

GR303 configuration

Author	Date	Version	Changes
Luc Morissette	2024.12.02	1.5	Added instructions to update OS
Luc Morissette	2024.10.31	1.4	SIP subscriber registration, GR303 status
Luc Morissette	2024.10.01	1.3	Added SIP on host, TOC
Luc Morissette	2024.07.10	1.2	Updated for multiple CAS in GR303
Luc Morissette	2024.07.04	1.1	Initial document

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Requirements

- TMG800, TMG3200 or TMG7800 with GR303 license

License and version

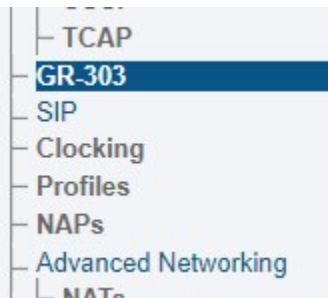
- Update TB operating system to latest version:
 - On web portal: Hosts -> Status -> TBxxxxxx -> Action -> Upgrade Linux Packages, then 'Apply Action':
 - On SSH, type: yum update
 - See: https://docs.telcobridges.com/wiki/Upgrade_Telcobridges_Linux
- Install new license (TBxxxxxx_V3_3_license.dat file) from the dashboard (dashboard.telcobridges.com) for the unit TBxxxxxx. Use version 3.3
- Install new host license (TBxxxxxx_V3_3_license_SIP.dat file), for SIP on host
- Install 3.3.x software version: TBToolPack-3.3.x.x-Linux-centos7-x86_64-Install

Enable new features from the web portal

Configurations -> "Current_config" -> Web Profiles ->

- Filedb [Check]
- GR-303 [Check]
- CAS [Check]
- SIP [Check]

Once done, you will see this appear and be able to create a new GR303 group



Allocate GR303 groups

Must have your T1s allocated first. See: [Creating a Line Interface](#)

Then you can allocate one or more GR303 groups with those T1s.

Configuration

[Create New GR-303 Group](#)

GR-303 IDT Group List

Name	Line Services	Enabled	Actions
------	---------------	---------	---------

Editing GR-303 IDT Group:

Enabled☒

NameMAIN_GR303

GR-303 Group Lines

[Create New GR-303 Group Line](#)

Name	Group Line Number	Line Service	Actions
------	-------------------	--------------	---------

TMC

Primary GR-303 LineNone

Secondary GR-303 LineNone

EOC

Primary GR-303 LineNone

Secondary GR-303 LineNone

Flow-through Provisioning☒

Save

Name : GR303_Line_13 (Give a meaningful name)

Group Line Number : 1 (T1 number in this GR303 group)

Line Service: T1_LS_13 (T1 in this GR303 group, for example trunk 13)

Do this for every T1 in this GR303 group.

Editing GR-303 IDT Group:

Enabled



Name

GR303_Group_A

GR-303 Group Lines

[Create New GR-303 Group Line](#)

Name	Group Line Number	Line Service	Actions
GR303 Line 13	1	T1_LS_13	Delete
GR303 Line 14	2	T1_LS_14	Delete
GR303 Line 15	3	T1_LS_15	Delete

TMC

Primary GR-303 Line

GR303_Line_13



Secondary GR-303 Line

GR303_Line_14



EOC

Primary GR-303 Line

GR303_Line_13



Secondary GR-303 Line

GR303_Line_14



Flow-through Provisioning

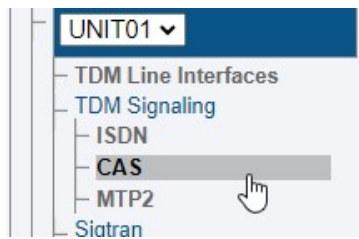


Save

Assign the TMC and EOC channels to the correct T1s.

Allocate CAS stacks

Copy the default CAS stack gr-303_idt_loopstart.lua



Configuration			Scripts		
Create New CAS Stack			Create Multiple CAS Stacks	Delete All	
e_m_keep_suffix.lua	334662	0		Copy	Delete
e_m_keep_suffix.lua	20221216	0		Copy	
gr-303_idt_loopstart.lua	20240606	0	GR303CAS_15	Copy	
groundstart_network.lua	137717	0		Copy	Delete
groundstart_network.lua	330820	0		Copy	Delete
groundstart_network.lua	336537	0		Copy	Delete
groundstart_network.lua	30330534	0		Copy	

Name it **gr-303_idt_loopstart_dnis.lua** and change the number of DNIS digits to send/receive in the CAS script.



Default is 4 digits, but we can change this to 7 digits or other as well as the timeout to wait for the digits to be received.

Allocate CAS stacks with the Variant **gr-303_idt_loopstart_dnis.lua** on all the lines which have GR303 configured

Configuration

Create New CAS Stack

Create M

Editing CAS Stack:

Enabled☒

Name

GR303CAS_15

Line service

T1_LS_15

Variant script

gr-303_idt_loopstart_dnis.l

Variant Script Variables

States

Save

CAS Stack List

Name	Trunk	Variant Script	NAP	Enabled	Actions
GR303CAS_13	T1_LS_13	gr-303_idt_loopstart_dnis.lua	NAP GR303	true	Delete
GR303CAS_14	T1_LS_14	gr-303_idt_loopstart_dnis.lua	NAP GR303	true	Delete
GR303CAS_15	T1_LS_15	gr-303_idt_loopstart_dnis.lua	NAP GR303	true	Delete

Import GR303 crv to subscriber file

First, create a crv to subscriber association in a csv file. For example:

CRV,subscriber

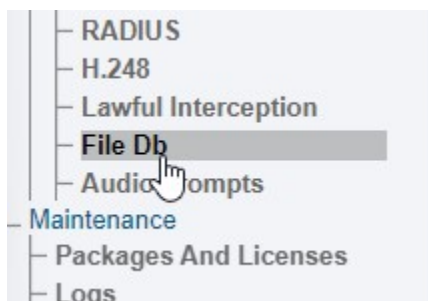
1,4001

2,4002

4,4004

10,4010

Then, add it in the File database into the “Subscribers” section:



Subscribers:

Import new Subscribers file

Name	Actions
crv_subscribers.csv	Update Export Delete

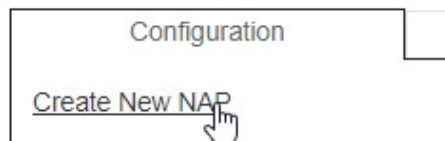
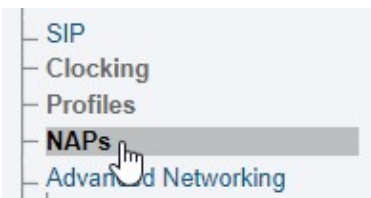
File DB

Importing Tbgw file File:

File

crv_subscribers.csv

Create a GR303 Network Access Point (NAP)



Creating New NAP:

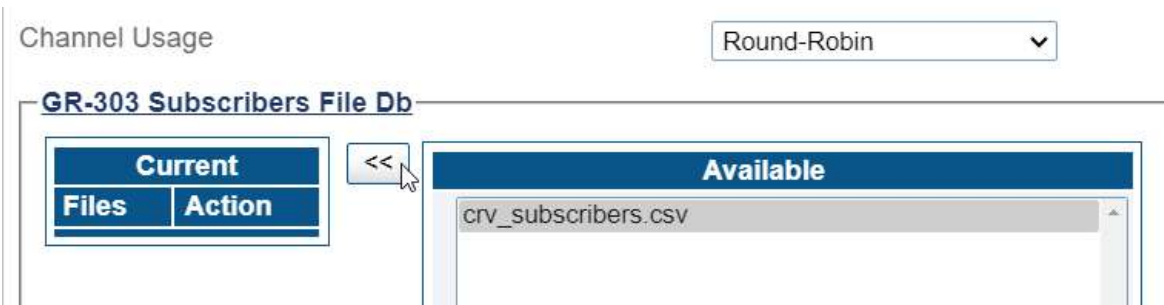
Name

Enabled ☒

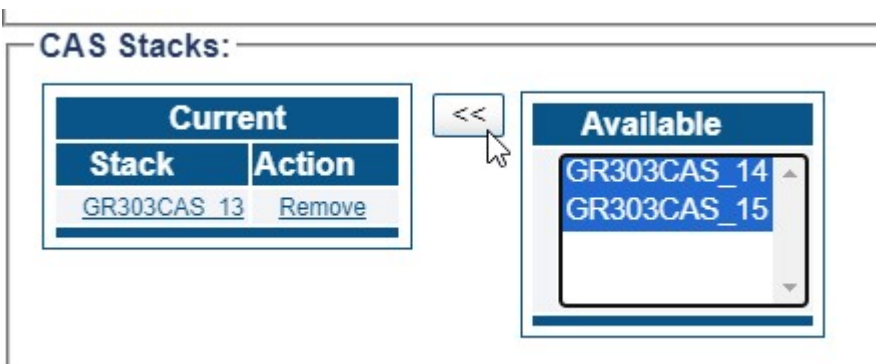
Default Profile

Advanced Parameters

Set channel usage to **Round-Robin** and add the GR303 subscriber file associated with this NAP:

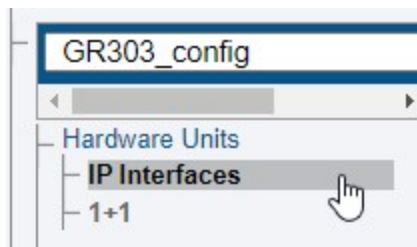


Add the CAS stacks for this GR303 group to this NAP:



Create an IP interface for SIP

See [IP Network](#) for more details.

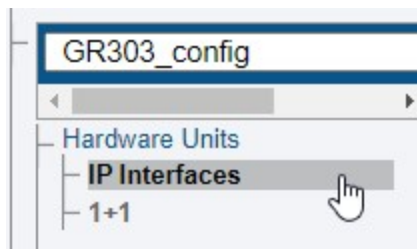


Creating New IP Interface:

Interface name	SIP_IP
Services to use	RTP SIP SIGTRAN OAMP/NAT H248/RADIUS FIXED MANAGEMENT
Virtual port	UNIT01:voip_untagged ▼
Use DHCP	☐
IP address	0.0.0.0
Netmask	0.0.0.0
Gateway	0.0.0.0
Create	

Create an IP interface for RTP

RTP can be on the same physical interface and subnet, but it needs a different IP than SIP.



Creating New IP Interface:

Interface name	RTP_IP
Services to use	RTP SIP SIGTRAN OAMP/NAT H248/RADIUS FIXED MANAGEMENT
Virtual port	UNIT01:voip_untagged
Use DHCP	☐
IP address	0.0.0.0
Netmask	0.0.0.0
Gateway	0.0.0.0
Create	

A RTP port range will automatically be created and will be used in the SIP NAP.

Create the SIP stack on host



Configuration

[Create New SIP](#)

Name: SIP_STACK

Unit: HOST (Do not select TBxxxxxx unit)

Creating New SIP Config:

Enabled	☒
Name	SIP_STACK
Unit	HOST

[Quirks](#)

Select **“Create”**

Allocate new SIP transport server

[Transport Servers](#)

[Create New Transport Server](#)

Select the IP interface that will be used for SIP traffic

SIP_STACK

Creating New SIP Transport Server:

Name	SIP_TS
Port Type	UDP
Port	5060
IP Interface	UNIT01:voip_unt

[Advanced](#)

IP int
on.

Create SIP NAP

Set “**Proxy Address**” to the IP of the target system (SBC or MGC)

Editing NAP:

Name	NAP_SIP
Enabled	☒
Default Profile	default
Use Proxy Address	☒
Proxy address	192.168.101.50
Proxy port	5060

Add GR303 subscribers for SIP registration:

Subscribers Registration

Enabled	☒
Registrar	192.168.101.200:5060
Authentication User	
Authentication Password	AllSubscribersPassword

Subscribers Files Db

Current			Available	
Files	Action			
crv_subscribers.csv	Remove			

Enable: Select to start registering the GR303 subscribers

Registrar: Registrar IP or domain

Authentication User: should be left empty – The system will use the subscriber list from the csv file to register each user individually

Authentication Password: system will use the same for all users

Add the same subscriber file (csv) used in the GR303 NAP. If there are multiple GR303 groups registering, there can be multiple subscriber files added.

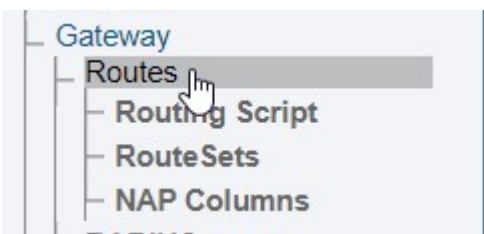
Also add the RTP port range configured previously in the “Port range” section.

- **Port range:** _____

Current	
Port Range	Action
<u>UNIT01:voip_unt:pr_voip_v0_160:20000-40000</u>	<u>Remove</u>

Create routes

You need to create routes to and from GR303 groups:



Create New Static Route

Editing Route:

Name

A_GR303_to_SIP

Routeset Name

Called

Calling

NAP

NAP_GR303

Remapped Called

Remapped Calling

Remapped NAP

NAP_SIP

	Incoming Attributes			Outgoing Attributes	Custom Attributes		
Name	Calling	Called	NAP	Remapped NAP	priority X	weight X	Actions
A_GR303_to_SIP			NAP_GR303	NAP_SIP	10	100	Delete
A_SIP_to_GR303			NAP_SIP	NAP_GR303	10	100	Delete

Activate the configuration

GR303 status

You can see the status of the GR303 stack in the main Status page:

STATUS -> GR-303

The GR303 NAP status:

STATUS -> NAP -> NAP_GR303

And status of the SIP subscribers:

STATUS -> NAP -> NAP_SIP