



VoIP/SMS monitoring suite

Break through your data

5g Vision
2.3-016

Demo

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- ▶ Monitoring
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 - Alerts
 - CDRs
 - Route testing dialer
 - Thumbnails
- ▶ Traffic collector
- ▶ Rate management
 - Rate plans
 - Rate import
 - Rate import config
 - Customer rates
 - Rate generation
 - Vendor rates
 - Rate analysis
 - Rate config
 - Billing
 - CDR comparison
- ▶ Routing and switching
 - Routing
 - SMS switch
- ▶ Received screens
- ▶ Config
 - Config: Styles
 - Config: Users
 - Config: System
 - Config: Objects
 - Config: SNMP
 - Config: Alerts
 - Config: Tickets
 - System logs

VoIP stats
Interface
Wizards
Release notes
Messages 4

VoIP stats
Chart Table Report Alerts CDR Signaling logs More...

E
 C
 C

Comb: **ca cc cac** cr ar car ba bc bca
ThisHr PrevHr 2h 3h
Share
Rows: 81
Refresh: No 3 5 10

ID	NAME	In Calls	In Hr Atmpt	In Hr Conn	In Hr Mins	In ACD	In Hr ACD	In Hr ASR	In Hr ABR	In Hr PDD	Out Calls	Out Hr Atmpt	Out Hr Conn	Out Hr Mins	Out ACD	Out Hr ACD	Out Hr ASR	Out Hr ABR	Out Hr PDD
cTOTAL TOTAL SYSTEM STATISTICS																			
a5379	Green country	319	8072	2726	10.2K	3.65	3.75	52.7	33.8	10.27	319	18.1K	2726	10.2K	3.65	3.75	41.2	15.1	10.27
a4769	Purple country	8	6974	115	209	1.58	1.82	52.3	1.6	0.48	8	1053	115	209	1.58	1.82	52.3	10.9	0.48
c01.171	Oversized telecom	43	3063	523	1534	2.88	2.93	45.6	17.1	9.50	50	5154	457	1344	2.51	2.94	18.1	8.9	9.18
c01.119	Sponge telecom	12	2396	156	603	3.38	3.86	25.2	6.5	11.83	-	-	-	-	-	-	-	-	-
a5379	Green country	41	1325	476	1500	3.21	3.15	51.0	35.9	9.81	-	-	-	-	-	-	-	-	-
c01.02	Beer telecom	-	-	-	-	-	-	-	-	-	8	2	1	0.73	0.38	25.0	25.0	9.00	-
c01.2215	Gigantic telecom	-	-	-	-	-	-	-	-	-	41	3157	474	1499	3.21	3.16	40.1	15.0	9.81
c01.2188	Lobster telecom	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.128	Big telecom	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.2131	Enormous telecom	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a4977	Yellow country East	13	-	-	-	-	-	-	-	-	80	25.0	7.7	13.20	-	-	-	-	-
a3095	Orange country	2	-	-	-	-	-	-	-	-	12	48.0	20.3	10.04	-	-	-	-	-
a4975	Yellow country South	26	-	-	-	-	-	-	-	-	04	29.3	11.2	9.22	-	-	-	-	-
a3005	Bluish country North	55	-	-	-	-	-	-	-	-	35	41.4	26.6	3.72	-	-	-	-	-
a5373	Yellow country South-West	81	-	-	-	-	-	-	-	-	42	37.7	26.3	7.44	-	-	-	-	-
a4985	Cold country	13	-	-	-	-	-	-	-	-	74	15.3	10.1	4.95	-	-	-	-	-
a5849	Black country	13	-	-	-	-	-	-	-	-	48	45.5	38.0	5.19	-	-	-	-	-
a5689	Cold country South	17	-	-	-	-	-	-	-	-	14	23.2	14.1	3.91	-	-	-	-	-
a5329	Yellow country Seaside	43	-	-	-	-	-	-	-	-	97	48.6	37.6	9.25	-	-	-	-	-
c01.119	Sponge telecom	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.2188	Lobster telecom	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.128	Big telecom	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a4979	Yellow country North	11	-	-	-	-	-	-	-	-	46	40.1	14.8	9.29	-	-	-	-	-
a5249	Yellow country North-West	27	-	-	-	-	-	-	-	-	57	49.6	34.3	8.10	-	-	-	-	-
a5889	Black country proper	4	-	-	-	-	-	-	-	-	03	18.8	17.5	0.73	-	-	-	-	-
a3651	Blue country	5	-	-	-	-	-	-	-	-	96	68.1	50.8	7.64	-	-	-	-	-
c01.2234	Salmon telecom	7	-	-	-	-	-	-	-	-	08	18.8	16.5	0.67	-	-	-	-	-
e27907	Salmon telecom GW	7	-	-	-	-	-	-	-	-	08	18.8	16.5	0.67	-	-	-	-	-
a5893	Black country mobile	3	-	-	-	-	-	-	-	-	119	47	80	1.94	1.70	43.9	39.5	5.02	3

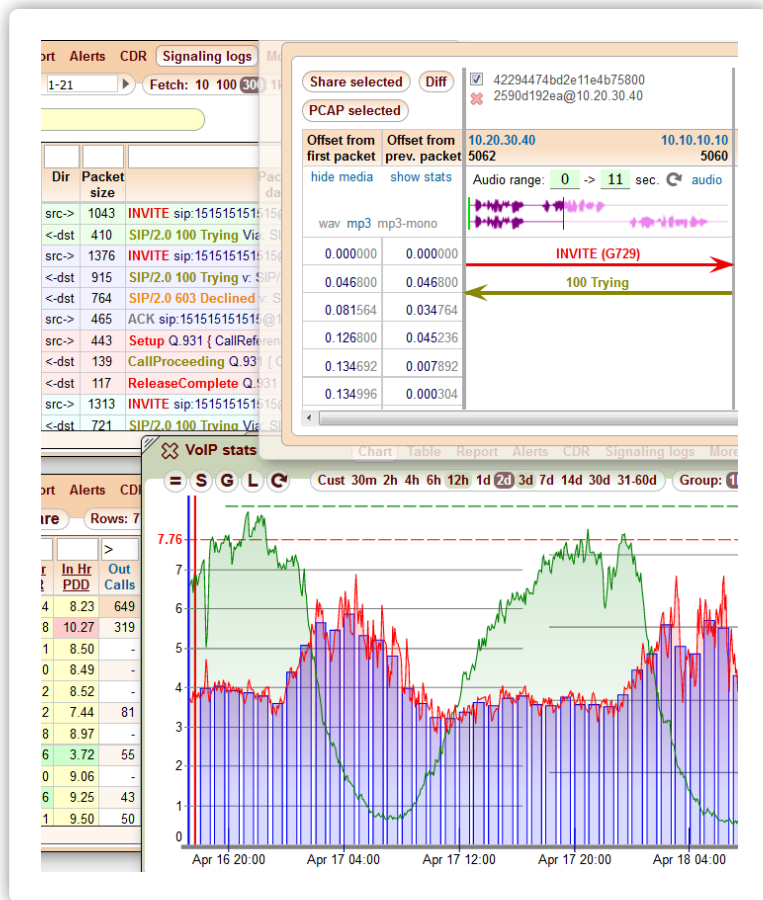
VoIP stats
Alerts CDR Signaling logs More...

C
 Add
 Share

ID	NAME	In Calls	In Hr Atmpt	In Hr Conn	In Hr Mins	In ACD	In Hr ACD
cTOTAL TOTAL SYSTEM STATISTICS		398				3.31	

S
 G
 L
 C

Cust 30m 2h 4h 6h 12h 1d 2d 3d 7d 14d 30d 31-60d



5gVision is a visual **VoIP/SMS/SNMP** monitoring and log collection suite suggesting the following features to a telecom operator:

- Very quick, multi-parameter **CHARTS** for any object in a VoIP/SMS switch or an SNMP-monitored device, or for any object combination (Customer - Area - Vendor - Disconnect code, etc.).
- **TABLES** with on-the-fly filtering and sorting to monitor current statistics.
- Quick and easy-to-use hourly, daily and weekly **REPORTS**.
- A flexible **ALERTING** module with notifications delivered to the web, email, or over SMS.
- A convenient **CDR** and **Disconnect code** viewer.
- **SRC/DST numbers** stats to identify fraud and unwanted traffic.
- **Traffic log** collector / sniffer with **Call/SMS flows**.
- **Media** collector and player.
- Automatic **Route testing dialer**.

5gVision monitors the following objects of a switch, as well as their combinations:

- **Customers** and Vendors
- DST and SRC **Areas**
- Customers => Areas or Areas => Vendors
- Customers => Areas => **Vendors**
- **Disconnect codes**
- Customers => Areas => Disconnect codes
- **Products** or Rate plans
- Customers => Areas => **Products**
- Equipment, **Trunks**, or IPs
- Switch **nodes**
- SRC/DST numbers
- SNMP stats

Some switches may have additional objects.

ID	NAME	In Calls	In Hr Atmpt	In Hr Conn
cTOTAL	TOTAL SYSTEM STATISTICS	649	34.1K	5942
a5379	Green country	319	8072	2726
c01.2188	Lobster telecom	309	9821	2266
a5379	Green country	184	2663	1304
c01.2215	Gigantic telecom	-	-	-
c01.02	Beer telecom	-	-	-
a5373	Yellow country South-West	40	309	139
a5329	Yellow country Seaside	19	217	112
c01.2215	Gigantic telecom	-	-	-
a5249	Yellow country North-West	13	81	41
a5849	Black country	10	690	313
c01.2234	Salmon telecom	-	-	-
c01.2236	Shark telecom	-	-	-
c01.2215	Gigantic telecom	-	-	-
a5689	Cold country South	10	368	91
a4985	Cold country	9	513	87
a4975	Yellow country South	7	228	26
a4977	Yellow country East	5	216	20
a5889	Black country proper	4	330	60
a3005	Bluish country North	4	106	51
a4979	Yellow country North	2	34	6
a3511	White country	1	30	13

5gVision calculates every parameter possible, and a couple of impossible ones:

- Current calls
- Current **connected** calls
- Attempts per hour
- Connected calls per hour
- Minutes per hour
- Current capacity
- ACD
- PSC
- ASR
- ABR
- NER
- CPS
- PDD, TTR, TTC
- % of certain disc. codes
- Number of hunts
- % of LNP/MNP
- Media parameters
- % of transcoding
- Cost per hour
- Price per hour
- Profit per hour
- Profit per minute
- Profit per call
- Current balance

ID	NAME	In Calls	In Hr Atmpt	In Hr Conn	In Hr Mins	In ACD	In Hr ACD	In PSC1	In ASR	In Hr ASR	In ABR	In Hr ABR	In 487	In Hr PDD	In Hr Price	In Hr Cost	In Hr Profit,\$	Out Calls	Out Hr Atmpt	Out Hr Conn	Out Hr Mins	Out ACD	Out Hr ACD
cTOTAL	TOTAL SYSTEM STATISTICS	649	34.1K	5942	20.3K	3.31	3.42	20.6	46.5	45.1	15.4	17.4	50.0	8.23	2861.78	1255.29	1606.50	649	33.9K	5942	20.3K	3.31	3.42
a5379	Green country	319	8072	2726	10.2K	3.65	3.75	18.4	54.4	52.7	33.4	33.8	42.3	10.27	1476.52	511.11	965.41	319	18.1K	2726	10.2K	3.65	3.75
c01.2188	Lobster telecom	309	9821	2266	8752	3.79	3.86	16.3	52.7	52.9	22.7	23.1	45.1	8.50	1266.81	501.21	765.61	-	-	-	-	1.71	-
e20877	Lobster telecom GW2	189	6202	1427	5576	4.14	3.91	12.4	53.8	52.2	24.2	23.0	45.0	8.49	809.52	324.44	485.07	-	-	-	-	-	-
e20879	Lobster telecom GW1	120	3619	839	3175	3.17	3.78	23.6	50.9	54.1	20.3	23.2	45.3	8.52	457.30	176.76	280.54	-	-	-	-	-	-
a5373	Yellow country South-West	81	1194	468	2067	4.41	4.42	18.1	40.0	43.6	38.0	39.2	53.9	7.44	286.14	206.65	79.48	81	1782	468	2067	4.41	4.42
c01.119	Sponge telecom	58	3728	665	2154	3.00	3.24	17.1	34.5	37.8	12.8	17.8	63.5	8.97	172.28	215.37	-43.09	-	-	-	-	-	-
a3005	Bluish country North	55	1216	530	1773	2.91	3.35	21.5	49.4	46.3	45.8	43.6	46.1	3.72	121.44	1.41	120.03	55	1996	530	1773	2.91	3.35
c01.112	Huge telecom	48	3822	534	1675	3.24	3.14	19.5	24.0	31.3	3.0	14.0	75.1	9.06	137.55	120.08	17.47	-	-	-	-	-	-
a5329	Yellow country Seaside	43	556	270	1342	4.93	4.97	16.8	47.3	51.4	45.7	48.6	48.7	9.25	313.07	134.19	178.88	43	719	270	1342	4.93	4.97
c01.171	Oversized telecom	43	3063	523	1534	2.88	2.93	29.3	55.1	45.6	28.5	17.1	34.7	9.50	241.67	76.51	165.15	50	5154	457	1344	2.51	2.94
g3155	Oversized telecom group	43	3035	515	1501	2.84	2.92	29.6	54.9	45.4	28.5	17.0	34.8	9.51	236.64	74.99	161.65	-	-	-	-	-	-

Find a parameter we don't monitor, and we'll add it.

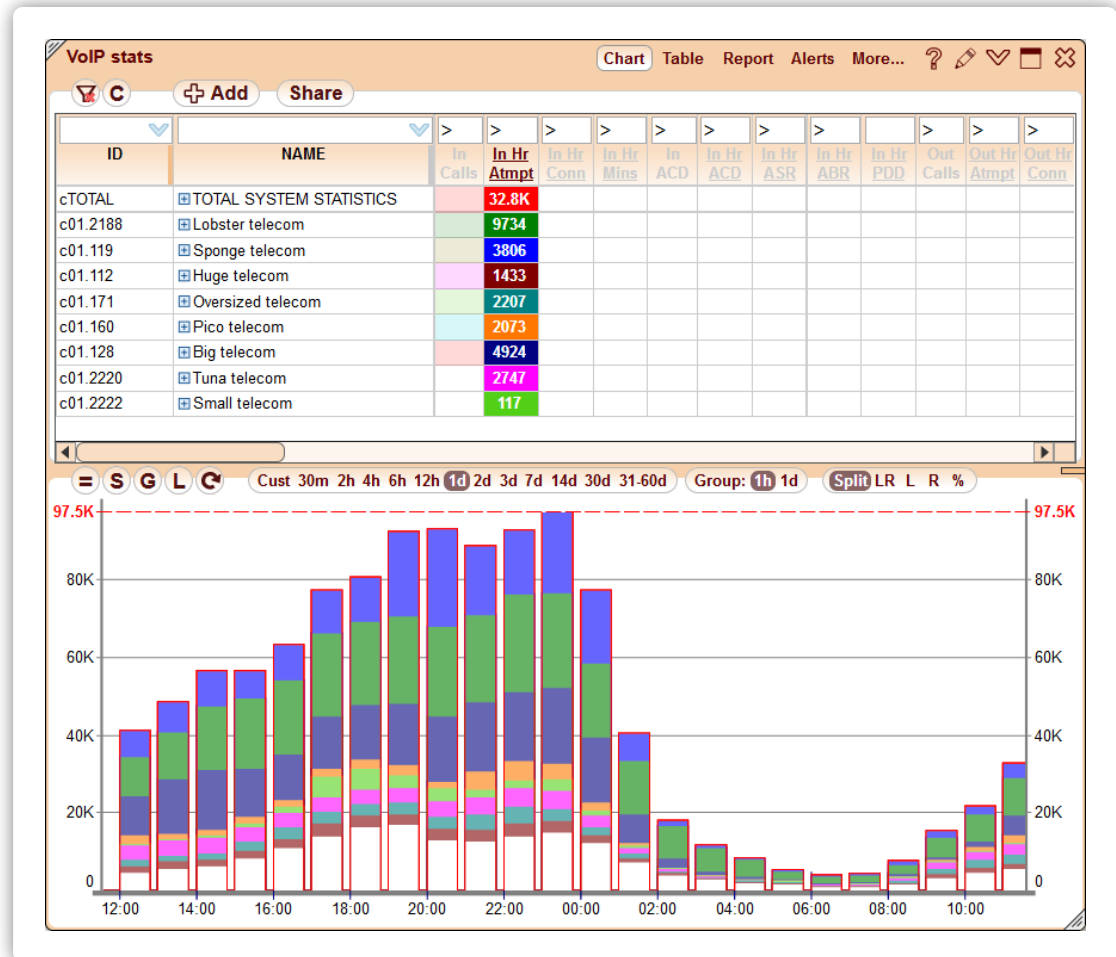
The screenshot displays the 5g Vision VoIP stats interface. On the left is a sidebar menu with categories like Monitoring, Alerts, Traffic collector, Rate management, Routing and switching, and Config. The main area shows a 'VoIP stats' window with a table of statistics and a line chart below it. The table has columns for ID, NAME, In Calls, In Hr, and In Hr ACD. The chart shows a peak in activity around 22:00.

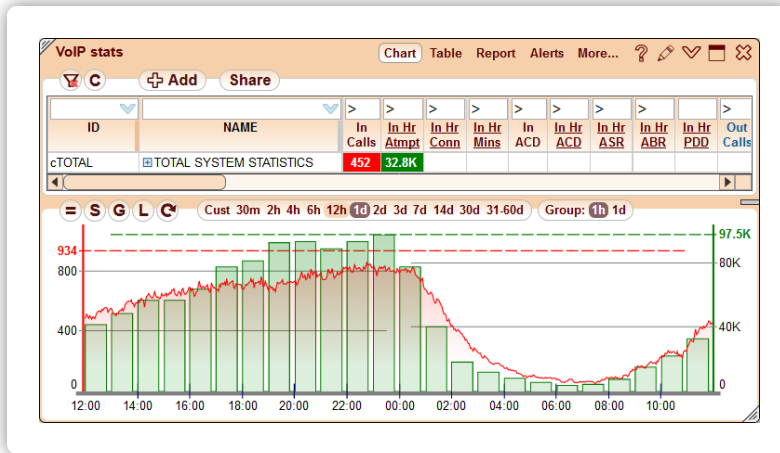
ID	NAME	In Calls	In Hr	In Hr ACD
cTOTAL	TOTAL SYSTEM STATISTICS	372		
c01.2188	Lobster telecom	149		
a5379	Green country	86		
c01.2215	Gigantic telecom			

- You may easily customize 5gVision look and feel:
- Modular, fully customizable menu and screen design.
 - Menu items and screen modules are drag-and-droppable.
 - From 1 to 16 different modules (blocks) per screen – ideal for large NOC screens.
 - Chose your interface style from a list of predefined ones.
 - Make adjustments to existing styles and design your own styles.
 - Adjustable colors.

Charts:

- Add/remove charts with ease through a **Legend table**.
- Different types of **statistics combined** on the same chart.
- Lines and bars.
- **Zoom** and custom intervals.
- **Stack** charts.
- **Comparison** charts.
- **Auto-reload** every minute.

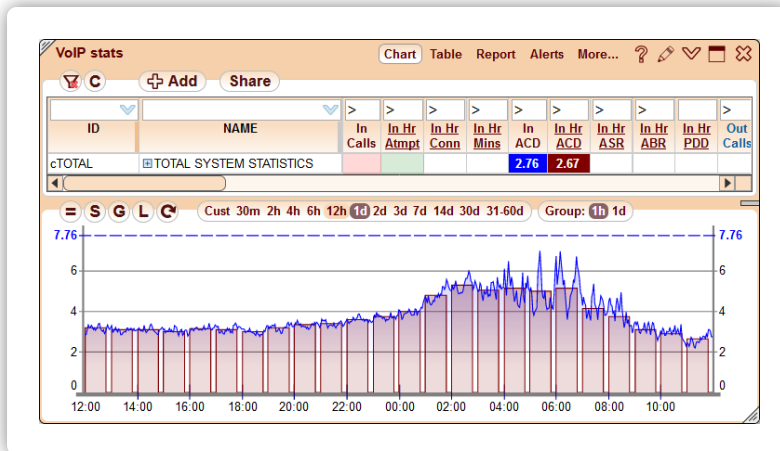




5gVision gathers 3 types of statistical information:

- **concurrent** (eg: **Active calls**), polled every minute and shown as **lines** on charts,
- **per-window** (eg: **ACD**), calculated over a window of recent calls every minute and shown as **lines**,
- **per-hour** (eg: **Minutes per hour**), shown as **bars**.

Some parameters can be **only concurrent**, like Active calls, others make sense only if they are **calculated over a period of time**, like Call attempts, Minutes, or Profit.



The first example illustrates that even though there is a direct correlation between concurrent calls (**red line**) and per-hour attempts (**green bars**), these parameters can never be compared directly (note left and right axes).

Most quality parameters in 5gVision, however, have both **per-window** and **per-hour** representations. The second chart shows **ACD** as a line and per-hour bars.

Tables:

- Ideal for viewing **current stats** for a lot of objects at once.
- Very quick and flexible **filtering and sorting**.
- **Parent-child** relationships (Customers => Areas => Vendors, etc.).
- Direct **links** to other modules.
- Sharing data via public links.

VoIP stats

Chart Table Report Alerts More... ?

Comb: ca cc cac cr ar car ba bc bca ThisHr PrevHr 2h 3h Share Rows: 117

ID	NAME	In Calls	In Hr Atmpt	In Hr Conn	In Hr Mins	In ACD	In Hr ACD	In Hr ASR	In Hr ABR	In Hr PDD	Out Calls	Out Hr Atmpt	Out Hr Conn	Out Hr M
cTOTAL	TOTAL SYSTEM STATISTICS	649	34.1K	5942	20.3K	3.31	3.42	45.1	17.4	8.23	649	33.9K	5942	20
c01.2188	Lobster telecom	309	9821	2266	8752	3.79	3.86	52.9	23.1	8.50	-	-	-	-
a5379	Green country	184	2663	1304	5472	4.01	4.20	63.6	49.0	10.48	-	-	-	-
a5373	Yellow country South-West	40	309	139	740	5.39	5.32	47.1	45.0	7.35	-	-	-	-
c01.2215	Gigantic telecom	-	-	-	-	-	-	-	-	-	40	500	139	-
a5249	Yellow country North-West	13	81	41	402	8.88	9.81	56.9	50.6	8.10	-	-	-	-
a5379	Green country	319	8072	2726	10.2K	3.65	3.75	52.7	33.8	10.27	319	18.1K	2726	10
a4769	Purple country	8	6974	115	209	1.58	1.82	52.3	1.6	0.48	8	1053	115	-
e20877	Lobster telecom GW2	189	6202	1427	5576	4.14	3.91	52.2	23.0	8.49	-	-	-	-
c01.112	Huge telecom	48	3822	534	1675	3.24	3.14	31.2	11.0	0.06	-	-	-	-
a5379	Green country	31	1512	284	994	3.58	3.50	3	4	-	-	-	-	-
a4769	Purple country	-	665	11	18	2.29	1.59	4	4	-	-	-	-	-
c01.2215	Gigantic telecom	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.2206	Fish telecom	-	-	-	-	-	-	-	-	-	-	-	-	11
a4975	Yellow country South	1	153	28	96	2.93	3.41	3	3	-	-	-	-	-
a5373	Yellow country South-West	10	113	35	158	4.31	4.52	3	3	-	-	-	-	-
c01.2215	Gigantic telecom	-	-	-	-	-	-	-	-	-	-	-	-	35
a5893	Black country mobile	1	86	33	62	2.25	1.88	4	4	-	-	-	-	-
a4979	Yellow country North	4	63	11	124	4.74	11.25	3	3	-	-	-	-	-
a5249	Yellow country North-West	1	47	12	58	3.37	4.84	3	3	-	-	-	-	-
a5689	Cold country South	-	10	2	6	3.46	2.92	5	5	-	-	-	-	-
c01.2215	Gigantic telecom	-	-	-	-	-	-	-	-	-	-	-	-	-
c01.171	Oversized telecom	-	-	-	-	-	-	-	-	-	-	-	-	2
a4985	Cold country	-	7	1	0	2.04	0.02	3	3	-	-	-	-	-
a5849	Black country	-	1	-	-	3.36	-	-	-	-	-	-	-	-
a3511	White country	-	1	1	12	5.75	11.68	10	10	-	-	-	-	-
a5329	Yellow country Seaside	-	-	-	-	0.04	-	-	-	-	-	-	-	-
a3005	Bluish country North	-	-	-	-	0.98	-	-	-	-	-	-	-	-
a2062	Hot country	-	-	-	-	0.16	-	-	-	-	-	-	-	-

Context menu for row a5379:

- Show/hide children
- Hide all children
- Test vendor route
- View in Chart
- View in Table
- View in Report
- View in CDR
- View in Calls
- Export to Excel
- Select cell contents
- Select column contents
- Add/remove totals row
- Remove all highlights

VoIP stats

Chart Table Report Alerts More... ?

Cust ThisHr PrevHr 4h 6h 12h 1d 2d 3d 1w 2w 4w

Group: 1h 6h 1d 1w All Filter GO

OBJECT 1 ID	OBJECT 1 Customer/Vendor	OBJECT 2 Area	OBJECT 3 Vendor	Time period beginning	In Hr Atmpt	In Hr Conn	In Hr Mins	In Hr ACD	In Hr ASR	In Hr ABR
c01.2188	Lobster telecom	=ALL=	=ALL=	Apr 11, 12:00	11.9K	2909	11.2K	3.86	49.8	24.5
c01.2188	Lobster telecom	=ALL=	=ALL=	Apr 11, 11:00	9734	2198	8808	4.01	46.2	22.6
c01.2188	Lobster telecom	=ALL=	=ALL=	Apr 11, 10:00	7128	1459	5540	3.80	45.4	20.5
---		Green country			1628	564	2290	4.06	39.8	34.6
---			Gigantic telecom		2050	548	2178	3.97	35.6	26.7
---			Beer telecom		125	16	112	7.03	29.6	12.8
---		Black country proper	=ALL=		1015	-	-	-	-	-
---		Yellow country Seaside	=ALL=		185	113	377	3.34	62.1	61.1
---		Yellow country South-We	=ALL=		96	52	527	10.13	56.5	54.2
---			Gigantic telecom		113	52	527	10.13	53.1	46.0
---		Yellow country South	=ALL=		39	17	76	4.45	21.0	19.1
---		Bluish country North	=ALL=		78	30	78	2.58	40.0	38.5
c01.2188	Lobster telecom	=ALL=	=ALL=		52	911	3981	4.37	41.6	18.0
c01.128	Big telecom	=ALL=	=ALL=		17K	1771	4266	2.41	41.4	12.9
c01.128	Big telecom	=ALL=	=ALL=		24	1561	2673	1.71	48.9	31.7
c01.128	Big telecom	=ALL=	=ALL=		58	355	757	2.13	33.8	28.2
---		=ALL=	Overs		58	93	175	1.88	21.7	19.9
---		=ALL=	Gigan		43	77	453	5.89	30.6	22.4
---		=ALL=	Fish t		3	-	-	-	-	-
c01.128	Big telecom	=ALL=	=ALL=		70	170	628	3.70	26.7	22.1
c01.119	Sponge telecom	=ALL=	=ALL=		52	1138	2876	2.53	32.4	17.1
c01.119	Sponge telecom	=ALL=	=ALL=		06	1078	2262	2.10	36.7	28.3
c01.119	Sponge telecom	=ALL=	=ALL=		22	523	1534	2.93	31.1	25.9
c01.119	Sponge telecom	=ALL=	=ALL=		54	356	1192	3.35	29.0	22.9
c01.2234	Salmon telecom	=ALL=	=ALL=		54	578	843	1.46	32.3	16.7
c01.2234	Salmon telecom	=ALL=	=ALL=		48	382	682	1.78	31.3	14.4

- Clear filter
- Test vendor route
- View in Chart
- View in Table
- View in Report
- View in CDR
- View in Calls
- Export to Excel
- Select cell contents
- Select column contents
- Add/remove totals row
- Remove all highlights

@1
@2

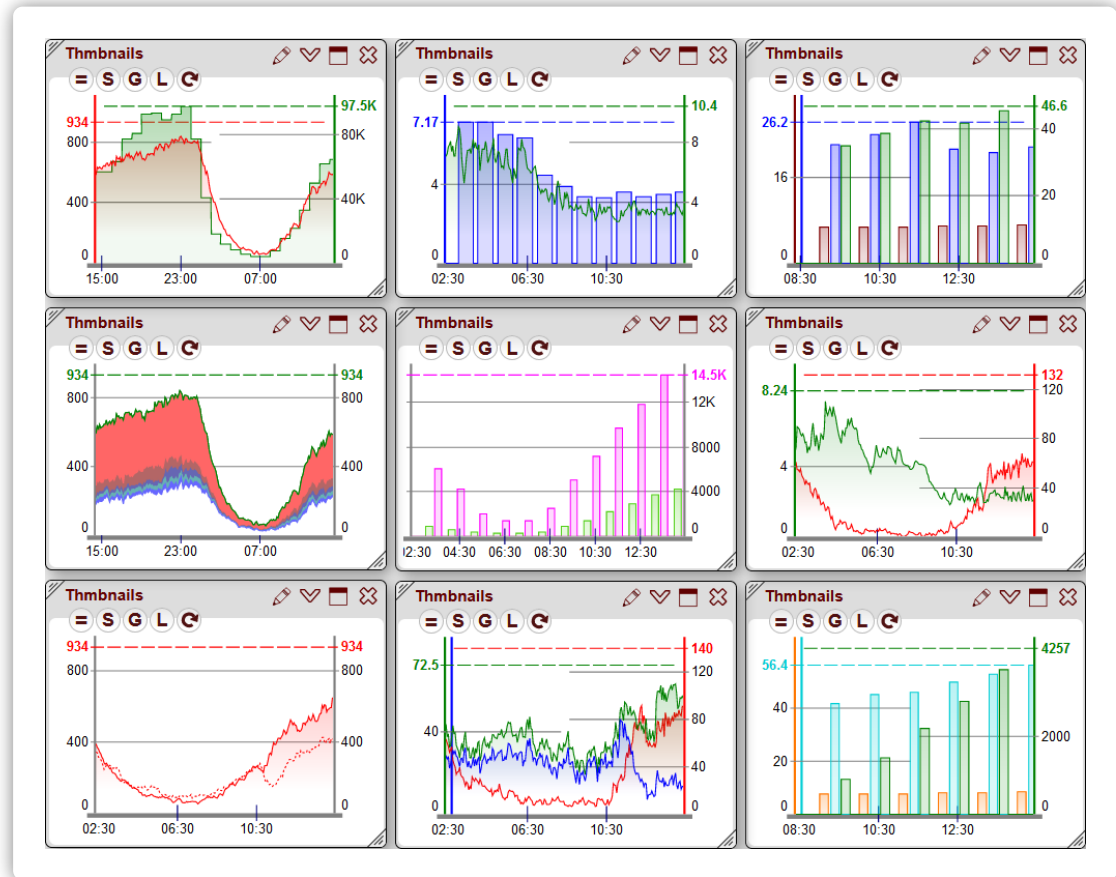
@3
@4
@5

Reports:

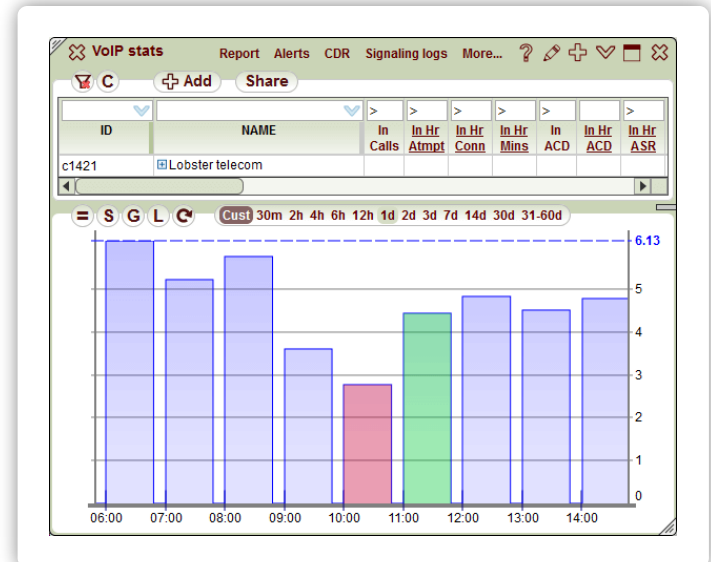
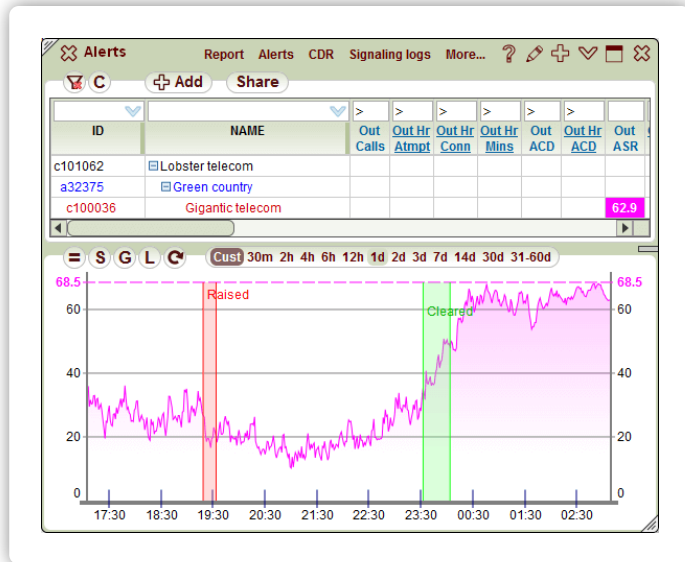
- Any statistical and financial parameters for periods from **1 hour to 1 month** fetched in seconds.
- Parent-child relationships make it easy to **drill down** to the required level.
- **Grouping** by 1 hour, 1 day, 1 week.
- Flexible **sorting and filtering**.
- Double-clicking any cell will open a chart.

Thumbnails:

- Monitor a lot of **different objects/parameters** as a collection of chart blocks.
- Change chart options individually or for the **whole screen**.
- Re-arrange or re-size chart blocks with a **mouse drag**.
- **Maximize** any chart to see more details.
- Ideal for **large NOC** screens.



Alerts are conveniently shown in charts.



Concurrent or per-window alerts, lines:

- the **red area** shows the interval from the tentative alert raise till sending the raise notification, this interval is called the **assurance interval**,
- the **green area** shows the interval from the tentative alert clear till sending the clear notification.

Per-hour alerts, bars:

- the **red bar** indicates the hour for which the alert was raised,
- the **green bar** shows the hour in which the alert was cleared.

Every alert that was raised/cleared can be sent to certain users' emails or cell phones via SMS or push notifications.

From: alert@5g-vision.com [mailto:alert@5g-vision.com]
Sent: Sunday, February 12, 2017 4:59 AM
To: support@5gfuture.com
Subject: 5gVision alerts: 2, critical: 0

5gVision raised/cleared alert notifications sent at:
 2017-02-12 01:59:17 UTC
 2017-02-11 22:59:17 User time

SWITCH statistics, Absolute alerts:

Flex combinations

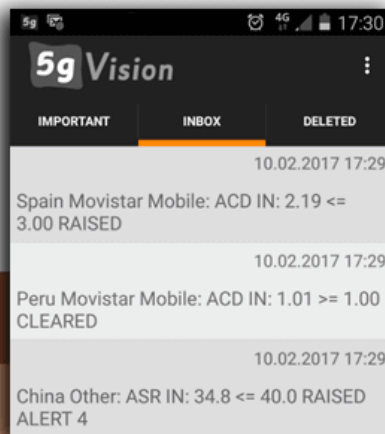
TOTAL SYSTEM STATISTICS

ACD IN	4.11 <= 5.00	RAISED	Chart CDRs LogID:7069 ConfID:10 Comment
--------	--------------	---------------	---

Areas

China

ASR IN	70.7 >= 50.0	CLEARED after 0:09:00	Chart CDRs LogID:7067 ConfID:4 Comment
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but some records are more equal than others.

CDR viewer:

- Works with replicated CDRs, or directly with CDRs in your switch/billing DB.
- Very quick requests.
- On the fly filtering and sorting.
- Convenient interval picker.
- Adjustable field order.
- Export to excel/csv.
- Row highlight.
- Disconnect code report.
- Direct links to charts/reports for objects.
- Sharing data via public links.

The screenshot shows the CDR viewer interface with a table of call records and a summary table below it.

CDR date	Call state	Loop ID	Call dur.	Disconnect code	Disconn initiator	Hunt #	PDD	TTC	TTR	SRC number IN	S
0.23 mins	8: reject	0	237.6	SIP-487 Request Terminated	1:src	1	1.6	2.9	21.1	12.9	XXXXX10203 : 15; XXX
2011-08-30 21:18:44	8: reject			SIP-487 Request Terminated	1:src			8		50	XXXXX397264 XXX
2011-08-30 21:18:44	8: reject			SIP-487 Request Terminated	1:src			1		21	XXXXX902880 XXX
2011-08-30 21:18:44	8: reject			TS-1 No compatible codecs	0:switch						XXXXX401522 XXX
2011-08-30 21:18:44	8: reject			SIP-487 Request Terminated	1:src					4	XXXXX665607 XXX
2011-08-30 21:18:44	4: hunt			SIP-487 Request Terminated	1:src	2	2			32	XXXXX697937 XXX
2011-08-30 21:18:44	8: reject			DB-707 Max number of calls se	0:switch					0	XXXXX10203 XXX
2011-08-30 21:18:44	4: hunt			SIP-488 Not Acceptable Here	2:dst	3	1			4	XXXXX637564 XXX
2011-08-30 21:18:44	3: conn		147	TS-10 BYE received	1:src	1	0	14			XXXXX10203 XXX
2011-08-30 21:18:44	8: reject			SIP-487 Request Terminated	1:src			2		18	XXXXX535288 XXX
2011-08-30 21:18:44	8: reject			DB-406 Restricted DST number	0:switch						XXXXX009919 XXX
2011-08-30 21:18:44	8: reject			SIP-487 Request Terminated	1:src			2		32	XXXXX697937 XXX
2011-08-30 21:18:44	8: reject			DB-707 Max number of calls se	0:switch					0	XXXXX623431 XXX
2011-08-30 21:18:44	4: hunt			SIP-487 Request Terminated	1:src	1	2			18	XXXXX535288 XXX
2011-08-30 21:18:44	4: hunt			SIP-487 Request Terminated	1:src	1	2			47	XXXXX425933 XXX

Disconnect code	Total CDRs	% of CDRs	Total rejected	Total connected	Total minutes	Rejected by SRC	Rejected by DST
All unique count	83904	99.99	78666	5238	18141.13	27581	28098
SIP-487 Request Terminated : 1; SIP-503 Service Unavailable	26509	31.59	26509			26483	14
SIP-487 Request Terminated	12115	14.44	12115				12115
SIP-503 Service Unavailable	8756	10.44	8756				8756
SIP-488 Not Acceptable Here	5343	6.37	5343				
DB-707 Max number of calls set for DST device	5009	5.97		5009	17131.02		
TS-10 BYE received							

Capture time, GMT	Call ID	SRC address	DST address	Packet data
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	20.30.40	10.10.10.10	INVITE sip:151515151515@10.10.10.10;use
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10.10	10.20.30.40	SIP/2.0 100 Trying Via: SIP/2.0/UDP 10.20
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10.10	11.11.11.11	INVITE sip:151515151515@11.11.11.11;use
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	11.11.11	10.10.10.10	SIP/2.0 100 Trying v: SIP/2.0/UDP 10.10.10
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	11.11.11	10.10.10.10	SIP/2.0 603 Declined v: SIP/2.0/UDP 10.10
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	11.11.11.11	ACK sip:151515151515@11.11.11.11;user=p
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	22.22.22.22	Setup Q.931 { CallReference : 1532 Sender
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	22.22.22	10.10.10.10	CallProceeding Q.931 { CallReference : 15
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	22.22.22	10.10.10.10	ReleaseComplete Q.931 { CallReference :
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	33.33.33.33	INVITE sip:151515151515@33.33.33.33;use
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	33.33.33	10.10.10.10	SIP/2.0 100 Trying Via: SIP/2.0/UDP 10.10
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	33.33.33	10.10.10.10	SIP/2.0 183 Progress Via: SIP/2.0/UDP 10.
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	10.20.30.40	SIP/2.0 183 Progress Via: SIP/2.0/UDP 10.
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	33.33.33.33	RTP DST->SRC. First packet. Codecs: G72
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	20.30.40	10.10.10.10	RTP DST->SRC. First packet. Codecs: G72
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	33.33.33	10.10.10.10	SIP/2.0 200 OK Via: SIP/2.0/UDP 10.10.10
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	10.20.30.40	SIP/2.0 200 OK Via: SIP/2.0/UDP 10.20.30
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	33.33.33.33	ACK sip:151515151515@33.33.33.33:5060;
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	20.30.40	10.10.10.10	ACK sip:151515151515@10.10.10.11:5063;
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	20.30.40	10.10.10.10	RTP SRC->DST. First packet. Codecs: G72
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	33.33.33.33	RTP SRC->DST. First packet. Codecs: G72
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	20.30.40	10.10.10.10	BYE sip:151515151515@10.10.10.11:5063;
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	10.20.30.40	SIP/2.0 200 OK Via: SIP/2.0/UDP 10.20.30
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	10.10.10	33.33.33.33	BYE sip:151515151515@33.33.33.33:5060;
2015-02-25 20:38:30.753389	42294474bd2e11e4b7110	33.33.33	10.10.10.10	SIP/2.0 200 OK Via: SIP/2.0/UDP 10.10.10

Signaling logs:

- Sniffing VoIP/SMS **signaling packets** in real time.
- **SIP, H.323 and SMPP** support.
- Automatic **call/SMS leg matching**.
- **Export to PCAP**.
- **Import from PCAP**.
- View of **individual packets** and whole **Call/SMS flows**.
- Listening to **media** right in Call flows.
- **Sharing traffic logs** via public links.

Call/SMS flows:

- **Graphical** representation of a call/SMS packet exchange.
- View of **individual packets**, packets of one **leg** or of all legs of a **call/SMS**.
- **Media stats** and **playback** right in Call flow.
- **Hiding unnecessary legs** from Call/SMS flow.
- **Sharing** Call/SMS flows via public links and **export** to PCAP.

The screenshot displays a network analysis tool interface for a call flow. It features a table of packets, a graphical timeline with audio waveforms, and a detailed packet viewer for an INVITE message.

Offset from first packet	Offset from prev. packet	10.20.30.40	10.10.10.10	10.10.10.10
0.000000	0.000000	INVITE (G729)		
0.046800	0.046800	100 Trying		
8.690247	8.643447		INVITE (G729)	
8.696428	0.006181		100 Trying	
10.008785	1.312357		183 Progress (G729)	
10.011025	0.002240	183 Progress		
10.085487	0.074462		RTP (G729) 10.5 sec - 6.1%	
10.095745	0.010258	RTP (G729) 10.5 sec - 6.1%		
10.412427	0.316682		200 OK (G729)	
10.414088	0.001661	200 OK (G729)		
10.414921	0.000833		ACK	
10.416149	0.001228	ACK		
11.135343	0.719194		RTP (G729) 9.5 sec - 0%	
		RTP (G729) 9.5 sec - 0%		

Packet viewer

Select all Raw log Selected packets (1) Selected legs All legs

2015-02-25 20:38:30.753389 === 0.000000 === Leg 1 === SRC->DST === 1
INVITE sip:151515151515@10.10.10.10;user=phone SIP/2.0
 Via: SIP/2.0/UDP 10.20.30.40:5062;rport;branch=z9hG4bK-1886071106-38263313
 From: <sip:1717171717@10.20.30.40:5062;user=phone>;tag=1111763266-3826
 To: <sip:151515151515@10.10.10.10;user=phone>
 Call-ID: 42294474bd2e11e4b758002590d192ea@10.20.30.40
 CSeq: 1 INVITE
 Contact: <sip:1717171717@10.20.30.40:5062;user=phone>
 Content-Type: application/sdp
 Allow: ACK, BYE, CANCEL, INFO, INVITE, OPTIONS, REFER, REGISTER, UPDA
 Max-Forwards: 70
 User-Agent: MERA MVTS3G v.4.4.0-16
 Cisco-Guid: 1041351716-3173913060-2593287266-1842828445
 Content-Length: 314

v=0
 o=- 1424896710 1424896710 IN IP4 195.219.39.6
 s=-
 c=IN IP4 195.219.39.6
 t=0 0

is worth a thousand words.

Media logs:

- Sniffing and recording **call media** passing through your switch.
- Several modes available:
 - **full media** collection.
 - **partial media** collection with filtering by media IPs.
 - **random** and **on-demand** recording of calls selected by signaling IPs / numbers mask.
- **Media playback** directly in a browser.
- Downloading **audio files**.

The screenshot displays a web-based interface for traffic logs, specifically the 'Media calls' tab. The table lists various call records with columns for Call ID, Media duration, codecs, audio play status, and packets. A context menu is open over the table, offering actions like 'View in Media logs', '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 'Remove all highlights'. The table also includes a 'Packets src->DST' column and a 'Media detected' column.

Call ID	Media dur. src->DST	Early media src->DST	Codecs src->DST	Audio play	Audio get file	Connect	Media detected	Packets src->DST
16834-3701660010-	35.5		PCMU	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	1776
44129-3701659979-	59.1	59.1	PCMA	[Waveform]	get file		src+dst	2955
40661-3701659946-	44.1	44.1	G729	play/pause, ctrl-click to jump, mono, player	get file		src+dst	2207
94153-3701659525-	5.6		PCMA	play/pause, ctrl-click to jump, mono, player	get file		src+dst	282
40697-3701659022-	117.3	16.6	PCMA	[Waveform]	get file	yes	src+dst	5861
36095-3701658967-	117.2	20.1	PCMA	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	5843
29609-3701658892-	76.4	4.2	PCMA	[Waveform]	get file	yes	src+dst	7643
22810-3701658806-	22.9	22.9	PCMA	play/pause, ctrl-click to jump, mono, player	get file		src+dst	1148
19783-3701658766-	5.1		PCMU	[Waveform]	get file	yes	src+dst	256
16872-3701658724-				[Waveform]	get file		dst	
95260-3701658568-	53.4	17.1	PCMA	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	2667
31782-37-			8 PCMA	[Waveform]	get file	yes	src+dst	5856
39712-37-			PCMU	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	3463
57995-37-			5 PCMA	[Waveform]	get file		src+dst	926
57431-37-			7 PCMA	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	5620
52144-37-			1 PCMA	play/pause, ctrl-click to jump, mono, player	get file		src+dst	554
35341-37-			2 PCMA	[Waveform]	get file		src+dst	313
34165-37-			0 PCMA	play/pause, ctrl-click to jump, mono, player	get file		src+dst	3698
32125-37-			0 PCMA	play/pause, ctrl-click to jump, mono, player	get file		src+dst	1900
22326-37-				play/pause, ctrl-click to jump, mono, player	get file		dst	
22076-37-			5 PCMA	[Waveform]	get file	yes	src+dst	5567
35354-37-				play/pause, ctrl-click to jump, mono, player	get file		dst	
31383-37-			PCMU	play/pause, ctrl-click to jump, mono, player	get file	yes	src+dst	2168
36697-3701656548-				play/pause, ctrl-click to jump, mono, player	get file		dst	

Route testing dialer

Request Dialer CDRs Email templates Tickets log Tickets reasons

Request time: Cust 1h 24h 7d 30d 180d All Rows: 300 / get 1-300 Fetch: 100 300 1k 10k

Dialer settings

Request time, Comment, Crest, Number, ASR, FAS1, ACD, PDD, TTC, TTR, Audio, Codec, Simult, Max, Max, ID

Switch to send calls to: Fake Switch 1 (10.10.10.10)

Audio file to play: Silence (180sec)

Call recording options: .mp3 with early media

Codec to use for origination: G711 A-law

Simultaneous test calls: 2

Max time till connect: 60

Max connected call duration: 60

Caller ID pattern (X - random): 1800XXXX

Vendor from statistics:

Vendor technical prefix: 92*

Vendor IP:

Areas from statistics:

Numbers area codes: 25197,251914,251915,251916,251917

Numbers area codes mode: Full: get any numbers matching a code

Exclude longer area codes:

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: 0/10/5

Numbers to dial:

```

---- Random ----
25191510634
25191660773
25191805205
25192891782
25194482817
25194633507
25194784316
25195108523
25195859838
25197002840
---- Wrong ----
251917123
25192557
    
```

Comment:

OK

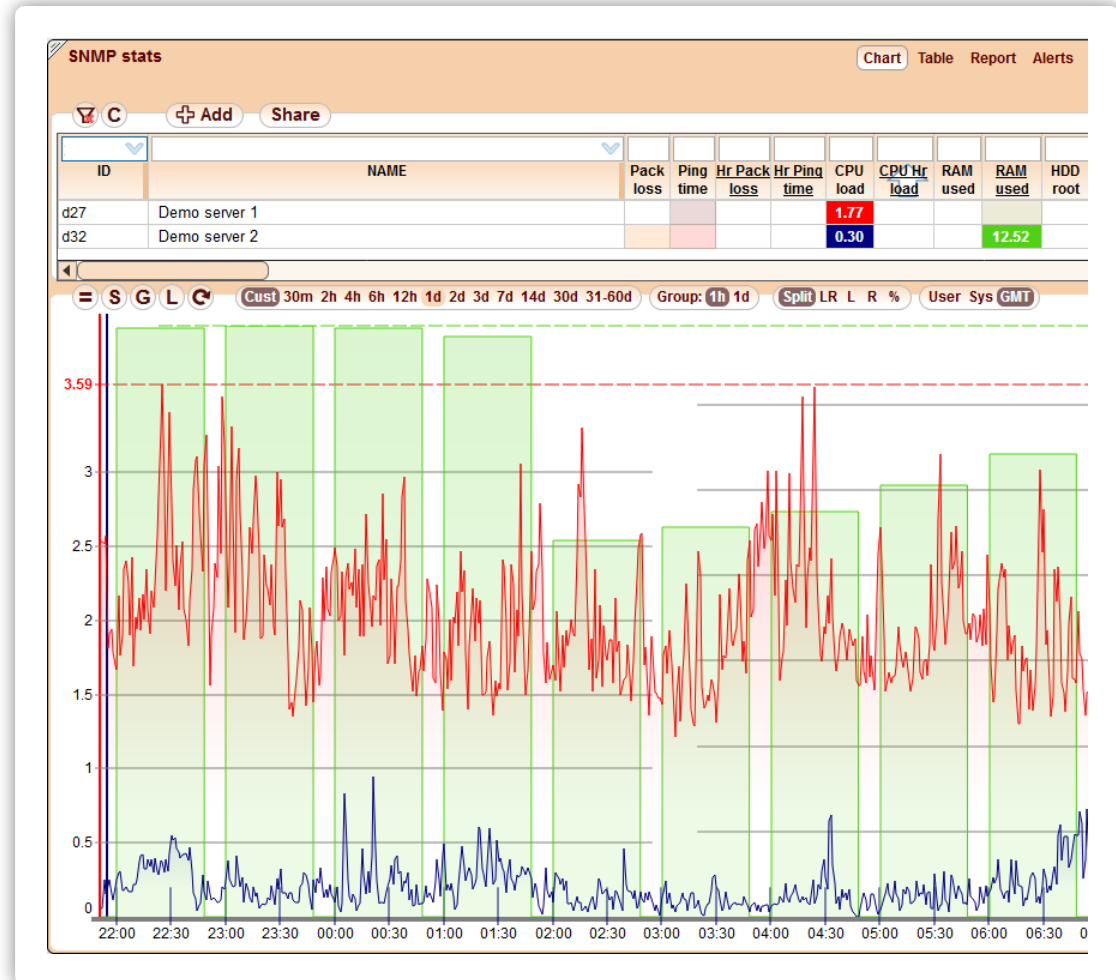
Request time	Comment	Crest	Number	ASR	FAS1	ACD	PDD	TTC	TTR	Audio	Codec	Simult	Max	Max	ID
2017-04-20 07:04:20	OK		20	75	147	0.0				Spanish_long.wav	G729	20	60	7200	345XXXXXXXXXX
2017-04-20 07:04:08	OK		20	75	147	0.0				Spanish_long.wav	G729	20	60	7200	345XXXXXXXXXX
2017-04-20 07:03:41	FAILED		20	0						Spanish_long.wav	G729	20	60	7200	345XXXXXXXXXX
2017-04-20 07:02:58	Refresh		1							silence_180.wav	G729	20	60	180	345XXXXXXXXXX
2017-04-20 07:02:01	FAILED		17	71	74	0.0				silence_180.wav	G729	20	60	7200	345XXXXXXXXXX
2017-04-20 07:00:57	OK		20	70	75	0.0				Spanish_long.wav	G729	20	60	7200	345XXXXXXXXXX

Route testing dialer:

- Automatic dialer to test your vendors routes.
- Initiate route tests right from the Table, Report, or Alert modules.
- FAS detection for routes tested.
- CDRs with full information on tested routes.
- Signaling Call flows for each tested call.
- Recording of media stream with early media.
- Task scheduler to run test requests automatically.
- Sending tickets to vendors.

SNMP poller:

- Monitor **any device**, supporting SNMP, and **any OID**.
- Flexible configuration with **device and oid groups**.
- Final parameters can be **calculated** from OID values via **formulas**.
- Users can **add** custom chart/table/report **columns** for new OIDs/parameters.
- **SNMP stats** can be viewed in **combination** with switch **VoIP** stats.





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