

Rockchip Repo Mirror Server Deploy

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Preface

Overview

This document describes how to set up a Gitolite server and use it for SDK management, aiming to help customers improve the management and maintenance of SDK.

Product Version

Chipset	Kernel Version
ALL	ALL

Intended Audience

This document (this guide) is mainly intended for:

Technical support engineers

Software development engineers

Revision History

Version	Author	Date	Change Description
V1.0.0	WJL	2023-05-08	Initial version

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1. Setup a Gitolite server

- Create a Gitolite account

```
sudo adduser git
sudo usermod -G sudo -a git
```

- Download and install Gitolite

```
su git
git clone https://github.com/sitaramc/gitolite
mkdir $HOME/bin
./gitolite/install -to $HOME/bin
```

- Add administrator permission

There should be two key in the `~/.ssh` directory of the git user:

- RK key: Used to synchronize code from the RK server.
- Gitolite key: Used for Gitolite code rights management.

The name of the public key is recommended to be in the form of `$username.pub` to facilitate permission management.

```
./bin/gitolite setup -pk ~/.ssh/$username.pub
```

2. Synchronize RK server repository

2.1 RK Gitolite server code synchronization

The following uses `rk3326_linux5.10_release.xml` as an example to illustrate how to synchronize code.

```
# Code sync should work under repositories
cd repositories

# Sync rk3326_linux5.10_release.xml SDK
repo init --mirror --repo-url ssh://git@www.rockchip.com.cn/repo/rk/tools/repo \
-u ssh://git@www.rockchip.com.cn/linux/rockchip/platform/manifests \
-b linux -m rk3326_linux5.10_release.xml
# Sync the code
.repo/repo/repo sync -c

# Generate a list of SDK projects
.repo/repo/repo list -n > project.list
```

2.2 RK Gerrit server code synchronization

The following uses `rk3562_linux_release.xml` as an example to illustrate how to synchronize code.

```
# Code sync should work under repositories
cd repositories

# Sync rk3562_linux_release.xml SDK
repo init --mirror --repo-url https://gerrit.rock-chips.com:8443/repo-
release/tools/repo \
-u https://gerrit.rock-chips.com:8443/linux/rockchip/platform/manifests \
-b rk3562 -m rk3562_linux_release.xml
# Sync the code
.repo/repo/repo sync -c

# Generate a list of SDK projects
.repo/repo/repo list -n > project.list
```

3. Gitolite permission management

The Gitolite server manages the repository through gitolite-admin and the admin user can download the repository through `ssh://git@$HostIP/gitolite-admin`, where `$HostIP` is the IP of the Gitolite server. The file structure of the repository is as follows:

```
.
├── conf
│   ├── gitolite.conf    # A profile that records the repository and user
│                       # permissions
│   └── keydir           # The public key that needs to open the authority needs
│                       # to be added to this path
│       ├── git.pub      # public key of git
│       └── test.pub     # public key of test
```

Add the list of RK repositories to Gitolite, along with groups group1, group2, and user git and test.

```
# Preprocess the contents of project.list and add to gitolite.conf
sed -i 's/^/@linux\ =\ &/' project.list
echo "" >> ./conf/gitolite.conf
cat project.list >> ./conf/gitolite.conf
echo "" >> ./conf/gitolite.conf

# Adds the following at the end of gitolite.conf
@group1 = git
@group2 = test

repo @linux
    RW+ = @group1
    RW  = @group2
    R   = @all
```

4. Download code from Mirror server

After completing the above steps, you can download the SDK through the Gitolite server. It should be noted that the downloaded repository address needs to be modified according to the Gitolite server, usually, the repositories directory is the root directory of all repositories, such as `rk3326_linux5.10_release.xml` SDK, which can be downloaded through the following address:

```
repo init --repo-url ssh://git@$HostIP/repo \  
-u ssh://git@$HostIP/rockchip/platform/manifests \  
-b linux -m rk3326_linux5.10_release.xml
```

5. FAQ

5.1 repo sync repeatedly asks for a password

This only happens when synchronizing code from the Gerrit server, and you can set `git config --global credential.helper store` to enable automatic password entry.