



## CT Predictive Dialler Overview

**RealConnect's CT Predictive Dialler** is a highly intelligent predictive dialling solution that dramatically increases calling efficiencies for outbound call centres.

Predictive dialling keeps track of the call centre activity and uses advanced real-time algorithms to present 'live' calls to the agents just as they become available again. This frees up the agent from waiting during the placing of calls – as soon as they have completed the one call, the next call is lined up and ready to go.

Call centre statistics show that campaigns using predictive dialling typically achieve a **100% PLUS** increase in talk time per hour compared with that of a conventional Power Dialler driven campaign – agent idle time is cut to a bare minimum.

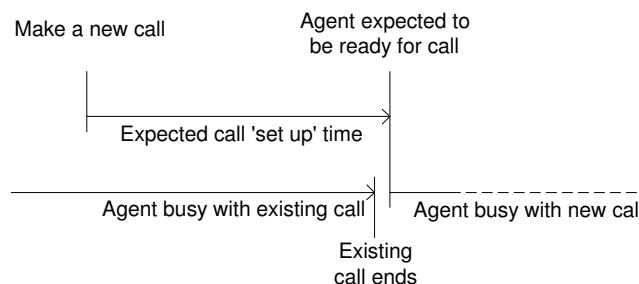
This document introduces the basic concepts of Predictive Dialling and is intended for call centre supervisors and administrators that need to gain a rapid understanding in this field.



### Why use Predictive Dialling?

Most of the inefficiencies in conventional outbound call centres result from agents spending 'waiting time' while live calls are being established. Traditional Power Dialling only starts placing the next set of calls once the agent has completed the previous call.

Predictive Dialling removes this limitation. The Predictive Dialling process aims for contacts to answer calls just as the agents become available. Almost all the available time of the agents is spent handling calls.



Campaigns using predictive dial can achieve talk times of 55 minutes per hour – compare this with campaigns using conventional Power Dialling, which typically only achieve talk times of 25 minutes per hour.

## A comparison of Dialling Systems

Typical statistics in table below show the advantage that Predictive Dialling has over other conventional methods\*:

|                       | <b>Manual Dialling</b> | <b>Preview Dialling</b> | <b>Power Dialling</b> | <b>Predictive Dialling</b> |
|-----------------------|------------------------|-------------------------|-----------------------|----------------------------|
| Agent talk time %     | 10%                    | 20%                     | 40%                   | 90%                        |
| Attempts/hour/agent   | 30                     | 50                      | 200                   | 550                        |
| Connection/hour/agent | 5                      | 10                      | 20                    | 50                         |
| Sales                 | Very Low               | Low                     | Low-Med               | High                       |

Source: [RealConnect](#) Client Information – normalised to a standardised call time

## The Predictive Dial Process

### Getting to the 'real-live' calls

The Predictive Dialler uses standard Power Dialling methods to automatically dial several calls per agent, expecting some calls to fail – i.e. not be answered, be answered by fax machines or answering machines, etc. These calls are **not** passed through to the agents and their details are noted in the database for deletion or possible future re-processing. Only the successful 'live' calls are passed through to agents. In essence the Power Dialler acts as an 'electronic secretary' for the agents, ensuring that only the 'live' calls are connected.

### Adjusting the call rate (the added value of Predictive Dialling)

As the agents deal with calls, a real-time statistics engine establishes the average length of call and the average time it takes to set up a call. Advanced algorithms control the dialling rate so as to allow the predictive dialler to start phoning just before the previous call ends – the predictive dialler then establishes the new call and transfers it to the agent just at the right time. If the agent is not available, then the call is transferred to another agent within the same skills group, placed in a holding queue, or alternatively as a last resort, dropped.

***The power of the Predictive Dialler resides in its ability to decide on how many calls to place and when and how to adjust this number for maximum successful 'live' call placement.***

## Some Important Factors

In order to adjust the calling rate, the Predictive Dialler adjusts the number of calls being made simultaneously - a ratio known as the *Dial Factor*. However, to maximise call centre efficiency and effectively minimise the cost of ownership, this adjustment must also take a number of other important factors into consideration. These are dealt with below:

**Dial Factor** is expressed as the number of calls being made simultaneously, compared against the number of agents that are predicted to be available to take the call:

$$\text{Dial Factor} = \frac{\text{Number of simultaneous calls being made}}{\text{Number of agents predicted to be available}}$$

Typically, in Power Dialling, the Dial Factor for will be set to between '2' to '4' (with '5' as an absolute maximum) depending on a number of factors, including the campaign target and the time of day. For instance, a sales campaign targeting an 'at home' market will have a higher Dial Factor during the day, where the percentage of getting no answers per call batch is higher, compared with the Dial Factor in the evening where it is more probable that a 'live' call can be successfully placed.

The Dial Factor can be manually set by the call centre supervisor as a fixed figure, or can be set to adjust depending the time of the day. Each campaign will have its own optimum figure. In Predictive Dialling, the Dial Factor is adjusted automatically depending on an optimum mix of *Agent Wait Time* versus the ratio of *Nuisance Calls*. This concept will be explained once these two definitions are explained.

**Agent Waiting Time** is the degree of inefficiency of a predictive dial solution and is expressed as the ratio of *non-productive* waiting time (also known as idle time) compared with the time that the agent is on line, either making a call or available to make a call:

$$\text{Agent Waiting Time} = \frac{\text{Time waiting for a call to be set up}}{\text{Total time agent is waiting or talking}}$$

This is normally expressed in minutes per hour or as a percentage. A maximum acceptable Agent Waiting Time would be around five to ten minutes per hour (7 to 16%), any increase over this means that the agent (who is usually being paid a fixed rate per hour) is not being efficiently utilised in handling a high number of calls per hour. A high Agent Waiting Time results in increased labour costs.

**Agent Talk Time** is an alternate way of measuring the efficiency of a call centre and is expressed as the ratio of *productive* talking time compared with the time that the agent is on line, either making a call or available to make a call:

$$\text{Agent Talk Time} = \frac{\text{Agent productive time talking to contacts}}{\text{Total time agent is available waiting or talking}}$$

Agent Talk Time is related to Agent Waiting Time by:

$$\text{Agent Talk Time} + \text{Agent Wait Time} = \text{Total Agent Available **Time**}$$

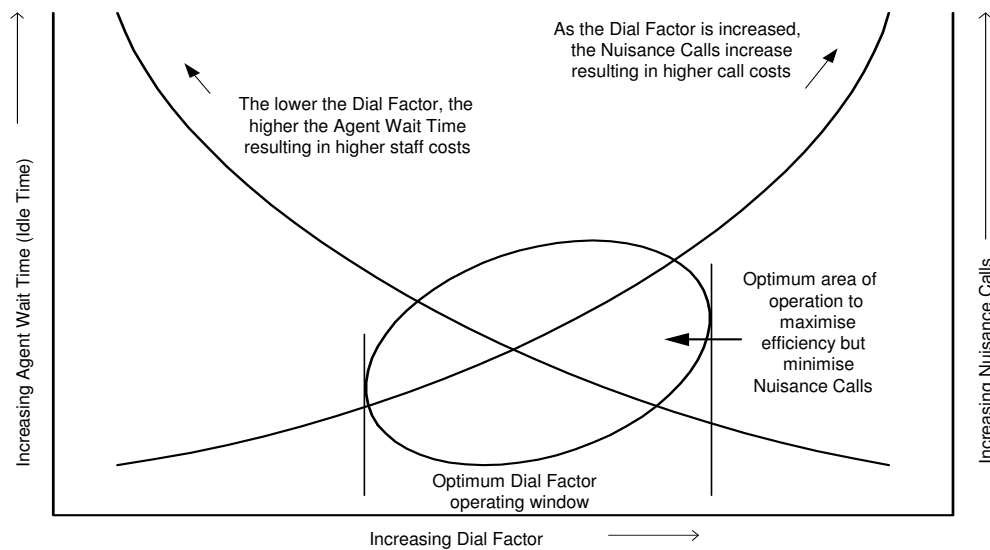
**Nuisance Call Ratio** is defined as the ratio (usually expressed as a percentage) of calls that are automatically established by the Predictive Dialler, but are dropped due to there being no agent to take the call (the call can be dropped by either the contacted person or the call centre).

$$\text{Nuisance Call Ratio} = \frac{\text{Dropped calls due to no agent available}}{\text{Total of automatically established 'live' calls}}$$

What matters in this case, is that the 'live' call has been established which will have to be paid for by the call centre even though no useful contact has been made by the agent. With millions of calls being made a month for large call centre, this can amount to a considerable sum. While a nil Nuisance Call Ratio would be optimum, this problem cannot be avoided entirely and a realistic level is generally accepted as being from 2 to 5%.

There is also the problem of irritating the contacted person who answers, only to be dropped or put onto a waiting queue, which results in resistance to call centre based marketing. In addition, several countries have legislation setting maximum Nuisance Call Ratios, which can result in fines having to be paid by the call centre if this is exceeded (In the UK this is a maximum of 15%).

**The Relationship** between **Dial Factor, Agent Waiting Time** and **Nuisance Calls** is presented graphically below:



The reasons for the relationships between these factors are seen to be self-evident. What is essential is that the Predictive Dialler software has the ability to adjust the Dial Factor to operate within an optimum area to keep the **actual costs** of call centre ownership low by reducing both Agent Wait Time as well as Nuisance Calls.

The Predictive Dialler is set up to work within an optimum Dial Factor window. As with the Power Dialler, the window will adjust depending on the campaign target and the time of day. What is important to note however, is that the Dial Factor can be controlled by either one of the two parameters. i.e. A set maximum Agent Wait Time or a set maximum Nuisance Calls Ratio. In both cases, the Predictive Dialler software intelligently adjusts the Dial Factor for maximum cost efficiency by taking both parameters into consideration.

## Queuing of Calls

Although the queuing of calls is seen as a secondary factor within the Predictive Dialling process, it has a positive influence the Nuisance Call Ratio parameters and is discussed here...

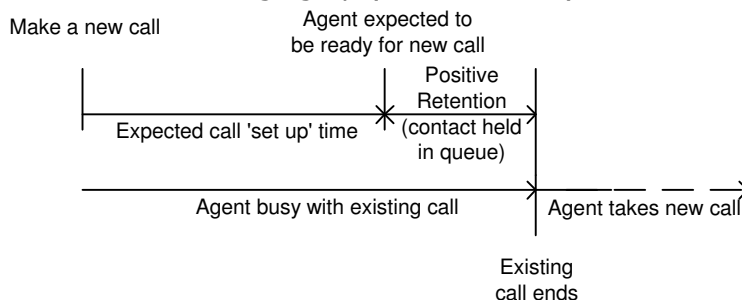
Because of varying factors influencing the probabilities of lining up the next call immediately after dealing with the previous one, contacts may answer the phone before an agent is available. Depending on the campaign rules, the Predictive Dialler could:

- Transfer the call immediately to any other suitable free agent.
- Place the call in a retention queue for a particular campaign.
- Disconnect (drop) the call.

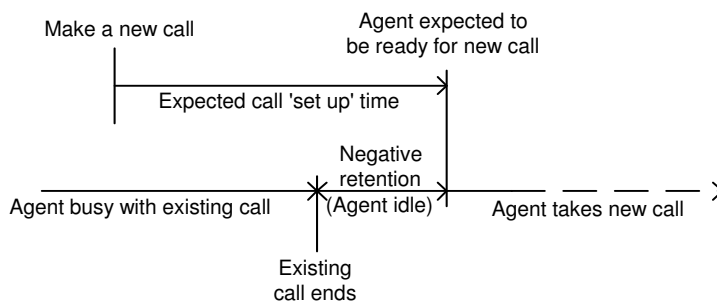
Calls in the retention queue wait for an agent to become available. A retention queue dramatically helps the performance of predictive dial, even if the queue only holds calls for a few seconds (with no announcement being made), or for longer (where an announcement asks the contact to hold the line).

**Requested retention** (also known as 'Grace Time') is the desired relation between the moment when a contact answers and the moment when an agent becomes available.

Positive retention aims for the contact to answer the call just before the agent becomes ready, as shown below and increases call centre efficiency. However, a large retention period may result in a large number of contacts hanging up (nuisance calls).



Negative retention aims for the agent to become idle before the contact answers the call, as shown below; this improves the quality of service offered to contacts but reduces call centre efficiency.



Most higher-end Predictive Diallers allow control of the queue time by means of either setting up of the maximum *requested retention time* or the maximum *requested nuisance call ratio*.

## Other considerations

Other situations that should influence the Dial Factor include the system response, ESPECIALLY THAT OF THE TELECOMS NETWORK. If an imminent overload or failure of external equipment is predicted, the Predictive Dialler software should monitor for this and 'back off' the Dial Factor to reduce the number of calls being made at one time. Once the overload reduces, call numbers are stepped up once more.

## Filtering Calls

Although the filtering of calls is performed as part of the Power Dialling function, this is an essential part of the Predictive Dialler's function.

Unsuccessful calls are classified and filtered as and when they are made. The Predictive Dialler automatically disconnects calls that are not answered by live contacts and then deletes or reschedules these in accordance with the dial rules of the contact. These rules can be altered depending on the requirements of the particular campaigns.

Unsuccessful call situations and typical rules would be:

|            |   |
|------------|---|
| Busy       | The contact phone is in use – <i>repeat the call within a short period up to up to a maximum number of tries.</i>   |
| No answer  | The contact phone rang but no one answered - calls are kept ringing for a defined maximum period – <i>reschedule the call later or for after hours up to up to a maximum number of tries.</i> |
| Machine    | The call was answered by an answering machine, a fax machine, or a modem – <i>reschedule the call later or after hours up to a maximum number of tries.</i>                                   |
| Rejected   | The call was rejected by the switch – <i>highlight the call information as incomplete.</i>  |
| Invalid    | The public network did not recognize the contact phone number – <i>delete the number on the database after a set maximum number of call.s</i>   |
| Congestion | The switch could not place the call as no access lines were available - <i>repeat the call later when lines become available.</i>   |

Certain categories of calls (such as *Invalid* and *Rejected*) can either be deleted from the database automatically or be tagged for further attention by supervisors.

## Setting up of Campaigns

The campaign is set up by means of Campaign Management front-end software that defines the scope, the target market and the business rules of the campaign. The software is available in many guises, but will typically need to be customised depending on the businesses and products being dealt with. This software then selects the most likely candidates from the leads contained in a database.

Supervisors can set new priorities and can dynamically modify campaign focus rules in real-time as new campaign statistics become available.

## Agent Skills

It is possible to run multiple campaigns on the Predictive Dialler. In order to have the right agent working on the right campaign, the agent skills are a managed into skills groups beforehand.

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