BCAP NewsClips

May 16, 2016

Over the past year, some workers at AT&T Inc. have begun to automate the boring, repetitive parts of their jobs by using software bots.

AT&T is just one of many companies beginning to use software bots to free workers from mundane tasks such as entering information into legacy systems. Sales people at AT&T, for example, now have a bot that automatically pulls sales leads from multiple systems, freeing up hours to spend instead with customers. The company has also automated some of the manual, time-consuming data entry into legacy systems, shaving days off the process for enterprise customers to order certain types of services.

"We are using bots in a pretty big way," said Candy Conway, vice president of global operations in AT&T's global customer service organization. The company began looking at bots in 2015 and is now using 200 types of bots across the company. During the first quarter of 2016, AT&T built more bots than it did in all of 2015, she said.

These software bots are part of an industry called robotic process automation. The name is misleading because no physical robots are involved. Instead, these are software agents that reside either on a server or in the cloud. Some refer to the market as IT robotic automation or autonomics. They all refer to the implementation of computer software that mimics human actions to complete a rules-based task.

The global IT robotic process automation market is expected to jump to $4.98 billion by 2020 from $183 million in 2013, a compound annual growth rate of 60.5% according to Transparency Market Research. Companies that sell bots include Blue Prism, arago AG and Automation Anywhere Inc.

Some consider robotic process automation to be a kind of next-generation automation. The difference is that it's not designed to be a business application but to be a proxy for a human worker to operate business applications, according to a professional association called the Institute for Robotic Process Automation. Most companies are just now implementing the lower-end capabilities of robotic process automation. That's the ability to map out repeatable business processes and to assign a software bot to handle that task, just as a human would.

At the higher end of the continuum are bots that use artificial intelligence or cognitive computing to examine unstructured data. One example of this is the work International Business Machine Corp. has done with Watson in the healthcare space.

"We're already looking at the cognitive space or artificial intelligence space so we're prepared for the next generation of bot," said Ms. Conway.

The idea of using software bots came from AT&T Foundry, the company's so-called innovation center. The bots are cloud-based and accessible to employees who may want to automate cut and paste manual tasks that don't require a lot of thinking skills. Workers can see which bots have already been created or they can take a short class and learn how to make their own.

AT&T is using the technology as a kind of force multiplier. For example, four finance people at AT&T spent much of their time pulling information from various systems to look

at the business case for various information technology projects within the company. "They all have college degrees and they were doing all these manual, menial tasks," Candy Conway, vice president of global operations in AT&T's global customer service organization. Now those employees can actually spend time analyzing the business case for those services and work much faster, she said.

Software bots also can improve the way a company's legacy systems work with its more modern cloud-based systems. AT&T, for example, is trying to automate the ordering and provisioning of some of its more complex enterprise services. The idea is to let customers order services on demand, much like they might order server capacity at Amazon Web Services.

One challenge for AT&T is that it can't get rid of its existing legacy ordering and provisioning systems because so much money has been invested in the systems and they still work. For example, when enterprise customers order Ethernet-based services, they fill out a requirements document. The data entry consists of more than 50 fields, and it must be manually entered into the ordering system, a process that could take several days. Using a bot, AT&T was able to reduce that time to minutes.

"Using these bots for manual activity, we can improve cycle time for customers and get service to them faster," said Ms. Conway.

Aside from AT&T, many of the early adopters are outsourcing and managed IT service providers that may have previously relied on lower offshore salaries for savings. That's because labor and other costs have increased for offshore outsourcers but companies want to see continual savings.

"Labor arbitrage ran out of steam," said Frank Casale, chairman emeritus of the Outsourcing Institute, who co-founded the Institute for Robotic Process Automation. Mr. Casale is now president of arago US Inc., a firm that develops artificial intelligence bots. A software bot costs about one-third the price of an offshore full-time employee, he added.

Global IT services company Atos SE, based in France, has been using robotic process automation to automate IT tasks in customer legacy infrastructure, which had previously been done by people. Those tasks include ticket management, incident management and server load balancing. Over the next five years, about 30% to 50% of the repetitive tasks done by humans in certain parts of Atos' business will likely be automated, said Michel-Alain Proch, senior executive vice president and CEO of North American operations.

"We're not suggesting that a robot will replace a single full-time employee," said Chip Wagner, CEO of global outsourcing advisory firm Alsbridge, Inc. Instead, they might do 40% to 50% of the work of that employee. "We'll redeploy those workers and we now have the opportunity to take on huge amounts of additional volume without hiring an additional person," he said.

Mr. Wagner said one of his firm's clients, a construction engineering business, needed to produce 500 invoices each month to send to customers. Each invoice requires about 150 pages of supporting data from a disparate set of more than a dozen systems. Each of those invoices took five hours to create but the software bots reduced it to just 11 minutes. "What that meant was $1.5 million of labor was displaced by $150,000 of licenses for robots," said Mr. Wagner.

One benefit is that data entered into systems by software bots is comprehensive and consistent, said Sam Gross, chief technology officer of CompuCom Systems Inc., a

provider of IT managed services and infrastructure services. Today, companies are trying to take advantage of Big Data and predictive analytics but are finding inconsistent data in their systems to be a challenge. "Machine-generated data is not challenged in the same way," he said.

As AT&T changes its business and certain pieces become automated, the company said it is working with employees to help them build skills in higher-value areas. The company currently has an extensive training program underway.

Ms. Conway said that employees have been enthusiastic about the bots. "These employees are so engaged in writing these bots because they know it's not really a part of their job that they really want to do," she said. – *Wall Street Journal*