Task Handling Metrics

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Average Speed of Answer

Average Speed of Answer (ASA) is the average answer wait time (the sum of the time that all incoming tasks waited before being answered). Answer wait time includes delay time, queue time, and ring time. ASA starts when the call enters a queue, and is set for four entities:

- Agent
- Call type
- Skill group
- Precision queue

ASA is reported in hours, minutes, and seconds (HH:MM:SS).

For agents, the ASA is calculated by dividing the total answer wait time for calls answered by the agent by the number of calls that the agent answered. (AnswerWaitTime/CallsAnswered)

For call types, ASA is calculated by dividing the total answer wait time for the call type by the number of calls that were handled by that call type. (AnswerWaitTime/CallsHandled)

For skill groups and precision queues, ASA is calculated by dividing the total answer wait time for calls answered by the skill group or precision queue by the number of calls that were answered by that skill group or precision queue. (AnswerWaitTime/CallsAnswered). Consider this example:

- A call is queued at skill group X for 30 seconds.
- The call is then queued at skill group Y for 10 seconds.

In this case, the total queue time is 40 seconds and is used to calculate ASA for skill group Y, even though the call only queued at skill group Y for 10 seconds.

Service Level

Service levels help you set and measure goals for answering calls.

All calls that are either answered or abandoned within a specified interval are considered to be service level calls offered for that interval.

Note Service level is not affected for calls that are neither answered nor abandoned within the service level time. For example, calls that encounter an error condition within the service level threshold do not affect the service level.

Two important configuration parameters contribute to the calculation of service level:

- **Service level threshold**--the number of seconds you set as a goal to treat a call. To calculate the service level for a period of time, Packaged CCE determines the number of calls that have had a service level event within that interval. For example, if your goal is to answer 80% of calls within two minutes, you would set the service level threshold to be 120 seconds. Reports show you the percentage of calls that have had a service level event within that interval.
- **Service level type**--determines how calls that abandon before the service level threshold impact the service level calculation. There are three options for service level type:
  - **Ignore**--Abandoned calls are excluded from the service level calculation.
  - **Negative impact**--Calls that abandon within the service level threshold are not counted as treated calls.
  - **Positive impact**--Calls that abandon within the service level threshold are counted as treated calls.

The calculations for service level are based on the service level type defined for the service level configuration. They are described in the following table.

Table 1: Formulas for Service Level Type

Service level type	Formula used to determine service level
Ignore abandoned calls	ServiceLevelCalls / (ServiceLevelCallsOffered – ServiceLevelAband)
Negative impact of abandoned calls	ServiceLevelCalls / (ServiceLevelCallsOffered)
Positive impact of abandoned calls	(ServiceLevelCalls + ServiceLevelAband) / (ServiceLevelCallsOffered

For an example of how service level type is calculated, consider the following call counts:

- Answered within service level threshold (ServiceLevelCalls) = 70 calls
- Abandoned within service level threshold (ServiceLevelAband) = 10 calls
- Exceeded service level threshold (ServiceLevelCallsOffered – (ServiceLevelCalls + ServiceLevelAband)) = 20 calls

- Total service level events (ServiceLevelCallsOffered) = 100 calls

For these call counts, the service level is calculated as follows:

Table 2: Calculations for Service Level

For this service level type:	The service level calculation is:
Abandoned calls ignored	70 / (100-10) = 77%
Abandoned calls negatively impact	70 /100 = 70%
Abandoned calls positively impact	(70 + 10) / 100 = 80%

Service level threshold and type can be set for the system as a whole and for individual call types, skill groups, and precision queues. Settings for individual entities override those set at the system level.

Service Level at the Call Type

For measuring overall customer experience, the call type provides the most insight into call treatment and how callers are experiencing the system.

The service level threshold timer at the call type starts as soon as the call enters the call type that has a service level defined. When the service level timer expires, the service level is applied to the current call type associated with the call.

Only call types that are associated with scripts that use the Queue To nodes define service levels. If a call type is changed using the Requalify or Call Type nodes, then the service threshold timer is reset.

There are four *service level events* that can occur for the call type:

- The call is answered by an agent before the service level threshold expires. In this case, the ServiceLevelsCallsOffered and ServiceLevelCalls database fields are incremented.
- The call abandons while in the Unified CVP or at the agent's phone before the service level threshold expires. In this case, the ServiceLevelCallsOffered and ServiceLevelAband database fields are incremented.
- The call redirects on no answer before the service level threshold expires. In this case, the ServiceLevelCallsOffered database field is incremented.
- The service level threshold timer expires; for example, the call reaches the service level threshold without being answered by an agent or abandoned. In this case, the ServiceLevelCallsOffered database field is incremented.

If calls encounter an error before the service level threshold expires, the ServiceLevelError database field is incremented, but ServiceLevelOffered is not incremented. If the call encounters an error after the service level threshold expires, ServiceLevelOffered is incremented.

To exclude errors from your service level calculation, adjust the ServiceLevelCallsOffered by excluding error calls: adjusted SL Offered calls = SL Offered calls – (Total Error calls - ServiceLevelError).

In this example, abandoned calls have a negative impact: ServiceLevel = ServiceLevelCalls / (ServiceLevelCallsoffered – (AgentErrorCount + ErrorCount – ServiceLevelError)).

Service Level at the Skill Group and Precision Queue

At the skill group and precision queue level, the service level metric is useful for monitoring agent, skill group, and precision queue performance. The service level threshold timer at the skill group or precision queue starts as soon as the call is queued to a skill group or precision queue.

There are five service level events that can occur for a skill group or precision queue:

- The call is answered by an agent before the service level threshold expires. In this case, the ServiceLevelsCallsOffered and ServiceLevelCalls database fields are incremented for the skill group or precision queue that answered the call. If the call is queued to more than one skill group, then the ServiceLevelsCallsOffered and ServiceLevelCallsDequeued database fields are incremented for the other skill groups or precision queues.
- The call is dequeued from a skill group or precision queue before the service level threshold expires. In this case ServiceLevelsCallsOffered and ServiceLevelCallsDequeued database fields are incremented. Calls may be dequeued using the Cancel Queue node, when they are de-queued from the skill group or precision queue to be routed to a different skill group or precision queue.
- The call abandons while in the VRU (queue) or at the agent's phone before the service level threshold expires. In this case, the ServiceLevelCallsOffered and ServiceLevelAband database fields are incremented.
- The call redirects on no answer before the service level threshold expires. In this case, the ServiceLevelCallsOffered database field is incremented.
- The service level threshold timer expires. Example: the call reaches the service level threshold without being answered by an agent or abandoned. In this case, the ServiceLevelCallsOffered database field is incremented.

Note If you want to remove errors from ServiceLevelCallsOffered, you can use this formula in a custom report: ServiceLevelCallsOffered – (Errors – SLErrors).

Bucket Intervals

Bucket intervals allow you to track data for calls abandoned or answered within specific time increments. For example, you can track data for calls abandoned or answered between 0 and 8 seconds, or under 60 seconds.

Bucket intervals are associated with the following:

- Call types
- Skill groups
- Precision queues

You can set bucket intervals for the system as a whole and for individual call types, skill groups, and precision queues. Settings for individual entities override settings set at the system level.

Service level tells you what percentage of calls are being answered within a certain time, but does not tell you how closely to the service level calls are being answered or abandoned. Bucket intervals provide more insight into how long callers are waiting before their calls are answered or before they abandon.

For example, if your service level is two minutes, you might want to set up intervals for 30 seconds, one minute, 90 seconds, 120 seconds, 180 seconds, 210 seconds, and 240 seconds. Using these intervals, you can see whether calls are being answered in the 30 seconds after the service level threshold of 180 seconds or if most are waiting a full minute longer to be answered.

The intervals also give you insight into how long callers are willing to wait before abandoning. Many callers do not abandon until two minutes past the service level. This might indicate that you can modify your service level goal.

To avoid inconsistencies in reporting, create a new Bucket Interval List with your desired parameters. Follow this updated Bucket Interval parameter for Call Types, Skill Groups or Precision Queues only at specific times (that is, end of the day, week, or month). Ensure that no one is running the reports for the intervals, while you modify the boundaries.