Optima SIM Saver

December 2017
Version 1.0.0

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Assalamu Alaikum! Welcome to Optima Sim Saver User Guide.

What is Optima SIM Saver **Optima SIM Saver** helps you to reduce your SIM blocking using two types call filtering system. E.g:

A. **Filtering Callee Number** by sending repeatedly called phone numbers on same assigned port numbers.
B. **Filtering Caller ID** by sending calls from same caller ID to same assigned port numbers.

Depending on blocking parameters or patterns of the Mobile Operator we need to select the appropriate filtering system. For that we need specific data of specific operator's blocking pattern e.g. Sims are blocking after how many minutes for which Operator?

Real Life Scenario After inserting new sims in your gateway as soon as you will send calls, call filter will start building its database and it will start binding Callee Numbers(Applicable for Callee Number filtering system) or Caller ID(Applicable for Caller ID filtering system) on each port number.

For callee number pattern, let's assume phone number 0987654321 was connected via port number 1. When this phone number 0987654321 will be dialed again, call filter will automatically connect that number using port 1.

For caller ID pattern, let's assume with caller ID *"optima*" a number was connected via port number 1. When from caller ID *"optima"*, another call will come, our call filter will automatically connect the number with caller ID *optima* using port 1.

Callee Number /Caller ID Blacklist works efficiently using our call filter solution which will block unwanted Callee Numbers or Called IDs which will be added in the list.

Bulk/ Global Settings allows to to add your prefixes port wise in a moment with some specific values, which will save your time configuring your system.

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Why Optima SIM Saver Optima SIM Saver Application intelligently builds it's Buckets with Callee Numbers and Caller IDs which helps to send same Callee numbers/ different numbers from same Caller IDS to the particular sims of the gateway, resulting extended sim life. Here are some key features:

- ★ Blacklists and whitelists of phone numbers/ Caller IDs to protect from the Operator's calls.
- ★ Maintaining Call Gaps between calls to simulate HB.
- ★ Monitoring number/Caller ID length pattern while receiving calls.
- ★ Building the list of preferred numbers for each sim.
- ★ Extending SIM lifetime with dual(Callee+Caller) filtering technology.
- ★ Optimizing Bandwidth Efficiently.

For Optimal Performance

- ★ To get satisfactory minutes and less sim blocking,
    - Use 64 sims to run 16 concurrent calls
    - Use 128 sims to run 32 concurrent calls.

Primary idea is you need 4 times more sims, than your concurrent calls.

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Now we will demonstrate you about the panel configuration:

Prefix Management Our First Segment is prefix management. Under this segment there are four(4) options:

a. **Incoming Prefix**
b. **Outgoing Prefix**
c. **Callee/ Caller Blacklist**
d. **Show Bucket Details.**

Below we will describe the functions of the options gradually:

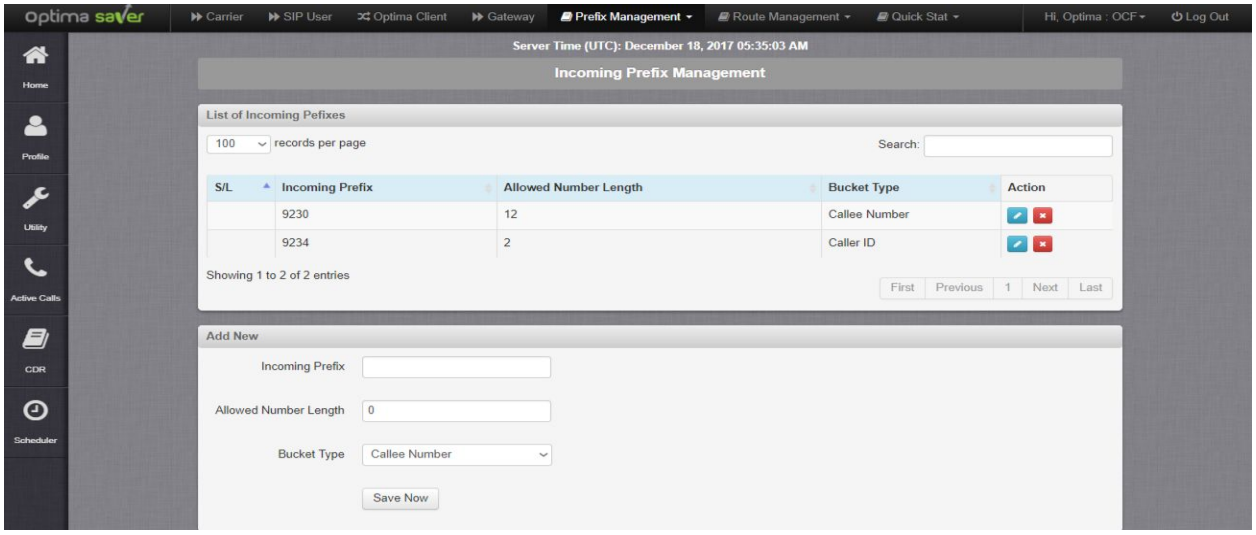
a. Incoming Prefix

In Incoming Prefix option,

Firstly, we need to entry the Incoming Prefix for e.g 9230 , then

Secondly, need to enter the Allowed number length means the number length of the incoming prefix. If full number is 923026154910, then we can see there are 12 digits. So Allowed Number Length will be 12 here. Rule is, if any call comes with less number than 12 digit or more it will not pass.

Thirdly, we can see Bucket type which will be **Caller ID** or **Callee number**. Upon requirement we need to select the type, then press save to add the entry.



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b. Outgoing Prefix

In Outgoing Prefix option we need to set the outgoing prefix so that calls may hit the Call Termination Device (GATEWAY) port wise. We may add single entry and bulk entry. Here in the picture you may see some examples.

For Single Entry:

Firstly, we need to provide entry to Outgoing Prefix, e.g 01030. We will map this prefix in the Gateway port wise later from page no 10, then we will guide with the Gateway Port Wise Prefix Configuration.

Here may try to follow a convention like first 2 digit in fixed for Gateway ip(last 2 digit), next 3 digit is fixed for increment, next 2 digit will be fixed for suffix.

Like, if gateway ip is 192.168.101.**11**, increment order starts from **001**, and suffix in **030**, then Outgoing Prefix will be 11001030

Secondly, select the Bucket Type as per requirement e.g: Callee Number, Caller ID

Thirdly, Bucket Size, this is the list size of the Callee Numbers or Caller IDs means this is list of how many numbers or IDs we want to store against each prefix /port.

Fourthly, Lease Time (Minutes), here we will set the max time duration to keep the numbers which will not be repeated within that time frame in the Bucket.

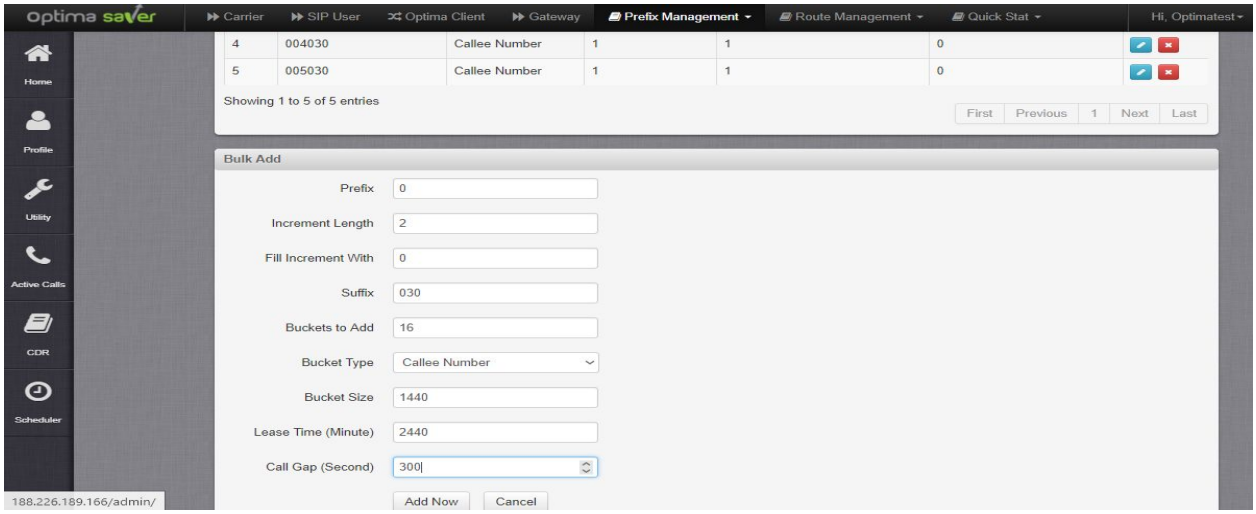
Fifthly, Call Gap (Seconds) , here we will set the call hit interval time from the last call which passed through this prefix/ port. e.g If call gap set 300 sec, then when any call (Active/ Ring) pass through this prefix, next call will not pass before 300 sec of the last call pass time or Bucket entry time.

Bulk to add Entry:

Suppose if we want to set outgoing prefix as 001030, 002030.. to 016030 for 16 ports, here there are 3 parts in this prefix

1. Prefix is 0.
2. Increment Length here will be 2 as 16 digit length is 2
3. Fill increment with will be 0.
4. Suffix will be 030
5. Buckets to add will be 16 as we want to increase upto 16.
6. Bucket Type (Callee Number/ Caller ID)
7. Bucket Size > (cannot be 0).
8. Lease Time (Minute) > (cannot be 0)
9. Call Gap(Seconds). Then Add now.

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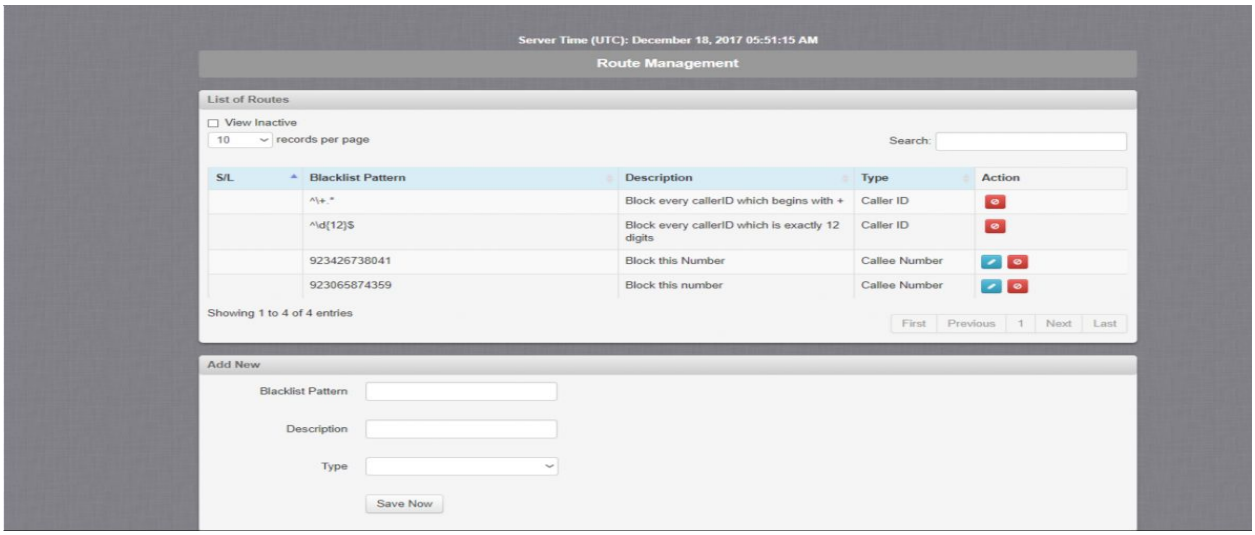
c. Callee/ Caller Whitelist + Callee/ Caller Blacklist

In Callee/ Caller Whitelist / Blacklist option, we may enable and disable some entries, which will Block Caller ID with + sign or caller id with 12 digit etc. also may block numbers for Callee Numbers.

Firstly, Need to entry Blacklist Pattern.

Secondly, Need to Provide Description.

Thirdly, need to select type, then save the entry.



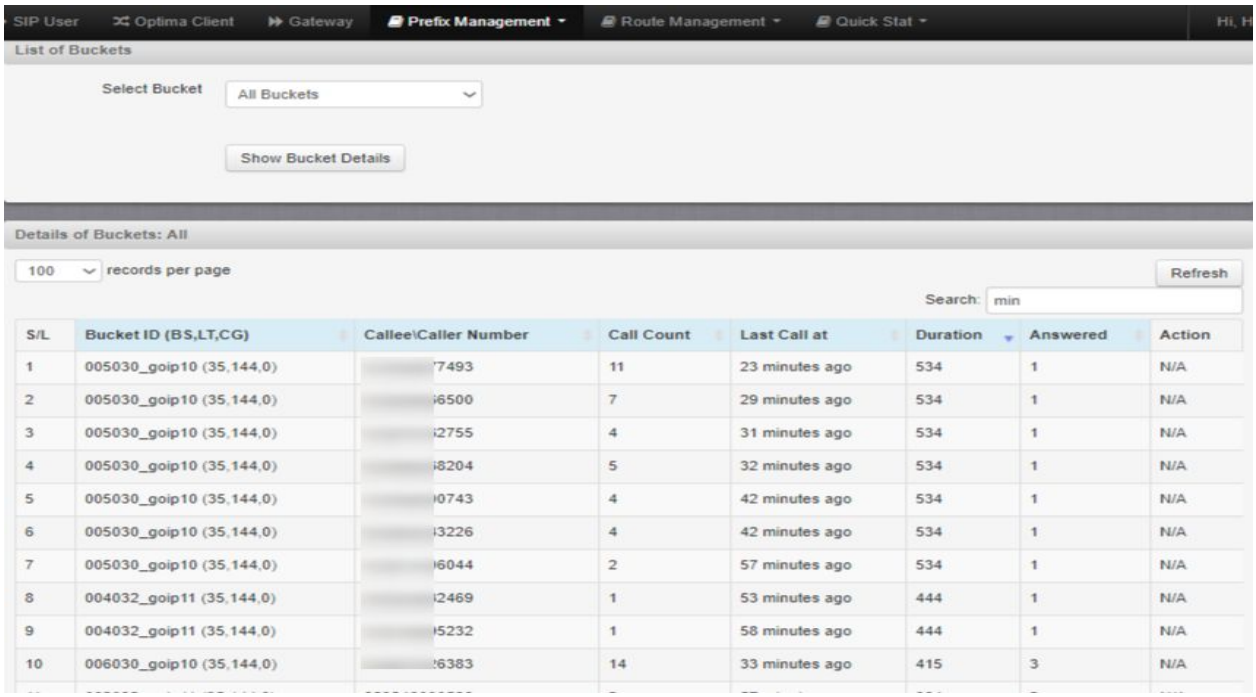
Regex entry reference

1. ^228.* - Block every callerID which begins with 228
2. ^\+.* - Blocks every callerID which begins with + or any special character.
3. ^\d{12}$ - Block every callerID which is exactly 12 digits.
4. .* - Blocks All, and allow whitelist.

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d. Show Bucket Details

In the Show Bucket Details, we may see the **callee numbers** and **caller IDs** record stored against each prefix separately. This is only view mode.



S/L	Bucket ID (BS,LT,CG)	Callee\Caller Number	Call Count	Last Call at	Duration	Answered	Action
1	005030_goip10 (35,144,0)	[redacted]7493	11	23 minutes ago	534	1	N/A
2	005030_goip10 (35,144,0)	[redacted]6500	7	29 minutes ago	534	1	N/A
3	005030_goip10 (35,144,0)	[redacted]2755	4	31 minutes ago	534	1	N/A
4	005030_goip10 (35,144,0)	[redacted]8204	5	32 minutes ago	534	1	N/A
5	005030_goip10 (35,144,0)	[redacted]0743	4	42 minutes ago	534	1	N/A
6	005030_goip10 (35,144,0)	[redacted]3226	4	42 minutes ago	534	1	N/A
7	005030_goip10 (35,144,0)	[redacted]6044	2	57 minutes ago	534	1	N/A
8	004032_goip11 (35,144,0)	[redacted]2469	1	53 minutes ago	444	1	N/A
9	004032_goip11 (35,144,0)	[redacted]5232	1	58 minutes ago	444	1	N/A
10	006030_goip10 (35,144,0)	[redacted]6383	14	33 minutes ago	415	3	N/A

- ➔ **Bucket ID (BS,LT,CG)** , here for e.g 005030_goip10 (35,144,0) means 005030 is the specific prefix for the port no 5 in goip 10, BS=Bucket Size=35 , LT= Lease Time=144 hours, CG=Call Gap=0 Sec. This the view option for the entries in Outgoing Prefix Option under Prefix Management.
- ➔ **Callee/ Caller Number** will show Caller ID or Callee Number as per our filter type selection in the Incoming prefix option under Prefix Management.
- ➔ **Call Count** will show how many time numbers hit the port.
- ➔ **Last Calls** at show last calls time of hitting the port
- ➔ **Duration** show total duration of the numbers hitted the port.
- ➔ **Answers** shows how many calls were answered among **Call Count** Numbers

2. Route Management

Our second segment is Route Management. This is very important segment of the solution. Here we will find 2 options:

a. Callee Route Management

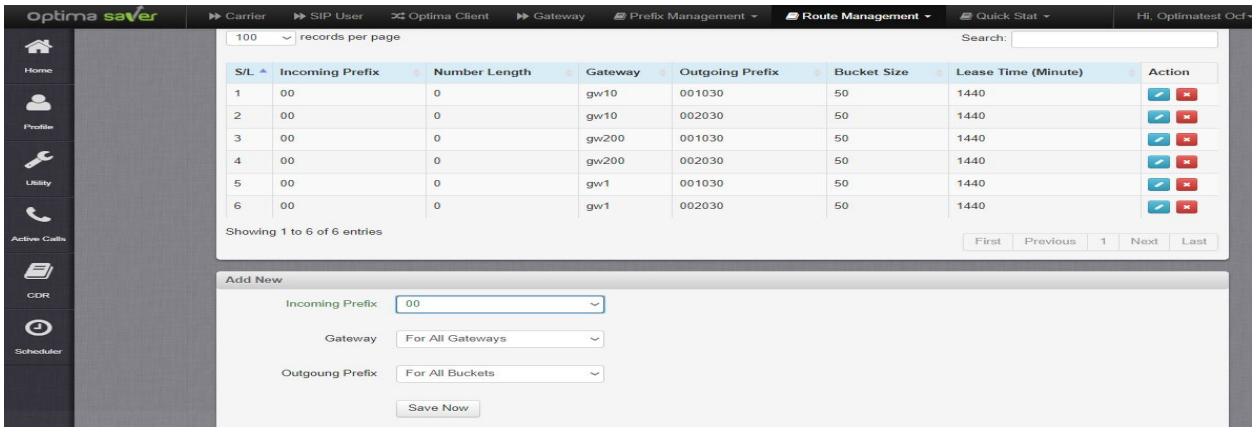
In Callee Route Management, we will map the Outgoing Prefixes with Incoming Prefix along with Gateway for Callee

Firstly, we will select the Incoming Prefix for Callee

Secondly, we will select the particular Gateway/ For all gateways for the incoming Prefix for Callee

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Thirdly, we will select the Outgoing Prefix according to the incoming Prefix for single or for all Buckets for Callee.



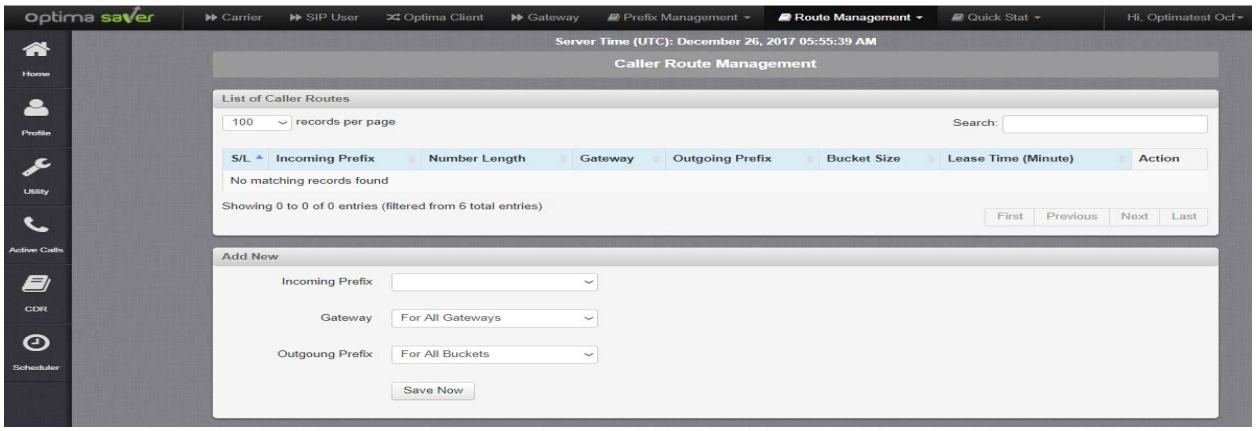
b. Caller Route Management

In Caller Route Management, we will map the Outgoing Prefixes with Incoming Prefix along with Gateway for Caller

Firstly, we will select the Incoming Prefix for Caller

Secondly, we will select the particular Gateway for the incoming Prefix for Caller

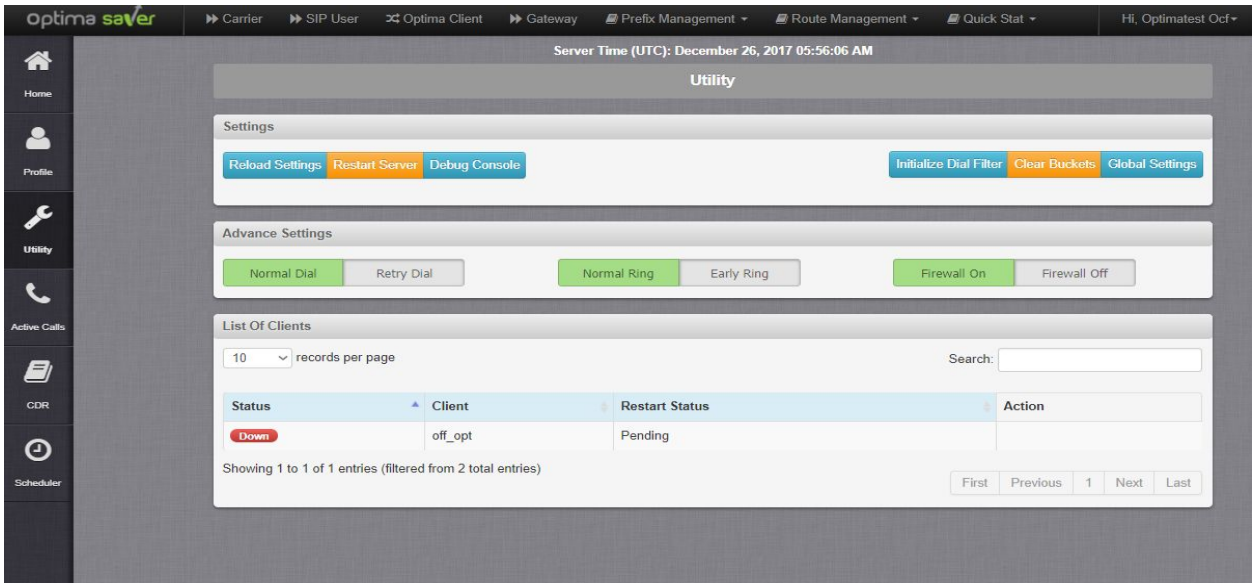
Thirdly, we will select the Outgoing Prefix according to the incoming Prefix for Caller



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3. Utility:

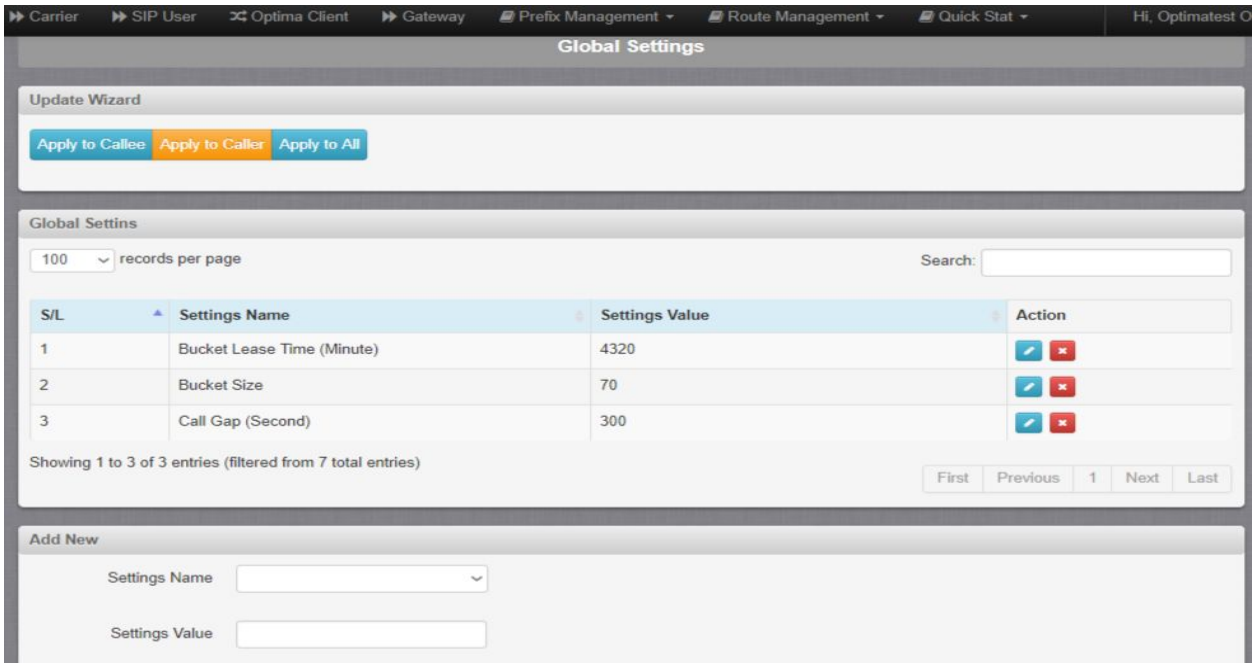
From Utility options we may find:



A. **Initialize Dial Filter** reset all the rules of Call Filter System in Default Value
B. **Clear Buckets** will clear all the numbers or caller ID from Buckets
C. **Global Settings**

Here the entries we will save will be effective as preset entry in the outgoing prefix.

After Saving each individual entry we need to press **Apply to Callee** or **Apply to Caller** or **Apply to All**(for Calle and Caller both) as per necessity.

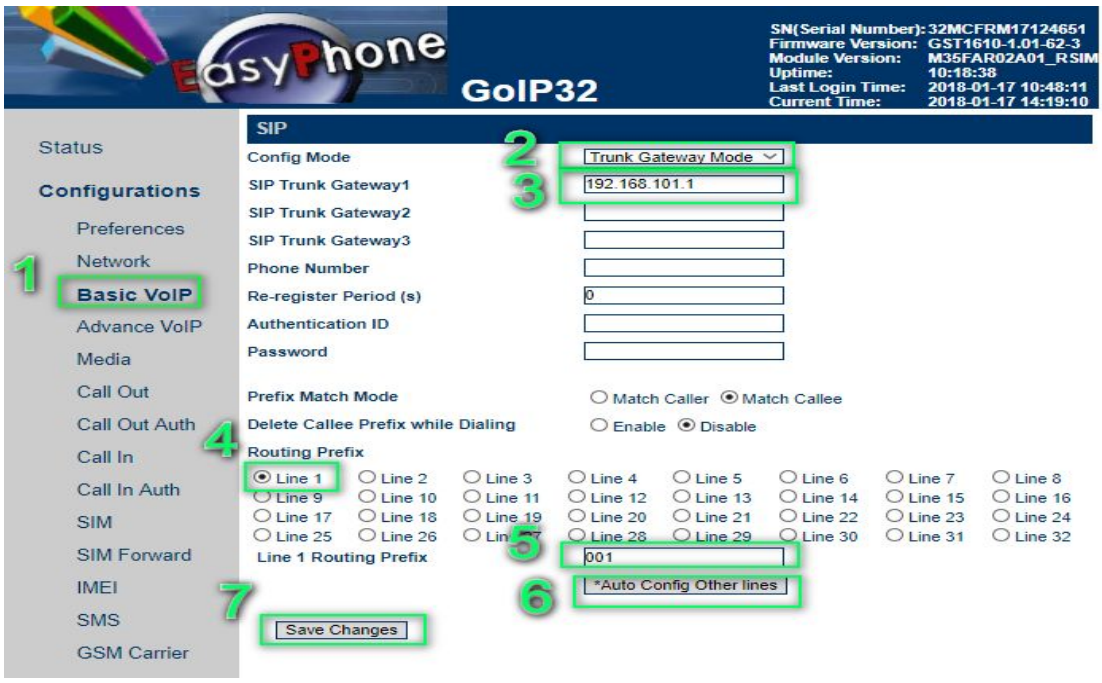


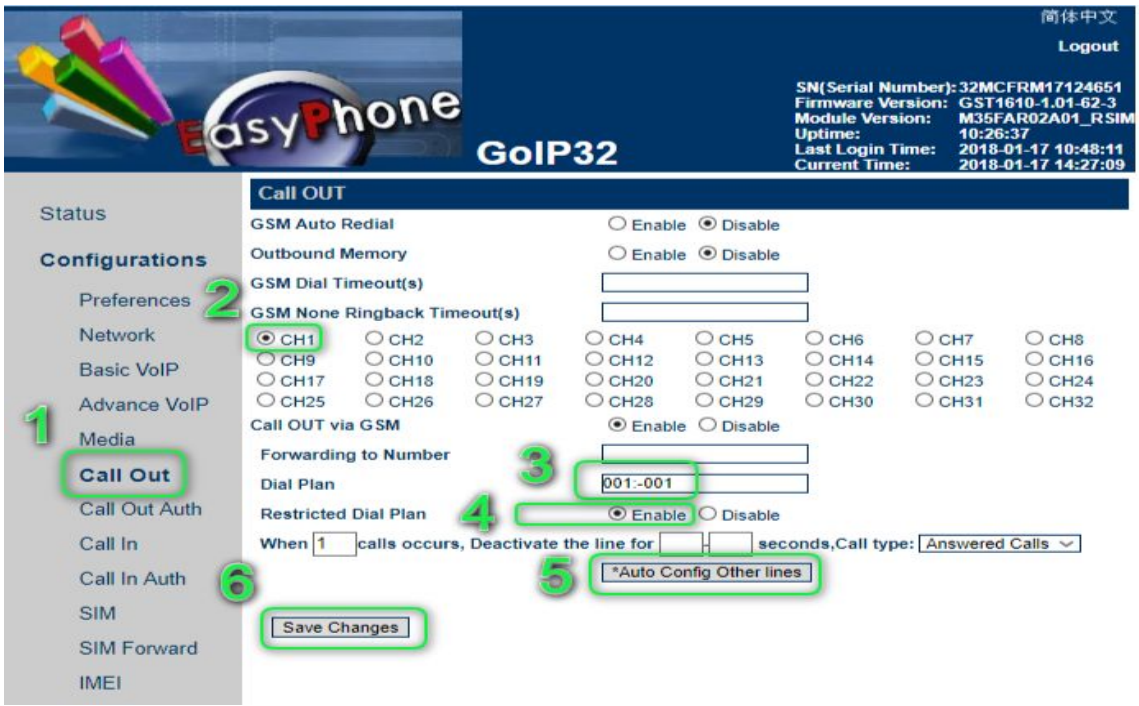
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4. Gateway Configuration

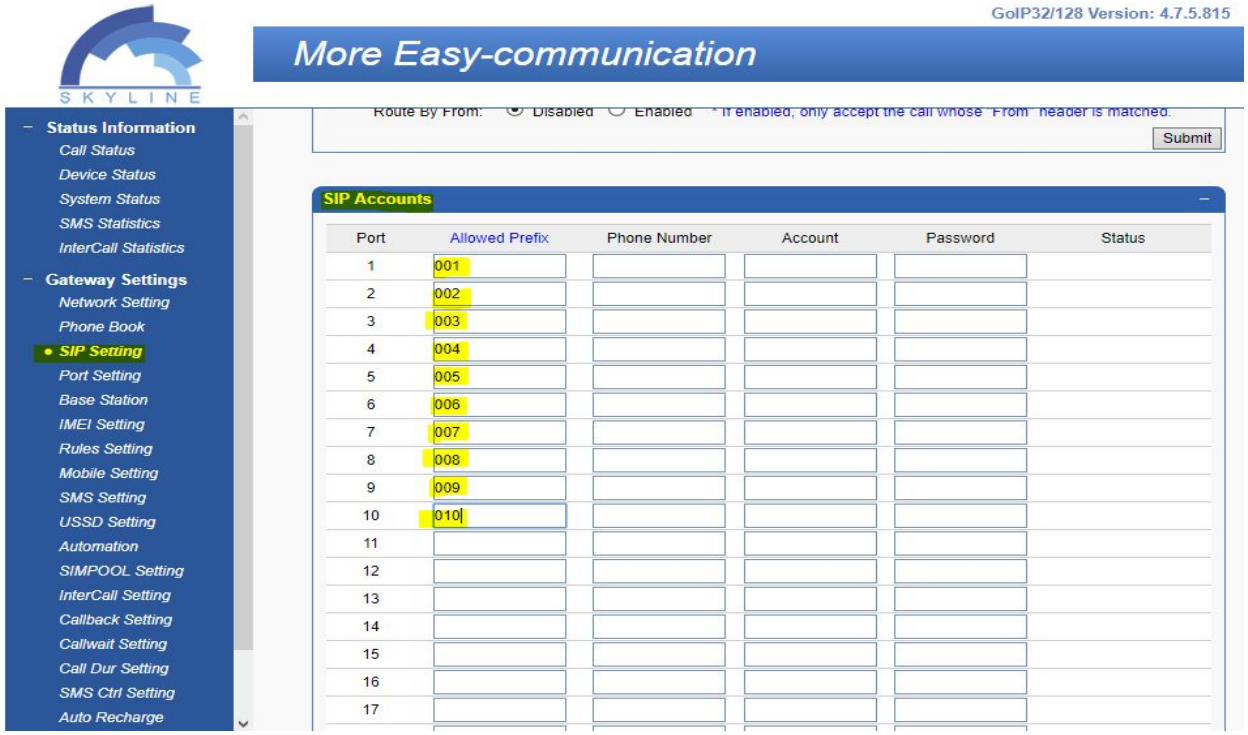
Here we will guide you to configure your gateway according to outgoing Prefix to map the prefixes port wise:

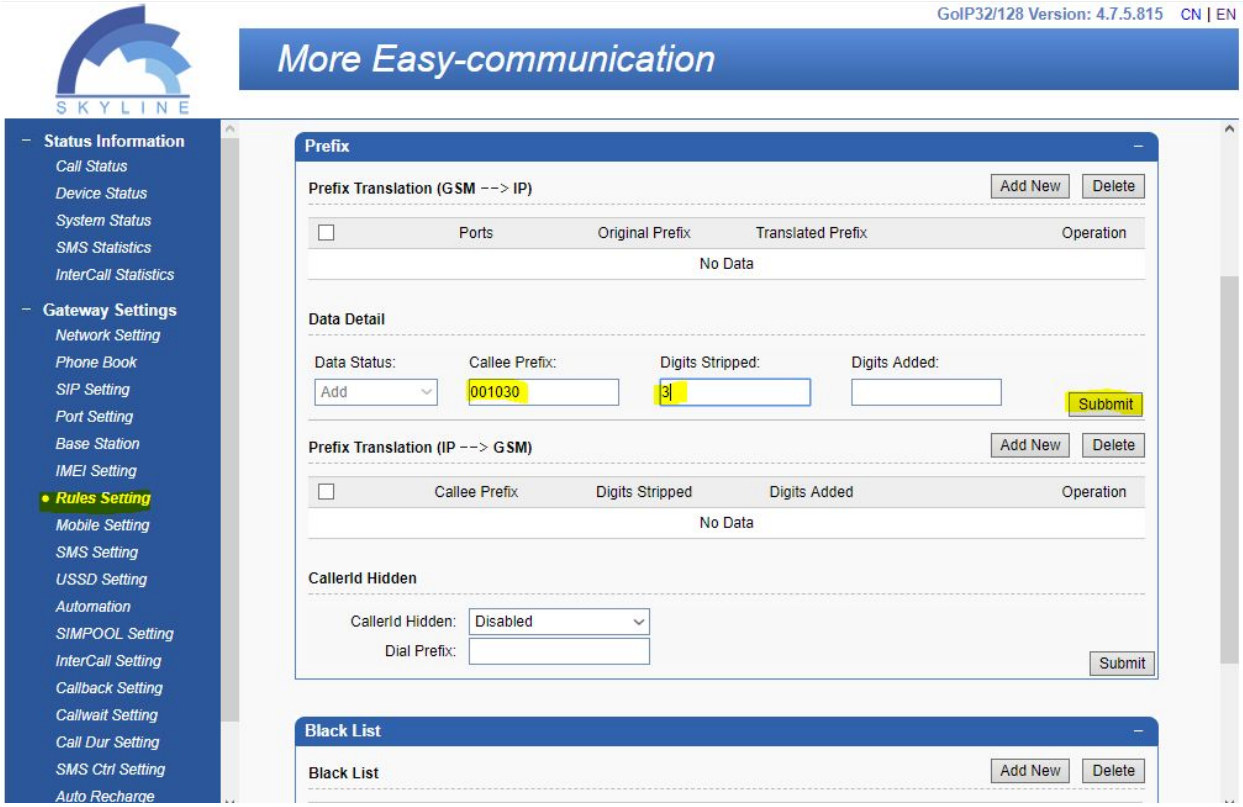
a. Goip





b. Skyline

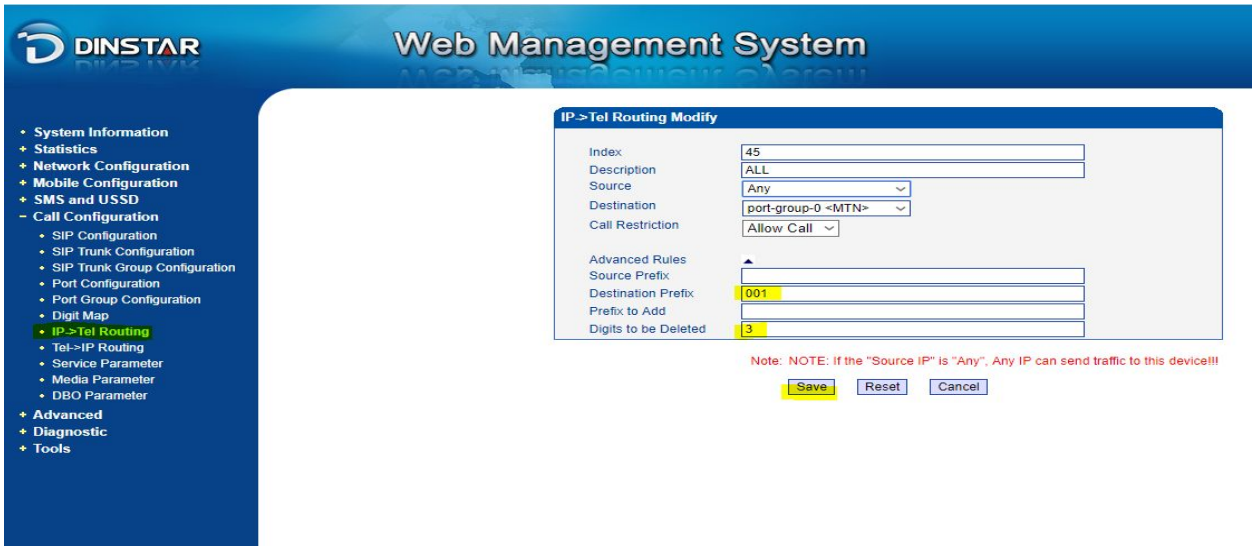


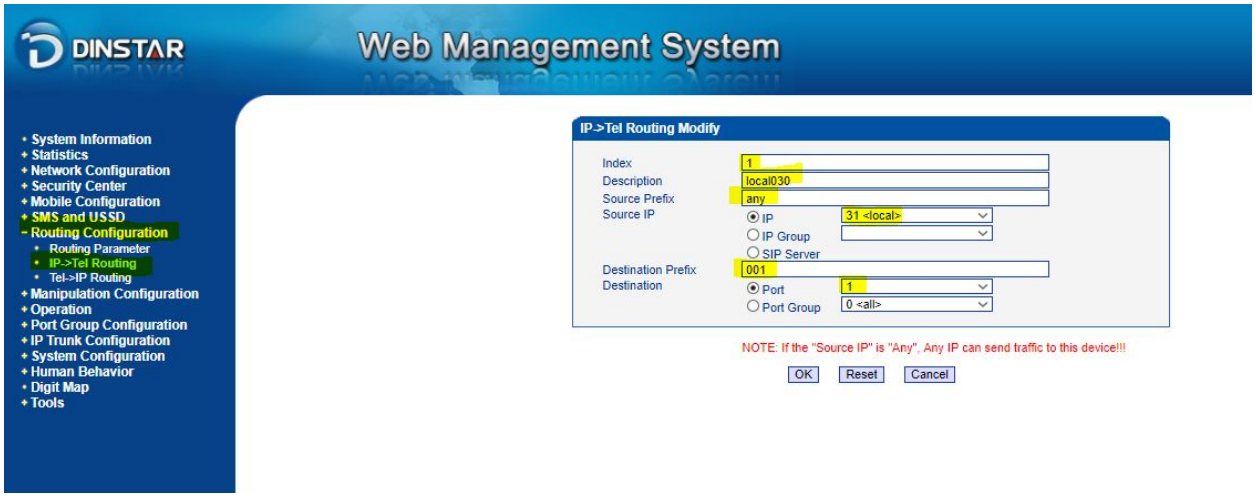


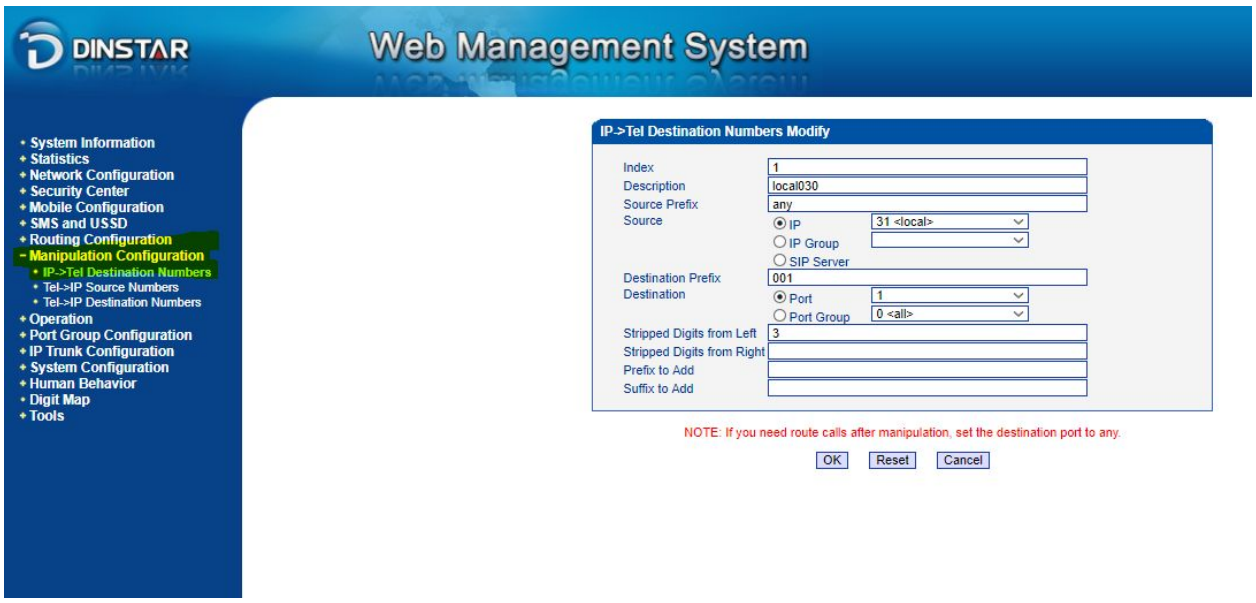
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c. Dinstar



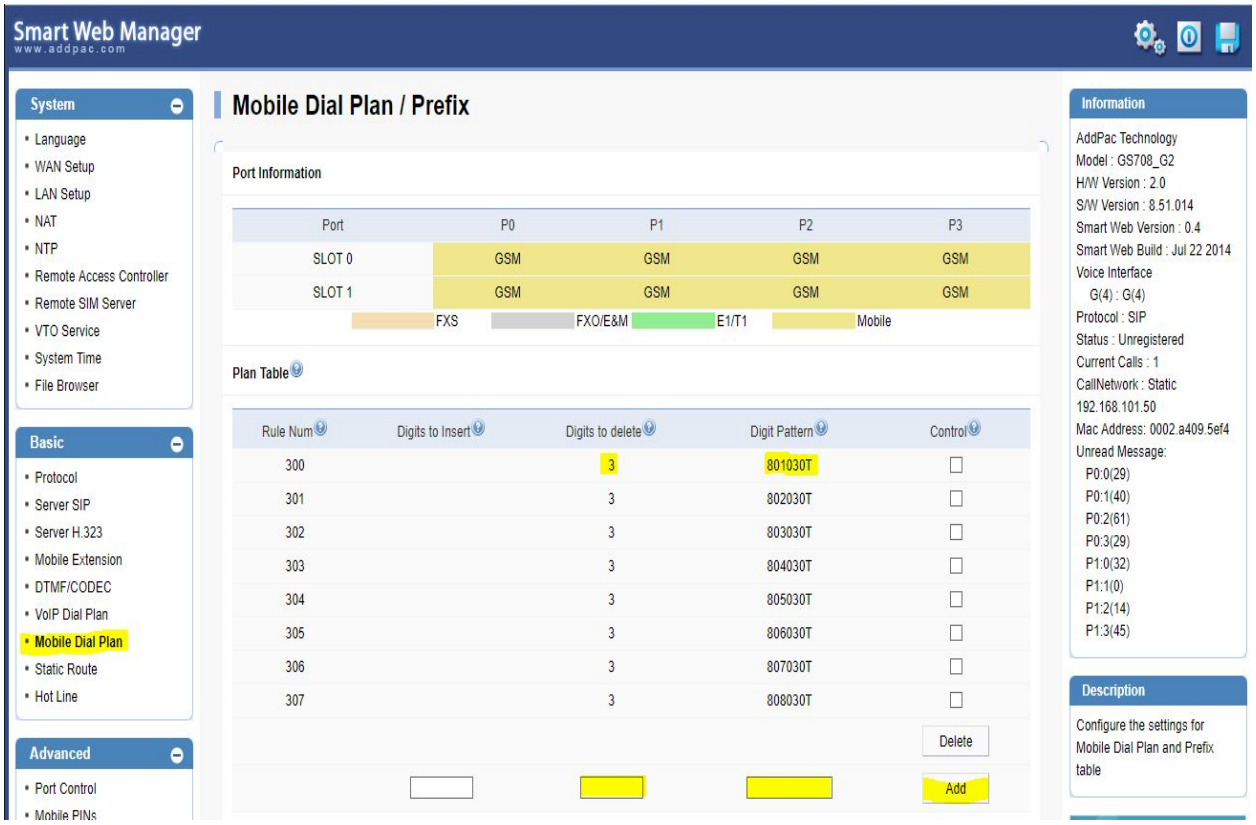


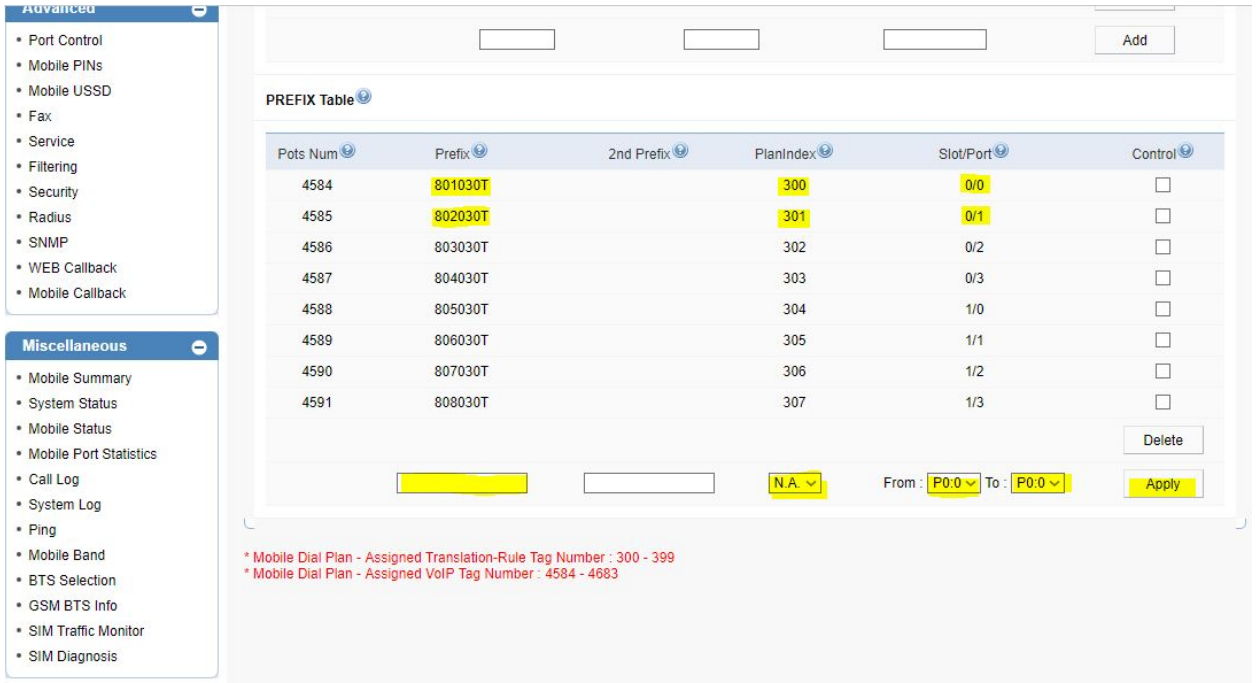


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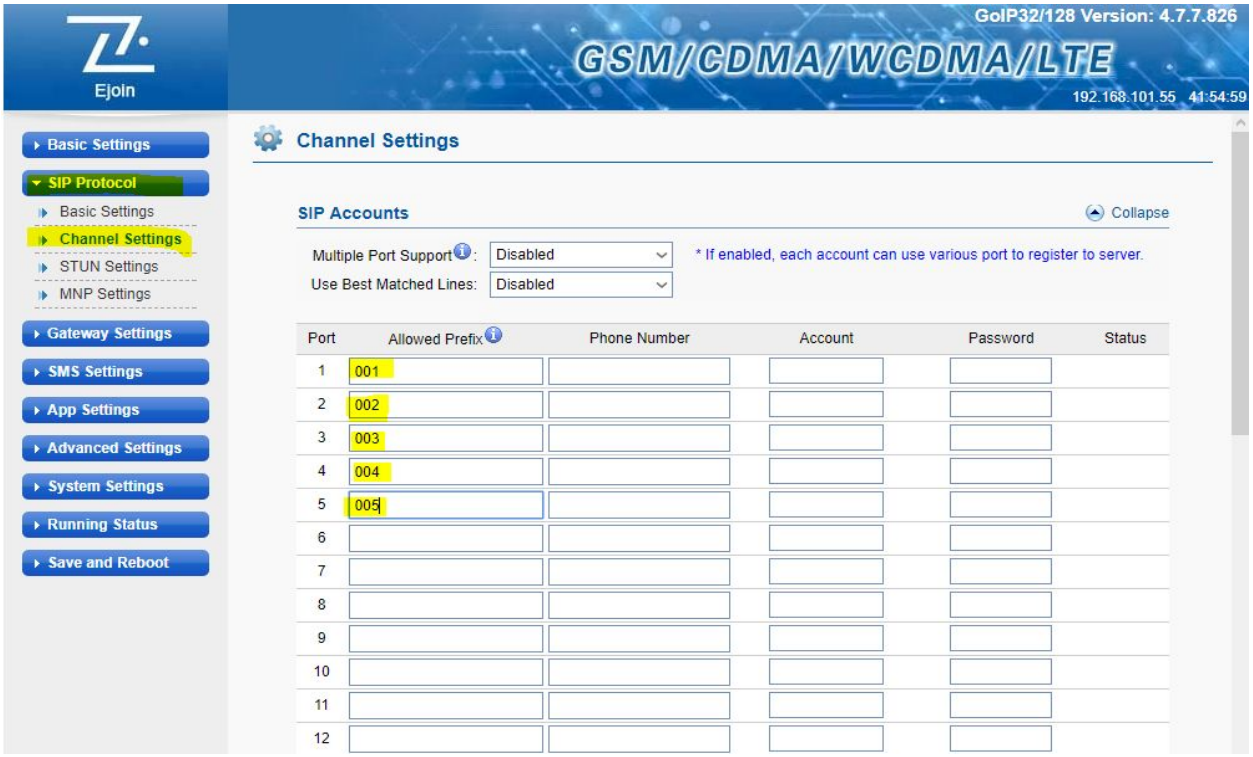
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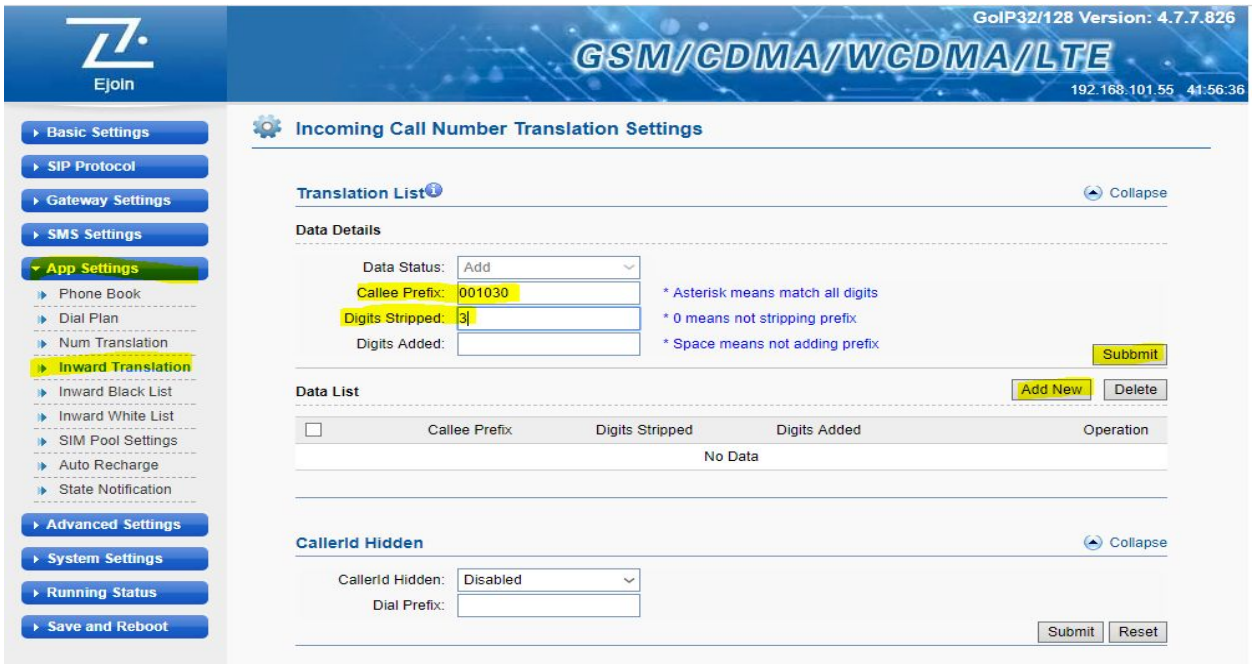
d. Addpac


Smart Web Manager
www.addpac.com
System
Language
WAN Setup
LAN Setup
NAT
NTP
Remote Access Controller
Remote SIM Server
VTO Service
System Time
File Browser
Basic
Protocol
Server SIP
Server H.323
Mobile Extension
DTMF/CODEC
VoIP Dial Plan
Mobile Dial Plan
Static Route
Hot Line
Advanced
Port Control
Mobile PINs
Mobile Dial Plan / Prefix
Port Information
Port P0 P1 P2 P3
SLOT 0 GSM GSM GSM GSM
SLOT 1 GSM GSM GSM GSM
FXS FXO/E&M E1/T1 Mobile
Plan Table
Rule Num Digits to Insert Digits to delete Digit Pattern Control
300 3 801030T
301 3 802030T
302 3 803030T
303 3 804030T
304 3 805030T
305 3 806030T
306 3 807030T
307 3 808030T
Delete
Add
Information
AddPac Technology
Model : GS708_G2
H/W Version : 2.0
S/W Version : 8.51.014
Smart Web Version : 0.4
Smart Web Build : Jul 22 2014
Voice Interface
G(4) : G(4)
Protocol : SIP
Status : Unregistered
Current Calls : 1
CallNetwork : Static
192.168.101.50
Mac Address: 0002.a409.5ef4
Unread Message:
P0:0(29)
P0:1(40)
P0:2(61)
P0:3(29)
P1:0(32)
P1:1(0)
P1:2(14)
P1:3(45)
Description
Configure the settings for Mobile Dial Plan and Prefix table

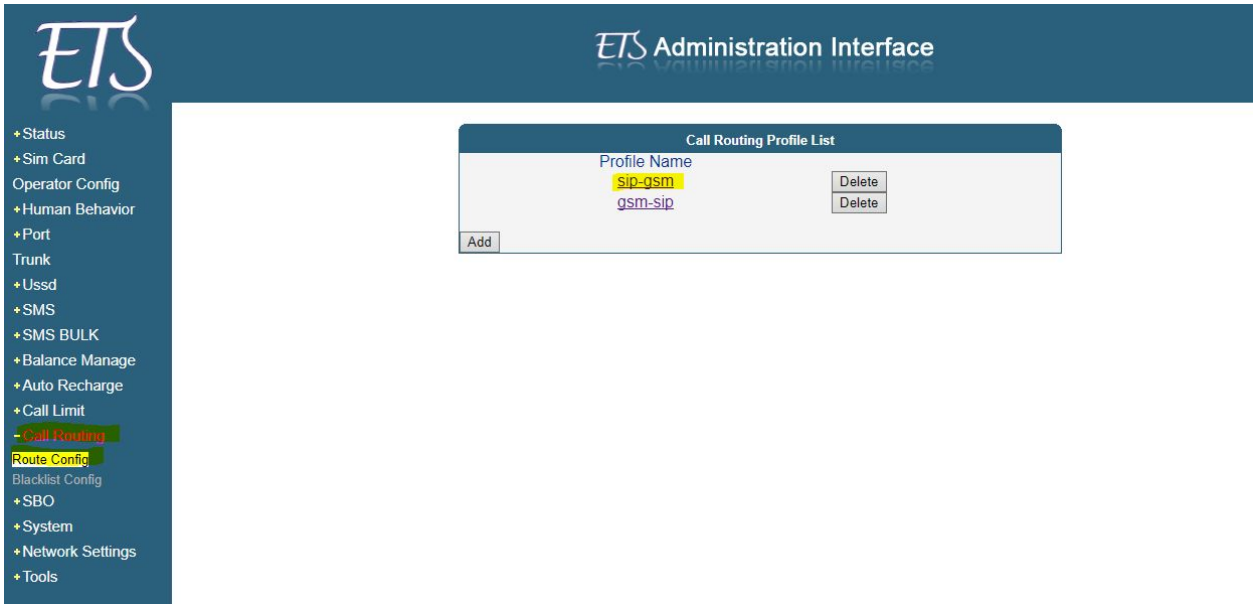

Advanced
Port Control
Mobile PINs
Mobile USSD
Fax
Service
Filtering
Security
Radius
SNMP
WEB Callback
Mobile Callback
Miscellaneous
Mobile Summary
System Status
Mobile Status
Mobile Port Statistics
Call Log
System Log
Ping
Mobile Band
BTS Selection
GSM BTS Info
SIM Traffic Monitor
SIM Diagnosis
Add
PREFIX Table
Pots Num Prefix 2nd Prefix PlanIndex Slot/Port Control
4584 801030T 300 0/0
4585 802030T 301 0/1
4586 803030T 302 0/2
4587 804030T 303 0/3
4588 805030T 304 1/0
4589 806030T 305 1/1
4590 807030T 306 1/2
4591 808030T 307 1/3
Delete
N.A.
From : P0:0 To : P0:0
Apply
* Mobile Dial Plan - Assigned Translation-Rule Tag Number : 300 - 399
* Mobile Dial Plan - Assigned VoIP Tag Number : 4584 - 4683

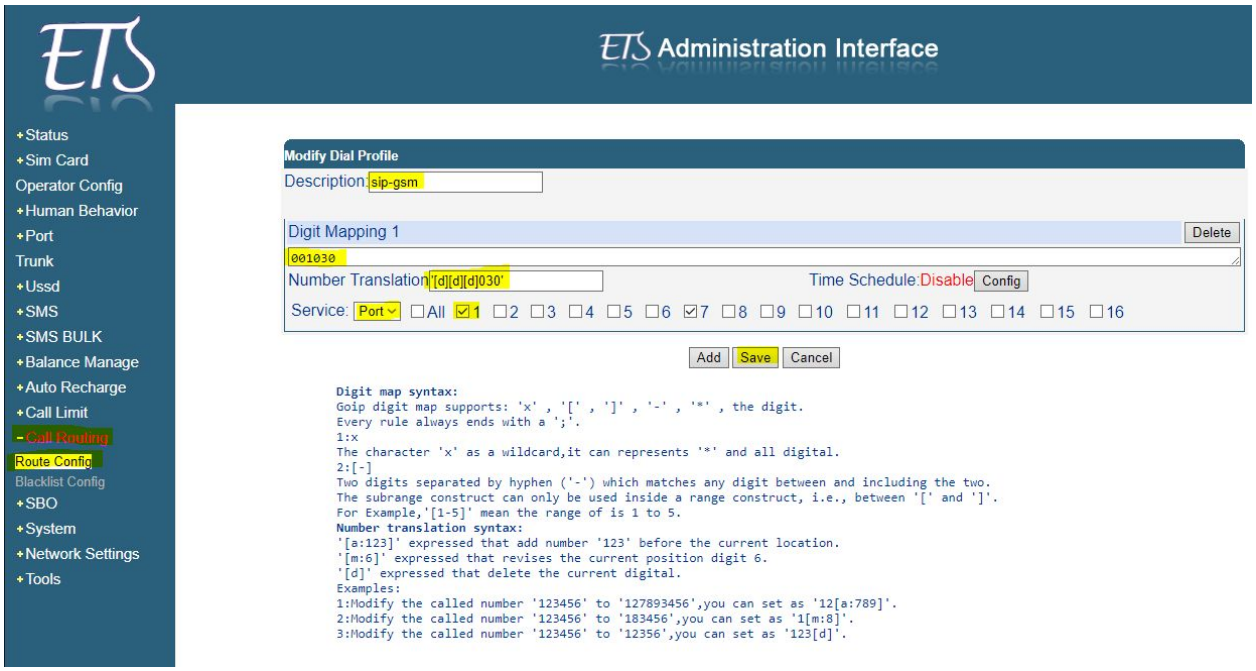
e. E-Join


Ejoin
GoIP32/128 Version: 4.7.7.826
GSM/CDMA/WCDMA/LTE
192.168.101.55 41:54:59
Basic Settings
SIP Protocol
Basic Settings
Channel Settings
STUN Settings
MNP Settings
Gateway Settings
SMS Settings
App Settings
Advanced Settings
System Settings
Running Status
Save and Reboot
Channel Settings
SIP Accounts
Collapse
Multiple Port Support: Disabled
* If enabled, each account can use various port to register to server.
Use Best Matched Lines: Disabled
Port Allowed Prefix Phone Number Account Password Status
1 001
2 002
3 003
4 004
5 005
6
7
8
9
10
11
12


Ejoin
GoIP32/128 Version: 4.7.7.826
GSM/CDMA/WCDMA/LTE
192.168.101.55 41:56:36
Basic Settings
SIP Protocol
Gateway Settings
SMS Settings
App Settings
Phone Book
Dial Plan
Num Translation
Inward Translation
Inward Black List
Inward White List
SIM Pool Settings
Auto Recharge
State Notification
Advanced Settings
System Settings
Running Status
Save and Reboot
Incoming Call Number Translation Settings
Translation List
Collapse
Data Details
Data Status: Add
Callee Prefix: 001030
* Asterisk means match all digits
Digits Stripped: 3
* 0 means not stripping prefix
Digits Added:
* Space means not adding prefix
Subbmit
Data List
Add New
Delete
Callee Prefix Digits Stripped Digits Added Operation
No Data
CallerId Hidden
Collapse
CallerId Hidden: Disabled
Dial Prefix:
Submit
Reset

f. ETS (Etross)





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4. TIPS AND TRICKS FOR OPTIMA SIM SAVER

A. You should not turn off your GSM Gateway at your idle time and we recommend not to send calls after 12 PM as well start sending calls after 8AM as this is a human behavior, usually human sleeps at night.
B. If your sims blocks or for new sim, try to change IMEI before inserting new sims as well use fixed IMEI.
C. Do not send USSD code repeated times in a day, We recommend 3 times a day.
D. We recommend not to recharge your account more than once in a day and use different types of recharging method.
E. We recommend to keep your Base Station fixed from 12 AM to 9 AM
F. We recommend to use retail traffic provider as well as you should not change traffic provider very soon.
G. To get satisfactory minutes and less sim blocking, use 64 sims to run 16 concurrent calls or use 128 sims to run 32 concurrent calls. Primary idea is you need 4 times more sims, than your concurrent calls.
H. Optima SIM Saver application needs to build its database slowly with repeatedly dialed phone numbers. 1st day, allow 2 numbers per port for new sims, then increase it slowly after 15 mins interval and at best allow 15 or 20 numbers per port for the whole day, then 2nd day increase 25 or 30. Keep increasing per port limit until you find out what is the best average range on your network operator. You need to run Optima SIM Saver for 4 days minimum to analyse the numbers and build our database with those numbers.

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5. Call Filtering Hierarchy

★ Call Filter hierarchy for new number in bucket :

- Whitelist (if the number or Caller ID is Whitelisted, even though same number/ID was in the blacklist, it will ignore and pass the call)
- Blacklist (if the number or Caller ID is blacklisted and not in the whitelist, calls will not pass)
- Call Gap (within the Call Gap period calls will not pass, call Gap counts after a number hits the specific prefix for the port, after the Call Gap time, call will pass)
- Number length[ignore/ block] (will check the number length perimeter, will pass if number came with exact digits, otherwise will block)
- Bucket size limit (will check Bucket is full or not, if full, call will not pass, if there is available bucket space, then callee number or Caller ID will be stored in bucket and call will pass)

★ Call Filter hierarchy for existing number in bucket :

- Whitelist (if the number or Caller ID is Whitelisted, even though same number/ID was in the blacklist, it will ignore and pass the call)
- Blacklist (if the number or Caller ID is blacklisted and not in the whitelist, calls will not pass)
- Call Gap (within the Call Gap period calls will not pass, call Gap counts after a number hits the specific prefix for the port)
- Number Length[ignore/ block] (if the number/ Caller ID is already in the bucket list, will ignore number current number length restriction)
- Bucket size limit (call will hit the specific port now as the number is already in the bucket list)

Disclaimer : Our Solution does not provide any guarantee that sim will not be blocked. It will extend sim life. All Rules are not for all countries. It varies country to country, operator to operator.