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TELECOM LABS

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No. 18 - 800 Number Support

Target Market

Operators running the IPNx can use its 800 number support to sell 'free number' services to their business customers. This service can be offered without the need for the operator to buy specialised, extra Call Centre equipment. The cost-effective delivery of this service means that operators can offer the 800 number services to small businesses who would normally not be able to afford them. The IPNx contains a powerful set of capabilities which allow it to act as a very flexible inbound Call Centre. It can also play customised messages to waiting callers.

Smart distribution of calls means that fewer operators are needed. Calls can be sent to other offices and home-based workers if the local operators are too busy.

Main Features

This service implements a full automatic call distribution for third party customers who want to offer their audiotext or operator services via a single number. The main differentiator for this service is that the billing for the call goes to the owner of the DDI not the caller.

Sophisticated options decide where incoming calls are routed for answering:

- Time of day – up to 7 time periods per day
- Day of week - 7 different types of day may be defined
- Capacity of destination
- CLI of caller
- DDI that call came in on
- Number of calls already in the queue waiting to be answered

Careful control over call queues is possible even if queues are spread over multiple IPNxs and even if they are in physically different locations. Because the algorithm runs on a central host there is a guarantee of global control on queuing and fallback. This allows all call answering resources to be used to their optimum. Call distribution is handled fairly so incoming calls are presented to each operator in turn (not always to the first in the list).

If a valid destination is not available the call may be held whilst playing music or a suitable voice message until an operator is available. There is also the capability to tailor these messages to the waiting caller. For example, "You are currently 3rd in the queue". This is also an opportunity to play customised advertising messages to the caller.

Finally, if all the queues are full the call is routed to a final recorded message service which would normally ask the caller to try again later.

A Typical Example

An incoming call could be sent to the first available operator in the local pool (a local office and a number of home workers) or sent to music on hold if none is available. The call is then sent to the central office if too many callers are in the local queue or if the local office is closed. If the central office queue is also full the call goes to a recorded message. If this was a Help Desk service the call could also be routed to the GSM of the on-call engineer.

Call Centre Distribution
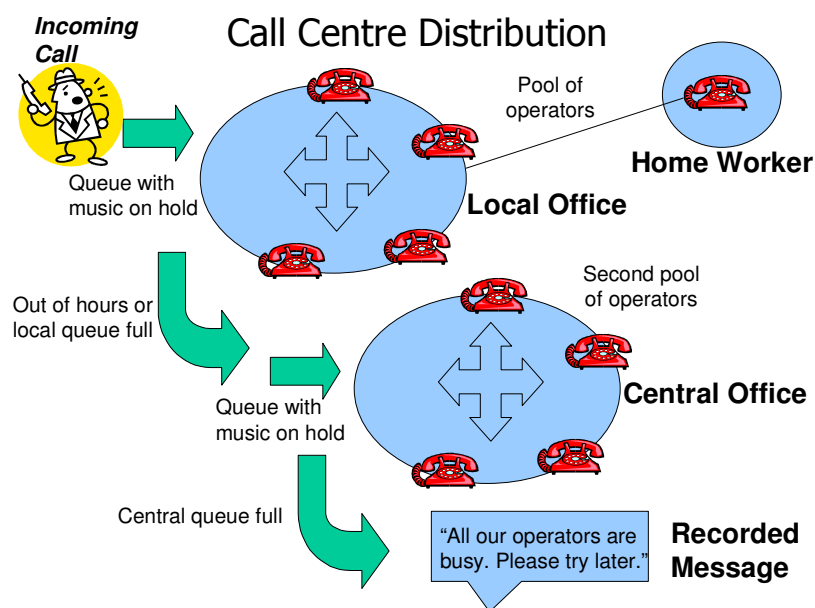
Other Options

- The service can be used not only for Call Centre applications but also to direct incoming calls to other internal IPNX services such as a calling card application.
- The service can be used to filter callers by category of CLIs before starting the appropriate action. For example, the mobile callers could be sent to a PIN service with callback and A-leg charging activated while fixed phone callers can be sent to the same PIN service but without callback and A-leg charging. International callers could be routed to an operator who speaks the language which matches the country code they are calling from.
- IPNx switch monitors each queue to ensure that customers are being dealt with promptly.
- The maximum queue size per operator is configurable. This can change with time – for example, it may be that out of hours callers can be held in a longer queue.
- The capacity of each call destination may be configured based on time of day or day of the week. For example, a particular DDI may be set up to reflect the fact that there are 5 operators manning it during the day but only 2 in the evening.
- Supports cyclic queuing to ensure fair distribution. Destinations within the queue are defined as either available or unavailable, again based on time of day or day of the week
- 'On hold' message can be adapted to include your own message, for example, expected queuing time. As with all other IPNx messages these may be stored and played in any number of languages.
- If local operators busy, fallback can be set up to divert calls to remote operators or to an "on hold' message.
- Incoming calls can be directed to a specific operator queue based on the DDI that was called; this takes into consideration details contained in the customer's profile such as the language to

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be used. This option also allows a special DDI to be given to 'Gold Card' customers so that they may be given priority treatment.

- The IPNx can be configured to direct calls to a fallback queue if the initial queue is too busy. In addition the Telco can specify that if both queues are busy a message be played to the caller. (In fact any number of fallback queues may be configured).
- The IPNx monitors the number of people in each queue and can distribute calls to operators to ensure that calls are answered promptly and the workload is shared evenly among the operators.
- Operators can indicate to the system that they are unavailable when taking a break; this ensures that calls are not directed to unavailable operators.
- The call distribution system takes account of call failures and makes another attempt to deliver the call (the caller does not get put to the back of the queue again).