • N' Ĭ ã • < ° = # € Ĭ ã • < ° = > í A

14.1.5. es£ ¤ ‡ `

IPÄ €

192.168.102.1

192.168.102.2

192.168.102.3

!

ES< ORS <https://elasticsearch.cn/download/>

%&JAVA11@AJAVAv__

```
dnf install -y java-11-openjdk java-11-openjdk-devel java-11-openjdk-headless  
alternatives --config java
```

ESlasticsearch7.8.0 WX %&

```
#' p789½Fœ  
mkdir -p ~/download/  
cd download  
wget https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-7.8.0-x86_64.rpm  
yum localinstall -y elasticsearch-7.8.0-x86_64.rpm
```

• i } A

```
# ===== Elasti csearch Confi gurati on
=====
# ----- Cl uster
-----
cluster.name: es-master
# ----- Node
-----
node.name: node-1
node.data: true
node.master: true
#node.attr.rack: r1
# ----- Paths
-----
path.data: /var/lib/elasti csearch
path.logs: /var/log/elasti csearch
# ----- Memory
-----
#bootstrap.memory_lock: true
# ----- Network
-----
network.host: 192.168.102.1
#http.port: 9200
# ----- Di scovery
-----
di scovery.seed_hosts: ["192.168.102.1", "192.168.102.2", "192.168.102.3"]
cluster.ini tial _master_nodes: ["node-1", "node-2", "node-3"]
# ----- Gateway
-----
#gateway.recover_after_nodes: 3
xpack.securi ty.enabled: true
xpack.securi ty.transport.ssl .enabl ed: true
xpack.securi ty.transport.ssl .veri fi cati on_mode: certi fi cate
xpack.securi ty.transport.ssl .keystore.path: el asti c-certi fi cates.p12
xpack.securi ty.transport.ssl .truststore.path: el asti c-certi fi cates.p12
```

" ÆÖã " Ü ^ • > Ö× f @À Á 3network.host:ç node.name:Ö_ A ¢ ª > f – ~ ½¾

ESq r xpack} A

k™O´

j ESqr / Os t , TMØª

```
/usr/share/elasticsearch/bin/elasticsearch-certutil ca
#- -ÿ x l ã j 2fe- -" Œá -•
#: ° O=%o` ES ©: ; û ŠƒÿA elasticsearch-stack-ca.p12•
#é³ - -3O= elasticsearch-stack-ca.p12 CD6âã ES " Ü> ©: ; <
```

j qrø' st / O™uCvI w, ¶st ßà x

```
/usr/share/elasticsearch/bin/elasticsearch-certutil cert --ca ./elasticsearch-stack-ca.p12
#- -ÿ x l ã j 2fe- -" Œá -•
#: ° %oŠRO= elasticsearch-certificates.p12
```

elastic-certificates.p12 y Ó< , ¶st ' } A;) n 7W /etc/elasticsearch/

```
cp /usr/share/elasticsearch/elasticsearch-certificates.p12 /etc/elasticsearch/
#ü _O=ØÜ
chmod 777 /etc/elasticsearch/elasticsearch-certificates.p12
```

z a û ®} As t™u =@Aˉ ~» \ ¢ ~» <" < keystore

```
./bin/elasticsearch-keystore add
xpack.security.transport.ssl.keystore.secure_password
./bin/elasticsearch-keystore add
xpack.security.transport.ssl.truststore.secure_password
```

Œ- ESqr

```
systemctl restart elasticsearch.service
```

@A{ A56~» (| µ¶st @A\} ~st • 5)

```
/usr/share/elasticsearch/bin/elasticsearch-setup-passwords interactive
```

/OE•56, f' „

```
curl -XPOST -H 'Content-type: application/json' -u elastic:thcl12
'http://192.168.102.11:9200/_xpack/security/user/thcl?pretty' -d '{
  "password": "superthcl",
  "full_name": "thcl",
  "roles": ["admin"],
  "email": "thcl@thcl.com"
}'

curl -XPOST -H 'Content-type: application/json' -u elastic:thcl12
'http://192.168.102.11:9200/_xpack/security/role/admin?pretty' -d '{
  "run_as": [ "thcl" ],
  "cluster": [ "all" ],
  "indices": [
    {
      "names": [ "*" ],
      "privileges": [ "all" ]
    }
  ]
}'
```

14.1.6. _` ¥| \$C- §¨ . o©ª . (r k « 5t 1)

```
curl -u elastic:password -H 'Content-Type: application/json' -XPUT
'http://localhost:9200/movesss' -d'
{
  "settings" : {
    "index" : {
      "number_of_shards" : 5,
      "number_of_replicas" : 1
    }
  }
}
```

\$õ² UY

```
curl -u elastic:password 'http://127.0.0.1:9200/_cat/indices?v'
```

14.2. ES↯ – DE

14.2.1. DE

```
} A; ) <" } A
```

```
echo "path. repo: /home/esuser/esbackup" >>
/etc/elasticsearch/elasticsearch.yml
```

⌘-

```
systemctl restart elasticsearch.service
```

\$ 1 2...3 + Ü

```
curl -X GET "node1:9200/_cat/repositories?v"
```

/ O 1 2...3 backup

```
curl -u elastic:thcl12 -X PUT
"192.168.102.81:9200/_snapshot/backup?pretty" -H 'Content-Type:
application/json' -d'
{
  "type": "fs",
  "settings": {
    "location": "/data/elasticsearch_backup",
    "max_snapshot_bytes_per_sec": "50mb",
    "max_restore_bytes_per_sec": "50mb",
    "compress": "true"
  }
}
```

!

type: I ^ > &Hÿ | f f g a ½ • fs f ¾ i file system •
location: I ^ > RS f Ä ÿ elasticsearch.yml Ö × O = \ ^ f ™ P % ~ c
max_snapshot_bytes_per_sec: Ø ^ í Î T Elasticsearch 6 I ^ , í Î ™ 7 1 > ¥ w' { E
Û f : ° • 20mb/s
max_restore_bytes_per_sec: Ø ^ í Î T I ^ 6 Elasticsearch , í Î @ C 1 > ¥ w' { E
Û f : ° e • 20mb/s

/ O 1 2 test

```
curl -u elastic:thcl12 -X PUT "192.168.102.81:9200/_snapshot/backup/test"

curl -u elastic:thcl12 -X PUT
"192.168.102.81:9200/_snapshot/backup/test?wait_for_completion=true"

#wait_for_completion . ^ f g • ` š > • ž ĺ ³ ¼ b à á , : ° 1
```

† y

```
curl -u elastic:thcl12 -X POST  
"192.168.102.81:9200/_snapshot/backup/test/_restore"
```

† y Í Î UY

```
curl -u elastic:thcl12 -X POST  
"192.168.102.81:9200/_snapshot/backup/test/_restore" -H 'Content-Type:  
application/json' -d'  
{  
  "indices": "toctis-gecb",  
  "ignore_unavailable": true,  
  "include_global_state": true,  
  "rename_pattern": "index_(.+)",  
  "rename_replacement": "restored_index_$1"  
}'
```

¼½1 2

```
curl -u elastic:thcl12 -X POST  
"192.168.102.81:9200/_snapshot/es_backup/test"
```

\$ 1 2 T.

```
curl -u elastic:thcl12 -X GET "192.168.102.81:9200/_snapshot/backup/test"
```

‡ 2=ò<z 1 2

```
curl -u elastic:passwd -XPOST  
'http://192.168.1.1:9200/index/_doc/_delete_by_query?refresh&slICES=5&pret  
ty' -H 'Content-Type: application/json' -d '{"query": {"bool": {"must":  
[{"range": {"DropOffDateTime": {"lt": "2020-11-30 00:00:00"}}}]}}}'
```

<z 120^ ®' 1 2

```
curl -u elastic:passwd -XPOST  
'http://192.168.1.1:9200/index/_doc/_delete_by_query?refresh&slICES=5&pret  
ty' -H 'Content-Type: application/json' -d '{"query": {"bool": {"must": [{"range": {"DateTi me": {"lt": "now-120d"}}}]}}}'
```

\$ Õ² index

```
curl -u elastic:passwd 'http://localhost:9200/_cat/indices?v'
```

¼½; V

```
curl -u elastic:RKSVd3aLHzWOYvwrqwFk -XDELETE
http://192.168.102.12:9200/devicelasticsearch/_doc/1
```

< z 1 2ôí %Š é ¿ ò

```
curl -XPOST
'http://192.168.1.1:9200/index/_forcemerge?only_expunge_deletes=true&max_num_segments=1'
```

!

max_num_segments: 1
only_expunge_deletes: true
flush: true

14.3. Kibana

14.3.1. *

```
dnf --disablerepo="*" --enablerepo="elasticsearch" install -y kibana
```

14.3.2. , -

```
sed -i 's/#server.host: "localhost"/server.host: "172.24.45.170"/'
/etc/kibana/kibana.yml
sed -i 's/#elasticsearch.hosts: .*/elasticsearch.hosts:
["http://172.24.45.170:9200"]/' /etc/kibana/kibana.yml
sed -i 's/#i18n.locale: "en"/i18n.locale: "en"/' /etc/kibana/kibana.yml
sed -i 's/#elasticsearch.username: "kibana_system"/elasticsearch.username:
"kibana_system"/' /etc/kibana/kibana.yml
sed -i 's/#elasticsearch.password: "pass"/elasticsearch.password:
"elasticsearch_password"/' /etc/kibana/kibana.yml
```

#

```
MNElasticsearch> "network.host", 1 KAw > IPRS f%M "172.24.45.170"
] á f Kibana/ > "elasticsearch.hosts" ^ • Ä Á Ÿ × A "172.24.45.170" f q ~
U ~ \ "0.0.0.0" •
```

14.3.3. ® × 9:

```
systemctl enable kibana
```

14.3.4. 9: 1 2

```
systemctl start kibana
```

14.3.5. - '

MN! " IPA 172.24.45.170f P(y <http://172.24.45.170:5601/> <<<

Chapter 15. MongoDB

15.1. MongoDB

15.1.1. * +

15.1.2. (a ° g

/ O 1 2 3

```
use database_name
```

¼½1 2 3

```
db.dropDatabase()
```

/ O q <

```
db.createCol l ecti on("users")
```

¼½2 q <

```
db.user.drop()
```

| 8; V

```
db.users.insert({name: ' zhangsan' , age: 18})` +  
db.users.save({name: ' l i si si ' , age: 16})
```

!

insertÇ save™ Z ½– —È wí Î f 6: ° > Ò_idÓK 2Ó` Nf / \ insert™ Z È w%~
c x q save™ Z ~ %, %ü a \ ^ > _idì ` œí Î > F G•

¼½; V

```
db.users.remove({' name' : ' zhangsan' })` +  
db.col l ecti on.drop()
```

• i ; V

```
db.users.update({'name': 'zhangsan'}, {'$set': {'name': 'wanger'}})
```

```
#Ö_Ä° \ ^ > O´ f ÄÄÿ × multi , í A true
```

```
db.collection_name.update({'hçÿ': 'hçK'}, {'$set': {'ÄÖ_>hçÿ': 'Ö_³ > hçK'}}, {'multi': true})
```

X; V

```
db.collection.find(query, projection)
```

Æ¥V{

```
db.collection.find(query, projection).pretty()
```

15.1.3. ± K p •

• å

```
db.col.find({"by": "root"}).pretty()
```

It Ž å

```
db.col.find({"likes": {$lt: 50}}).pretty()
```

Ite Ž å [• å

```
db.col.find({"likes": {$lte: 50}}).pretty()
```

gt • å

```
db.col.find({"likes": {$gt: 50}}).pretty()
```

gte • å [• å

```
db.col.find({"likes": {$gte: 50}}).pretty()
```

ne • • å

```
db.col.find({"likes": {$ne: 50}}).pretty()
```

and

```
db.col.find({key1: value1, key2: value2}).pretty()
```

or

```
db.col.find({$or: [{key1: value1}, {key2: value2}]}).pretty()
```


Limit

```
db.col.find().limit(NUMBER)
```

skip « f 1 2 ¥ &

```
db.col.find({}, {"title": 1, _id: 0}).limit(1).skip(1)
```

• '

1 j 1 f-1 ¢ 1

```
db.col.find().sort({KEY: 1})
```

UY

```
db.col.createIndex({"title": 1})
```

```
Ž b ú • ‡ ^ :: db.col.getIndexes()
```

```
Ž b ú • ‡ ^ y € :: db.col.totalIndexSize()
```

```
H; ú • î ^ ‡ ^ :: db.col.dropIndexes()
```

```
H; ú • ø ^ ‡ ^ :: db.col.dropIndex("‡ ^ Ÿ | ")
```

' <

```
db.col.aggregate([{$group : {_id : "$by_user", num : {$sum : 1}}}] )
```

```
$sum :: 5 £ ‡ ¸ f {$sum: 1} % i à á ‡ ¸ ! 1 > K (b ‡ ¸ > í G), ~ \ {$sum: '$D^ h ¸  
' } e U " ( ¢ J D^ h ¸ > K > ‡ ¸
```

```
$avg :: g ¥ | K
```

```
$min :: g min K
```

```
$max :: g max K
```

```
$push :: 3 ° NO ´ / È w K 6 l ã í A /
```

```
$first :: © Î O ´ > ( 1 ¢ J k l ã O ´ í Î
```

```
$last :: ¢ J ² ³ l ã í Î
```

15.2. QR

15.2.1. , -

- i } A;)

```
cat << EOF >/etc/mongo.conf
# mongod.conf

# for documentation of all options, see:
#   http://docs.mongodb.org/manual/reference/configuration-options/

# Where and how to store data.
storage:
  dbPath: /data/mongo
  journal:
    enabled: true
    directoryPerDB: true
  wiredTiger:
    engineConfig:
      cacheSizeGB: 8
#MNI pQ9½¾l ã &" Çã —B- ¨ ±: ° fMNI pQ9½¾Åã &" fÀÁÿ×4Óy€
f§¨ n\ ©u4Ó
    directoryForIndexes: true
# engine:
# wiredTiger:

# how the process runs
processManagement:
  fork: true # fork and run in background
  pidFilePath: /var/run/mongodb/mongod.pid # location of pid file
  timeZoneInfo: /usr/share/zoneinfo

# network interfaces
net:
  port: 27017
  bindIp: 0.0.0.0 # Enter 0.0.0.0,:: to bind to all IPv4 and IPv6
    addresses or, alternatively, use the net.bindIpAll setting.
  maxIncomingConnections: 5000
```

```
#security:

#operationProfiling:

#replication:
replication:
  replSetName: rs0

#sharding:

## Enterprise-Only Options

#auditLog:

#snmp:
security:
  authorization: enabled #_½( yI D
  keyFile: /data/mongo/mongo.key #úª &† ÂĬ nF• ðAì ^
mongod³ p> $ĭ Ä®wúª >Ĭ 9, ĭ ^úª />" Üš\I ãkeyFile, $¨! "
mongod{ Z®wúª •
EOF
```

```
ØBs t =>keyfile; ) ,} A<" ÉÊ\" . < mongon 7\• ĭ ; ) 56" \' „ j 600
```

```
openssl rand -base64 741 > mongo.key
chown mongod:mongod mongo.key
chmod 600 mongo.key
mv mongo.key /data/mongo
```

yÓ< Bš, N

```
scp -P port mongo.key root@host: /src
```

```
} A; ) • ĭ • >\Œ- mongo
```

```
systemctl restart mongod
```

6– mongo,- 8} Aÿ!

```
config_myset={_id: 'rs0', members: [{_id: 0, host: '118.116.4.131:27017'}, {_id: 1, host: '118.123.245.177:27017'}]};
rs.initiate(config_myset)
rs.state()
rs.isMaster()
```

/O56

```
use admin
db.createUser(
  {
    user: "root",
    pwd: "4MI J6Axurmc9ns0Pt0Pr",
    roles: [ "root" ]
  }
)
```

§ 3 < " # \$ ' , , § 3 ß à

```
use admin
db.auth("name", "passwd")      #Pî > \ e j 2
rs.secondaryOk();
rs.slaveOk();
```

4! slaves t , ? @access.key,—, f' , \ ~ B \ 600 Ø masters t n o

```
mongo
use admin
db.auth("root", "123456")
rs.add("ip: port")
```

§ 3 ß à

```
use admin
db.auth("name", "passwd")
rs.secondaryOk();
rs.slaveOk();
```

Chapter 16. Nginx

16.1. Nginx

16.1.1. * +

< " ?

```
cat << EOF > /etc/yum.repos.d/nginx.repo
[nginx-stable]
name=nginx stable repo
baseurl=http://nginx.org/packages/centos/$releasever/$basearch/
gpgcheck=1
enabled=1
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true

[nginx-mainline]
name=nginx mainline repo
baseurl=http://nginx.org/packages/mainline/centos/$releasever/$basearch/
gpgcheck=1
enabled=0
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true
EOF
```

install

```
yum install -y nginx
```

] â b Oc™Š %Š

```
Ê #( )
Ê gzip on;
Ê gzip_comp_level 2;
Ê gzip_types text/plain application/octet-stream application/javascript
application/x-javascript text/css application/xml text/javascript
image/jpeg image/gif image/png font/ttf font/x-woff;
Ê gzip_vary on;

Ê location / {
Ê sub_filter 'xxxxx1111' 'ooooo2222';
Ê sub_filter_once off;
Ê sub_filter_last_modified on;
Ê sub_filter_types *;
Ê proxy_set_header Accept-Encoding '';
Ê proxy_pass http://127.0.0.1:8000;
Ê }
```

Ninx-TCPE α> œ

```
upstream tcp{
Ê hash $remote_addr consistent;
Ê server ip:9000 max_fails=3 fail_timeout=10s;
}
server{
Ê listen 8000;
Ê proxy_connect_timeout 20s;
Ê proxy_timeout 5m;
Ê proxy_pass tcp;
}
```

Chapter 17. Iptables

17.1. Iptables

17.1.1. * +

```
yum install -y iptables-services
```

de firewalld

```
systemctl stop firewalld
```

- 5 firewalld

```
systemctl mask firewalld.service
```

iptables +, óž

```
systemctl enable iptables.service
```

¼½Ö² ' ŸfC i

```
iptables -F
```

- 5...3?

```
yum-config-manager --enable repository
```

- 5...3?

```
yum-config-manager --disable repository
```

^_¢%&' ...3?

```
yum repolist all
```

17.1.2. ²³´µ

İ Đ ĩ < ĩ)

```
iptables-save > /etc/sysconfig/iptables
```

İ Đ ĩ

```
service iptables save
```

17.1.3. uB

+ %04545E Y

```
iptables -I INPUT -p tcp --dport 4545 -j ACCEPT
```

+ %0İ Î IPE Y

```
iptables -I INPUT -p tcp -s 47.108.220.208 --dport 8080 -j ACCEPT
```

+ %50000-60000E Y

```
iptables -I INPUT -p tcp --dport 50000:60000 -j ACCEPT
```

, í - -

-l Èwl ° a > < P

-A « ®

-D H; < P

-L ÓÖî ^ > < P ¬ °

-F H; î ^ > < P ¬ °

-N Y Z a > ¬ °

-p ø ^ • Ž , tcp, upd¹

--dport: Wu v

-j ø ^ • ACCEPT œ x # € DROP ~ œ x

+ %0ping

```
iptables -I INPUT -p icmp -j ACCEPT
```

op_` £Á

```
iptables -I INPUT -i lo -j ACCEPT
```


+ ÷ j CHÚ ¢' 9Æ

```
iptables -L -n --line-number
```

¼½Ú ¢ÿ' j

```
iptables -D INPUT 1
```

} A· ¸' • ¥À

```
tables -P INPUT DROP
```

· ¸' • op> æ

```
iptables -P FORWARD DROP
```

· ¸' 3 ´ ÷ |

```
iptables -P INPUT ACCEPT
```

§ e Windows'' ©' ¢ «

```
iptables -I INPUT -j DROP -p tcp -s 0.0.0.0/0 -m string --algo kmp  
--string "cmd.exe"
```

• e SYN→ - ¢ «

```
iptables -A INPUT -p tcp --syn -m limit --limit 5/second -j ACCEPT
```

İ Ð j < } A;) Ø

```
cp /etc/sysconfig/iptables /etc/sysconfig/iptables.bak  
., f_¾´ æ...™ 7ff Öë Çl - ®> ¯ °  
iptables-save > /etc/sysconfig/iptables  
cat /etc/sysconfig/iptables
```

[Iptables± -](#)

Chapter 18. Git

18.1. Git

18.1.1. ¶ ` § · ¸ ¹ º » ¼ 1 2 3

\$ CD \$ K

```
git branch -a
```

¢ CDB, ' Ç 4 \ • ® & £ _ `

```
git fetch
```

ˆ ° # \$ CD \$ K •

```
git branch -a
```

± ô % & CD \$ K < _ `

```
git checkout -b ~ $^ ô ÿ ori gi n/~ $^ ô ÿ
```

4 O µ ¶ _ ` § K

```
git checkout -b name
```

² 4 O ' _ ` § K push < CD HI N

```
git push ori gi n name: name
```

Chapter 19. Linux

19.1. Linux

Linux

```
ulimit -n
```

+

```
ls -l
```

3

```
ls -l | awk '{print $4}' | grep "[0-9]" | wc -l
```

-c

```
cat $1
```

-p

```
cat $1
```

ls -l

=> UUID

```
uuidgen
```

•

```
cat device_yu_name.txt | sort | uniq -c
```

Çi

```
echo 'LogLevel=debug' >> /etc/systemd/system.conf
```

¶

```
cat /etc/security/limits.conf
```

• 5SELINUX\ i Æ- 89=.

```
echo SELINUX=disabled>/etc/selinux/config  
echo SELINUXTYPE=targeted>>/etc/selinux/config
```

bz2;) > %o

```
yum install bzip2  
bzip2 -d name.bz2
```

Ç4. Kÿ α 3

```
ldconfig
```

serviceHI ! " ;) „ Ó

```
LimitNOFILE=65535
```

< z , 1 ÅD

```
ps -e -o stat,ppid,pid,cmd|egrep '^[Zz]'  
kill -9 pid
```

!

'[Zz]' Ç• l P¾i S f¾i kl ãhi >f x f[Zz]f¾i z#€y¥>Zh³ f b¾i kl ãhi AZ
#€z_´ >> \$í Î fÇ•• , Aµ¶ > \$>§¨ FG—Z#€zh³ _´ •

° » ;) ÿc

```
yum install inotify-tools  
inotifywait -rme modify,attrib,move,create,delete,delete_self /root/test/  
--format "%Xe %W%f"
```

19.2. shell

19.2.1. ¿ Å

```

your_name="qi nj x"
echo $your_name
echo ${your_name}

#@>. G
myUrl="http: //www. googl e. com"
readonly myUrl
myUrl="http: //www. runoob. com"

#H; . G
#. G, H; 3 ~ UM• ~ \ • unset ? 2 ~ UH; @>. G•
unset myUrl

#ÅœB-
#EOF- @
: <<EOF
B- 4&...
B- 4&...
B- 4&...
EOF

```

19.2.2. ÁN

l 1 > í

\$#

Æ. 6Èµ>, í ãí

\$*

—l ã\hi j hi ì ^~ ÈµÆ. >, í • M"\$*\ , "1 * [®>òóy—"1\$2É \$n">° š ō
öì ^, í •

\$\$

Èµ7œ>6æ> \$ID<

\$!

3 p7œ>2 3 l ã> \$>ID<

\$@

ÿ\$*\ ^f» • ~ \ N®^ < f} ` ^ < /àáâã, í • M"\$@*\ , "1 * [®>òóy—"1" "\$2"
É "\$n">° š ōöì ^, í •

\$-

hi Shell~ \ > 6æ" · fÿset? ² TU\ ^ •

\$?

hi ² ³ ? ² > 2ö§" · 0¾i í ^cdf! " , fK¾X^cd •

!

\$*ÿ\$@• •
 \ ^Ü ½• ^ \ î ^ , í
 ~ ^Ü @^` ¼^ < / †ö®• ½ÿ` Èµ7œN¥• ' ã , í 1y2y3ffP "*"L
 ¾g "123" , Æ• • l ã , í ¹ f q "@ "L¾g "1" "2" "3" , Æ• • ' ã , í ¹ •

19.2.3.] ÃÃ

-eq • ÞÕãí • ™\Lf\Làá true• [\$a -eq \$b] à á
false•
-ne • ÞÕãí • ™~\Lf~\Làá true• [\$a -ne \$b] à á
true•
-gt • Þ¿À>í • ™ygÁÀ>fMN• fPàá true• [\$a -gt \$b] à á false•
-lt • Þ¿À>í • ™∈gÁÀ>fMN• fPàá true• [\$a -lt \$b] à á true•
-ge • Þ¿À>í • ™yglgÁÀ>fMN• fPàá true• [\$a -ge \$b] à á
false•
-le • Þ¿À>í • ™∈glgÁÀ>fMN• fPàá true• [\$a -le \$b] à á
true•

! { 7Ef¾i šA true Pàá falsef™Pàá true• [! false] à á true•
-o # 7Ef^l ã¾i šA true Pàá true• [\$a -lt 20 -o \$b -gt
100] à á true•
-a ÿ 7EfÕã¾i š½A true | à á true• [\$a -lt 20 -a \$b -gt
100] à á false•

!

° =¾i š Á?` ™* < ´ Of} â Á ^ ú—f" M: [\$a==\$b] • cd > f × Ø¥R [\$a ==
\$b]•

19.2.4. vim

0 [¼9½[Home]

Ç• í hÒ0Ó:Â¾Çl ó>² æXhi ù (~ \)

\$ [¼9½[End]

Â¾Çl ó>² ³ Xhi ù (~ \

G

Â¾Çã O = >² ³ l ó (~ \)

gg

Ã¾6Çã O=>kI ó,\ 6g 1GÃ!(`\)

n<Enter>

Aí h• ÄW~ <Ã¾nó(`\)

x,X

`I óh6/,xA~³ H; I ãhi [backspace] Åb• Æ2ò)(`\)\ 6g[del]...ò),XA~æH;
I ãhi

nx

nAí h,< O~³ H; nãhi • Ç" ®È,ÉÁ< OH; 10ãhi ,Ò10xÓ•

dd

H; ÄWi `>]I ' ó(`\)

u

C• æI ã¾ð• (`\)

ndd

nAí h• H; ÄWi `>~<nó," M20ddP• H; 20ó(`\)

H

ÄWÃ¾6ÇãÊË>² E™]I ó>kI ãhi

M

ÄWÃ¾6ÇãÊË>/ì]I ó>kI ãhi

L

ÄWÃ¾6ÇãÊË>² <™]I ó>kI ãhi

19.2.5. Systemctl

19.2.6. **systemctl** N.

list-units

óö systemd 6æ2®O64Ó/ >\ I

list-timers

óö 6æ2®O64Ó/ >^ N9(timer)\I f} ...> <• Fæ>NOÜ(1

is-active

• Žø^ >\ I /f •™^ùgÍ¾(active)§ `` >\ I

cat

h i ø ^ \ I > \ I O = 4 &

list-dependencies

h i \ I > 4 5 ñ !

enable

ÿ A " _ Q N ¢ ¾ ½ ¾ " # " È w Š ã E = N ¢ ¾ ½ ¾ "

disable

Î | Ç + \ I > " _ Q N ¢ ¾ ½ ¾ " — U " È w Š ã E = N ¢ ¾ ½ ¾ "

mask

Ê Ĩ ø ^ > \ I # \ I & " (L \)

unmask

- ; J ø ^ \ I # \ I & " > Ê Ĩ f Ç • mask ? ² > ' ¾ Ö

edit

/ \ O µ . » 9 (, Ð < X > " g h · G " € ") Ö _ ø ^ > \ I # \ I & " •

list-jobs

ó ö ì ` 7 æ / > , 8 •

daemon-reload

• a ® O systemd Ñ Ò > \$ > Ö ×

19.2.7. , - . service

Description=

^ Ó g Ô & Õ > > y J \ I > æ „ \ Ô Õ > h i j

Documentation=

I A \ ú — ^a « > O ´ U R I ó ¾ f Ç + O ´ • J Ö \ I > ± × È X

Before=a

Ö 7 8 ` a 7 8 ´ æ ½ ¾

After=a

Ö 7 8 ` a 7 8 ´ ³ ½ ¾

19.2.8. , - . timer


```

[Unit] # ^ £ I í Î
[Timer] # ^ £ ^ N9
OnActiveSec ^ N9ŠÛ³ f Å[ NO_ž F œ, 8
OnBootSec ! " ½¾³ f Å[ NO_ž F œ, 8
OnStartupSec Systemd > $ ½¾³ f Å[ NO_ž F œ, 8
OnUnitActiveSec S\ I E• F œ³ f L Å[ NOM• F œ
OnUnitInactiveSec ^ N9E• ñ œ³ Å[ NO f M• F œ
OnCalendar VgTJ NO f q ~• \ J NO F œ, \ g Ğ crond &} > ^ N, 8
, —& Ø NO F œ•
AccuracySec MN, A É] • , f, 8× Ø ^ _ F œ f ^ _ >² y è í f: ° • 60 è
Unit ` Ĩ Á F œ >, 8 f: ° • ^ Ÿ > a ^ . service³ B > \ I
Persistent MNŸ ×• Sh ĸ f b ~ ^ N9 6 N í ^ ½¾ f e % ¢ ¾ F œ \ [ > \ I
WakeSystem MN! " b c f • ™ ¢ ¾ d e! "

```

= 0 3/4

```
systemd -ãNzhi j (\gÛK)>NÚf
Œi ÿNz>hi &} >äZf~^´ù`g-—Ûoú—• —¼- >NO\ f M<
```

usec, us, µs

(Ûè)
msec, ms

(...è)
seconds, second, sec, s

(è)
minutes, minute, min, m

(^a Ä)
hours, hour, hr, h

(€N)
days, day, d

(Ÿ)
weeks, week, w

(ÅQ)
months, month, M

(Ã)[=30.44Ÿ]
years, year, y

(Ɔ)[=365.25Ÿ]

" ½J K j faild' ħ I \ ÄJ J K " ½\ HI _Á• ÑÂ¼½

```
systemctl reset-faild
```

19.2.9. Ulimit

ulimit \g ÛD½¾> \$ì u\ >ß,

```
[root@localhost ~]# ulimit -a
core file size          (blocks, -c) 0                #coreO=>² yKA100
blocks•
data seg size           (kbytes, -d) unlimited    #> $>í Î ¿ —, Ay•
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited    #O=—, Ay•
pending signals         (-i) 98304          #² Å ^ 98304ã à ù¼>F<•
max locked memory       (kbytes, -l) 32
#l ã, 8r á ><¼4Ó>² yKA32KB•
max memory size         (kbytes, -m) unlimited
#l ã, 8>ˆ â <¼4Ó>² yK•
open files              (-n) 1024          #l ã, 8² Å — ^NÚ_
1024>O=•
pipe size               (512 bytes, -p) 8          #' %o>² y úOA4096h"•
POSIX message queues    (bytes, -q) 819200          #POSIX
>ã Gä Ó>² yKA819200h"•
real-time priority      (-r) 0
stack size              (kbytes, -s) 10240      #> $>å >² yKA
10240h"•
cpu time                (seconds, -t) unlimited    #> $ˆ \>CPUNO•
max user processes      (-u) 98304
#6æ\ e ^NÚ_>> $, è * Ò$¹ >² yã í A98304•
virtual memory          (kbytes, -v) unlimited    #í ^ ÛD> $>² yRSúO•
file locks              (-x) unlimited
#ì Ur á >O=>² yã í í ^ ÛD•
```

Chapter 20. Archlinux

20.1. Archlinux

20.1.1. ¶ + a b Ä 8 Å Æ Ç ®

```
local edef -f UTF-8 -i en_US en_US.UTF-8
```

tty(E ý þ ^ +

```
systemctl start getty@tty1
```

Chapter 21. Kafka

21.1. Kafka

21.1.1. kafkautils

¼½topic

```
kafka-topics.sh --delete --zookeeper hadoop01:2181 hadoop02:2181
hadoop03:2181 --topic
```

- i topic' offset

```
kafka-consumer-groups.sh --bootstrap-server 192.168.102.12:9092 --group
rtd --reset-offsets --topic rtdReceive --to-offset 0 --execute
```

XÅÆ"

```
kafka-consumer-groups.sh --bootstrap-server {kafka<ÆRS} --list
```

¼½ÅÆ"

```
kafka-consumer-groups.sh --bootstrap-server {kafka<ÆRS} --delete --group
{ã„A}
```

\$topicSTT.

```
kafka-topics.sh -zookeeper hadoop01:2181 hadoop02:2181 hadoop03:2181
-describe -topic dpi ng
```

+ ÷ Õ² topic

```
kafka-topics.sh --list --zookeeper hadoop01:2181 hadoop02:2181
hadoop03:2181
```

œ5Å.

```
kafka-console-producer.sh --broker-list hadoop01:9092 hadoop02:9092
hadoop03:9092 --topic dpi ng
```

```
# $ÅÆ" ' ÅÆÇÈ
```

```
kafka-consumer-groups.sh --bootstrap-server hadoop01: 9092 --descri be  
--group thcl -consumer-group
```

/ Otopic

```
kafka-topi cs.sh --create --zookeeper hadoop01: 2181 hadoop02: 2181  
hadoop03: 2181 --repl icati on-factor 4 --parti ti ons 6 --topi c test4repl ic
```

kafkaÉ s t - .

```
kafka-server-start.sh -daemon /data/software/kafka_2.13-  
2.7.0/confi g/server. properti es
```

!

Broker ã G/ O= ù ¼° Ü fI ã Kafka" Ü ð • I ã broker f Å ã broker— —AR I
ã Kafkaú^a •
Topic I &ã G f " Mpage view* Oy click* OL ½— ———topic> ° š Ó` f Kafkaú^a
Uæ^ Nç è Å ã topic>^a c •
Partition topic< ¼E >^a A f I ã topic— —^a A Å ã partition f â ã partition• I ã ^ 1
> ä ó •
Segment partition< ¼E p Å ã segmentAR f < X2.2ç 2.3^ ± × È X •
offset â ã partition½p I ! ó ^ 1 > y ~ — · > ã GAR f Ç + ã G, < O> « ®
6partition/ • partition/ > â ã ã G½^ I ã < O> 1 ó < é ž offset, \ g partition† I
W' I ° ã G.

/ Otopic

```
kafka-topi cs.sh ðzookeeper l ocal host: 2181 ðcreate ðtopi c my-topi c  
ðparti ti ons 1 ðrepl icati on-factor 1 ðconfi g max. message. bytes=64000  
ðconfi g fl ush. messages=1
```

/ Otopicô • i topicl 1

```
kafka-confi gs.sh ðzookeeper l ocal host: 2181 ðenti ty-type topi cs ðenti ty-  
name my-topi c ðal ter ðadd-confi g max. message. bytes=128000
```

```
# $topic' offsetÇÈ
```

```
kafka-run-cl ass.sh kafka. tool s. GetOffsetShel l --broker-l i st hadoop01: 9092  
--topi c real Ti meData
```

\$ consumer group+ Ü

```
kafka-consumer-groups.sh --bootstrap-server hadoop01:9092 --list
```

\$§ > ÇÈ \ s t T . \ y Ó Ç È

```
kafka-topics.sh --topic realTimeData --describe --zookeeper hadoop01:2181  
hadoop02:2181 hadoop03:2181
```

kafkaÖ__topic> ê μ í

À Á a Z j son O = i ncrease-repl i cati on-factor. j son

```
{
  "versi on": 1,
  "parti ti ons": [{
    "topi c": "aaad",
    "parti ti on": 0,
    "repl i cas": [1, 3]
  },
  {
    "topi c": "aaad",
    "parti ti on": 1,
    "repl i cas": [1, 2]
  },
  {
    "topi c": "aaad",
    "parti ti on": 2,
    "repl i cas": [2, 3]
  },
  {
    "topi c": "aaad",
    "parti ti on": 3,
    "repl i cas": [2, 3]
  },
  {
    "topi c": "aaad",
    "parti ti on": 4,
    "repl i cas": [1, 3]
  },
  {
    "topi c": "aaad",
    "parti ti on": 5,
    "repl i cas": [1, 2]
  }
]
```

é³ F œ? ²

```
kafka-reassign-partitions.sh --zookeeper node01:2181 node02:2181
node03:2181 --reassignment-json-file increase-replication-factor.json
--execute --additional
```

, -

Chapter 22. Ceph

22.1. Ceph

22.1.1. * +

} AĞÊ yum?

```
yum clean all
rm -rf /etc/yum.repos.d/*.repo
wget -O /etc/yum.repos.d/CentOS-Base.repo
http://mirrors.aliyun.com/repo/Centos-7.repo
wget -O /etc/yum.repos.d/epel.repo http://mirrors.aliyun.com/repo/epel-7.repo
sed -i '/aliyuncs/d' /etc/yum.repos.d/CentOS-Base.repo
sed -i '/aliyuncs/d' /etc/yum.repos.d/epel.repo
```

} Aceph?

```
cat >> /etc/hosts << EOF
[ceph]
name=ceph
baseurl=http://mirrors.aliyun.com/ceph/rpm-jewel/el7/x86_64/
gpgcheck=0
priority=1
[ceph-noarch]
name=cephnoarch
baseurl=http://mirrors.aliyun.com/ceph/rpm-jewel/el7/noarch/
gpgcheck=0
priority=1
[ceph-source]
name=Ceph source packages
baseurl=http://mirrors.aliyun.com/ceph/rpm-jewel/el7/SRPMS
gpgcheck=0
priority=1
EOF
```

Ç4?

yum clean all && yum makecache

%&Ceph

yum install ceph -y