

# FRACTALS - ENTERPRISE FRAUD ANALYTICS

ADAPTIVE CLASSIFICATION ENGINE



Companies are continuously challenged to prevent fraud from occurring and are under pressure from their customers to provide a frictionless, easy and secure transacting and purchasing experience across all the channels used.

As it is with every part of the fraud industry, the sooner fraud is prevented the quicker your company will save money, minimize inconvenience to your customers and realize a return on your investment.

The Adaptive Classification Engine (ACE) is an optional module of NCR's Enterprise Fraud solution, Fractals, that provides automated, intelligent fraud detection by using a combination of Bayesian statistical analysis and proprietary inference techniques from NCR.

Using ACE will enable your company to build your model faster than other traditional methods without compromising detection rates or increasing false positive rates.

For more information, visit [ncr.com](http://ncr.com), or email [ncr.financial@ncr.com](mailto:ncr.financial@ncr.com).



## ACE MODEL

ACE is an optional Fractals module that provides automated, intelligent fraud detection by using a combination of Bayesian statistical analysis and proprietary inference techniques from NCR. By applying mathematical models to incoming data elements, ACE identifies unusual and suspicious activity, calculates a probability-based fraud score that indicates the likelihood of fraud, and then triggers an action.

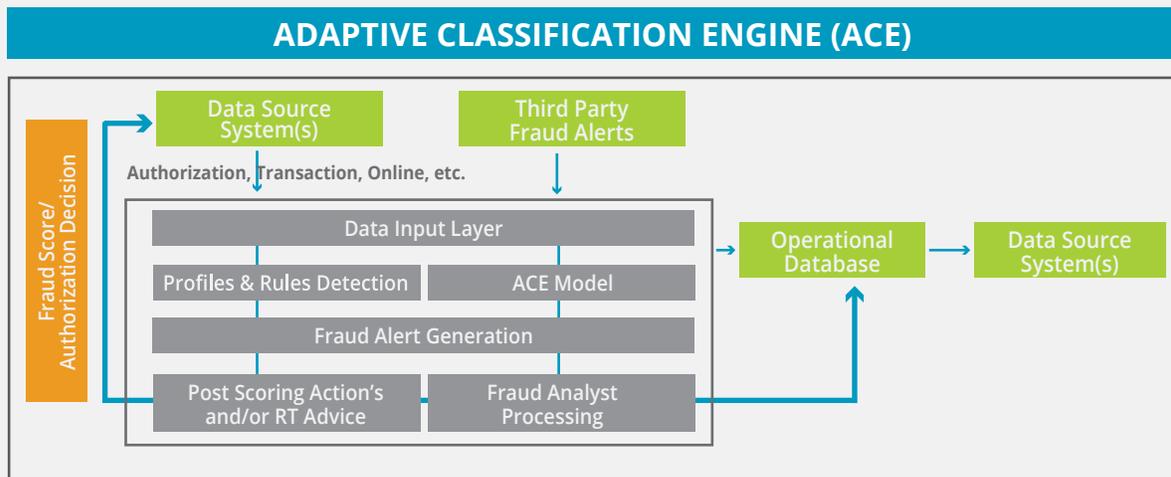
The model is initially set and tuned using your company's recent historical data and fraud tags and it will identify the unique fraud patterns facing your organization.

The result is a personalized and highly accurate fraud detection model that can be set up in just a few short weeks – giving you the best performance right from the start. ACE contains many models and each model in ACE is based on a series of mathematical algorithms that are targeted at identifying specific fraud patterns or irregularities in behavior. A typical model contains between 20 and

45 separate algorithms and individual models can be established for certain account types or customer segments for even greater granularity.

Once in production, the model continues to learn and self-adjust. Not only does this ensure that Fractals can track and react rapidly to changing fraud trends, it frees your fraud analysts to focus on more value-added tasks.

One of the key benefits of ACE compared with traditional Neural Network models is the transparency with which NCR can deliver results to the end user. Unlike a Neural Network which is a black box, ACE scores are delivered with a clear set of reasons and probabilities related to each transaction score. This “white box” approach gives the end-user much more granular information to work from when assessing a transaction or event and when speaking with a customer. More information means better customer service: the key to successful fraud operations.



### ACCURATE ANALYSIS FOR ALL BUSINESSES

The initial ACE for your organization is quick to build. After that, model maintenance is both rapid and cost-effective. Companies that deploy ACE can expect to see notable results from the very first event and transaction and high detection rates remain consistent over several years. At the same time, false positive rates remain low.

ACE uses the initial training data set very efficiently, so it can calibrate its models using relatively small data sets. Consequently, ACE can produce customized, cost-effective and accurate detection models for organizations with small or medium-sized customer portfolios, as well as larger institutions.

ACE enables you to adjust the threshold levels for fraud detection to match the alert-handling capacity of your fraud analysts.

### THE FRACTALS RULES ENGINE

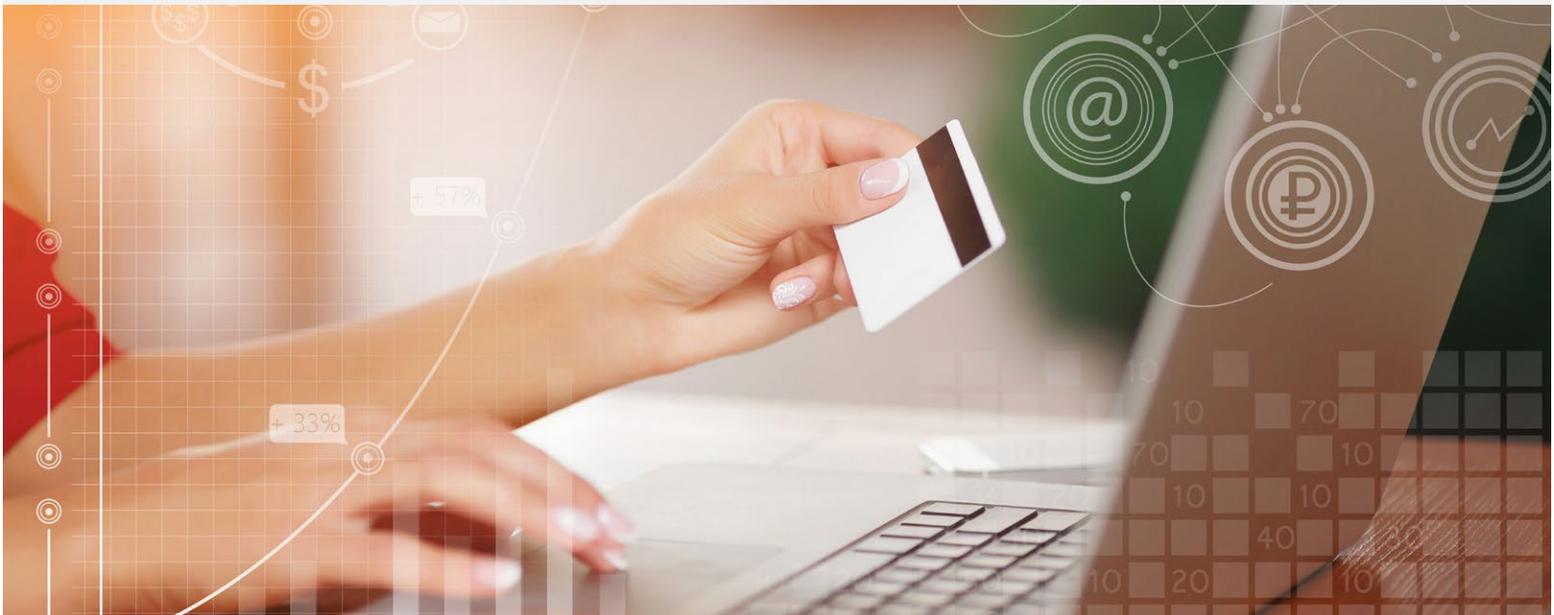
ACE is normally deployed together with the Fractals Rules Engine, which enables you to define the rules used to score each event and transaction and determine whether it should be authorized, declined or reviewed in Real-Time, Near Real-Time or Batch.

The rules engine is accessed via a browser-based interface. An authorized user can create, edit, test, evaluate and deploy rules without coding or programming. Fractals' graphical rule workbench makes it easy to express complex and varied rules, and update them rapidly in response to changing threats.

The most successful fraud operations utilize the ACE model and the Fractals Rules engine together layering the defenses against fraud attacks.

## ACE AT A GLANCE

- Detects extremely high numbers of fraud cases independently of fraud analysts and rules engines
- Scores and reviews fraud scores in real-time, enabling in-flight fraud blocking
- Creates and leverages individual strategies for specific card, or account types
- Adjusts false-positive threshold to match the case handling capacity of your fraud analysts
- Frees analysts to focus on value-added tasks such as strategy development, trend analysis and business intelligence
- White box approach delivers maximum information for analysts to work with when investigating a case
- Makes use of targeted, tailored detection models based on your own fraud patterns
- Continuously learns and self-adjusts for greater accuracy and effectiveness at low cost
- Delivers excellent results for all types of customer types from large to small
- Clearly shows the user causes of individual fraud scores for greater insight into fraudulent activity
- A PA-DSS compliant solution



## WHY NCR?

NCR Corporation (NYSE: NCR) is a leader in omni-channel solutions, turning everyday interactions with businesses into exceptional experiences. With its software, hardware, and portfolio of services, NCR enables nearly 700 million transactions daily across retail, financial, travel, hospitality, telecom and technology, and small business. NCR solutions run the everyday transactions that make your life easier.

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