



## **Grandstream Networks, Inc.**

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GAPS – QUICK USER GUIDE for Company Manager

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## OVERVIEW

Grandstream's automated provisioning technology enables service providers and enterprise IT administrators to massively and automatically deploy Grandstream SIP CPE devices from a central location, whether the devices are deployed over the Internet behind firewall/NAT or within a corporate network environment. Grandstream's automated provisioning technologies not only allow "zero" configuration, plug-and-dial for end users, but also make it possible for system administrator to remotely control, modify settings and upgrade firmware in an automatic and secure fashion.

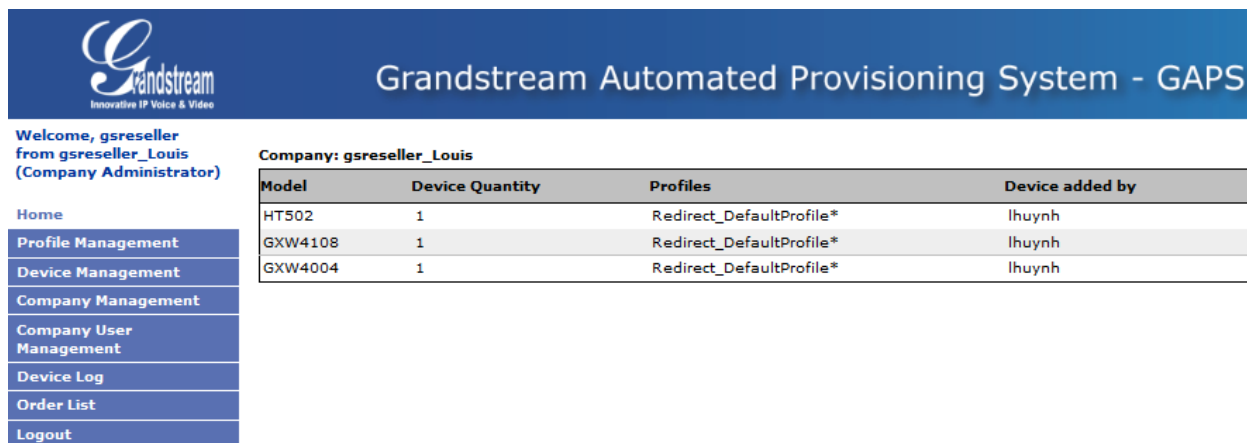
Grandstream Automated Provisioning System, aka GAPS, is the server side software application designed this purpose.

## GETTING STARTED

### HOW TO LOGIN TO GAPS:

1. Browse to <https://fm.grandstream.com>
2. Login with username and password provided by Grandstream system administrator

### HOME PAGE



Welcome, gsreseller  
from gsreseller\_Louis  
(Company Administrator)

Company: gsreseller\_Louis

Model	Device Quantity	Profiles	Device added by
HT502	1	Redirect_DefaultProfile*	lhuynh
GXW4108	1	Redirect_DefaultProfile*	lhuynh
GXW4004	1	Redirect_DefaultProfile*	lhuynh

Home

- Profile Management
- Device Management
- Company Management
- Company User Management
- Device Log
- Order List
- Logout

### From the Home page you have the following options:

- Profile Management
- Device Management
- Company Management
- Company User Management
- Device Log
- Order List
- Logout

## PROFILE MANAGEMENT

[New Profile](#) [Search Profile](#)

Total search result:5

Name	Meta Profile	Company	Id Generator
<a href="#">Redirect_DefaultProfile*</a>	Redirect_DefaultProfile	gsreseller_Louis	None
<a href="#">HT5XX</a>	HT5XX	gsreseller_Louis	None
<a href="#">Provider Lock</a>	Provider_Lock	gsreseller_Louis	None
<a href="#">GXV3000</a>	GXV3000	gsreseller_Louis	com.pwf.spi.SimpleIdGen
<a href="#">GXV3504 test provision</a>	GXV3504_test_provision	gsreseller_Louis	None

### HOW TO CREATE A PROFILE

In Profile Management, you can create a profile that is fine tuned for a specific model. These profiles are used when provisioning devices. From the figure above, after clicking 'Next' you are taken to a section that shows parameters used for this specific profile. This screen should remind you of the web-gui that's used for most Grandstream products. In this example, we used the basic redirection profile, which allows the ability of plug and play.

[Profiles Management](#) -> Edit Profile

**Name** Redirect\_DefaultProfile

**Default Profile**  Yes  No

**Company** gsreseller\_Louis

Update Associated Devices

**IdGenerator** None

Groups

**ADVANCED**

**Firmware Upgrade/Provisioning Protocol**

TFTP Upgrade  
 HTTP Upgrade  
 HTTPS Upgrade

**Config Server Path** 72.172.83.110

**Firmware Server Path** fw.server.com

**Config File Prefix** cfg

**Firmware File Prefix** fw

Wait for result

Ok Delete Cancel

**Note:** The profiles are not limited to just redirection, but could also be used for specific configurations based on model. Every option you see in the web-GUI are also options you can add in the profile. Please contact [support@grandstream.com](mailto:support@grandstream.com) for further assistance.

## DEVICE MANAGEMENT

This part of GAPS is where the Company Manager has the ability to provision a new device, search for an already provisioned device, list all provisioned devices, and also see the total of devices that are allowed to be provisioned.

Welcome, gsreseller from gsreseller\_Louis (Company Administrator)

- Home
- Profile Management
- Device Management
- Company Management
- Company User Management
- Device Log
- Order List
- Logout

[Provision New Device](#)
[Search Provisioned Device](#)
[List Provisioned Devices](#)
[Allowed Provision Devices](#)

Model Name	Device Total
GXW4004	1
GXW4108	1
HT502	1
<b>Start MAC Address:</b>	000B820E5723
<b>End MAC Address:</b>	000B822618F4
<b>MAC Address Total:</b>	3

We'll first take a look at the 'Allowed Provision Devices'. These MAC addresses have been added by Grandstream system admin or parent company and only within these MACs will you be able to provision devices or allocate to your own sub company. The *MAC*, is the MAC address of the device. *Owner* is the company that the MAC addresses currently belong to. *Create Time* is the time that the units have been added to GAPS. *Provisioned* shows wheter or not the unit has been provisioned.

## HOW TO PROVISION A DEVICE

In the following example we are going to work on how to provision a MAC address that is in our 'Allowed Provision Device' section that has a status of Provisioned=N.

**Device Management** -> Allowed Provision Devices

Search MAC Total search result:9

MAC	Owner	Create Time	Provisioned	<input type="checkbox"/> All
000B8225C45A	gsreseller_Louis	2012-04-17 17:46:53.0	Y	<input type="checkbox"/>
000B822618F4	gsreseller_Louis	2012-04-17 17:46:53.0	Y	<input type="checkbox"/>
000B820E5723	gsreseller_Louis	2012-04-17 17:46:53.0	Y	<input type="checkbox"/>
000B82963852	gsresellerSUB1_Louis (GAPS0002)	2012-01-06 03:40:52.0	Y	<input type="checkbox"/>
000B82147258	gsresellerSUB1_Louis (GAPS0002)	2012-01-06 03:40:52.0	Y	<input type="checkbox"/>
000B82258369	gsresellerSUB1_Louis (GAPS0002)	2012-01-06 03:40:52.0	Y	<input type="checkbox"/>
000B82141414	gsresellerSUB1_Louis (GAPS0002)	2012-01-12 23:59:30.0	Y	<input type="checkbox"/>
000B8229F87B	Sub_company_henry	2012-02-16 12:23:22.0	N	<input type="checkbox"/>
000B82333333	OnyxTest	2011-11-22 21:39:05.0	N	<input type="checkbox"/>

gsresellerSUB1\_Louis

From the above list, we'll use the MAC 000b82333333 as our example. From the 'Allowed Provision Device' page, you will need to click on the 'Device Management' (top), navigate to 'Provision New Device'.

**Device Management** -> New Device

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**Alias**

**Starting SIP User ID**

**Device MAC address**

**Model**


**Profile**

Here you can either provision one MAC or you can provision a list of MACs. There are also options to specify the *Model* and the *Profile*(Please see Profile Management on how to create a Profile)

Here are the results after the provisioning has completed. There are a several options on this screen.

[Device Management](#) -> List Provisioned Devices

Total search result:1

MAC Address	SIP User ID	Device Model	Configuration	Profile	<input type="checkbox"/> All
<a href="#">000B82333333</a>		GXP2110		Redirect_DefaultProfile*	<input type="checkbox"/>

Tips: Click 'Remove Selected' Button, to remove the selected devices; click 'Remove All' Button, to remove total search devices.

Options that are available on this screen:

- MAC - Click on the MAC address to download the encrypted config file which is named cfg000b82333333.
- GAPS button under *Configuration* - When you click on GAPS, you will see your Profile that was created in Profile Management. Users can then make changes to specific units if needed.
- Update Devices/Update All Devices - If users decide that the profile that was used was incorrect the user can either choose Update Devices/Update All Devices. This option allows you to select a different Model/Profile.
- Remove All – by selecting Remove All it will remove the devices from provisioned list, but they will not be removed from the 'Allowed Provision Device' section. This option simply removes the config file from the GAPS server.

## HOW TO ALLOCATE MAC TO SUB COMPANY

[Company Management](#) -> [Device Management](#) -> Allowed Provision Devices

[Search MAC](#)

### List Macs

Total search result:7

MAC	Owner	Create Time	Provisioned	<input type="checkbox"/> All
000B82293972	GS Morocco	2011-11-22 12:28:56.0	Y	<input type="checkbox"/>
000B822A8E14	GS Morocco	2011-11-23 03:30:58.0	N	<input type="checkbox"/>
000B822A8E15	GS Morocco	2011-11-23 03:48:04.0	N	<input type="checkbox"/>
000B822A8E16	GS Morocco	2011-11-23 03:48:04.0	N	<input type="checkbox"/>
000B822A8E17	GS Morocco	2011-11-23 03:48:04.0	N	<input type="checkbox"/>
000B822A8E18	GS Morocco	2011-11-23 03:48:04.0	N	<input type="checkbox"/>
000B822A8E19	GS Morocco	2011-11-23 03:48:04.0	N	<input type="checkbox"/>

GSLab1 ▾



As a Company Manager you have the ability to create sub companies (go to “How to Create a Sub Company”) and also be able to allocate MAC addresses from your ‘Allowed Provision Device’ list. In order to allocate MAC addresses to a sub company go to ‘Device Management’ then click on ‘Allowed Provision Device’. At the bottom of the list you will see a drop down list that shows the sub companies you’ve created. Select the company and then click Allocate MACs, for selected MACs, or select Allocate All MACs to push all MACs to the sub company. By allocating the MACs to a sub company you will be removing the MACs from your ‘Allowed Provision Devices’ and they will now appear in your sub company’s ‘Allowed Provision Devices’.

## HOW TO SEARCH PROVISIONED DEVICES

[Device Management](#) -> Search Device

### Search Device

Mac

Alias

Model

Profile

**Tip:**  
Support multiple MAC addresses matching criteria, including:

- 1) single MAC address, e.g. 000B82000001
- 2) address range, e.g. 000B82000001-000B82010001
- 3) combination of the above two, e.g. (separated by enter)  
000B82000001  
000B82000010-000B82000020  
000B82000030

Under ‘Search Provisioned Devices’ you have the ability to search for a single or a list of MACS. You can also filter by alias, model, and even profile.

## COMPANY MANAGEMENT

### HOW TO CREATE A SUB COMPANY

[New Company](#) [Search Company](#)

## List Companies

Total search result:2

Name	Email	Phone	Contact Name
<a href="#">GSLab1</a>	lab1@grandstream.com	+212522672535	Lab Morocco
<a href="#">GSLab2</a>	lab2@grandstream.com	+2126615236	Lab 2 Morocco

A great feature in GAPS is that you are able to be a parent company of many sub companies. By click on Company Management, you can see a list of existing companies that have already been created. Click on 'New Company' to start creating your new sub company.

### HOW TO REALLOCATE MAC ADDRESSES FROM SUB COMPANY TO PARENT COMPANY

While logged in as the parent company manager you have the option to take back MAC addresses that have been allocated to a sub company. In order to do this, click on 'Company Management', select the sub company, then click on 'Allowed Provision Devices'. You should see the following screen:



(Company:GSLab1) [Company Info](#) [Profile Management](#) [Device Management](#) [Company User Management](#)

[Company Management](#) -> [Device Management](#) -> Allowed Provision Devices

Search MAC

### List Macs

Total search result:1

MAC	Owner	Create Time	Provisioned	<input type="checkbox"/> All
000B822A8E17	GSLab1	2011-11-23 03:48:04.0	N	<input type="checkbox"/>

GS Morocco

In this screenshot, you can see at the top left that I'm logged in as Company Admin for GS Morocco, but at the right of that you can see that I'm accessing '(Company:GSLab1)'. The MAC address that is listed here was previously allocated from the GS Morocco. To reallocate this MAC you can select unit, select the parent company from the dropdown list, then select Allocate MACs for selected unit, or select Allocate MACs for all listed units.

## COMPANY USER MANAGEMENT

As a company manager you have the ability to create different type of users for not just your own company, but for your sub company as well.

Welcome, gsreseller  
from gsreseller\_Louis  
(Company Administrator)

- Home
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[New User](#) [Search User](#)

Total search result:3

Username	First Name	Last Name	Role	Company	Email
<a href="#">gsreseller</a>	Grand	Stream	ROLE_COMPANY_MANAGER	gsreseller_Louis	support@grandstream.com
<a href="#">gsresellerNORM</a>	Grand	Stream	ROLE_NORMAL_USER	gsreseller_Louis	support@grandstream.com
<a href="#">gsresellerREAD</a>	Grand	Stream	ROLE_READONLY_USER	gsreseller_Louis	support@grandstream.com

## USERS AND PERMISSIONS

- ROLE\_READONLY\_USER – This user only has the abilities to read and search.
- ROLE\_NORMAL\_USER – This user has the same options as the Read Only user, but with provisioning rights.
- ROLE\_COMPANY\_MANAGER – No restrictions. This user is capable of provisioning, creating/deleting users, and profiles.

## HOW TO CREATE A USER FOR PARENT COMPANY

To create a new user, go to the menu at the left; select ‘Company User Management’. Then click on ‘New User’ at the top.

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from gsreseller\_Louis  
(Company Administrator)

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- Company User Management
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[Users Management](#) -> New User

Username   
 Password   
 Confirm Password   
 First Name   
 Last Name   
 Email   
 Company gsreseller\_Louis  
 Roles ROLE\_NORMAL\_USER

## HOW TO CREATE A USER FOR SUB COMPANY

While logged in as the parent company manager you can create users for a sub company. Just click on ‘Company Management’, select the sub company, click on ‘Company User Management’ at the top right. Then click on ‘New User’ to start creating

## DEVICE LOG

Device log is used to display information on configuration updates, provisioning details, and batch creations/deletions. When a Grandstream device grabs the configuration from GAPS, you will see 'Provisioning' under Operation type.

Welcome, gsreseller  
from gsreseller\_Louis  
(Company Administrator)

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[Search Device Log](#)

Total search result:2

Access Date	Access Times
<a href="#">2012-04-19</a>	1
<a href="#">2012-04-18</a>	5

The image above shows the Device Log home screen. This screen shows all activities on a particular date and how many times GAPS was accessed and by whom. If the date '2012-04-18' was clicked the user will be presented with the following output. The information on this screen will show you when an event occurred, what Operation Type, the profile that was used to provision, the Operator/User that performed this action, and the MAC addresses that these actions were performed on.

Total search result:5

Operation Time	Operation Type	After Operation	Operator MACs
2012-04-18 23:44:09.0	Batch_Create_Device	Device[ MAC Range [000B82333333 ]; Model = GXP2110; Profile = Redirect_DefaultProfile; Company = gsreseller_Louis; Create User = gsreseller ]	gsreseller 000B82333333
2012-04-18 23:40:23.0	Provisioning	Provision[Provisioning for device with MAC address: 000B820E5723 Writing the config file to directory: /tmp/ The config setting of this device is: {P192=fw.server.com, P237=72.172.83.110, P212=0, P234=cfg, P232=fw}]	000B820E5723

## HOW TO SEARCH IN DEVICE LOG

Besides having a complete list of logs from every device and user, you also have the option to search for specific parameters.

- Operator User – if filtered by Operator User, you will see all changes that were made by this user
- Timestamp Range – here you can search for a specific date or range
- MAC Address – if filtered by MAC, you will only see activity from that specific MAC address
- Operation Type – here you have the option to filter by Batch\_Create, Batch\_Delete, Batch\_Update\_ProfileOrModel, Update\_Associated\_Devices, Update\_Configuration, Provisioning, Firmware\_Upgrade

[Device Logs Management](#) -> Search Device Log

### Search Device Log

Operator User

Timestamp range  -

MAC Address

**Tip:**  
Support multiple MAC addresses matching criteria, including:

1) single MAC address,  
e.g. 000B82000001

2) address range,  
e.g.  
000B82000001-000B82010001

3) combination of the above two,  
e.g. (separated by enter)  
000B82000001  
000B82000010-000B82000020  
000B82000030

Operation Type **ALL**

- Batch\_Create\_Device
- Batch\_Delete\_Device
- Batch\_Update\_ProfileOrModel

Company GS Morocco

## ORDER LIST

Order list is used when an order has been placed and the order was marked specifically for redirection. These units will also be allocated to the 'Allowed Provision Devices' section.

Note: Please contact your Grandstream sales or Grandstream Authorized Channel Partner when you place the order and this is also under the condition that you already have an account in GAPS.

Below is a screen shot of what the Order List looks like.

[Search Order](#)

## List Orders

Total search result:2

Invoice Num	Order Number	Company	Erp Code	Model Quantity	Mac Quantity	Owner	Create Time	Provision
<a href="#">GAPSTEST5</a>	SF42-11110105	PhonePower	SENA0006	1	32	PhonePower	2011-11-17 17:28:10.0	false
<a href="#">GAPSTEST4</a>	SF42-11110104	PhonePower	SENA0006	1	32	PhonePower	2011-11-17 16:42:01.0	false

If the Invoice number is clicked you will see the following screen which shows a summary of the order and the specific models that were purchased:

Invoice Number GAPSTEST4  
 Company PhonePower  
 Create Time 2011-11-17 16:42:01.0  
 Model Quantity 1  
 Mac Quantity 32

Model	Mac Quantity	Macs
<a href="#">HT503</a>	32	

If the Model is clicked e.g. HT503, you will be taken to the Provision New Device page with the MAC addresses populated with the Order list.