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2021  
NOMINEES

# ROAMING 360

Rakuten Mobile

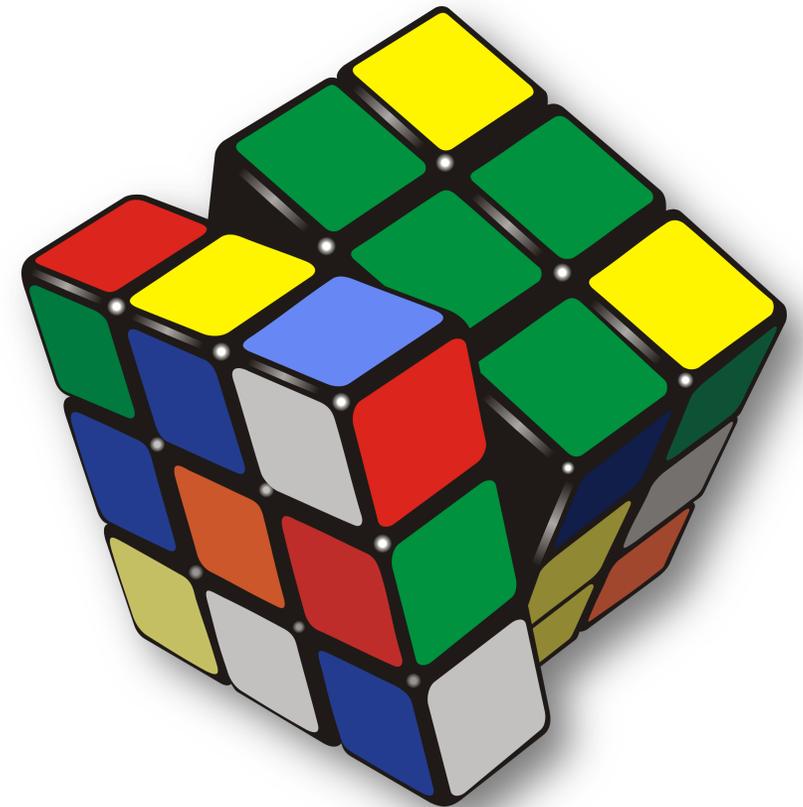
# Roaming 360

**Tarek Zeid, VP of International  
Business at Rakuten Mobile**

# The Story

Roaming managers often have to deal with obstacles such as complexities of analyzing data, its level of accuracy, fetch time lags, a mountain of excel sheets and many other issues that contribute to a slow down in decision making. These were a set of problems **Tarek Zeid, VP of International Business at Rakuten Mobile** faced while at one of the largest telecom operators of the Middle East. He was looking for a sound solution and through his own research, deep diving and further exploration into what was available, he didn't find a system dynamic enough to provide data and KPIs the way he wants, so he decided to customize one that would fetch and provide accurate results in less than 5 seconds. It became a sheer labor of love that resulted after 4 months of single handedly intense design, build and testing. It was named **Roaming 360**.

The future of business mobility is in automation. Tarek believes being both data driven and data informed are the best practices for any organization having to deal with a mammoth volume of information. In 2019, he moved to Japan to join Rakuten Mobile team where AI and Automation are cultural values in their way of working, which gives a great opportunity for a leap in the evolution of Roaming 360.



# Obstacles Roaming Managers Face



How complex it is to do your analysis?



How long it takes to fetch a piece of information?



How accurate is your findings?!



Got lost in too Many excel sheet?!

**Roaming 360 Solution is here!**



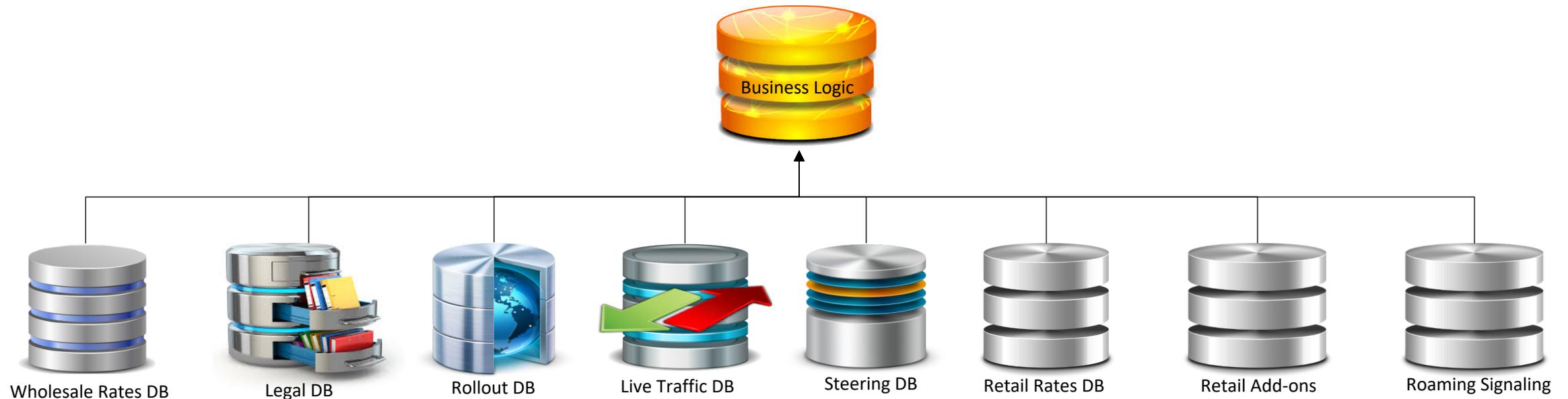
**Will simplify your life!**

# Roaming 360

The idea behind Roaming 360 was not to create a traditional roaming analytical system that only grants users fixed KPIs and decide the way to let them see how their business performs. It's about gathering and storing data and information related to roaming business in a centralized location, applying a well defined business logic in a very flexible way that gives users the ability to create KPIs the way they want, allow business owners to see their roaming business from the angle they select!!

A large set of parameters and measures becomes under users' command giving the ability to create a numerous number of roaming business and technical KPIs which allow efficient business monitoring and alarming.

Roaming 360 also supports building solid business cases by reading users' assumptions and apply what-if scenarios on historical and forecasted traffic.



# Use Case: Steering Efficiency

## Are we steering the lowest cost operator?

### Problem

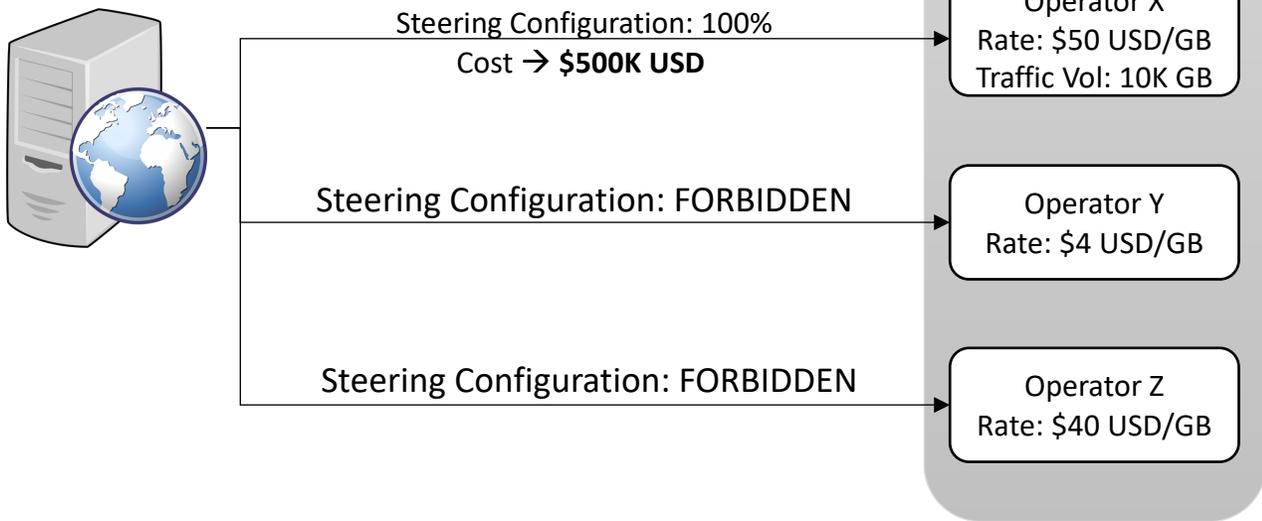
Sometimes due to a human error a misconfiguration on Steering system can happen which may lead to unjustified additional cost due to the high roaming wholesale rate on this particular network.

### Solution

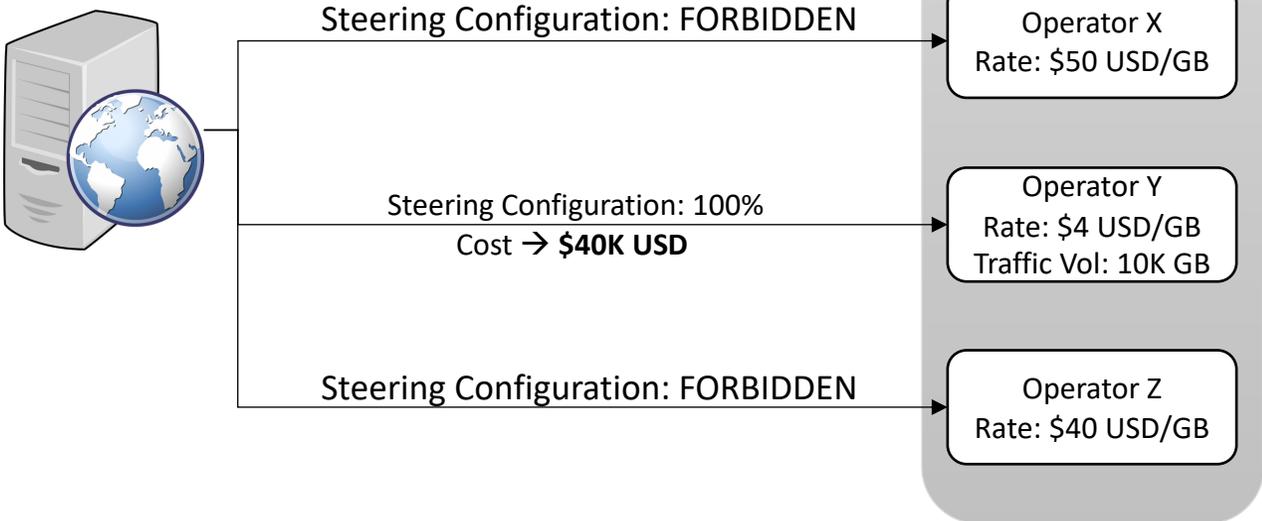
In just a few seconds, Roaming 360 will apply the logic, correlate between the defined steering configuration and roaming rates within the country highlighting destination where steering is not being done to the lowest available rate operator.

In this scenario, steering configuration is 100% to Operator X with rate is \$50 USD/GB which Operator Y in same country is offering \$4 USD/GB. Assuming traffic volume is 10K GB, taking corrective action **shall save \$460K USD**.

### Before Roaming 360 – Wrong Steering



### After Roaming 360 – Correct Steering



# KPI Examples

## Registration Time

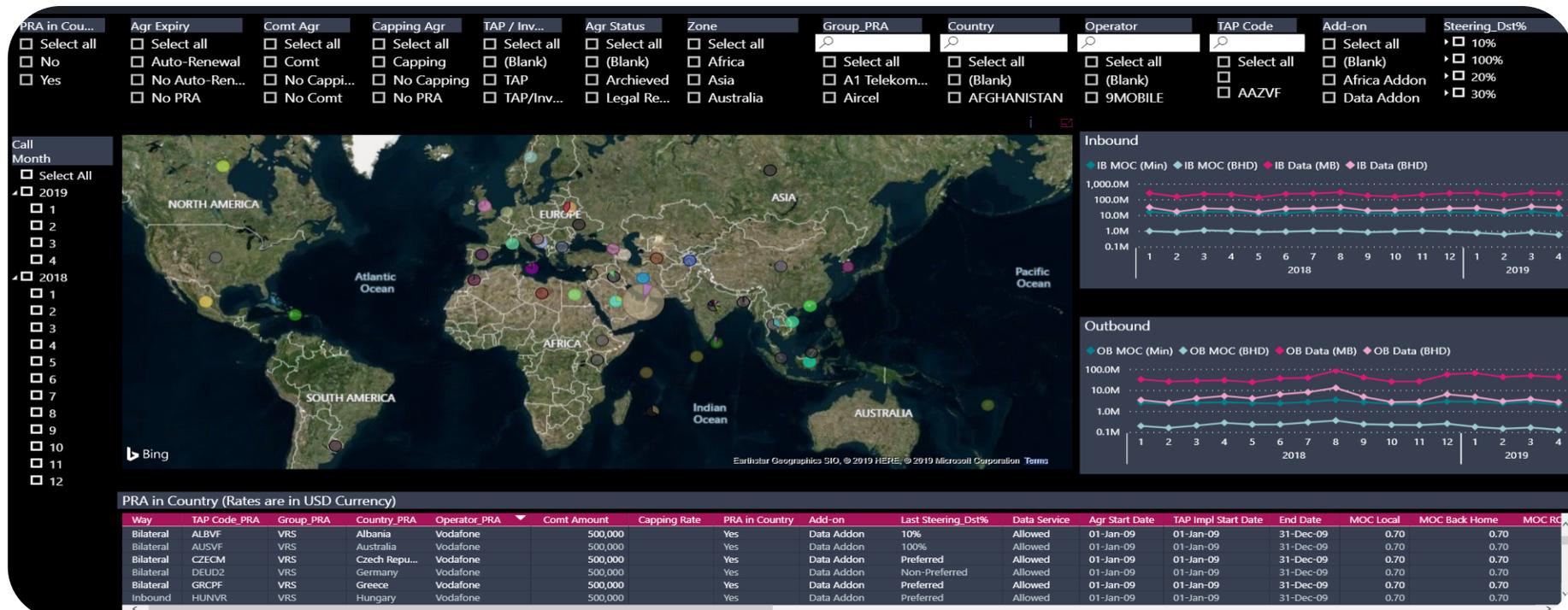
Location Update Success Rate can be 100%, however how long it takes for a subscriber to latch to a network! A question that usually has no answer! Roaming 360 can get the answer in a few seconds on Average per Country, Operator or actual per subscriber by measuring the time from the first LU attempt to the first LU Success.

## Stay Period

Some systems show a 100% Location Update Success Rate on a specific network while in fact subscribers gets disconnected in few minutes or even seconds after LU due to different technical or commercial reasons. By measuring subscriber's stay period we can know if the customer is actually roaming on this network or facing any difficulties.

## Silent Roamers

Subscribers latched to a network but didn't make any usage! This can be easily be detected by mixing roaming signalling messages with roamer's usage, where system get list of IMSIs made successful LU on a network but didn't make any usage. Those subscribers can be triggered for SMS marketing campaign encouraging them to use available roaming retail packages that match their needs.



Way	TAP Code	PRA	Group_PRA	Country_PRA	Operator_PRA	Comt Amount	Capping Rate	PRA in Country	Add-on	Last Steering_Dst%	Data Service	Agr Start Date	TAP Impl Start Date	End Date	MOC Local	MOC Back Home	MOC R...
Bilateral	HRVAF	VRS		Croatia	Vodafone	200,000		Yes	Data Addon	10%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	CRCVA	VRS		Croatia	Vodafone	200,000		Yes	Data Addon	10%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	DEUD2	VRS		Germany	Vodafone	200,000		Yes	Data Addon	Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	CZECM	VRS		Czech Repu...	Vodafone	200,000		Yes	Data Addon	Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	HRVAF	VRS		Croatia	Vodafone	200,000		Yes	Data Addon	10%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	HRVAF	VRS		Croatia	Vodafone	200,000		Yes	Data Addon	10%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	

# How Easy & Fast is it?

## Select

5 seconds process

It takes less than 5 seconds to get the information you want, the way you want to see. No matter how complex it is!

- Operator with IOT discounted rates
- AND
- Agreement is Not Auto-Renewal
- AND
- Agreement is Traffic Commitment basis
- AND
- TAP rates are implemented on TAP files
- AND
- Countries in Europe
- OR
- Countries in Asia
- AND
- Roaming Data Package is available
- AND
- Steering to operator is below 50%

The dashboard features a top navigation bar with various filter categories: PRA in Cou..., Agr Expiry, Comt Agr, Capping Agr, TAP / Inv..., Agr Status, Zone, Group\_PRA, Country, Operator, TAP Code, Add-on, and Steering\_Dst%. Below the filters is a world map with colored markers indicating data points across continents like North America, Europe, Asia, Africa, and Australia. To the right of the map are two line charts: 'Inbound' and 'Outbound', each showing metrics like MOC (Min), MOC (BHD), Data (MB), and Data (BHD) over time (2018 and 2019). At the bottom, a table titled 'PRA in Country (Rates are in USD Currency)' displays columns for Way, TAP Code, PRA, Group PRA, Country PRA, Operator PRA, Comt Amount, Capping Rate, PRA in Country, Add-on, Last Steering Dst%, Data Service, Agr Start Date, TAP Impl Start Date, End Date, MOC Local, MOC Back Home, and MOC RC.

Way	TAP Code	PRA	Group PRA	Country PRA	Operator PRA	Comt Amount	Capping Rate	PRA in Country	Add-on	Last Steering Dst%	Data Service	Agr Start Date	TAP Impl Start Date	End Date	MOC Local	MOC Back Home	MOC RC
Bilateral	ALBVF	VRS		Albania	Vodafone	500,000		Yes	Data Addon	10%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	AUSVF	VRS		Australia	Vodafone	500,000		Yes	Data Addon	100%	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	CZECM	VRS		Czech Repu...	Vodafone	500,000		Yes	Data Addon	Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	DEUD2	VRS		Germany	Vodafone	500,000		Yes	Data Addon	Non-Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Bilateral	GRCPE	VRS		Greece	Vodafone	500,000		Yes	Data Addon	Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	
Inbound	HUNVR	VRS		Hungary	Vodafone	500,000		Yes	Data Addon	Preferred	Allowed	01-Jan-09	01-Jan-09	31-Dec-09	0.70	0.70	

# System Modules

## Wholesale

In this module, system combines TAP in/out info with steering configuration, wholesale rates, contracts details and roaming rollout data bases giving unlimited number of reading and KPIs.

## Retail

In this module, system add roaming retail rates and add-ons info leading to holistic view on the roaming retail sales, revenues, profit margins and the efficiency of retail propositions

## Settlement

System supports Settlement of all types of deals (Commitment traffic vol/amount, Capping, tiers, flat rates, etc..) according to the agreements info stores and TAP in/out files data. It can also calculate accruals and compare actual vs forecasted.

## Simulator

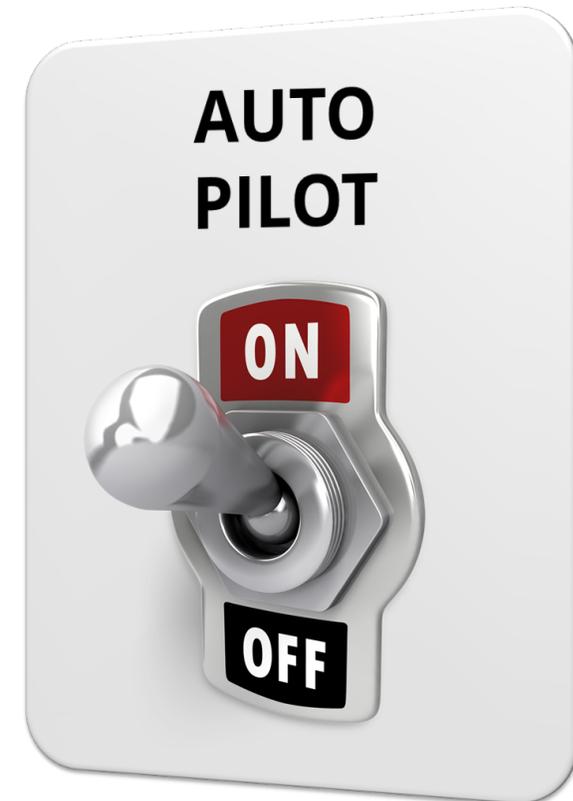
In this module, user can insert values of any of the available parameters (wholesale rates, retail rates, traffic vol, deal type, steering configuration, etc..) and system will automatically simulate the what-if scenarios and give a comparison. Simulation can be applied on historical or forecasted data.



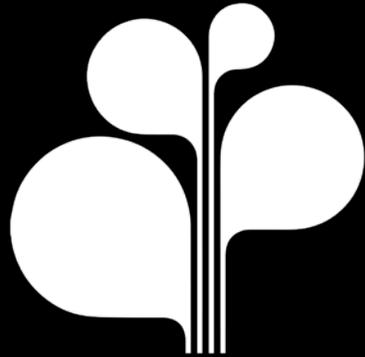
# What's Next?

## The Autopilot Mode, a full automation mode!

Turning on autopilot mode, is simply turning on a real time monitoring for a set of defined rules along with defined actions to be taken once any of those rules is triggered by a defined threshold/condition. In some cases, system shall be able to initiate requests to different teams sharing the identified problem, asking for resolution. System alarm won't stop until problem is solved, and if it's not resolved within the SLA, it will automatically escalate.



**Thank You**



**ROCCO**

**SHAPE THE FUTURE**

