

# CMT Patent Overview

## *“Elastic Membrane for Fingerprint Scanner”*

Official Title:

### **Biometric Imaging System and Method**

**Active Patent in:** USA ([US 7,319,565](#))

**Pending Patent in:** --

#### **What was the problem?**

Capturing a fingerprint or a palm print with an optoelectronic device works completely differently than the traditional ink-on-paper method.

Problems arise when the finger has very dry skin or skin that is worn out e.g. if the person works with chemicals (construction workers for example) affecting the skin surface. In such cases the direct contact between skin and capture platen surface is compromised. This affects the physical principle on which the optical scanner works and leads to low contrast fingerprint images. Elastic coatings on the capture platen – used by some vendors on their livescan units - can help, but this creates new problems when being scratched or altered over lifetime since it then requires the repair of the entire unit or complicated handling of spare parts in the field.

#### **How does the patent solve it?**

This Cross Match patent – an invention filed in January 2006 - solves this with a novel elastic membrane specially designed to fit directly onto the capture platen of the livescan unit. This membrane is a high-tech multilayer sheet with soft top and bottom sides and a highly stable core. Both surfaces are specially processed to ensure a perfect surface flatness – very important to achieve an excellent optical performance.

A major advantage is that it can be applied to the glass by simply placing it there. It keeps its position then by adhesion. So the sheet can easily and quickly be replaced by simply lifting off one corner, peeling the old sheet off completely, and placing a new one on the platen afterwards – perfect for maintenance in the field. It also protects the glass platen from being scratched. And it makes “rolling” a finger easier as it reduces skidding of the finger. Thereby a consistently high fingerprint quality even for dry fingers is being ensured.

**Patent is being used in:** L SCAN Guardian (models with silicone pad), L SCAN 500P/1000P/1000T (ditto), VERIFIER 300/310/320 (ditto), ID 500/1000, SEEK