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COMMS MUNDI CALL CENTER

Tech sheet

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1. Introduction

This document details the technical specifications of the Comms Mundi Call Center product. The functionalities of each of the components that are part of it are detailed below.

2 Summary

For Call Center / Contact Center scenarios, Comms Mundi (CM) has automatic call distribution (ACD) and automatic dialing tools. Combining these tools with the possibilities at the programming level of the numbering plan (by date/time, by origin/destination, personalized using ODBC databases, etc...) and using the other applications available in the telephony part (interception/listening monitoring call...), many different scenarios can be configured.

Custom web interfaces (monitoring / agents) integrated with the system can be easily developed for projects that require it. CM has basic tools and only the integration with third-party systems or the user interface remains.

Additionally, CM is compatible with the WebRTC standard, so it is possible to develop web interfaces with integrated softphone (Firefox/Chrome). This option is very interesting for Call Center environments, due to its convenience, universality, savings in telephone/softphone purchases and its simple integration with third-party applications (CRMs, ERPs, proprietary...).

3 Specifications

3.1 Description

The automatic call distribution (ACD) and automatic dialing queue system requires the prior availability of the IP PBX module (and domain modules/virtual IP switchboards) in order to activate the number of call center queues required.

Call center queues can be configured as:

- ⑩ **Incoming:** automatic distribution of all incoming calls to a queue by connected agents;
- ⑩ **Outgoing:** automatically make outgoing calls from one or more campaigns depending on the number of available agents, automatic distribution of outgoing calls by different agents
- ⑩ **auto dialer:** makes automatic calls up to a maximum NR of simultaneous calls (non-predictive dialing), without agents, from one or several campaigns executing the programmed action, for example, playing a voiceover, telephone survey.

For each available queue and independently, you can choose between one of the three functions to perform. Likewise, each domain (virtual IP PBX) can be

associated with one or several queues, and this association can be altered at will, being able to move queues from one domain to another (floating).

3.2 Features

1. Multiple queues with priority

Possibility of adding multiple queues to give different types of attention, for example, depending on the language, type of service.

2. multiple agents

Multiple agents can be defined and associated with one or more queues depending on the type of queue. The characteristics of the agents are:

- ⑩ Static agents (an always-on phone number)
 - ⑩ Dynamic agents (login/password from any phone)
 - ⑩ Agents with multiple simultaneous calls
 - ⑩ Auto power off or pause
- #### 3. Multiple call distribution algorithms

Distribution of calls in a queue according to various distribution algorithms, they can be:

- ⑩ call everyone at once
- ⑩ call randomly
- ⑩ call in order of priority (with or without memory)
- ⑩ call the agent with the fewest calls answered
- ⑩ call the agent with more time without calls
- ⑩ call agent with less time on call

4. automatic dialing

The system can launch automatic calls to the destinations of one or more campaigns. The automatic call can be programmed to execute based on the free agents, or in a fixed way, for a maximum number of simultaneous calls.

5. Automatic dial programming

Possibility of programming the start and end time of the execution of calls on the dialer.

6. overflow

It is possible to program overflow rules to other queues or another action based on the number of agents connected or the maximum waiting time in the queue or the maximum number of simultaneous calls.

7. multiple campaigns

Definition of multiple automatic call campaigns, with support for variables for

integration with external systems (CRMs, others).

8. Real-time monitoring and statistics

4 Call Center Features

In a real Call Center environment the following functionalities are available with the PBX module and at least one Call Center queue.

4.1 Management Console

Comms Mundi's web user tool includes a Call Center monitoring console. This allows you to view the current status of the Call Center from any browser, and includes the following features:

- ⑩ **queue status:** Metrics on the number of calls waiting, connected, available agents and waiting time (average and maximum) of callers, allowing the quality level to be measured in real time.
- ⑩ **call status:** List of calls in the Call Center, with origin, associated queue and waiting time.
- ⑩ **agent status:** List of agents and their status in real time (connected, paused)

4.2 Announcements and music on hold

The user web tool allows you to manage the audio files of the virtual switchboard (music on hold, voiceovers, etc.). They can be downloaded or uploaded in common formats (wav or mp3), or recorded directly from a user terminal.

Said locutions can be reproduced in IVRs menus, Call Center, as music on hold, or as the starting or ending point of a call.

4.4 Schedules

In order to define different behaviors based on time parameters, the user web tool allows defining time periods based on time ranges (eg: 09:00-18:00), selection of the day of the week (eg: Monday to Friday), date ranges (eg, July 1 to August 31), or date selection (eg, list of holidays).

4.5 Call distribution

When a call arrives in a Call Center distribution queue, a search for available agents is carried out with a predefined algorithm (ACD system – Automatic Call Distribution). The algorithms available in Comms Mundi are the following:

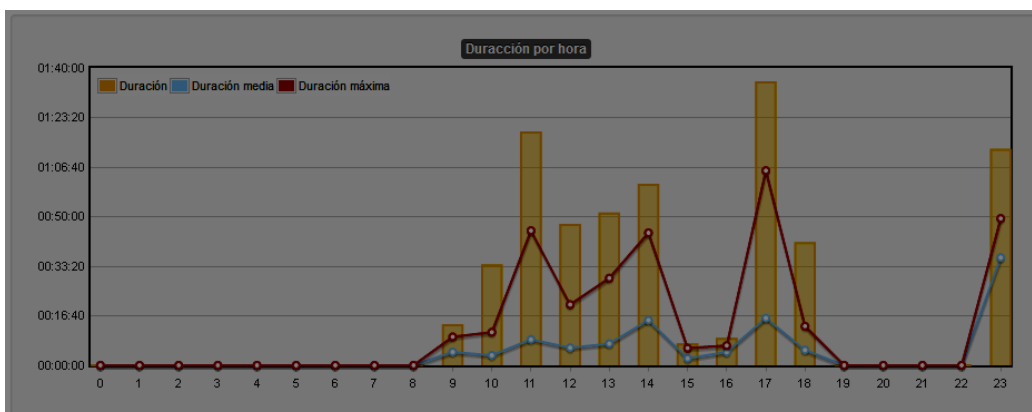
- ⑩ Call all agents
- ⑩ Choose the free agent with the most time without calls
- ⑩ Choose the free agent with the least time on the call
- ⑩ Choose the free agent with the least accumulated calls

- ⑩ Pick the first free agent in a predefined order (always start at the same one)
- ⑩ Pick a free agent in shifts (start where you left off last time)
- ⑩ Choose an agent randomly

4.6 Reports and statistics

In addition to real-time monitoring, the Comms Mundi user web tool includes a facility allowing reports to be generated based on filtering (by date/time, queue, agent). The generated report has the following information:

- ⑩ Number of total calls, answered and unanswered
- ⑩ Total, average and maximum call waiting time
- ⑩ Total, average and maximum call duration
- ⑩ Service level (SLA, distribution of waiting times)
- ⑩ Agent call distribution
- ⑩ Distribution of calls by hours
- ⑩ Distribution of calls by days of the week



Distribution of call duration per hour

5 Additional features

5.1 Call recording

The CM IP PBX module has the option to record all calls or on demand.

5.2 Integration with external systems

Integration with external systems is possible through the following options:

- ⑩ **ODBC:** direct connection with different databases (MySQL, MSSQL Server, PostgreSQL)
- ⑩ **HTTP:** connection with webservice via http, possibility of sending variables in GET or POST.

⑩ **api**: CM module that allows CM management using JSON-RPC.

The optimal integration formula requires a prior study of the application with which COMMS MUNDI is going to connect, and may even require additional engineering at one or both ends for proper operation.

5.3 SMS

The CM IP PBX module allows sending SMS to one or multiple destinations, which makes it a very attractive tool for call centers where massive SMS sending campaigns are carried out. As a requirement, it is necessary to contract an operator that allows the sending of SMS, either through SMPP or third-party APIs already supported by CM (dialoga, dinahosting, xtrelecom).

5.4 Web phone

Web client to make and receive calls directly in the browser (chrome or firefox), so there is no need for additional software for an agent to operate in the call center.

