

The DB4A is a platform whose "main" objective is to trace, search out and certify the originality of a product to which is applied a code, unique in the world, generated and certified by the platform itself. The DB4A system consists of five main entities:

- Code generator
- Central Form
- Certification Database
- Peripheral modules for customers
- User form (web)

The DB4A is based on an Industrial Invention of SMS Engineering: Multi-calculator system for the generation of unique and unrepeatable codes that can be used for databases. The system is based on a code generation algorithm Synchronized with the exact Greenwich time.

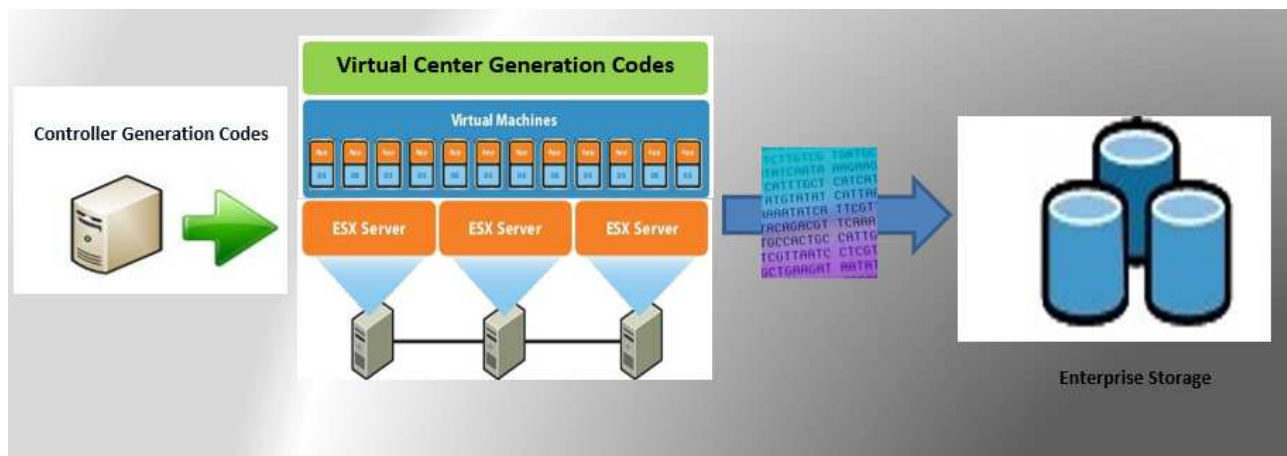
Targets of the solution are the Media / Large Manufacturers of Food & Beverage, Fashion, Luxury and generally all the industrial production areas that need to guarantee the originality of the manufactured product.

the counterfeiting of the products can be fought with advanced technology systems for the traceability of the manufactured products. This project, as an idea in its embryonic state, was presented, IN 2009, in New York to the United Nations for a worldwide spread. Only in 2018, the existing technologies allowed the realization of the whole platform.

FUNCTIONS

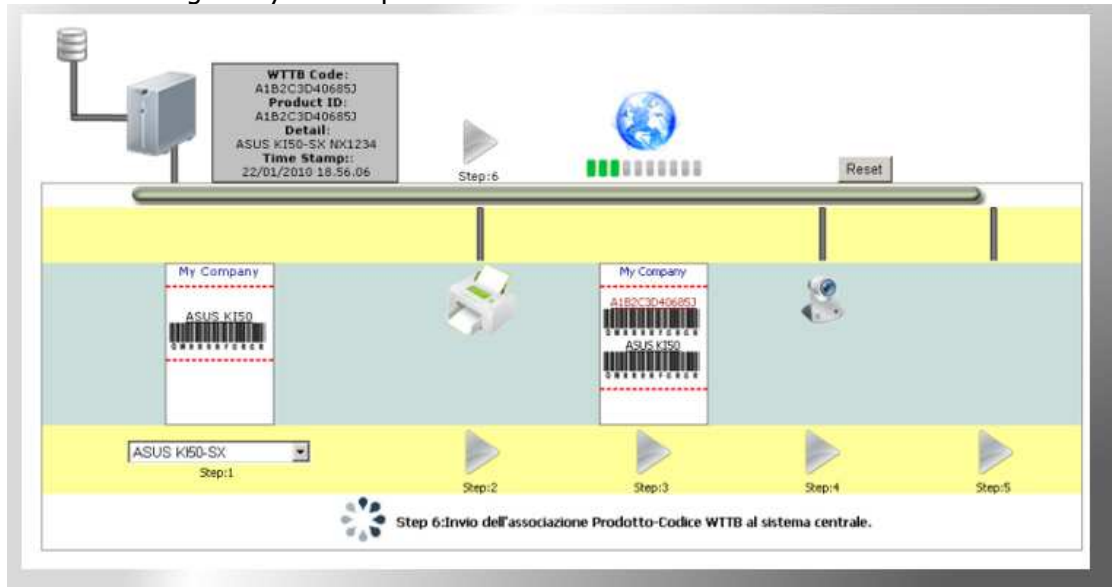
- Generates DB4A (WTTB World Track and trace Bank) codes
- Random Sequence
- Date/Time of creation given to every code
- Sincronize to Greenwich time
- Unique WTTB code, never repeated
- 13+1 digits 0-9 A-Z ($36^{13} = 170 \cdot 10^{18}$) (170 billion of billions)

CODE GENERATOR FLOW CHART



PERIPHERAL UNIT

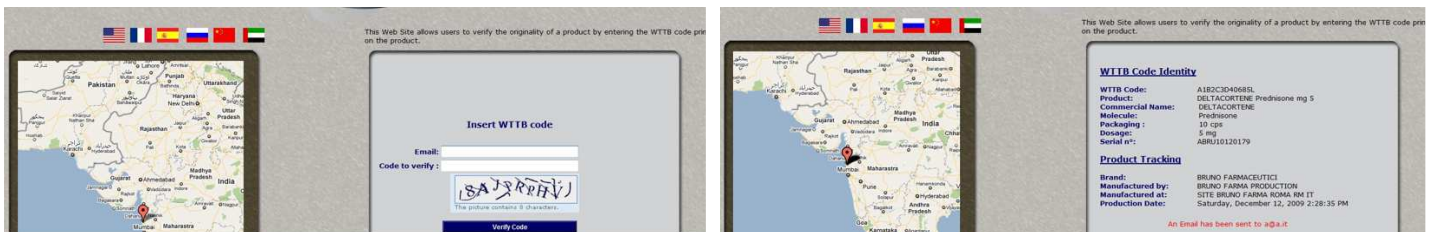
- Instalization of the unit for each Customer site
- DB4A (WTTB) codes are sent from the Central System to the Customer's Unit
- Printing and validating of the codes
- Garantees the originality of the products



CONSUMER TOOLS

Allows the consumer to verify the products purchased simply by:

- Going OnLine (web browser)
- Sending a SMS
- Multilanguage Call Center



CENTRAL UNIT

Is a unique worldwide database in which are stored all information about:

- DB4A (WTTB World Track and trace Bank) codes
- Customers request
- All validate transactions about DB4A (WTTB World Track and trace Bank)
- Customers enquiry
- Black list code

CERTIFICATION UNIT

- Physically located in a different Server Farm
- Certify and store information both of the central database and the peripheral units.
- This information is received from the central database.
- The Certification Unit can read information of Central and Peripheral Unit