Multichannel Call centers

A call center is a service system. It is a facility designed to support the delivery of some interactive service via telephone communications, email, chat, etc. The definition of a call center is continuously changing with technological development, but the core fundamentals of a customer making a call (via a phone, email, web site, fax or Interactive Voice Response) to a center (collection of resources) will remain constant. The development of alternative channels goes together with an adaptation to impatient customers with higher expectations. The recent report of ICMI (2013) based on the analysis of 361 large contact centers, presents the increasing use of new channels and the related research issues. In particular, they point out that outbound tasks require intensive integration with inbound ones in most call centers. Although the inbound calls remain present in most call centers (98%), emails are also widely used (89%). Moreover, outbound calls (76%), Web (70%) and chats (40%) are important and developing channels.

The classical approach for the tasks treatment in call centers was to consider a one to one conversation between an agent and a customer. This conversation could not be interrupted and an agent could treat customers only one by one. With new channels, new way of working appears; with emails we encounter possibilities of group treatment and preemption; with chats we can be interested in simultaneous treatment; with web sites we create situations where customers have a high access of the information before reaching a call center.

We therefore are interested in how the operation research literature captures these new working possibilities into queueing models. We are also interested on the questions related to the routing of tasks and the performance evaluation.

Objectifs et résultats attendus de l’étude bibliographique :

In this “mémoire thématique”, we aim to conduct a comprehensive literature review on queueing models papers for the analysis of multichannel call centers.

Connaissances requises éventuelles :

Références
