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Outbound Contact Deployment Guide

Assured Connection

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Assured Connection

Note:

Assured connection is available in the Predictive and Progressive dialing modes when dialing with SIP Server in a VoIP environment.

Sometimes, it may be beneficial to dial an outbound call in an automated dialing mode that is guaranteed to be connected to an agent. For example, this may be desirable for outbound customers of high importance, or for calling some numbers as required by government regulations.

Neither the Predictive or Progressive dialing mode can typically guarantee connection of the call to an agent. In Predictive dialing mode, the number of calls initiated by OCS is always larger than the number of agents available to handle those calls once they are answered. Therefore, it is probable that some calls may be abandoned due to a long waiting time in the queue. In the Progressive dialing mode, an agent targeted for an outbound call may become unavailable or receive an inbound call. Normally, these are acceptable risks, and in some countries, government regulations set an allowable level of abandoned calls.

For Assured Connection functionality, when using Progressive mode and skill-based routing functionality, OCS provides the ability to engage the most suitable agent to handle a conversation. Agent selection criteria (for example, skill requirements) are defined by the data in the mandatory and user-defined fields of a calling list record. OCS attaches all user data that are related to the record being processed to the engaging call that was dialed for this record. All the data that are associated with the customer contact are made available to URS in the attached data of the engaging call. OCS attaches all pairs that are attached to the outbound call that was dialed for the record, except for GSW_RECORD_HANDLE pair. The following types of pairs are attached:

- Mandatory pairs, such as GSW_PHONE and GSW_CHAIN_ID
- User-defined pairs, as defined by the send_attribute option configuration of the mandatory and user-defined fields
- Auxiliary pairs, such as GSW_APPLICATION_ID and GSW_SWITCH_DBID
- Pairs as defined by using Script configuration object(s) that are associated with Calling List, Campaign, and Campaign Group objects to which the outbound record belongs

This feature enables the selection of the most suitable agent to handle the assured connection conversation. It also enables you to meet specific business requirements, for example, to avoid call transfers in the following scenario: callback requests are added to a single calling list which is used to guide a Progressive outbound campaign and an agent must be available when a contact call is established and that the agent is able to communicate with the contact in the language that is specified by the contact, as well as being able to service the specific contact request.

Starting in release 8.1.1, OCS can guarantee connection of pre-selected calls to agents in the Predictive or Progressive dialing mode when running campaigns in a VoIP environment. To ensure connection to an agent, OCS verifies each call before sending it to be dialed, to determine if this call should be dialed with a guaranteed connection. If so, OCS first dials an engaging call and waits until it establishes on an agent. After the agent is engaged, which guarantees that the agent will not log out, receive another call, or be reassigned to another activity, the outbound call is dialed. After the outbound call is answered by the customer, it is immediately merged with the engaging call. If the outbound call does not reach the customer, the engaging call is released and the agent is returned

back to handle regular campaign calls.

There are two ways to define if the outbound call for a specific record needs to be dialed in assured connection mode:

By selecting a field in the calling list and a set of values for this field using the **assured-connect-field** option that indicates that the record should be dialed in assured connection mode.

When it retrieves the record, OCS reads the specified field and checks its value. If the value falls within the pre-configured set of values for the field, OCS marks the record for assured connection.

By using SCXML treatments, with the `set_flex_attr` custom action, by setting the **assured-connect** option to true for a given record or chain of records. This setting has a higher priority than a definition using the **assured-connect-field** option.

The following configuration options are used to implement assured connection:

- **assured-connect**--Enables or disables the assured connection feature.
- **assured-connect-field**--Specifies the field name and set of values which nominate the record for assured connection.

Assured Connections and Predictive Algorithm

This section describes how the Predictive Algorithm (PA) handles assured calls. The port usage for each assured call is as follows:

- One port is used for an engaging call from the request to dial the engaging call, until this call is merged with an outbound call or released.
- One port is used for an outbound call from the request to dial the outbound call, until this call is merged with an engaging call or released.
- Two ports are used for an established call if the merging method is bridging.
- No ports are used for an established call if the merging method is transfer.

The PA takes into account the extended port usage related to assured calls for the following operations:

- To restrict the outbound dialing rate so that the total number of busy ports does not exceed the total number of ports available for Campaign Group. This latter value is specified by the Number of CPD ports for the Campaign Group or by the dynamic allocation of ports.
- To perform the dynamic allocation of ports between running Campaign Groups.
- To perform the dynamic reassignment of agents in accordance with the effective size of the Agent Pool.

The PA cleans up an assured call when the **pa-dial-expire** option has expired since the most recent dialing of engaging or outbound call associated with the assured call.

For the calculations of Agent Busy Factor and Average Waiting Time, the engaged agents without outbound calls are considered Ready. The PA adds all of the engaged time intervals (from when an engaging call is connected to an agent to when that call is merged with an outbound call or is

released) to waiting times.

For the Predictive dialing mode, the PA adjusts the outbound dialing rate to achieve the optimization goal, taking into account that the engaged agents can be connected only to individual assured outbound calls. This increases the actual traffic load and decreases the useful efficiency of agents, especially if many assured calls are not answered by live persons. When the optimization goal is not achieved, the PA causes OCS to generate a self-diagnostic log event (12-50131) for call-related factors, as follows:

- "Assured Calls" when there are assured calls.
- "Assured Dialing Influence" when the Optimization Goal can not be achieved due to the presence of assured calls.

Notes:

- A standard practice is to have just a few assured outbound calls during the lifetime of a campaign.
- A considerable percentage of assured calls may significantly affect dialing performance of the campaign and produce a high Abandon Rate as well as a low Busy Factor.

Assured Connection vs. ASM (Engaging) Dialing Mode

Assured connections and ASM (engaging) dialing mode differ in the following ways.

In ASM dialing mode, engaging and regular call dialing are unrelated processes, especially in predictive ASM. You cannot precisely define which regular call will be bridged with what engaging call. Also, there is no guarantee that there will be an engaging call with which to complete the bridge transfer.

In ASM dialing mode, OCS does not release an engaging call that is not bridged while the Campaign Group is running, regardless of the result of regular call dialing. In the *assured-connect* dialing sequence, an engaging call is released if the regular call dialing has a negative result.

The purpose of an assured connection is to guarantee the presence of an agent for a specific call in predictive dialing, where the agent's presence is not guaranteed by definition. The assured connection can be used for only a limited number of contacts in the Campaign; otherwise the quality of predictive dialing is compromised.

ASM is supported in IP and TDM environments (with restrictions for certain line protocols and Dialogic board types).

Assured connections are supported in Outbound IP environments (with SIP Server and Media Server) only.