Zylinc Advanced Statistics

Product overview

Introduction

Zylinc Advanced Statistics is the newest and most powerful Zylinc solution for accessing and analyzing data.

A Zylinc solution's statistics database stores events for all calls, e-mails, and chat requests (for example received, answer, or transfer) as well as for all agents (for example login, logout, and state changes).

This high level of data tracking allows for full cradle-to-grave statistics on all inquiries, and for multiple types of statistics based on all aspects of the Zylinc solution.

Importantly, Zylinc Advanced Statistics not only provides tools for analyzing data from the Zylinc solution itself, but also from the following platforms:

- Mitel
- Microsoft Skype for Business
- Cisco CUCM
- BroadWorks
- Avaya

The result is an end-to-end overview for agents and all levels of your organization's employees.

Advanced statistics

With Zylinc Advanced Statistics, stakeholders on all levels of your organization can benefit from information about the amount and nature of inquiries that your organization gets, and how your organization handles them.

You can view Zylinc Advanced Statistics as a major extension of the simple web-based Zylinc Statistics Portal, with which you can monitor queue loads, communication channels, service goal targets, KPIs, etc., and work with selected data in bundled Microsoft Excel templates.

With Zylinc Advanced Statistics, you can do all that plus:

- Analyze and manage data from your Zylinc platform as well as from other core PBX sources, such as BroadWorks, Cisco CUCM, and Skype for Business Filter and select specific data, down to individual inquiries

- Set up your own targeted reports

- Schedule automatic generation and distribution of reports

- Export to a wide range of formats

Zylinc Advanced Statistics gives you:

- Easy, efficient, and compelling reporting to management and other stakeholders

- Insight into individual departments' and agents' performance in connection with capacity planning, setting of service goals, and performance appraisals

- Details about handling of individual inquiries in connection with training or analysis of quality issues

- Time-based overview of queue load peaks and trends that can expose changes in inquiry patterns, needs for adjusting opening hours, needs for more staff, needs for IT upgrades, etc.—all the quantitative data that you need for your business cases

- Time-based insight into effects of changes, campaigns, etc.

- Targeted information that can help everyone make better decisions—from top management, call center managers, customer service managers, and IT departments to individual agents or receptionists

- Optional integration with your CRM and ERP systems as well as other third-party database solutions

- The freedom to install on-premise, run in a private cloud, or run as a hosted solution
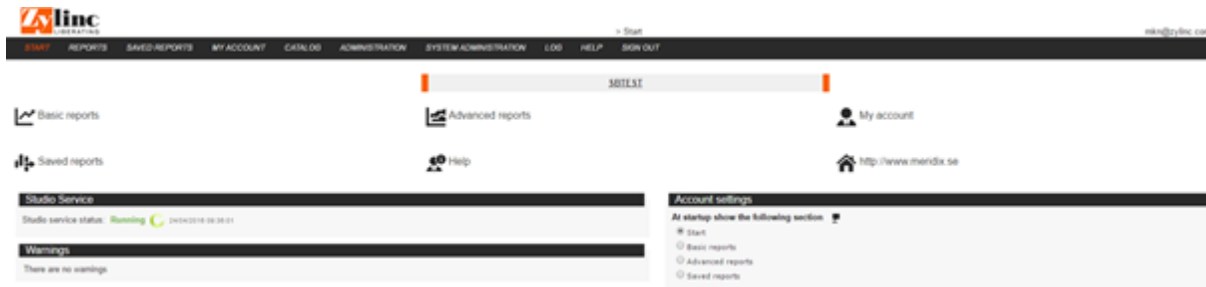
Multitenancy

As part of a private cloud, ZylincAdvanced Statistics is fully multitenancy-enabled, and it supports multiple tenants through the same deployment, adding only a limited set of requirements to the statistics multitenant platform:

- A dedicated master database for Zylinc Advanced Statistics

- A Zylinc Windows Application Server node (a simple IIS Server)

The deployment is quick and simple, and as with the rest of the statistics multitenant platform, you manage and maintain the system entirely through a web portal.

Platform support

Zylinc Advanced Statistics not only manages data from the Zylinc platform, but also PBX data from other core PBX data sources, which can be imported and processed by the system:

- BroadSoft BroadWorks

- Cisco CUCM

- Skype for Business (including Lync)

- Mitel

- Avaya

This means that the solution can provide full statistics and behavioral information for the entire platform, and not only for agent users.

Multiple channels

Zylinc Advanced Statistics provides advanced features for statistical analysis of contact behavior for all media channels—voice, chat, e-mail, and social media.

Report types

Zylinc Advanced Statistics can provide multiple different reports, each targeted towards a specific purpose in your organization:

- Overview
- Voice queues
- Chat queues
- Mail queues
- IVR menus
- Users by ID
- Users by Queue

Overview report

An overview report is based on specific queues that you want to target. It contains the following sortable columns of statistical data:

- Total incoming contacts
- Voice incoming
- Voice answered
- Voice abandoned
- Voice redirected
- Voice transferred
- Chat incoming
- Chat answered
- Chat abandoned
- Chat redirected
- Chat transferred
- Mail incoming
- Mail answered
- Mail abandoned
- Mail redirected
- Mail transferred

Voice queues report

A voice queues report is based on specific voice queues that you want to target. The voice queue report also provides you with a call specification that you can use for looking into all call-in details. It contains the following sortable columns of statistical data:
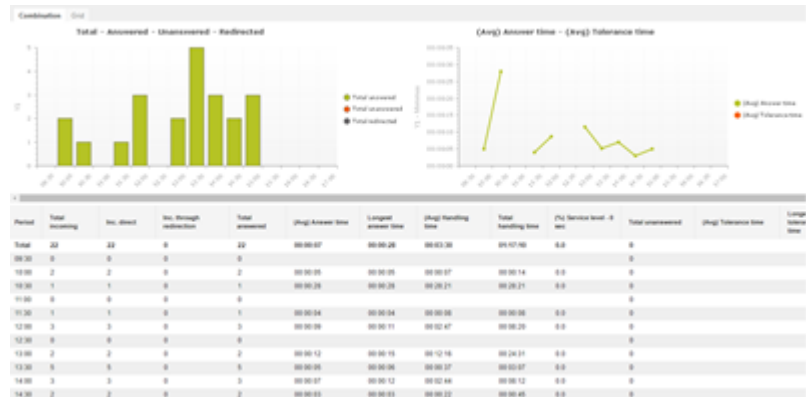
- Total incoming

- Inc. direct

- Incoming through redirection

- Total answered

- (Average) answer time

- (Average) answer time – standard deviation

- Longest answer time

- (Average) talk time

- Total talk time

- Answered within 20, 40, 60 sec.

- Service level %

- Total answered recalls

- Total unanswered

- (Average) tolerance time

- Longest tolerance time

- Total redirected

- Total transferred

- Blind transfers

- Attended transfers

- Total callbacks ordered

- Total callbacks resolved

- Call reason - Specification

- Incoming calls with calling number

- Incoming calls without calling number

- Incoming unique numbers

- Incoming unique numbers (that have been answered)

- Incoming unique numbers (that have not been answered)

- Outgoing calls

Chat queues report

A chat queues report is based on specific chat queues that you want to target. It contains the following sort-able columns of statistical data:

- Total incoming
- Total incoming inc. direct
- Incoming through redirection
- Total answered
- (Average) answer time
- Longest answer time
- Average handling time
- Total handling time
- Service level %
- Total unanswered
- Average tolerance time
- Longest tolerance time
- Total redirected
- Total transferred

E-mail queues report

An e-mail queues report is based on specific e-mail queues that you want to target. It contains the fol-lowing sortable columns of statistical data:

- Total incoming
- Total incoming inc. direct
- Incoming through redirection
- Total answered
- (Average) answer time
- Longest answer time
- Average handling time
- Total handling time
- Service level %
- Total unanswered
- Average tolerance time
- Longest tolerance time
- Total redirected
- Total transferred
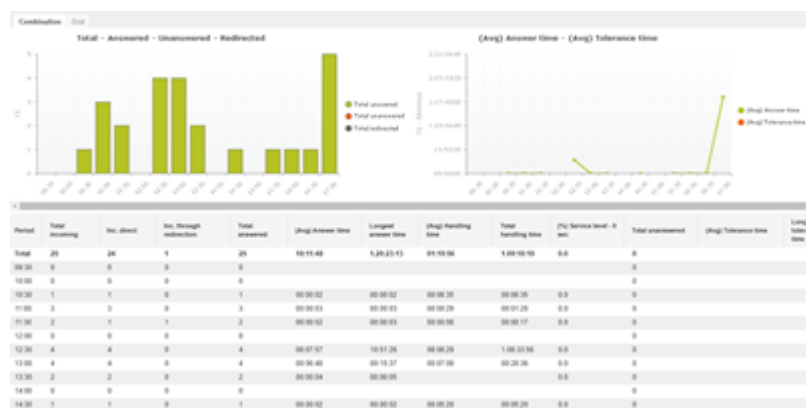
IVR menus report

An IVR menus report is based on specific Interactive Voice Response menus that you want to target. It presents the count of events from the selected IVR menus to queues. It contains the following sortable columns of statistical data:

- IVR incoming

- Hangup calls

- Repeated IVR messages

- Directed to extension

- Queue

- Directed to IVR

- IVR

- Directed to queue
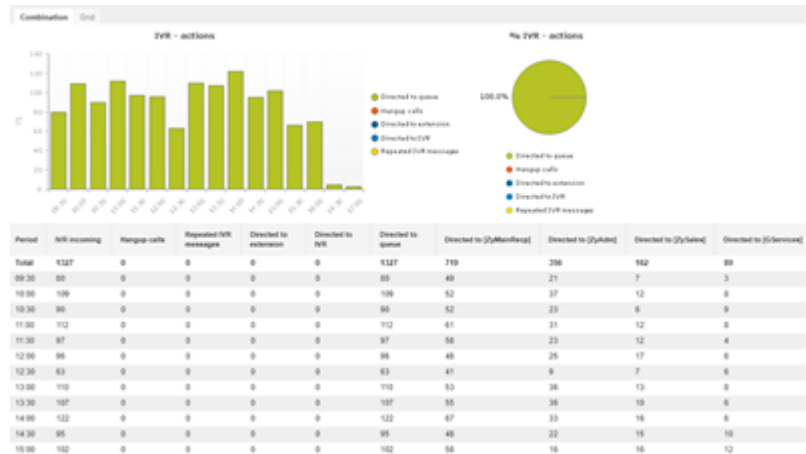
Users by ID report

A users by ID report is based on specific users who you want to target. Sorting is also possible on department level. It contains the following sortable columns of statistical data:

- Outgoing

- Outgoing answered

- Outgoing not answered

- Outgoing talk time

- Outgoing (average) talk time

- Answered

- Unanswered

- Transferred

- Bridges

- On hold/on park

- On hold/on park time

- Talk time

- (Average) talk time

- (Standard deviation) talk time

- Ring time (answered)

- (Average) ring time

- (Standard deviation) ring time

- Ring time (unanswered)

- (Average) ring time (unanswered)

- (Standard deviation) ring time (unanswered)

- Callback dial out

- Callback reschedule

- Callback resolved

- Callback accept

- Callback listen

- Callback offer

- Callback offer failed

- Offline

- Idle

- Busy

- Unavailable

- Wrap-up

- Monitor

- Active

- Offline (Agent)

- Active (Agent)

- Inactive (Agent)

- Inactive (Agent) - Specification

- Inactive OC (Agent)

- Standby (Agent)

- Monitor (Agent)

- Agent availability

- Agent busy

- Agent idle

- (%) Agent busy of availability

Users by queue report

A users by queue report is used for analyzing the performance of users on a specific queue.

You can select multiple queues as your report target, but we recommend that you run this type of report per queue.

It contains the following sortable columns of statistical data:

- Total answered unique calls

- (Average) handling time unique calls

- Total answered
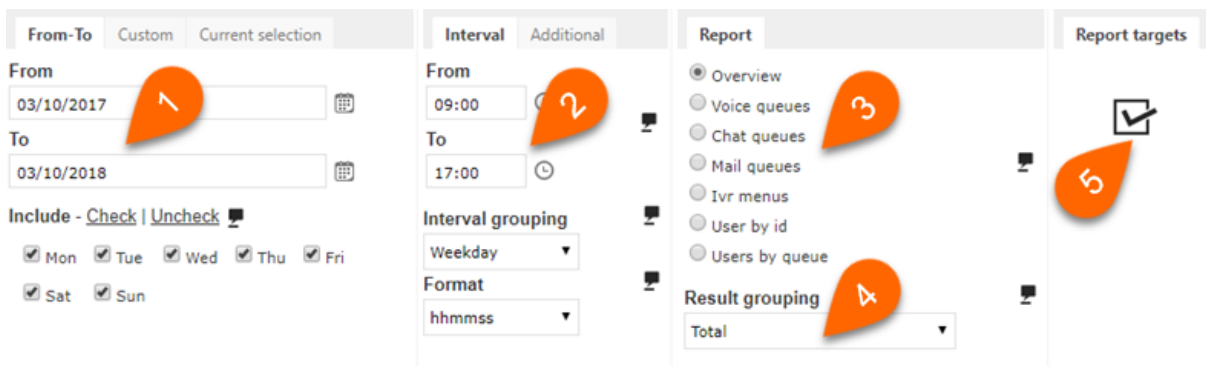
- (Average) handling time

- Total handling time

Period	Name	Total answered unique calls	(Avg) Handling time unique calls	Total answered	(Avg) Handling time	Total handling time
Total				1697	00:01:07	1.07:25:06
02/10/2017 > 02/10/2018	Demo CC (88336641) >	137	00:03:00	153	00:02:41	06:50:10
02/10/2017 > 02/10/2018	Demo CC (88336641) >	14	00:00:21	14	00:00:21	00:04:57
02/10/2017 > 02/10/2018	Demo CC (88336641) >	50	00:01:42	69	00:01:14	01:24:35
02/10/2017 > 02/10/2018	Demo CC (88336641) >	2	00:00:34	2	00:00:34	00:01:07
02/10/2017 > 02/10/2018	Demo CC (88336641) >	26	00:00:24	30	00:00:20	00:10:11
02/10/2017 > 02/10/2018	Demo CC (88336641) >	87	00:00:34	96	00:00:31	00:49:58
02/10/2017 > 02/10/2018	Demo CC (88336641) >	58	00:02:46	80	00:02:00	02:40:27
02/10/2017 > 02/10/2018	Demo CC (88336641) >	1	00:00:03	1	00:00:03	00:00:03
02/10/2017 > 02/10/2018	Demo CC (88336641) >	8	00:00:18	12	00:00:12	00:02:25
02/10/2017 > 02/10/2018	Demo CC (88336641) >	2	00:01:08	4	00:00:34	00:02:16
02/10/2017 > 02/10/2018	Demo CC (88336641) >	21	00:02:18	43	00:01:07	00:48:17
02/10/2017 > 02/10/2018	Demo CC (88336641) >	1	00:00:20	1	00:00:20	00:00:20
02/10/2017 > 02/10/2018	Demo CC (88336641) >	125	00:01:04	138	00:00:58	02:12:22
02/10/2017 > 02/10/2018	Demo CC (88336641) >	4	00:00:06	4	00:00:06	00:00:26
02/10/2017 > 02/10/2018	Demo AC (35294886) >	1	00:01:37	1	00:01:37	00:01:37
02/10/2017 > 02/10/2018	Demo AC (35294886) >	76	00:02:02	80	00:01:56	02:34:30
02/10/2017 > 02/10/2018	Demo AC (35294886) >	3	00:00:09	3	00:00:09	00:00:26

Report generation

Zylinc Advanced Statistics can handle large amounts of data inline, and it isn't limited in scheduled reporting features. That means that you can test an initial report with a small data set, and then schedule it for the full scope when you're ready.
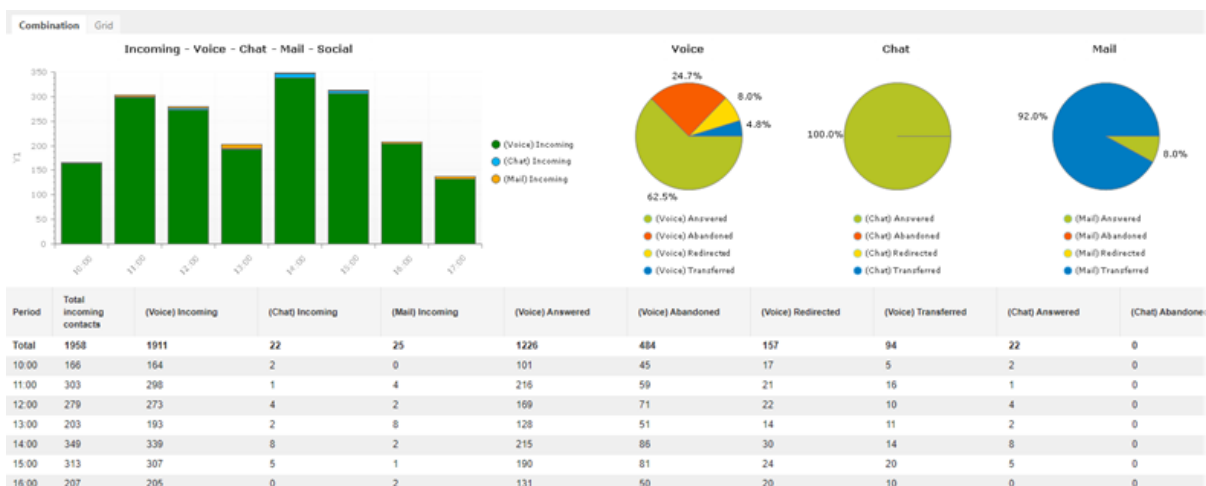
Creating a report is quick and easy:

1. Select time scope (which period the report should cover, for example Mondays to Fridays in the last year)

2. Select time of day (for example all day or only inside your organization's opening hours) and interval grouping (for example by weekdays or months)

3. Select report type

4. Select result grouping

5. Select report targets (which queues, users, etc. the report should cover)

When ready, execute the report and wait a short while for data to be processed

Once Zylinc Advanced Statistics has processed the data, it automatically generates the report, and you can then change grouping on the fly along with visible columns.

Here's an example of a report with results grouped by time of day in one-hour intervals (the minimum supported interval is one minute):

Period	Total incoming contacts	(Voice) Incoming	(Chat) Incoming	(Mail) Incoming	(Voice) Answered	(Voice) Abandoned	(Voice) Redirected	(Voice) Transferred	(Chat) Answered	(Chat) Abandoned
Total	1958	1911	22	25	1226	484	157	94	22	0
10:00	166	164	2	0	101	45	17	5	2	0
11:00	303	298	1	4	216	59	21	16	1	0
12:00	279	273	4	2	169	71	22	10	4	0
13:00	203	193	2	2	128	51	14	11	2	0
14:00	349	339	8	2	215	86	30	14	8	0
15:00	313	307	5	1	190	81	24	20	5	0
16:00	207	205	0	2	131	50	20	10	0	0

You can easily change the report's columns to get full control over exactly which individual types of data (for example the number of calls redirected or call transferred) that the report contains.

Result grouping

You can group all reports by:

- Time

- Weekdays

- Months

- Dates

- Weeks

- Quarter

- Year and month

- Year

- Period

Here's an example of a report with results grouped by week instead of by one-hour intervals:
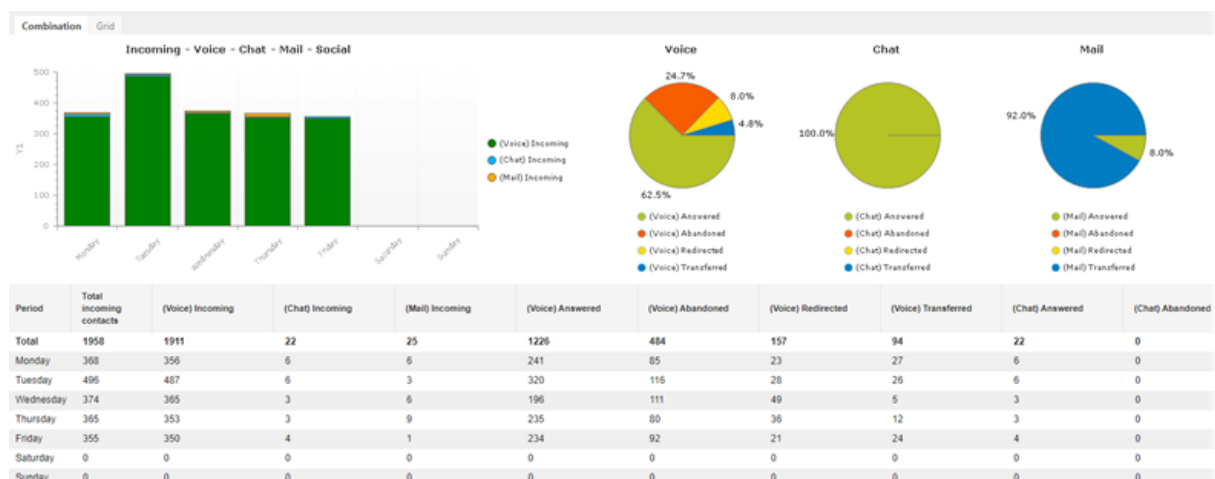
Even if you generated a report with one grouping (for example grouping by weeks), you can later change it on the fly (for example to grouping by months). This greatly eases comparison on various grouping levels.
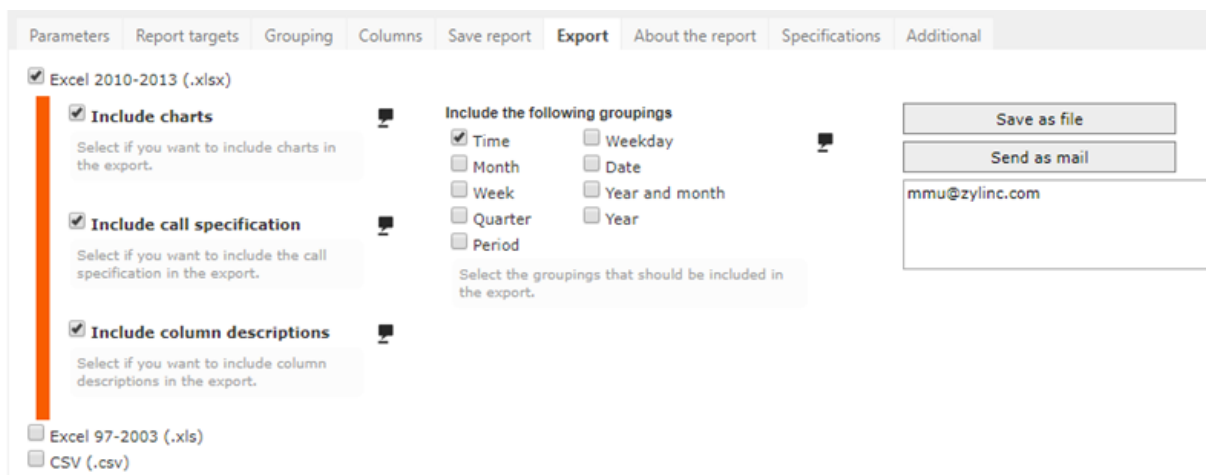
You can save any generated report with all the groupings that you're potentially going to need.

Data export

Zylinc Advanced Statistics supports export of generated reports to three formats:

- CSV

- Microsoft Excel 97-2003 (.xls)

- Microsoft Excel 2010-2013 (.xlsx)

When you use the Excel formats, you can export multiple data groupings to the same Excel export, and you can include charts and graphs from the reports in your Excel export.

When you export to Excel, each selected grouping becomes a separate sheet in the workbook. The result is an easy-to-access workbook with full data availability.
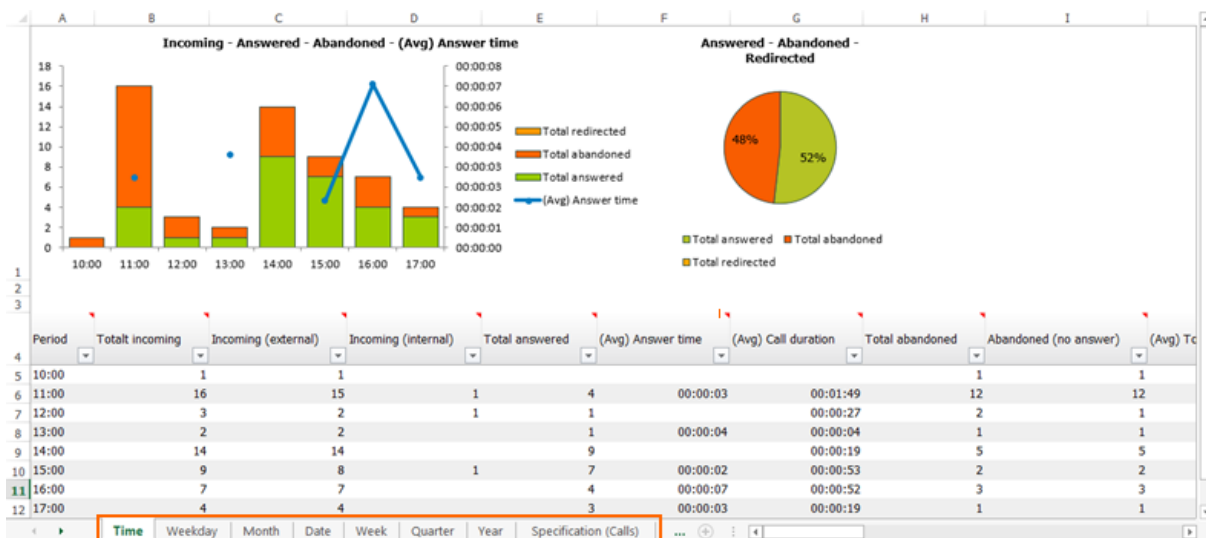
Export to CSV files does not support multiple data groupings.

Report saving and scheduling
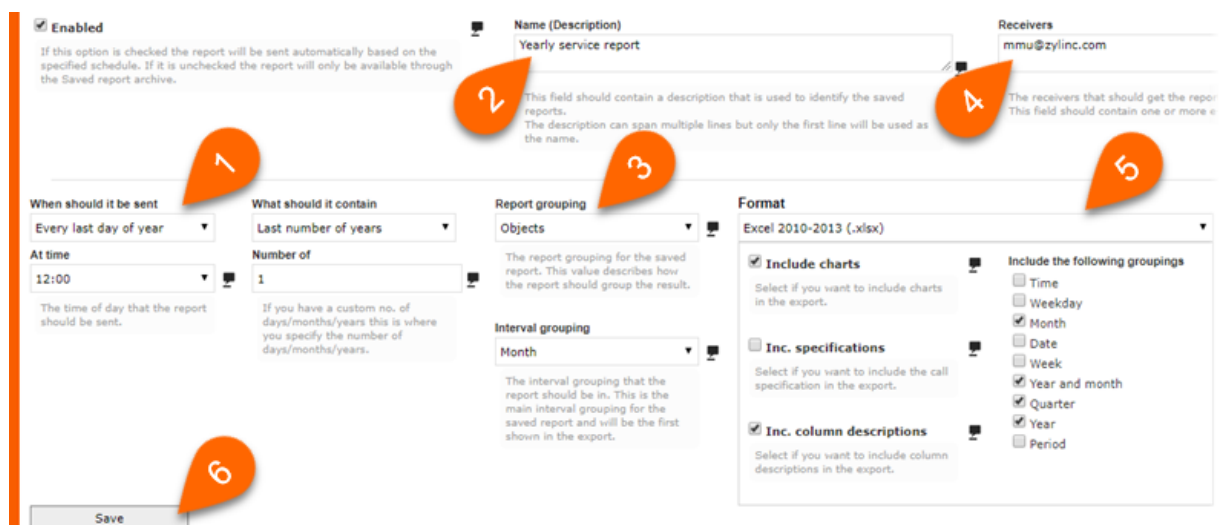
In Zylinc Advanced Statistics, the save and schedule features for reports are combined to allow for easy saving and scheduling of reports.

You can save any generated report with or without a schedule.

The steps to save and schedule a report are very simple:

1. Select scheduling behavior

2. Select a name for the report

3. Select result grouping

4. Select recipients who should automatically receive the report

5. Select report format and additional options

6. Save the report, and scheduling is now active

External call logging

> ⚠ This feature is currently only supported for calls from and to BroadWorks endpoints.

With external call logging, Zylinc Advanced Statistics can log calls to all monitored devices in an external database.

For each call, an event is registered in the external database with the following data:

- userID (varchar(256), not null)
- callID (varchar(256), not null)
- userEmail (varchar(256), null)
- userDisplayName (varchar(256), null)
- userPhoneNumber (varchar(256), not null)
- remotePhoneNumber (varchar(256), not null)
- isIncomingCall (bit, not null)
- startDatetime (datetime, not null)
- endDatetime (datetime, not null)
- answerDatetime (datetime, null)
- isRedirected (bit, not null)

This is an example of how the table is populated:

	userID	callID	userEmail	userDisplayName	userPhoneNumber	remotePhoneNumber	isIncomingCall	startDatetime	endDatetime	answerDatetime	isRedirect...
1	zylincuser03@zylinc.hvoip.dk	callhalf-30879:0	zph@zylinc.com	Peter Hansen (Scale)	+4533690613	88336649	0	2013-06-26 08:39:03.407	2013-06-26 08:39:07.887	NULL	0
2	zylincuser03@zylinc.hvoip.dk	callhalf-34535:0	zph@zylinc.com	Peter Hansen (Scale)	+4533690613	88336649	0	2013-06-26 13:50:12.937	2013-06-26 13:50:19.107	NULL	0
3	zylincuser03@zylinc.hvoip.dk	callhalf-55313:0	zph@zylinc.com	Peter Hansen (Scale)	+4533690613	88336649	0	2013-06-28 10:43:50.473	2013-06-28 10:43:51.003	NULL	0
4	zylincuser03@zylinc.hvoip.dk	callhalf-77745:0	zph@zylinc.com	Peter Hansen (Scale)	+4533690613	88336649	0	2013-07-01 06:33:24.693	2013-07-01 06:33:25.507	NULL	0
5	zylincuser01@zylinc.hvoip.dk	callhalf-77837:0	tpX@zylinc.com	Jytte Laursen (Scale)	+4533690611	+4520850368	1	2013-07-01 06:53:52.457	2013-07-01 06:53:52.457	NULL	0
6	17400364_VMR@zylinc.hvoip.dk	callhalf-77845:0	NULL	Voice Messaging Group Voice Portal	+4533690619	+4520850368	1	2013-07-01 06:53:55.320	2013-07-01 06:54:01.027	NULL	0
7	zylincuser04@zylinc.hvoip.dk	callhalf-77939:0	zhp@zylinc.com	Helen Patterson (Scale)	+4533690614	+4520850368	1	2013-07-01 07:06:10.640	2013-07-01 07:06:10.640	NULL	0
8	zylincuser01@zylinc.hvoip.dk	callhalf-77949:0	tpX@zylinc.com	Jytte Laursen (Scale)	+4533690611	+4520850368	1	2013-07-01 07:06:46.457	2013-07-01 07:06:46.457	NULL	0
9	17400364_VMR@zylinc.hvoip.dk	callhalf-77957:0	NULL	Voice Messaging Group Voice Portal	+4533690619	+4520850368	1	2013-07-01 07:06:49.223	2013-07-01 07:06:55.190	NULL	0
10	zylincuser01@zylinc.hvoip.dk	callhalf-78001:0	tpX@zylinc.com	Jytte Laursen (Scale)	+4533690611	664	0	2013-07-01 07:13:22.070	2013-07-01 07:13:22.070	NULL	0
11	zylincuser01@zylinc.hvoip.dk	callhalf-78015:0	tpX@zylinc.com	Jytte Laursen (Scale)	+4533690611	+4520850368	0	2013-07-01 07:13:39.417	2013-07-01 07:13:49.023	NULL	0

On the Zylinc system, all you need to configure in the web-based Zylinc Administration Portal is this:

Presence Call-Logging (External):

Enable Call-Logging:	☑		
SQL Server:	10.10.10.35	Database Name:	bw_call_records
SQL User:	testuser	SQL Password:	••••••••••••
Ignore Regex:	^\+453162\d+		
Ignore No. List:	1234,5678		

Zylinc delivers a template Microsoft SQL stored procedure that end customers can customize to suit their needs.

Zylinc Advanced Statistics dashboards

In Zylinc Advanced Statistics, you can easily set up dashboards for operational as well as analytical purposes. Such dashboards are typically displayed in full-screen mode on large monitors in call centers or IT operations centers, but they can be equally relevant for individual managers, supervisors, etc.

In Advanced Statistics, you can make as many dashboards as your organization needs. You can easily customize each dashboard for its particular use, because the dashboards are made up of widgets that you can mix, size, and position as required. You can save dashboard templates and share them with your colleagues, so they can save time when they make their own dashboards. You can even style the dashboards with CSS stylesheets to make them fit your organization's visual identity.

In addition to information from Advanced Statistics itself, you can add content like RSS feeds, clocks, YouTube videos, images (such as logos), or embedded web pages to your dashboards.

Examples of some of the many dashboard widgets:
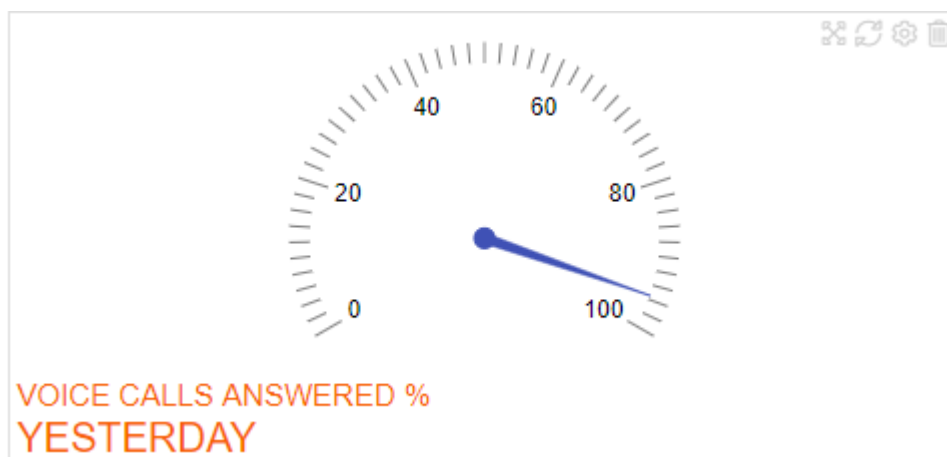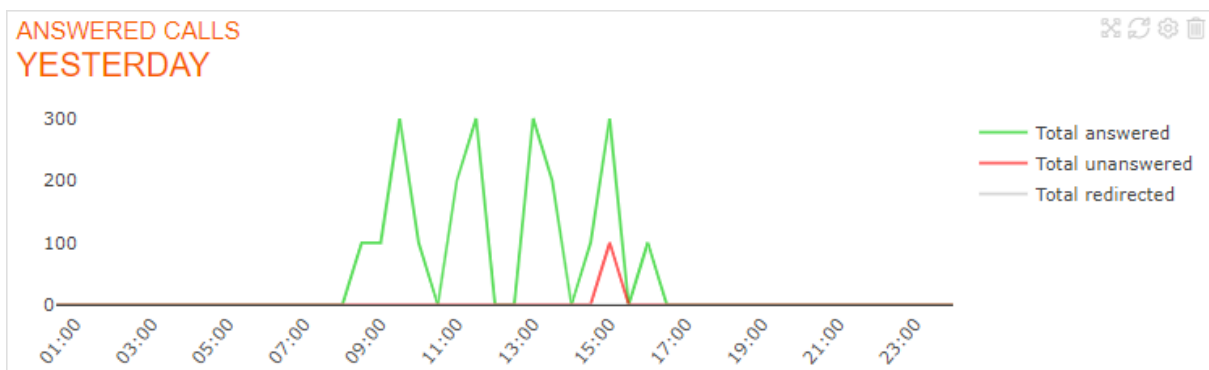
Third-party integration

Customers or third-party systems that require extended access to the generated statistical data can get API access to Zylinc Advanced Statistics.

This is ideal for third-party systems and customers who need the access for BI, data warehousing, workforce management, or performance management.

The API is based on SQL database integration, and it can be accessed either directly or through a mirror. If the purpose is to present live data and action (wallboard features), you should do the database polling from the mirror.

The statistical data is generated by using the Zylinc Attendant Console, Contact Center, or Service Center applications.

The statistics database is based on a Microsoft SQL Server architecture, so all references to views, tables, and stored procedures refer to Microsoft SQL connection methods.

The statistical data includes, but is not limited to:

- Agent performance
- Queue performance
- Channel overview
- Channel performance
- User states
- Users
- Events
- Live performance

Zylinc offers consultancy services to help partners and customers understand the data model and individual use cases.

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Third-party software vendors - impact on Zylinc support

Zylinc solutions integrate with numerous third-party software applications. Some of those are essential to the core operation, for example operating systems and databases. Others are needed to implement additional features, for example chat.

To guarantee a fully working solution, Zylinc closely follows the release cycles of the third-party software vendors. Zylinc will not support integration to third-party software that is no longer supported by the respective vendor. This also applies to software that is not directly used in the Zylinc solution as such, but can be used as tools that support the general use of the Zylinc solution, for example Microsoft Excel.

- **Microsoft**
  Zylinc solutions are not supported on Microsoft software that has passed its Mainstream Support end date. Zylinc does not support Microsoft products in the Extended Support state.
  The official Microsoft lifecycle definitions can be found at https://support.microsoft.com/en-us/g-p/lifeselect, from where detailed lifecycle information on specific products can also be found.

- **Cisco**
  The lifecycle of Cisco Call Manager can be found at https://www.cisco.com/c/en/us/products/unified-communications/unified-communications-manager-callmanager/eos-eol-notice-listing.html

- **Third-party APIs in general**
  Many third-party software and service providers do not follow strict software lifecycle policies where changes to APIs are announced well in advance. This applies to, for example, Facebook and Google. Zylinc follows updates to all relevant APIs closely, and will update the Zylinc solutions to comply with updates as quickly as possible. However, Zylinc is not responsible for any limitations, thresholds, etc. in such third-party APIs.

No warranties

Unless you are provided with a specific warranty from Zylinc as part of your product documentation, Zylinc expressly disclaims any warranty for the product.

The product and any related documentation is provided "as is" without warranty of any kind, either expressed or implied, including, without limitation, the implied warranties of merchantability or fitness for a particular purpose. The entire risk arising out of use or performance of the product remains with you as the user.

Limitation of liability

In no event shall Zylinc or its suppliers be liable for any special, incidental, indirect, or consequential damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) nor for any product liability (except for bodily injury) arising out of the use of or inability to use the product or the provision of or failure to provide proper support, even if Zylinc has been advised of the possibility of such damages.

Absent any willful misconduct or gross negligence, the entire liability of Zylinc and its suppliers shall be limited to the amount actually paid by you for the product.

When Zylinc partners deal with orders that involve Zylinc, they can greatly benefit from using the recommended standard delivery process (available on Zylinc unified help). However, when Zylinc partners deal with enterprise orders, that is orders that involve Zylinc solutions for more than 500 end users, they *must* use the standard delivery process.