Omnichannel Architectural Decoupling

Abstract

It is clear that omnichannel architecture is playing a large part in the enterprise IT strategy dealing with customer engagement. The number of channels available to consumers through social networks, chat systems and other new medium approaches is growing rapidly.

With these ever-increasing methods and channels of communication, omnichannel architectures have to be adaptive without effecting a constant stream of updates on how the business intelligence and workforce interactions are modelled for routing.

Overview

Studies show that 75% of retailers consider omnichannel essential to their business strategy[6] and 42% of enterprise marketing budgets are spent on omnichannel initiatives.[2]

It is no surprise that enterprise software architects the world over are engaged in digital transformation initiatives across their businesses. However, these architects are facing a vast number of solutions, vendors and channels, all with differing definitions and features.

This paper proposes an approach to building adaptive architectures that supports preservation of the core business intelligence while allowing for the flux of channel evolution.

Defining Omnichannel

Certainly, there are a confusing number of definitions and aspects of the term "Omnichannel". A simple search[4] of Google provides over 20 different vendor definitions of "Omnichannel", varying from simple two line statements to full papers. The industry does not appear to have reached a consensus on this topic, but there are some common aspects that are frequently used.

All vendors agree that omnichannel is not simply multi-channel, but it **does** represent a series of channels. Generally, channels include voice, web chat, SMS with some experts insisting that video, social media, consumer chat and external communication be included.

A key requirement of some descriptions is the ability to "escalate" between channels and pass context. For example, a web visitor who starts interacting via live chat can transition to a voice or video conversation with an agent. This functionality isn't a consistent expectation and introduces complexity into agent assignment and handling.

Other omnichannel criteria include the ability to route customer interactions to knowledge workers based on a set of rules or inputs. In this case, an enterprise must model its own company workforce and the strategy to be used when dealing with customer engagement. Many definitions include this capability as an integrated part of the solution, tied to the channels as with a traditional contact centre.

Finally, most architectures include the extraction of data sets to gain insights on how customer interactions are functioning within the enterprise. Sometimes simply boiled down to NPS or CSAT, these key performance indicators are used as the feedback loop for improved routing.

Multi-Channel - Multiple communication channels from traditional voice and chat to social, SMS, and video.

Escalation - Moving a customer interaction between channels to better suit the purpose of the conversation.

Routing - Defining how customer interactions will be prioritised and assigned to knowledge workers based on enterprise strategy.

Statistics - Collecting data around how the customer interactions are functioning - driving improvements in routing.

Ongoing Channel Evolution

The number and type of communication channels are constantly changing. Over 51% of companies are using eight or more channels with their customers.[1] However, the number of channels available to consumers is growing every year at a rapid rate.

Moreover, as Millennials and Generation Z enter the consumer base, the percentage of users expecting to use every new channel as it becomes available to them may grow exponentially.

Based on this ever-widening stream of new channels, the software and systems architecture for omnichannel must be designed with this expectation of change.

However, while the breadth of channels is growing at a frantic pace, large enterprise workforce updates often lag behind due to roll-out complexity, training and compliance assurance. The rate of change in enterprise software systems and practices ranges from 6 months to multiple years.

How can enterprise architects design systems that deal with this discrepancy between the rate of change of these two key aspects of omnichannel implementation?

51%

Over 51% of companies use eight or more channels to engage their customers[1]

25

More than 25 significant social and communications networks were added in 2018[5]

202 mil

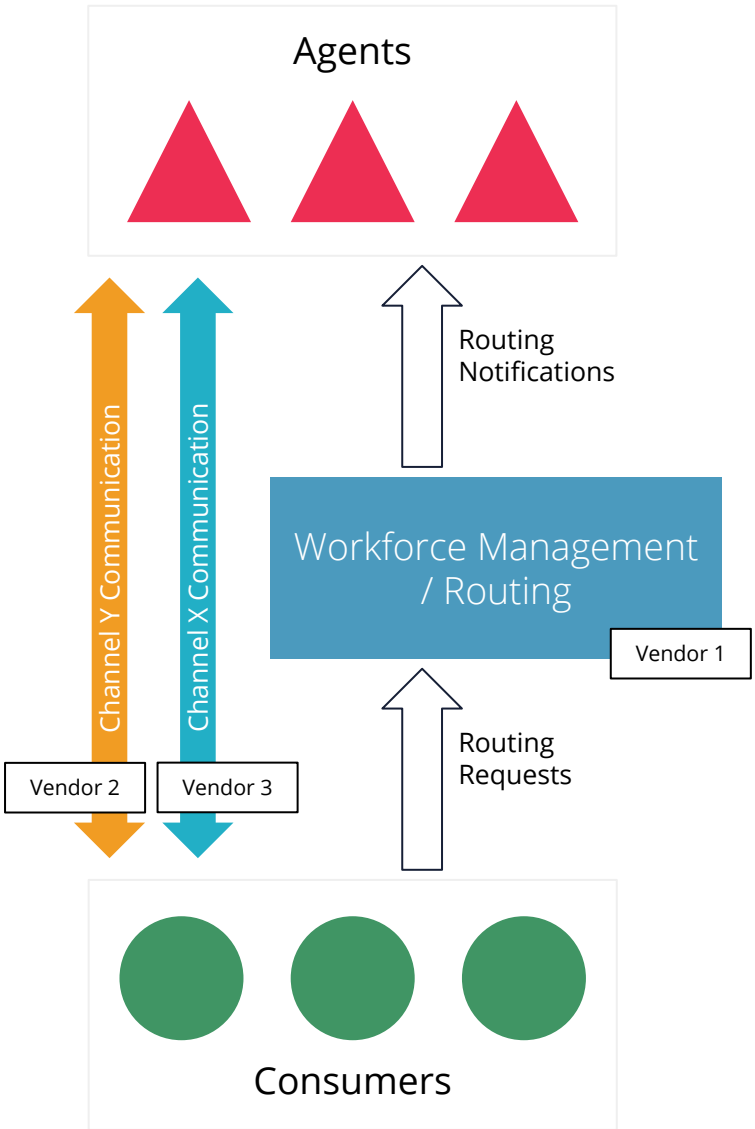
Social media users grew by 202 million globally between April 2018 and April 2019[6]

75%

Studies show that 75% of retailers consider omnichannel essential[6]

Decoupling for Change Resilience

Given the research here, architecturally separating the concerns of consumer channels and business modelling would provide a level of adaptability. In practice, this approach means stepping away from the historic roots of contact centre, where channels and routing are intrinsically linked. Instead, the provision of routing is separated out from the provision of channels.



To achieve this separation, the omnichannel architecture views the routing provider or vendor as an independent entity to the channel provider. While in many cases these vendors may be one and the same for specific channels, this definition supports two very important aspects of the design.

In this approach, each new channel (or collection of channels) can be provided by a separate vendor if required. As new channels arrive, being dependent on a single vendor to provide support limits the ability to react quickly to consumer demands. Given the rate of change in channels and expectations, it is important to be able to use either the most nimble or the most closely tied vendor for any given channel.

Separating routing and channels also allows the business to be modelled directly within the workforce management system. The rate of change in this system is expected to be slower and more controlled as enterprise policy dictates. This allows for the business modelling of the appropriate agent selection to be expanded across the business to those not traditionally associated with contact center operations. This data modelling and routing rule definition is the single most valuable aspect of any omnichannel implementation.

The additional requirement this puts on vendors is a level of commonality or pluggability across their channel and workforce management interactions. This is an advantage that many vendors are already embracing.

Conclusion

Software and systems architecture is always complicated. Omnichannel does not make it easier by lacking a single, consistent definition. There is consensus, however, that a rapidly changing consumer world is interacting with a slower-paced enterprise world.

The approach offered in this paper is presented for consideration to all enterprise architects as they develop their specific strategies for omnichannel implementation. At this time there is no single “fit all” method – but commonalities in design can be applied to adapt to ongoing rapid change.

References

[1] Omni-channel customer care: how to deliver context-driven experiences. Aberdeen Group Inc. https://lmistatic.blob.core.windows.net/document-library/boldchat/pdf/en/omni-channel-customer-care.pdf

[2] By the numbers: omni-channel marketing in retail. https://iterable.com/blog/omni-channel-marketing-retail-infographic/

[3] Digital 2019 Q2 Global Digital Statshot https://www.slideshare.net/DataReportal/digital-2019-q2-global-digital-statshot-april-2019-v02

[4] Omni Channel Definitions Search: https://www.google.com/search?q=what+is+omnichannel

[5] Top 10 Social Media Trends: https://www.quicksprout.com/social-media-trends/

[6] Five insights into the omnichannel landscape. eTail West and WBR Digital. https://etailwest.wbresearch.com/downloads/five-insights-into-the-omnichannel-landscape