Tech
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BUSINESS PROCESS SERVICES

Tech Mahindra BPS' Approach to CX Process Automation

Currently, the level of automation in the front-office is lower than it is for middle and back-office processes, with reasons including the lower cost of handling customer-facing processes, established offshore models for labor arbitrage, and lack of client interest. However, the upside of this relatively slow uptake is that automation can now be applied to multiple areas of CX, including:

- RPA on manual tasks
- Workflow automation
- Knowledge management bots
- Next-best-action tools and guided scripts
- Cognitive virtual assistant supporting live agents

Automation can be applied to a variety of processes, from contact center back-office work to live customer interactions; from traditional calls and emails to chats and social media; and in the internal processes of customer service operations in recruitment, training, coaching, performance monitoring, and compliance. Here I look at how Tech Mahindra's Business Process Services (BPS) division is approaching the automation of CX processes.

Traditional RPA

For most organizations, there are still a lot of opportunities in their legacy applications to bring RPA and point solutions to remove bottlenecks, eliminate manual errors, and reduce processing time. Tech Mahindra is addressing these needs with a dedicated automation practice. The practice consists of a ~90-person RPA team, with another 70 resources involved in platform development, sharing common skills such as .Net, Java, Python, and machine learning.

Tech Mahindra has developed a proprietary automation framework called UNO (Unified NexGen Operations). UNO has two versions: UNO-P, which partners with the big automation OEMs (Blue Prism, UiPath, Automation Anywhere), and UNO-R, the in-house bots and automation models for unified desktop and front office automation. Typical implementations for back-office robots include exception handling, re-try of failed requests, transaction logs, audit trails, and bot monitoring and control. UNO-R's key features include 360-degree customer view, auto tracking, auto sign-in, and assisted automation during live agent interactions. Across both versions, Tech Mahindra has approximately 60 implementations.

Intelligent Automation

While two to three years ago, Tech Mahindra's efforts focused on automation of highly repetitive manual processes, current developments are moving to intelligent automation with ML algorithms such as OCR, orchestration, and automation of running the bots. One area where the company invested in digitalizing the experience through automation is agent training: it converted the training process from trainer-led to an automated platform.

With a proprietary simulation tool, X-PERIO, Tech Mahindra's BPS division implemented the new agent training process for a U.K. telecom client with ~5k CX employees. The provider lowered the training time from 8-10 weeks by 40%, delivering £350k in annual savings. The training throughput increased from ~82% to ~95%, while automated scoring eliminated the trainer's qualitative assessment of agents' floor readiness. In addition, 92% of the learners rated the content highly, and the customer NPS increased by 26 points. The company also uses the data in agent gamification.

Tech Mahindra BPS created bots to tackle frauds – e.g. in the telecom environment, where promotions with new flagship phones result in increased fraud attempts. A fully automated process replaces the previously manual checks, with robots taking data from the registration, CRM, and payment systems and verifying the number of account payments and usage in the last two weeks against a 'hot names' list of known fraudulent addresses and numbers. The algorithms then compare against the daily sales and stop those at risk, scheduling and assigning a call back to a live person. As a result, the initial fraud team of 38 members was reduced to 14 analysts who work on optimizing the bot for future fraud trends.

Similarly, in the phone selling process for telecoms, Tech Mahindra BPS replaced the manual quality assurance process with automated audits which matched the requested and offered phone versus customer eligibility. The automated audits cover 100% of daily sales and have no delay, as it operates 24/7. The company has deployments for telecoms clients in the U.K., Australian, and Philippines markets.

Evolution to cognitive services

Conversational bots still need time to reach true maturity, but many of the current applications use contextual bots to address specific business needs. Tech Mahindra has developed a platform, called GENIE, which offers scenario-based learning, real-time feedback, and independent learning where the bot converses with multiple trainees at the same time. For example, traditional mock calls performed before a class of new hires are replaced by the individual conversations with a bot. GENIE asks and answers questions and can be configured on different levels of conversational complexity. It also scores the trainee's performance on process knowledge such as customer identification steps and productivity (how long the trainee takes to answer).

Tech Mahindra is also looking to replicate its automation algorithms for other industries – one of the benefits of automation is that it allows relatively easy replication of codes and scripts with few customizations required to use it in different areas and industries. Tech Mahindra is now piloting its fraud prevention automation for a financial institution for credit card issuing and expanding the training bot across its entire agent population.

Note: The original copy of the paper can be accessed on
https://research.nelson-hall.com/blogs-webcasts/nelsonhall-blog/?avpage-views=blog&type=post&post_id=842