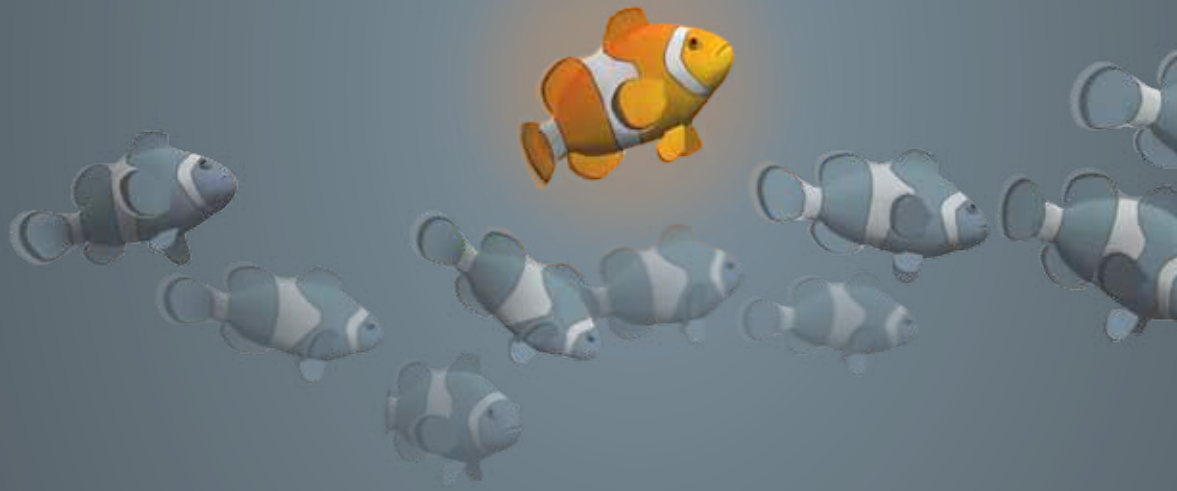


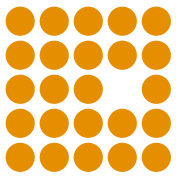


**linguistic**  
search solutions

A new breed of  
identity search solution



● **traphoty**



## Transcription, Phonetics & Typographic Errors

2

Traphoty is the latest of the next-generation identity search solutions. Purpose built to find and match comparable identity data from any culture, language or script, Traphoty has been designed by an expert team of computational linguists and compliance professionals to overcome the problems encountered when using traditional search tools to match global identity data.

### **The importance of global name matching**

In these days of increased globalisation and stricter regulatory controls, it has never been more important to be able to identify known individuals and entities within your client base – or to know for sure that they are not there.

Many organisations perform identity searches every day; for compliance, marketing, customer services and many other reasons. Identity matching is key to the success of many business processes, but the technology behind the matches is rarely given appropriate consideration.

Given the number of ways that many names can be written, it is clear that simply looking for exact name matches will often not be sufficient. Searching international name data requires a broader search logic in order to ensure that valid variations are not overlooked.

The most frequent cause of missing a potential name match stems from differences in the way a name is transcribed from its original script, or in the way similar sounding names can be spelt. Despite this, many of the tools used for identity screening are not specifically designed to identify such differences in naming information.

### The need for change

While regulators have placed increased emphasis on client and transaction screening over the last decade, they have only recently begun to appreciate the need to build linguistic features into the methods employed.

Regulators are becoming more aware of the match results that can be obtained by sophisticated linguistic solutions, and are likely to hold these up as the benchmark for the future, prompting many financial services institutions to reevaluate their traditional search technologies.

### The linguistic advantage

Traditional search tools use mathematical and statistical concepts to determine the closeness of a name match. Such an approach works well with minor spelling variations or typing errors, but cannot begin to address the broader variations in names caused by different transcription standards or the phonetic similarities specific to each language, unless the parameters are set so widely that many non-relevant matches are also generated.

Linguistic search methods focus on exactly these characteristics of identity data in order to produce far more precise search results than their mathematical counterparts. The diagrams below show how traditional searches have limited ability to target results accurately, while a linguistic search focuses

on more relevant matches in order to maximise both precision and recall.

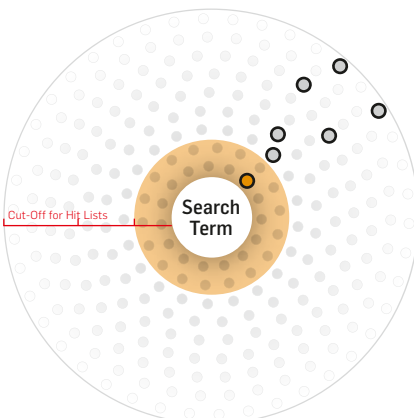
In recent years, some tools have adopted a half-way house approach, using mathematical algorithms augmented by dictionaries of name variations. While this clearly represents a step in the right direction, built-in dictionaries can never accommodate variations of all possible names, and often do not deal well with the names of organisations and legal entities, which commonly comprise words not traditionally associated with identity data.

### Balancing business requirements

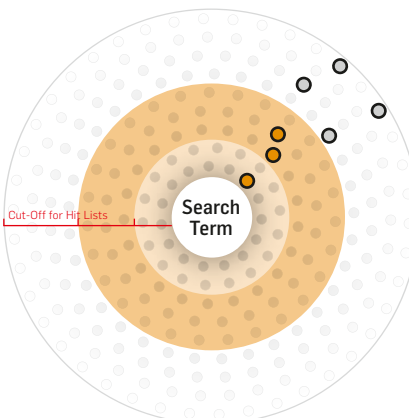
Organisations using non-linguistic search tools often have to compromise in order to make their hit handling processes viable. In doing so, they run the risk of missing real matches, with all the associated reputational, financial and regulatory consequences that this can incur. However, with advances in computational linguistic knowledge, it is no longer necessary to make this compromise, and high levels of security can be achieved without excessive investment in hit handling resources.

This need to balance a meticulous search with the operational requirement to minimise costly manual review is what makes Traphoty the identity search solution for the compliance environment of the future.

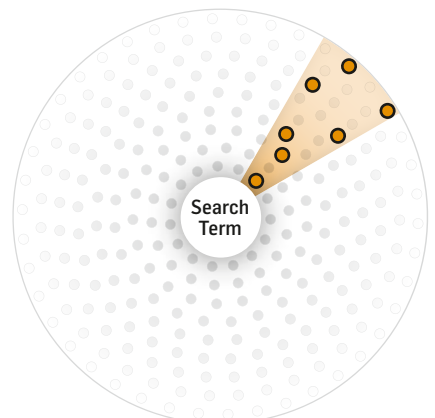
Traditional Search (Close)



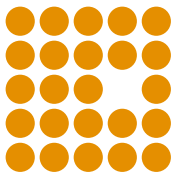
Traditional Search (Broad)



Linguistic Search



● Relevant Match ● Irrelevant Match ● Relevant Profile not found ● Irrelevant Profile not found  
True Positive False Positive False Negative True Negative



The Traphoty Advantage

Comprehensive identity search solution

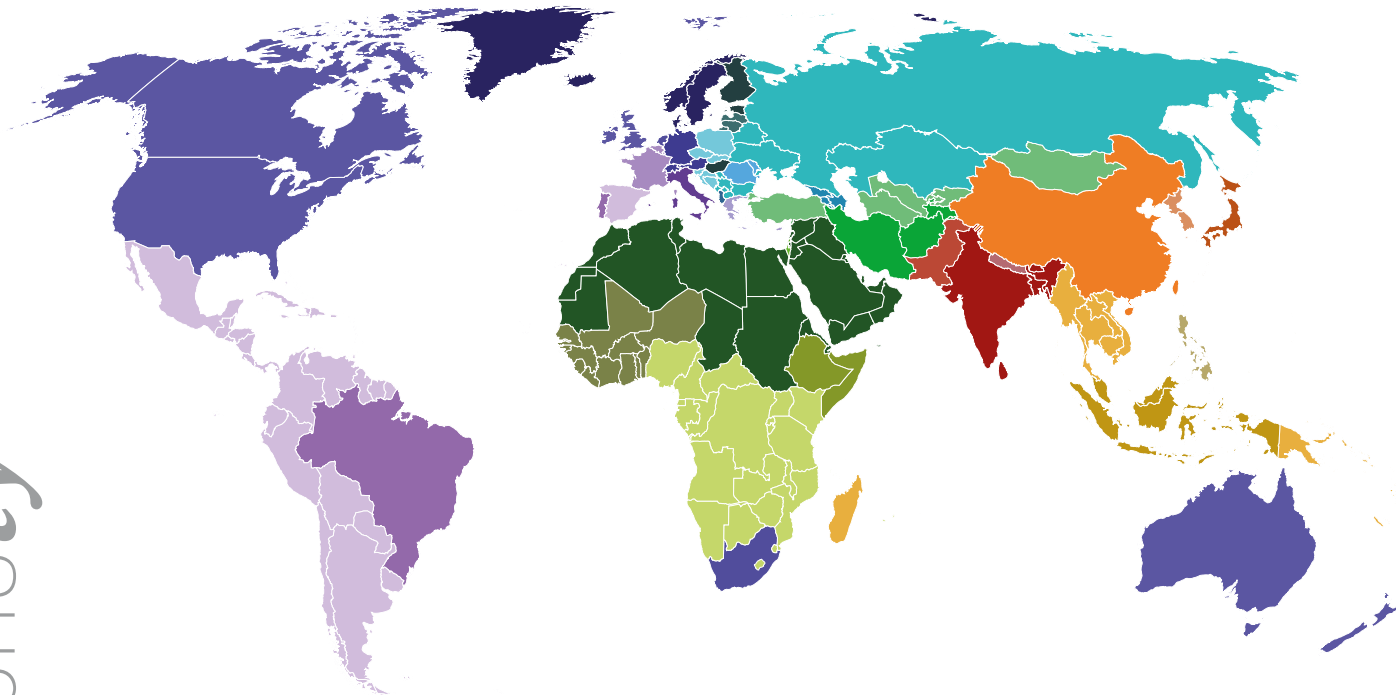
Traphoty has revolutionised the identity search processes through its international linguistic approach to the matching of names, and uniquely flexible system for combining name matches with other identity features.

Traphoty linguistic search

Traphoty is a search solution from Linguistic Search Solutions AG, a company dedicated to linguistic research on international naming patterns. It contains a highly sophisticated linguistic search engine that has been compiled by specialised computational linguists, using input from compliance and industry professionals. The rule sets they produce for each language ensure that valid transcription and phonetic variations can be matched, without generating large numbers of non-relevant matches for review.

The dedicated team of linguists examine the properties of each major language they work on, focusing on transcription standards, phonetics and naming conventions. They collaborate with native speakers, journalists and scientists in order to gain the fullest possible understanding of naming patterns in each language.

Today, the linguistic search engine behind Traphoty covers the 50 most widely spoken language groups, with languages including English, French, German, Scandinavian languages, Spanish, Portuguese, Italian, Russian and other Slavic languages, Chinese (Mandarin and Cantonese), Japanese, Korean, Malay / Indonesian, Thai, various languages of India, Persian, Arabic, Hebrew, Amharic, Hausa and Swahili. Search results can consolidate the hits produced by all language rule-sets, or can be more closely targeted to a particular region to best suit your business requirements.



- |              |                     |                      |                        |
|--------------|---------------------|----------------------|------------------------|
| ■ Nordic     | ■ Finno Ugric       | ■ Hebrew             | ■ Nepalese             |
| ■ German     | ■ Baltic            | ■ Turkic             | ■ Japanese             |
| ■ English    | ■ Caucasian         | ■ Amharic            | ■ Korean               |
| ■ Greek      | ■ Slavic (Cyrillic) | ■ Western            | ■ Chinese              |
| ■ Dutch      | ■ Slavic (Latin)    | ■ African            | ■ Languages of SE Asia |
| ■ Italian    | ■ Romanian          | ■ Bantu              | ■ Filipino             |
| ■ Portuguese | ■ Albanian          | ■ Languages of India | ■ Malay                |
| ■ French     | ■ Arabic            | ■ Urdu               |                        |
| ■ Spanish    | ■ Persian           |                      |                        |

## Determination of language origin

Traphoty offers the possibility for the user to specify the linguistic background of the name they are searching. The search engine will then apply only the rules relevant to the specified language or region, in order to provide the most precisely targeted search results possible.

However, the user may be unsure of the origin of a name, and those wishing to run bulk searches or use batch processing facilities are unlikely to want to take the time to specify the origin of each name. For this reason, Traphoty also contains a powerful auto-classifier which uses detailed knowledge of the naming structures used in each language to eliminate unnecessary language rule sets and apply only the rules for languages from which the name may derive.

In many cases, the auto-classifier may not be able to determine one clear language from which the searchname stems, but the ability to narrow down

the rule-sets used provides a powerful way to minimise false positive results. For example, although the name could be used in a number of different languages, the identification of Karowic as a slavic name tells the search engine not to apply the search rules for Western, Asian and African languages.

This structured, linguistic approach to the determination of name origins is far more precise and predictable than methods which rely on nationality or domicile to indicate language relevance. Such methods are vulnerable to fluctuations in data quality, and are based on assumptions that are rarely valid in today's global society.

Depending on the circumstances of the identity searching exercise, the auto-classifier can be turned off if desired, so that no assumptions about name origin are made, and the name is matched using algorithms appropriate for all global languages.

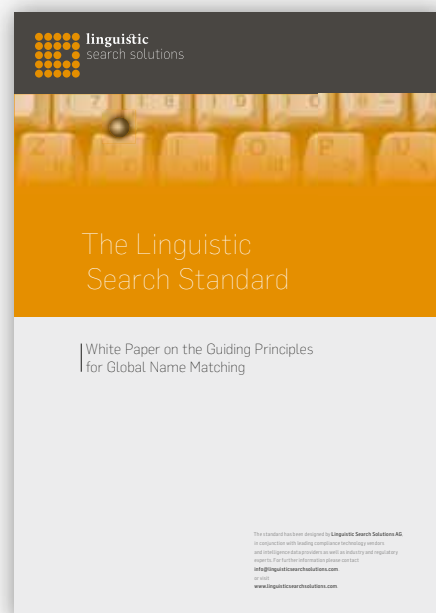
## The Linguistic Search Standard

While the need to include linguistic knowledge in name matching processes is widely accepted, the industry has been missing overall guidance on exactly what should constitute a match.

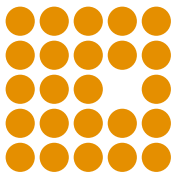
In developing The Linguistic Search Standard, Linguistic Search Solutions AG has worked with input from regulators, financial services companies, compliance technology providers and compliance data providers.

The standard has been formulated in three parts: the principles for determining a near exact match – the Precise Match Level – the additional principles which should be followed to determine very similar matches – the Close Match Level – and the final principles which combine to determine a wider range of matches – the Broad Match Level.

Traphoty allows our customers to easily apply the Linguistic Search Standard to their search processes, giving them the security of knowing that their search methodology conforms to a defensible industry standard.



For further information on The Linguistic Search please contact  
[info@linguisticsearchsolutions.com](mailto:info@linguisticsearchsolutions.com)  
 or visit  
[www.linguisticsearchsolutions.com](http://www.linguisticsearchsolutions.com)



## The Traphoty name match

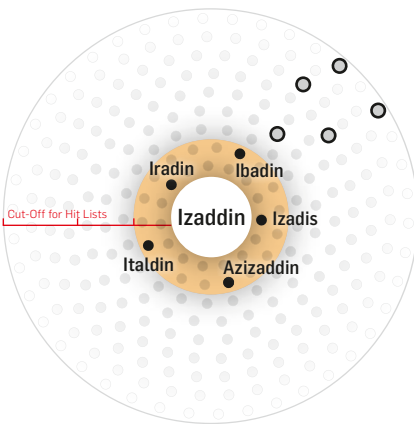
As a dedicated identity matching tool, Traphoty offers the most accurate and flexible way to search global name data. Its core is fundamentally based on the linguistic rules governing all major languages, broadening the scope of its linguistic flexibility beyond that offered by any dictionary. The core linguistic component contains sophisticated rule sets to handle transcription variations and phonetic similarities. This linguistic foundation can also be augmented with mathematical algorithms that account for spelling errors, and other non-linguistic based variations.

The first challenge, when matching international names, is to match names which are identical before transcription from their original script.

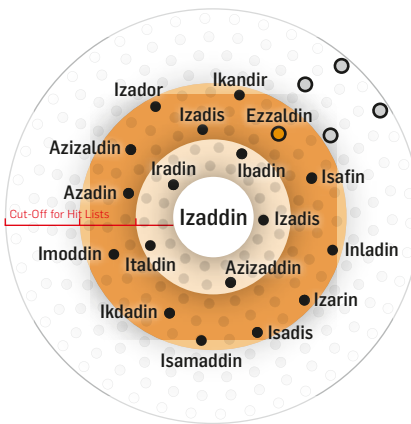
Transcription variants of Chinese names may also vary significantly. The common surname 蕭 may be transcribed from Mandarin as **Xiao**, **Hsiao**, **Shiau** or **Syau** or as **Siu** if transcribed from Cantonese. In addition, the way in which the syllables are split in the romanised version can vary. 亞男 can be written as **Yanan** or **Ya Nan**, but **Yan An** is a totally different name – 沿安.

Traphoty's transcription based rules allow it to select Latinised variants that represent the same original name and to avoid the false positives and false negatives produced by non-linguistic tools. This maximised recall minimises regulatory risk, while the increased precision helps to reduce operational costs.

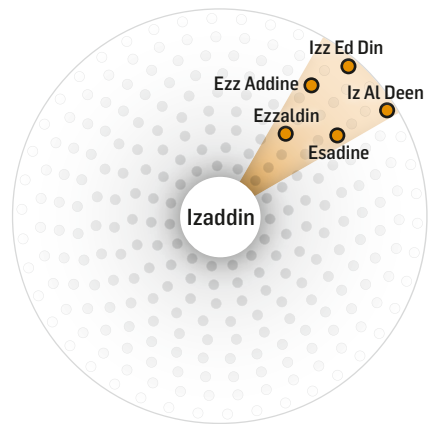
Traditional Search (Close)



Traditional Search (Broad)



Linguistic Search



For example, the Arabic name محمد can be written in Latin characters in many different ways, including **Muhamad**, **Mahomet** or **Mhmad** but should not be confused with محمود, despite its romanised version appearing similar (**Mahmud**). The algorithms necessary to match **Mhmad** to **Mahomet** without bringing the false positive **Mahmud** cannot be achieved with mathematical algorithms alone. Language specific rules are key to identifying all valid variants of a name without over-matching.

Similar issues can be seen when matching names stemming from Cyrillic languages. Борис Ельцин is known in the English speaking world as **Boris Yeltsin**, but his surname would be written **Eltisine** in France or **Jelzin** in Germany.

As the diagrams above show, a non-linguistic tool would have to have its fuzzy tolerance level set quite broadly in order to pick up all the valid transcriptions, but doing this would result in a large number of irrelevant matches.

Though the complications caused by transcriptive variances are significant, those caused by valid phonetic similarities can be just as extreme.

Within each language there are many combinations of characters which can be pronounced in a similar way. Consider the need to match **Meier** to **Mayr** and **Meyer** without picking up **Meder** or **Mener**, or the need to match **Tenborough** to **Tenburg** without setting the allowed spelling



variation too widely. Such phonetic matches are important as when names are misspelt, they are most commonly spelt in a phonetically similar way.

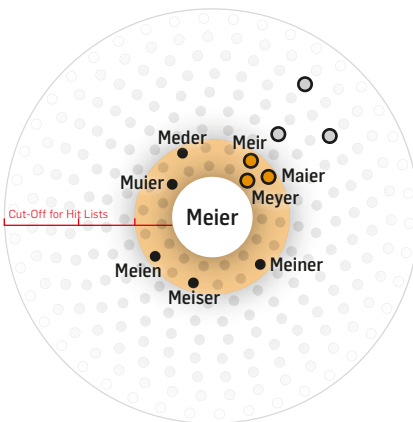
Many of today's search tools simply would not be able to match some of these examples without producing long lists of false matches. By incorporating language specific linguistic rules, Traphoty offers the most efficient way to keep false positive hits to a minimum without increasing your business risk.

The diagrams below show how this would just not be possible with a non-linguistic based solution. Accommodating linguistic variations undoubtedly forms the heart of any global name matching

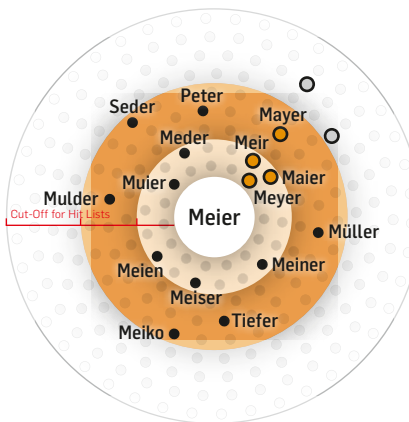
endeavour. However, in many cases it will also be appropriate to add a certain degree of tolerance for typographic errors.

Traphoty offers flexible possibilities to account for many different kinds of typographic error (for example, matching **Smith** to **Smiht**, **Calderone** to **Caderone** or **Rankin** to **Ranklin**), which can be applied alone, or on top of the linguistic rules. Traphoty also provides the option to allow for a wide range of spelling variations, or to only account for the most common typographic errors, such as the transposition of two characters (**Smith** > **Smiht**) or the replacement of a character with one which sits next to it on a computer keyboard (**Smith** > **Snith**).

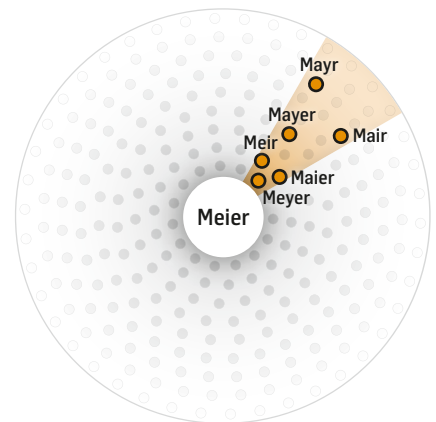
Traditional Search (Close)



Traditional Search (Broad)



Linguistic Search



### The full identity match

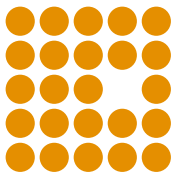
In addition to its cutting edge linguistic treatment of name data, Traphoty is one of the only search solutions which offers a fully flexible approach to integrating other identity features (such as name, address, nationality or date of birth) into the identity search process.

In addition to providing a comprehensive range of search options for defining how matches on non-name information should be matched, Traphoty offers a range of flexible options for defining the ways in which these attribute matches can contribute to the overall identity match score. This flexibility allows the Search Administrator to tailor the search logic

precisely to meet the requirements of each search process within an organisation.

Combining different principles from each of the three key features – Transcription, Phonetics and Typographic errors – creates a powerfully precise name matching solution.

**Combining different principles from each of the three key features – Transcription, Phonetics and Typographic errors – creates a powerfully precise name matching solution.**



## Flexible Search Definition

### Configurable search screens

One of the most fundamental components for an effective identity matching system is flexibility in the way matches are determined. Depending on the goal of the matching process, the quality of the data, the costs involved in the manual review of matches and the risks associated with under-matching, different principles will need to be applied.

By default, Traphoty provides a quick search screen, a standard search screen and an expert search screen. However, Traphoty also allows the Search Administrator to build search screens specific to the matching process they will be used in. Not only is the Search Administrator able to determine exactly how the screen should look to the end user, but also to define the way potential matches are generated.

To set up the search process, the Search Administrator can select the search input fields, define the database fields they are to be compared against and the Match Methods to be used in this comparison, in addition to determining the available linguistic accuracy levels and regional options, and setting the match score filter. While each of these features is highly configurable, an intelligent system of default values allows the system to be quickly set up for standard searches.

### Customised Match Methods

Traphoty has introduced the concept of Match Methods to provide the Search Administrator with a comprehensive range of adjustable parameters and settings that can be combined to tailor the way each piece of information within an identity record is handled.

Each attribute of the search criteria can be assigned a different Match Method, to ensure that name data, address data, and all other identity characteristics can each be processed in the most appropriate manner. A comprehensive range of Match Methods have been pre-defined to make setting up the Traphoty search a fast and efficient procedure, but each can be tailored to your exact requirements.

The high level of customisation offered by Traphoty has dual benefits. In addition to enabling the Search Administrator to ensure that the search logic is the most appropriate for the context in which it is being

used, the flexibility of the Match Method functionality provides a level of transparency in the match processes often missing from more traditional tools. This allows search results to be more easily explainable to regulators and other interested parties.

### Flexible combination of search criteria

Though the name is clearly the most crucial feature of any identity record, it is important to consider the way in which other available attributes contribute to an identity match.

Identity data commonly includes some level of nationality, address or date information, often augmented with National Identity numbers or other reference codes. Such characteristics can be used as confirming factors, in order to prioritise and filter name matches, or as part of a full identity match, whereby a poorly matching name may be returned as a hit if there are sufficient supporting features.

The way in which identity characteristics should be combined will depend on the goal of the matching process, and on the quality of the non-name data available.

For this reason, Traphoty provides the Search Administrator with different options for tailoring the way in which different identity attributes are considered. For each field on the search screen, these options include; the relative importance of the field to the overall match score, whether or not the field is required and the effect of a mismatch in that field.

### Options for matching non-name data

While the linguistic challenges involved in matching international name data are significant, an efficient identity matching system must pay comparable attention to the way in which non-name components of the available identity data are matched.

In each data type, different challenges exist in identifying potentially matching values. US versus European date formats can affect a match, as can abbreviated nationalities, city names written in different languages, and ID numbers with or without their standard prefixes.



For each type of identity attribute, Traphoty offers a set of Match Methods which can be used to determine the congruence of a match, covering options

such as the elimination of numeric or non-numeric information, date value tolerances and the treatment of noise words and common tokens.

The image displays the Traphoty search interface, which includes a search form, a Traphoty Index, and search results.

**Search Form (Expert Search):**

- Family name:** Last name or maiden name
- Given name:** First or middle name
- Date:** Date of Birth/Date of Registration
- Nationality:** Country of Birth/Registration
- Domicile:** Address Country
- Search for:** Search for persons, legal entities or both
  - ☒ All
  - ☐ Western European & American
  - ☐ Eastern European & Russian
  - ☐ Middle Eastern
  - ☐ East Asian
  - ☐ South & South East Asian
- Accuracy Level:** Search for persons, legal entities or both
  - ☒ All
  - ☐ Non-linguistic
  - ☐ Exact
  - ☐ Close
  - ☐ Broad

**Traphoty Index:**

Watch Lists/PEPs/Client Data

- Last Name - %
- First Name - %
- Middle Name - %
- Nationality - %
- Domicile - %
- Date of Birth - %
- Address - %

**Search Results:**

**Search Query:** Name: Евгений Кузнецов

**Hit List:**

Name	Date of Birth	Nationality
Евгений Кузнецов	1966	Russia
Yevgeni Kuznetsov	25.03.1967	Russia
Yevgeniy Kuznetsov	14.12.1980	United Kingdom
Jewgeni Kusnezov	01.06.1958	Belorussia
Yevgeny Kusnetsov	1943	United States
Evgeni Kuznetsov	10.10.1961	Ukraine
Jewgenij N. Kuznetsov	14.03.1977	Switzerland
Jewgeni Iwanow Kusnezow	-	-
Eugen Kusnezow	1950/1951	Saudi Arabia
Женька Кузнецов	-	Russia
Сеген Кузнецов	04.02.1959	Ukraine
Shenja Kuznetsov	1980	United States

**Search Query (Expert Search):**

**Search Query:** Accuracy Level: Close

**Family Name:** Sanchez Lopez

**Given Name:** Francisco

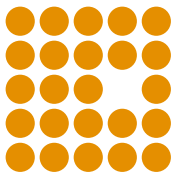
**Date of Birth:** 1968

**Nationality:** Spain

**Domicile:** Spain

**Hit List:**

Name	Date of Birth	Nationality	Domicile	Score
Sanchez-Lopez, Francisco	05.05.1968	Spain	Spain	100%
Sanchez L., Francisco	12.05.1968	Spain	Spain	99%
Sanchez, Francisco	1968	-	Spain	98%
Sanchez, Paco Manuel	11.08.1968	-	-	96%
Sanchez-Lopes, F. J.	14.01.	Spain	Brazil	80%
Lopez-Sanchez, Francisco	-	Spain	Peru	80%
Lopez-Sanchez, Pedro F.	1967	Spain	Spain	76%



## Configurable Match Scoring

### Configurable search accuracy levels

Depending on the purpose of the matching process, differing levels of deviation within name matches may be appropriate. Traphoty allows the Search Administrator to define which linguistic and spelling variations are acceptable by defining a combination of linguistic accuracy levels, and augmenting this with an optional typographical tolerance.

The linguistic accuracy levels match names either exactly, removing diacritics, dealing with transcription variants or on various levels of phonetic similarity. Combining the typographic tolerances with the linguistic accuracy levels can have a powerful effect on the match results. For example **Abdle Ghaffoor** does not match to **Abd al-Gafour** using transcription rules alone, but would match if a typographical tolerance was also applied, as it would allow the matching of **Abdel Ghaffoor** – another way of writing **Abd al-Gafour**.

By allowing the Search Administrator to pick and chose between a range of linguistic and typographical options, Traphoty provides the most flexible and efficient way to define the way potential matches should be identified.

Traphoty also allows for multiple search accuracy levels to be defined, to give users the most flexibility when running a search, or for use in different business processes.

### Other options for matching name data

The list of options that the Search Administrator can use to customise Match Methods for names includes both instructions that apply for all data types, such as Null tolerance, and more specific instructions, such as the handling of initials, synonym handling and the way in which common name parts are treated.

### Weighted prioritisation of matches

A key factor in any efficient name matching process is the ability to filter and prioritise results to ensure hit handling resources are most appropriately targeted. This is achieved by allocating a match score which reflects the quality of the match.

For each potential identity match, a number of overall match scores are calculated by combining the individual scores for each identity attribute searched (name, address, nationality, etc). Each of these overall match scores is based on a different combination of the following factors:

**Match Congruence:** This measures the extent to which the search attributes match the attributes of a database record, as defined by the relevant Match Method.

**Linguistic Accuracy** (names / generic text data only): This is determined by the linguistic / typographic accuracy level on which the match is identified.

**Information Richness:** The amount of information submitted for each search, and the amount of information available in the matched record.

**Match Relevance:** Traphoty weights each matched piece of identity data differently depending on the relevance of the field it is matched to. This provides for a nationality match to a domicile to earn a weaker score than if the match was in the nationality field.

**Combination Method:** Each feature of an identity record can contribute in different ways to the overall match score depending on the filtering, targeting or broadening effect required.

Each of the overall identity match scores can be used either for display on a hit list, as a threshold for filtering results, or as a guide for sorting and prioritising results.

### Comparable results

Due to the way in which these options are combined, Traphoty produces match scores which are not only consistent within a particular search, but also comparable across different searches. A 75 % identity match will have the same quality regardless of the amount or type of data submitted for the search. This simplifies the setting of threshold scores for action or review. For example, a 90 % match might be required for a transaction to be suspended, while a 75 % score might be sufficient to require review in an off-line process.

### Highlighted results

In addition to customised search input screens, Traphoty provides for customised results screens and includes the possibility to highlight the key attributes which determined the match.

For each search input screen, a tailored result screen can be configured.

**Search criteria to display:** This defines the parts of the search input to be used as a heading for the hit list.

**Columns to display:** These normally include the key matched information, but can also include other data from the database, such as whether the match is a current client or not.

**Review summary:** Additional fields can be defined for the reviewer to record, for example, whether the match is relevant or not, whether further investigation is required, or what action is to be taken.

**Sorting and Filtering options:** These can be set for each column on the hit list.

**Formatting of match information:** Different attributes can be shown in different ways. This can be used, for example, to highlight matched, missing and/or mismatched information using different colours, in order to make the manual review of results more efficient.

[Quick Search](#)
[Standard Search](#)
[Expert Search](#)

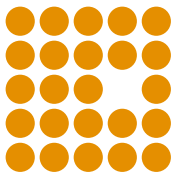
[Export Data](#)
[Refine Search](#)
[New Search](#)

**Search Query**  
 Accuracy Level    Broad  
 Name               Hussein Abdurrahman  
 Date of Birth       10.07.1974  
 Nationality         Saudi Arabia

*Number of results: 9*

**Hit List**

Name	Date of Birth	Nationality	Score
▶  Hussein Abd al-Rahman Farid	1974	Saudi Arabia	96%
▶  عبد الرحمن حسين	1973	Saudi Arabia	93%
▶  Hossayn Faisal Abdel Rahman	10.07.1947	-	90%
▶  Hossein Mustafa Abdar Rahman	10.07.1971	Saudi Arabia	87%
▶  Housain Abderahmane Mahmud	10.07.	United States	82%
▶  Hussain A.	-	Egypt	79%
▶  Hussein Abdurrahman	22.12.	Saudi Arabia	70%
▶  Hussein Khalid	10.07.1974	Saudi Arabia	70%
▶  Abdoulrahmane Houssein	01.07.1975	Lebanon	69%



## The Traphoty Product Range

### Traphoty Identity Check

Traphoty Identity Check is designed for use whenever international identity or transaction data is searched. This includes compliance and Anti-Money-Laundering processes, customer service desks, internal investigations, public records searches, and any other processes which might require the identification of a particular individual, company or transaction within a large database.

The user simply enters the details of the subject they are searching for into the Traphoty search screen. Within seconds, Traphoty returns a list of potential matching records, prioritised according to the strength of the match.

As Traphoty incorporates the unique Linguistic Search Solutions transliterative and phonetic search logic in addition to the more common string comparison algorithms, the number of potential matches can be significantly reduced without increasing the risk that a true match is overlooked. The result is a more reliable search, while minimising the effort required to assess the potential matches.

Although Traphoty Identity Check is delivered complete with ready to use search logic and standardised search and result screens, every aspect of Traphoty Identity Check can be configured to your precise requirements, providing you with the option to:

- quickly customise the search logic for each search field, to ensure it fully reflects the geographical, structural and quality characteristics of your data
- define the way that search results are scored and ranked to reflect your business requirements and risk appetite
- create tailor-made search and result screens for different user groups

Typical application areas for Traphoty Identity Check include:

- Client Screening and Client Onboarding
- Fraud and Money Laundering Prevention
- Internal Investigations
- Transaction Monitoring
- Marketing and Customer Relationship Management

### Traphoty Identity Consolidation

Traphoty Identity Consolidation is designed to help you to find and consolidate records that refer to the same person or legal entity across all your business systems, even if the name is spelt differently or if the identity data is incomplete.

This can be extremely useful in providing customer relationship managers, auditors and compliance teams with a consolidated overview of the business relationships of the subject, and helps data quality teams to consolidate duplicate records, or to reference related records that reside in different business systems.

Traphoty Identity Consolidation uses the unique Linguistic Search Solutions search methodology to identify related records accurately and efficiently. Customised result screens display groups of data records that are likely to represent the same subject and allow you to confirm which records should be removed, or marked as connected.

Typical application areas include:

- Internal Investigations
- Transaction Monitoring
- Marketing and Customer Relationship Management
- Credit Risk Assessment

## Traphoty Inside

Traphoty Inside has been designed to be incorporated seamlessly into existing business applications. This sophisticated plug-in provides the most efficient way to standardise searches throughout all types of business applications without requiring changes to the existing application landscape.

Traphoty Inside can be invisibly built into existing systems, such as customer relationship applications, compliance tools, archiving solutions or web-based search services. It allows the user interfaces to remain unchanged while adding the power of the Linguistic Search Solutions unique search technology.

Typical application areas for Traphoty Inside include:

- Client Screening and Client Onboarding
- Fraud and Money Laundering Prevention
- Internal Investigations
- Transaction Monitoring
- Marketing and Customer Relationship Management
- Credit Risk Assessment
- Data Services
- DWH and BI Solutions

## Traphoty Rules

Traphoty Rules is the product for any organisation which has already deployed a search solution based on similarity keys, and wishes to enhance the reliability and precision of their automated searches. The linguistic rule sets which form the heart of the Traphoty product range can be fully configured by the client to fully reflect the most appropriate risk profile, and incorporate language specific to the client's business. If desired, Traphoty consultants are available to assist with this process.

Clients operating regional matching processes can select the most appropriate language rule sets from a range covering all major languages of the world, and custom rule sets for minor languages can be produced on demand by our dedicated team of computational linguists

## Traphoty Variants

Traphoty Variants can be used to enhance identity data to limit the risks inherent in systems that cannot be enhanced with Traphoty Inside or Traphoty rules, either because their technology is too outdated, or because the application is a closed box and cannot be modified.

Linguistic Search Solutions' consultants augment the names in the database with valid linguistic variants to reduce the number of false negative results returned by non-linguistic search technology.

This solution may increase the search times in such systems, but minimises the risk of missing an important hit, allowing time for a linguistic search solution to be put in place.

## Traphoty Installation

### Traphoty Product Editions

Traphoty is available in three editions designed to suit all architectural landscapes.

The **Desktop Edition** can be run on a stand-alone machine for companies who wish to manage their search processes centrally.

The **Enterprise Edition** runs on an organisation's internal network, allowing potentially thousands of users to rapidly search data stored in systems managed across the globe.

The **Enterprise Federated Edition** can be installed in several locations for federated (distributed) searches. This may be appropriate in situations where search data cannot be centralised for data protection or regulatory reasons. The distributed installations synchronise regularly to ensure that searches are run against an identical watch list source, regardless of which Traphoty installation is used.

### Cross-business search standardisation

The same search for all business systems.

Its modular flexibility makes Traphoty the perfect solution for organisations wishing to standardise their search methodology across all business processes.

Different applications can use different modules within the linguistic search engine – for example, a transaction screening system might use only the transcription module, while an investigative system would more likely require all three linguistic accuracy modules (transcription, phonetics and typography). In this way, the search standards can be administered centrally but tailored to the needs of individual systems.

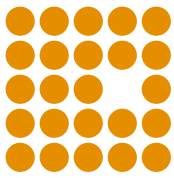
An additional benefit of this configurable system is the transparency it provides in making matches predictable and explainable. The Search Administrator has complete control over the way the matches are generated, and can tailor this to best suit the aims of the matching process. As a result, the matches produced are more appropriately targeted and can be easily explained to auditors, regulators, and other stakeholders.

### Seamless integration with existing systems

Traphoty Inside has been designed to interface seamlessly with existing business applications.

The key components can be linked via API (Application Programming Interface) to existing applications which send in searches and receive hit lists in return. Traphoty provides standard web-based search and result screens which can be used to run searches through connected applications without the need for new screens to be built for each connected system. However, the Traphoty API also allows searches to be run and results obtained using Traphoty logic but through the screens built within the connected applications.





## Traphoty Components

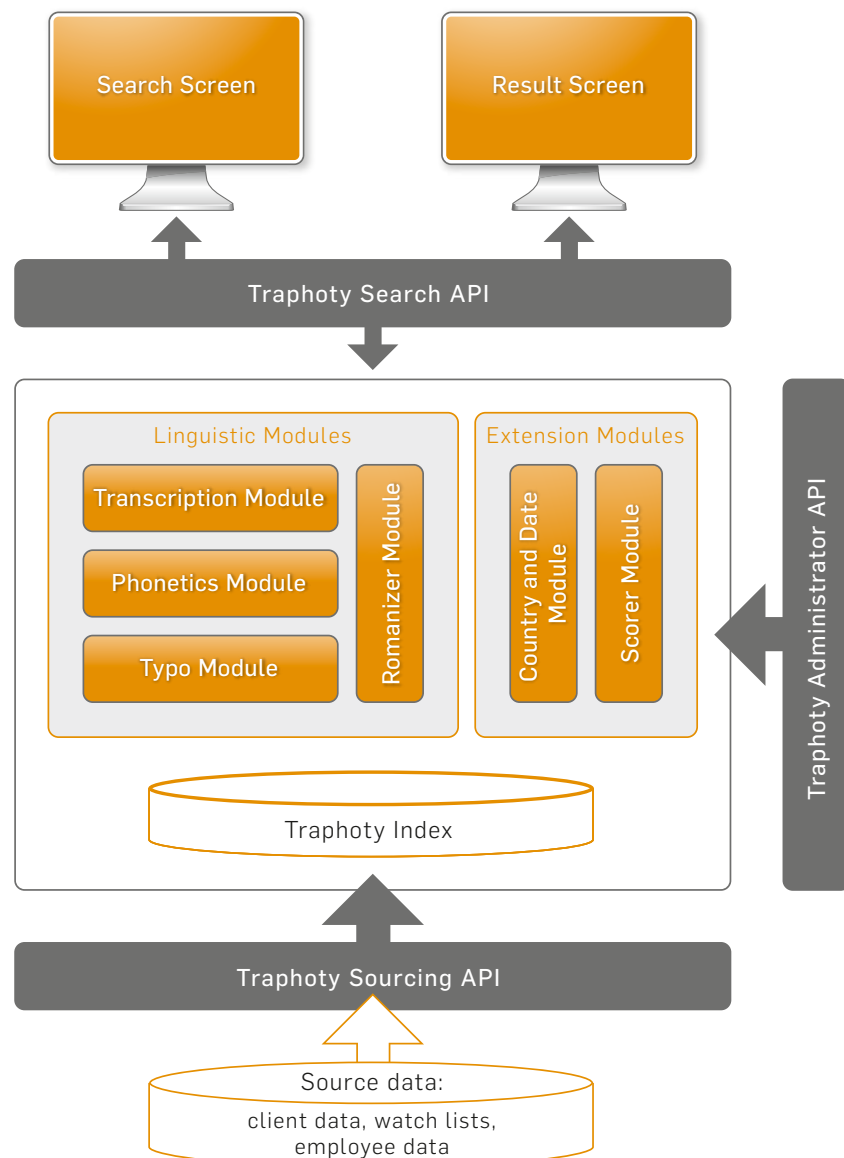
### Modular system for increased flexibility

With its flexible modular system, Traphoty ensures that clients are able to tailor their search technology investment to their own particular needs.

The core components include:

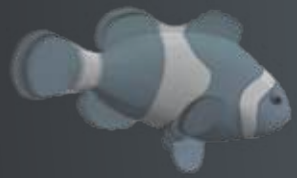
- **Linguistic search engine:** split into discrete modules which can be purchased separately.
- **Extension Modules:** encompassing all other information required to assess the quality of an identity match.
- **Connectivity architecture:** This provides for searches to be carried out and for sourcing data from external data feeds or internal databases.
- **Data storage:** Integrated storage designed for optimum performance of searches.

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Traphoty is a product of Linguistic Search Solutions AG, a Swiss based enterprise, which offers solutions and services in the area of linguistic identity matching. Linguistic Search Solutions AG maintains strong cooperations with regulators as well as leading providers of data, information and software for compliance and related industries.

Our consultants are available for more in-depth product information and demonstrations. For further information please contact [info@linguisticsearchsolutions.com](mailto:info@linguisticsearchsolutions.com). Or visit our website: [www.linguisticsearchsolutions.com](http://www.linguisticsearchsolutions.com).