How virtual assistants can cut OPEX for telcos

By Sachin Dutta

Much like we're seeing with AI now, emerging technologies seem to follow a predictable cycle: wonderful promises of endless new possibilities coupled with a lack of business cases that proves a given technology is mature, ROI is assured, and implementation strategies are clear.

There are two choices: either wait for the dust to settle and learn from others' mistakes before moving in; or jump in, be an innovator, do POCs, and take the lead. Both strategies have pros and cons.

A simpler strategy is to start with a use case where technology has reached a sufficient degree of maturity, business benefits are evident, and ROI is assured.

For AI, one such clear use case is Virtual Assistants.

AI in customer services makes sense

Globally, telcos continue to spend huge amounts of OPEX. It's not surprising that half of the world's operators set bringing down the cost of current operations as a target for 2018, with 20 percent making it their top priority.

As customer services account for 7 percent of telcos' total OPEX, there's considerable room for AI to cut the OPEX incurred by telcos from customer services and, at the same time, make customers more engaged and satisfied.

However, do efficiency improvements from virtual assistants come at the expense of people? To answer that we need to look at AI-based Chatbots as a solution to augment agents rather than as a replacement for agents. These solutions free up agents from repetitive tasks like understanding

customer queries and looking at different systems to provide customers with updates. They allow agents to develop more meaningful relationships with customers based on empathy and truly understanding what customers need. In turn, organizations can develop deeper bonds with customers and improve organizational NPS.

Advantages of virtual assistants in customer services

Advances in NLP (natural language processing) and neural network technology have facilitated the rise of virtual assistants and chatbots in daily life.

In call centers, the shift from manual agents to self-services for customers is gathering momentum. Calls to direct agents are expected to account for only 47 percent of calls in 2019, down from the current figure of 64 percent. By 2020, it's predicted that 25 percent of all B2C first-level engagements will be handled by virtual assistants.

Now that voice recognition technology can more easily differentiate between different dialects and languages, the advantages of virtual assistants are becoming more evident. They're always available and they eliminate waiting times. Unlike real agents, virtual assistants don't have to log on to different systems, query information, and then inform the customer. They can call different enterprise APIs

directly to provide information updates to customers in real time.

If we look at current self-service channels like IVR, it's become much too frustrating for customers to traverse complex IVR nodes to reach the final node to complete a given query.

Virtual assistants can complete customer requests based on a single voice command. Multi-round dialogue engines can respond to multiple queries to greatly increase response time and customer satisfaction.

Going forward, virtual assistants can offer much more value when the whole AI ecosystem improves. Multiple AI systems will be able to interact with each other, creating a mesh and a larger AI system that's capable of handling more complex customer engagements.

Huawei solutions for AI based virtual assistants

Huawei's AI strategy and product portfolio is helping Huawei to set the pace in various industries with a series of powerful products and solutions. In customer services, Huawei is exploring how AI can help minimize costs, make customer service operations more efficient, and increase customer satisfaction.

In Huawei's solution when a call is received by the system, ASR (Automatic

Speech Recognition) and TTS (Text to speech) technologies provide speech recognition and speech synthesis capabilities. The customer's voice query is transferred to the bot, the bot understands the customer's intent, and engages the customer in dialogue. If the bot is unable to understand what the customer says, it can seek help from a human agent.

The Huawei solution offers three major advantages:

- Huawei's strong in-house AI capabilities include different NLP models, a very strong contextual intent management system for dialogue flow, sequence recognition models, and online error correction.

- Multiple open APIs can connect to existing billing systems, BSS systems, and all other enterprise applications.

- Multiple OOTB templates accelerate rollout and meet the requirements of telco-based call centers.

Huawei launched the solution in 2018. Since its inception, it has achieved 90-percent FCR (First Call Resolution) and a satisfaction level of 88 percent, which we're confident will continue to rise. Going forward, we're planning to expand AI to cover all our customer service operations, which will further boost experience by making customer interactions more meaningful and insightful. ▪