

ADVANCED CALL REPORT

VOISPEED
IP TELEPHONY

Advanced Call Report

Time filter: From 26 April 2010 To 26 April 2010

Calling party filter: Calling number, Calling user, Origin

Called party filter: Called number, Called user, Destination, Called group, Called IVR

Call management filter: Number, User, Group, IVR, Outcome

Options: Action: None (show calls) Export calls in text/CSV format

Apply

Date time	Origin	Calling number	Called number	Destination	Number	Duration	Outcome
26/04/2010 12:51:20	ISDN	343		IVR		00:01:14	Answered
26/04/2010 12:48:52	LAN	900		FAX		00:00:01	Answered
26/04/2010 12:47:48	ISDN	900		IVR		00:02:16	Answered
26/04/2010 12:47:46	ISDN	900		IVR		00:00:49	Answered
26/04/2010 12:42:55	LAN			VOISpeed	440	00:04:25	Answered
26/04/2010 12:42:09	LAN		503	VOISpeed	446503	00:00:29	Not answered
26/04/2010 12:41:52	LAN			SIP		00:00:02	Not answered
26/04/2010 12:38:56	VOISpeed2			SIP		00:00:06	Not answered
26/04/2010 12:38:52	LAN			VOISpeed	052	00:00:10	Not answered
26/04/2010 12:28:30	LAN		5	BT		00:01:33	Answered
26/04/2010 12:22:12	LAN		503	BT	446503	00:00:44	Unreachable
26/04/2010 12:19:43	ISDN	343		IVR		00:00:30	Answered
26/04/2010 12:14:54	LAN			VOISpeed	343	00:01:57	Answered
26/04/2010 11:59:56	LAN			VOISpeed	496	00:01:06	Answered

Introduction

Advanced Call Report (ACR) is an application that provides an alternative more detailed call report to that already available on the VOISpeed server. The ACR is able to extrapolate information and statistics on the call, with a high level of detail and personalisation.

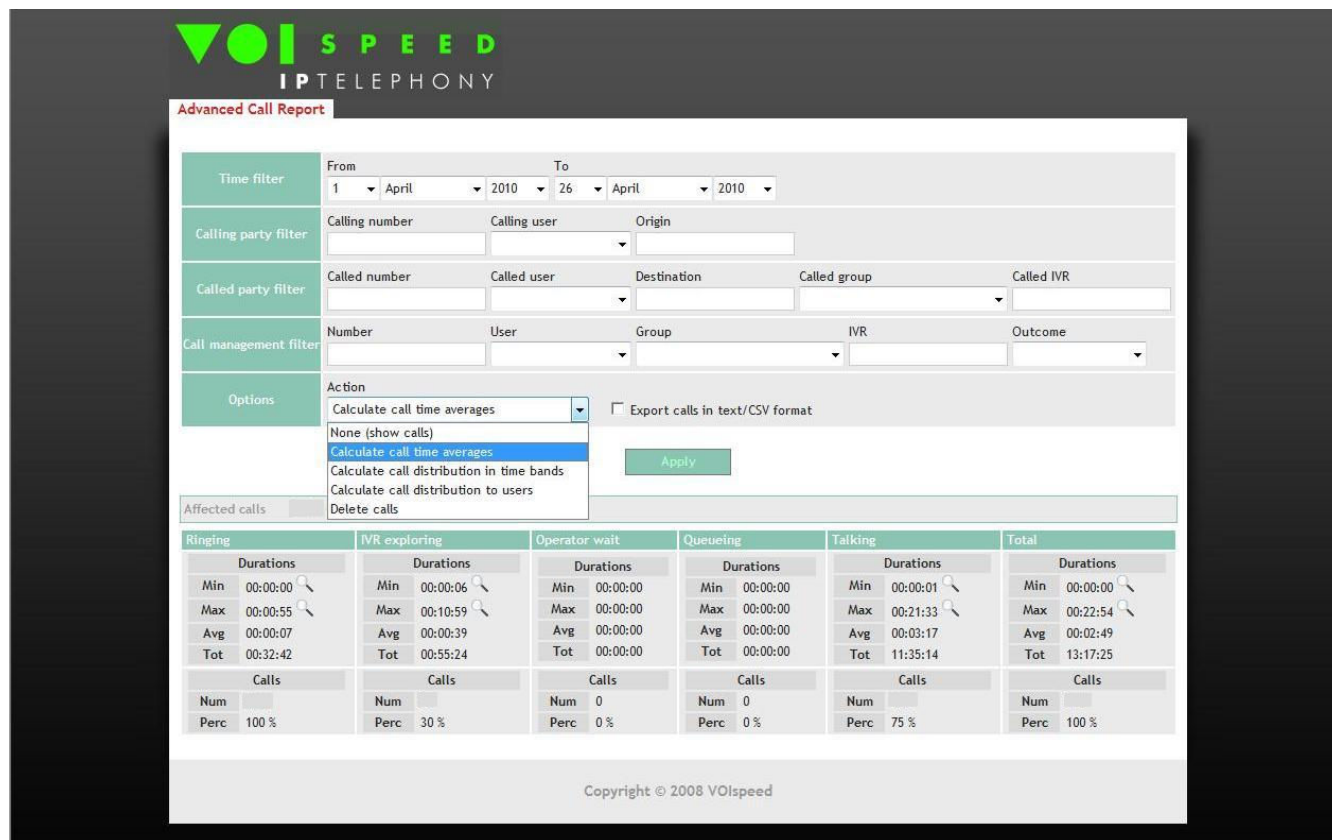
ACR has a web interface accessible via a browser that allows the operator to extrapolate information and / or statistics required in real time, in either numeric or graphic form, or exported in text/csv format.

Specifics

In the basic version, SPB provides the following information and statistics:

1. Calls received and made in a specific time period (e.g. From day xx/xx/xx to day yy/yy/yy)
2. Calls received and made from or to a specific number (e.g. Calls received from number xxxxxxxx)
3. Calls ending with a particular field (OK, busy, unreachable destination etc)
4. Calls managed by a specific operator.
5. Calls managed by a specific call group.
6. Calls managed by a specific automated response (IVR)
7. Calls lost: users do not succeed in contacting an operator, but close in an automatic responder, IVR, or at the end of a response group.
8. Overall call duration (including IVR exploration, wait in queue, ring), which can be filtered by user.
9. Minimum, average and maximum time wait before the call is taken up by an operator.
10. Minimum, average and maximum conversation time, with ability to filter by user.
11. Call distribution between various hours of the day, and ability to filter these by number called or group.
12. Complete story of each call (e.g. arrived at IVR; passed to group; then taken up by the operator, passed to the user etc.)

User guide



2. User interface

The user interface is composed of a number of drop-down menus of filters with a series of options to apply to the calls archived in the database that constitute the call report. The phone book of calls (or the statistics that you wish to calculate) appear below the call report filter and option selection. The various filters are sub-divided in four categories:

- Time filter
- Calling party filter
- Called party filter
- Call management filter

Time filter	From	To			
	1	April	2010	26	April 2010
Calling party filter	Calling number	Calling user	Origin		
	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Called party filter	Called number	Called user	Destination	Called group	Called IVR
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Call management filter	Number	User	Group	IVR	Outcome
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Options	Action				
	Calculate call distribution in time bands <input type="checkbox"/> Export calls in text/CSV format				
<input type="button" value="Apply"/>					

2.1. Temporary Filters

By using this filter you can define a temporary interval, between two dates. In this way you can select all the calls which fall within this time interval, including the dates specified.

2.2. Filters on the caller

Using these filters you can select a group of calls based on the information on the entity of the calling party. Specifically, you can filter by calling number. In this case, by number it means the telephone number from the moment in which the call enters in the system. The menu for Calling User is not an additional filter, but simply serves to make a rapid selection for an internal extension number of a user enabling you to search all the calls made by that user.

The Origin Server filters according to the name of the carrier or WAN route from which the call is provided. For example, if in the field Origin 'SIP' is written, you will see only the calls made via VoIP/ SIP operators.

2.3. Filters on the person called

Using these filters you can select a group of calls based on information on the entity called. Specifically, you can filter by Called number, like the previous example, when the call has entered the system. The menu Called user is not an additional filter, but simply serves as a rapid selection for a specific internal user enabling you to search all the calls received by an internal user.

The filter Destination is used to filter by carrier name or WAN route on which calls closed. For example, if under the field 'Destination' 'BT' is written, all and only calls closed via the ISDN operator BT will be selected.

In this category there are also two other filters: Called group and Called IVR. The first (Called group) allows you to select all the calls that, at the point of entry into the system, have been picked up by a hunt group; furthermore, via a drop down menu you can select one of the hunt groups from your system.

The same functions apply to the filter Called IVR, allows you to select all the calls that, at the point of entry into the system, have been managed via an IVR. To use this filter you need to specify in the text box the description of the IVR node selected in the PBX server.

These two filters are very useful as, whilst for the caller there is always a one-to one correspondence between telephone number and the caller, this is not the case for the called entity. In fact a group or IVR node can have more extension numbers associated to it. Therefore, a combination of filters is required in order to isolate those calls directed to a specific hunt group or extension number. The same concept is applied to IVR nodes connected to more than one telephone number.

2.4. Filters on calls

These filters allow you to select a subset of calls based on how the call was managed by the PBX server. In particular, the Filter Number selects all and only calls which at the point of disconnection were linked to a specific number called. The drop down menu 'User' is not an additional filter, but simply allows a rapid selection in the Number field in case you want to add an internal user and select all the calls answered from a specific user on the system.

The Group filter allows you to select all the calls that, at the point of disconnection, were connected to a specific hunt group; furthermore, via a drop down menu, you can select from the hunt groups on your system.

Similarly the IVR filter allows you to select all the calls that, at the point of disconnection, were connected with an IVR. To use this filter you need to specify in the text box, the description of a node of whichever IVR tree you are using in the PBX server.

Lastly, the Outcome filter, via a drop-down menu, allows you to select the calls according to the way in which they have been terminated. The various outcomes on this filter are listed below:

- Answered
- No resources
- Unreachable
- Busy
- Refused

- Not answered
- Timeout
- Permission denied
- Message playback
- Divert
- Vocalbox (Voicemail)
- Lost

Statistics

Affected calls		114 received by users out of total calls		
User	Extension	Total talking	Average talking	Calls
	8	00:00:00	00:00:00	0
	9	00:00:00	00:00:00	0
	3	00:00:00	00:00:00	0
	5	00:00:00	00:00:00	1
	4	00:38:53	00:01:46	22
	7	00:17:57	00:03:35	5
	5	00:00:00	00:00:00	0
	1	03:35:48	00:04:04	53
	6	00:00:00	00:00:00	0
	7	00:00:00	00:00:00	0
	0	00:19:45	00:04:56	4
	8	00:00:00	00:00:00	0
	0	01:29:55	00:03:13	28
	2	00:00:00	00:00:00	0
	3	00:00:00	00:00:00	0
	9	00:00:00	00:00:00	0
	6	00:00:00	00:00:00	0
	2	00:00:00	00:00:00	1

In the Options section, found under the user interface, in addition to applying filters on calls, you can calculate statistic on the filtered calls. The various statistics available are detailed below:

By selecting 'Calculate call time averages' from the Action drop-down menu, you can provide statistics on various time scales. The results of these statistics are divided into six sub-groups:

- Ringing
- IVR exploring
- Operator Wait

- Queuing
- Talking
- Total

For each of these subgroups the following data is supplied (for the calls selected):

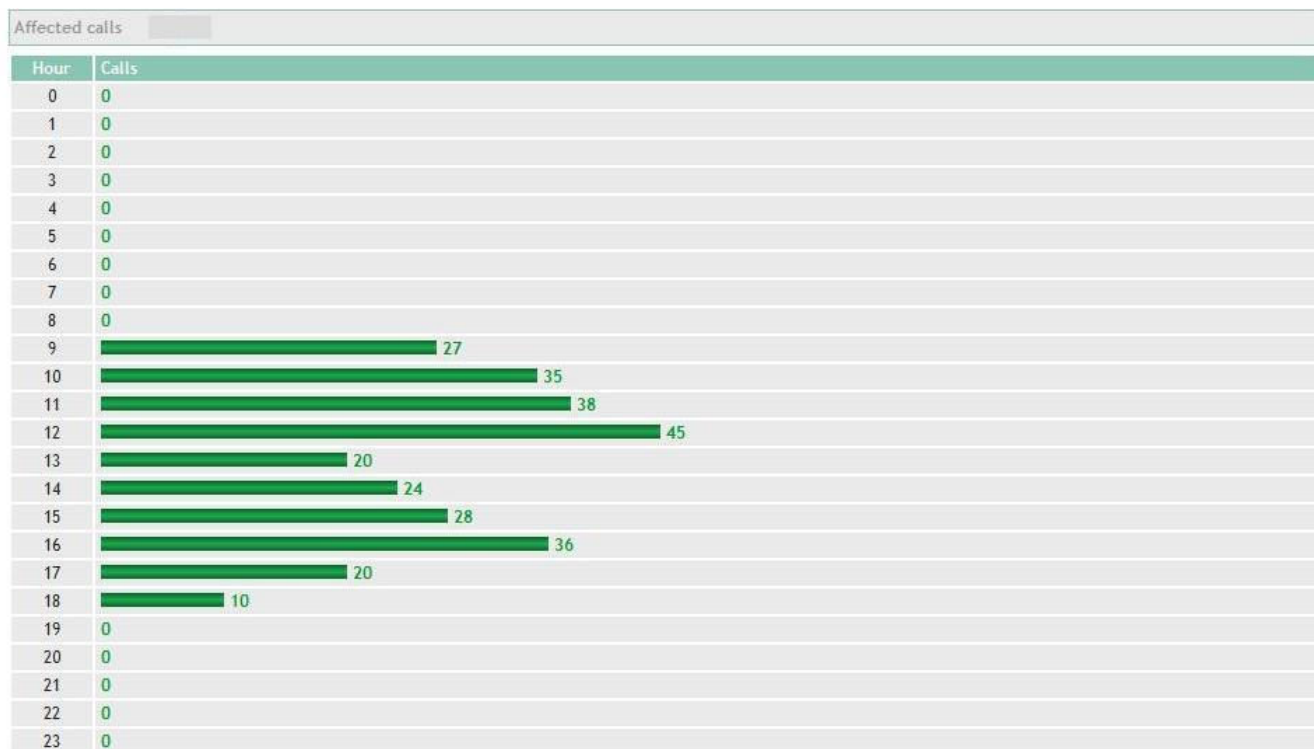
- minimum time
- average time
- maximum time
- total time
- call number
- percentage of calls

Selecting 'Calculate call distribution in time bands', statistics are shown on calls in time bands throughout the day. The result is a graphic representing 24 hours with every hour illustrated by a coloured bar showing the number of calls verified in that hour. In this case, if the filter indicates a value in the Outcome field (i.e. if you want to filter the calls by final outcome) the bar is shown in two colours: green which shows the number of total calls and yellow, which represents the number of calls ending according to the outcome selected. In this way, for example selecting the outcome 'Answered', you can see the total number of calls received and how many of these have been answered.

Another set of statistics are those which allow you to calculate the distribution of calls made to various users. This set of statistics can be selected via the entry 'Calculate call distribution to users'. In this way you can provide a list of users and for each one you can see their total conversation time, the average call time, and the number of calls attributed to the user, both incoming and outgoing.

Another piece of information supplied is the total number of calls per user in relation to the total number of calls selected by the filter. This information is shown at the top via a coloured bar in which green indicates the total number of calls made from/ to the user (this value should be equal to the total number of calls for that single user) and blue indicates the total number of calls selected based on the filter selection. In this case, if you were only interested in the incoming or outgoing calls or even those managed by a specific hunt group, you can modify the filter accordingly. Also for this set of statistics, if the filter indicates a value in the field Outcome (i.e. if you want to filter calls based on the final outcome) the bar that indicates calls from a single user is shown by double colours: green, for the total number of calls from/ to the user, and yellow for the number of calls from/ to the user ending with the selected outcome.

NB: all statistics described are calculated based on the filter selection of calls.



Database Maintenance

If from the menu Action you select 'Delete Calls' and press the 'Apply' button, all the calls selected based on the filter will be cancelled. This simple function allows you to maintain the database, cancelling data that is no longer of interest, for example, calls past a certain date.

Exporting data from the database

In the user interface, selecting the 'Export calls in text/CSV format' allows you to export data in a **call_report** text file. By ticking this option and pressing the 'Apply' button, you will not see any calls, but will view instead a text file in CSV format. The CSV format is made up of lines, each one of which represents a record in the table; each line is codified with various fields separated by a comma. The list and order of these fields is as follows:

pbx , id , arrival time , original calling , original called , source , destination , original ivr , original group , service type , calling , called , ivr , group , ring duration , ivr duration , operator wait duration , queuing duration , talk duration , total duration , outcome