

IBM submission for Industry Use Cases – AI/ML in Telecommunications Industry

Title: *Transforming Telecom CSPs into Cognitive Enterprises through AI/ML and intelligent workflows*

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Abstract:

In this session, we will discuss Telecom industry-specific analytics and AI use cases. The use cases demonstrate that AI is pervasive in a Telco cognitive enterprise and spans the entire gamut of Business and Operations support systems, driving significant innovation for new business development and operational efficiency. Sample industry solutions in areas such as digital customer engagement, network transformation & agility and enterprise transformation built using AI/ML models will be presented together with data management required for such solutions. The session will conclude with real world examples of above solutions and future direction of how these models & associated solutions can be integrated with emerging technologies such as 5G, IoT and VR/AR. The focus will be on Telecommunications industry, but the work is relevant to other industries as well.

Details:

The Telecom industry has embraced AI but is facing challenges moving AI to the next level. In this presentation we will start off by sharing our experience in helping Telecommunication clients navigate those challenges and infuse AI into their operations, reaping significant benefits. Some of the key use cases are depicted below, we will explain these use cases and their associated AI/ML models, implementation methods, and measurable business benefits.

 <p>Cognitive Assistant: Customer & Employee Care ★ Create personalized and engaging experiences with digital assistants for consumers. Cognitive Care platform improves customer experience, reduces contact center OPEX and provides innovative self-serve capabilities</p>	 <p>Proactive Intelligent Care ★ Cognitive agent desktop with truly personalized care through Active Listening. Anticipates customer needs, predicts calls, call intent and provides personalized care proactively, thereby reducing calls, improving NPS, helping retention and up-sell</p>
 <p>Agent Assist ★ Enables agents to have knowledge at their fingertips via natural language conversation and cognitive knowledge searches through Watson Explorer, Discovery and Conversation tools. Helps troubleshoot device related issues in real time</p>	 <p>Cognitive Advertising Platform ★ Automated targeting platform for Marketers based on right triggers including location, weather, profile attributes and consumer behavior to improve conversions and provide better transparency</p>
 <p>Cognitive Procurement, Maestro ★ Optimizing Procurement function with Cognitive understanding of Suppliers, Spend, Products and Pricing. Provides visibility, spend and fragmentation across the entire value-chain</p>	 <p>Cognitive Network Operations ★ Generates efficiencies and optimization in Network Service Operation centers. Applies analytical and cognitive capability with predictive insights, robotic automation, Network chatbots (NOC agent assist) & predictive insights</p>
 <p>Cognitive Media Platform ★ Cognitive Media Platform brings power of AI enabling companies to create metadata for their content. This rich metadata supports a variety of use cases helping clients monetize their video and content investments</p>	 <p>Cognitive Field, Site Operations Advisor ★ Enables technicians to resolve field service requests using cognitive insights that elevate the expertise of the field force and drive operational efficiencies. Enables proactive and predictive monitoring, maintenance of sites and infrastructure</p>

★ Digital Customer Engagement ★ Network and Platform Agility ★ Enterprise Transformation

We will next take one of the use cases and do a deeper dive into Cognitive Network Operations and discuss how AI can be used for anomaly detection and automated problem resolution for Telco Networks in a closed loop fashion. We will finally conclude with future directions of this work and how it can be integrated with emerging technologies such as 5G, IoT and VR/AR to provide even more value to the CSPs.