

RE-IMAGINING CONTACT CENTRES DURING COVID-19

Kurt Cagle, Kaustuv Ghosh and Amit Sharma

Companies socialise with their customers through contact centres, also known as call centres or help desks. These are the first ports of call for information, complaints, feedback and even business queries. With the disruption of face-to-face meetings and business travel as well as the growth in phone calls and data usage, contact centres may play a much bigger role in the communications business.



In general, contact centres handle the first level of complaints or feedback and take care of escalations. A call centre specialist opens a trouble ticket and follows it until closure. He or she provides answers to queries and assists customers in transactions, such as bookings and payments. A telecom specialist handles very different content from a banking call centre specialist or, for that matter, someone manning the phones for a movie theatre chain, but the mechanics underlying such transactions are usually broadly similar, and typically involve the use of specific applications (or apps) that augment the tracking of information and monitoring ticket status.

Apps have not, in general, replaced help-desks, a finding which suggests the sustained importance of human interaction and the need for choice. Instead, such apps serve two functions: to accumulate data (the identify and profile of end users and their queries or complaints) and to search for data, especially for answers to queries from customers. For the company, the functioning of its service desk is a matter of how efficiently information is gathered, searched, processed and responded to.

Recently, the nCov2 Coronavirus spread rapidly from hot spots in China to global prominence as a pandemic within weeks, forcing world leaders to impose significant travel restrictions and stay in place orders for workers who were not considered vital to the efforts to stop it. For businesses that utilize or run contact centres, this has had two immediate impacts and a host of secondary ones. The first and most obvious such impact was the shift of such help desks and call centres from centralized locations to executive's homes, with all the associated management pain involved in such a process. The second impact was that, by dint of this transition, call volumes for many such services exploded seemingly overnight as conditions seldom faced by users of the help desk suddenly become urgent and pressing.

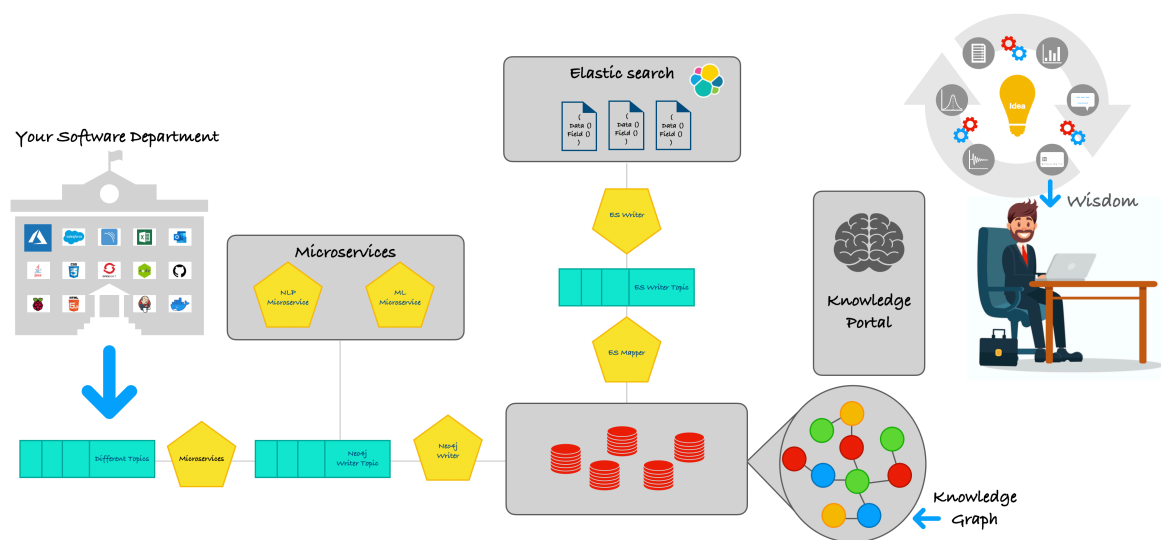
As companies, employees and users of help desk support come to terms with what is likely to be a new normal, this is also the time that call centre managers should begin to explore new ways of dealing with the exigencies of highly distributed work forces, from the notion of continuity planning to a re-evaluation of the equipment, deployment and training that each executive receives and finally a way to better determine key performance metrics (KPIs) in a field that typically has been highly supervised. It also should look at how the information that is so critical to the success of such centres is stored, searched and tracked.

One key consequence of the shift to work-from-home (WFH) has been that many companies that had centralized (non-internet-based) call centres will likely end up closing, as the technical implementation of such a system overnight is simply no longer feasible. This perhaps even holds for VPNs, as such VPNs usually place a premium on bandwidth at a time when a significant portion of available bandwidth is now going to streaming (both from conferencing systems and entertainment / information media on the web), while commercially dedicated bandwidth, often significantly enhanced in comparison to home media, as sitting mostly silent.

A second factor in this transition is that many call centres usually have a working manager watching several specialists, acting to intervene if a call becomes too complex for the specialist to handle. This role shifts in a WFH setting, with the manager effectively acting as an at-large specialist with more authority that is called in electronically. This shift in authority and protocol is something that is likely causing confusion right now, and organizations should work to actively make sure such protocols are clearly established in times of emergency.

What is quickly emerging is a new way of not only fielding and processing such tickets, but also of how the information to the client (the person requesting the help) gets requested and disseminated. Increasingly, text bots and speech to text conversion systems are becoming intelligent enough to parse questions to determine general intent (what the user is trying to figure out or locate), and from that can then prime the specialists if the answers aren't sufficient.

However, once past this original screening, providing material and support for help desks become considerably more complex. Part of this comes from the fact that as new requests come in, the knowledge base that supplies this information should grow as well, should be searchable, and should, with relatively little effort, be augmentable both when the initial interaction was made and from subsequent curation efforts. This becomes even more pressing when you're dealing with help and service desk information in an international context, as, even with increasingly sophisticated language translation efforts, unvarnished machine-learning based training on incoming calls has the potential to introduce errors and artefacts that could alter the meaning, sometimes disastrously, of recommended content.



Lately, there have been several new technologies, most especially **knowledge graph systems**, that have begun to become mainstream and that offer the flexibility to build out and distribute information systems globally. Knowledge Graphs provide three principal benefits over more traditional databases. First, they make it possible to distribute, aggregate and query data over multiple separate hubs, making it possible to keep specific local data near the producers of that data while at the same time providing a common repository that

multiple systems can query dynamically. This approach, called federation, reduces the overall footprint that each data system needs to maintain, while at the same time ensuring operational capabilities and failover in the event that one or more such hubs is taken offline.

In addition to this, such knowledge bases are much better able to add and track new properties within minutes, without the need for significant upstream or downstream changes, as metadata about properties can be used to generate user interfaces and constraints without significant recoding. This is significant, because it means that less time is spent trying to deal with manual upgrades, less time is spent adding or removing new classifications into the system, and because such classifications can also be both better defined in human terms and in machine terms, it means that properties can become self-describing and less ambiguous in the process.

Finally, such knowledge bases can work with multiple ingest sources and generate a variety of queryable outputs, both in terms of the native or intrinsic design of the data as well as in terms of alternate views of that data that can be constructed dynamically. This flexibility of formats, especially in conjunction with query standards such as SPARQL, graph-enhanced SQL (GQL), Cypher, or GraphQL, make it possible work with data virtualized into formats that are either tabular or document-centric, regardless of the implementation of the back end. Because identifiers in knowledge bases are also globally unique, this means that once an id is generated, it can be used to identify content across multiple systems with no ambiguity, significantly reducing the potential for mis-identification or the need for deduplicating data.

There are several implications from this shift in thinking within both the pandemic and post-pandemic worlds. Federating data systems in particular shifts the dynamics of data search and delivery, and makes possible a two or three tier system with a few centralized hubs and then radiating specialized hubs in a networks, closer to specific subject matter experts (those working on a specific application, process, product or service).

There are two emerging factors as Covid-19 becomes a part of everyday life-one, more and more people need to work from home; two, business continuity plans for all companies(including contact centres) need to account for both inability to attend office and rapid growth in transactional traffic. A federated contact centre approach may be a useful solution. This would be far more than a distribution of call centre locations, however. Business continuity for the longer term, especially when planning for macro-shocks like the

one currently, needs to counter the problem of people movement and vulnerabilities. This could be possible by reclassifying functions into frontline and back office rather than classify everything as part of an overall business process. Truly back-office functions, where staff have no reason to interact directly with the market, can be located anywhere.

Frontline staff could be closer culturally and geographically to customers in each country; they could be equipped with tools that enable them to respond faster and interact from a relationship management point of view with each person who calls; it can become feasible to up-sell and charge for some services over a call. One issue that may come to the forefront in this matter is cost. The re-designing of the front-office engagement could keep this under control. It is feasible to consider hiring a smaller-sized but significantly more upskilled team in Singapore at a local wage, which would deliver better service and more revenue opportunities. Such a team would need to be assisted by a highly intuitive, self-learning search function and catalogue management platform. In both cases, optimal results can be measured in terms of comparative speed of response the diversity of choice and accuracy of information offered to the end-customer.

That requires organizing data in a manner that not only is it able to respond fast and accurately to queries (and therefore must be both clean and indexed in line with the requirements) but a lot of the data that is traditionally left unused, is leveraged. This is the creation of semantic graph which act as self-taught indexes leading the search to its' ultimate goal. In other words, what is needed today is a self-teaching digital library, a knowledge base, of novel, relevant data which can be accessed by a reasonably well-trained person easily. Unlike traditional data re-organization, these knowledge bases, can be built relatively quickly along with the capability of generating graphs on the fly and responding to queries through a normal GUI, freeing up the frontline staff to build productive relationships with callers and create monetizable customer life cycles, rather than spend their time struggling with suboptimal responses.

As the world continues to tackle Covid-19, we see more opportunities arise for re-thinking long-standing operations and business models.

For more details contact us at founders@volante.asia