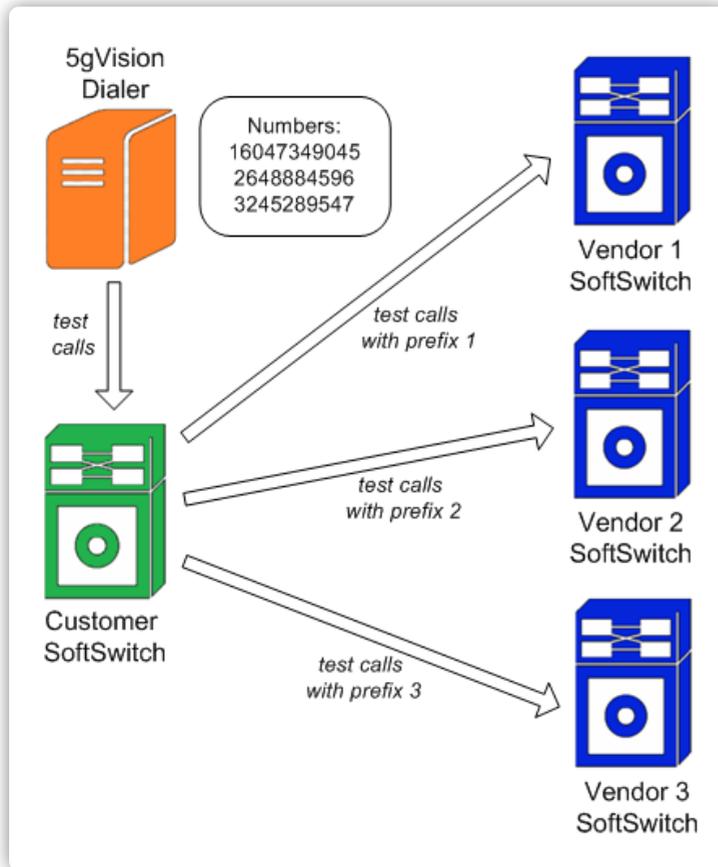




Route testing dialer

Break through your data



The **route testing dialer** is a software module that lets you test **quality of routes** provided by your vendors by automatically dialing certain **auto-generated** or **manually entered** numbers.

The dialer may be used to:

- obtain information on the **quality of service** provided by your vendors and use it to change your switch routing.
- **resolve conflicts** with vendors when they charge you for **FAS**.

- **Automation** of outgoing dialing. Test requests are created via a **clear and convenient interface**, several 5gVision users may **create requests simultaneously**.
- **Initiate route tests** for a certain stats object (**vendor, area**) right from the Table, Report, or Alert modules.
- **FAS** (False Answer Supervision) detection for routes tested.
- **Full CDRs** with information like duration, PDD, TTC, disconnect codes, etc.
- **Signaling logs** and **Call flow** charts for each test call. It is possible to send a call flow chart as an **external link** to a vendor or save the signaling packets into a **PCAP** file.
- **Recording of media** stream with or without early media in **wav** or **mp3** formats.
- **Task scheduler** to allow users to run various dialer requests **automatically** according to time schedule.
- Sending **tickets** to vendors on the basis of testing results.

✕ ⛶ Dialer settings

Switch to send calls to:	<input type="text" value="Fake Switch 1 (10.10.10.10)"/>
Audio file to play:	<input type="text" value="Silence (120sec)"/>
Call recording options:	<input type="text" value=".mp3 with early media"/>
Codec to use for origination:	<input type="text" value="G711 A-law"/>
Simultaneous test calls:	<input type="text" value="2"/>
Max time till connect:	<input type="text" value="60"/>
Max connected call duration:	<input type="text" value="60"/>
Caller ID pattern (X - random):	<input type="text" value="ZZZZXXXXXXX"/>
Vendor from statistics:	<input type="text"/>
Vendor technical prefix:	<input type="text" value="#1234"/>
Vendor IP:	<input type="text"/>
Areas from statistics:	<input type="text"/>
Numbers area codes:	<input type="text" value="1,7"/>
Numbers area codes mode:	<input type="text" value="Full: get any numbers matching a code"/>
Exclude longer area codes:	<input type="text"/>

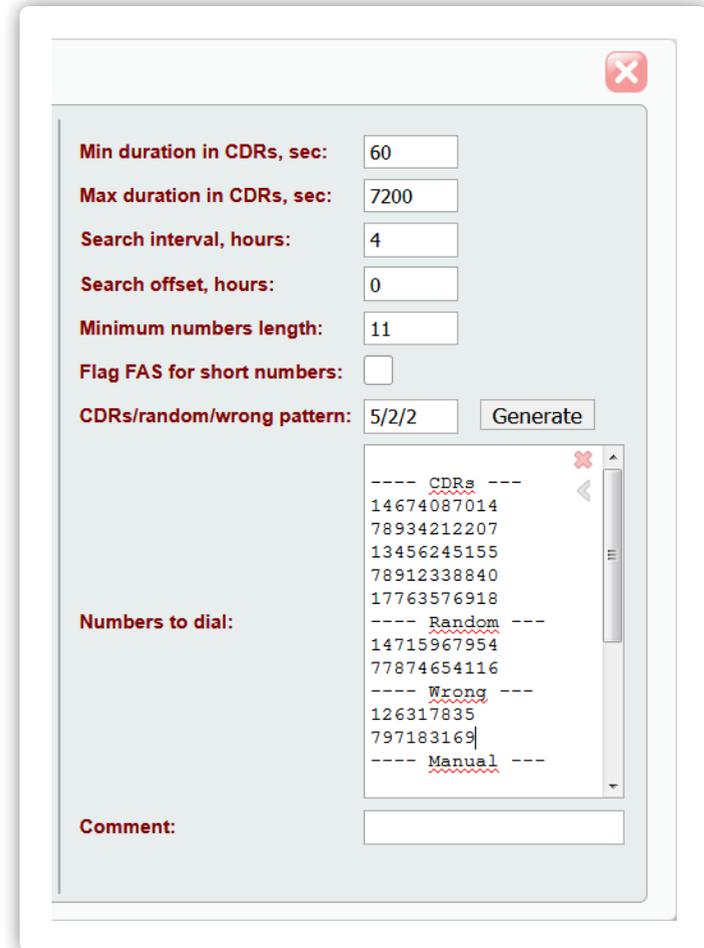
OK

Testing request options include:

- **Switch to send calls to** - one of your switches for the test calls to be routed to.
- **Call recording options** - how the call will be recorded - **wav** or **mp3**, with or without early media.
- **Simultaneous test calls** - number of simultaneous calls to test numbers in a batch.
- **Caller ID pattern** - caller ID to show to called numbers (you may generate random numbers using a pattern).
- **Vendor from statistics** - vendor from the statistics module to test termination of calls to.
- **Vendor technical prefix** - technical prefix to add to each number.
- **Area from statistics** - areas from the statistics module to match when extracting numbers from CDRs or generating random numbers.
- **Numbers area codes** - area code for which to retrieve test numbers from CDRs.

You may enter destination numbers manually, generate them randomly, or take them from recent CDRs (so that you always call real and valid numbers).

- **Min duration in CDRs, Max duration in CDRs** - when the System selects destination numbers from CDRs, it will only consider CDRs with the duration over the minimum and less than the maximum.
- **Search interval, Search offset*** - the System will select destination numbers from CDRs within the interval from the offset.
- **Minimum numbers length** - minimum valid numbers length for tested codes. Needed to generate **random** (= this length) and **wrong** numbers (< this length).
- **Flag FAS for short numbers** - flag a call as **FAS** one if connect is to a wrong number shorter than the set minimum.
- **CDRs/random/wrong pattern** - defines the count of **real** numbers (from CDRs) / (**random** numbers) / (intentionally **wrong** numbers) to be tested.
- **Numbers to dial** - the list of numbers to be dialed.



Min duration in CDRs, sec: 60

Max duration in CDRs, sec: 7200

Search interval, hours: 4

Search offset, hours: 0

Minimum numbers length: 11

Flag FAS for short numbers:

CDRs/random/wrong pattern: 5/2/2

Numbers to dial:

```
---- CDRs ----  
14674087014  
78934212207  
13456245155  
78912338840  
17763576918  
---- Random ----  
14715967954  
77874654116  
---- Wrong ----  
126317835  
797183169  
---- Manual ----
```

Comment:

Once the request is created, test results are shown in the Request log.

The key column in the request log table is the **Test result** which contains the status of the test (**% done**, **OK** or **FAIL**) updated as the test progresses. The test is considered a **success** if the **ASR** value was above a preset threshold and there were no calls with **FAS**.

The system considers an attempt to be **FAS-terminated** in the following cases:

- The call connected to a specially generated **incorrect number**.
- The call disconnected as the maximum duration **time was exceeded**.

The screenshot shows the 'Route testing dialer' interface. At the top, there are navigation tabs: Request, Dialer CDRs, Email templates, Tickets log, Tickets reasons, and More... Below the tabs are filters for 'Cust 1h 24h 7d 30d 180d All' and a 'GO' button. The table below has columns: Scheduler task, Request time, GMT, Comment, Test result, Number count, ASR %, FAS1 %, ACD sec, PDD sec, TTC sec, TTR sec, Audio file, Codec, Simult calls, Max TTC, and Max Dur. A context menu is open over the 'View in dialer CDRs' option.

Scheduler task	Request time, GMT	Comment	Test result	Number count	ASR %	FAS1 %	ACD sec	PDD sec	TTC sec	TTR sec	Audio file	Codec	Simult calls	Max TTC	Max Dur
Test scheduled task (11)	2017-05-02 11:23:32		Refresh	17							English_long.wav	G729	10	60	180
	2017-05-02 11:16:32		OK	17	72		26	0	0		Engl		10	60	180
Test scheduled task (11)	2017-05-02 11:15:21		Refresh	17							Engl		10	60	180
	2017-05-02 11:11:41		OK	17	41		16	0.0			Engl		10	60	180
	2017-05-02 10:38:14		FAILED	24	31	12	82	0.0	0.0		siler		20	60	180
	2017-05-02 10:38:00		FAILED	24	44	24	120	0.0	0.0		siler		20	60	180
	2017-05-02 10:18:03		FAILED	24	46	19	97	0.0	0.0		siler		20	60	180
	2017-05-02 10:11:49		FAILED	24	38	15	114	0.0	0.0		siler		20	60	180
	2017-05-02 09:52:17		OK	8	33		27	0.0			Engl		10	60	180
Test scheduled task 2 (12)	2017-05-02 09:47:01		Refresh	16							Engl		5	60	180

The dialer saves regular CDRs for test calls.

You may open a CDR screen via the **pop-up menu** over the desired test record or by **double-clicking** the record in the **Request log**. A new CDR window will pop up with only the calls pertaining to the **test filtered**.

Apart from usual CDR parameters including detail **media statistics**, this window will contain the **Audio recorded** column with audio **waveform** to playback and the **Audio get file** column hosting a link to the recorded call.

You can easily display **Signaling logs** or **Call flow** for a certain call right from the CDR table using the context menu.

The screenshot shows the 'Route testing dialer' interface. At the top, there are navigation tabs: Request, Dialer CDRs (selected), Email templates, Tickets log, Tickets reasons, and More... Below the tabs are filters: Cust 10m 1h 4h 24h 3d 7d 30d 180d, and a dropdown menu currently set to 'CDR'. There are also buttons for 'Flow', 'Share', and 'Ticket', and a 'Rows: 100 / 2088 1-100' indicator.

The main table displays CDR records with columns: CDR ID, CDR date, Request ID, Early dur., Call dur., Disconnect code, Disconnect initiator, PDD, TTC, TTR, Audio recorded by media logger, Audio get file, and DST number type. A context menu is open over the row with CDR ID 8899717, showing options: View in Signaling logs, View in Call flow, Add to filter, Clear filter, Export to Excel, Select cell contents, Select col contents, Add/remove totals row, and Auto highlight.

CDR ID	CDR date	Request ID	Early dur.	Call dur.	Disconnect code	Disconnect initiator	PDD	TTC	TTR	Audio recorded by media logger	Audio get file	DST number type
Min-max	Date range, hours	Min-max	Avg	Avg	All unique count	All unique count	Avg	Avg	Avg	Non-empty	Non-em	All unique coun
8899420	0.28 hours	51671	28.0	100.3	41 - NORMAL_TEMPORARY_FAIL	DST (recv_refuse)	5.4	25.7	12.8	51	51	CDRs : 79; Wro
8899934	2017-05-03 08:12:42	51679	5.4	85.2	16 - NORMAL	bye)	2.3	6.8			get file	Manual
8899920	2017-05-03 08:11:57	51678	58.5		19 - NO_ANS	cancel)	2.5		59.3		get file	Manual
8899901	2017-05-03 08:10:50	51677	0.4		1 - UNALLO	refuse)			2.0		get file	Manual
8899717	2017-05-03 08:05:59	51675	22.2	179.9	16 - NORMAL	bye)	5.0	26.2			get file	CDRs
8899716	2017-05-03 08:05:54	51676	40.8	167.3	16 - NORMAL	bye)	4.5	44.4			get file	CDRs
8899715	2017-05-03 08:05:53	51676	27.7	179.3	16 - NORMAL	bye)	4.6	31.4			get file	CDRs
8899714	2017-05-03 08:05:40	51675	21.0	179.7	16 - ALLOTTE	bye)	7.1	27.1			get file	CDRs
8899713	2017-05-03 08:05:24	51675	13.6	135.3	16 - NORMAL	bye)	6.7	19.3			get file	CDRs

Complete info on each call is available via **Signaling logs** and **Call flow** diagram.

The screenshot displays a network analysis tool interface. At the top, there are tabs for 'Chart', 'Table', 'Report', 'Alerts', 'CDR', 'Signaling logs', and 'More...'. Below the tabs, there are controls for 'Share', 'Rows: 12 / 8 1-8', 'Fetch: 10 100 300 1k 3k File-PCAP', and 'Audio: wav mp3 mp3-mono'. A 'Call flow' window is open, showing a timeline of events for a call. The timeline includes the following events:

Time	Event
0.000000	INVITE (G729)
0.209174	100 Trying
5.518487	180 Ringing (G729)
5.675992	RTP (G729) 120.0 sec
7.242542	183 Progress
9.991451	200 OK (G729)
9.993537	ACK
10.011700	RTP (G729) 115.7 sec
125.695992	RTP END
125.700700	RTP END
125.702684	BYE
125.721610	200 OK

The 'Call flow' window also shows a 'Share selected' button, a 'Diff' checkbox, and a 'PCAP selected' button. The 'Call flow' window is overlaid on a table of signaling logs. The table has columns for 'Dir', 'Packet size', and 'Packet data'. The logs show the following packets:

Dir	Packet size	Packet data
src->	1062	INVITE sip:100343#45605
<-dst	322	SIP/2.0 100 Trying Via: SIF
<-dst	931	SIP/2.0 180 Ringing Via: SIF
<-dst	629	SIP/2.0 183 Progress Via: SIF
<-dst	1070	SIP/2.0 200 OK Via: SIP/2.0
src->	606	ACK sip:100343#456050C
src->		RTP SRC->DST. First pack
<-dst		RTP END DST->SRC. Last
src->		RTP END SRC->DST. Last
<-dst	950	BYE sip:mod_sofia@46.4.
src->	787	SIP/2.0 200 OK Via: SIP/2.0

They include **all signaling packets** that were exchanged between the dialer and your switch.

You can see **RTP streams, play media** and show **detail media stats** right in the call flow window.

Shared links let your partner see the shared data in the same way as you do.

You always can export signaling logs as a **PCAP** file.

If you get a **FAILED** result during a test, you can send an email to your partner to open a **trouble ticket**.

You should just select required CDRs of a certain test request and click the **Ticket** button.

Most of the fields in the floating form will be **automatically filled up** according to the chosen CDRs but they are editable.

You may select preconfigured **Ticket reasons** and **Email templates**. Special **keywords** can be used in the **Email subject**.

Results of tickets sending are displayed in the separate **Ticket log**.

The screenshot shows a 'Send ticket' dialog box with the following fields and values:

- Ticket reasons:** False answer supervision
- Additional comments:** (empty text area)
- Number of CDRs:** 2 - Selected manually
- Send links to media:**
- Request areas:** Germany Mobile
- Vendor:** Lobster Telecom
- Vendor IP:** 192.168.0.1
- Email TO, vendor:** noc@lobstertelecom.com
- Email template:** Ticket - Julia (9)
- Email From:** tickets@gigantictelecom.com
- Emails TO, add:** (empty text area)
- Emails CC:** manager@gigantictelecom.com
- Emails BCC:** (empty text area)
- Email subject:** Please open TT: {{vendor}} -> {{areas}} -> {{ticket reasons}}

A green 'OK' button is located at the bottom right of the form. The background shows a table with columns like 'prefix', 'from state', 'from request', and 'DST number'.



Thank you for your time

If you wish to request
a fully functional trial
or get more information,
please contact:

Demo: demo.5gfuture.com

Web: www.5gfuture.com

Skype: [support_5gfuture](https://www.skype.com/join/support_5gfuture)

Email: sales-team@5gfuture.com