



Milesight DeviceHub

Installation Guide



Preface

This guide teaches you how to install Milesight on-premises DeviceHub platform.

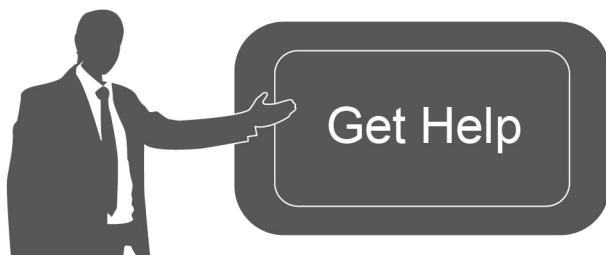
Readers

This guide is intended for the following users:

- Distributors
- Network Planners
- On-site technical support and maintenance personnel
- Network administrators responsible for network configuration and maintenance

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Revision History

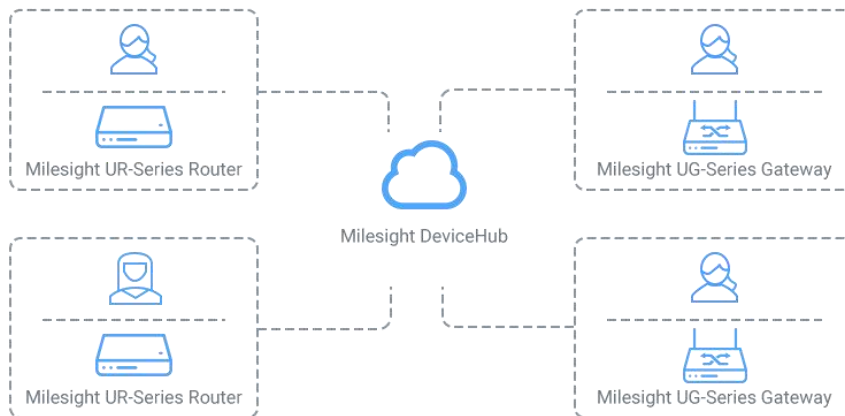
Date	Doc Version	Description
Aug. 29, 2018	V 1.0	Initial version
Mar. 18, 2021	V 2.0	Brand Replace and add features
Jul. 12, 2022	V 2.1	Support Ubuntu 20.04 version

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Introduction

Milesight DeviceHub provides a high-efficiency, low maintenance solution to easily deploy Milesight IoT devices across multiple locations, reducing complexity and increasing productivity. Milesight offers cloud and on-premises version according to customer requirements. This guide will describe how to install on-premises DeviceHub. For cloud version please contact Milesight IoT sales or click [here](#) to apply for DeviceHub Cloud platform account.



System Requirements

Hardware

It's suggested to use the server which suit following requirements:

For 500 devices

- CPU: 2 Cores, 2.0 GHz
- RAM: 16 GB
- Disk: 512 GB
- Bandwidth: ≥ 100 MBps

For 1000 devices

- CPU: 8 Cores, 3.2 GHz
- RAM: 32 GB
- Disk: 1 TB
- Bandwidth: ≥ 100 MBps

Software

- Operating System: Ubuntu Server 20.04
- Browser: Chrome, Firefox

Installation

Requirements

- Ubuntu Server
- DeviceHub Software
- WinSCP
- Putty (or other SSH tool)

Software Upload

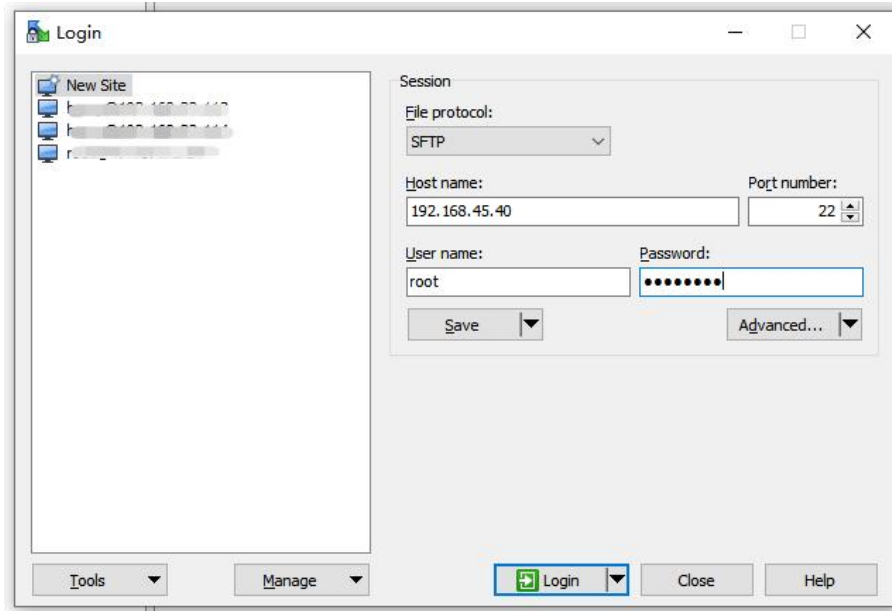
Following steps are based on WinSCP tool. You can also use other tools to upload packages.

1. Download the DeviceHub software from [Milesight IoT website](#).

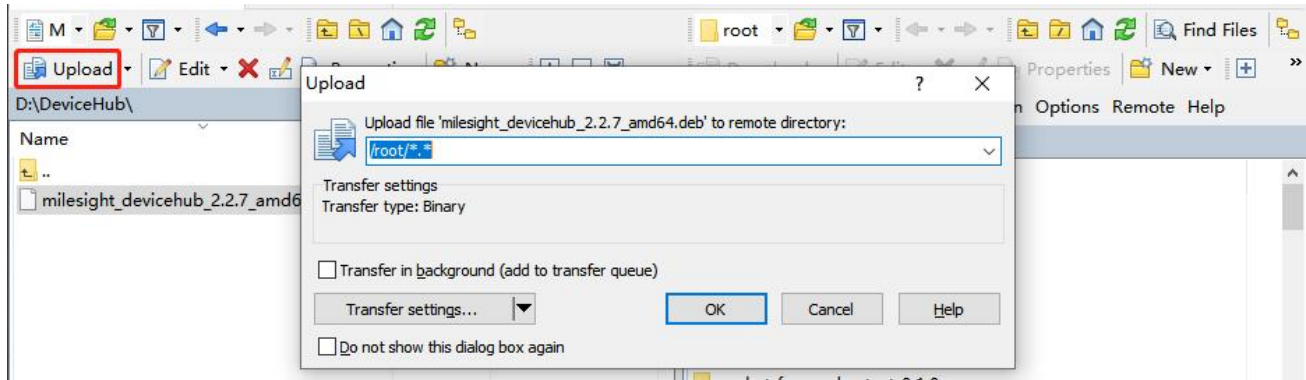


Note: this file only works with Ubuntu 20.04 server; if you need to backup Ubuntu 16.04 DeviceHub database to Ubuntu 20.04 server, please contact Milesight technical support.

2. Open WinSCP and set up a session between WinSCP and server.

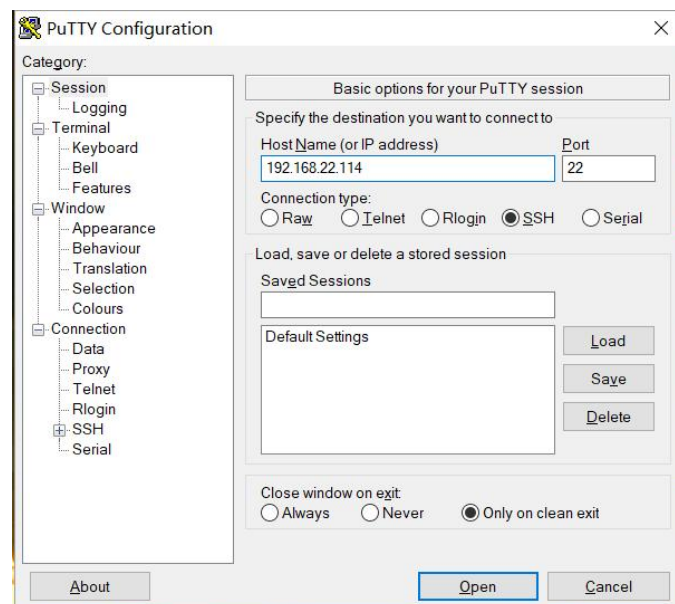


3. Select the DeviceHub folder and click "Upload", select the server path and click "OK" to upload.



DeviceHub Installation

1. Log in the server via Putty. You can also use other SSH tools.



2. Ensure the netwok tool is installed in the server. You can type *ifconfig* to check it. If not found, excute *apt install net-tools* to install it.

```
root@yuxy:/etc/netplan# ifconfig
Command 'ifconfig' not found, but can be installed with:
apt install net-tools
root@yuxy:/etc/netplan#
```

3. Navigate to the path including DeviceHub deb file to install DeviceHub software. Take the 2.2.7 version as example, type following command:

```
apt update
apt install -y ./milesight_devicehub_2.2.7_amd64.deb
```

The network interface of this server will show. Select and type the main interface name, then click Enter to start the installation.

```
Selecting previously unselected package unzip.
Preparing to unpack .../5-unzip_6.0-25ubuntu1_amd64.deb ...
Unpacking unzip (6.0-25ubuntu1) ...
Setting up libonig5:amd64 (6.9.4-1) ...
Setting up mysql-common (5.8+1.0.5ubuntu2) ...
update-alternatives: using /etc/mysql/my.cnf.fallback to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Setting up libmysqlclient21:amd64 (8.0.29-0ubuntu0.20.04.3) ...
Setting up zlib1g-dev:amd64 (1:1.2.11.dfsg-2ubuntu1.3) ...
Setting up libmysqlclient-dev (8.0.29-0ubuntu0.20.04.3) ...
Setting up unzip (6.0-25ubuntu1) ...
(Reading database ... 167036 files and directories currently installed.)
Preparing to unpack .../milesight_devicehub_2.2.7_amd64.deb ...
install devicehub (best in ubuntu)

ens160: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
        inet 192.168.45.40 netmask 255.255.255.0 broadcast 192.168.45.255
        inet6 fe80::20c:29ff:fee3:38 prefixlen 64 scopeid 0x20<link>
        ether 00:0c:29:e3:00:38 txqueuelen 1000 (Ethernet)
        RX packets 20968583 bytes 5237877547 (5.2 GB)
        RX errors 0 dropped 683009 overruns 0 frame 0
        TX packets 1791330 bytes 117528709 (117.5 MB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
        loop txqueuelen 1000 (Local Loopback)
        RX packets 56662528 bytes 9666466585 (9.6 GB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 56662528 bytes 9666466585 (9.6 GB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

Please input primary interface name: ens160
Progress: [ 86%] [#####.....]
```

It will take about 5 minutes to complete the installation and there will show following message when the installation complete.

```
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /lib/systemd/system/nginx.service.
Created symlink /etc/systemd/system/multi-user.target.wants/redis.service → /lib/systemd/system/redis.service.
Created symlink /etc/systemd/system/multi-user.target.wants/php-fpm.service → /lib/systemd/system/php-fpm.service.
Created symlink /etc/systemd/system/multi-user.target.wants/tomcat.service → /lib/systemd/system/tomcat.service.
Created symlink /etc/systemd/system/multi-user.target.wants/statistic.service → /lib/systemd/system/statistic.service.
Created symlink /etc/systemd/system/multi-user.target.wants/stund@192.168.45.40.service → /lib/systemd/system/stund@.service.
== install webapps ==
== initial devicehub database ==
upgrade_execute!
tbl_acs_version is not exist
current database version is 1.0.0
execute upgrade of 2.0.0 finish
execute upgrade of 2.1.0 finish
execute upgrade of 2.1.4 finish
execute upgrade of 2.2.0 finish
execute upgrade of 2.2.1 finish
execute upgrade of 2.2.5 finish
upgrade_database success!----- Installation of DeviceHub [2.2.7] is complete! -----
Processing triggers for libc-bin (2.31-0ubuntu9.8) ...
Processing triggers for systemd (245.4-4ubuntu3.16) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for ureadahead (0.100.0-21) ...
Processing triggers for mime-support (3.64ubuntu1) ...
N: Download is performed unsandboxed as root as file '/root/milesight_devicehub_2.2.7_amd64.deb' couldn't be accessed by user '_apt'. - pkgAcquir
e:Run (13: Permission denied)
root@ubuntu:~#
```


DeviceHub Uninstallation

If you need to uninstall the DeviceHub, run following commands:

```
/etc/init.d/devicehub.sh stop
systemctl stop statistic.service
ip=$(ps -ef | grep clouddata | grep stund | grep -v grep | awk '{print $10}')
systemctl stop stund@$ip.service
rm -rf /home/webapps
rm -rf /clouddata
dpkg -r devicehub
```

Registration

After installation, open the browser and type the IP address to open the registration page. Fill in the following information and click "Install" to complete the registration.

- **Administrator Account(Required)**

Admin Email: the email address working as root account of the DeviceHub

Password: define the password of the root account

- **Outgoing Mail Server(Optional)**

SMTP Email: Email address used for sending alarm emails or sub-account activation emails

Password: Password of the email address

Server: SMTP server address for email service

Port: SMTP server port for email service

Security: encryption mode for email service



Install Wizard

Administrator Account

Admin Email

Password

Outgoing Mail Server (SMTP)

SMTP Email

Password

Server

Port

Security NO SSL STARTTLS

TEST

Install

After completing all information, click "TEST" to check if your outgoing mail server is valid. If yes, a SUCCESS prompt will show and DeviceHub will save the email settings.

Install Wizard

Administrator Account

Admin Email
Password

Outgoing Mail Server (SMTP)

SMTP Email
Password
Server
Port
Security NO SSL STARTTLS

SUCCESS

Otherwise there is error message "Authentication failed".

Install Wizard

Administrator Account

Admin Email
Password

Outgoing Mail Server (SMTP)

Authentication failed

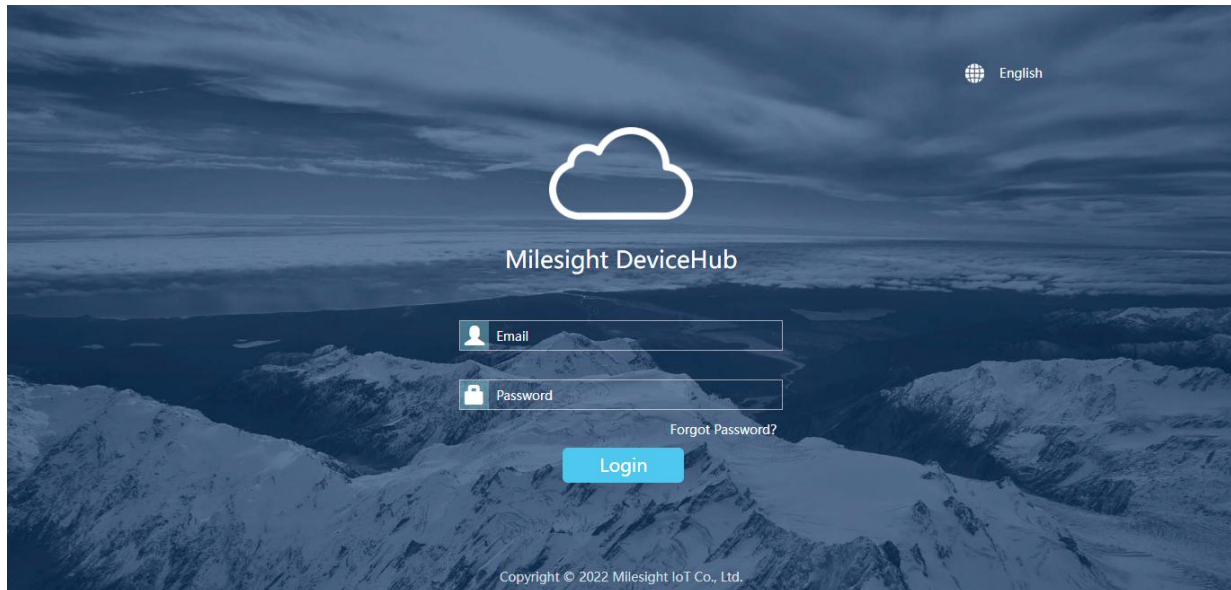
SMTP Email
Password
Server
Port
Security NO SSL STARTTLS

TEST

Note:

- 1) Outgoing mail server information is option and you can click "Install" to skip the configurations.
- 2) You can also log in the DeviceHub via administrator account and go to "Settings > Email" to configure or change the outgoing mail server settings.
- 3) If the outgoing mail server is not verified by "TEST" button, it will not be saved.

After registration, you can log in the DeviceHub via administrator account.



Services and Ports

In order to ensure the security and unblocked communication, here are ports for services:

Port	Protocol	Description
22	TCP	SSH Service
80	TCP	NGINX Agent(Non-encrypted)
443	TCP	NGINX Agent(Encrypted)
3478	UDP	STUND Service
3479	UDP	STUND Service
6379	TCP	Message Broker
8080	TCP	TR069 Service(Non-encrypted)
8443	TCP	TR069 Service(Encrypted)
10000-10100	TCP	Remote Access Service
20000-20100	TCP	Remote Access Service

Expand Manage Devices

The number of available managing devices can be checked in “Settings > General” tab. Maximum number of managing devices is 25 by default for on-premises version. Please refer to following steps to expand manage devices.

1. Log in DeviceHub with root account and go to “Settings > General” tab, then click “Create&Download” to download license info file.
2. Contact Milesight sales or technical support and send the license info file.
3. Get expand license from Milesight and click “Browse” to import the license.
4. Click “save” to save the settings and the max manageable devices will change.

My Information

Name	Administrator
Email	yuxy@milesight.com
Role	Root
Managing/Max Manageable	2/25
License	

Create&Download

Browse

-END-