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## Risk – What comes next

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Technobank Conference, March 2023

Nexi Croatia

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## About me

- 8 years of industry experience in “fighting fraud”
- 4.5 years working as Data Scientist in Nexi Croatia
- Enjoys traveling and discovering the world



“AI as a powerful force for improving the efficiency of fraud detection.”

Significant increase in eCommerce payments open doors for fraudsters creativity, which lead us to new fraud patterns.



**Payment approval through:**

- Authentication
- Authorization

**Customer Experience**  
smooth, quick and frictionless payment's approval

# Our strategy in fighting fraud

## Approaches

**Standard:** Real Time Systems, Static Rules, Black/White lists, Card/Merchant block, Multibanking/multicurrency solution, Fraud Case Management system

**Advanced:** Machine Learning / AI  
Customer profiles

## Machine Learning

**The NEW - LightGBM model**, a gradient boosted decision-tree machine learning framework, **Supervised learning, Customer profiling** (6+ months of authorization history, 200+ features created)

**The new model detects up to 4 time more fraud transactions with 25% less false positives.**

**“ML model’s  
benefit”**

**Increased transaction revenue**

**Lower number of false positive alerts**

**Lower reputation damage**

**Efficient targeting of new treats**

**Better fraud outcomes**

**Better user experience**

## **Risk scoring platform**

### **... supporting**

- Continuous enhancement of ML score models
- Easy retraining and deployment of models
- Creation of new features
- Several custom models in PROD

### **... applicable for the implementation**

- Fraud issuing
- Fraud acquiring
- Anti-Money Laundering (AML)
- Risk based authentication (RBA)

...

## About me

- **18 years of industry experience**
- **10 + Senior Product Manager in Nexi Croatia**
- **Playful mother of three daughters,  
documentary lover and social butterfly**



# Risk-Based Authentication

## Benefits

### Issuers

Reduction of challenges against cardholders and thus reduced abandonment rate

A notable increase in successful online authentications and transactions

Fewer complaints from clients

### Cardholder

A better, frictionless online shopping experience

Faster and uncomplicated online shopping

Increased customer confidence in online shopping

## Nexi Solution Features

### Issuer Transaction Risk Analysis (TRA) processing using RBA Rule Engine

- rules based on authentication data, historical data, hotlists and aggregations
- Possibility to improve the decisioning using a risk score as an input into RBA Rule Engine

### Acceptance of the acquirer requested exemptions

- Issuer can opt to either challenge all acquirer-based exemptions enforcing SCA or use the risk-based approach, allowing low risk authentication requests with the appropriate exemption to go through as frictionless.

### Application of Low-Value Payment Exemption

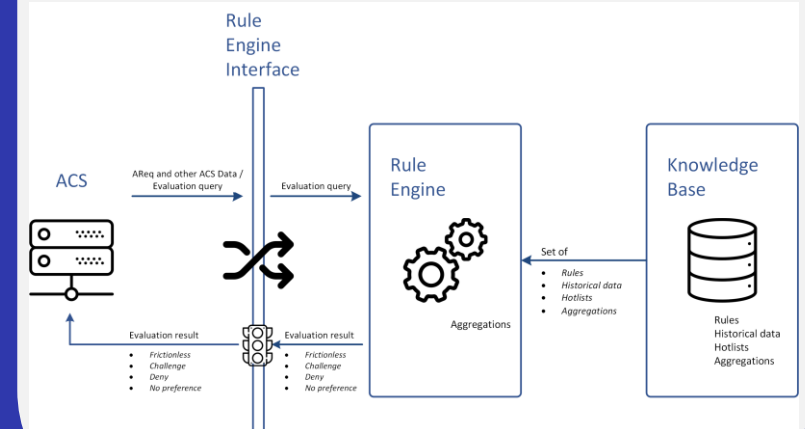
- For the transaction < €30 and the transactions # using this exemption <= 5, or the cumulative does not exceed €100.
- Possibility to exchange counters and limits in real time with authorization systems

### Trusted Merchant Listing Processing

- Allows issuers to apply trusted beneficiaries exemption

## Rule Engine

The product enables Issuers to perform one of the required checks to decide whether they can provide frictionless 3DS authentication for every authentication request, case by case, based on rules defined in the Rule Engine.



# 3DS Portal: A single point of 3DS & RBA management for the issuer

## Cards and transactions reviewing

## Reporting

3DS Portal - Banka Inresa S.p.A. - 3052 3051

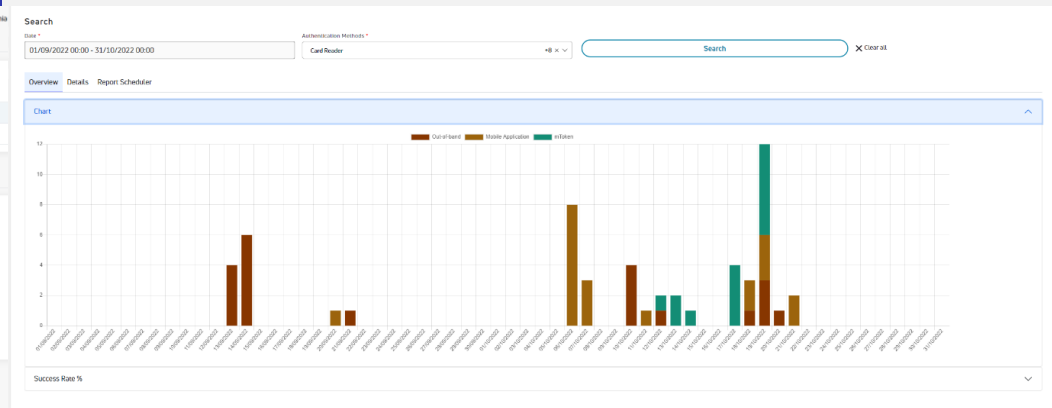
Transaction Search

Card Overview

Mask	Customer ID	Full Name	Num. Successful Transactions	Num. Error Transactions	Status	Enabled
545502****2543	1585484	MILAN CULBRK	14	0	Active	true
476558****8070	1585484	MILAN CULBRK	4	0	Active	true

Card Transactions

Customer ID	Cardholder name	Phone number	Card Status	Expiry date	Last successful trans. date	Num. Successful Trans.	Last error trans. date	Num. error trans.	Enabled	Blocked on	Help, block card
1585484	MILAN CULBRK	-	Active	-	20/09/2022 10:48:28	14	-	-	true	-	Block card   Unblock card   Change Customer ID



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Trusted Merchants List

Merchant Name	Insert Date	Inserted By	Actions
Ness Cee Ltd.	October 20, 2022	adube04	⋮
Test11	August 24, 2022	dmartini	⋮
Test10	August 24, 2022	dmartini	⋮
Test8	August 9, 2022	dmartini	⋮
Test7	August 9, 2022	dmartini	⋮
Ticket Service	August 9, 2022	spakwo04	⋮
Google	August 9, 2022	dmartini	⋮
Amazon	August 9, 2022	dmartini	⋮
Retail	August 9, 2022	spakwo04	⋮
Test6	August 9, 2022	pdchima04	⋮
Test3	August 9, 2022	spakwo04	⋮
Test2	August 9, 2022	spakwo04	⋮
Test1	August 1, 2022	spakwo04	⋮

Top 20 Merchants Last 30 Days

Merchant Name	Merchant Country	HCC	Authent. Method	Extended Bin Range
ISPC Test Merchant	705	test	test	N/A

Add To TML

Add New Merchant

Bin Ranges

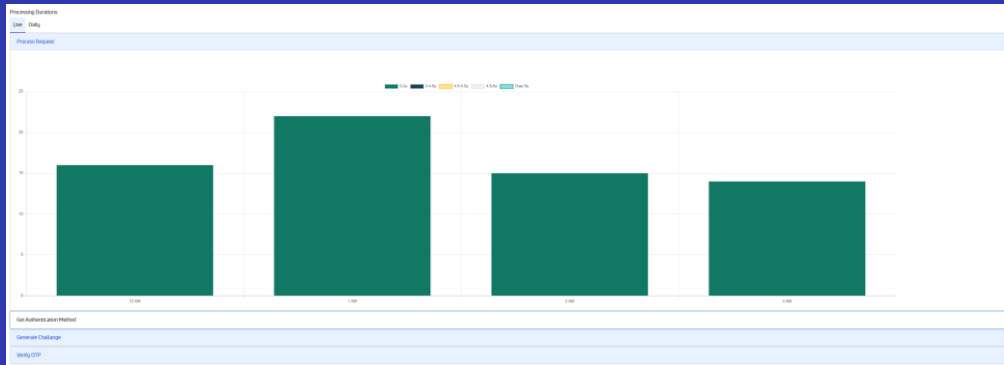
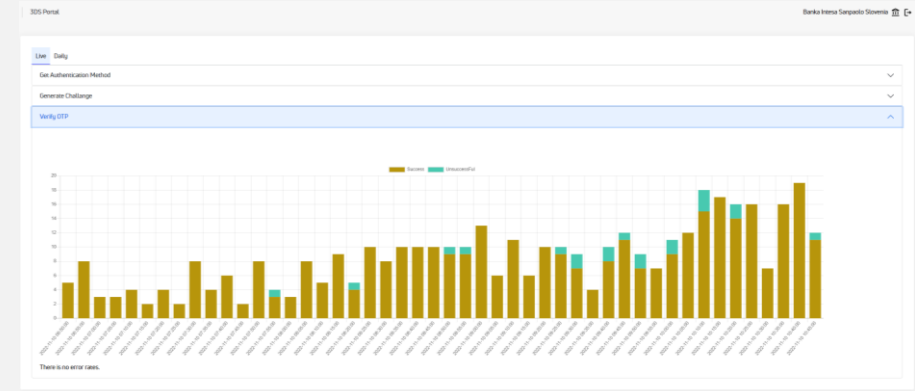
Ruleset Name	Created On	Created By	Status	Actions	View Ruleset
Ruleset_Test	25/02/2023	dmartini	new	Options	View Ruleset
Ruleset to update	25/02/2023	adube04	new	Options	View Ruleset
Test	25/02/2023	adube04	new	Options	View Ruleset
Copy - Ruleset to copy	25/02/2023	adube04	new	Options	View Ruleset
Copied Ruleset	10/02/2023	adube04	new	Options	View Ruleset
Ruleset to copy	10/02/2023	adube04	new	Options	View Ruleset
Test1	07/02/2023	dmartini	staged	Options	View Ruleset
Copy Test	07/02/2023	adube04	new	Options	View Ruleset

Add Ruleset

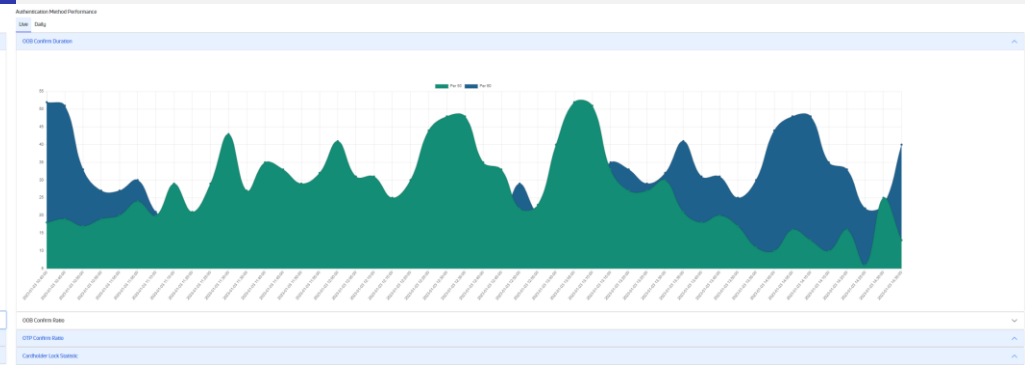


# 3DS Portal: Issuer's performance measurements

## Authentication providers success rate



## Processing duration



## Authentication methods performance



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