



# Toshiba Strengthens Internal Export Control System with Name Matching by Basis Technology

Since the Sept. 11, 2001 terrorist attacks in the U.S., complying with the need to swiftly screen names against expanding watchlists has become a growing issue. To meet that challenge, Toshiba's internally developed export control system adopted Basis Technology's Rosette to strengthen its name matching functionality.

## Background:

To prevent technology and products from being diverted into terrorist hands for use as weapons, major countries publish watchlists to restrict trade with organizations and individuals that pose a security risk. An increasing number of private companies are also producing similar watchlists.

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Companies involved in exporting are required to screen customer lists against various watchlists, but often they rely on manual, visual checks. Because of this situation, missed and mistaken matches are increasing daily.

In an effort to strengthen export controls, Toshiba developed its own system to highlight companies and organizations with whom trading is restricted. Toshiba uses Basis Technology's name indexing module to strengthen the name matching capability for verification against watchlists.

## Toshiba's Challenge:

The team at Toshiba spent a lot of time evaluating several linguistic packages, including Basis Technology's Rosette text analytics platform, to find something that met their requirements.

- Additions to and updates of watchlists grow daily.
- As the amount of information in the watchlists increases, manual matching and verification take an onerous amount of time.
- Missed and mistaken matches occur due to inconsistencies, including typos and spelling variations. There are limitations to using partial match searches and pattern match searches.

## The Solution: Rosette

Rosette strengthens matching and verification accuracy with these methods:

- Phonetics
- Machine learning
- Algorithms addressing name phenomena.

The advantages are clear:

- Even with typos, missing letters, inconsistencies or spelling errors in the input data, the relevant candidates are found in the watchlist and provided with a similarity score
- A watchlist that is written in Latin letters can be matched and verified against other languages, including Japanese kanji, kana and katakana, Chinese hanzi, and Korean hanja and hangul
- Aliases, nicknames, and initials can also be fuzzy matched
- For Japanese, Rosette matches old-style and modern kanji characters.

## System Workflow

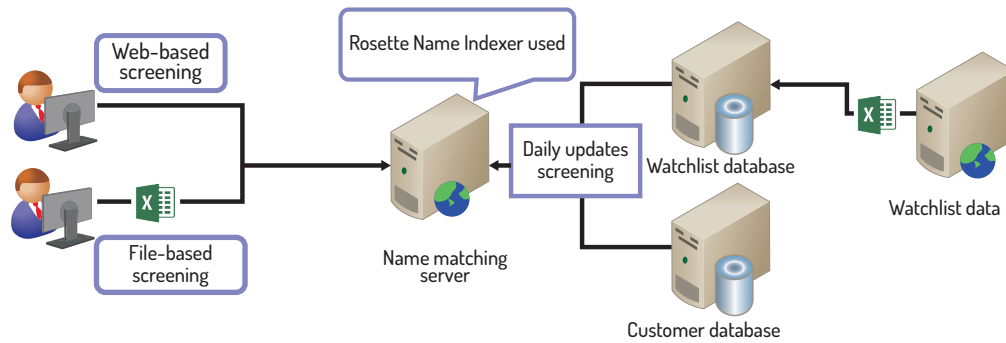


Diagram of the name verification function of Toshiba's export control system

\*Development and fine-tuning was handled by Toshiba I.S. Corp., an information systems, an affiliate company of Toshiba.

## Main System Functions:

- Web-based screening - From the browser screen, individually matches names against the watchlist interactively
- File-based screening - Uploads a file with the names you want to check and screens them against the watchlist
- Daily updates screening - Matches that day's updates to the watchlist against existing customers.

## The Results:

Omissions due to manual, visual checking have been reduced, and the efficiency of matching and verification work has been greatly improved.

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Rosette® provides businesses and government agencies with text analytics in 55 languages. [www.rosette.com](http://www.rosette.com)

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