3.17 Reporting Database Specification

Bright Pattern Documentation

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Purpose

The Bright Pattern Contact Center *Reporting Database Specification* describes the historical data that is collected and stored in the Reporting Database, also known as DB2. This database contains detailed records about interactions and agent activities as well as many pre-aggregated statistical values.

Note: The Reporting Database tables that are not documented in this guide are for internal use only.

The data collected in the Reporting Database is used for generating the out-of-the-box Bright Pattern Contact Center reports. The reports have been developed using TIBCO Jaspersoft Studio, an Eclipse-based report designer for JasperReports and JasperReports Server. For information about these reports, see the Bright Pattern Contact Center *Reporting Reference Guide*.

Creating Custom Reports with TIBCO Jaspersoft Studio

You can use any SQL-based reporting application to create your custom reports. However, using Jaspersoft Studio for custom report creation offers the following advantages:

- You can generate and view such custom reports directly in the Contact Center Administrator application in the same way that you generate and view the out-of-the-box reports. For more information, see section Report Templates of the Bright Pattern Contact Center *Contact Center Administrator Guide*.

- You can reuse the available out-of-the-box report templates to create new reports and make modifications only where necessary. The Bright Pattern Contact Center *Custom Reporting Tutorial* explains how to configure Jaspersoft Studio for creating custom Bright Pattern Contact Center reports and how to reuse the out-of-the-box report templates.

Note: Jaspersoft has two different tools for report development: iReport Designer and Jaspersoft Studio. Only Jaspersoft Studio is supported as the tool for the creation of custom report templates for your Bright Pattern Contact Center solution.

Creating Custom CSV Exports Using BPXML Templates

To export a large amount of data from the Reporting Database in CSV format, *.bpxml* report templates can be used. For more information, see the *Custom Reporting Tutorial*, section Customizing BPXML Report Templates.

Audience

This guide is intended primarily for professionals responsible for the design, development, and testing of custom applications and reports in your contact center.

Readers are expected to be have experience with relational databases and reporting tools, as well as a solid understanding of contact center operations and resources that are involved in such operations.

How to Use This Guide

The *Bright Pattern Contact Center Reporting Database Specification* provides descriptions of the statistical data and types of detailed records that may be queried from the database.

This guide organizes such information into two main parts: Statistical Data and Detailed Records. Statistical Data specifies tables that contain metrics for the main contact center resources, such as agents and services. The data in these tables is mainly used for generating typical reports described in the *Bright Pattern Contact Center Reports Reference Guide*. Detailed Records specifies tables that contain detailed information about all agent activities and all interactions that either entered, or were initiated from, the Bright Pattern Contact Center system. Data from these tables can be used, for example, for quality management tasks, which require searching for specific interactions based on combinations of specific criteria.

You should familiarize yourself with each part by first reading the "general information" sections, which provide basic information about retrieving data from the database, metrics/tables and their meanings, media types, and so forth. After you have begun to query the database, you should use the metric-specific sections of this guide for reference purposes.

Metrics include underscores ("_") in their names; such metrics are the names of the tables of data that are retrieved from the database.

General Information About Statistical Data

The tables specified in this section contain metrics for the main contact center resources, such as agents and services, arranged in 15-minute statistical intervals. The data in these tables is used, in particular, for generating the out-of-the-box reports described in the [Bright Pattern Contact Center Reports Reference Guide](#). You can see the actual queries used in these reports by downloading the corresponding *.jrxml* templates.

The data source for these metrics is the raw event data that is initially written to the Collector Database (DB1) in real-time by various Bright Pattern Contact Center components. This raw data is then periodically extracted by the Aggregator component, transformed into the specified metrics for the base 15-minute statistical intervals, and loaded into the tables of the Reporting Database (DB2). A SQL-compliant reporting application can be used for aggregating these basic metrics into desired higher-level reporting intervals (i.e., hour, day, week, month, etc.).

The following considerations apply to all statistical data tables:

- Unless noted otherwise with respect to a particular metric, all call-related metrics count inbound calls for the aggregation interval in which they entered the system (e.g., if a call entered the system in interval A and was answered in interval B, metric *num_calls_answered* will count it for interval A and not for interval B.) Likewise, all internal and outbound calls are counted for the aggregation interval in which they were initiated.

- Metrics are provided for all supported media types. The media type can be indicated either explicitly via the *media_type* field and/or indirectly via the *service_name* field.

- All call-related metrics are also supported for the chat media type. Thus, if either the *media_type* field the *service_name* field indicates media type chat, the term *call* in the description of any metric shall be interpreted for the given row of the given table as a service chat interaction in the same context. Note that internal chats

between agents/supervisors are not taken into consideration by any metrics.

- Some call-related metrics are also supported for the email media type. For every such metric, a note is provided about how to interpret it for emails. If email is not explicitly mentioned, the metric should be considered applicable to voice and chat only.

- It is possible to have more than one row of data for the same 15-minute interval related to the same resource. This happens when there are interactions that span multiple aggregation intervals. The system learns about such interactions later, but still attributes them to the interval when they started, arranging them in a separate row. Practically, this means that when you do queries on the statistical data, you should add up all values from all rows that are returned.

agent_performance

The *agent_performance* table contains agent metrics. Note that interaction-related metrics are counted separately for each service that the agent provided within the aggregation interval. Thus, unless noted otherwise with respect to a particular metric, any interaction mentioned in this table shall be interpreted as an interaction associated with the service specified in the *service_name* field that was handled by the agent identified by the *login_id* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *agent_performance* table.

Column Name	Data Type	Description
id	BINARY (16)	Reserved
pkid	INT	Primary key
login_id	VARCHAR	Agent login as defined in configuration
first_name	VARCHAR	Agent first name as defined in configuration
last_name	VARCHAR	Agent last name as defined in configuration
team_name	VARCHAR	Name of the team that the agent is assigned to as defined in configuration
rank	VARCHAR	Agent rank as defined in configuration
no_service	BIT	Reserved

service_name	VARCHAR	*service_name* is the name of the service associated with the calls handled by the agent. If the agent handled calls for multiple services, the agent's call-related metrics will be provided for each service separately For services of media type chat, any *call* mentioned in this table shall be interpreted as a chat interaction in the same context.
is_internal	BIT	TRUE for internal calls; if set to TRUE, all inbound calls in this row shall be interpreted as internal calls received by the agent, and all outbound calls as internal calls made by the agent.
is_campaign	BIT	Services of blended type will have two rows of metrics: one where this bit is set to TRUE, counting campaign calls only; the other row with this bit set to FALSE, counting inbound and non-campaign outbound calls.
media_type	ENUM	This is the media type. Possible values include VOICE, CHAT, and EMAIL. If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agg_run_id	BINARY (16)	Aggregator run that produced this record
total_num_calls	BIGINT	Reserved
num_calls_in	BIGINT	For voice, *num_calls_in* specifies the number of inbound calls offered to the agent. For email, it specifies the number of emails that were pushed to the agent.
num_calls_answered	BIGINT	For voice, *num_calls_answered* specifies the number of inbound calls handled by the agent. For email, it specifies the total number of inbound emails processed by the agent in any manner (replied to, closed without reply, or transferred).

num_calls_out	BIGINT	For voice, *num_calls_out* specifies the number of initiated outbound calls. For email, it specifies the number of outbound emails that were sent by this agent. Outbound emails include unsolicited emails and possible additional responses to inbound emails that previously received a reply.
num_calls_answered_outbound	BIGINT	Number of outbound calls handled by the agent
num_calls_agent_abandoned	BIGINT	Reserved
num_calls_rejected	BIGINT	Number of inbound or predictive outbound calls the agent rejected
num_calls_no_answer	BIGINT	For voice, *num_calls_no_answer* specifies the number of inbound or predictive outbound calls the agent did not answer within the specified No Answer timeout. For email, it specifies the number of emails that were pushed to the agent and were explicitly rejected (i.e., returned to the queue or to the transferring agent). This excludes emails that went into agent's *My Queue*.
num_calls_graded	BIGINT	Number of calls handled by the agent that were graded
num_initiated_transfers	BIGINT	For voice, *num_initiated_transfers* specifies the number of transfers made by the agent. For email, it specifies the number of emails transferred by the agent to any other resource.
total_login_time	BIGINT	Total time the agent was logged on during the aggregation interval (the sum of all times in states indicating that the agent was logged in); time is given in the Universal Coordinated Time (UTC) time zone
total_working_time	BIGINT	Total time that the agent spent handling calls or being ready to handle calls during the aggregation interval (the sum of times in Talk, Hold, After-Call Work and Ready states); time is given in the Universal Coordinated Time (UTC) time zone
total_ready_time	BIGINT	Total time the agent spent in the *Ready* state during the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
total_handling_time	BIGINT	Reserved
total_handling_call_time	BIGINT	Reserved
total_handling_call_time_in	BIGINT	The sum of talk and hold times for inbound calls; includes ringing time; time is given in the Universal Coordinated Time (UTC) time zone
total_handling_call_time_out	BIGINT	The sum of talk and hold times for outbound calls; includes dialing time; time is given in the Universal Coordinated Time (UTC) time zone

total_handling_acw_time	BIGINT	Reserved
total_handling_acw_time_in	BIGINT	For voice, *total_handling_acw_time_in* specifies the sum of after-call work times for inbound calls. For email, it specifies the total time the agent spent doing after call work related to emails. It includes only the emails that have received an agent's reply. Time is given in the Universal Coordinated Time (UTC) time zone.
total_handling_acw_time_out	BIGINT	The sum of after-call work times for outbound calls; time is given in the Universal Coordinated Time (UTC) time zone
total_busy_time_in	BIGINT	*total_busy_time_in* specifies the sum of times the agent was busy with inbound calls. It includes hold times, but it does not include ringing time or after call work time. Time is given in the Universal Coordinated Time (UTC) time zone.
total_busy_time_out	BIGINT	*total_busy_time_out* specifies the sum of times the agent was busy with outbound calls. It includes hold times, but it does not include dialing time or after call work time. For email, this is the sum of times that the agent was busy with outbound emails. Outbound emails include unsolicited emails and possible additional responses to inbound emails that previously received a reply. Time is given in the Universal Coordinated Time (UTC) time zone.
total_ringing_time_in	BIGINT	The sum of ringing times for inbound calls delivered to the agent (between call initiation and either remote party answer or abandonment); time is given in the Universal Coordinated Time (UTC) time zone
total_ringing_time_out	BIGINT	The sum of ringing times for outbound calls initiated by the agent (between call initiation and either remote party answer or abandonment); time is given in the Universal Coordinated Time (UTC) time zone
total_acw_time_in	BIGINT	Reserved
total_acw_time_out	BIGINT	Reserved

total_hold_time_in	BIGINT	For voice, *total_hold_time_in* specifies the sum of hold times for inbound calls.
		For email, it specifies the total time emails spent in inactive state on the agent desktop. It includes only the emails that have received an agent reply.
		Time is given in the Universal Coordinated Time (UTC) time zone.
total_hold_time_out	BIGINT	The sum of hold times for outbound calls; time is given in the Universal Coordinated Time (UTC) time zone
num_surveys	BIGINT	Number of surveys available for calls handled by this agent
num_surveys_with_cs	BIGINT	Number of surveys where the agent has responded to the contact satisfaction question
num_surveys_with_nps	BIGINT	Number of surveys where a response has been given for the net promoter score question
num_surveys_with_fcr	BIGINT	Number of surveys where a response has been given for the first-call resolution question
cs	BIGINT	The sum of contact satisfaction marks for all surveys where a response has been given for the contact satisfaction question
nps	BIGINT	The sum of net promoter score points for all surveys where a response has been given for the the contact satisfaction question
num_fcr	BIGINT	Number of surveys that indicated first-call resolution relative to total number of surveys where a response has been given for the first-call resolution question
grade_name	VARCHAR	Name of the call grading category
grade_count	BIGINT	Number of calls handled by the agent that received any grades in the category specified in *grade_name*
grade_total_value	BIGINT	The sum of all grades for the calls counted in *grade_count*
grade_order_num	INT	The order in which the category specified in *grade_name* is supposed to appear in reports relative to the other grading categories (as defined in configuration)
not_ready_reason	VARCHAR	*Not Ready* reason as defined in configuration
not_ready_time	BIGINT	Total time the agent spent in the *Not Ready* state with the reason specified in *not_ready_reason*; time is given in the Universal Coordinated Time (UTC) time zone
num_emails_pulled	BIGINT	Number of inbound emails that the agent pulled from the service queue
num_emails_received_as_transfers	BIGINT	Number of inbound emails that were transferred to the agent

num_emails_replied_by_agent	BIGINT	This is the number of emails that have received an agent reply. It includes only the first meaningful response. Note that only the first response is counted. Possible follow-up email messages related to previously replied emails are considered outbound emails and are counted in the *num_calls_out* field.
num_emails_closed_without_reply	BIGINT	Number of inbound emails that this agent closed without reply
num_emails_discarded	BIGINT	Number of outbound emails that this agent initiated and subsequently discarded without sending
email_answer_time	BIGINT	*email_answer_time* is the total time this agent spent replying to inbound emails. The time is measured from the moment an email arrives at the agent desktop to the moment when the first meaningful response leaves the agent's *My Queue*. Time is given in the Universal Coordinated Time (UTC) time zone.
num_emails_in_carried_over	BIGINT	Number of inbound emails that were delivered to this agent by any method before the given reporting interval and remained unprocessed at the beginning of the interval.
num_emails_in_waiting_ in_personal_queues	BIGINT	Number of inbound emails that were in the agent's *My Queue* at the end of the interval
num_emails_out_waiting_in_ personal_queues	BIGINT	Number of outbound emails that were in the agent's *My Queue* at the end of the interval
num_emails_in_service_changed	BIGINT	Number of inbound emails to the given service that the agent recategorized (i.e., assigned another service to them and continued their processing)
num_emails_in_waiting_in_ personal_queues_breached_sla	BIGINT	Number of inbound emails remaining in the agent's *My Queue* at the end of the interval that breached SLA (i.e., the emails whose time in the system exceeded the service level threshold configured for the given service)

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team_performance

The *team_performance* table is currently not used. If any team-level metrics are desired in custom reports, such metrics can be obtained by combining the corresponding data from the *agent_performance* table for all team members selected using the *team_name* field.

service_in_time_counters

This table contains general metrics for all services defined in your contact center configuration.

Note the following:

- For voice services, if a service can be accessed via multiple access numbers, the metrics are provided for each access number separately.

- Unless noted otherwise with respect to a particular metric, any *service call* mentioned below shall be interpreted as an inbound call that entered the system via access number specified in the *destination_phone* field within the given aggregation interval and requested the service specified in the *service_name* field.

- Unless noted otherwise with respect to a particular metric, any *campaign call* mentioned below shall be interpreted as a call initiated as part of the outbound calling campaign specified in the *service_name* field within the given aggregation interval.

- In all metrics counting transferred calls, each transfer instance is counted separately.

- Any *campaign record* mentioned below shall be interpreted as a record from one of the calling lists associated with the campaign specified in the *service_name* field whose processing within this campaign was completed within the given aggregation interval.

- This table also contains metrics for agent teams that handled interactions for the specified service. Team-specific service metrics are reported in separate table rows, one row per team. Any *team agent* mentioned below shall be interpreted as an agent of the team specified in the *team_name* field who have the skill corresponding to the service or campaign specified in the *service_name* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *service_in_time_counters* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
agg_run_id	BINARY (16)	Aggregator run that produced this record
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
service_name	VARCHAR	Name of the service as defined in service configuration

destination_phone	VARCHAR	*destination_phone* specifies the access number for this service as defined in the Dial-in Scenario Entry associated with service. If a service is associated with multiple access numbers, metrics specified in this table will be provided for each access number separately.
team_name	VARCHAR	*team_name* is the name of the team that handled calls associated with this service. This field is empty for the service metrics that are not team specific. If several teams handled calls associated with the service, the team metrics will be provided for each team separately.
media_type	ENUM	This is the media type of this service. Possible values include VOICE, CHAT, and EMAIL. If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
num_calls_received	BIGINT	For voice, *num_calls_received* specifies the number of received service calls. For email, it specifies the number of received service emails, including new emails and emails related to existing thread. For new emails only, see *num_emails_received_new*.
num_calls_received_as_transfers	BIGINT	For voice, this specifies the number of service calls received as transfers. For email, it specifies the number of service emails received as transfers.
num_calls_received_as_transfers_ from_same_service	BIGINT	Number of service calls received as transfers from the same service
num_calls_received_as_transfers_ from_other_service	BIGINT	Number of service calls received as transfers from different services
num_calls_queued	BIGINT	Number of service calls that were queued
num_calls_answered	BIGINT	For voice, this specifies the number of service calls that were answered. For email, it specifies the number of inbound service emails processed in any manner (replied to, closed without reply, transferred, or service changed).

num_calls_transferred_internally	BIGINT	For voice, this specifies the number of service calls that were answered and then transferred to another internal number (queue or extension). For email, it specifies the number of service emails that were transferred.
num_calls_transferred_externally	BIGINT	Number of service calls that were answered and then transferred to an external number
answer_time	BIGINT	Total answer time for all calls counted in *num_calls_answered*; time is given in the Universal Coordinated Time (UTC) time zone
num_calls_abandoned	BIGINT	Total number of service calls that were abandoned at any time after entering the queue
num_calls_abandoned_after_threshold	BIGINT	This specifies the number of service calls that were abandoned outside of the Service Level threshold (i.e., after the time set by parameter *Within threshold* in service configuration). It includes the calls that were abandoned while ringing.
num_calls_abandoned_in_ivr	BIGINT	Number of service calls that were abandoned before entering the queue (i.e., while still at the IVR stage)
num_calls_self_service	BIGINT	Number of service calls that were serviced by an IVR application (as indicated by execution of scenario block *Self-Service Provided*)
num_calls_in_service_level	BIGINT	For voice, this specifies the number of service calls that were answered within the Service Level threshold (i.e., within the time set by parameter *Within threshold* in service configuration). For email, number of inbound emails that were replied to within the Service Level threshold. Note that for service level purposes, the reply time excludes the hours when the service was closed according to the configured HOP.
num_overflow_calls	BIGINT	Number of service calls that were distributed to overflow destinations
num_calls_held	BIGINT	Number of service calls that were held at any time during their handling
num_calls_recv_as_transfers_ answered	BIGINT	Number of service calls received as transfers that were answered
num_calls_recv_as_transfers_ in_service_level	BIGINT	Number of service calls received as transfers that were answered within the Service Level threshold (i.e., within the time set by parameter *Within threshold* in service configuration)

num_calls_recv_as_transfers_abandoned	BIGINT	Number of service calls received as transfers that were abandoned
num_calls_recv_as_transfers_abandoned_in_ivr	BIGINT	Number of service calls received as transfers that were abandoned before entering the queue (i.e., while still at the IVR stage)
num_calls_recv_as_transfers_abandoned_after_threshold	BIGINT	This specifies the number of service calls received as transfers that were abandoned outside of the Service Level threshold (i.e., after the time set by parameter *Within threshold* in service configuration). Includes the calls that were abandoned while ringing.
num_calls_recv_as_transfers_queued	BIGINT	Number of service calls received as transfers that were queued
num_calls_recv_as_transfers_held	BIGINT	Number of service calls received as transfers that were held at any time during their handling
num_calls_queued_answered	BIGINT	This specifies the number of queued service calls that were answered. Unlike *num_calls_answered*, this metric counts only calls that passed through the given service queue.
answer_time_queued	BIGINT	Total answer time for all calls counted in *num_calls_queued_answered*
num_calls_queued_abandoned	BIGINT	This specifies the number of queued service calls that were abandoned. Unlike *num_calls_abandoned*, this metric counts only calls that passed through the given service queue.
num_calls_queued_abandoned_after_threshold	BIGINT	This metric specifies the number of queued service calls that were abandoned outside of the Service Level threshold (i.e., after the time set by parameter *Within threshold* in service configuration). It includes the calls that were abandoned while ringing. Unlike *num_calls_abandoned_after_threshold*, this metric counts only calls that passed through the given service queue.

num_calls_queued_in_service_level	BIGINT	This specifies the number of queued service calls that were answered within the Service Level threshold (i.e., within the time set by parameter *Within threshold* in service configuration). Unlike *num_calls_in_service_level*, this metric counts only calls that passed through the given service queue.
num_calls_queued_held	BIGINT	This metric specifies the number of queued service calls that were held at any time during their handling. Unlike *num_calls_held*, this metric counts only calls that passed through the given service queue.
abandonment_time_queued	BIGINT	Total abandonment time for all calls counted in *num_calls_queued_abandoned*; time is given in the Universal Coordinated Time (UTC) time zone
abandonment_time_after_ threshold_queued	BIGINT	Total abandonment time for all calls counted in *num_calls_queued_abandoned_after_threshold*; time is given in the Universal Coordinated Time (UTC) time zone
abandonment_time	BIGINT	Total abandonment time for all calls counted in *num_calls_abandoned*; time is given in the Universal Coordinated Time (UTC) time zone
abandonment_time_after_threshold	BIGINT	Total abandonment time for all calls counted in *num_calls_abandoned_after_threshold*; time is given in the Universal Coordinated Time (UTC) time zone
total_duration_in	BIGINT	This specifies the sum of total durations of inbound service calls. It includes time in IVR, queue, as well as ringing, talk, and hold times. It does not include after-call work time. Time is given in the Universal Coordinated Time (UTC) time zone.
busy_time_in	BIGINT	Total talk and hold time for inbound service calls; time is given in the Universal Coordinated Time (UTC) time zone
busy_time_out	BIGINT	Total talk and hold time for outbound calls excluding campaign calls; time is given in the Universal Coordinated Time (UTC) time zone
acw_time	BIGINT	Total after-call work time for inbound and outbound service calls excluding campaign calls; time is given in the Universal Coordinated Time (UTC) time zone
acw_time_in	BIGINT	Total after-call work time for inbound service calls; time is given in the Universal Coordinated Time (UTC) time zone

acw_time_out	BIGINT	Total after-call work time for outbound service calls excluding campaign calls; time is given in the Universal Coordinated Time (UTC) time zone
hold_time_in	BIGINT	Total hold time for inbound service calls; time is given in the Universal Coordinated Time (UTC) time zone
hold_time_out	BIGINT	Total hold time for outbound service calls excluding campaign calls; time is given in the Universal Coordinated Time (UTC) time zone
ringing_time_in	BIGINT	Total ringing time for inbound service calls; time is given in the Universal Coordinated Time (UTC) time zone
ringing_time_out	BIGINT	Total dialing time for outbound service calls excluding campaign calls (time from the moment an outbound call is initiated till it is answered by the remote party); time is given in the Universal Coordinated Time (UTC) time zone
num_calls_outbound	BIGINT	This specifies the number of outbound calls that were made with respect to this service. It does not include campaign calls. For email, *num_calls_outbound* specifies the number of outbound emails that were sent. Outbound emails include unsolicited emails and possible additional responses to inbound emails that previously received a reply.
num_calls_answered_outbound	BIGINT	This specifies the number of outbound calls made with respect to this service that were answered. It does not include campaign calls.
num_calls_held_outbound	BIGINT	This metric specifies the number of answered outbound calls made with respect to this service that were held by agents at any time during their handling. It does not include campaign calls.
ready_time	BIGINT	Total time in the *Ready* state for all team agents within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
not_ready_time	BIGINT	Total time in the *Not Ready* state for all team agents within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
login_time	BIGINT	Total login time for all team agents within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone

handling_time	BIGINT	This metric specifies the total handling time for calls of the given service/campaign handled by all team agents within the aggregation interval. It includes talk, hold, and after-call work time. Time is given in the Universal Coordinated Time (UTC) time zone.
handling_call_time	BIGINT	This specifies the total on-call time for calls of the given service/campaign handled by all team agents within the aggregation interval. It includes ringing/dialing, talk, and hold time. Time is given in the Universal Coordinated Time (UTC) time zone.
handling_acw_time	BIGINT	Total after-call work time for calls of the given service/campaign handled by all team agents within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
assigned_handling_call_time	BIGINT	This metric specifies the total handling time for all calls handled by all team agents within the aggregation interval. It includes talk, hold, and after-call work time. Time is given in the Universal Coordinated Time (UTC) time zone.
assigned_handling_acw_time	BIGINT	Total after-call work time for all calls handled by all team agents within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
min_agents	BIGINT	Minimum number of agents possessing this service skill who were simultaneously logged on within the aggregation interval
max_agents	BIGINT	Maximum number of agents possessing this service skill who were simultaneously logged on within the aggregation interval
campaign_calls_attempted	BIGINT	Number of campaign calls that were attempted
campaign_dialer_calls_queued	BIGINT	Reserved
campaign_dialer_calls_handled	BIGINT	Reserved
campaign_calls_ivr	BIGINT	Number of campaign calls that entered an IVR application
campaign_calls_queued	BIGINT	Number of campaign calls that were queued
campaign_calls_abandoned	BIGINT	Number of campaign calls that were abandoned (terminated by the remote party while waiting in queue to be connected to an agent)
campaign_calls_handled	BIGINT	Number of campaign calls that were handled by agents

campaign_calls_held	BIGINT	Number of campaign calls that were held any number of times during their handling
campaign_calls_rpc	BIGINT	Reserved
campaign_records_completed	BIGINT	Number of campaign records completed within the reporting interval, including the records for which no attempts were made because of DNC match or filter exclusion
campaign_records_valid	BIGINT	Number of campaign records completed within the reporting interval except the ones counted in *campaign_records_excluded*
campaign_records_dialed	BIGINT	Number of campaign records completed within the reporting interval for which at least one number was dialed
campaign_records_queued	BIGINT	Number of campaign records completed within the reporting interval for which at least one call was queued
campaign_records_handled	BIGINT	Number of campaign records completed within the reporting interval for which at least one call was handled by an agent
campaign_records_excluded	BIGINT	Number of campaign records completed within the reporting interval for which no attempts were made because of DNC match or filter exclusion
campaign_records_rpc	BIGINT	Reserved
campaign_ivr_time	BIGINT	Total IVR time for campaign calls (the sum of times spent in an IVR application); time is given in the Universal Coordinated Time (UTC) time zone
campaign_queue_time	BIGINT	Total queue time for campaign calls (the sum of times between entering the queue and exiting the queue in any manner for all campaign calls that were queued); time is given in the Universal Coordinated Time (UTC) time zone
campaign_abandonment_time	BIGINT	Total abandonment time (the sum of times between entering the queue and being abandoned by remote party for all campaign calls that were abandoned or dropped); time is given in the Universal Coordinated Time (UTC) time zone
campaign_answer_time	BIGINT	Total answer time (the sum of times between entering the queue and being picked up by agents for all campaign calls that were connected to agents); time is given in the Universal Coordinated Time (UTC) time zone
campaign_talk_time	BIGINT	Total talk time for campaign calls (the sum of times between the moments of being established and being released); time is given in the Universal Coordinated Time (UTC) time zone
campaign_hold_time	BIGINT	Total hold time for campaign calls (the sum of all hold times for all handled campaign calls); time is given in the Universal Coordinated Time (UTC) time zone

campaign_acw_time	BIGINT	Total after-call work time for campaign calls (the sum of times between the moment of release and the end of after-call work); time is given in the Universal Coordinated Time (UTC) time zone
campaign_handling_call_time	BIGINT	Reserved
campaign_handling_acw_time	BIGINT	Reserved
campaign_assigned_handling_ call_time	BIGINT	Reserved
campaign_assigned_handling_ acw_time	BIGINT	Reserved
num_surveys	BIGINT	Number of surveys available for calls handled for this service/campaign
num_surveys_with_cs	BIGINT	Number of surveys where a response was given for the contact satisfaction question
num_surveys_with_nps	BIGINT	Number of surveys where a response was given for the net promoter score question
num_surveys_with_fcr	BIGINT	Number of surveys where a response was given for the first-call resolution question
cs	BIGINT	The sum of contact satisfaction marks for all surveys where a response was given for the contact satisfaction question
nps	BIGINT	The sum of net promoter score points for all surveys where a response was given for the contact satisfaction question
num_fcr	BIGINT	Number of surveys that indicated first-call resolution relative to total number of surveys where a response was given for the first-call resolution question
campaign_calls_unattended	BIGINT	Number of campaign calls that were answered at destination and subsequently either diverted to an IVR at any time, or dropped at any time, or connected to an agent with time exceeding two seconds
campaign_preview_items	BIGINT	Number of preview records associated with the given campaign that were delivered to agents
campaign_preview_time	BIGINT	This metric specifies the total time spent by agents working on preview records associated with the given campaign. It does not include call time. Time is given in the Universal Coordinated Time (UTC) time zone.

num_emails_replied_by_agent	BIGINT	This specifies the number of emails that were replied to by agents. Note that only the first meaningful response is counted as a reply. Possible follow-up message in response to the same incoming email are counted as outbound emails.
num_emails_closed_ **without_reply**	BIGINT	Number of emails that were closed by agents without reply
email_routing_time	BIGINT	This metric specifies the total time that emails spent in the service queue before being pushed to agents or pulled by agents. The time is counted only for emails that were both received and routed within the given interval. Time is given in the Universal Coordinated Time (UTC) time zone.
email_reply_time	BIGINT	This specifies the total reply time for all emails that received a reply. The reply time of a single email is counted from the moment the email is placed in the service queue to the moment when the first meaningful response is sent. Time is given in the Universal Coordinated Time (UTC) time zone.
num_emails_received_new	BIGINT	This specifies the number of new emails that arrived at this service during the given reporting interval. It excludes emails related to existing threads. Note that the total number of received emails, which includes both new emails and emails related to existing email threads, is reported in column *num_calls_received*.
num_emails_carried_over	BIGINT	This specifies the number of emails that arrived at this service at any time before the given reporting interval and remained unprocessed at the beginning of the interval. It includes both new emails and emails related to existing threads. Note that unlike other metrics, this number is calculated only once in 24 hours.

num_emails_carried_over_new	BIGINT	This metric specifies the number of new emails that arrived at this service at any time before the given reporting interval and remained unprocessed at the beginning of the interval. It excludes emails related to existing threads. Note that unlike other metrics, this number is calculated only once in 24 hours.
num_emails_remaining_in_personal_queues	BIGINT	This metric specifies the number of emails associated with this service that remained in agents' *My Queue* at the end of the interval. It does not include emails that were being actively processed at the end of the interval.
num_emails_in_progress	BIGINT	Number of emails associated with this service that were being actively processed at the end of the interval (i.e., displayed in active communications lists of agents' desktops)
num_emails_service_changed	BIGINT	Number of inbound emails that were recategorized by agents (i.e., the agent changed this service to another email service and continued processing the interaction)
num_emails_service_change_received	BIGINT	Number of inbound emails that were received via manual recategorization (i.e., the agent changed a previously assigned service to this service and continued processing the email)
num_emails_remaining_in_personal_queues_breached_sla	BIGINT	Number of emails remaining in agents' personal queues at the end of the interval that breached the service level (i.e., the emails whose time in the system exceeded the service level threshold configured for the given service)

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service_performance

service_performance metrics are a subset of metrics derived from the *service_in_time_counters* table.

Such metrics are maintained only in order to support existing service-related custom reports designed prior to the release of Bright Pattern Contact Center version 3.5.2. All *service_performance metrics* are available in the *service_in_time_counters* table, which is recommended for the development of any new service-related reports.

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overflow_counters

This table contains metrics for the distribution of inbound interactions among various routing targets, including overflow destinations. The metrics are provided for all services defined in your contact center configuration. Note that if a service can be accessed via multiple access numbers, the metrics are provided for each access number separately.

Unless noted otherwise with respect to a particular metric, any *call* mentioned in this table shall be interpreted as a call that requested the service specified in the *service_name* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *overflow_counters* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agg_run_id	BINARY (16)	Aggregator run that produced this record
service_name	VARCHAR	Name of the service as defined in service configuration
destination_phone	VARCHAR	*destination_phone* specifies the access number for this service as defined in the Dial-in Scenario Entry associated with service. If a service is associated with multiple access numbers, metrics specified in this table will be provided for each access number separately.
routed_to	VARCHAR	*routed_to* refers to the target destination to which the calls were routed, the name of the team for internally routed calls, and/or the external number for externally routed calls. If calls were routed to multiple destinations, metrics specified in this table will be provided for each destination separately.
is_overflow	BIT	TRUE if the given destination is an overflow destination
no_team	BIT	TRUE if the given destination is an external number; FALSE if the given destination is a team

		This is the interaction media type.
media_type	ENUM	Possible values include VOICE, CHAT, and EMAIL.
		If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
num_calls_received	BIGINT	Total number of calls that requested this service and were routed to the given destination
num_calls_answered	BIGINT	Number of calls that were answered at the given destination
num_calls_abandoned_after_threshold	BIGINT	This metric specifies the number of calls that abandoned while ringing after being routed to the given destination. It includes only calls that were abandoned outside of the configured service level threshold.
handling_time	BIGINT	Total time that the answered calls were handled at the given destination (the sum of talk, hold, and after-call work times); time is given in the Universal Coordinated Time (UTC) time zone

disposition_counters

Each row in the *disposition_counters* table provides metrics for interactions associated with the service specified in the *service_name* field whose processing ended with a particular disposition.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *disposition_counters* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agg_run_id	BINARY (16)	Aggregator run that produced this record
service_name	VARCHAR	Name of the service as defined in service configuration

disposition_name	VARCHAR	Disposition name
is_campaign	BIT	Services of blended type will have two rows of metrics: one where this bit is set to TRUE, counting campaign calls only; the other row with this bit set to FALSE, counting inbound and non-campaign outbound calls
media_type	ENUM	*media_type* specifies the interaction media type. Possible values include VOICE, CHAT, and EMAIL. If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
num_records_completed	BIGINT	Number of outbound calling records associated with the given service that were completed with the disposition specified in the *disposition_name* field
num_calls_received	BIGINT	This metric specifies the number of calls associated with the given service received by agents whose processing ended with the disposition specified in the *disposition_name* field. This included predictive campaign calls.
num_calls_outbound	BIGINT	This metric specifies the number of outbound calls associated with the given service whose processing ended with the disposition specified in the *disposition_name* field. It includes regular outbound calls and calls of preview campaign calls that were actually dialed by agents.
num_preview_items	BIGINT	Number of preview records completed by agents without making a call with the disposition specified in the *disposition_name* field
num_campaign_calls	BIGINT	Number of campaign calls associated with the given service whose processing ended with the disposition specified in the *disposition_name* field
num_non_campaign_ calls_inbound	BIGINT	Number of inbound calls associated with the given service whose processing ended with the disposition specified in the *disposition_name* field, excluding predictive campaign calls
num_non_campaign_ calls_outbound	BIGINT	Number of non-campaign outbound calls associated with the given service whose processing ended with the disposition specified in the *disposition_name* field

callback_counters

The *callback_counters* table provides metrics about calls that selected the virtual queue option and about the related callback attempts.

Unless noted otherwise with respect to a particular metric, any *callback* mentioned in this table shall be interpreted as a callback attempt made with respect to the service specified in the *service_name* field. Note that callback attempts are counted for the aggregation intervals in which the inbound calls that produced the associated callback requests entered the system.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *callback_counters* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agg_run_id	BINARY (16)	Aggregator run that produced this record
service_name	VARCHAR	Name of the service as defined in configuration
num_calls_queued	BIGINT	Total number of calls that requested the given service and were queued
num_callbacks_requested	BIGINT	Number of queued calls that requested callbacks (i.e., selected the virtual queue option)
num_callbacks_attempted	BIGINT	Number of callbacks that were attempted
num_callbacks_busy	BIGINT	Number of callbacks that failed because the called party was busy
num_callbacks_no_answer	BIGINT	Number of callbacks that failed because the called party did not answer
num_callbacks_answered	BIGINT	Number of callbacks that were answered by the called party
num_callbacks_requeued	BIGINT	Number of callbacks that were re-queued after the initial unsuccessful attempt
num_callbacks_abandoned	BIGINT	Number of callbacks that were answered by customers and then abandoned by them while waiting for an agent (in queue or ringing)
num_callbacks_handled	BIGINT	Number of callbacks that were handled by agents

callback_wait_time	BIGINT	This metric specifies the total callback wait time, as well as the sum of times between the callback requests and the related initial callback attempts. Time is given in the Universal Coordinated Time (UTC) time zone.
callback_customer_answer_time	BIGINT	This metric specifies the total callback answer time, as well as the sum of times between the moments when callback attempts were initiated and the customers answered them. Time is given in the Universal Coordinated Time (UTC) time zone.
callback_agent_answer_time	BIGINT	This metric specifies the total callback connection time, as well as the sum of times between the moments when customers answered callback attempts and were connected to the agents. Time is given in the Universal Coordinated Time (UTC) time zone.

requested_skills

The *requested_skills* table contains metrics for interactions that requested a specific skill.

Unless noted otherwise with respect to a particular metric, any *call* mentioned in this table shall be interpreted as a call that requested the skill specified in the *skill_name* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *requested_skills* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agg_run_id	BINARY (16)	Aggregator run that produced this record

media_type	ENUM	This is the interaction media type. Possible values include VOICE, CHAT, and EMAIL. If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
skill_name	VARCHAR	Skill name as defined in configuration
skill_group_name	VARCHAR	Name of the skill group that the skill belongs to as defined in configuration
skill_type	ENUM	This is the skill type. Possible values include the following: - SERVICE – Primary service skill (a skill that is created automatically for each new service) - SKILL – Auxiliary skill (a skill that is not directly associated with any particular service)
total_answer_time	BIGINT	Total answer time (the sum of times between the moments the calls entered queue and were answered by agents); time is given in the Universal Coordinated Time (UTC) time zone
num_calls_received	BIGINT	Total number of received calls
num_calls_queued	BIGINT	Number of calls that were queued
num_calls_answered	BIGINT	Number of calls that were answered
num_calls_overflow	BIGINT	Number of calls that were distributed to overflow destinations

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scenario_steps_counters

Each row of the *scenario_steps_counters* table counts the number of times a specific block of the scenario specified in the *scenario_name* field was executed with a specific result during the aggregation interval.

An example of table content for the *scenario_steps_counters* table is shown.

Example of scenario_steps_counters table

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *scenario_steps_counters* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
agg_run_id	BINARY (16)	Aggregator run that produced this record
start_time	DATETIME	Start time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
end_time	DATETIME	End time of the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
scenario_name	VARCHAR	Name of the service as defined in configuration
block_type	VARCHAR	Type of scenario block
block_title	VARCHAR	Block title as defined in scenario
exit_id	VARCHAR	Block exit identifier
caller_disconnect	BIT	TRUE if the interaction was disconnected by the remote party while this block was executed
num_steps	BIGINT	Number of times the block specified in the block_title field was executed with the given result (either the exit specified in the *exit_id* field or abandoned by the caller as indicated by the *caller_disconnect* field)

concurrent_users

The *concurrent_users* table tracks the number of users that were using the system at any moment in the past. A new row is added every time when a number of logged in users changes from a non-zero value (i.e., when a non-first user logs in or any user logs out), but not more frequently than once a minute. (After a first login/logout within a given minute, all subsequent logins/logouts that happen within that same minute will be aggregated and written as a single record one minute after.) A new record is also created unconditionally at the configured [Reset time for daily statistics](#).

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *concurrent_users* table.

Column Name	Data Type	Description

num_users	INT	Number of users that were logged into the system in the interval specified by *start_time* and *end_time*
users	JSON array	This is a list of usernames of users that were logged into the system in the interval specified by *start_time* and *end_time*. Users are specified as JSON array of *[username1, username2, ... usernameN]* where *N = num_users*.
start_time	TIMESTAMP	Start time of the interval for which the *num_users* and *users* data in this record remains valid. Time is given in the Universal Coordinated Time (UTC) time zone, and the time is rounded to a minute. Note that it is normal for this time to differ by a few seconds from the time of state changes reported in the *agent_activity* table.
end_time	TIMESTAMP	End time of the interval for which the *num_users* and *users* data in this record remains valid. Time is given in the Universal Coordinated Time (UTC) time zone, and the time is rounded to a minute. Note that it is normal for this time to differ by a few seconds from the time of state changes reported in the *agent_activity* table.

General Information About Detailed Records

The tables specified in this section contain detailed information about all agent activities and all interactions that either entered, or were initiated from, the Bright Pattern Contact Center system. The data in these tables can be used, for example, for [quality management tasks](#), which require searching for specific interactions based on combinations of specific criteria. These data can also be used for developing custom metrics that are not available from the aggregation tables specified in the previous sections.

Detailed records are created from the raw event data that is initially written to the collector database (DB1) in real-time by various Bright Pattern Contact Center components. This raw data is periodically extracted by the Aggregator component, transformed into records, and loaded into the tables of the Reporting Database (DB2). The standard aggregation period is 15 minutes; therefore, under normal circumstances, the data in the detailed records for completed interactions and agent activities appear in these tables with a maximum delay of 15 minutes.

Note: All duration values in detailed records are calculated by subtracting the number of full calendar seconds in the start time form the same number in the end time (i.e., milliseconds are disregarded). The time is given in the Universal Coordinated Time (UTC) time zone.

Consider these examples:

- A call that was answered at 11:00:00:005 and released at 11:00:00:998 will have talk time of 0 seconds in the call detail record.

- A call that was answered at 11:00:00:995 and released at 11:00:01:005 will have talk time of 1 second in the call detail record.

agent_activity

Each row of the *agent_activity* table contains a set of data related to a single agent activity. For interaction-handling activities, this data includes some basic aggregates, such as the agent's talk time and hold time. Note that a single agent activity spanning multiple aggregation intervals will be reported separately for each aggregation interval that it spans, and all time-related metrics will count the time within the given interval only. For reporting purposes, time-related metrics of the activities that span multiple intervals can be combined using the *activity_id* field.

Unless noted otherwise with respect to a particular metric, any *call* mentioned in this table shall be interpreted as a call that was handled by the agent identified by the *login_id* field during the given activity.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *agent_activity* table.

Column Name	Data Type	Description

activity	ENUM	*activity* is the activity type. Possible values include INBOUND_CALL, LOGIN, LOGOUT, OUTBOUND_CALL, NOT_READY, PREVIEW, READY, and SUPERVISION. Note the following: • Handling of both preview and predictive campaign calls is reported as activity OUTBOUND_CALL. Only the record preview phase (time before dialing begins) is reported as PREVIEW activity for agents participating in preview campaigns. • Time spent doing after-call work is reported as part of INBOUND_CALL and OUTBOUND_CALL activities. • Internal calls received by the agent are reported as activity INBOUND_CALL. • Internal calls made by the agent are reported as activity OUTBOUND_CALL. • The Supervisor state of "Supervising" in the Agent Desktop is reported as activity SUPERVISION. • Value of the *other_party_phone_type* field can be used to distinguish between service and internal calls. • Handling of a service chat is reported as activity INBOUND_CALL. • Handling of an inbound email is reported as activity INBOUND_CALL. • Handling of a follow-up or unsolicited email is reported as activity OUTBOUND_CALL. • The value of the *media_type* and/or *service_name* field can be used to distinguish between interactions of different media types.
activity_id	BINARY (16)	*activity_id* is the unique identifier assigned to the activity. If a single activity lasts through several adjacent aggregation intervals, it will have the same value of *activity_id* in each of those intervals.
acw_time	BIGINT	After-call work time for activity types INBOUND_CALL and OUTBOUND_CALL within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
agent_disposition_code	INT	For activity types INBOUND_CALL and OUTBOUND_CALL, the numerical code (if defined) of the disposition that the agent assigned to the call
agent_disposition_name	VARCHAR	For activity types INBOUND_CALL and OUTBOUND_CALL, the name of the disposition that the agent assigned to the call
agent_disposition_notes	LONGTEXT	For activity types INBOUND_CALL and OUTBOUND_CALL, the text notes that the agent wrote regarding the call
agg_run_id	BINARY (16)	Aggregator run that produced this record
call_detail_id	BINARY	Reference to the record in the call_detail table created for the interaction handled by the agent during this activity
case_number	VARCHAR	For activity types INBOUND_CALL and OUTBOUND_CALL, number of the case with which this interaction is associated; applies to emails only

destination_number	VARCHAR	For activity types INBOUND_CALL and OUTBOUND_CALL, the phone number dialed by the party that initiated the call.
detail	VARCHAR	For activity type NOT_READY, *detail* specifies the *Not Ready* reason. For activity type OUTBOUND_CALL, *detail* specifies the login ID of the called party if the call was made internally and was answered.
disposition	ENUM	For activity types INBOUND_CALL and OUTBOUND_CALL, *disposition* specifies how the call-handling activity ended. The term *call* in the following descriptions indicates that the given value may be applicable to calls and chats. Possible values include the following: • CALLER_TERMINATED – Call terminated by the party that made the call • CALLEE_TERMINATED – Call terminated by the party that answered the call • REJECTED – Agent rejected the incoming call • ABANDONED – For inbound calls, abandoned by the remote party while ringing at the agent desktop; for outbound calls, terminated by the agent before it was answered by the remote party • TRANSFERRED – Agent transferred the interaction • CONFERENCED – Call became a conference (the conference phase is reported a separate activity) • SYSTEM_DISCONNECTED – Call was disconnected by the system • CALLER_TRANSFERRED – Remote party transferred the call (i.e., this agent stayed on the call but with another party); the after-transfer part of the call will be reported as the next activity • NO_ANSWER – Agent did not accept an incoming interaction • REPLIED – Agent replied to the email; applies to inbound emails only • CLOSED – Agent finished processing of the email without a reply (e.g., the email was a spam or no follow-up was necessary); applies to inbound emails only • SERVICE_CHANGED – Agent changed the service associated with the email and continued processing it (the after-service-change phase is reported as the next activity) • SAVED – Agent saved an email draft • SENT – Agent sent the email; applies to outbound emails only • DISCARDED – Agent discarded an email draft; applies to outbound emails only
duration	BIGINT	Activity duration within the aggregation interval.
email_completion_time	BIGINT	Email completion time from the moment the email interaction was accepted by the agent or entered his personal queue and until it was completed (including ACW if any) or transferred; time is given in the Universal Coordinated Time (UTC) time zone

external_number	VARCHAR	For activity type INBOUND_CALL, *external_number* is the access number through which the inbound call entered the system. For activity type OUTBOUND_CALL, *external_number* is the Caller ID assigned to the outbound call.
first_name	VARCHAR	Agent first name as defined in configuration
has_screen_recording	BIT	Indication of whether agent's screen was recorded during this activity
held	BIGINT	The number of times the agent placed the call on hold during this activity; for emails and chats, the number of times the agent had the interaction out of focus during this activity)
hold_time	BIGINT	Total hold time for activity types INBOUND_CALL and OUTBOUND_CALL within the aggregation interval; time is given in the Universal Coordinated Time (UTC) time zone
id	BINARY (16)	Reserved
last_name	VARCHAR	Agent last name as defined in configuration
login_id	VARCHAR	Agent login as defined in configuration
max_hold	BIGINT	The duration of the longest of the number of times the agent placed the call on hold during this activity; for emails and chats, duration of the longest of the number of times the agent had the interaction out of focus during this activity
media_type	ENUM	For activity types INBOUND_CALL and OUTBOUND_CALL, this is the media type of the interaction that the agent handled during this activity. Possible values include VOICE, CHAT, and EMAIL.
origination_number	VARCHAR	For activity types INBOUND_CALL and OUTBOUND_CALL, the phone number from which the call was made.
other_party_phone_type	ENUM	For activity types INBOUND_CALL and OUTBOUND_CALL, *other_party_phone_type* specifies the location of the remote party on the call. Possible values include INTERNAL and EXTERNAL.
pending_time	BIGINT	For activity type INBOUND_CALL, *pending_time* specifies the duration of the call ringing phase from the moment the call was distributed to this agent and until it was either answered or abandoned. For activity type OUTBOUND_CALL, *pending_time* specifies the duration of the call dialing phase from the moment the number dialed by the agent was received by the system and until the call was either answered or abandoned. The time is given in the Universal Coordinated Time (UTC) time zone.
pkid	INT	Primary key

rank	VARCHAR	Agent rank as defined in configuration
service_name	VARCHAR	For activity types INBOUND_CALL and OUTBOUND_CALL, *service_name* is the name of the service associated with the call. It is not specified for internal calls. For services of media type chat, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
session_id	BINARY	*session_id* is the agent login session identifier. A new identifier is assigned to each new LOGIN activity. The same identifier is assigned to the corresponding LOGOUT and all READY and NOT_READY activities that happened in between.
start_time	DATETIME	Activity start time; time is given in the Universal Coordinated Time (UTC) time zone
talk_time	BIGINT	*talk_time* is the total talk time for activity types INBOUND_CALL and OUTBOUND_CALL within the aggregation interval. It does not include hold times. The time is given in the Universal Coordinated Time (UTC) time zone.
team_name	VARCHAR	Name of the team that the agent is assigned to as defined in configuration
workitem_id	VARCHAR	Identifier of the outbound work item associated with this activity.\

call_detail

Each row of the *call_detail* table contains a set of data related to the processing of a single interaction, including some interaction-level aggregates, such as total interaction duration and total talk time. Note that the entire interaction record in this table is reported for the interval in which the corresponding interaction was entered the system (for inbound interactions) or was initiated (for internal and outbound interactions), regardless of the number of intervals the interaction may have spanned.

For emails, a record is created in this table as soon as an email arrives in the system (for inbound emails) or initiated by an agent (for outbound emails). The record is then updated every time it is saved as a draft. The record is updated and closed when the processing of the email is finished.

Except for the name of the table itself, the term call in the descriptions below indicates that the parameter applies to calls and chats. Where a parameter has the same meaning for all media types, the term *interaction* is used. Where a parameter applies to multiple media types with a different meaning, each media type is discussed separately.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *call_detail* table.

Column Name	Data Type	Units	Description
account_number	VARCHAR	None	*account_number* gets the customer's account number. If the calling list record that initiated this call has a [list field](#) of *Account* type, the value of that field will be stored here. Account numbers can be used as selection criteria in [interaction records search](#).
acw_time	BIGINT	Seconds	The amount of time the agents spent doing after-call work related to this interaction
agent_disposition_code	INT	None	Numerical code (if defined) of the disposition that was assigned to this interaction
agent_disposition_name	VARCHAR	None	Name of the disposition that was assigned to this interaction
agent_disposition_notes	LONGTEXT	None	The text note that the agent wrote regarding the interaction
agg_run_id	BINARY (16)	None	Aggregator run that produced this record
callee_cpa_recording_url	VARCHAR	None	URL of the recording for the CPA portion of the interaction segment of the party that accepted this interaction
callee_cpa_rtp_server_id	BINARY	None	Identifier of the RTP server that made the recording for the CPA portion of interaction segment of the party that accepted this interaction
callee_encryption_key_id	BINARY	None	For internal use only.
callee_first_name	VARCHAR	None	First name of the party that accepted the interaction
callee_has_screen_recording	BIT	None	Indication that screen of the party that accepted this interaction was recorded during the interaction
callee_interaction_step_id	BINARY	None	Identifier for the interaction segment of the party that accepted this interaction
callee_last_name	VARCHAR	None	Last name of the party that accepted the interaction
callee_login_id	VARCHAR	None	For inbound and internal interactions, *callee_login_id* specifies the login ID of the user who received this interaction. If the interaction was transferred, it specifies the login ID of the user for which the interaction was last transferred.
callee_monitored	BIT	None	TRUE if the party that accepted this interaction was monitored at any time during the interaction handling

callee_phone_type	ENUM	None	*callee_phone_type* specifies the location of the party that received the interaction. Possible values are INTERNAL or EXTERNAL.
callee_rank	VARCHAR	None	For inbound and internal calls, the rank of the user who received this interaction
callee_recording_url	VARCHAR	None	URL of the recording for the interaction segment of the party that accepted this interaction
callee_rtp_server_id	BINARY	None	Identifier of the RTP server that made the recording for the interaction segment of the party that accepted this interaction
callee_team_name	VARCHAR	None	Name of the team that the agent who accepted the interaction is a member of
caller_cpa_recording_url	VARCHAR	None	URL of the recording for the CPA portion of the interaction segment of the party that originated this interaction
caller_cpa_rtp_server_id	BINARY	None	Identifier of the RTP server that made the recording for the CPA portion of interaction segment of the party that originated this interaction
caller_encryption_key_id	BINARY	None	For internal use only.
caller_first_name	VARCHAR	None	First name of the party that originated the interaction
caller_has_screen_recording	BIT	None	Indication that screen of the party that originated this interaction was recorded during the interaction
caller_interaction_step_id	BINARY	None	Identifier for the interaction segment of the party that originated this interaction
caller_last_name	VARCHAR	None	Last name of the party that originated the interaction
caller_login_id	VARCHAR	None	For outbound and internal interactions, *caller_login_id* specifies the login ID of the user who initiated this interaction. If the interaction was transferred, login ID of the user who initiated the transfer.
caller_monitored	BIT	None	TRUE if the party that originated this interaction was monitored at any time during the interaction handling
caller_phone_type	ENUM	None	*caller_phone_type* specifies the location of the party that initiated the interaction. Possible values are INTERNAL or EXTERNAL.
caller_rank	VARCHAR	None	For outbound and internal interactions, the rank of the user who initiated this interaction
caller_recording_url	VARCHAR	None	URL of the recording for the interaction segment of the party that originated this interaction
caller_rtp_server_id	BINARY	None	Identifier of the RTP server that made the recording for the interaction segment of the party that originated this interaction
caller_team_name	VARCHAR	None	Name of the team that the agent who originated the interaction is a member of

case_id	VARCHAR	None	Identifier of the [case](#) with which this email is associated
case_number	VARCHAR	None	*case_number* specifies the number of the [case](#) with which this email is associated. Unlike *case_id*, case number is a simple number suitable for manual processing.
case_search_result	VARCHAR	None	For each incoming email, the system will look for possible association with an existing case using the *thread_id* added to the original reply. Possible values include the following: • *found* – A unique case associated with this email was found; the case number is copied to the *case_number* field • *found_mulitple* – Multiple cases were found; the *case_number* field is not populated • created – No matching cases were found, a new case was created and its number is copied to the *case_number* field • *error*
connected_to_phone	VARCHAR	None	*connected_to_phone* specifies the phone number of the party to which the call or chat was delivered. If the call/chat was transferred, it specifies the phone number of the party to which the call/chat was last transferred.
detail_record_count	INT	None	Number of segments in this interaction (i.e., number of records in the *call_detail* table related to this interaction)
			disposition specifies how the interaction ended. The term *call* in the descriptions below indicates that the given value may be applicable to calls and chats. Possible values include the following: • CALLER_TERMINATED – Call terminated by the party that made the call (after the call was answered) • CALLEE_TERMINATED – Call terminated by the party that answered the call • TRANSFERRED – Interaction was transferred by the party who accepted it (the after-transfer phase is reported in a separate record) • CONFERENCED – Call became a conference (the conference phase is reported a separate call) • SYSTEM_DISCONNECTED – Call was terminated by the system • SELF_SERVICE – Requested service was provided by the IVR application (as indicated by execution of scenario block *Self-Service Provided*)

| disposition | ENUM | None | ABANDONED – Inbound call was terminated by the by the caller while processed in the IVR application (except the *SELF_SERVICE* case above) ABANDONED_QUEUE – Inbound call was terminated by the caller while waiting in the service queue ABANDONED_RINGING – Inbound or internal call was terminated by the caller after it was delivered to the called party and before it was answered (or before the No Answer timeout expired) NO_ANSWER – Inbound, outbound or internal call attempt was terminated after it was delivered to the called party desktop and was not answered within the No Answer timeout CALLED_PARTY_BUSY – Outbound call attempt was terminated because the called party was busy NETWORK_BUSY – Outbound call attempt was terminated because of the network congestion CALLER_TRANSFERRED – Call was transferred by the caller (the after-transfer phase is reported as a separate call) CALLBACK_REQUESTED – Call was terminated because a callback was requested (the corresponding callback attempt is reported as a separate call) REPLIED – Email was replied to; applies to inbound emails only CLOSED_WITHOUT_REPLY – Processing of the email was finished without a reply (e.g., the email was a spam or no follow-up was necessary); applies to inbound emails only SENT – Email was sent; applies to outbound emails only DISCARDED – Email initiated and subsequently discarded without being sent; applies to outbound emails only SERVICE_CHANGED – Agent changed the service associated with the email and continued processing it (the after-service-change phase is reported in a separate record) |

duration	BIGINT	Seconds	For calls and chats, *duration* is the total duration of the interaction from the moment it entered the system or was initiated and until it was released. For inbound emails, *duration* is the time between the moment the email entered the system and the moment when the first meaningful response was sent (or the email was closed or transferred externally). For outbound emails, *duration* is the time between the moment the email was initiated by the agent and the moment the email was sent. Note that transferred and recategorized interactions produce multiple CDR records, where the first record shows "Duration" as empty string and the last record shows the total interaction duration. Duration always shows calendar time (the total time between the specified moments) regardless of hours of operation of the associated service. For example, if an email was received at 4 pm and replied the next day at 10 am, the duration will show 18 hours, even if the call center was closed during the night.
email_completion_time	BIGINT	Seconds	Email completion time from the moment the email interaction was accepted or entered agent's personal queue and until it was completed (including ACW if any) or transferred
email_detail_id	VARCHAR	None	*email_detail_id* is the identifier of the given step in processing of the email. A single email may have several records in the *call_detail* table corresponding to email processing steps (e.g., before and after transfer). Such records will have the same *email_id*, but each will have its own *email_detail_id*.
email_id	VARCHAR	None	Indentifier of the email interaction
email_kb_article_id	VARCHAR	None	Identifier of the article used for replying to this email
email_subject	VARCHAR	None	Content of the email subject field
flagged	BIT	None	TRUE if the interaction was flagged by agent; FALSE otherwise
from_phone	VARCHAR	None	The phone number from which the call was made, or for emails, the email address in the "From" field
global_interaction_id	BINARY	None	[Global interaction identifier](#)
held	BIGINT	None	*held* specifies the number of times the call was placed on hold; for chats, the number of times the chat interaction was out of focus

hold_time	BIGINT	Seconds	*hold_time* specifies the total time that the call spent on hold. For chats and emails, it is the total out-of-focus time (the time the interaction spent at the agents' desktops excluding the *Talk* time).
id	BINARY (16)	None	Reserved
initial_callee_phone_type	ENUM	None	For transferred interactions, this is location of the party that received the original interaction in the transfer sequence. Possible values include INTERNAL or EXTERNAL.
initial_caller_phone_type	ENUM	None	For transferred interaction, this is the location of the party that initiated the original interaction in the transfer sequence. Possible values include INTERNAL or EXTERNAL.
initial_call_id	BINARY	None	For transferred calls, *initial_call_id* is the identifier of the original interaction in the transfer sequence. It is maintained for backward compatibility only. Starting from release 3.11, use of the *global_interaction_id* is recommended for all interaction identification and linking purposes.
initial_connected_to_phone	VARCHAR	None	For transferred calls, the phone number of the original party in the transfer sequence to which the call was delivered
initial_from_phone	VARCHAR	None	For transferred calls, the phone number from which the original call in the transfer sequence was made
initial_original_destination_phone	VARCHAR	None	For transferred calls, this specifies the phone number that was dialed by the original calling party in the transfer sequence was made. For emails, it specifies the email address used as the destination by the original sender.
initial_service_name	VARCHAR	None	For transferred interactions, the name of the service associated with the original interaction in the transfer sequence
initial_start_time	DATETIME	Seconds	For transferred calls, the start time of the original interaction in the transfer sequence; time is given in the Universal Coordinated Time (UTC) time zone
ivr_time	BIGINT	Seconds	Total time the call spent in IVR
max_hold	BIGINT	Seconds	Duration of the longest of the number of times the call was placed on hold; for chats, the duration of the longest of the number of times the chat interaction was out of focus

media_type	ENUM	None	*media_type* specifies the interaction media type with possible values of VOICE, CHAT, or EMAIL.
			If set to CHAT, any *call* mentioned in this table shall be interpreted as a service chat interaction in the same context.
original_destination_phone	VARCHAR	None	*original_destination_phone* specifies the phone number that was dialed by the calling party. If the call or chat was transferred, it specifies the phone number dialed by the party that made the transfer. For emails, it is the email address used as the destination by the original sender.
pending_time	BIGINT	Seconds	For inbound calls, *pending_time* specifies the duration of call ringing phase from the moment the call was distributed to an extension and until it was either answered or abandoned. For internal and outbound calls, *pending_time* specifies the duration of call dialing phase from the moment the dialed number was received by the system and until the call was either answered or abandoned. It does not apply to email.
pkid	INT	None	Primary key
queue_time	BIGINT	Seconds	Total time the interaction spent in the service queue
reported_problem	ENUM	None	*reported_problem* specifies the call quality problem as reported by the agent during this call using the *report a call problem* desktop control. Possible values include CALL_WENT_SILENT, CALL_DROPPED, POOR_VOICE_QUALITY, and OTHER
response_email_id	VARCHAR	None	Identifier of the article that was sent automatically to acknowledge receipt of this email
scenario_name	VARCHAR	None	*scenario_name* specifies the name of the scenario used to process this interaction. If the interaction was processed by multiple scenarios, the first applied scenario will appear in this field. (Other scenarios that may have been invoked from the main scenario do not affect this field.)
service_name	VARCHAR	None	*service_name* specifies the name of the service associated with the interaction. If the interaction was recategorized or transferred to a different service, each such event will produce a new record with the new service value.

start_time	DATETIME	Seconds	For inbound interactions, *start_time* specifies the date and time when the interaction entered the system. For outbound and internal interactions, *start_time* specifies the date and time when the interaction was initiated. The time is given in the Universal Coordinated Time (UTC) time zone.
talk_time	BIGINT	Seconds	*talk_time* specifies the total call talk time. It excludes hold time. For chats and emails, *talk_time* is the total in-focus time (the time the interaction was selected in the active communications lists of the agents who processed it).
thread_id	VARCHAR	None	*thread_id* is the identifier of the email thread that this email is part of. This identifier is added to the subject of the email when the email is replied to and is used for case search during possible follow-up emails (see *case_search_result*).
transferred_from_phone	VARCHAR	None	For transferred calls and chats, the phone number from which the call/chat was last transferred
trunk_description	VARCHAR	None	For inbound and outbound calls, the name of the trunk that was used to establish this call
voice_signature	BIT	None	TRUE if customer's voice signature was collected during this call (i.e., the corresponding recording contains voice signature); FALSE otherwise

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interaction_step_skills

Each row of the *interaction_step_skills* table specifies a skill requested during an interaction referred to in the *interaction_step_id* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *interaction_step_skills* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
interaction_step_id	BINARY (16)	*interaction_step_id* is the identifier of the interaction during which this skill was requested. Typically, this is the identifier for the interaction segment of the party that originated this interaction (field *caller_interaction_step_id* of the *call_detail* table).
name	VARCHAR	Skill name as defined in configuration
group_name	VARCHAR	Name of the group that this skill is assigned to as defined in configuration
type	ENUM	*type* is the skill type. Possible values include the following: • SERVICE – Primary service skill (a skill that is created automatically for each new service) • SKILL – Auxiliary skill (a skill that is not directly associated with any particular service)
service_level	INT	Target percentage of calls that shall be answered within the time specified in the *service_level_threshold* field as defined in configuration
service_level_threshold	INT	Service level threshold as defined in configuration
short_abandonment_threshold	INT	Reserved

interaction_quality_monitoring

Each row in the *interaction_quality_monitoring* table represents an instance of review of an interaction segment referred to in the *interaction_step_id* field that was completed in the given aggregation interval.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *interaction_quality_monitoring* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key
interaction_step_id	BINARY (16)	Reference to identifier of the reviewed interaction segment in the *call_details* table; depending on the type of call (inbound or outbound), it could be either the *callee_interaction_step_id* or *callee_interaction_step_id* field
review_time	DATETIME	Start time of the review activity; time is given in the Universal Coordinated Time (UTC) time zone
review_agent_login_id	VARCHAR	Reviewer's login as defined in configuration
review_agent_first_name	VARCHAR	Reviewer's first name as defined in configuration
review_agent_last_name	VARCHAR	Reviewer's last name as defined in configuration
review_notes	TEXT	Reviewer's notes for the reviewed interaction segment

interaction_quality_monitoring_grades

Each row in the *interaction_quality_monitoring_grades* table represents a grade in a single category given to an interaction segment during an instance of review referred to in the *iqm_id* field.

Description of Data

The following table offers the name (i.e., ID), data type (e.g., BIGINT, BINARY, BIT, DATETIME, ENUM, INT, VARCHAR, etc.), and description for each metric (i.e., column) of the *interaction_quality_monitoring_grades* table.

Column Name	Data Type	Description
id	BINARY (16)	Primary key

iqm_id	BINARY (16)	Reference to identifier of the review instance (field *id* in the *interaction_quality_monitoring* table)
grade_name	VARCHAR	Name of the call grading category
grade_value	INT	Grade assigned by the reviewer in the given category
order_num	INT	The order in which the given category is supposed to appear in reports relative to the other grading categories (as defined in configuration)