

Improving Sales Win Rates with Cognitive Modeling and Process Automation

Category name: Best Achievement in Technology Enabled Process Automation

Synopsis

Using Artificial Intelligence (AI), IBM has created a sales opportunity passing solution that has exponentially improved the process, resulting in \$32M in additional revenue over the first half of 2018.

Much of IBM's business is conducted through our wide network of Business Partners (BPs) who are highly invested in IBM's solutions. Historically, the responsibility of selecting a BP for a specific sales opportunity fell on the IBM seller, who often has limited knowledge about which BPs represent the best choice for a given opportunity, resulting in a delayed process and revenue impact.

IBM's Chief Analytics Office (CAO) partnered with IBM Research Ireland to create a solution that provides recommendations for BP selection. Called the Smarter Cognitive Opportunity Recommendation Engine (SCORE), this engine uses AI techniques that allow it to learn from sales data and operational feedback from IBM Sellers, BPs and clients to recommend the optimal BP to receive each lead.

Since SCORE was incorporated into the sales process, the results for the first half of 2018 have surpassed expectations:

- Financial: The percentage of IBM opportunities passed has increased from 13% in 2017 to 17% in 2018; SCORE has also improved the win rate on opportunities passed to BPs by 5pts
- Productivity: The number of days to pass opportunities have been reduced by 50% from 2017 to 2018

Strategic Objective and Scope

Project Scope

Opportunity passing has historically been a very manual process. Business rules were prescribed to determine which leads should be passed and notifications were then sent to the Opportunity Owners (OOs), who then had to select a BP for an opportunity. While many process improvements were implemented across the past decade attempting to increase the volume and speed of passing, none contributed to a sizable impact.

In early 2016, the CAO conducted a study proving that opportunities passed within 48 hours closed with a 10ppts higher win rate than those taking longer. Later that year, IBM tasked the Global Business Partner organization and the CAO to improve the opportunity passing process utilizing AI technology. With help from the IBM Sales Team, two main components of the opportunity passing process were identified to be the focus of the improvements: BP selection recommendation and automatic opportunity passing.

Solution

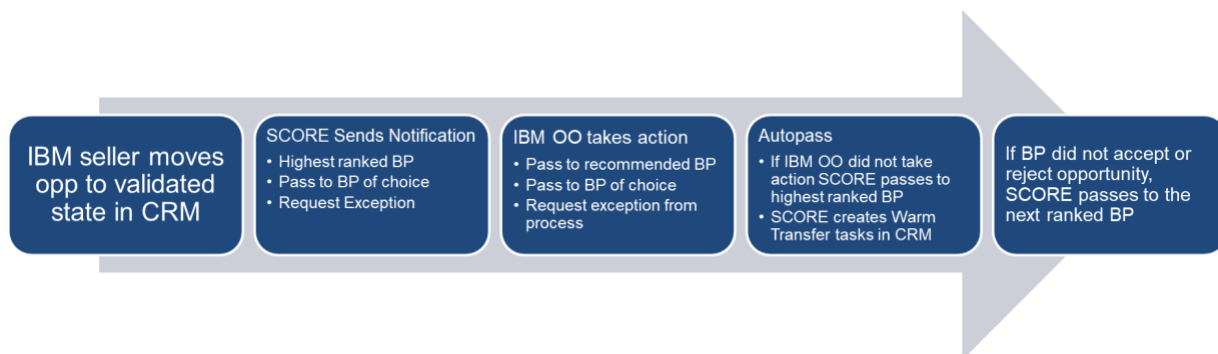
To allow for quick and effective development and implementation of the system, the previous opportunity passing system was retro-fitted with the new cognitive models. As a result, no additional development was needed to facilitate the lead passing – simply the development and integration of a new recommendation engine and a mechanism to automatically pass opportunities to BPs.

Recommendation Engine

Prior to SCORE, BP recommendations were based on a model that was limited in scope and based predominantly on business rules. Many in the IBM Sales Team lost trust in the engine, instead finding other ways to select BPs. To resolve these issues, we engaged the IBM Dublin Research Center to build an Elastic Search algorithm focused on the main characteristics of a successful BP: (1) Historical Performance; (2) Product Experience, (3) Customer Experience; (4) Industry Experience; (5) Deal Size; (6) Proximity to the Deal; and (7) Social Network of Sellers and BPs. This algorithm was then enhanced with a feature that incorporates feedback from sellers to continuously improve recommendations. The model is retrained weekly to account for the recent activities of BPs. A high-level overview of the model architecture can be found on slide 1 of the supporting materials included.

Automatic Opportunity Passing

Once the recommendations were considered trustworthy, a system to automatically pass the opportunities to BPs was installed. The notification and auto-pass process is as follows:



This process ensures opportunities are passed to BPs in a timely manner while allowing the operation to maintain control over the passing process. Keeping the seller in the loop also provides a mechanism to collect feedback on the recommendations and incorporate that into future versions of the model.

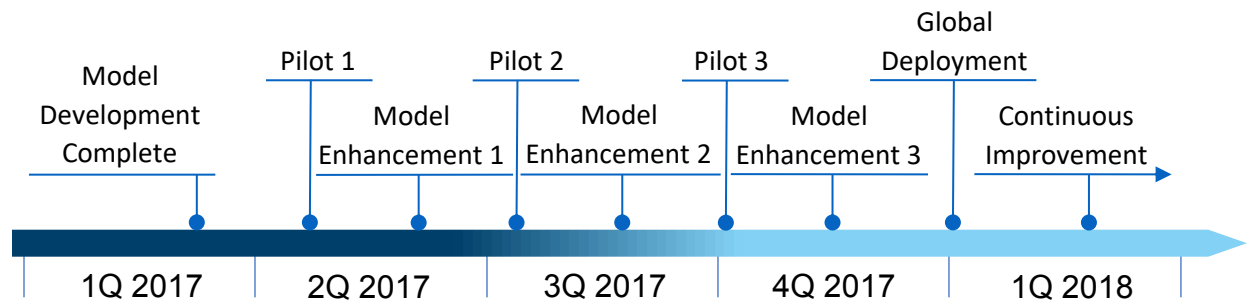
Implementation Process and Timeline

Process

The implementation process was a collaborative effort between the IBM Sales Team, the CAO, and the Global Business Partners organization. The project team was very meticulous in including all stakeholders such as the IBM Sales and BP Operations Teams in the model development to ensure that as much operational expertise as possible was included in the resulting recommendations. The timeline of the project began with a six-month model development cycle, nine months of pilots and model

refinement and a global deployment on January 2nd, 2018. We then continued to refine the model with additional data sources and operational feedback.

Deployment Timeline



Pilot 1 – Demo recommendations to operational SMEs to collect feedback on the model results

Model Enhancement 1 – Utilize initial feedback to adjust model function and variable weights

Pilot 2 – Increase the population of the sellers involved in feedback collection

Model Enhancement 2 – Additional iteration of model improvement based on feedback

Pilot 3 – Implement Auto-pass in a single geography and business unit

Model Enhancement 3 – Additional iteration of model improvement based on feedback

Organizational Transformation and Creative Tools

Because this was a cross-enterprise initiative, many steps were taken to accelerate transformation and mitigate the risk of sellers missing the notifications and opportunities being sent without their knowledge. (1) Lead Governance Teams were established for the launch of the system. These Lead Governance Teams are individuals in each geography who are familiar with the BP landscape and are in place to help sellers pass opportunities to the correct BPs. These teams were utilized to monitor the health of the opportunity passing ecosystem throughout the launch of SCORE. (2) Weekly checkpoints were held with all Lead Governance Teams and stakeholders to collect, discuss and incorporate feedback from around the globe for continuous improvement of the models. (3) Daily Hypercare notifications were prepared and sent to the Lead Governance Teams and executives to allow for more visibility around which leads were scheduled to be auto-passed that day. These Hypercare notifications included justification for the recommendations made in plain text to provide perspective to the seller. And finally, (4) an Opportunity Passing Executive Board was established to update executives from each geography and business unit on the current progress of the system and to address any concerns.

Business Results

Organizational Impact

SCORE's results over the past eight months demonstrate improved access to the BP ecosystem, positioning IBM to better tap into the full potential of BPs. Many changes have already been put into effect that would not have been possible under the previous infrastructure and new improvements are made continuously to the model and the overall process because of the cognitive system that is in place. A detailed description of the process transformation and improvement attributed to SCORE can be found on slide 2 of the supporting materials included.

Financial Impact

SCORE has made a significant business impact in the first half of 2018. The time to pass a sales opportunity to a BP was cut in half comparing 1H2017 to 1H2018. In addition, we noted a 4 ppt increase in the overall volume of passed opportunities and a 5ppt improvement in win rates for all leads passed to BPs. All of these business benefits have driven an incremental \$32M of Transactional revenue for IBM in the first half of 2018.