



澳門特別行政區政府
Governo da Região Administrativa Especial de Macau
個人資料保護辦公室
Gabinete para a Protecção de Dados Pessoais

Issues Relating to Using Fingerprint/ Hand Geometry Devices to Check on Work Attendance

Recently the Office for Personal Data Protection (hereafter referred to as “this Office”) has received inquiries from various entities, asking if the employer is allowed to use fingerprint/ hand geometry devices to track employee time and attendance.

The abovementioned fingerprint/ hand geometry devices serve the purpose of checking on work attendance by authenticating the identities of employees using biometric technologies and keeping records. Relevant operations involve collecting, in advance, the employee’s fingerprints, three-dimensional hand geometry information or features acquired by infrared-ray scan, etc, which will be converted into digital data compatible to the specific device and stored in the database. An attendance record is done as the employee puts his/her finger or hand on the surface of the device, which converts the features captured into digital data and compares it with the preregistered digitalized physiological data in the database, authenticates and verifies the identity of the employee and records the time.

This Office’s opinions are as follows:

General Views

Generally speaking, this Office believes:

According to Number 1(1), Article 4, Act 8/2005 (“Personal Data Protection Act”), fingerprints and hand geometry are personal data, as they are unique biometric features – information relating to an identified natural person. Article 3 of the same Act provides that the processing of such data is regulated by the “Personal Data Protection Act”.

If employers record employee attendance using fingerprint/ hand geometry devices due to operational and internal management needs of the organization, the intention is lawful. However, according to Article 5 of the “Personal Data Protection Act”, which stipulates that employers also have to ensure that personal data is processed lawfully, tracking employee time and attendance using fingerprint/ hand geometry devices is only lawful when the employer ensures that fingerprint/ hand geometry data is “processed lawfully” with respect for the principle of good faith and individual privacy, and not further processed in a way exceeding or incompatible with the purposes for which they are collected, as well as making sure that such data is kept for no longer than is necessary, etc.



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Concerning criteria for making fingerprint/ hand geometry data processing legitimate, Article 6 of “Personal Data Protection Act” provides that Personal data may be processed only if the data subject has unambiguously given his/her consent or under circumstances that are laid down in (1)-(5), Article 6 of the same Act. So for the employer there are two ways of making collecting and subsequent processing of the employee’s fingerprint/ hand geometry data legitimate: 1) obtaining unambiguous consent from the employee; 2) basing on unambiguous terms laid down in the employment contract [see Number 1(1), Article 6 of “Personal Data Protection Act”]. In some special situations, when the employer can prove that it has legitimate interests not overridden by the interests for fundamental rights, freedoms and guarantees of the data subject, it can also make it legitimate.

Articles 10-12 provide that employers are obligated to ensure that the employees can exercise their right to information, right of access and right to object as they process employees’ fingerprint/ hand geometry data. Concerning the right to information, the employer should inform the employee of the purposes of collecting his/her fingerprint/ hand geometry data, the recipients or categories of recipients, the existence of the rights the employee enjoys and the conditions for exercising the rights. This Office recommends that employers can provide employees with the abovementioned information through the “Personal Data Collection Statement”.

Concerning the right to object, the data subject has the right to object at any time on compelling legitimate grounds relating to his/her particular situation to the processing of data relating to him/her. In other words, the employee has the right to object on compelling legitimate grounds to the processing of his/her fingerprint/ hand geometry data, and where there is a justified objection, the employer should no longer process relevant data. As whether an objection is justified is a case-by-case issue, this Office recommends that when the employee objects, the employer and the employee should do their best to reach consensus. In case no consensus can be achieved, the parties concerned can seek opinions from this Office.

Also, recording employees’ check in and check out time using fingerprint/ hand geometry devices is considered automated processing of personal data. In accordance with Article 21 of “Personal Data Protection Act”, this Office must be notified of such processing of data. Relevant forms of notification can be downloaded from this Office’s website (www.gpdp.gov.mo) or picked up from this Office.

Concrete Suggestions:

This Office is also providing some suggestions for employers and employees.



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In addition to the general views mentioned above, employers also need to observe the following:

1. For the purpose of checking on work attendance, the biometric data relevant device involves should be confined to fingerprints and hand geometry (including shape of the hand and features acquired by infrared-ray scan) and should not be extended to features of the face, voice and iris etc, which are generally used for entrance restrictions requiring relatively high security.
2. The employer is obligated to ensure relevant devices are working properly with a high degree of accuracy. Otherwise relevant devices will be considered unreliable devices that cannot serve the purpose of attendance check. And the employer may as a result violate the “accuracy of information” principle stated in Number 1 (4) of Article 5 of the “Personal Data Protection Act” and can be found guilty of administrative offence and fined up to MOP\$40,000.
3. Biometric data such as fingerprints and hand geometry collected and processed for the purpose of attendance check only cannot be used for other purposes. Failing to comply with this rule is a criminal offence and the offender can be sentenced up to 1 year in prison or 120 “day fines”. If it is indeed necessary to use the data for other purposes, authorization from this Office must be obtained in advance.
4. Generally speaking, the employer should not transfer biometric data such as fingerprints and hand geometry to other persons or organizations. In case such a transfer can happen under certain circumstances, the employer must ensure its legitimacy and inform the employee of the existence of such a possibility at the time when relevant data is collected.
5. Biometric data collected for the purpose of attendance check must not be kept indefinitely and should be erased permanently as soon as possible after the employee leaves office. If it is technically possible, such data should be erased permanently on the day the employee leaves office.
6. To ensure information security, fingerprint and hand geometry data should be stored in independent storage devices to prevent data loss or inappropriate data processing. Staff members processing relevant data should be subjected to certain regulations and given adequate training. They should also be warned that inadequate processing of personal data can be a criminal offence and the offender can be sentenced to up to 4 years in prison or 480 “day fines”.
7. When the processing of fingerprint and hand geometry data is carried out by an outsourced supplier (subcontractor), the controller must pay attention to relevant laws and regulations, choose the supplier carefully, sign an information security and confidentiality agreement with the supplier and conduct adequate monitoring of the supplier’s work.
8. Employers and relevant persons in charge must remember that they are responsible for information security and confidentiality and they need to



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bear responsibilities for relevant irregularities and malpractice, including bearing liability for compensation, liability for administrative offence and criminal liability etc.

9. Without sufficient and feasible technical support for security measures, employers should not consider using devices involving biometric information such as fingerprints and hand geometry to check on work attendance. While looking at the convenience these devices may bring, the employer should also take costs such as legal risks, employer-employee relationships and technical investment etc. into account.

Employees need to pay attention to the following:

1. If the employer uses relevant attendance check devices, the employee should take the needs of his/her workplace into account and make a balanced decision. Generally speaking, employers record employee attendance using fingerprint/hand geometry devices is due to operational and internal management needs of the organization. The intention is lawful. As long as the employer abides by the “Personal Data Protection Act”, such data will be processed lawfully.
2. The employee should evaluate how the use of such devices can affect his/her privacy, as well as looking at the reliability of his/her employer and protections currents laws can provide. In Macao, the “Personal Data Protection Act” regulates the processing of personal data. This Office is the “public authority” mentioned in the Act responsible for monitoring the implementation of the Act in Macao. In accordance with the Act, the employer or any other person unlawfully processes fingerprint/hand geometry data collected for the purpose of attendance check may face administrative and criminal charges and can be sentenced to up to 4 years in prison or 480 “day fines”. The employee who has suffered damage as a result is entitled to claim compensation from the controller.
3. The employee should get to know some features of such devices. For example, relevant devices collect and process data such as fingerprint/hand geometry information electronically and you are not required to place your fingerprints/palm prints on paper; relevant devices usually can only verify your identity electronically and cannot print out your fingerprints/palm prints.
4. The employee should demand his/her employer to produce a relevant “Personal Data Collection Statement” or privacy policy, become acquainted with information related to the ways the employer handles fingerprint/hand geometry data and get to know his/her own rights.
5. The employee can find out from his/her employer or from this Office if his/her employer has notified and registered the biometric attendance check system with the authority.
6. The employee should constantly keep watch for the reliability of relevant devices. In case of the machine authenticates identities wrongly or fail to authenticate identities, the employee should report the problem to his/her employer promptly.



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7. As the employee leaves office, he/she should check and confirm with his/her employer about when his/her fingerprint/hand geometry data is to be erased permanently.
8. Employees can submit inquiries to this Office when they have questions; can make complaints to this Office when their personal data is processed unlawfully. This Office will follow up relevant cases and protect the lawful rights and interests of the data subjects.

In relation to the issue of checking on work attendance using biometric devices, this Office will conduct further analyses and researches, work out and promulgate relevant regulatory guidelines.

Office for Personal Data Protection

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Unofficial Translation