WANFi Software Quick Installation Guide

Preparation

- Hardware Requirements

```
CPU:    >= 4 core
Memory: >= 16GiB
Storage:
    OS:     >= 50GiB
    /opt/wfc:   >= 50GiB   # work and database storage
    /var/lib/docker: >= 50GiB
```

- System Environment

```
Linux >= Ubuntu 22.04
JDK >= 1.8 (Recommended version 1.8) (for Omada SDN Controller)
Omada SDN Controller > 5.15.6.7
docker >= 24.0.7, build 24.0.7-0ubuntu2~22.04.1
docker-compose >= v2.10.0
docker-buildx >= 0.14.1
```

- Install docker, docker-compose and buildx plugin

```
    sudo apt-get update
    sudo apt-get install -y docker.io

    # Install the docker-compose-v2 plugin
    sudo apt-get install -y docker-compose-v2
    sudo ln -s /usr/libexec/docker/cli-plugins/docker-compose
/usr/bin/docker-compose

    # Install the docker-buildx plugin
    sudo apt-get install -y docker-buildx
    sudo ln -s /usr/libexec/docker/cli-plugins/docker-buildx
/usr/bin/docker-buildx
```

- Please confirm that the versions of docker, docker-compose and docker-buildx plugin meet the requirements

```
    docker -v
    docker compose version
    docker buildx version
```

Obtaining the Installation Package

- TAR Installation Package

File name: wfc-1.0.7-20250221.tar.gz

- DEB Installation Package

File name：wfc-1.0.7-20250221.deb

Notes:

- Version： 1.0.7
- Build date：20250221

Obtain the latest version of the software installation package as needed

Installing and Configuring the Software

TAR Package Installation Method

- Create Installation Directory

This step is required for fresh installations. If upgrading, retain the existing directory

```
    sudo mkdir /opt/wfc
```

- Extract the Software Package to the Installation Directory

```
    sudo tar xvfz wfc-1.0.7-20250221.tar.gz -C /opt/wfc
```

DEB Package Installation Method

- Install the Software Package

```
    sudo dpkg -i wfc-1.0.7-20250221.deb
```

- Directory Tree After Installation

```
/opt/wfc                    # work root directory
├── bin                     # shell script and binary file
├── docker                  # docker compose work directory
│   ├── env                 # default docker environment file, will be
copy to docker compose work directory
│   ├── java                # java image directory
│   ├── mysql               # mysql database container directory
```

```
│   │   ├── conf
│   │   ├── conf.d
│   │   ├── data
│   │   ├── db
│   │   ├── logs
│   │   └── tmp
│   ├── nacos               # nacos container directory
│   │   ├── conf
│   │   └── logs
│   ├── nginx               # nginx container directory
│   │   ├── conf
│   │   ├── conf.d
│   │   ├── html
│   │   │   └── dist
│   │   │       ├── sys     # system portal
│   │   │       └── u       # user portal
│   │   └── logs
│   ├── redis               # redis container directroy
│   │   ├── conf
│   │   └── data
│   └── wfc                 # wfc container root directory
│       ├── auth            # auth root directory
│       │   └── jar
│       ├── gateway         # gateway root directory
│       │   └── jar
│       ├── modules         # modules root directory
│       │   ├── file
│       │   │   └── jar
│       │   ├── gen
│       │   │   └── jar
│       │   ├── job
│       │   │   └── jar
│       │   ├── payment
│       │   │   └── jar
│       │   ├── system
│       │   │   └── jar
│       │   └── user
│       │       └── jar
│       ├── upload          # file upload directory
│       └── visual
│           └── monitor
│               └── jar
└── systemd                 # service daemon file，will be copy to
/etc/systemd/system
    └── system
```

- Configure the Software Environment

```
    cd /opt/wfc/bin
    sudo ./wfcsetup.sh env 192.168.13.128   # Parameter 2 is the host
machine IP address
```

- Modify Docker Environment Parameters

Modify the following environment parameter configurations according to actual conditions: ** WFC_SERVER_IP address has already been replaced in the above configuration process ** Replace TZ with the host machine system time zone

```
    cd /opt/wfc/docker
    cat .env
        WFC_CONFIG_DATABASE=wfc_config_db
        WFC_SYSTEM_DATABASE=wfc_system_db
        WFC_USER_DATABASE=wfc_user_db
        MYSQL_SERVICE_NAME=wfc-mysql
        MYSQL_SERVICE_PORT=3306
        MYSQL_ROOT_PASSWORD=123456
        MYSQL_SERVICE_USER=root
        MYSQL_SERVICE_PASSWORD=123456
        REDIS_PORT=6379
        NACOS_PROFILE_NAME=prod
        NACOS_NAME_SPACE=wfc-prod
        NACOS_SERVER_NAME=wfc-nacos
        WFC_SERVER_PORT=80
        NACOS_SERVER_PORT=8848
        GATEWAY_SERVER_PORT=8080
        AUTH_SERVER_PORT=8081
        WFC_FILE_PORT=9201
        WFC_JOB_PORT=9203
        WFC_PAYMENT_PORT=9204
        WFC_SYSTEM_PORT=9205
        WFC_USER_PORT=9206
        WFC_SERVER_IP=192.168.13.128
        NACOS_SERVER_IP=${WFC_SERVER_IP}
        GATEWAY_SERVER_IP=${WFC_SERVER_IP}
        RESTART_OPTION=on-failure:5
        TZ=Asia/Shanghai                                #docker container
time zone
```

If these container environment parameters have not been changed, you can directly run the following command to set the environment and create containers:

```
    cd /opt/wfc/bin
    sudo ./wfcsetup.sh all 192.168.13.128   # Parameter 2 is the host
machine IP address
```

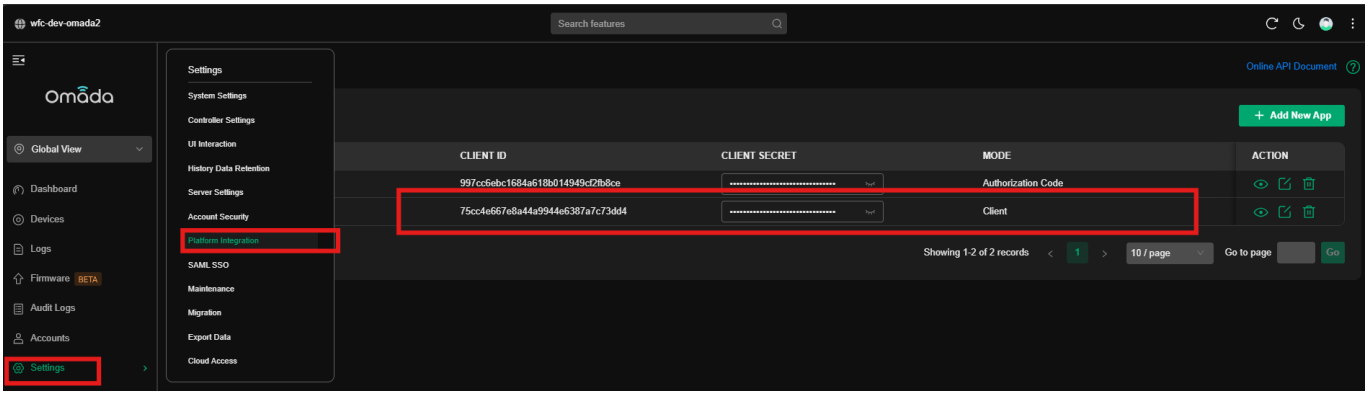
- Create Docker Containers

If you have already run 'sudo ./wfcsetup.sh all 192.168.13.128', the following command can be omitted

```
cd /opt/wfc/bin
sudo ./wfcsetup.sh all
```

Configure Omada Platform Integration Connection Parameters

- Obtain portal platform integration connection parameters from the Omada service, as shown below:



Note: The connection MODE uses Client. For specific configuration methods, refer to the relevant Omada documentation

- Modify Configuration Files
  - Modify the following Omada configuration items for platform integration with Omada

```
cd /opt/wfc/docker/conf
cat application-common.yml

    ...

    # Omada config
    omada:
    # web url or host exp: 'https://192.168.2.249:8043'
    omada-url: 'https://aps1-omada-northbound.tplinkcloud.com'
    omadac-id: 'c4decbf73f80094019d664506ec9b4d4'
    client-id: '6110a77822234243a033e652d1e8a3ae'
    client-secret: '651957da95f14f45b719876bb68bd6f5'

    ...
```

  - Modify the following email configuration items for sending email verification codes

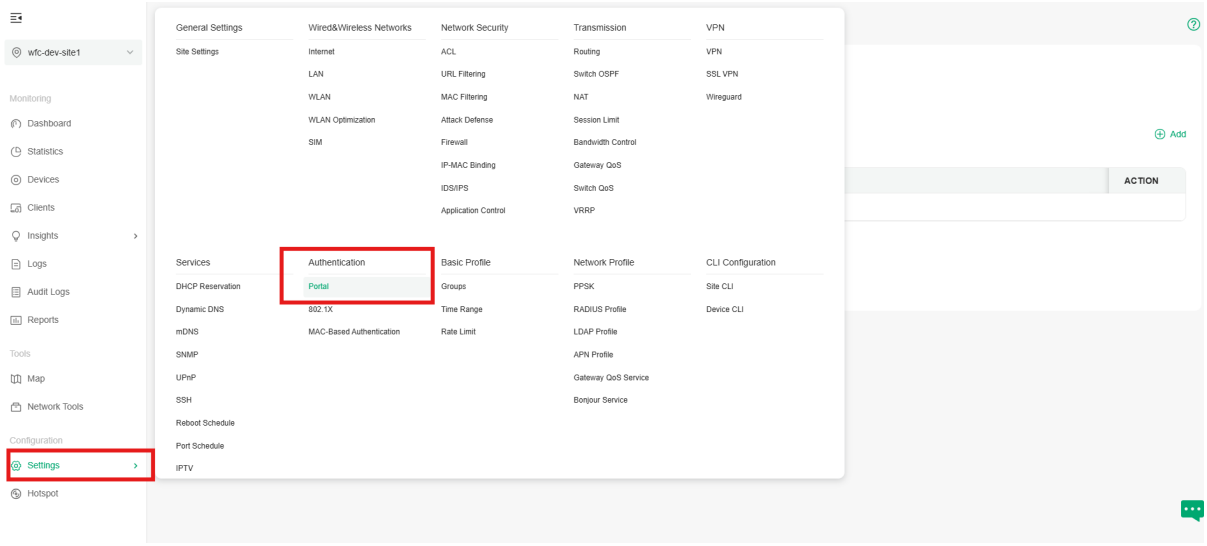
```
cd /opt/wfc/docker/conf
cat application-common.yml

    ...

    mail:
```

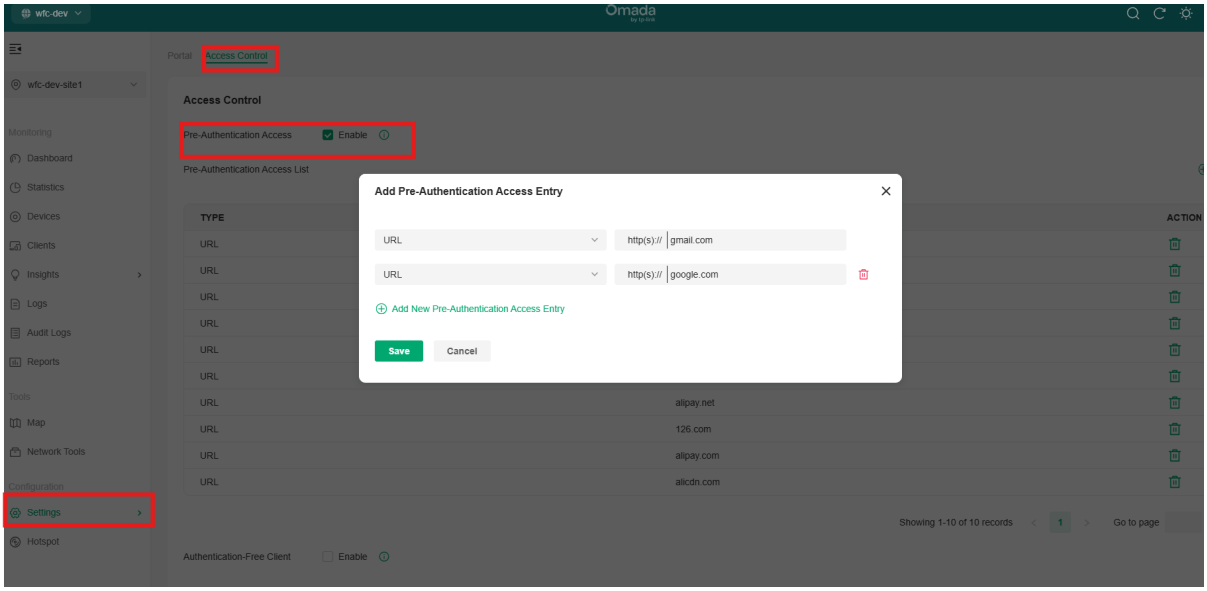
```
            enabled: true
            host: mail.agrandtech.com
            port: 25
            # Enable authentication
            auth: true
            # Sender, follows RFC-822 standard
            from: smtpext <smtpext@agrandtech.com>
            # User name
            user: smtpext
            # Password
            pass: Smtp123@agt
            # Use TLS security connection
            starttlsEnable: false
            # Use SSL security connection
            sslEnable: false
            # Timeout value for sending mail, in milliseconds
            timeout: 0
            # Connection timeout value, in milliseconds
            connectionTimeout: 0

        ...
```

- Allow email-related domains in Omada

  To support users in obtaining email verification codes without network permissions when logging into AP for the first time, you can allow email-related domains in Omada. The specific steps are as follows:

  After entering Omada, select the site you need to configure, select Settings->Authentication->Portal->Access Control->Pre-Authentication Access->check Enable, then add the email-related domains to the Pre-Authentication Access List. Note that all domains involved in accessing email need to be allowed, as shown in the following figures (the allowed domains may not be complete):





- Modify payment configuration items

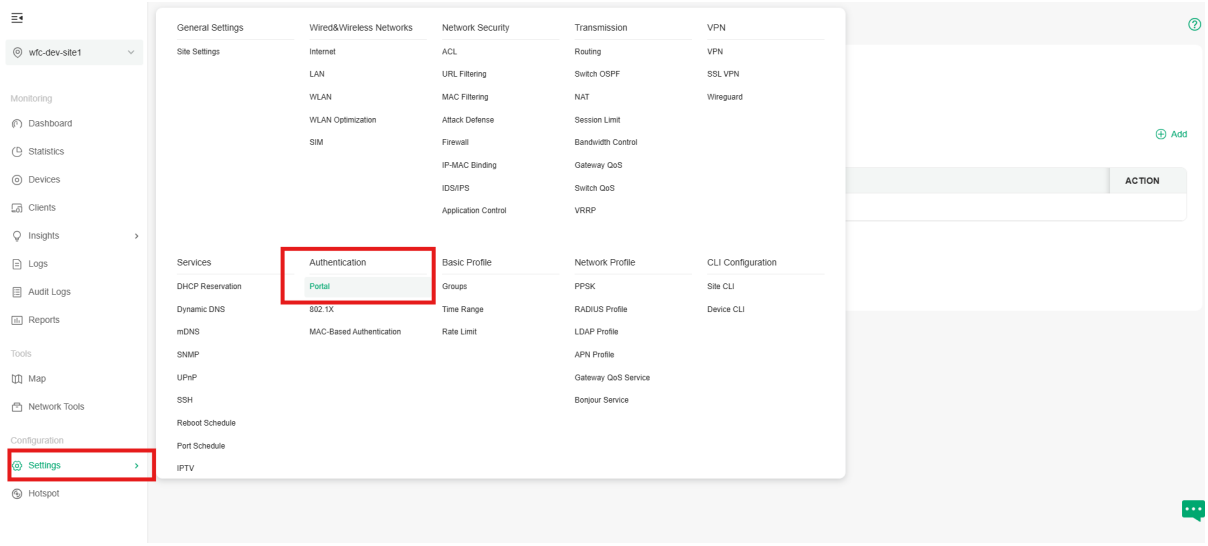
```
cd /opt/wfc/docker/wfc/modules/payment/conf/
cat application.yml

    ...

    # payment configuration,
    # alipay configuration
    alipay:
        appId: 9021000122699258
        privateKey:
MIIEvwIBADANBgkqhkiG9w0BAQEFAASCBKkwggSlAgEAAoIBAQC7YAcIXV5GJlTWBOoBcr
VG1zKxHunznSjYXwTS2DM3YgloxzKye4apfcmBDVnoL93m4QrJTtbiHYvu4yJjJfJsQEY+
Wo44IczhDypyu+Il6JpQOwylTs94/+3aaQ1wThsDaGs8edaFGteuw+1pUVl4nxF00fS1Vo
IR30riqAGFAXrPhcSA6Y9c8HK1htxCelICnPzjpqC4s8ZjrjS7FoyHP2ZAay5fx1VEtah3
0E4RvycFfV/i2+k3JGFOSeevdCx6Ufu+9Y/RaG4Sh84QuYRQUhAHUswlFDHpRrAnxHzt0z
DkOkg3BrCT7vMtBbSOP9BdIhpVTaZm4diQdNbLSl4hAgMBAAECggEAKb1Xc7aQ1KGfTlmj
4xSxawlvImOXjAwbWC+6fFlq91BgdjXBhl7b/Y+mvpfBymY3UUIaTAPC/HXGgT2ZoGqImT
KsMyGrArgM0qm1M//EfdtV3L96rqxirTqduoSiWL0daWHuWXduoRH8r9K3ZTmY67TLh7Fp
iKevq9mI7fqs8/qgq5QAN4UPFb3Cq9hDNTU4l6+Bywdg1KkwJ2Jc98SlrIdVl+1eCMAgue
LR0aNHTobyPBZ/KfwGRV0OQ3QqjLVgL3zlbzuylYhaZqPgxxd46vgWwkyMiiv7u2OyCetq
```

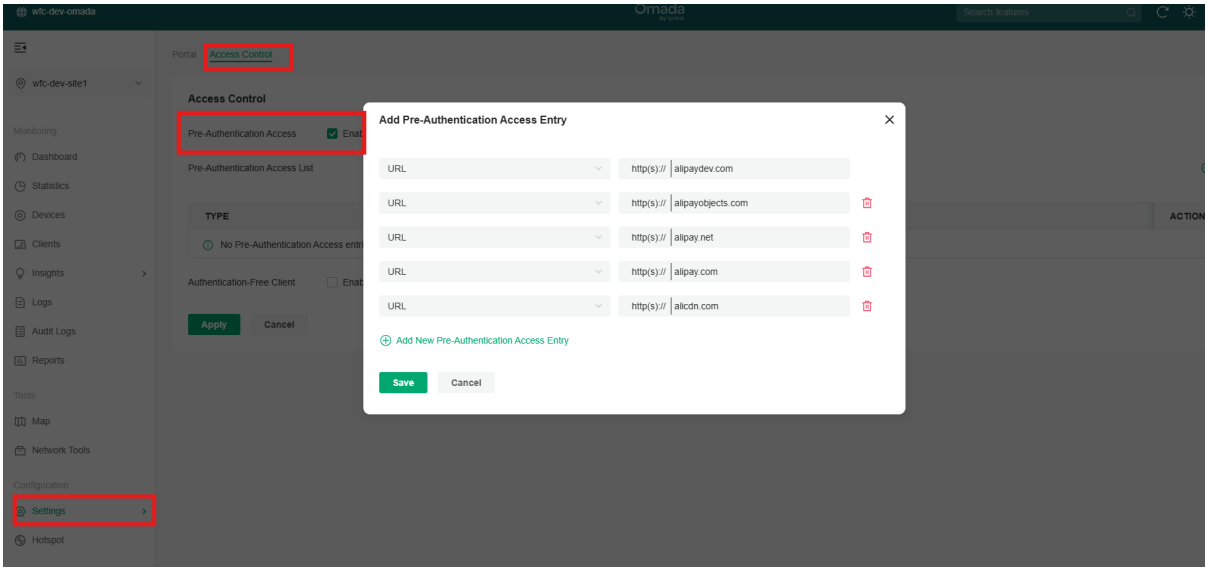
```
4LFd+tcNDz0Yqk6rK9/S0oxbN8NM5DLkpwFh/433BoPS3QKBgQD/dsxNr2PYdPLp6pOvw7
H2AFMH8CkwTlRg+2f/0fgQF14rJwZgEU6fL5A2JvQeRRC5mCff2m5tDqrS321JNyH/JIKJ
+4J8I34GEo/kSCHL3RmyvJGQOQ/EpEyxvP8BV3ob6UO3LR58DOGlJr8eTsr3Y8o9cAMukn
CNxvsd2LvybwKBgQC7xKkx4KIPBny6sCOtChOkgIrY3hOCi+ZsHQVESXKzeku0NkH/qrAG
+S9pb1XCzXdM2HrzkMeuz6tqi+2TY8nORyY2DZHNW7FqzkAiZ/NO2AgGIlALq1ZfJZke2M
xgtBnxSsQ03gfXP9opu/FsLH9a+s6edfHPvKD4kHxlLBfAbwKBgQDYvr6QmuKn4HHJLZGo
au0uvw+ziHwp1AubTTLrxgYmAO2Qx0eNcqG2RfChQWOV2xtZnFMYhodyWCNvTsm2eOSLST
rIP3BySтq95DnZganLAgivsXX/W6qZOJ0poCTryoB79enSHKHktjksmjdFS6zBQRVyEvtg
JDcC03Rz2lN8WQKBgQCCoJE4otb7bv7s/ccEBeOeaNKvhue5xUwbYKEeXZ6PYAA0sh5+GC
f34flq90qJiFl7u4rl0Y4pfk35hLlV9XEasYLSzePmIuktrakOhpTNABus8MgRJjSjYsvA
mwCsMf9uTx5qzSBVThWfPSH6qIY9LAj8Un9UjxzJb/Mqi19GvwKBgQC0/KB+3robTqy9KO
V4iEKJ4kmnXDRu7ecpMyc8k5HzpolIHcXLZHkBK9pMCXBQ9Kwy6BjRGNnUZOahS+tvnMcj
Hpwdhu90r7D51GXW/+PeFtphYTscFhHv1yuWbbojzhKf69pZnsVmyllIBqRgtbkS2WNHxW
o/peCg47TcLaQNMA==
            publicKey:
MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAhBZoE6p1TKpd/WsAJRTA2D6yUT
zqLmZ73scxbPxxKwPIg2ys2Ap21u/lVmqBWO9Wf2Z7wUwr/6BP1PQqVpg0GAqU3yjjZ0LG
fBitzMBMbGrlOLqJQ3PKgnUNmnOdLR4FlHCAjKtuyxjHkxBTHg/L4punk4lkFJQD8YvzFr
YalS6WYw5j1/oq080NbcjPirPCRlsU7MRraQuUqSTdPwm2iHkroKwCEbGv+RtNJCfOkKNQ
VtRFFgPGMhU4nQ620gdfzsGJsNFKVJnD5SjeDWniBAbaGaVF4rEfKJPe6+XrcMg3h+9Fz+
A2IU1KCCoth2neEZEaU1t0KBGxXIuo4efi/QIDAQAB
            appCertPath: \u5E94\u7528\u516C\u94A5\u8BC1\u4E66
            aliPayCertPath: \u652F\u4ED8\u5B9D\u516C\u94A5\u8BC1\u4E66
            aliPayRootCertPath: \u652F\u4ED8\u5B9D\u6839\u8BC1\u4E66
            serverUrl: https://openapi-
sandbox.dl.alipaydev.com/gateway.do
            domain: http://192.168.2.249
            testDomain: http://129.204.171.210:8085

        # wxpay configuration
        wxpay:
            appId:
            appSecret:
            mchId:
            partnerKey:
            certPath:
            domain: http://192.168.2.249/u

        ...
```

- Allow payment-related domains in Omada

  To support users in normally completing package purchases or balance recharges without network permissions when logging into AP for the first time, you need to allow payment-related domains in Omada. The specific steps are as follows:

  After entering Omada, select the site you need to configure, select Settings->Authentication->Portal->Access Control->Pre-Authentication Access->check Enable, then add the payment method-related domains to the Pre-Authentication Access List. Note that all domains involved in payment need to be allowed, as shown in the following figures (the allowed domains may not be complete):





- Start/View/Stop/Version Software

```
cd /opt/wfc/bin
sudo ./wfccontrol.sh start/restart/status/stop/version
```

Access System Platform and User Platform via Browser

- System Platform Portal Address:

```
http://192.168.13.128/sys
```

- User Platform Portal Address:

```
http://192.168.13.128/u
```