



Grandstream Networks, Inc.

GWN Manager – Quick Installation Guide

Linux CentOS 7 / AlmaLinux 9 / Ubuntu



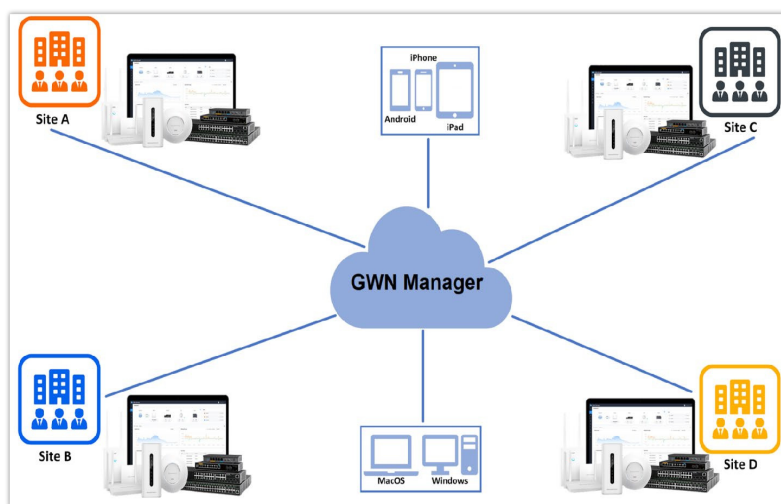
GWN Manager is a free on-premise enterprise-grade, management platform for Grandstream GWN series devices (Routers, Switches and Access points). Typically deployed on a customer's private network, this flexible, scalable solution offers simplified configuration and management. Thanks to streamlined monitoring and maintenance, managing your network has never been easier. Keep an eye on the network's performance with real-time monitoring, alerts, statistics and reports that can be viewed using a web browser or the mobile application.

This guide describes the steps on how to install GWN Manager on CentOS7, AlmaLinux9 or Ubuntu.

Most Linux commands used in this guide will require a Root (Admin) privilege.

GETTING TO KNOW GWN MANAGER

GWN Manager is an On-premise Controller used to manage and monitor GWN devices on your network. It provides an easy and intuitive web-based configuration interface, The GWN Manager can control up to 3000 GWN devices (GWN Routers, GWN Switches and GWN APs). Below is the GWN Manager architecture:



*GWN Manager
Architecture*

System Requirements

For up to 200 devices and 2000 Clients:

- CPU: Intel® Core™ i3-
- 3240 or above RAM:
4GB or above
- Storage: 250GB (SSD preferred, depending on retained data size)

For up to 3000 devices and 30000 Clients:

- CPU: Intel® Xeon®
- Silver 4210 RAM:
16GB or above
- Storage: 250GB (SSD preferred, depending on retained data size)

INSTALLING AND CONFIGURING GWN MANAGER

Installing GWN Manager

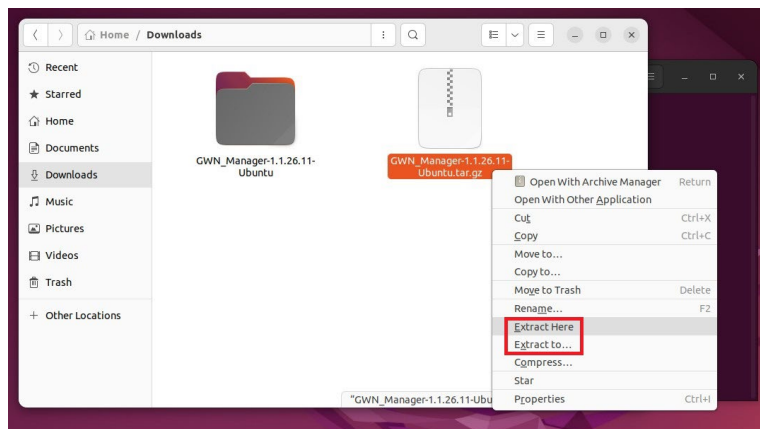
1. First, download the bundled package according to your Linux distribution (CentOS, AlmaLinux or Ubuntu) from the link:

	1.1.26.11 Release Note	Quick Installation Guide	User Guide for OVA Format
GWN Manager	For AlmaLinux9: 1.1.26.11		OVA format: 1.1.26.11
	For CentOS7: 1.1.26.11		OVA format: 1.1.26.11
	For Ubuntu: 1.1.26.11		OVA format: 1.1.26.11

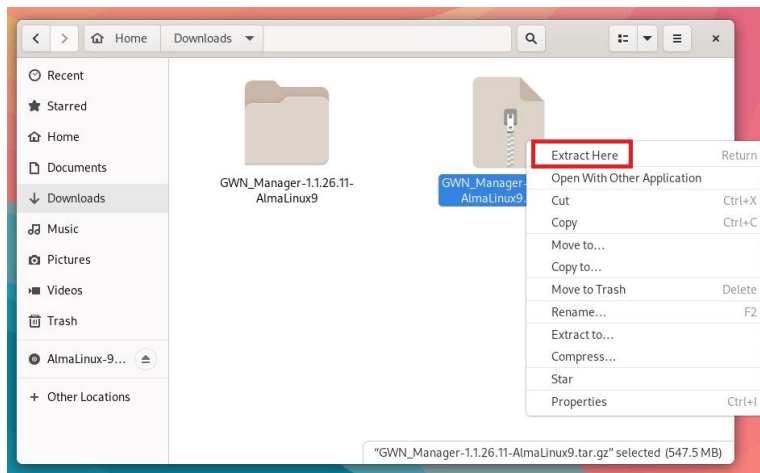
GWN Manager bundle package

2. Then, extract the file.

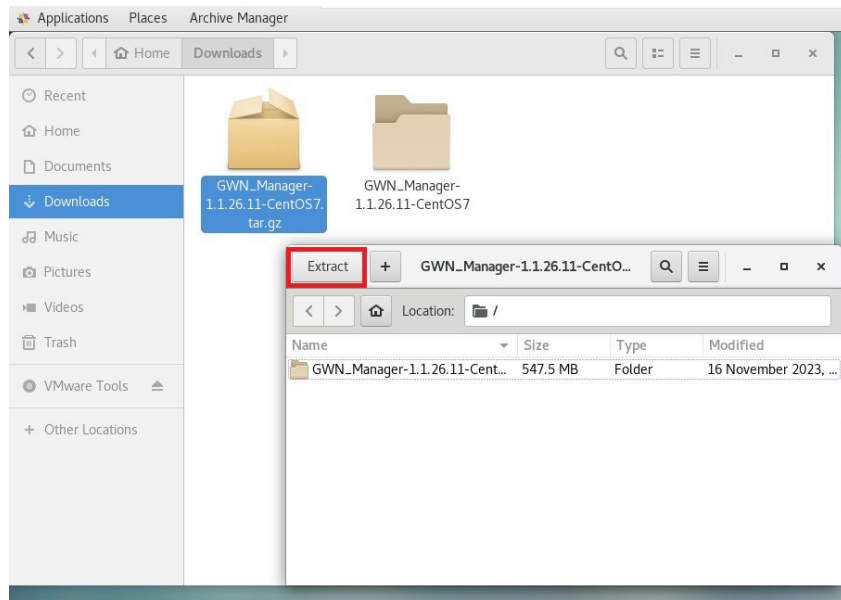
To extract the file using GUI, please refer to the figure below:



Ubuntu – Extract file



AlmaLinux - Extract file



CentOS - Extract file

Alternatively, under CentOS7/AlmaLinux9 using terminal run the command below:

```
tar -zxvf GWN_Manager-1.0.0.13-201912121121.tar.gz
```

```

root@centos7:~# tar -zxvf GWN_Manager-1.0.0.13-201912121121.tar.gz
gwn-1.0.0.13-1.el7.x86_64.rpm
gwn-nginx-1.0.0.13-1.el7.x86_64.rpm
gwn-redis-1.0.0.13-1.el7.x86_64.rpm
gwn-mariadb-1.0.0.13-1.el7.x86_64.rpm

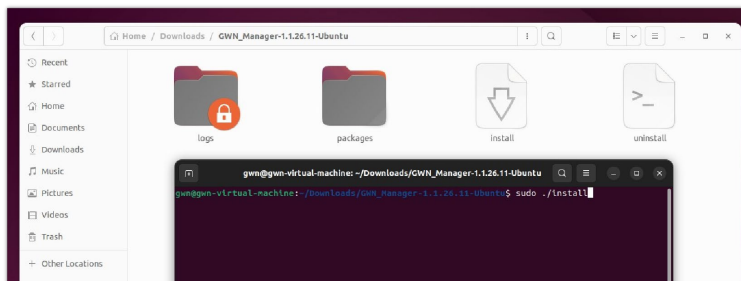
```

CentOS7 – Extract file

3. Finally, run the file **“install”** to install GWN Manager.

To execute the **“install”** file, run the following command:

```
sudo ./install
```



Ubuntu – Install GWN Manager

Note:

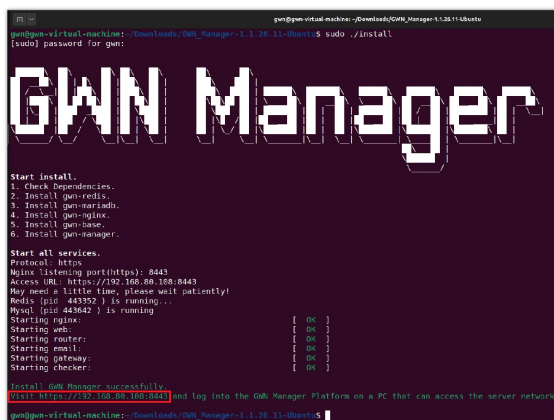
The user could be prompted to install these dependencies under **Ubuntu** if they are not already installed.

```

sudo apt install libaio1
sudo apt install openssh-server
sudo apt --fix-broken install (only if prompted to do so).

```

Once installed, the current display will be shown with GWN Manager address and port.



Ubuntu – GWN Manager successfully installed

Running GWN Manager

1. Before running GWN Manager services, you will need to add firewall exceptions (only for CentOS7 and AlmaLinux9) using the following commands:

```

firewall-cmd --zone=public --
add-port=8443/tcp --permanent
firewall-cmd --zone=public --
add-port=10014/tcp --permanent

```

```
firewall-cmd --reload
```

```
[root@z gwn]# firewall-cmd --zone=public --add-port=8443/tcp --permanent
success
[root@z gwn]# firewall-cmd --zone=public --add-port=10014/tcp --permanent
success
[root@z gwn]# firewall-cmd --reload
success
```

CentOS/AlmaLinux – Adding Firewall exceptions

By default, GWN Manager uses port 8443 for the web service (Nginx) and port 10014 for gateway communication separately

2. Run the script to start the services using the below command:

```
/gwn/gwn start
```

```
[root@z gwn]# /gwn/gwn start
Protocol: https
Nginx listening port(https): 8443
Access URL: https://192.168.5.213:8443
May need a little time, please wait patiently!
Starting redis: [ OK ]
Starting mysql: [ OK ]
Starting nginx: [ OK ]
Starting web: [ OK ]
Starting email: [ OK ]
Starting gateway: [ OK ]
```

Starting GWN services

Information:

Starting version 1.0.20.22.23, GWN Manager service will start automatically after rebooting the Linux host machine.

3. After all services start up, please go to the Web Portal for further configuration. By default, the Web Portal address is:

https://server_ipaddress:8443

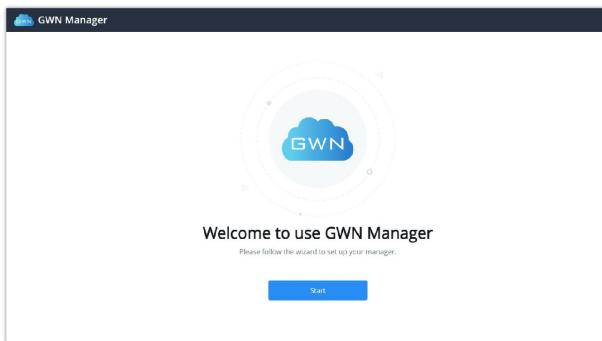
In our case it will be as follows:

```
Install GWN Manager successfully.  
Visit https://192.168.80.108:8443 and log into the GWN Manager Platform  
gwn@gwn-virtual-machine:~/Downloads/GWN_Manager-1.1.26.11-Ubuntu$
```

GWN Manager Address and Port

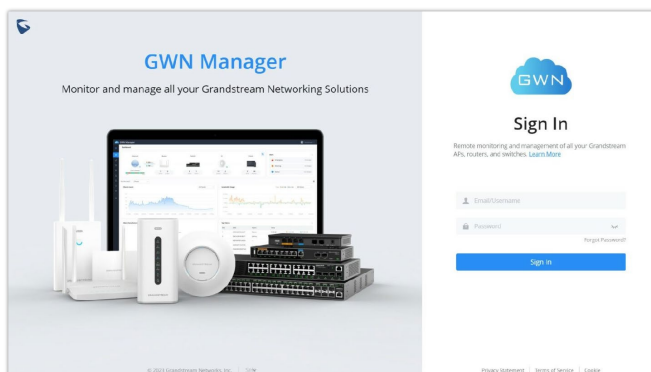
First Use

The below figures show the initial page after installation. On first use, users need to fill in additional information following the initiation Wizard. Click start to begin. For more detailed information please refer to the GWN Manager User Guide.



GWN Manager initial Web page

Once finishing the Wizard, the login page of the GWN Manager will be displayed as below:



Login Page

Configuring GWN Manager

Users can change the Nginx binding protocol, port as well as the access address for communication (You do not need to change the default settings in general)

```
/gwn/gwn config
```

1. If you change the Nginx binding port, you will need to add a new firewall Exception. Moreover, for security considerations, GWN Manager runs as a non-root user, so please consider using a number larger than 1024 as the Nginx binding port number, or the service may fail to start due to denied permission.
2. HTTPS is used by default due to its security, and GWN Manager will automatically generate a certificate along with the private key after installation. You can also apply for a certificate signed by a trusted authority to replace it.
3. Below system paths are where you can replace the SSL certificate and private key:

° certificate:

/gwn/conf/nginx/s

sl.pem private key:

/gwn/conf/nginx/ss

l.key

After replacing the two files, restart the GWN service to validate the configuration change:

```
/gwn/gwn restart
```



```
[root@02.gwn]# /gwn/gwn restart
Stopping web: [ OK ]
Stopping email: [ OK ]
Stopping gateway: [ OK ]
Stopping nginx: [ OK ]
Stopping mysql: [ OK ]
Stopping redis: [ OK ]

Protocol: https
Nginx listening port(https): 8443
Access URL: https://192.168.5.213:8443
May need a little time, please wait patiently!
Starting redis: [ OK ]
Starting mysql: [ OK ]
Starting nginx: [ OK ]
Starting web: [ OK ]
Starting email: [ OK ]
Starting gateway: [ OK ]
```

Restarting GWN services

Information:

Starting version 1.0.20.22.23, GWN Manager service will start automatically after rebooting the Linux host machine.

ADDITIONAL INFORMATION

Configuring GWN Manager to Auto-Start

In case of GWN Manager service is not starting after a reboot, the user can make GWN Manager starts every time the computer boots up, for example in case of a power outage or just a reboot after an update.

```
sudo echo "/gwn/gwn start >
/dev/null &" >> /etc/rc.local
sudo chmod +x /etc/rc.local
```

Modifying GWN Manager Password

If the user forgets the web login password and didn't configure the SMTP server as well, he can modify the password from backstage using the below command:

```
/gwn/gwn modify-password
```

Upgrading GWN Manager

GWN Manager will check for the new firmware version automatically when you log into web GUI, if a new version is found, a notification will pop up and you may click to complete the upgrade. You can also upgrade manually by running the "install" file of the new version.

```
sudo ./install
```

Uninstalling GWN Manager

To uninstall GWN Manager, please execute the "uninstall" file.

```
sudo ./uninstall
```

Help

For discover more commands, please run:

/gwn/gwn -h (or help)

```
[gwn@localhost ~]$ /gwn/gwn -h
gwn [OPTIONS...] {COMMAND}

Options:
-h, --help          Display this help and exit.
-v, --version       Print the version.

Commands:
start              Start the stopped services.
stop              Stop the running services.
restart           Start or restart all services.
status           Show status of all services and access url.
config          Change configurations and then restart services.
modify-password  Modify password for web portal.
remove-mfa       Remove two-factor authentication.
gencert-gateway  Regenerate certificate for gateway and then restart it.
gencert-nginx    Regenerate certificate for nginx and then restart it.
update-tz        Update JRE software with more recent timezone data and restart
web service.
```

GWN Manager help

Important Notes

° GWN Manager only supports one access address at present, so if your machine has more than one network interface, you should set the access address to the one (IP address) that you expect to communicate with the Access point.

Please consider setting the right time zone of your machine before running GWN Manager, modifying the time zone may cause data corruption.