

# **Statistics Guide**



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#### 1 Introduction

This document describes the statistics available in the self-care portal and provides an overview of how they are computed by the backend service, Nemo.

# 2 Calls Handling and CDR Genaration

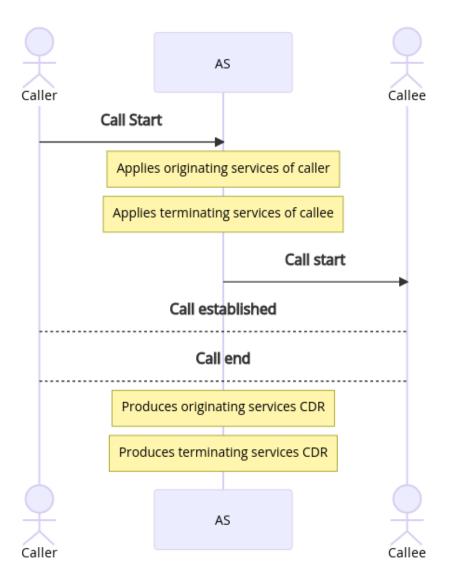
When the Application Server (AS) processes a call, it generates one or more Call Detail Records (CDRs) based on the characteristics of the calling and called parties. If both parties are on-net users (i.e., hosted users), the originating services of the calling party, such as line presentation services, and the terminating services of the called party, such as call forwarding services, are applied. This results in the creation of an originating CDR for the calling party and a terminating CDR for the called party. In the case of a standard on-net call between two regular users, two CDRs are produced. These CDRs contain crucial information, including user numbers, call start times, durations, release causes, and more.

In more intricate scenarios, such as interactions with IVR/auto-attendants or call centers, the application server may generate additional CDRs with varying start times and durations.

The examples below illustrate some call scenarios handled by the application server.

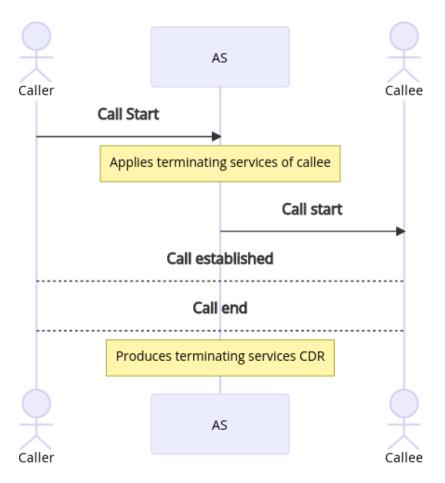
#### On-net caller to on-net callee





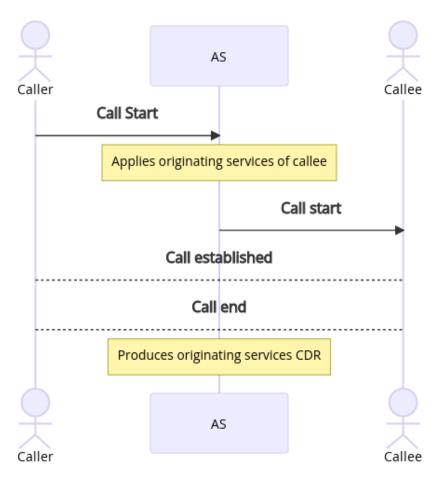
Off-net caller to on-net callee





On-net caller to off-net callee





While not exhaustive in covering all conceivable call scenarios, the following list provides examples of relatively complex call scenarios accompanied by a corresponding set of generated CDRs. This compilation aims to illustrate the mechanisms employed by the AS in CDR generation.

- Call from user A to user B who has a call forwarding unconditional to user C:
  - Originating CDR for user A to B
  - Terminating CDR for user B from A
  - Originating CDR for user B to C
  - Terminating CDR for user C from B
- Call from user A to user B who does not answer and the call is redirected to an external voicemail system (VMS):
  - Originating CDR for user A to B
  - Terminating CDR for user B from A
  - Originating CDR for user B to VMS
- Call from an external network N to call-center CC who hunts agents A1 & A2:



- Terminating CDR for CC from N
- Originating CDR for CC to A1
- Originating CDR for CC to A2
- Terminating CDR for A1 from CC
- Terminating CDR for A2 from CC

### 3 Statistics Types

The statistics backend computes two different types of Key Performance Indicators (KPIs):

- Enterprise-level or group-level KPIs, where the aggregation level is either the enterprise or the group.
- User-level KPIs, where the aggregation level is the user identity.

The first type of KPIs is showcased on the portal's statistics overview pages, while the second type is presented on the user page or the call-center pages, depending on the type of user for which the statistics are computed. On these pages, they are displayed in tabular format.

### 3.1 Enterprise/Group Key Performance Indicators

To present an accurate representation of enterprise/group activity, Key Performance Indicators (KPIs) are formulated to selectively exclude certain calls rather than encompass all calls in their calculations. The primary goal is to concentrate on first-class calls, offering a more realistic insight into ongoing call activity. Specifically, this approach aims to:

- 1. Avoid counting calls reaching a call-center agent as answered.
- 2. Prevent the inclusion of calls resulting from redirection in calculations as calls originating from the enterprise/group.
- 3. Exclude calls from call-center to agents and calls from unavailable users to voicemail from being categorized as redirected calls.
- 4. Eliminate the counting of calls from the call-center to agents as unanswered calls.
- 5. Refrain from tallying calls from the call-center to agents as terminating calls.

The table below delineates the standard KPIs computed by the backend system.



Code	Description
sum_term_calls_answered_locally	Sum of terminating calls answered directly by the callee and which are not the redirected from a call-center
sum_orig_calls	Sum of originating calls which are not the result of a redirection
sum_orig_calls_deflected	Sum of calls originated due to a redirection different than call-center and voicemail
sum_term_calls_answered_remotely	Sum of terminating calls not answered by the callee but after redirection to another party
sum_term_calls_not_answered	Sum of terminating calls not answered and which are not redirected from a call-center
sum_term_calls	Sum of terminating calls which are not redirected from a call-center
sum_orig_calls_connected	Sum of originiating calls effectively connected (disconnect time after connect time)
sum_orig_calls_vms	Sum of originating calls due to a redirection to voicemail
sum_conn_orig_calls	Sum of the durations of the calls originated, but not redirected (from call answer to call end)
sum_dur_calls	Sum of the durations of all calls (from call setup to call end)
sum_conn_calls	Sum of the durations of all calls (from call answer to call end)
sum_calls	Sum of all calls
sum_calls_connected	Sum of all calls connected
sum_orig_calls_redirected_answered1	Sum of originating calls redirected and answered
sum_orig_calls_redirected_not_answered1	Sum of originating calls redirected and not answered
sum_orig_calls_followme_answered1	Sum of originating calls redirected with reason 'follow-me' and answered



Code	Description
sum_orig_calls_followme_not_answered1	Sum of originating calls redirected with reason 'follow-me' and not answered

From these base KPIs, more elaborated KPIs are exposed as such:

Code	Value	Description	
all_calls	sum_term_calls + sum_orig_calls	All calls	
orig_calls_perc	<pre>sum_orig_calls / (sum_term_calls + sum_orig_calls)</pre>	Originating calls percentage	
orig_calls_deflected_perc	<pre>sum_orig_calls_deflected / sum_term_calls</pre>	Originating calls redirected percentage	
orig_calls_vms_perc	sum_orig_calls_vms / icm_sum_term_calls	Calls redirected to voicemail percentage	
term_calls_perc	icm_sum_term_calls / (icm_sum_term_calls + ecm_sum_orig_calls)	Terminating calls percentage	
term_calls_answered	icm_sum_term_calls - (icm_sum_term_calls_not_answ + ecm_sum_orig_calls_vms)	Terminating calls answered vered	
term_calls_answered_perc	<pre>(icm_sum_term_calls -   (icm_sum_term_calls_not_answ + ecm_sum_orig_calls_vms)) / icm_sum_term_calls</pre>	Terminating calls answered ver <b>e</b> dercentage	
term_calls_missed	icm_sum_term_calls_not_answereterminating calls missed + ecm_sum_orig_calls_vms		
term_calls_missed_perc	(icm_sum_term_calls_not_answ + ecm_sum_orig_calls_vms) / icm_sum_term_calls	•	



Code	Value	Description
term_calls_not_answered_perc	<pre>icm_sum_term_calls_not_answer / icm_sum_term_calls</pre>	re <b>T</b> erminating calls not answered percentage
term_calls_answered_locally_per	cicm_sum_term_calls_answered_l /icm_sum_term_calls	lo <b>Tally</b> ninating calls answered locally percentage
term_calls_not_answered_locally	icm_sum_term_calls - icm_sum_term_calls_answered_l	Terminating calls not answered lotætbylly
term_calls_not_answered_locally	_ <b>ʻpenc_</b> sum_term_calls - icm_sum_term_calls_answered_l /icm_sum_term_calls	Terminating calls not answered lo <b>tætla/l</b> y percentage
term_calls_answered_remotely_p	peiccm_sum_term_calls_answered_i /icm_sum_term_calls	re <b>Teotely</b> ating calls answered remotely percentage
term_calls_answered_locally_exc	_ <b>_solto_vtere1</b> _calls_answered_locall - sum_orig_calls_followme_answe	locally, ignoring secondary line
term_calls_answered_locally_exc	_fs\limwteempeadls_answered_local - sum_orig_calls_followme_answe /sum_term_calls	locally, ignoring secondary line
orig_calls_redirected_answered_p	ວ <b>ອແກ</b> ້_orig_calls_redirected_answ /sum_term_calls	er <b>@d</b> iginating calls redirected and answered percentage
orig_calls_redirected_not_answer	r <b>edi_mpeori</b> g_calls_redirected_not_a /sum_term_calls	เก <b>รงพ่<del>g</del>ied</b> ting calls redirected and not answered percentage
orig_calls_redirected_not_answer	red <u>imxorfgllowllsn</u> eredirected_not_a - sum_orig_calls_followme_not_ar	not answered, ignoring
orig_calls_redirected_not_answer	reduexcofiglowthseredirected_not_ - sum_orig_calls_followme_not_ar /sum_term_calls	locally, ignoring secondary line



## **3.2 User Key Performance Indicators**

These KPIs apply to both user and call-center pages, but some are meaningful only for one or the other type.

Code	Description
orig_calls	Originating calls which are not the result of a redirection
orig_calls_deflected	Originating calls originated due to a redirection different than call-center and voicemail
orig_calls_deflected_answered	Originating calls deflected and answered
orig_calls_vms	Originating calls to VMS, resulting from a redirection
term_calls	Terminating calls, excluding call-center redirections
term_calls_answered_locally	Terminating calls answered directly by the callee and which are not redirected from a call-center
term_calls_answered_remotely	Terminating calls not answered by the callee but after redirection to another party, excluding call-center redirections
term_calls_not_answered	Terminating calls not answered and which are not redirected from a call-center
term_calls_from_cc	Terminating calls resulting from a call-center redirection
term_calls_from_cc_answered	Terminating calls resulting from a call-center redirection and answered
term_calls_busy	Terminating calls with termination cause busy, excluding call-center redirections
conn_orig_calls_redirected_cc_answered	Durations of originating calls redirected from call-center (from call answer to call end)
orig_calls_redirected_cc_answered	Originating calls from call-center answered locally



Code	Description
conn_orig_calls	Durations of originating calls not resulting from a redirection (from call answer to call end)
conn_orig_calls_deflected	Durations for originating calls deflected (from call answer to call end)
conn_term_calls_answered_locally	Connection durations of terminating calls answered locally (from call answer to call end)
ring_orig_calls_redirected_cc_answered	Ringing durations of originating calls redirected from call-center answered (from call setup to call answer)
dur_orig_calls_redirected_cc	Durations of originating calls redirected from call-center (from call setup to call end)
dur_term_calls	Durations for originating calls (from call setup to call end)
orig_calls_redirected_answered1	Originating calls redirected and answered
orig_calls_redirected_not_answered1	Originating calls redirected and not answered
orig_calls_followme_answered1	Originating calls redirected with reason 'follow-me' and answered
orig_calls_followme_not_answered1	Originating calls redirected with reason 'follow-me' and not answered

From these base KPIs, more elaborated KPIs are also exposed:

Name	Code	Value
all_calls	term_calls + orig_calls	All calls
avg_agent_ring_time	ring_orig_calls_redirected_cc_ans\@eerdge agent ringing time /	
	orig_calls_redirected_cc_answered	



conn_orig_calls_redirected_cc_answered) / term_calls  avg_conn_all_calls  conn_orig_calls + All calls average conn- conn_term_calls_answered_locallyduration / (orig_calls + term_calls_answered_locallyduration) / (orig_calls + term_calls_answered_locallyduration)  avg_conn_orig_calls  conn_orig_calls / orig_calls  orig_calls_answered_locallyderminating calls average connection duration  avg_conn_term_calls_answered_locallyderminating calls average connection duration  conn_all_calls  conn_orig_calls + All calls total connection duration  orig_calls_deflected_answered_peorig_calls_deflected_answered_locallyduration  orig_calls_deflected_answered_peorig_calls_deflected_answered / term_calls  orig_calls_perc  orig_calls/(term_calls + Originating calls percentage)  orig_calls_vms_perc  orig_calls_vms/term_calls  orig_calls_vms/term_calls  Redirections to VMS proverlowed_calls_percentage  orig_calls_deflected / Redirected calls percentage  overflowed_calls_perc  orig_calls_deflected / Redirected calls percentage  dur_term_calls - Call-center queue time  conn_orig_calls_redirected_cc_answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc  (term_calls - Terminating calls answered_calls_not_answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc  (term_calls_not_answered + excluding voicemail percentage)  term_calls_answered_exc_overflowerigeralls_redirected_cc_answered-call-center calls answered_lerc.  / term_calls_redirected_cc_answered-call-center calls answered_lerc.  / term_calls_redirected_cc_answered-call-center calls answered_lerc.	lame	Code	Value
conn_term_calls_answered_locally_duration / (orig_calls + term_calls_answered_locally)  avg_conn_orig_calls conn_orig_calls / orig_calls Originating calls avera connection duration  avg_conn_term_calls_answered_locally_Terminating calls avera / term_calls_answered_locally_Terminating calls avera / term_calls = All calls total connection conn_all_calls	vg_agent_waiting_time	conn_orig_calls_redirected_cc_a	Average agent waiting time inswered)
connection duration avg_conn_term_calls_answered_locally_term_calls_answered_locally_terminating calls aver	vg_conn_all_calls	conn_term_calls_answered_loca / (orig_calls +	All calls average connection
/ term_calls_answered_locally connection duration  conn_all_calls conn_orig_calls + All calls total connection  conn_all_calls conn_orig_calls + All calls total connection  conn_term_calls_answered_locallyduration  orig_calls_deflected_answered_peorig_calls_deflected_answered	vg_conn_orig_calls	conn_orig_calls / orig_calls	Originating calls average connection duration
conn_term_calls_answered_locallyduration  orig_calls_deflected_answered_peœrig_calls_deflected_answered	vg_conn_term_calls_answered	-	•
/ term_calls percentage  orig_calls_perc orig_calls / (term_calls + Originating calls percentage)  orig_calls_vms_perc orig_calls_vms / term_calls Redirections to VMS proverflowed_calls_perc orig_calls_deflected / Redirected calls percentage  queue_time dur_term_calls - Call-center queue time conn_orig_calls_redirected_cc_answeiting duration)  term_calls_answered term_calls - Terminating calls answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc (term_calls - Terminating calls answered_lexc_overflowerige_calls_not_answered + excluding voicemail proving_calls_vms)) / term_calls  term_calls_answered_exc_overflowerige_calls_redirected_cc_answeredCall-center calls answered_lexc_overflowerige_calls_redirected_cc_answeredCall-center calls answered_lexc_overflowerige_calls_redirected_cc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_redirected_lexc_answeredCall-center_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_overflowerige_calls_lexc_	onn_all_calls	•	All calls total connection
orig_calls)  orig_calls_vms_perc  orig_calls_vms / term_calls  Redirections to VMS p  overflowed_calls_perc  orig_calls_deflected / Redirected calls perce  term_calls  queue_time  dur_term_calls - Call-center queue tim  conn_orig_calls_redirected_cc_answeitertg duration)  term_calls_answered  term_calls - Terminating calls answered.perc  (term_calls_not_answered + excluding voicemail  orig_calls_vms)  term_calls_answered_perc  (term_calls - Terminating calls answered_lorig_calls_not_answered + excluding voicemail p  orig_calls_vms)) / term_calls  term_calls_answered_exc_overflowrige_malls_redirected_cc_answeredCall-center calls answered_lorig_calls answered_exc_overflowrige_malls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_cc_answeredCall-center calls answered_lorig_calls_redirected_lorig_calls_redirected_lorig_calls_lorig_cal	rig_calls_deflected_answered_		Originating calls redirected percentage
overflowed_calls_perc orig_calls_deflected / Redirected calls perce term_calls  queue_time dur_term_calls - Call-center queue time conn_orig_calls_redirected_cc_answaiting duration)  term_calls_answered term_calls - Terminating calls answ (term_calls_not_answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc (term_calls - Terminating calls answ (term_calls_not_answered + excluding voicemail p orig_calls_vms)) / term_calls  term_calls_answered_exc_overfloworige_realls_redirected_cc_answeredCall-center calls answ / term_calls percentage	rig_calls_perc	•	Originating calls percentage
term_calls  queue_time  dur_term_calls - Call-center queue tim conn_orig_calls_redirected_cc_answaiting duration)  term_calls_answered  term_calls - Terminating calls answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc  (term_calls - Terminating calls answered_term_calls_not_answered + excluding voicemail p orig_calls_vms)) / term_calls  term_calls_answered_exc_overfloworige_rcalls_redirected_cc_answeredCall-center calls answered_term_calls  term_calls_answered_exc_overfloworige_rcalls_redirected_cc_answeredCall-center calls answered_exc_overfloworige_rcalls_redirected_cc_answeredCall-center calls answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc_overfloworige_rcalls_redirected_cc_answered_exc	rig_calls_vms_perc	orig_calls_vms / term_calls	Redirections to VMS percenta
conn_orig_calls_redirected_cc_answaitintg duration)  term_calls_answered term_calls - Terminating calls answered + excluding voicemail orig_calls_vms)  term_calls_answered_perc (term_calls - Terminating calls answered + excluding voicemail p orig_calls_not_answered + excluding voicemail p orig_calls_vms)) / term_calls  term_calls_answered_exc_overfloworigercalls_redirected_cc_answeredCall-center calls answered_exc_overfloworigercalls_redirected_cc_answeredCall-center calls answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_cc_answered_exc_overfloworigercalls_redirected_exc_overfloworigercalls_redirected_exc_overflow	verflowed_calls_perc	_	Redirected calls percentage
(term_calls_not_answered + excluding voicemail orig_calls_vms)         term_calls_vms)       Terminating calls answered + excluding voicemail p orig_calls_vms)) / term_calls         term_calls_answered_exc_overfloworigercalls_redirected_cc_answeredCall-center calls answered_exc_overfloworigercalls       percentage	ueue_time		Call-center queue time (agen an <b>swæitंबा</b> ई duration)
(term_calls_not_answered + excluding voicemail p orig_calls_vms)) / term_calls term_calls_answered_exc_overfloworigercalls_redirected_cc_answeredCall-center calls answ / term_calls percentage	erm_calls_answered	(term_calls_not_answered +	Terminating calls answered, excluding voicemail
/ term_calls percentage	erm_calls_answered_perc	(term_calls_not_answered +	Terminating calls answered, excluding voicemail percenta
term_calls_answered_locally_percterm_calls_answered_locally/ terminating calls answ	erm_calls_answered_exc_overf		
term_calls locally percentage	erm_calls_answered_locally_pe		terminating calls answered locally percentage



Name	Code	Value
term_calls_deflected_perc	orig_calls_deflected / term_calls	Originating calls originated due to a redirection different than call-center and voicemail percentage
term_calls_exc_deflection_answe	r <b>ter</b> m_calls - orig_calls_deflected_answered	Terminating calls not overflowed
term_calls_exc_deflection_answe	r <b>(td:rpre_rc</b> alls - orig_calls_deflected_answered) / term_calls	Terminating calls not overflowed percentage
term_calls_from_cc_answered_pe	enterm_calls_from_cc_answered / term_calls_from_cc	Terminating calls from a call-center answered percentage
term_calls_missed	term_calls_not_answered + orig_calls_vms	Terminating calls missed (including voicemail)
term_calls_missed_perc	term_calls_not_answered + orig_calls_vms) / term_calls	Terminating calls missed (including voicemail) percentage
term_calls_not_answered_locally	term_calls - term_calls_answered_locally	Terminating calls answered locally, excluding call-center originated redirections
term_calls_not_answered_locally	_ <b>terro</b> _calls - term_calls_answered_locally) / term_calls	Terminating calls answered locally, excluding call-center originated redirections percentage
term_calls_not_answered_perc	term_calls_not_answered / term_calls	Terminating calls not answered, excluding call-center originated redirections
term_calls_perc	term_calls / (term_calls + orig_calls)	Terminating calls percentage
term_calls_unanswered_inc_over	fltewm_calls - orig_calls_redirected_cc_answere	Terminating calls to call-center ethot answered or overflowed



Name	Code	Value
term_calls_unanswered_inc_ove	rf <b>læw<u>m</u>peæ</b> lls - orig_calls_redirected_cc_answere / term_calls	Terminating calls to call-center ed)ot answered or overflowed percentage
term_calls_answered_locally_exc	c_fellow_calls_answered_locally - orig_calls_followme_answered	Terminating calls answered locally, ignoring secondary line answer
term_calls_answered_locally_exc	c_ftd:lmnv_roæll_spearnswered_locally - orig_calls_followme_answered) / term_calls	Terminating calls answered locally, ignoring secondary line answer percentage
orig_calls_redirected_answered_	p <b>errig_</b> calls_redirected_answered / term_calls	Originating calls redirected and answered percentage
orig_calls_redirected_not_answe	r <b>ൽ<u>i</u>pൺl</b> s_redirected_not_answe /term_calls	rcalriginating calls redirected and not answered percentage
orig_calls_redirected_not_answe	r <b>cod<u>ile</u>xc<u>a</u>fis<u>ll</u>coodinectted_not_answe - orig_calls_followme_not_answer</b>	not answered, ignoring
orig_calls_redirected_not_answe	ere( <b>drigs:ccafbsl:creedine:cptedc:</b> Inot_answer - orig_calls_followme_not_answer / term_calls	locally, ignoring secondary line

This is an example column layout configuration on the portal for the users table:

- Calls:
  - all\_calls
  - orig\_calls, orig\_calls\_perc
  - term\_calls, term\_calls\_perc
- Terminating calls:
  - term\_calls\_answered, term\_calls\_answered\_perc
  - term\_calls\_missed, term\_calls\_missed\_perc
  - orig\_calls\_vms, orig\_calls\_vms\_perc



- orig\_calls\_deflected, orig\_calls\_deflected\_perc
- Total seconds called:
  - conn\_all\_calls
  - conn\_orig\_calls
  - conn\_term\_calls\_answered\_locally
- Average call duration:
  - avg\_conn\_all\_calls
  - avg\_conn\_orig\_calls
  - avg\_conn\_term\_calls\_answered\_locally
- Call center agent calls:
  - term\_calls\_from\_cc
  - term\_calls\_from\_cc\_answered, term\_calls\_from\_cc\_answered\_perc

### 3.3 Advanced Filtering

While the Call Detail Record (CDR) itself does not contain information about the line type, which is necessary to distinguish between user, auto-attendant, and call-center calls, the backend can enhance CDR data. This augmentation involves incorporating line type information obtained from the Application Server (AS) through the provisioning gateway.

In addition to the statistics presented in the previous chapter, the data can be further filtered by line type or call type. Line type refers to the user line category, such as call-center, auto-attendant, or user line. Call type distinguishes between internal and external calls to or from the company. Therefore, three filters are available: network (for off-net originations or terminations), enterprise (for calls within the enterprise but between different groups), and group (for calls between users of the same group).

The line type filter is exclusively available on the enterprise/group KPI pages, while the call type filter is accessible on both the enterprise/group KPI pages and the user/auto-attendant/call-center tabular pages.

#### **Warning**

It is crucial to emphasize that this filtering takes place after the existing built-in call statistics filtering. Consequently, if call-center calls have already been excluded during the computation of the base Key Performance Indicators (KPIs), such as sum\_term\_calls\_answered\_locally, choosing



call-center as the line type will not incorporate these calls into the KPIs. The same logic applies to the other filters.

### 4 Graphs

In addition to the key Performance Indicators (KPIs) presented in the previous chapters, the portal also features graphs illustrating the network usage of the platform on a per-enterprise or per-group basis. It is important to note that, while the KPIs aim to provide a realistic view of service usage from the user perspective, the graphs themselves consider all Call Detail Record (CDR) data unfiltered. Therefore, they correspond more closely to the network view of the calls.

The following chapters enumerate the various types of graphs available.

#### 4.1 Sessions

Title	Description	Туре	Unit
Minutes of Usage	This chart describes the total duration of calls in minutes, hourly or daily, depending on the window of time selected.	Time- based	Minutes
Calls Count over Time	This chart shows the number of calls per hour or per day.	Time- based	Number of calls
Traffic Intensity	This chart illustrates the number of voice channels busy.	Time- based	Erlangs
Maximum Simultaneous Calls	This chart shows a measurement of the maximum number of concurrent channels busy.	Time- based	Number of voice channels
Call Rate	This chart illustrates the number of call setup attempts (successful or failed) per second.	Time- based	Calls/second

### 4.2 Call Durations



Title	Description	Туре	Unit
Connection Phase Duration Distribution	The connection phase is the period of time between the moment the call is answered (connected) and the moment the call is released (disconnected). This chart represents the distribution of these durations. Each bar represents the percentage of calls (vertical axis) which have a specific duration (horizontal axis).	Histogram	Proportion (%)
Average Connection Phase Duration	This chart illustrates the evolution of the average calls connection duration over time.	Time- based	Seconds
Alerting Phase Duration Distribution	The alerting (ringing) phase is the period of time between the moment the call is initiated (setup) and the moment the call is answered (connected). This chart represents the distribution of these durations. Each bar represents the percentage of calls (vertical axis) which have a specific duration (horizontal axis).	Histogram	Proportion (%)
Average Alerting Phase Duration	This chart illustrates the evolution of the average calls alerting phase duration over time.	Time- based	Seconds

### 4.3 Caller and Callee Distribution

The charts listed in the table below exist for each combination of:

- direction: ingress or egress
- party: calling party number (caller) or called party number (callee)
- metric type: volume (number of minutes) or count (number of calls)

From the base 3 types of charts: National vs International, National and International breakdowns, 24 different charts are available.

Title	Description	Туре	Unit
Ingress Callee Distribution: International (Count)	This chart illustrates the called party number distribution for international calls. Calculation is based on number of calls.	Pie	Proportion (%)



Title	Description	Туре	Unit
Ingress Callee Distribution: International (Volume)	This chart illustrates the called party number distribution for international calls. Calculation is based on volume.	Pie	Proportion (%)
Ingress Callee Distribution: National (Count)	This chart illustrates the called party number distribution for national calls. Calculation is based on number of calls.	Pie	Proportion (%)
Ingress Callee Distribution: National (Volume)	This chart illustrates the called party number distribution for national calls. Calculation is based on volume.	Pie	Proportion (%)
Ingress Callee Distribution: National vs International (Count)	This chart illustrates the called party number distribution between national and international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Ingress Callee Distribution: National vs International (Volume)	This chart illustrates the called party number distribution between national and international calls. Calculation is based on volume.	Pie	Proportion (%)
Ingress Caller Distribution: International (Count)	This chart illustrates the calling party number distribution for international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Ingress Caller Distribution: International (Volume)	This chart illustrates the calling party number distribution for international calls. Calculation is based on volume.	Pie	Proportion (%)
Ingress Caller Distribution: National (Count)	This chart illustrates the calling party number distribution for national calls. Calculation is based on number of calls.	Pie	Proportion (%)
Ingress Caller Distribution: National (Volume)	This chart illustrates the calling party number distribution for national calls. Calculation is based on volume.	Pie	Proportion (%)
Ingress Caller Distribution: National vs International (Count)	This chart illustrates the calling party number distribution between national and international calls. Calculation is based on number of calls.	Pie	Proportion (%)



Title	Description	Туре	Unit
Ingress Caller Distribution: National vs International (Volume)	This chart illustrates the calling party number distribution between national and international calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Callee Distribution: International (Count)	This chart illustrates the called party number distribution for international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Callee Distribution: International (Volume)	This chart illustrates the called party number distribution for international calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Callee Distribution: National (Count)	This chart illustrates the called party number distribution for national calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Callee Distribution: National (Volume)	This chart illustrates the called party number distribution for national calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Callee Distribution: National vs International (Count)	This chart illustrates the called party number distribution between national and international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Callee Distribution: National vs International (Volume)	This chart illustrates the called party number distribution between national and international calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Caller Distribution: International (Count)	This chart illustrates the calling party number distribution for international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Caller Distribution: International (Volume)	This chart illustrates the calling party number distribution for international calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Caller Distribution: National (Count)	This chart illustrates the calling party number distribution for national calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Callee Distribution: National vs International (Volume)  Egress Caller Distribution: International (Count)  Egress Caller Distribution: International (Volume)  Egress Caller Distribution: National	This chart illustrates the called party number distribution between national and international calls. Calculation is based on volume.  This chart illustrates the calling party number distribution for international calls. Calculation is based on number of calls.  This chart illustrates the calling party number distribution for international calls. Calculation is based on volume.  This chart illustrates the calling party number distribution for national calls. Calculation is	Pie Pie	(%) Proportion (%) Proportion (%)



Title	Description	Туре	Unit
Egress Caller Distribution: National (Volume)	This chart illustrates the calling party number distribution for national calls. Calculation is based on volume.	Pie	Proportion (%)
Egress Caller Distribution: National vs International (Count)	This chart illustrates the calling party number distribution between national and international calls. Calculation is based on number of calls.	Pie	Proportion (%)
Egress Caller Distribution: National vs International (Volume)	This chart illustrates the calling party number distribution between national and international calls. Calculation is based on volume.	Pie	Proportion (%)