



# BIOMETRICS

## **Biometrics and Security**

Students, parents and staff can rest be assured that the fingerprint images cannot be used by any other source for identification purposes. The system uses an image of the finger to create a mathematical algorithm and then discards the finger image; only the numbers remain and these cannot be reinterpreted back into a finger image.

## **Why do you need to take my child's finger image?**

By taking an image of your child's finger we can turn this information into a digital signature.

## **Can finger images be used by another agency?**

No, the software we use turns your child's finger image into a mathematical algorithm. The image of the finger is then discarded. The information that is stored cannot be used to recreate an image of the child's finger.

## **What happens when my child leaves the school?**

When a student leaves school all data will be deleted.

## **How does it work?**

When the child places his/her finger on the scanner, the software matches their finger image with the unique digital signature held in the database.

# Frequently Asked Questions

## **What are Biometrics?**

Biometrics authentication is the automatic recognition of a living being using suitable body characteristics. By measuring an individual's physical features in an authentication inquiry and comparing this data with stored biometric reference data, the identity of a specific user is determined. There are many different biometric features that can be used for authentication purposes; these include finger image, signature, iris, retina, DNA or any other unique characteristic. Once a characteristic has been chosen the next stage in the Biometric process is authentication. A biometric feature is saved on to a database. Once the data has been stored, a new scanning of the biometric feature is taken. If the comparison is positive, access to the appropriate application is granted.

## **What is iDStore?**

iDStore is a central database located within a school, which stores the information that identifies students uniquely to each of the applications used at the school.

iDStore requires each student to register only once, usually by placing a finger on a fingerprint scanner, although other identification methods are available.

## **Why use iDStore instead of other existing identification methods?**

The centralised system of iDStore speeds up the registration process – each student need only register once, no matter how many applications requiring identification are in place at the school.

With a biometric system, students cannot borrow or steal credentials from each other, reducing the opportunities for bullying. Queues are reduced because the rate of identification of students is quickened. Students no longer need to carry cards, remember PIN numbers, or use cash to purchase a meal.

Biometric systems save time and money for both schools and students because the need to replace lost cards and forgotten passwords is eliminated.

### **Does iDStore record images of individual fingerprints?**

iDStore does not store images of fingerprints on its system, and never will. Only mathematical representations of certain points of a finger image are recorded, typically between ten and sixty depending on the characteristics of the finger. This mathematical data is encrypted and is called a template. The data is extremely secure in its encrypted form, and even if it were not encrypted, it would be impossible to recreate the original fingerprint image from the stored data.

### **Is it possible to recreate a fingerprint from the data stored by iDStore?**

No, the iDStore system only stores a short string of encrypted numbers, too little data for the original print to be reconstructed.

### **How secure is the stored data? What would happen if somebody stole it?**

The iDStore database is protected by a licence key. This means that the database and any backup of its contents can only be accessed on licenced hardware. The hardware is stored in the school's own secure facility, so that the encrypted data is only available to the registered licensee. Even if a school's security were to be compromised and a backup of the database stolen, the encrypted data would still be unreadable, even by another school.

### **If I lose my bankcard, then it can be replaced. But I can't replace my finger. If a template is stolen, have I lost my identity forever?**

The simple answer is no. The fingerprint template stored in the database is merely a string of encrypted numbers. If this string of numbers were to be removed from the database, it would be useless because it cannot be recognised as a fingerprint. A fingerprint scanner checks for a real finger – it does not recognise a string of numbers.

### **Could the police or a court of law use the fingerprints stored in an iDStore database?**

iDStore does not store fingerprint images. The recorded templates are comprised of a set of numbers, which represent each person. This set of numbers will be unique within populations of hundreds, or a few thousands, of people. However, in a wider population, the system is not accurate enough for the templates to be usable for forensic matching with any degree of certainty. A court of law would not be able to use this information as evidence.

### **What happens about twins, or someone who has hurt their finger?**

Even identical twins have different fingerprints and will not be mistaken for each other by iDStore. In very rare cases there are people who are born without fingerprints. Occasionally someone's fingerprints may deteriorate because of exposure to some chemical products, and sometimes temperature change can cause reduction in fingerprint quality. However, a cut finger would not cause any problems for iDStore, unless it resulted in a major disfigurement.

### **Is there an alternative for students who are unable to provide biometric data for some reason, such as disability?**

Alternative identification methods, such as smart cards and name and photo identification, are always available in iDStore systems. Students unable to provide biometric data can opt to use one of these methods, as can any student who prefers not to use biometrics.

### **If I object to my child being fingerprinted, what will happen?**

The school will issue any student who wishes to opt out of the biometric system with an alternative method of identification. iDStore recognises a number of identification methods, including smartcards, PIN numbers, passwords and name and photo lookup.