



Brochure

Worldline Fraud Management.

Instant Score

Real-Time AI Fraud Management: Introducing Instant Score and Online Watcher Integration.

Fraudsters' evolving tactics pose challenges for businesses in payments. A scoring model using AI and machine learning is a powerful tool to detect and prevent fraud, protecting businesses from financial loss and reputational damage while providing seamless payments. This technology can help businesses stay ahead of fraudsters, safeguarding their bottom line and providing frictionless payment experiences for their customers.

Traditional fraud prevention solutions rely on rules-based systems that flag transactions based on pre-defined criteria. While these solutions are effective in detecting known fraud patterns, they could be less effective against new and emerging fraud scams.

Worldline is using machine learning-based scoring models to enhance its services. This approach enables Worldline to predict and prevent new fraud scams, improving its ability to safeguard clients and their customers from financial harm. By leveraging the power of AI, Worldline stays ahead of evolving fraud threats and delivers reliable and effective fraud detection services to its clients.



“Payment fraud losses have more than tripled since 2011 and are expected to exceed \$40 Billion worldwide by 2027.”¹



What is an AI driven scoring model and how can it be used in fraud detection and prevention?

A scoring model uses AI to help identify and prevent fraudulent activity. This system analyzes large amounts of data to identify patterns and anomalies that indicate potential fraud. It's assigned a score to each transaction, which indicates the likelihood of fraudulent activity.

The model learns from historical data and can adapt to new fraud patterns in real-time. As new fraudulent activities emerge, the system is capable of updating its models so it can recognize and prevent such activities in the future. It is an effective tool in combating fraud, as it allows to prevent fraudulent activity before it causes significant harm.

¹<https://www.merchantsavvy.co.uk/payment-fraud-statistics/>

Combining Instant Score with Online Watcher delivered an increase of 30% in fraud prevention on top of rule based detection, with a focus in low value payments.²

What is the technology that powers Instant Score?

Instant Score includes a supervised machine learning scoring model that uses **Convolutional Neural Networks (Convnets)** to assist in delivering a specific score to each transaction considering the risk of fraud.

Additionally to ConvNets, **Instant Score** uses cutting-edge technology including Kubernetes, Mongo DB and NoSQL to produce and deliver a score for each transaction.

Instant score is hosted in the Cloud allowing to deliver increased accessibility and flexibility. This cloud delivery model can significantly reduce the time and cost associated with software deployment and maintenance. Additionally, deployment of updates will be automatic, ensuring that clients always have access to the latest features and improvements.

In fraud prevention, how does a supervised machine learning model operates?

A supervised machine learning model is trained using labeled data. In fraud prevention, historical data that's already been classified as fraudulent or legitimate is used to train the model. This trained model can then identify fraudulent activities in new transactions based on what it's learned from the labeled data.

What is a ConvNet, and how can it produce an effective score model for fraud detection?

A ConvNet is a type of neural network that is particularly useful for analyzing images. However, they can also be used to analyze transaction data in fraud detection.

By analyzing transaction data with a ConvNets model we use several layers of filters, which are designed to extract increasingly complex features from the input data. This enables us to detect more complex patterns and identify fraudulent activity more accurately.

With **Instant Score**, ConvNets are used in combination with other machine learning techniques to improve fraud detection accuracy.

What is Online Watcher?

Online Watcher is Worldline's real-time rules engine used for detecting and preventing fraud. This engine can also integrate with **Instant Score** allowing it to receive a risk score that will be included in the real-time fraud analysis.

Issuers Front Office will receive advice from **Online Watcher** so they can decide to decline or send to investigation received authorization requests.

How does Instant Score improve Online Watcher?

By combining **Online Watcher** with **Instant Score**, Worldline developed a fraud service that combines the proven capability of rule based fraud detection with the enhanced performance of a machine learning driven score model, delivering specific improvements in:



Accuracy: Identifying subtle patterns that rule-based systems may overlook, with a proven increase in the detection rate of lower amount fraud transactions



Adaptive False Positive Management: The ability to preset the rate of false positives ratio and detection rate target to fit the risk appetite of the Client



Speed: Ability to handle high volumes with low response times to faster identify first time fraud cases allowing to stop fraudsters in their tracks



Model retraining: Enables the ability to feed new data into the system, which can learn and improve over time, leading to better fraud detection capabilities








Scalability: Scale from the cloud solution to handle large volumes of data and rapidly adapt to changes in transaction volume or fraud patterns.

²Based in a case study conducted with a large German bank, a real-time Artificial Intelligence model was tested using the Instant Score solution running on Google Cloud

About Worldline

Worldline [Euronext: WLN] is a global leader in the payments industry and the technology partner of choice for merchants, banks and acquirers. Powered by c. 18,000 employees in more than 40 countries, Worldline provides its clients with sustainable, trusted and innovative solutions fostering their growth. Services offered by Worldline include in-store and online commercial acquiring, highly secure payment transaction processing and numerous digital services. In 2022 Worldline generated a revenue close to 4.4 billion euros.

worldline.com      

Corporate purpose

Worldline's corporate purpose ("raison d'être") is to design and operate leading digital payment and transactional solutions that enable sustainable economic growth and reinforce trust and security in our societies. Worldline makes them environmentally friendly, widely accessible, and supports social transformation.



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