

# Grandstream Networks, Inc.

---

GWN Manager

**Quick Installation Guide**

***Linux Redhat 7 / CentOS 7***



## COPYRIGHT

©2020 Grandstream Networks, Inc. <http://www.grandstream.com>

All rights reserved. Information in this document is subject to change without notice. Reproduction or transmittal of the entire or any part, in any form or by any means, electronic or print, for any purpose without the express written permission of Grandstream Networks, Inc. is not permitted.

The latest electronic version of this guide is available for download here:

<http://www.grandstream.com/support>

Grandstream is a registered trademark and Grandstream logo is trademark of Grandstream Networks, Inc. in the United States, Europe and other countries.



## Table of Contents

<b>INTRODUCTION.....</b>	<b>5</b>
<b>GETTING TO KNOW GWN MANAGER.....</b>	<b>6</b>
System Requirements .....	6
Prerequisites .....	6
<b>INSTALLING AND CONFIGURING GWN MANAGER.....</b>	<b>7</b>
Installing GWN Manager.....	7
Running GWN Manager.....	8
First Use.....	9
Configuring GWN Manager.....	10
<b>ADDITIONAL INFORMATION.....</b>	<b>11</b>
Modifying GWN Manager Password .....	11
Upgrading GWN Manager .....	11
Uninstalling GWN Manager.....	11
Important Notes.....	11



## Table of Figures

Figure 1 : GWN Manager Architecture .....	6
Figure 2: Installing dependencies.....	7
Figure 3: Uncompressing the packages .....	7
Figure 4 : Installing the packages.....	7
Figure 5: Adding Firewall exceptions.....	8
Figure 6: Starting GWN services.....	8
Figure 7: Access GWN Manager from Web Browser .....	8
Figure 8: GWN Manager initial Web page .....	9
Figure 9: Login Page .....	9
Figure 10: Restarting GWN services.....	10



## INTRODUCTION

GWN Manager is an enterprise-grade, management platform for Grandstream access points. As an ideal choice for private network deployment, this flexible, scalable solution offers simplified configuration and management with good performance and high security. 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. Thanks to streamlined monitoring and maintenance, managing your network has never been easier.

This guide describes the steps on how to install GWN Manager in your Linux machine.

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



## GETTING TO KNOW GWN MANAGER

GWN Manager is an On-premise Access Points Controller used to manage and monitor GWN Access points on your network. It provides an easy and intuitive web-based configuration interface, The GWN Manager can control up to 3000 GWN access points, from different models. Below is the GWN Manager architecture:



Figure 1 : GWN Manager Architecture

### System Requirements

#### For up to 200 APs and 2000 Clients:

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

#### For up to 3000 APs and 30000 Clients:

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

### Prerequisites

- GWN Manager version 1.0.0.21 package or higher.
- GWN AP firmware 1.0.13.1 (required) / 1.0.3.4 for GWN7602 or higher.
- GWN APP version 1.0.6 for iOS / GWN APP 1.0.0.19 for Android.



# INSTALLING AND CONFIGURING GWN MANAGER

## Installing GWN Manager

- 1) First, we start with installing package dependencies using below commands:

```
yum install epel-release  
yum install jemalloc libaio glibc-devel fontconfig xorg-x11-font-utils freetype
```

```
[root@2 gwn]# yum install jemalloc libaio glibc-devel fontconfig xorg-x11-font-utils freetype  
Loaded plugins: fastestmirror  
Loading mirror speeds from cached hostfile  
* base: mirror.tedra.es  
* epel: fr2.rpmfind.net  
* extras: mirror.tedra.es  
* updates: mirror.tedra.es
```

Figure 2: Installing dependencies

- 2) After downloading the bundled package from the link: <https://www.grandstream.com/support/firmware>

You will need to uncompressing it using the command below:

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

```
[root@2 gwn]# 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
```

Figure 3: Uncompressing the packages

- 3) Then install all packages, and replace the version number according to your package, in our example the version used is 1.0.0.13.

```
rpm -ivh gwn*1.0.0.13*.rpm
```

```
[root@2 gwn]# rpm -ivh gwn*1.0.0.13*.rpm  
warning: gwn-1.0.0.13-1.el7.x86_64.rpm: Header V4 RSA/SHA1 Signature, key ID f5597bcc: NOKEY  
Preparing... ##### [100%]  
Updating / installing..  
1:gwn-redis-1.0.0.11-1.el7 ##### [ 25%]  
2:gwn-nginx-1.0.0.11-1.el7 ##### [ 50%]  
3:gwn-mariadb-1.0.0.11-1.el7 ##### [ 75%]  
4:gwn-1.0.0.13-1.el7 ##### [100%]
```

Figure 4 : Installing the packages

### Notes:

- Please use the RPM packages we provided to install MariaDB, Redis, Nginx, to avoid GWN Manager working abnormally.
- GWN Manager installation is supported on virtual machines (Tested on **VMware** only).



## Running GWN Manager

- 1) Before running GWN Manager services, you will need to add firewall exceptions 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@2 gwn]# firewall-cmd --zone=public --add-port=8443/tcp --permanent
success
[root@2 gwn]# firewall-cmd --zone=public --add-port=10014/tcp --permanent
success
[root@2 gwn]# firewall-cmd --reload
success
```

Figure 5: Adding Firewall exceptions

**Note:** 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@2 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 ]
```

Figure 6: Starting GWN services

- 3) After all services starting 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:

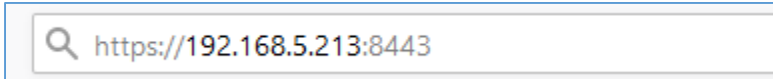


Figure 7: Access GWN Manager from Web Browser





## First Use

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.



Figure 8: GWN Manager initial Web page

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

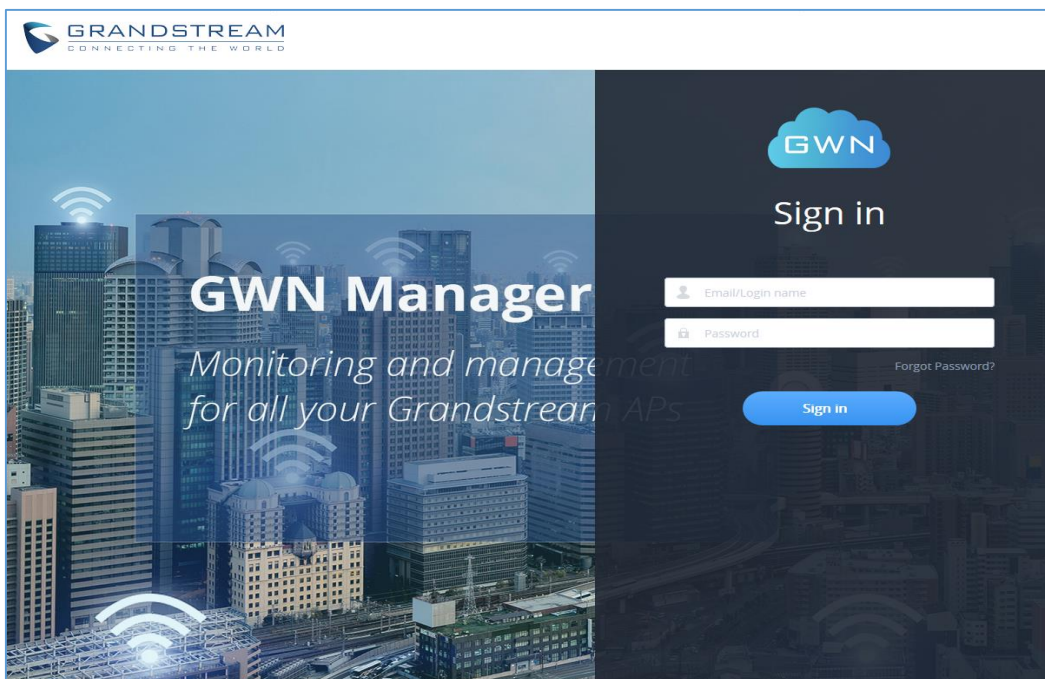


Figure 9: Login Page



## 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
```

### Note:

- If you change the Nginx binding port, you will need to add a new firewall Exception. Moreover, for security consideration, 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.
- 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 that signed by trusted authority to replace it.
- Below system paths is where you can replace the SSL certificate and private key:
  - certificate: **/gwn/conf/nginx/ssl.pem**
  - private key: **/gwn/conf/nginx/ssl.key**

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

```
/gwn/gwn restart
```

```
[root@2 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 ]
```

Figure 10: Restarting GWN services



## ADDITIONAL INFORMATION

### Modifying GWN Manager Password

If the user forgets the web login password, and didn't configure SMTP server as well, he can modify password from backstage using 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 upgrade. You can also upgrade manually using the below commands:

```
rpm -Uvh gwn*1.0.0.13*.rpm  
/gwn/gwn restart
```

### Uninstalling GWN Manager

Run these commands to uninstall GWN packages from your Linux system:

```
rpm -e gwn gwn-redis gwn-mariadb gwn-nginx  
rm -rf /gwn
```

### Important Notes

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

