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- [?????????](#)
- [??????](#)
- [Windows AD ??](#)

??????????

RedHat 8

NOTE:

- RH8 ???? faillock ???? /etc/security/faillock.conf?
??? system-auth ?????????? faillock.conf ??????????
- unlock_time - ??????????????????????
- deny - ????????

???? faillock (optional)

“ TIP: ?????????????? /var/run/faillock?

```
mkdir /var/log/faillock
```

Edit /etc/pam.d/system-auth , /etc/pam.d/password-auth

```
# for auth
# faillock, add the below line BEFORE pam_unix.so
auth required pam_faillock.so preauth dir=/var/log/faillock silent audit deny=3 fail_interval=900
unlock_time=600
auth required pam_faillock.so authfail dir=/var/log/faillock unlock_time=600
#

auth    sufficient  pam_unix.so try_first_pass nullok

# faillock, add the below line AFTER pam_unix.so
auth    [default=die] pam_faillock.so authfail deny=3 fail_interval=900 unlock_time=600
#

# for account
# faillock, add the below line BEFORE pam_unix.so
account required pam_faillock.so
#
```

```
account    required    pam_unix.so
```

RedHat 6

Edit /etc/pam.d/system-auth , /etc/pam.d/password-auth

```
# for auth
# add the below line BEFORE pam_unix.so
auth required pam_faillock.so preauth silent audit deny=3 unlock_time=600 # insert this

auth    sufficient    pam_unix.so nullok try_first_pass

# add the below line AFTER pam_unix.so
auth [default=die] pam_faillock.so authfail audit deny=3 unlock_time=600 # insert this

# for account
# add the below line BEFORE pam_unix.so
account required pam_faillock.so # insert this

account    required    pam_unix.so
```

???????? root???????? root???????? even_deny_root ?

```
auth    required    pam_faillock.so preauth silent audit deny=3 even_deny_root unlock_time=1200
root_unlock_time=600
```

???????? user????? pam_faillock.so ??????:

```
auth [success=1 default=ignore] pam_succeed_if.so user in user1:user2:user3
```

????????????????

```
# display the authentication failure for all users
faillock

# display the authentication failure for the specified user
faillock --user mytest
```

```
# unlock the user  
faillock --user mytest --reset
```

“ Tip:

```
???????????????? log ? /var/log/secure????????????????????
```

```
Mar 8 15:26:08 centos7 sshd[26995]: pam_faillock(sshd:auth): Consecutive  
login failures for user i04181 account temporarily locked
```

VSFTPD

```
?? vsftpd ??????????????????????
```

????

- [RH] [What is pam_faillock and how to use it in Red Hat Enterprise Linux?](#)
- [RH] [Lock account after 3 failed attempts.](#)
- [Linux ?????????????????? pam_faillock ??????](#)

??????

??????

CentOS/RedHat)

```
groupadd -r asterisk
useradd -r -g asterisk -d /var/lib/asterisk -M asterisk
```

Ubuntu/Debian)

```
addgroup --system asterisk
adduser --system --ingroup asterisk --home /var/lib/asterisk --no-create-home --shell /bin/bash asterisk
```

????????

```
# Debian/Ubuntu
# Add the user into the group sudo
sudo usermod -aG sudo <user-name>
# Verify the user's groups
groups <user-name>
```

??????

????????????????

```
# 
usermod -L <username>
```

```
# [16 empty boxes]
# [32 empty boxes]
chage -d 0 <username>
```

```
# 
usermod -U <username>
```


--	--	--	--	--	--	--

```
chage -l <user-name>
```

??????

--	--	--	--	--	--

```
chage -l <user-name>
```


--	--	--	--	--	--

```
chage -M 10 <user-name>          # 10 
```

```
chage -E "2017-02-20" <user-name> # 2017-02-20 [ ]
```

chage -l 10 <user-name> # 10

--	--	--	--

```
chage -E -1 <user-name> ; 00 -1 000000
```

??????

--	--	--	--

```
usermod -L <user-name>
```

```
passwd -l <user-name>
```

```
chage -E 0 <user-name>
```


--	--	--	--

```
usermod -U <user-name>
```

```
passwd -u <user-name>
```

```
chage -E <user-name>
```


--	--	--	--	--	--	--	--

```
grep <user-name> /etc/shadow
```

dbtest:!\$6\$hFCW6el1\$kl9J9QrxCjnpvzFPJnxSpNvQ... [] [] [] ! [] [] [] [] [] []

```
# List the locked and passwordless accounts
```

```
getent shadow | awk '/^.*:[!\\*].*/' | cut -d: -f1
```

“TIPs:
???passwd ?????????????? SSH-Key ???

??????????

RHEL 7

```
# To enable the faillock
# unlock_time: seconds
authconfig --enablefaillock --faillockargs="deny=5 unlock_time=1200" --update

# To disable the faillock
authconfig --disablefaillock --update

# Validate the configuration
authconfig --test

# Check the login attempts failed
faillock

# Unlock the user locked immediately
faillock --user test01 --reset
```

??????????

```
# [ ] [ ] [ ] [ ]
usermod -c "John" john

# [ ] shell
usermod -s "/sbin/nologin" alang

# [ ] [ ] [ ] [ ] [ ] [ ]
usermod -l newuser currentuser
```

??????????????

?? su ???????

????? devrpt ??? su ? devrpt?

???: ?? sshd_config

```
# Added by Alang
# prevent certain users from using ssh for login
# while retaining the option to 'su username'
#
```

```
DenyUsers istdc
```

???: ??????????????????????

```
# [] devrpt []  
passwd -d devrpt
```

???: ????????

? CentOS ???

1. ?? /etc/security/access.conf??????

```
# The line 'cron crond' is required  
+:devrpt:cron crond tty1 tty2 tty3 tty4 tty5 tty6  
-:devrpt:ALL
```

“TIPs?

????? permission : username: origins

permission + ?? ? - ??

username ??

origins ???????? tty ??'???/?????IP ?

????????????? cron crond ?????????? crontab ???????

2. ??????????????????????

- telnet : /etc/pam.d/remote (???????)
- SSH : /etc/pam.d/sshd (????????? SSHD)
- Local ???? : /etc/pam.d/login

?????????????????????

```
# Limited users for remote login via telnet  
# Check the file /etc/security/access.conf  
account required pam_access.so
```

?????????

```
mkhomedir_helper <username>
```


????????

?: ?????????????????????????????

RedHat-KB: <https://access.redhat.com/solutions/65822>

```
# Create the restricted shell
cp /bin/bash /bin/rbash

# Create a directory that is used as the HOME of the user
mkdir /home/dbuser/
mkdir /home/dbuser/bin

# Modify the target user 'siview' for the shell as restricted shell
usermod -d /home/dbuser -s /bin/rbash siview

# or for new user
useradd -d /home/dbuser -s /bin/rbash siview
```

If a user uses **rbash**, the user can not do the following after login:

- Changing directories with the `|cd|` built in.
- Setting or unsetting the values of the `|SHELL|`, `|PATH|`, `|ENV|`, or `|BASH_ENV|` variables.
- Specifying command names containing slashes.
- Specifying a filename containing a slash as an argument to the `|.|` built in command.
- Importing function definitions from the shell environment at startup.
- Parsing the value of `|SHELLOPTS|` from the shell environment at startup.
- Redirecting output using the ``|>|`, ``|>||`, ``|<>|`, ``|>&|`, ``|&>|`, and ``|>>|` redirection operators.
- Using the `|exec|` built in to replace the shell with another command.
- Adding or deleting built in commands with the ``|-f|` and ``|-d|` options to the `|enable|` built in.
- Specifying the ``|-p|` option to the `|command|` built in.
- Turning off restricted mode with ``|set +r|` or ``|set +o restricted|`.

```
# Create specific profile for the user
vi /home/dbuser/.bash_profile
```

.bash_profile:

```
# cat /home/localuser/.bash_profile
# .bash_profile
```

```
# Get the aliases and functions
if [ -f ~/.bashrc ]; then
    . ~/.bashrc
fi

# User specific environment and startup programs
PATH=$HOME/bin
export PATH
```

```
# Create the softlinks of commands which are required for the user
ln -s /bin/date /home/dbuser/bin/
ln -s /bin/ls /home/dbuser/bin/
ln -s /usr/bin/passwd /home/dbuser/bin/
```

????

- RH-KB: <https://access.redhat.com/solutions/66322> (RHEL6)
- RH-KB: [Set a password policy in Red Hat Enterprise Linux 7](#) (RHEL7)
- [How to Set password policy in CentOS or RHEL system](#)
- RedHat/CentOS: `/usr/share/doc/pam-<version>/txts/README.pam_cracklib`
- [??] <https://www.lijyyh.com/2012/07/pam-managing-account-security-with-pam.html>

?????:

- difok=N , ????? 5 ??
- minlen=N, ????????? 9?
- dcredit=-1, ???? 1 ??
- ucredit=-1, ????? 1 ??
- lcredit=-1, ????? 1 ??

Edit `/etc/pam.d/system-auth` , `/etc/pam.d/password-auth`

CentOS 5/6)

“ NOTE: CentOS 5 ?? `/etc/pam.d/password-auth` , ???????
`/etc/pam.d/system-auth`

```
# Set password strength
#password requisite pam_cracklib.so try_first_pass retry=3 type=
password requisite pam_cracklib.so minlen=8 dcredit=-1 ucredit=-1 lcredit=-1
```

CentOS 7/8)

Edit `/etc/security/pwquality.conf`

```
# Set password strength
minlen = 8
dcredit = -1
ucredit = -1
lcredit = -1
```

?? root ?????????????????????? `/etc/pam.d/system-auth` ? `/etc/pam.d/password-auth` ??
password ?????? `enforce_for_root`?

```
# Enforce root for password strength
password requisite pam_pwquality.so try_first_pass local_users_only retry=3 authtok_type=
enforce_for_root
```

??????

Edit `/etc/pam.d/system-auth` , `/etc/pam.d/password-auth`
CentOS 5/6)

```
# Keep history of passwords used
# Add remember=N
# The last n passwords for each user are saved in /etc/security/opasswd in order to force password change
history
# and keep the user from alternating between the same password too frequently.
#password sufficient pam_unix.so sha512 shadow nullok try_first_pass use_authtok
password sufficient pam_unix.so sha512 remember=8 shadow nullok try_first_pass use_authtok
```

CentOS 7/8)

```
# Keep history of passwords used, insert the below line after pam_pwquality.so line
password requisite pam_pwhistory.so remember=8 use_authtok
```

“ TIP: ?????????? `/etc/security/opasswd` .

????

```
# Create a new group
groupadd <group-name>
addgroup <group-name>

# add a group into an account
usermod -aG mygroup user1
useradd -aG family,friends james

# To change the primary group of the user tom to family
usermod -g family tom

# remove user from a group
gpasswd -d user1 mygroup

# list all users in a group
lid -g mygroup

# list groups for current user
groups

# List groups for specified user
groups username
```

?? passwd

```
# displays the status of user account password settings
# [Username] [Status] [Date Last Changed] [Min. Age] [Max. Age] [Warn. Period] [ Inactivity Period]
# Status:
# - P: Usable password
# - NP: No password
# - L: Locked password
# Age:
# - 99999: Never expires
# - 0: Can be changed at anytime
# - -1: Disabled
passwd -S evans
evans PS 2020-09-07 0 99999 7 -1 (Password set, SHA512 crypt.)

# Check password status for all accounts
```

```
passwd -Sa
```

```
# lock the password of a specified account
```

```
passwd -l user1
```

```
# unlock the password
```

```
passwd -u user2
```

```
# delete a password for an account
```

```
passwd -d user1
```

```
# expire a password for an account
```

```
# This will force user to change the password at next login.
```

```
passwd -e user2
```

```
# This sets the number of days before a password can be changed.
```

```
# By default, a value of zero is set, which indicates that the user may change
```

```
# their password at any time.
```

```
# This means user2 cannot change its own password until 10 days have passed.
```

```
passwd -n 10 user2
```

```
# To confirm the password setting made with the -n option above, run the following command:
```

```
# The value of 10 after the date indicates the minimum number of days
```

```
# until the password can be changed.
```

```
passwd -S user1
```

```
user1 PS 2020-12-04 10 99999 7 -1 (Password set, SHA512 crypt.)
```

```
# This means after 90 days, the password is required to be changed.
```

```
passwd -x 90 user2
```

```
# This means the user will receive warnings that the password will expire 7 days
```

```
# before the expiration.
```

```
passwd -w 7 user2
```

```
# This means after a user account has had an expired password for 5 days,
```

```
# the user may no longer sign on to the account.
```

```
passwd -i 5 user2
```

```
# This command will read from the echo command and pass it to the passwd command.
```

```
# So this will set the user1 password to userpasswd1.
```

```
echo "userpasswd1"|passwd --stdin user1
```

?? getent

```
# List all user
getent passwd

getent passwd | awk -F: '{print $1}'

# List a specified user
getent passwd <username>

# List the locked and no-login accounts
getent shadow | awk '/^.*:[!]*.*' | cut -d: -f1

# List the users with uid between 1000 ~ 1500
getent passwd {1000..1500}
```

????????

```
# Step 1 - Create an encrypted password
## perl one liner ##
#perl -e 'print crypt("Your-Clear-Text-Password-Here", "salt"),"\n"'

password="1YelloDog@"
pass=$(perl -e 'print crypt($ARGV[0], "password")' $password)
echo "$pass"
```

```
# Step 2 - Shell script to add a user and password on Linux
#!/bin/bash

# Purpose - Script to add a user to Linux system including password
# Author - Vivek Gite <www.cyberciti.biz> under GPL v2.0+
# -----

# Am i Root user?
if [ $(id -u) -eq 0 ]; then

❑read -p "Enter username : " username
❑read -s -p "Enter password : " password
❑egrep "^$username" /etc/passwd >/dev/null
❑if [ $? -eq 0 ]; then
```

```

[[echo "$username exists!"
[[exit 1
[[else
[[pass=$(perl -e 'print crypt($ARGV[0], "password")' $password)
[[useradd -m -p "$pass" "$username"
[[[ $? -eq 0 ] && echo "User has been added to system!" || echo "Failed to add a user!"
[[fi
else
[[echo "Only root may add a user to the system."
[[exit 2
fi

```

Step 3 – Change existing Linux user’s password in one CLI

```
echo "vivek:password" | chpasswd
```

Verify that password has been changed

```
chage -l vivek
```

Step 4 – Create Users and change passwords with passwd on a CentOS/RHEL

```
echo "YourPassword" | passwd --stdin UserName
```

?????????

???????

```

# [[[: [[ uid=500 [[[[[[[[
ID_minimum=500
for f in /etc/{passwd,group}; do awk -F: -vID=$ID_minimum '$3>=ID && $1!="nfsnobody"' $f |sort -nt: -k3 >
${f#/etc/}.bak; done
while read line; do grep -w "^${line%%:.*}" /etc/shadow; done <passwd.bak >shadow.bak
while read line; do grep -w "^${line%%:.*}" /etc/gshadow; done <group.bak >gshadow.bak

# [[[: [[ uid=501 [[[[[[[[
export UGIDLIMIT=501
awk -v LIMIT=$UGIDLIMIT -F: '($3>=LIMIT) && ($3!=65534)' /etc/passwd | sed '/nfsnobody/d' > passwd.move
awk -v LIMIT=$UGIDLIMIT -F: '($3>=LIMIT) && ($3!=65534)' /etc/group | sed '/nfsnobody/d' > group.move
awk -v LIMIT=$UGIDLIMIT -F: '($3>=LIMIT) && ($3!=65534) {print $1}' /etc/passwd | egrep -wf - /etc/shadow |
sed '/nfsnobody/d' > shadow.move

# [[[: [[ uid=501 ~ 600 [[

```

```

export UGID_DOWN=501
export UGID_UP=600
awk -v LIMIT_DOWN=$UGID_DOWN -v LIMIT_UP=$UGID_UP -F: '($3>=LIMIT_DOWN) && ($3<=LIMIT_UP) && ($3!=65534)' /etc/passwd | sed '/nfsnobody/d' > passwd.move
awk -v LIMIT_DOWN=$UGID_DOWN -v LIMIT_UP=$UGID_UP -F: '($3>=LIMIT_DOWN) && ($3<=LIMIT_UP) && ($3!=65534)' /etc/group | sed '/nfsnobody/d' > group.move
awk -v LIMIT_DOWN=$UGID_DOWN -v LIMIT_UP=$UGID_UP -F: '($3>=LIMIT_DOWN) && ($3<=LIMIT_UP) && ($3!=65534)' {print $1}' /etc/passwd | egrep -wf - /etc/shadow | sed '/nfsnobody/d' > shadow.move

# [ ]: uid= 501 ~ 699 and 1000+
export UGIDLIMIT_LOW=501
export UGIDLIMIT_HIGH=699
export UGIDS_RHEL7=1000

awk -v RHEL7=$UGIDS_RHEL7 -v LIMIT_LOW=$UGIDLIMIT_LOW -v LIMIT_HIGH=$UGIDLIMIT_HIGH -F: '($3>=RHEL7) || (($3>=LIMIT_LOW) && ($3<=LIMIT_HIGH) && ($3!=65534))' /etc/passwd | sed '/nfsnobody/d' > passwd.move

awk -v RHEL7=$UGIDS_RHEL7 -v LIMIT_LOW=$UGIDLIMIT_LOW -v LIMIT_HIGH=$UGIDLIMIT_HIGH -F: '($3>=RHEL7) || (($3>=LIMIT_LOW) && ($3<=LIMIT_HIGH) && ($3!=65534))' /etc/group | sed '/nfsnobody/d' > group.move

awk -v RHEL7=$UGIDS_RHEL7 -v LIMIT_LOW=$UGIDLIMIT_LOW -v LIMIT_HIGH=$UGIDLIMIT_HIGH -F: '($3>=RHEL7) || (($3>=LIMIT_LOW) && ($3<=LIMIT_HIGH) && ($3!=65534))' {print $1}' /etc/passwd | egrep -f - /etc/shadow | sed '/nfsnobody/d' > shadow.move

```

🗨 NOTE: ?????????????????? /etc/gshadow ?????

?????? *.move ??????????????

```

cat passwd.move >> /etc/passwd
cat shadow.move >> /etc/shadow
cat group.move >> /etc/group

```

```

pwconv
grpconv

```

```

# [ ] home [ ]
mkhomedir_helper <user-name>

```


Optional: ?????????

“ NOTE: ?????????? /etc/passwd ? /etc/group ?????? pwconv ? grpconv
????????? /etc/shadow ? /etc/gshadow ??????????????????

```
# [redacted]
## [redacted] /etc/passwd
vipw

## [redacted] /etc/group
vigr

## [redacted] /etc/shadow, /etc/gshadow
pwconv
grpconv
```

Optional: ??? Home ??

```
for uidgid in $(cut -d: -f3,4 passwd.move); do
    dir=$(awk -F: /$uidgid/{print$6} passwd.move)
    mkdir -vm700 "$dir"; cp -r /etc/skel/.[:alpha:]]* "$dir"
    chown -R $uidgid "$dir"; ls -ld "$dir"
done
```

?????? psacct

```
yum install psacct
```

- [How to Monitor Linux Users Activity with psacct or acct Tools](#)
- Display total statistics of connect time in hours
- Print All Linux Commands Executed by Users
- Print Linux User Information
- Print Number of Linux Processes
- Print and Sort Usage by Percentage
- Search Logs for Commands

???????? (TMOUT)

Linux: /etc/profile.d/timeout.sh

```
#!/bin/bash
# Set the TMOUT 600 for specified group
grpname="sshusers"
# if [[ "`id -Gn`" =~ .*"$grpname".* ]]; then
if grep -q "$grpname" <<< "`id -Gn`"; then
    export TMOUT=600
fi
```

Multi groups

```
#!/bin/bash
# Set the TMOUT 600 for specified groups
#grpnames="(group1|group2|group3)"
grpnames="(sshusers)"
if echo "`id -Gn`" | grep -wEq "$grpnames"; then
    export TMOUT=600
fi
```

AIX: `/etc/profile`

```
# Set the TMOUT 600 for specified groups
#grpnames="(group1|group2|group3)"
grpnames="(sshusers)"
if echo "`id -Gn`" | grep -wEq "$grpnames"; then
    export TMOUT=600
fi
```

Learning

- [How to Lock User Accounts After Failed Login Attempts](#)
- [Restrict SSH User Access to Certain Directory Using Chrooted Jail](#)
- [How can I restrict the normal user to run only limited set of commands in RHEL?](#)
- [How To Limit User's Access To The Linux System](#)
- [Set a password policy in Red Hat Enterprise Linux](#)
- [RedHat] [How to enhance Linux user security with Pluggable Authentication Module settings](#)
- [Linux PAM for Compliance](#)

- [12 Ways to Find User Account Info and Login Details in Linux](#)

Windows AD ??

?? RedHat ??????? Windows AD ???

RedHat 7/8 (?????)

????????????????????????????????

- [Chapter 7. Configuring a RHEL host to use AD as an authentication provider Red Hat Enterprise Linux 8 | Red Hat Customer Portal](#)

???????

```
yum install sssd sssd-tools krb5-workstation krb5-libs
```

???????? AD ????

```
useradd AD_user
```

?? `/etc/nsswitch.conf`

```
# Add 'sss' for AD authentication
passwd:  files sss systemd
shadow:  files sss
group:   files sss systemd
```

?? `/etc/krb5.conf`

```
[logging]
default = FILE:/var/log/krb5libs.log
kdc = FILE:/var/log/krb5kdc.log
admin_server = FILE:/var/log/kadmind.log

[libdefaults]
dns_lookup_realm = false
ticket_lifetime = 24h
```

```
renew_lifetime = 7d
forwardable = true
rdns = false
pkinit_anchors = FILE:/etc/pki/tls/certs/ca-bundle.crt
# Change this as required
default_realm = EXAMPLE.COM
default_ccache_name = KEYRING:persistent:%{uid}

[realms]
# Change this as required
EXAMPLE.COM = {
    kdc = ad.example.com
    dmin_server = ad.example.com
}

[domain_realm]
# Change this as required
.example.com = EXAMPLE.COM
example.com = EXAMPLE.COM
```

?? `/etc/sss/sssd.conf`

```
[sssd]
    services = nss, pam
    domains = EXAMPLE.COM

[domain/EXAMPLE.COM]
    id_provider = files
    auth_provider = krb5
    krb5_realm = EXAMPLE.COM
    krb5_server = ad.example.com
```

?????

```
chmod 0600 /etc/sss/sssd.conf
```

?? sssd ??

```
systemctl start sssd
systemctl enable sssd
```

?? `/etc/pam.d/system-auth`

```
#%PAM-1.0
# This file is auto-generated.
# User changes will be destroyed the next time authconfig is run.
auth    required    pam_env.so
auth    required    pam_faildelay.so delay=2000000
auth    sufficient   pam_unix.so nullok try_first_pass
auth    requisite    pam_succeed_if.so uid >= 1000 quiet_success
# AD Authentication
auth    sufficient   pam_sss.so forward_pass

auth    required     pam_deny.so

account  required     pam_unix.so
account  sufficient   pam_localuser.so
account  sufficient   pam_succeed_if.so uid < 1000 quiet
# AD Authentication
account  [default=bad success=ok user_unknown=ignore] pam_sss.so

account  required     pam_permit.so

password requisite    pam_pwquality.so try_first_pass local_users_only retry=3 authtok_type$
password sufficient   pam_unix.so sha512 shadow nullok try_first_pass use_authtok
# AD Authentication
password sufficient   pam_sss.so use_authtok

password required     pam_deny.so

session  optional     pam_keyinit.so revoke
session  required     pam_limits.so
-session optional     pam_systemd.so
session  [success=1 default=ignore] pam_succeed_if.so service in crond quiet use_uid
session  required     pam_unix.so
# AD Authentication
session  optional     pam_sss.so
```

?? /etc/pam.d/password-auth ??????????

??AD??

????

```
#> kinit AD_user
Password for AD_user@EXAMPLE.COM:

#> klist
Ticket cache: KEYRING:persistent:0:0
Default principal: AD_user@EXAMPLE.COM

Valid starting    Expires          Service principal
11/02/20 04:16:38 11/02/20 14:16:38 krbtgt/EXAMPLE.COM@EXAMPLE.COM
[renew until 18/02/20 04:16:34
```

?? SSH ??

???? AD_user (??? @example.com)?? SSH?

????

Displaying user authorization details

```
sssctl user-checks -a acct -s sshd AD_user
```

Display a list of available domains

```
sssctl domain-list
```

RedHat 7/8 (????)

- [How to join a Linux system to an Active Directory domain | Enable Sysadmin \(redhat.com\)](#)
- [Windows Integration Guide Red Hat Enterprise Linux 7 | Red Hat Customer Portal](#)
- [How to join a Linux system to an Active Directory domain](#)

??????

```
yum install sssd realmd oddjob oddjob-mkhomedir adcli \
samba-common samba-common-tools krb5-workstation \
openldap-clients policycoreutils-python
```

?? realmd ? Linux ???? AD ??

“ NOTE: ???? /etc/krb5.conf ?????????????????? /etc/sss/sss.conf ???
?? AD ?????? AD ????????? AD ?? ?? adm1?
????????????????????

```
realm discover ad.example.com
```

```
realm join ad.example.com -U adm1
```

```
realm list
```

???? `/etc/sss/sss.conf`, `/etc/krb5.conf`

```
[sss]
domains = example.com
config_file_version = 2
services = nss, pam

[domain/example.com]
ad_server = ad.example.com
ad_domain = example.com
krb5_realm = EXAMPLE.COM
realmd_tags = manages-system joined-with-adcli
cache_credentials = True
id_provider = ad
krb5_store_password_if_offline = True
default_shell = /bin/bash
ldap_id_mapping = True
use_fully_qualified_names = True
fallback_homedir = /home/%u@%d
access_provider = ad
```



```
[libdefaults]
    dns_lookup_realm = false
    ticket_lifetime = 24h
    renew_lifetime = 7d
    forwardable = true
    rdns = false
    pkinit_anchors = FILE:/etc/pki/tls/certs/ca-bundle.crt
    default_ccache_name = KEYRING:persistent:%{uid}

    default_realm = EXAMPLE.COM
[realms]
    EXAMPLE.COM = {

[domain_realm]
    example.com = EXAMPLE.COM
    .example.com = EXAMPLE.COM
```

Optional: AD ??

```
# AD Administrator
realm leave ad.example.com

#
realm leave ad.example.com -U 'EXAMPLE.COM\user'
```

??????

AD AD /etc/sss/sssd.conf?

?? /etc/sss/sssd.conf

```
# ACL for AD Login
#access_provider = ad
access_provider = simple
#simple_allow_users = ad-user1, ad-user2
simple_allow_groups = ad-group
```

?? sssd ??

```
systemctl restart sssd  
realm list
```

????

?? ad-user ?????

```
usermod -aG local-group aduser@ad.domain.com  
getent group local-group  
groups aduser@ad.domain.com
```

????

?? AD ??? uid

```
id ADDOMAIN\aduser@ad.domain.com  
  
getent passwd aduser@ad.domain.com
```