

SAP Procurement:
Enterprise Assistants and
the way to Procurement 4.0

CAI and RPA Bots for SAP



Innovative Enterprise Assistants (EA) mean central access points for SAP-based procurement, making information from various applications available and automating routine tasks.

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The importance of intelligent virtual assistants is increasing in the enterprise. Experts see them as a key element of the future of work due to the huge competitive advantages they grant. Gartner expects 25 percent of digital workers to use a virtual assistant as part of their daily routine by 2021. In 2019, only two percent did.

Automate simple tasks

There are currently no enterprise-grade virtual assistants comparable to Amazon's Alexa or Apple's Siri. The combination of two types of bots is key here: specialised Conversational Artificial Intelligence (CAI) bots and Robotic Process Automation (RPA) bots. Both bot types are being used by enterprise customers to automate simple, repetitive tasks and requests, but their functionality differs. CAI serves as a simplified user interface, offering centralised access to various applications while allowing users to communicate in natural language. CAI bots are not



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only used as FAQ bots with simple question-and-answer functions, but also as information bots. For example, procurers can use them to find out the status of their orders. RPA bots are primarily used to automate simple or repetitive work.

They partially or completely automate tasks that human users had to do manually before. Examples include master data uploads in SAP Ariba, posting invoices from external applications like Excel or Outlook, and serving as alternative inter-

faces to external systems. Leveraging intelligent bots grants numerous competitive advantages, primarily significant time savings due to higher processing speed. Furthermore, bots can be used around the clock and increase data and process quality because they are not prone to making errors or forgetting tasks and steps like their human counterparts. They are flexibly scalable and can be copied if necessary. Moreover, employees can focus on tasks that really matter and add value to the enterprise, which not only increases motivation and morale but also means financial benefits for the company.

Potential for procurement processes

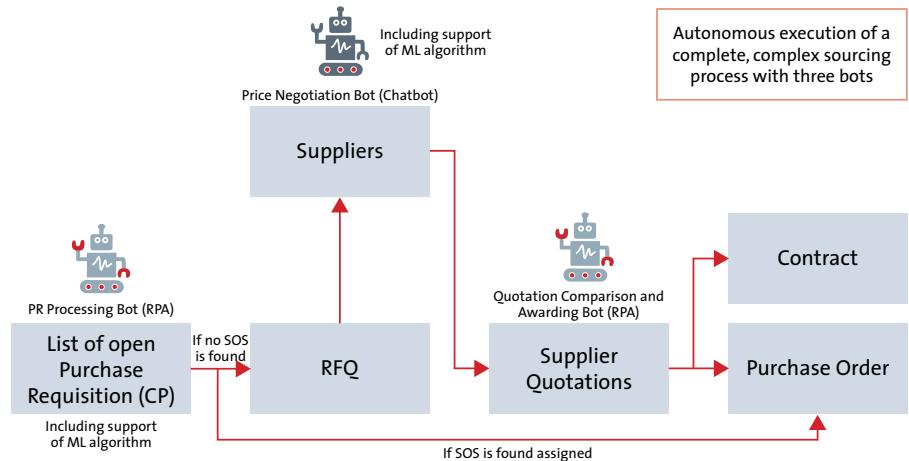
SAP-based procurement already utilises simpler types of bots for repetitive tasks like the search for suppliers or approval processes. In the future, bots will have a high appeal on the transactional and digital side of procurement processes and will gain exponential growth with the advent of cognitive and machine learning tools. If RPA and CAI bots are combined to an Enterprise Assistant, their functionality spans the entire procurement process. The sourcing process serves as an example.

PR Processing bot (RPA): This bot processes and checks incoming purchase requisitions for material group, accounting, and supplier. If no suitable supplier can be found, the bot automatically creates tenders and sends them to select suppliers.

Negotiation bot (CAI): The negotiation bot is a chatbot that guides suppliers through the tender preparation. The negotiating component stems from the implementation of different negotiation strategies.

Awarding bot (RPA): This bot compares all incoming offers, allocates award based on previously defined rules, and creates a follow-up document.

Combined to an Enterprise Assistant (EA), these three bots can completely automate the entire sourcing process. Every bot is responsible for only one process step, with other bots covering subsequent tasks. Because the boundaries between the three bots are fluid, continuous, seamless automation is guaranteed. Companies can use different machine learning (ML) algorithms as additional 'fuel' for the bots. For example, if the PR Processing bot has to find the material group in texts, it calls up a suitable algorithm to tackle the challenge. The algorithm suggests a material group based on historical purchase requisitions. Because ML algo-



Automation conquers complexity: The complexity that comes with modern ERP systems like SAP Business Suite 7 and S/4 is unavoidable, but AI, machine learning and Robotic Process Automation make it manageable – bots can be a big help!

rithms learn with every new data set – in this case, with every new purchase requisition – the whole process only becomes more effective over time.

Apsolut is an expert in the development of Enterprise Assistants (EA) specifically for SAP-based procurement and has a comprehensive use case library for RPA and CAI bots at its disposal. Even though all use cases can be implemented with most common technology offers, it is recommendable for customers to use SAP products SAP CAI and SAP RPA due to the native integration in existing systems.

Leveraging the two offers, Apsolut has already realized solutions for many typical standard use cases, for example master data uploads. Small preconfigured solution building blocks that can be directly integrated in SAP procurement environments are available to SAP customers. However, if enterprises want to achieve greater efficiency by using bots to simplify even complex core processes, customer-specific Enterprise Assistants have to be developed. This requires structured implementation projects which Apsolut supports with comprehensive consulting services.

Project kick-off: Analysing processes

RPA, CAI and AI/ML implementation projects do not focus on technology, but rather on well-defined procurement processes. Consequently, analysing processes should always be the first step. The goal is to uncover optimisation potential in processes as well as ideal starting points for the use of bots. The requirements for individual bots can be recorded in a user story and used to build backlog. At the same time, alternative solutions

are evaluated: A bot should not be implemented only to have implemented a bot.

For quick scaling, an agile approach, for example Scrum, should be used to create the bots. Experience shows that bots can be developed relatively quickly, making them ideal development objects in sprints. CAI bots should have one consistent personality, meaning that they should communicate in the same way. Companies should therefore consider which language, reactions, and behavioural patterns they wish to use. This adds to the user impression of one seamless virtual assistant.

The next step is the design and development phase. To add business value, a certain number of bots have to be combined, harmonised, and seamlessly interconnected. Depending on user requirements, companies can leverage the pre-configured building blocks in Apsolut's use case library, but they usually have to be adapted to customer specifications. Some cases require the development of completely new bots.

RPA and CAI bots automate simple, repetitive routine tasks in SAP procurement securely, quickly, and without changing any existing applications. Combined to an innovative Enterprise Assistant, bots are a foundational building block for digital transformation in procurement, advancing Procurement 4.0 which is said to be essential to future enterprise success.

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