

// 2025

SPARK BEYOND

AI for ‘Always Optimized’
Telecom Operations

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Score: 0.009 | Supports: 21%

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About us

Established in 2013 to accelerate AI-powered problem-solving.

Since then we have **delivered \$Bns in tangible ROI** for our customers **across 100s of use cases**.

Mission

Unlock AI-driven **'Always Optimized' KPIs** for any organization



Global Footprint

Presence across Asia, Europe and US with employees spread across **8 countries**



Industry Validated

100s of success stories across within **Fortune 500 companies globally**



Partner first DnA

Partner-first organisation with global reach with GSIs



Enterprise Ecosystem



Azure



aws



Google Cloud



ChatGPT



Claude



Gemini

Telecom Use Cases

Top-line and bottom-line impact generating

Marketing & Commercial strategy

Campaign effectiveness

Discover evolving insights on customer segments to improve marketing campaigns

Churn / Retention

Identify high risk churners and 'value reducers', i.e., those who will reduce their spend or usage

Product cross-sell & up-sell

Dynamic predictions of whether someone will purchase a category of telco offerings

Maximise LTV

Decouple localized drivers of loyalty & sales - send optimal offers to maximise returns on investment on customer engagement

Cost Improvement

Collections Management

Audit the claims at scale to optimise claims payout and reduce claims leakage

HR Analytics

Identify high risk employees of low performance

Ecosystem & Data Monetization

Credit Scoring

Utilise telco data for alternative credit risk scoring for financial services companies

Affiliate Marketing

Monetise telco data via identifying high propensity segments for clicks and purchases with retailers

Loyalty Programs

Maximise customer loyalty with augmented insights with partner data

Insurance

Activity data monetization for alternative medical underwriting



Our Technology

Generative AI doesn't understand **YOUR** business.

For KPI optimization, AI must leverage knowledge from operational data

Challenges of LLMs

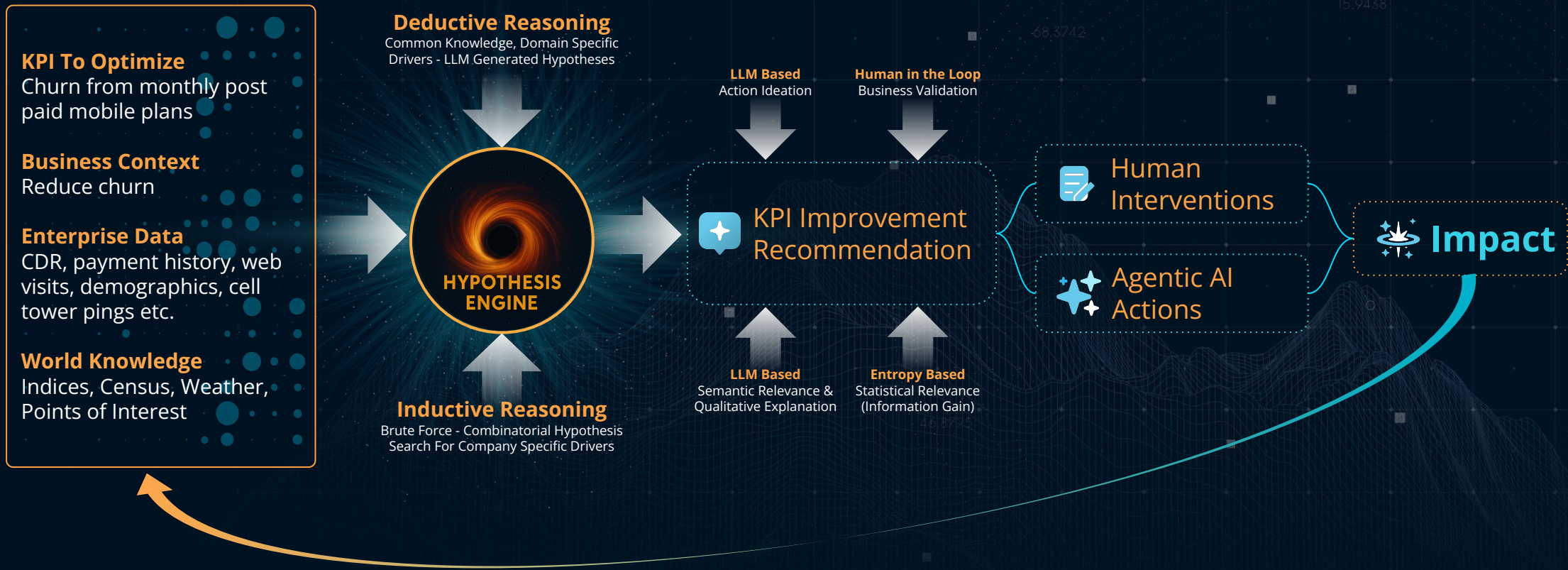
- Limited in understanding patterns hidden in complex operational data
- Unable to ground business reasoning in data.

Unlocking LLM-powered KPI-optimization for solution-builders

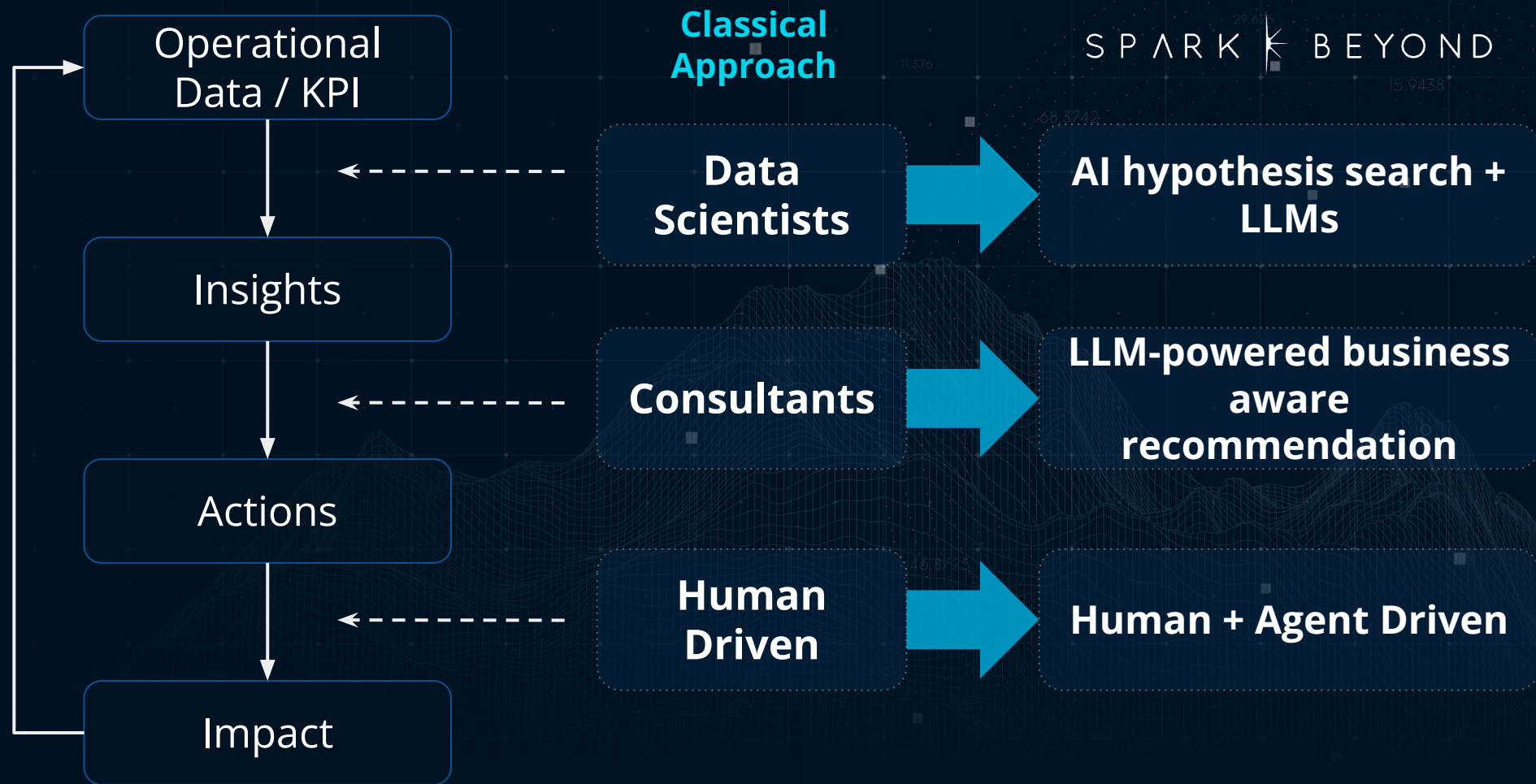


'Always Optimized' KPI Architecture

Continuous feedback loop creating impact from enterprise structured data



Making the paradigm shift to 'Always Optimized' KPI Optimization



AI CoE Platform

Accelerate Results - No Large Data Teams. No Consulting Roadshows.



Discover & Prototype in Weeks

Bypass long discovery cycles. We'll help you rapidly prototype AI solutions that uncover the hidden drivers impacting your KPIs.



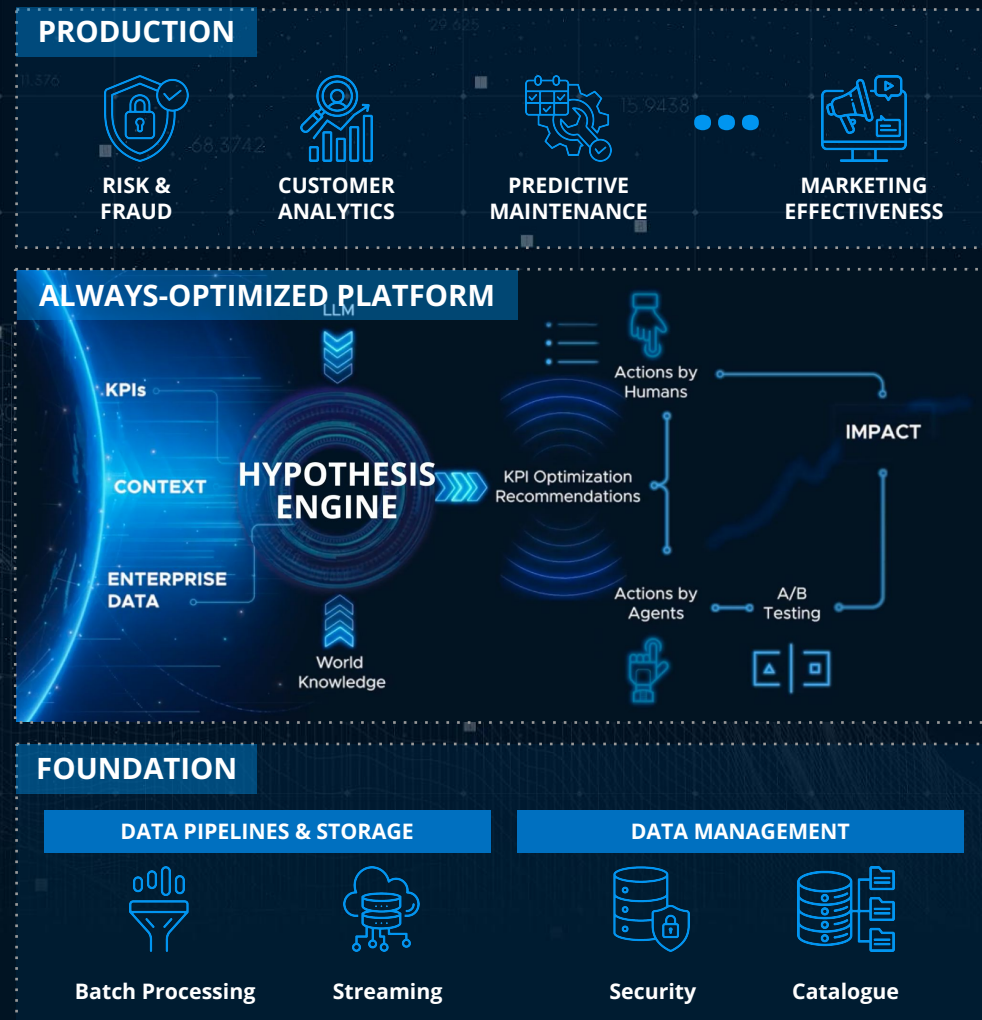
Prove ROI Before You Scale

Validate the P&L impact with a targeted pilot, delivering a concrete business case and tangible value from day one.



Scale to an "Always-Optimized" System

Empower a lean team to deploy and expand use cases, creating a continuous optimization loop for your business.



Why SparkBeyond for Your Modeling

Feature	Impact
Hypothesis Engine	Automatically discover and engineer new features from your operational and business data, surfacing hidden drivers of performance. Generate and test millions of hypotheses to identify true root causes and actionable levers for KPI improvement .
Explainable AI	All insights and recommendations are delivered in clear, natural language—enabling business and operations leaders to understand, trust, and act on AI-driven findings. This transparency is critical for adoption and compliance.
Open Integration	SparkBeyond is cloud-agnostic and integrates seamlessly with Azure, CRMs, ERPs, and LLMs, ensuring flexibility, scalability, and alignment with your tech ecosystem.
Battle Tested @ Scale	The platform is proven across 100+ Fortune 500 deployments , with a track record of rapid time-to-value and measurable ROI.
Unified ML & Gen AI	SparkBeyond is a unique combination of advanced machine learning and LLM-enhanced agent workflows, providing a single foundation for a full spectrum of AI use cases.
Rapid Deployment	Designed for fast implementation and operation in complex, distributed data environments—delivering actionable insights without requiring lengthy data warehouse projects.

Existing approaches to link LLMs to enterprise data are **insufficient to address structured data needs**

Overview of current approaches (not-exhaustive)

Pre-Training & Fine Tuning

What is it?

Pre-training a model on a selected corpus applicable to your enterprise domain
Fine-tuning LLMs to answer domain specific questions

Limitations

- Expensive to re-train
- Does not address structured data sources
- Fine-tuning is better suited to teaching specialized tasks or styles and less reliable for factual recall.

Retrieval Augmented Generation

What is it?

Retrieve data from outside a foundation model and augment your prompts by adding the relevant retrieved data in context

Limitations

- Structured data requires a query for RAG based solution to retrieve
- Retrieved query needs to be LLM compatible
- RAG is largely limited to searchable documents

Code Interpretation & Generation

What is it?

LLM task to translate a query spoken in natural language into SQL/code automatically

Limitations

- User needs to define the intent and insights
- Path to using the insight in an LLM use case is several steps away for a user

In-Context Learning

What is it?

One/few-shot learning example to gain new knowledge (e.g. feeding an existing ppt report about a quantitative analysis)

Limitations

- Context needs to be textual
- Context document can get easily outdated



Credentials

Always-On Revenue Leakage in Prepaid-to-Postpaid Migration

SPARK BEYOND

**Saved \$4M
annually by
cutting
defaulters in
prepaid-to-post
paid
conversions**

CHALLENGE

- A major Southeast Asian telecom provider acquired 30% of its postpaid users from prepaid conversions
- However, the segment showed only a 5% conversion rate and a 30% default rate, resulting in over **\$6.5M in annual revenue leakage**
- The goal was to replace basic rule-based lead filtering with dynamic models using richer data

APPROACH

- Developed a framework to select leads based on each customer's incremental value
- Integrated Telco data (**call records, billing, CRM, top-up**) with external sources
- Inferred user mobility patterns via cell tower proximity to home, work, and frequented areas

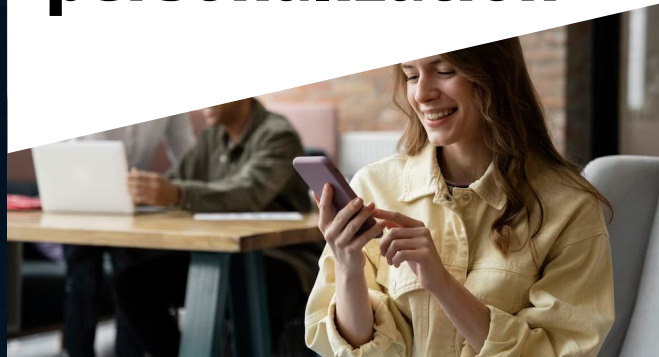
RESULTS

- Captured 60% of likely defaulters, saving **~\$4M annually**
- Reduced lead volume 10x (lowering costs) while improving **conversion by 2%, driving ~0.3%** top-line growth

Continuous Improvement of SMS Campaign Performance

SPARK  BEYOND

**Boosted SMS
response rate
by 270% with
data-driven
targeting and
personalization**



CHALLENGE

- One of Thailand's largest Telco operators with **over 30 million customers**
- Challenged to **increase SMS campaign performance** in terms of conversion rate and total sales
- The goal was to **identify the right target audience** with the most effective message and timing

APPROACH

- Connect the dots across multiple datasets including profiles, call detail records, payment history, loyalty programs, usage patterns (voice, SMS, data), browsing behaviors, and location data
- Tested hundreds of millions of hypotheses to identify features linked to conversion and high-value customers
- Extracted target audiences through **micro-segmentation** and **propensity models**

RESULTS

- **Boosted campaign response rate by 270%**, driving customer satisfaction and increasing sales by **5.5M THB**
- Improved customer understanding using explainable features and **ongoing profiling**

Reducing Monthly Broadband & Pay TV Subscription Churn

SPARK  BEYOND

**Reduced churn
with \$100M+
run-rate impact
through
microsegment
targeting**



CHALLENGE

- Leading North American pay TV and broadband provider
- Suffering from **extremely high voluntary churn** across products
- Existing models failed to identify enough high-risk customers
- Goal: Improve retention by accurately identifying churn-prone users and adapt over time

APPROACH

- Connected profile, payment, loyalty, usage, and browsing data across services, including viewing history and location
- Continuously tested millions of hypotheses to uncover churn drivers
- Extracted high-risk microsegments as precise campaign targets

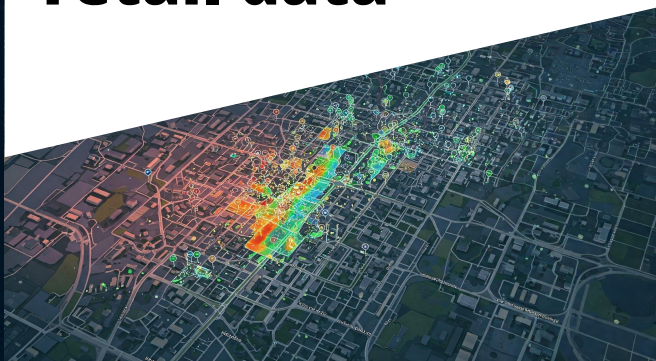
RESULTS

- Identified churn segments with **5–10x higher propensity** than the base rate
- Pinpointed **20% of churners with actionable reasons**, enabling tailored interventions
- Achieved **\$100M+ annual run-rate** impact through improved targeting

Behaviour Informed Store Location Optimization

SPARK  BEYOND

Optimized store locations using behavioral insights from telecom and retail data



CHALLENGE

- One of Thailand's largest telcos supporting retail operations faced location strategy uncertainty due to **generational and COVID-driven behavioral shifts**
- The goal was to find **strategic sites for new stores** and **prioritize existing ones** based on performance

APPROACH

- Connected telco footfall, segmentation, retailer data, and OSM to uncover location performance drivers
- Analyzed population foot traffic and linked segments to high-performing stores
- Forecasted sales at potential new sites using explainable factors for decision support

RESULTS

- Built **highly accurate predictive models** for store performance
- Delivered **explainable insights** into location characteristics based on evolving customer behaviour
- Enabled smarter prioritization and **data-driven expansion planning**

Smart Meter Installation Errors

SPARK  BEYOND

Understanding installation errors by exploiting logging and geographic data



CHALLENGE

- UK provider of smart city infrastructure was experience different meter installation error rates depending on the network infrastructure being used.
- The goal was to understand what drove this increase in failure and to **predict where installations would require greater time** to complete successfully.

RESULTS

- Built **highly accurate predictive models** for predicting errors
- Delivered **explainable insights** into errors based on geographic data
- Enabled **direct feedback to client suppliers** where hardware issues were identified

APPROACH

- Connected device log, antenna and geographic data to uncover diverse performance drivers
- Model real world impact of overlapping antenna coverage in build up areas.
- Predicted likelihood of installation and created real time monitoring dashboard.

Adaptive Stickiness Improvement of Mobile App Engagement

SPARK  BEYOND

Reduced leakage by 7% through targeted engagement experiments and app optimization

CHALLENGE

- Negligible MAU growth, as acquisition matched churn
- Challenged **to achieve high MAU and fast growth targets**
- Goal: Identify triggers to drive user growth and app engagement

RESULTS

Insights led to initiatives that resulted in **~7% reduction in leakage**, including:

- Optimized Earn and Burn strategy to boost stickiness
- Improvements to UI, chat, and interaction functionalities
- General **app performance** enhancements and bug fixes

APPROACH

- **Rapid experiments** to compare active vs. inactive user traits.
- Used behavioral data across categories such as:
 - Content consumption, user events, traffic source, device attributes
 - DWH, CDR, and browsing data

Thank You



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