Service Levels

• About Service Levels, on page 1

About Service Levels

All calls that have a *service level event* within a specified period are considered to be service level calls offered for that period. This designation differs from a call's offered value, which counts each call at the time it is first offered to the service.

✎

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 or are sent to non-monitored devices (using the label node) 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, Unified Webex CCE software determines the number of calls that have had a service level event within that interval.

• Service level type - the manner in which calls that abandon affect the service level.

Service Level Threshold

The service level threshold is the number of seconds you set as a goal for connecting a call with an agent.

For example, your goal might be to answer 80% of calls within two minutes. In this case, you would set the service level threshold to 120 seconds. Reports show you the percentage of calls that are answered within that time threshold, enabling you to see whether you are meeting your goal.

A service level threshold of 0 seconds means that no service level event will be set for the call; it will not be treated as a service level call.

Service Level Type

Service level type determines how calls that abandon before the service level threshold impact the service level calculation.

Service level type is presented as three options: positively, negatively, or not at all.

- **Abandoned calls positively impact**

  Some contact centers want abandoned calls to positively impact the service level. These contact centers consider a call abandoned within the service level threshold time a treated call. Abandoned calls are considered to positively impact the service level.

- **Abandoned calls negatively impact**

  Other contact centers might consider only those calls answered within the service level threshold time as treated calls. For these contact centers, the service level is detrimentally affected by calls that abandon within the service level time. Abandoned calls negatively impact the service level.

- **Ignore abandoned calls**

  Others might choose to exclude the abandoned calls from the service level calculation (abandoned calls ignored).

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	For call type and service: ServiceLevelCalls / (ServiceLevelCallsOffered – ServiceLevelAband)
Negative impact of abandoned calls	For call type and service: ServiceLevelCalls / (ServiceLevelCallsOffered)
Positive impact of abandoned calls	For call type and service (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 for each type 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%

Leave the Abandon Wait Time field blank if you prefer to *not* track abandoned calls.

Service Level at Call Type

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

The service level threshold timer at the call type starts when 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 and LAA Select nodes define service levels.

If a call type is changed using the Requalify or Call Type nodes, then the service threshold timer is reset. The service levels statistics for the previous call type also reset to zero if there is anything in the CallFlow. If you change the call type to the same call type, the service level timer is not reset to zero.

For example, the CallType is set to CallType ID 5000.

  • Use the CallType Node to change Call type to ID 5003.

  • Service Level(SL) Timer expires for ID 5003.

  • Again Use the CallType node and set it to the Calltype ID 5003.

  • SL timer does not reset.

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

  • An agent answers the call before the service level threshold expires. In this case, the ServiceLevelsCallsOffered and ServiceLevelCalls database fields are incremented.

  • The call abandons while in the VRU (prompt or 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 and ServiceLevelRONA 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.

  • If calltype changes mid call:

      • AnswerBucketInterval/AnswerWaitTime will not reset and

      • AnsInterval bucket interval values in Call Type Interval data may not match with ServiceLevelCalls.

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.

Webex CCE gathers metrics for calls that RONA (if you are using IP IVR as the VRU) and for several types of errors at the call type. You could write a custom report to exclude these metrics from call type service level.

To exclude calls that RONA:

- To exclude only calls that redirect on no answer before the service level threshold expires, adjust the ServiceLevelCallsOffered by excluding the ServiceLevelRONA calls. In this example, abandoned calls have a negative impact.

  ServiceLevel = ServiceLevelCalls / (ServiceLevelCallsoffered – ServiceLevelRONA)

- To exclude all calls that redirect on no answer irrespective of the service level threshold, adjust the ServiceLevelCallsOffered by excluding all RONA calls. In this example, abandoned calls have a negative impact.

  ServiceLevel = ServiceLevelCalls / (ServiceLevelCallsOffered – CallsRONA)

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 Skill Group

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

You can use precision queues to enhance or replace skill groups.

Note By default, the service level threshold for a skill group is set to the default value of that skill group's peripheral. You can manually select a skill group in Configuration Manager and change its setting from that of the peripheral to another value.

There are five service level events that can occur for the skill group:

- 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 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

- The call is dequeued from a skill group 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 to be routed to a different skill group.

- 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.

Calls can queue to more than one skill group depending on your scripting, and service level metrics are updated for each skill group to which a single call queues.

It is important to understand how service levels are impacted in such cases.

- If a call is queued to more than one skill group and then the call is answered before the service level threshold expires, ServiceLevelsCallsOffered and ServiceLevelCalls database fields are incremented for the skill group that answered the call. For the other skill groups, ServiceLevelsCallsOffered and ServiceLevelCallsDequeued database fields are incremented.

- If a call is queued to more than one skill group and the call abandons in queue before the service level threshold expires, ServiceLevelsCallsOffered and ServiceLevelCallsAband database fields are incremented for *all the skill groups*. This result will have a negative or positive impact on service levels in all the skill groups depending on how you have decided to treat abandoned calls for service level calculations in your configuration for the individual skill groups.

- If a call is queued to more than one skill group and the call abandons in queue *after* the service level threshold expires, ServiceLevelsCallsOffered database field is incremented for *all the skill groups*. This result will adversely affect your service level.

- If a call is queued to more than one skill group and the call abandons after it was routed to a skill group (example: abandon while ringing at the agent) before the Service level threshold expires, ServiceLevelCallsOffered and ServiceLevelCallsAband database fields are incremented for the skill group that had the abandon, while other skill groups have ServiceLevelCallsOffered and ServiceLevelCallsDequeued database fields incremented.

Webex CCE gathers metrics for calls that RONA (if you are using IP IVR as the VRU) and for several types of errors at the skill group. You could write a custom report to exclude these from skill group service level.

To exclude RONA calls:

- If you would like to exclude only calls that redirect on no answer before the Service level threshold expires, adjust the ServiceLevelCallsOffered by excluding the ServiceLevelRONA calls. In this example, abandoned calls have a negative impact.

  ServiceLevel = ServiceLevelCalls / (ServiceLevelCallsoffered – RouterCallsDequeued - ServiceLevelRONA)

- If you would like to exclude all calls that redirect on no answer irrespective of the service level threshold, adjust the ServiceLevelCallsOffered by excluding all RONA calls. In this example, abandoned calls have a negative impact.

  ServiceLevel = ServiceLevelCalls / (ServiceLevelCallsoffered – RouterCallsDequeued CallsRONA)

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

Service Level at Peripheral VRU Service (Webex CCE-Aspect Only)

✎

Note   Service Level at the Peripheral VRU is configurable for the Aspect ACD only.

The service level threshold timer at the VRU service starts as soon as the call arrives at the VRU service.

There are three service level events that can occur for the peripheral VRU service:

- Call is routed to an agent before service level timer expires. In this case the ServiceLevelsCallsOffered and ServiceLevelCalls database fields are incremented.

- Call abandons while in the VRU before service level timer expires. In this case the ServiceLevelAband and ServiceLevelCallsOffered database fields are incremented.

- Service level threshold timer expires. In this case the ServiceLevelCallsOffered database field is incremented.

The VRU Service does not detect abandons that happen at the peripheral agent service, so these calls will not be part of the service level for the VRU service. The VRU service does not detect when the call is physically answered by the agent; it only knows when the call is *routed to* the agent.

Guidelines for Service Levels

Consider these guidelines when configuring and scripting service level:

- Service level time begins when the call enters a call type. Set up call type scripts specifically to collect queue and agent statistics. Set up the scripts so that service level time begins after a call queue to a skill group. Define service levels only for call types that point to a script that includes a Queue to Skill Group node.

- Set up one call type to collect statistics before the queue (that is, the initial call type designated for the script via call type mapping).

- Set up other call types used specifically to collect queue and agent statistics.

- In your routing scripts, include the Requalify or Call Type nodes to submit the call to the call type used to collect queuing information.

- Skill group/precision queue and service level metrics are updated for each skill group/precision queue to which a single call queues. Service levels could be adversely affected if calls abandon within or outside the service level threshold in such cases. Consider queuing to a single skill group/precision queue if you include abandons in your service level calculations and do not want abandons to affect service levels adversely.

If you follow these guidelines, the first call type to which the call was initially mapped gathers statistics before the call is queued to the skill group. The script then passes the call to the call type set up specifically to collect information after the call is queued to the skill group/precision queue.