LEGAL OPINION LETTER FOR A CLIENT

Subject:

Characteristics of the *"SOUND EVENT DETECTOR"* System in Terms of Personal Data Protection

Drafted for:

JALUD Embedded s.r.o.

Basis for the assessment:

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR) and related legislation.

Date:

10 January 2023

Drafted by:

JUDr. Marek Görges jr.

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"SED" System

I. Executive Summary

In the course of their business activities, the trading company JALUD Embedded s.r.o., ID No.: 03056287, having its registered office at Nepomucká 1355/261, Černice, 326 00 Plzeň, (the **"COMPANY"**) developed the "Sound Event Detector" (**"SED"**) system, which comprises the following basic things in the legal sense of the word:

(a) Algorithm (AI)

(b) Software (SW)

(c) Hardware (HW)

(d) Database

The Algorithm represents the fundamental principle implemented when mass-processing and evaluating input data while using the technology of machine learning and neuron networks through the SED system (the "**ALGORITHM"**). The ALGORITHM is a trade secret of the COMPANY represented by a unique procedure to solve tasks of recognition of specific acoustic phenomena in a particular acoustic environment (the **"ENVIRONMENT"**).[1] In interaction with the human factor, the ALGORITHM performs a primary analysis of a defined acoustic environment, on the basis of which it is adapted to (enriched with) the "knowledge" of the ENVIRONMENT having a characteristic acoustic profile (the **"ENVIRONMENT PROFILE"**) so that any subsequent systematic analysis of the ENVIRONMENT results in detection of selected acoustic phenomena with a sufficient degree of accuracy (the **"ENVIRONMENT KNOWLEDGE"**).

Based on the ENVIRONMENT KNOWLEDGE, the ALGORITHM makes it possible through synergy with a database (see below) to perform a subsequent real-time analysis which, by means of a matrix calculus, allows to detect the "searched for" acoustic phenomenon (the **"EVENT"**) in the ENVIRONMENT basically in real time and, at the same time, on the basis of evaluation of the acoustic characteristics of such phenomenon (the **"EVENT PROFILE"**), to identify whether it concerns any of the certain pre-defined acoustic phenomena, such as gunshot, scream, breaking glass, etc. (the **"EVENT TYPE"**), and, with the help of at least three SED system devices (see below), to determine the place where the selected acoustic phenomenon occurred in the area (the **"EVENT LOCATION"**).

On the basis of legal fiction, the software, being a complete computer program, constitutes a work[2] to which the COMPANY executes its property rights (the **"COMPLETE SW"**) and which encompasses all the computer programs used to develop

[1] Pursuant to Section 504 of Act No. 89/2012 Sb., the Civil Code, and to Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure.

[2] Pursuant to Sections 2(1)(2) and 65 of Act No. 121/2000 Sb., the Copyright Act, and to Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

and apply the ALGORITHM (the **"CORE SW"**) and then to process further the ALGORITHM application results in a way allowing their practical use by the COMPANY's customers by means of modular extension of selected third-party software (integration platform) used by individual customers, namely the systems such as Milestone, Genetec, Geutebrück, ZLD, Axis and Avigilon (the **"PLATFORM"**), or by means of supplying one's own user environment for the CORE SW (the **"USER SW"**).

The term "device" means a omnidirectional microphone with an integrated computer and with connectivity (the **"HW"**) to scan the ENVIRONMENT and, using the embedded CORE SW, to perform a real-time analysis on the basis of which:

(1) in the preparatory phase during integration operation of the SED together with the customer and while using human checks (the customer working with the COMPANY to confirm whether an alarm was false or not) for the purpose of the future regular operation of the SED system, an ENVIRONMENT PROFILE is developed in the order of weeks (the **"ENVIRONMENT ANALYSIS"**) for the SED system to gain ENVIRONMENT KNOWLEDGE (the **"ADAPTATION PHASE"**);

(2) in the execution phase during regular SED operation, the ENVIRONMENT is scanned with the already gained ENVIRONMENT KNOWLEDGE to detect an EVENT, determined the EVENT TYPE and the EVENT LOCATION and to raise an alarm in response to such EVENT (the **"OPERATION"**).

The COMPANY creates two types of databases for which it exercises the so-called special right of acquirer.[3] In a system database, the COMPANY keeps a dataset of mathematical values assigned by the ALGORITHM to acoustic phenomena in the set of all ENVIRONMENTS which were subject to the ENVIRONMENT ANALYSIS in the ADAPTATION PHASE and/or within the development and testing activities of the COMPANY (the **"SYSTEM DATABASE"**). The other database type is a dataset of audio recordings of EVENTS detected by the SED system in the ADAPTATION PHASE and identified subsequently (the **"DATABASE OF RECORDINGS"**).

II. Environment and Environment Knowledge

The term "ENVIRONMENT" means the area scanned with a sufficient level of sensitivity by means of the HW for OPERATION of the SED system. In this context, one has to distinguish:

(a) an area scanned by one HW device;

(b) an area scanned by three or more HW devices;

(c) a peripheral area.

One HW device receives impulsive acoustic events in a circle of approximately 250 m in radius as a maximum, i.e., an area of about 196,349.54 m^2 around the HW. The data

[3] Pursuant to Section 88 et seq. of Act No. 121/2000 Sb., the Copyright Act, and to Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on legal protection of databases.

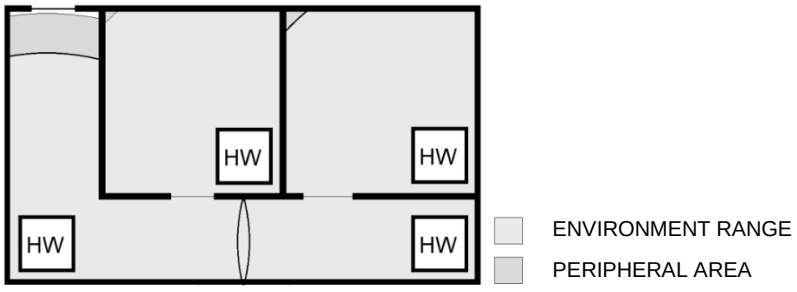
on the detection ability extent, however, is relative, not taking into account the limitations given by the environment nature (usually municipal buildings and infrastructure) and the EVENT TYPE, thus being smaller in reality. With one or two HW devices, the SED system is potentially able to detect an EVENT and the EVENT TYPE. As for the location, the SED system is able to identify it potentially with a limited degree of accuracy corresponding to the area of the circle in which the HW device is installed. If the SED system is installed in enclosed spaces, determination of the EVENT LOCATION depends on the spatial nature of the environment, while almost always corresponding to the specific room where the HW device is installed.

As for three or more HW devices, acoustic waves are received in a circle relating to the specific HW device identically to that mentioned in the previous paragraph. Using the triangulation method, however, the CORE SW is able with the knowledge of the places of installation of these HW devices to determine in addition to the EVENT and EVENT TYPE also the EVENT LOCATION by means of GPS coordinates (the **"ENVIRONMENT RANGE"**). This way of localization is typical for the ENVIRONMENT in open spaces, such as municipal parks.

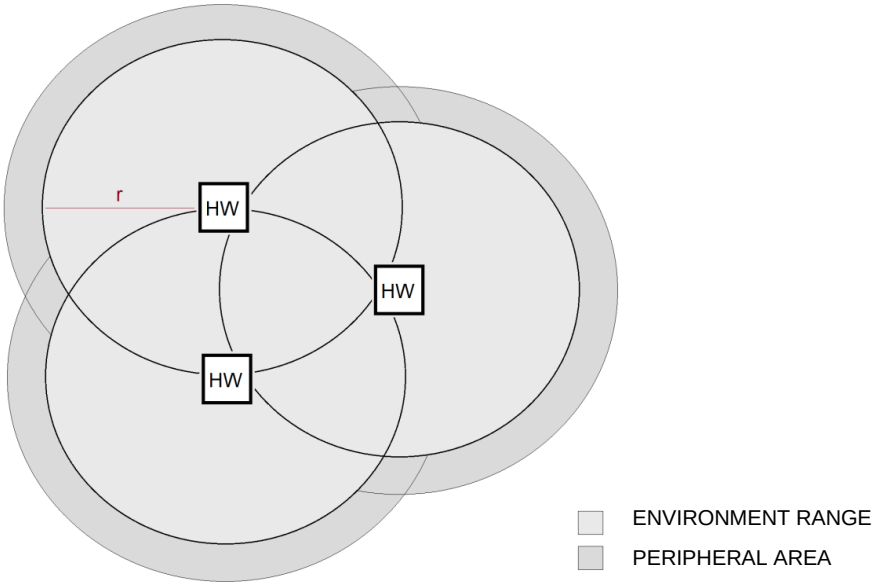
The term **"peripheral area"** means an area around the HW device where reception of acoustic waves by the HW device is only possible to a limited extent with insufficient degree of certainty, i.e., where the SED system does not allow their systematic reception and evaluation in order to detect potential EVENTS and to make further related identifications (the **"PERIPHERAL AREA"**).

Thus, the ENVIRONMENT relevant within the individual SED system consists of:

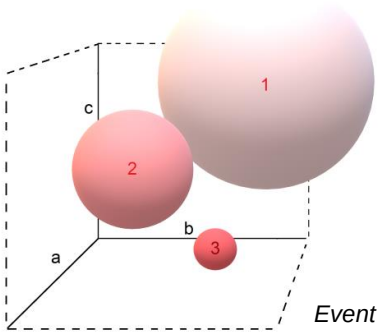
(a) a set of HW devices installed in an enclosed space where to localize the EVENT LOCATION the information on HW device position is sufficient; in case of large spaces, such as long corridors, hallways, etc., the triangulation method can theoretically be used (the **"ENCLOSED SPACE"**);



(b) a set of HW devices installed in an open space where to localize the EVENT LOCATION the information on the positions of three nearest HW devices in the particular space is used (the **"OPEN SPACE"**).



Using the ENVIRONMENT ANALYSIS during the ADAPTATION PHASE to prepare for future OPERATION, the SED system is "enriched" with the ENVIRONMENT KNOWLEDGE which allows to polish the recognition abilities of the ALGORITHM to achieve the guaranteed degree of accuracy. Thus, in a simplified way, it can be stated that the SED system creates its own "awareness" of an imaginary overall acoustic profile of reality (the "**MODEL**") from the set of all the ENVIRONMENTS of which it has gained knowledge, in which it is able to detect and identify EVENTS with a degree of accuracy correlated with the level of this "awareness".



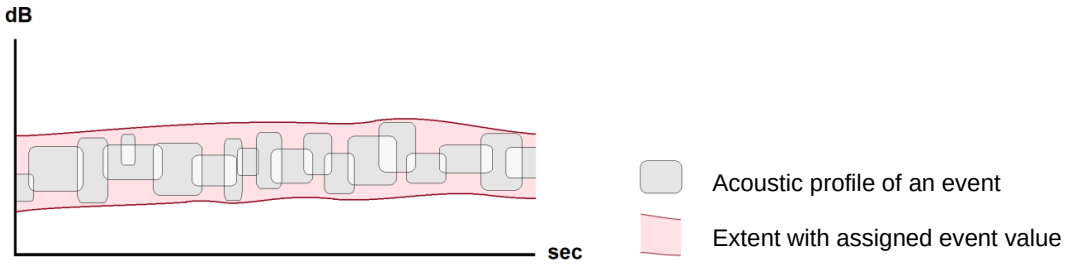
Event – a space defined by the volumes of spheres 1, 2, 3

Reality sound profile – a space defined by the volume of the cube of sides a, b, c

All the acoustic phenomena that do not fall within the set of phenomena that are not evaluated by the ALGORITHM as EVENTS form the volume of the cube as shown in the figure above, while all the acoustic phenomena that are evaluated by the ALGORITHM as EVENTS and that are not human-eliminated from the category of EVENTS in the ADAPTATION PHASE of the ENVIRONMENT ANALYSIS form the volume of the spheres.

III. Event and Event Profile

In terms of the SED system, an EVENT is an acoustic phenomenon which can be expressed by means of a spatial vector. After assignment of a particular vector, the ALGORITHM uses matrix calculations to assign values to the EVENT which in their summary as the EVENT PROFILE after a series of calculations (divided into 30-100 ms windows of the EVENT's acoustic signal) either equal or do not equal to the pretrained SYSTEM DATABASE values.



The described calculation and comparison of the final values within the ALGORITHM form the ability of the SED system to recognize EVENTS. At present, the SED system makes it possible to distinguish the following types of acoustic phenomena:

(a) Scream (within the specified intensity)

(b) Breaking glass

(c) Gunshot

(d) Explosion

The sensitivity of the HW device governs the ability of the SED system to detect and identify a specific EVENT. Thus, the ENVIRONMENT RANGE is variable for each type of the detected EVENTS. As for the recording of other acoustic phenomena than those detected by the SED system as EVENTS, the limitation of ability to distinguish depending on their nature applies similarly.

In addition to the ENVIRONMENT RANGE, the ENVIRONMENT PROFILE plays a role in relation to the ability to record acoustic phenomena. Within its CORE SW, the SED system deals with the limitations based on the ENVIRONMENT PROFILE during the ADAPTATION PHASE.

In general, it can be summarized that in relation to the individual EVENTS the SED system makes it possible to distinguish:

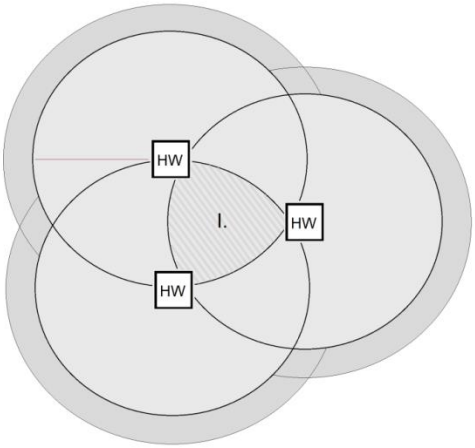
(a) screaming within a range of **approximately 180 m**;

(b) glass breaking within a range of **approximately 80 m**;

(c) gunshots within a range of **approximately 250 m**;

(d) explosions within a range of **approximately 250 m**.

In order to identify the EVENT LOCATION, unless the ENVIRONMENT is enclosed, the EVENT in question must occur in Zone I of the ENVIRONMENT (see below).



As soon as the CORE SW of the HW device evaluates through the ALGORITHM that an EVENT with a certain value has occurred, the HW device sends information via the GSM network and SSL protocol to the COMPANY's server as an integral package of the:

(a) EVENT TYPE;

(b) EVENT detection time;

(c) HW device ID;

(d) HW device location in GPS coordinates

(the **"EVENT PACKAGE"**).

A recording of the recognized EVENT in a standard length of 0.5 seconds can be attached to the EVENT PACKAGE according to the individual setting of the SED system (the **"RECORDING"**). The appropriate triangulation calculation is then performed on the COMPANY's server, on the basis of which information is sent subsequently to the COMPANY customer's integration PLATFORM about the:

(a) EVENT TYPE;

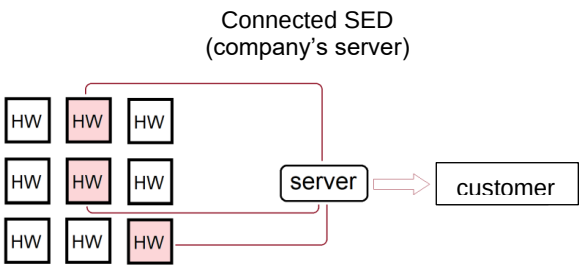
(b) EVENT time;

(c) EVENT LOCATION;

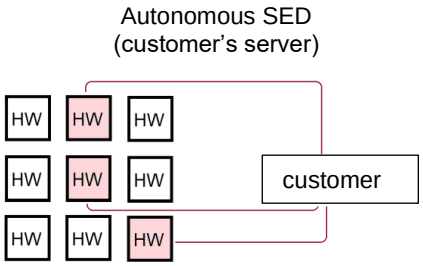
(collectively called as **"INFORMATION ON EVENT"**)

and possibly

(d) the RECORDING.



If the customer so wishes, it is possible for the processing of the EVENT PACKAGE together with any RECORDING to take place on the customer's server, i.e., independently of the COMPANY's server and without connection to the COMPANY's SW. For this purpose, the COMPLETE SW is installed on the customer's server, thus forming the customer's autonomous SED system (the **"AUTONOMOUS SED"**).



IV. Database

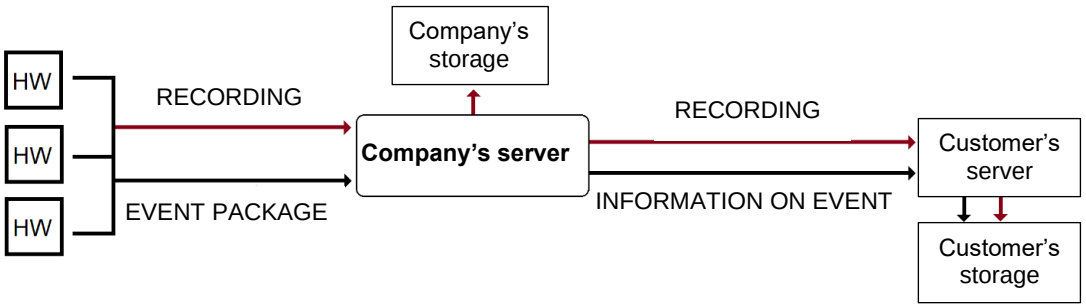
The **SYSTEM DATABASE** contains a dataset used to identify the EVENT TYPE. The SYSTEM DATABASE is embedded in every single HW device together with the CORE SW, which applies the ALGORITHM to the acoustic phenomena of the particular ENVIRONMENT by assigning mathematical values to them using a unique procedure. The process of determining the values is a unique calculation as a result of the application of the so-called artificial intelligence (AI) and machine-learning (ML) methods contained in the ALGORITHM. Values are assigned in real time while analysing the acoustic phenomenon. The acoustic phenomenon itself is not recorded in any way for this purpose on any storage medium.

The **DATABASE OF RECORDINGS** comprises:

(a) the databases acquired by the COMPANY;

(b) the databases acquired by the COMPANY for COMPANY customers;

(c) the databases acquired by customers of the COMPANY.



1) <u>Databases acquired by the company</u>

The DATABASE OF RECORDINGS acquired by the COMPANY contains RECORDINGS (sections of impulsive sound of maximum length 1.5 s captured in the environment and evaluated by the core SW as a monitored alarm EVENT in terms of SED) obtained during company's own development and testing activities and during the ADAPTATION PHASE of SED system delivery to a particular customer. This database is available

exclusively to the COMPANY with no access to it provided to any customer (or any third party). The database is used to improve the ALGORITHM and develop the CORE SW.

The COMPANY does not create and maintain any DATABASE of EVENT PACKAGES or DATABASE of INFORMATION ON EVENTS for its internal needs.

2) Databases acquired by the company for company customers

The DATABASE OF RECORDINGS acquired by the COMPANY for a COMPANY customer is created as a database independent of the DATABASE OF RECORDINGS acquired by the COMPANY for its own research and development needs. The COMPANY starts creating it as requested by the customer, and it consists exclusively of RECORDINGS made in the specific ENVIRONMENT of the customer for a period of time specified by the customer for purposes that are not at COMPANY's own discretion. The COMPANY collects such RECORDINGS and stores them during the ADAPTATION PHASE only independently of the customer (see letter a). Creation of this database by the COMPANY takes place through the COMPANY's server from which the RECORDINGS along with INFORMATION ON EVENTS are sent to the customer's environment where they are stored on a storage medium determined and operated by the customer independently of the COMPANY (the customer may also do so through the mediation of third parties, e.g., in the form of a cloud storage).

3) Databases acquired by customers of the company

The DATABASES OF RECORDINGS acquired by the customers of the COMPANY are databases created independently of the COMPANY when operating an AUTONOMOUS SED. In this case, the SED system is not connected to the COMPANY's server but to a server of the customer (or one operated by a third party, usually under a contract). Communication between the HW device and the customer's server takes place outside the COMPANY (i.e., without its activities, connection and, consequently, any possibility to control the integrity of the data being transmitted), with the COMPLETE SW being installed in the HW devices, on the customer's server for triangulation and HW device management and as a module within the PLATFORM used by the customer (alternatively, USER SW can be installed on the customer's server).

V. SED Properties in Dependence on the Business Model

After finishing the ADAPTATION PHASE, the SED system can be operated by the customer using the following methods:

(a) SED as a PLATFORM module;

(b) SED as a separate system operated by the customer.

The SED system is operated either connected or not connected to the server of the COMPANY (see the AUTONOMOUS SYSTEM above).

If the COMPANY's server is connected, INFORMATION ON EVENT (possibly together with RECORDINGS) is sent to the customer (as described above) via the COMPANY's server, which is also used for the triangulation calculation. Consequently, the COMPANY through HW device connection to its server obtains information on the HW device status, in particular (i) whether the HW device is connected, (ii) whether the HW device is inactive and (iii) whether the HW device is disconnected (the **"HW DEVICE STATUS"**). HW device connection also allows the COMPANY to update the CORE SW to increase the precision of EVENT detection and analysis (the **"UPDATE"**).

If the COMPANY's server is not involved in the SED system operation, whereby constituting an AUTONOMOUS SYSTEM, the COMPANY's server functions (see the previous paragraph) are taken over by the customer's server, which may also be provided by a third party under a contractual relationship with the customer. In such a case, the COMPANY provides UPDATE upon request only. Within the AUTONOMOUS SYSTEM, it is possible to modify the ALGORITHM to the individual needs of the customer.

1) SED as a platform module

In relation to the customer, as a rule, the SED system is supplied in the form of a module for the customer's current PLATFORM so as to process the SED system data within a customer's wider software solution. PLATFORM's connection in the solution supplied by the COMPANY entails engagement of a third party to process the data obtained by the SED system. Thus, the PLATFORM supplier stores SED system data independently of the customer and provides the customer with access to the data through the PLATFORM under the PLATFORM provision conditions.

Based on the conditions of interconnection of the SED system and of the PLATFORM (as agreed between the COMPANY and the PLATFORM providers), the SED system is set up so that the customer can obtain data from the SED system for its sphere independent of the PLATFORM in the form of data export, but within the extent of the INFORMATION ON EVENT only. Access to the RECORDING is restricted to the only option of playback on the particular PLATFORM; no exporting is allowed. The data itself containing the INFORMATION ON EVENT and the RECORDING is stored by the PLATFORM provider in its sphere in an encoded form. Keys needed to decode in the SSL protocol are only available to the SED system parties, namely the COMPANY's customer and the COMPANY.

2) SED as a separate system operated by the customer

The COMPANY is able to provide the customer with a solution using the USER SW that will ensure operation of the SED system independently of the PLATFORM, whether with the involvement of the COMPANY's server or when operating the AUTONOMOUS SYSTEM.

3) SED as part of a wider security system

The SED system can be connected within the PLATFORM with other systems operated by the customer within the PLATFORM. The COMPANY does not currently offer any software solution that would allow direct and automated interconnection with another HW equipment, such as CCTV.

The term “interconnection” can be understood as matching INFORMATION ON EVENT and/or RECORDING to other data processed by the customer. The SED system within the USER SW does not allow further management of DATABASES. The contents of the DATABASES are not overwritten at set time intervals, and further disposition of the data in the DATABASE is outside the COMPANY's sphere of control. The COMPANY provides only SW package of SED system that can be runed directly in CCTV from company Axis, but operates fully independently.

Characteristics of the SED System in Terms of Personal Data Protection

I. Legal Framework for Personal Data Protection

The analysis is based on the information defining the SED system for the purposes of assessment as to the extent in which the operations within the SED system show the signs of activities regulated by the personal data protection legislation and in which the obligations within such legislation can potentially affect the COMPANY and its customers (the **“Legal Framework for Personal Data Protection”**).

For the purposes of the analysis in this legal opinion, with regard to the purpose of the case under assessment, only selected legal regulations are deliberately used, leaving aside the legal regulations concerning the protection of privacy at the constitutional level of the legal order of the Czech Republic, as well as at the level of the so-called primary law of the European Union as well as the secondary law of the European Union which is not relevant from the point of view of the subject being analysed. The rights and obligations arising from international treaties are also omitted. Similarly, given the purpose of the analysis, the effects of Act No. 89/2012 Sb., the Civil Code, and Act No. 480/2004 Sb., on certain information society services, are not considered. Thus, the Legal Framework for Personal Data Protection as regards this legal opinion consists of the following:

(1) Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, in the current consolidated version (the **“GDPR”**);

(2) Act No. 110/2019 Sb., on personal data processing (the **“Personal Data Processing Act”**).

Further, this legal opinion reflects the secondary sources, namely:

(3) the case law of the Court of Justice of the European Union (the **“CJEU”**);

(4) the instructions, recommendations, etc. of the European Data Protection Board (the **“EDPB”**).

The GDPR is a directly applicable legal regulation of the European Union, which the COMPANY is obliged to follow in the same way as the Personal Data Processing Act. The Personal Data Processing Act has the nature of an implementing regulation in relation to the GDPR by virtue of the express provision contained in the GDPR stating that the Personal Data Processing Act must be applied exclusively together with the GDPR. The Personal Data Processing Act must not interfere in any way with the general regulation of the rights and obligations under the GDPR, except for those provisions where derogation is permitted expressly.

It is precisely in this sense that the relationship between the GDPR and the Personal Data Processing Act is relevant, since in terms of the general relationship between the GDPR and the legal orders of the individual member states of the European Union, the systematics of authorization for potential derogations do not differ in any way. The GDPR's authorization for possible national modification of the GDPR regime is identical for all the member states of the European Union, being explicit within clearly predefined boundaries, voluntary and not capable of interfering with the general data protection legislation under the GDPR being valid and in force throughout the European Union, i.e., the statutory regulations of any member state of the European Union may only deviate from the general regime if the GDPR allows so. This principle of the limited possibility for national legislation to influence the data protection regime is very strong in the GDPR in terms of its impact on the private sector, which is also evident in some of the principal declared purposes of this legislation:

- **Recital No. 2:** *"(…) to economic and social progress, to the strengthening and the convergence of the economies within the internal market (…)";*
- **Recital No. 7:** *"(…) given the importance of creating the trust that will allow the digital economy to develop across the internal market (…)";*
- **Recital No. 13:** "*In order to ensure a consistent level of protection for natural persons throughout the Union and to prevent divergences hampering the free movement of personal data within the internal market, a regulation is necessary to provide legal certainty and transparency for economic operators, including micro, small and medium-sized enterprises."*
- **Recital No. 13:** *"The proper functioning of the internal market requires that the free movement of personal data within the Union is not restricted or prohibited for reasons connected with the protection of natural persons with regard to the processing of personal data."*

The same follows from the GDPR itself, where it can be summarized that no member state of the European Union can influence a great majority of the rules legislatively, which mainly applies to the entrepreneurial activities in the internal market, including the activity of the COMPANY.

II. National Variations in Personal Data Protection

In approximately 30 cases, some form of self-regulation of the personal data protection regime is considered (or exceptionally required) by the EU member states in general, usually in order to make the rules under the General Regulation stricter. Basically, the Czech Republic has not used within the framework of the Personal Data Processing Act, the options provided by the GDPR to set even stricter conditions than those resulting from the general regulation in the GDPR. From the point of view of the COMPANY's activities and the SED system, it can be concluded that such exceptions or the option to derogate from the general regime of the GDPR, providing the member states of the EU with room for self-regulation, should not affect the conclusions of this analysis. Therefore, the possibility of national legislation of the member states of the European Union is not relevant when assessing the functioning of the SED system with regard to the EU data protection rules in the framework of this analysis.

This also follows from the contents of the below-listed provisions of the GDPR providing the member states of the EU with room for potential deviations as they, principally, do not concern the SED system in terms of this analysis and its purpose:

- **Art. 6, Para. 2, in connection with Para. 3,** makes it possible to specify the lawfulness of processing on the basis of law or public interest;

- **Art. 9, Para. 2,** makes it possible to specify the processing of sensitive data in various legal branches (irrelevant as regards the SED system);

- **Art. 9, Para. 4,** makes it possible to extend the group of controllers obligated to designate a data protection officer pursuant to Art. 37, Para. 4;

- **Art. 22, Para. 2(b),** makes it possible to potentially overrule the data subject's rights in relation to the automated decision-making based on profiling;

- **Art. 23, Para. 1,** makes it possible to introduce exceptions from a number of data subject's rights and controller's obligations in order to protect selected public interests;

- **Art. 26** makes it possible to regulate by law the split responsibilities of joint controllers;

- **Art. 28, Para. 3(a),** makes it possible to change by law the obligations of processors towards controllers as regards important public interests;

- **Art. 35, Para. 10,** makes it possible to request further assessment of impacts;

- **Art. 36, Para. 5,** allows to introduce further cases of compulsory prior consultations with the supervisory authority;

- **Art. 37, Para. 4,** allows to introduce further cases for designation of data protection officers;

- **Art. 49, Para. 1, in connection with Para. 4,** allows further exceptions for personal data transfer to a third country for important reasons of public interest recognized by law;

- **Art. 49, Para. 5,** makes it possible to prohibit or restrict the transfer of certain personal data categories outside the EU;

- **Art. 57, Para. 1(c),** makes it possible to regulate the provision of supervisory authority standpoints within the legislative process;

- **Art. 58, Para. 1, in connection with Para. 4,** makes it possible to arrange the material and process conditions of supervisory authority's access to the controller's and processor's premises;

- **Art. 58, Para. 6,** makes it possible to extend the powers of the supervisory authority;

- **Art. 80** makes it possible to extend the conditions and extent of data subject's representation in court proceedings;

- **Art. 83, Para. 8,** extends the GDPR regime by process rules of the member states of the European Union in imposing penalties by the supervisory authority;

- **Art. 84** makes it possible to determine further penalties;

- **Art. 86** makes it possible to regulate the relationship between the right of access to official documents and right of personal data protection;

- **Art. 87** makes it possible to introduce special conditions for processing of national identification numbers;

- **Art. 88** makes it possible to concretize rules for employee personal data processing;

- **Art. 89** makes it possible to determine exceptions for statistical processing, public archiving and scientific and historical research purposes;

- **Art. 90** makes it possible to determine the powers of the supervisory authority in relation to information subject to confidentiality or secrecy.

Considering the above, it can be concluded that, although this analysis is based on the legal order of the Czech Republic, the legal issues should be treated identically within the European Union solely in the context of the application of the GDPR (i.e., without applying any national legislation of a particular EU member state or without considering the possible influence of the adjudication practice of the national courts or competent administrative authorities, in particular the supervisory authority of a particular EU member state pursuant to the GDPR). In spite of the variations allowed to be implemented in the national legal regulations, the GDPR basically does not provide any room for the legal issues addressed in this analysis to be assessed differently in relation to the SED system.

As for the case law of the CJEU, its importance lies in its actual decisive influence on the adjudication practice of the courts of the member states of the European Union, although the issue of the binding nature of these decisions is not relevant for the purposes of this legal opinion. On the other hand, from the point of view of the COMPANY, not legally binding acts in the form of so-called general guidelines including instructions, recommendations or standpoints by the EDPB, actually play an irreplaceable role in the application of the GDPR on the level of soft law. In the case of both the case law of the CJEU and the activities of the EDPB, the influence on the assessment of the legal issues arising from the application of the GDPR should be similar throughout the European Union, also because the EDPB is composed, inter alia, of representatives of the supervisory authorities of the individual member states of the European Union.

III. Personal Data Processing within SED

Regarding the construction of the legal framework for personal data protection, for the purposes of assessing whether the GDPR and the related regulations affect the activities that take place when using the SED or when the COMPANY provides services in connection with the SED system, it is crucial to assess whether the information handled within the SED system constitutes personal data in the sense of the GDPR, regardless of whether it is obtained or subsequently created by the COMPANY.

According to Art. 4, Para. 1, of the GDPR:

- *"personal data" means any information relating to an identified or identifiable natural person* (the **"PERSONAL DATA"**);
- *an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person* (hereinafter, **"DATA SUBJECT"**).

According to Art. 4, Para. 2, of the GDPR:

- *"processing" means any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organisation, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction* (hereinafter, **"PROCESSING"**).

As follows from the first part of this analysis, the SED system involves:

(a) primary activities in the form of:

(1) continual systematic monitoring of a three-dimensional area by means of microphones to record all the acoustic phenomena occurring in it;

(2) a systematic analysis of all recorded acoustic phenomena, which can potentially lead to the following secondary activity;

(b) a secondary activity in the form of identification of:

(1) acoustic phenomena which show the signs of an EVENT;

(2) EVENT TYPE;

(3) EVENT LOCATION;

(4) EVENT detection time;

(5) temporary storage of a RECORDING;

(6) EVENT PACKAGE processing;

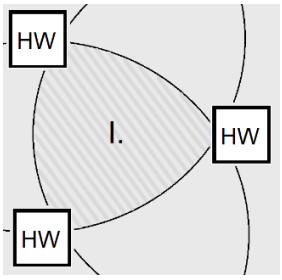
(c) a tertiary activity in the form of provision of information obtained from the secondary activity to the customer in a manner corresponding to the individually agreed terms and conditions of service provision by the COMPANY.

In relation to the above-mentioned activities, in order to assess the GDPR impacts, one has to assess to what extent each of these activities (independently of and in relation to each other) involves the collection or creation of specific information and to what extent this information can identify a natural person on the basis of his or her characteristics and, subsequently, where applicable, to what extent this information allows generation of other information associated with that natural person.

In doing so, it applies that if the information processed within the above-mentioned activities of the SED system cannot be connected with a particular natural person even under certain circumstances, which means that such particular natural person cannot be identified in connection with the activities directly or indirectly (in the sense of the GDPR), then the obligations under the GDPR do not extend to such activities.

1) Primary SED Activity in Terms of the GDPR

As explained in the first part of this analysis, in the continual monitoring of the ENVIRONMENT, different zones of microphone (HW) range and coverage with the required number of microphones (HW) can be distinguished as regards the degree of accuracy, i.e., the zones differ both in the resolution of the microphones (HW) and in the number of microphones (HW) that are able to record sound in them at a certain level of resolution. In order to assess whether the data collected and further processed during the first activity constitute personal data, a situation with the highest level of accuracy, i.e., monitoring in Zone I of the ENVIRONMENT with the involvement of a critical number (i.e., at least three) of HW devices, is used as a baseline because the definitional characteristics under the GDPR apply most strictly to this hypothetical situation.



The following information is available in the ENVIRONMENT during the primary activity:

- All real-time acoustic phenomena in the frequency range from 100 Hz to 16 kHz
- HW locality
- Time

In relation to the information above, during the primary activity (the systematic automated monitoring of a specific space in terms of the acoustic phenomena occurring in it), the acoustic phenomena are only monitored in real time within the range from 100 Hz to 16 kHz (hereinafter also as **"LISTENING"**) without any recording being made of them (except for the secondary activity of the SED system).

For the legal assessment of LISTENING, given the lack of its own regulation and professional reflection on the part of the supervisory authorities and the EDPB, it is possible to use by analogy the conclusions adopted for the so-called on-line surveillance, namely the operation of cameras or camera systems to monitor certain premises without the visual or audiovisual record being made and processed further (typically, in commercial premises, for instance).

Until 2020, the supervisory authority in the Czech Republic, namely the Office for Personal Data Protection (the **"OPDP"**), proceeded from its interpretative opinion No. 1/2006 on operation of camera systems in terms of the Personal Data Protection Act, adopted in 2006, which was based on the data processing rules under Act No. 101/2000 Sb., on personal data protection (implementing Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data), which was superseded by the GDPR in 2018. According to this OPDP opinion, the legal framework for personal data processing was only applied to such camera systems in which *"in addition to camera surveillance, footage is recorded or information is stored in the recording device and the purpose of the recorded footage or selected information is to use it to identify individuals in connection with certain behaviour.*" This conclusion was also accepted in the case law of the Czech courts.[4]

[4] For instance, judgment of the Supreme Administrative Court of 25 February 2015, Ref. No. 1 As 113/2012 – 133, or judgment of the Supreme Administrative Court of 8 November 2011, Ref. No. 2 As 45/2010- 68.

This interpretative approach applied in the Czech Republic even after the GDPR coming to effect was questioned in 2020 by EDPB Instructions 3/2019 for personal data processing through video equipment, which imply indirectly that PERSONAL DATA PROCESSING also involves camera systems used for surveillance only, i.e., real-time monitoring without recording the captured information.[5] By analogy, therefore, it can be concluded that in case of LISTENING when using the SED system one cannot exclude with respect to the GDPR interpretation that PERSONAL DATA PROCESSING takes place due to the exclusion of recording the monitored information.

However, similarly to the use of camera systems, in the case of LISTENING the acoustic phenomena being monitored must have the characteristics of PERSONAL DATA. In relation to acoustic phenomena within any space (including the ENVIRONMENT), it can be stated in general that these can be divided into two groups in terms of the GDPR, namely:

(a) the acoustic phenomena which are not PERSONAL DATA, i.e., all acoustic phenomena which do not originate from a DATA SUBJECT, or which cannot be associated with any DATA SUBJECT, or such association is only hypothetically possible while including the criteria of difficulty, costs and other similar factors whose existence reasonably precludes it;

(b) the acoustic phenomena which originate from a DATA SUBJECT and/or which can be associated with a DATA SUBJECT hypothetically and which, thus, can potentially be PERSONAL DATA.

It follows from the above that within the ENVIRONMENT there usually also occur, independently of the primary activity, such acoustic phenomena which in themselves (independently of the SED) have the nature of PERSONAL DATA. Under certain circumstances, this PERSONAL DATA may also fall within the so-called special category of personal data pursuant to Art. 9 of the GDPR, since in terms of acoustic phenomena in this context it is primarily the human vocal expression that is relevant.[6] The voice itself may constitute a special category of personal data not only for the possible content of the spoken word (e.g., state of health or political opinions), but also always for the metadata that may be associated with it (in particular, age and gender). Therefore, according to the EDPB, vocal expression can generally be considered as biometric data,[7] which means that if vocal expressions are to be PROCESSED under the GDPR, then to PROCESS them, one has to have a legal title per Art. 6 of the GDPR and, at the same time, such processing must be subject to an exclusion per Art. 9 GDPR.

[5] This follows mainly from clauses 11, 22, 99 and 116 of EDPB 3/2019 Instructions 3/2019 for personal data processing through video equipment.

[6] In adults, the basic vocal cord tone is usually in the range from 80 to 400 Hz (with peaks usually being in the range from 33 to 3100 Hz). In women, it is on average 2 times higher than in men, in children it can be up to 600 Hz (doc. Dr. Ing. Vlasta Radová. Rozpoznávání lidí podle hlasu. Biometrické a bezpečnostní systémy. Vlasta Radová, University of West Bohemia in Pilsen, Department of Cybernetics, of 3 November 2019).

[7] EDPB Instructions 02/2021 for virtual vocal assistants, Ver. 2.0, of 7 July 2020.

In the framework of the SED primary activity, however, with respect to the operation of the SED system both during the ADAPTATION PHASE and during its OPERATION, it cannot be concluded that the information obtained by LISTENING has *a priori* the nature of PERSONAL DATA because it is not assignable within the system to a particular natural person (DATA SUBJECT) for the absence of or unfamiliarity with other necessary elements.

On the other hand, however, there is no doubt that with the knowledge of the characteristic elements related to the acoustic expression of persons occurring in the space (ENVIRONMENT) being monitored, it is possible to identify such persons through these elements on the basis of the primary activity of the SED and, depending on other hypothetical capabilities of the system, to assign further characteristic features to them and to generate further information about them, including the evaluation of the presence and behaviour of these persons in the space (ENVIRONMENT) being monitored. However, any such (secondary) activity would require, either on the part of the particular natural person who would have real-time access to the acoustic phenomena being monitored or on the part of the relevant program which would do so in an automated manner, specific knowledge concerning the particular natural person and, at the same time, the ability of identification in real time, i.e., during an extremely short moment in time.

Thus, although there will, as a rule, occur phenomena within the ENVIRONMENT that will have the nature of PERSONAL DATA, LISTENING to them might not constitute PERSONAL DATA PROCESSING as such phenomena will not show the features of PERSONAL DATA within the SED system. The wording of Recital No. 26 of the GDPR can be mentioned as relevant in this respect:

- *"To determine whether a natural person is identifiable, account should be taken of all the means reasonably likely to be used, such as singling out, either by the controller or by another person to identify the natural person directly or indirectly. To ascertain whether means are reasonably likely to be used to identify the natural person, account should be taken of all objective factors, such as the costs of and the amount of time required for identification, taking into consideration the available technology at the time of the processing and technological developments. The principles of data protection should therefore not apply to anonymous information, namely information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable. This Regulation does not therefore concern the processing of such anonymous information, including for statistical or research purposes."*

As follows from the description of the ALGORITHM's function for the purpose of identification or in identification of an EVENT, the CORE SW does not enable to assign any elements which could lead to identification of a natural person through an acoustic phenomenon, while it basically "only" assigns mathematical values in real time to the acoustic phenomena being monitored and then compares the values with those in the SYSTEM DATABASE. The SYSTEM DATABASE as such does not and, given its

nature, cannot contain any element which would enable identification of a particular natural person and could thus establish the existence of PERSONAL DATA.[8]

As for the DATABASE OF RECORDINGS in terms of their capability to be an identification element in connection with LISTENING (the nature of the RECORDING as potential PERSONAL DATA is addressed within the secondary activity of the SED), then:

(a) in the case of the **DATABASE OF RECORDINGS acquired by the COMPANY,** it concerns a set of sound recordings which, irrespective of their length, basically cannot be used as an element of interconnection of the acoustic phenomenon (the record of which they constitute) with the sound expression of a particular natural person within the primary activity of the SED during OPERATION because:

   i. the DATABASE OF RECORDINGS of the COMPANY is never interconnected with the SED system and such interconnection would never be technically possible in the case of the AUTONOMOUS SED and, in the case of the CONNECTED SED (SED OPERATION using the COMPANY's server), no such interconnection is subject to technical solution;

   ii. the acoustic phenomena contained in the DATABASE OF RECORDINGS of the COMPANY are of a generic nature (being obtained in a great quantity of ENVIRONMENTS) and are exclusively used to create the SYSTEM DATABASE and to develop the ALGORITHM;

(b) in the case of a **DATABASE OF RECORDINGS acquired and administered by the customer,** admittedly, one cannot exclude their use for further analysis for the purpose of potential interconnection of the records with other data obtained by the customer independently of the SED system, in the consequence of which they can become PERSONAL DATA given their localization within the specific ENVIRONMENT (for instance, by combining them with information from CCTV records, which would fulfil the signs of PROCESSING), but:

   i. with regard to their length (see more on this in the secondary SED activity and RECORDING as potential PERSONAL DATA), they cannot be used as an element for interconnection of an acoustic phenomenon (of which they are a recording) with another acoustic expression of a specific natural person, i.e., one that already has the nature of PERSONAL DATA;

   ii. during the primary activity of the SED in OPERATION, the COMPLETE SW does not enable either any automated interconnection with other data potentially needed for comparison for the purposes of an individual analysis or any such analysis given the nature of the ALGORITHM.

[8] In the system database, the COMPANY stores a set of mathematical values to be assigned by the ALGORITHM to the acoustic phenomena in the set of all ENVIRONMENTS in which the ENVIRONMENT ANALYSIS was performed in the ADAPTATION PHASE or as part of the COMPANY's development and testing activities.

As for the analysis of the ENVIRONMENT, irrespective of whether it concerns an ENVIRONMENT ANALYSIS within the preparatory phase or a systematic analysis aimed at identifying a specific EVENT, such analysis (as follows from the EVENT detection description in the CORE SW) in itself is not able to lead to identification of other than a generic acoustic phenomenon being within the range of those generic acoustic phenomena which are in terms of the SED system and its ALGORITHM intended to detect, i.e., gunshot, scream, breaking glass, explosion, human shouting (and/or, in the future, other generic acoustic phenomena under the same conditions).

On the other hand, even if one concludes that PROCESSING might take place while LISTENING, it is obvious that the ALGORITHM would perform real-time anonymization in the sense of the GDPR already at the moment of assigning a specific spatial vector to a particular acoustic phenomenon, to which, moreover, a mathematical value only is assigned further within the subsequent matrix calculi corresponding to a specific EVENT distinguishable by the SED system. This value, being compared with values in the SYSTEM DATABASE, is quite anonymous and is not reverse-assignable to any specific sound vector (the identification of which is not stored or archived in any way), thus not being assignable to even the original acoustic phenomenon.

Thus, it can be stated that, even if the SED system would store an acoustic phenomenon having independently of the SED system the nature of PERSONAL DATA in a sufficient length of record, further operations within the SED system would lead to sufficient breaking of direct and indirect links of information generated by the SED system to such acoustic phenomenon. Similarly, it can be concluded that the SED system does not possess or generate any set of information that would allow a hypothetical recording of an acoustic phenomenon of sufficient recording length, having the nature of PERSONAL DATA independently of the SED system, to be analysed in any way and, on the basis of such analysis, to be matched to a specific natural person.

Considering the statements above, it can be concluded that solely within the primary activity of the SED no PERSONAL DATA PROCESSING takes place and, therefore, the use of the SED system in itself within its primary activity is not capable of establishing the status of a personal data controller for the COMPANY's customer pursuant to Art. 4, Para. 7 of the GDPR, according to which the term:

- *"controller" means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law* (the **"CONTROLLER"**).

Similarly, one can also conclude that the use of the SED system in itself within its primary activity is not capable of establishing the status of a personal data controller for the COMPANY pursuant to Art. 4, Para. 7 of the GDPR.

It can also be stated that for the reasons for which the SED system is not capable within its primary activity of establishing the status of a personal data CONTROLLER on the part of the COMPANY or its customer, and the use of the SED system does not

constitute the COMPANY or its customer a personal data processor pursuant to Art. 4, Para. 8 of the GDPR, according to which the term:

- *"processor" means a natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller* (the **"PROCESSOR"**).

2) <u>Secondary SED Activity in Terms of the GDPR</u>

Following the primary activities of the SED, only those acoustic phenomena that have the characteristics of an EVENT are identified through matrix calculation using the ALGORITHM. At the time of this analysis, an EVENT is defined as:

(a) scream (in the set intensity);

(b) breaking glass;

(c) gunshot;

(d) explosion.

In the case of acoustic phenomena listed under letters b) to c), one can conclude that, given the nature of the SED primary activity, they fall within the category of acoustic phenomena which are not PERSONAL DATA, having the nature of those acoustic phenomena which do not originate from a data subject and which cannot be associated with any DATA SUBJECT within the SED system. Hypothetically, one could potentially consider to associate the acoustic phenomena under letters b) to c) with a scream by comparing the RECORDINGS with information on the LOCATION and EVENT detection time, but such interconnection is completely outside the sphere of the COMPANY because the COMPANY does not create and keep for its own purposes either any EVENT PACKAGE DATABASE or any DATABASE of INFORMATION ON EVENTS and even does not enable such interconnection within the services it provides.

Where such interconnection should take place, it would be exclusively upon the decisions and activities of the COMPANY's customers through their own activities and technologies. Assuming that in such a case, as a result of such subsequent analysis, PERSONAL DATA PROCESSING occurs, the status of the CONTROLLER or PROCESSOR is based on facts independent of the activities and will of the COMPANY. If the customer does not perform any subsequent analysis by interconnecting information on EVENTS together with RECORDINGS it receives through the SED system, creation of a database of PERSONAL DATA and fulfilment of the signs of PERSONAL DATA PROCESSING while eliminating any possible other factors independent of the SED system are excluded.

The conclusion above is also based on the current state of the art and on the existing possibilities of sound detection and analysis. In this context, it is significant that for the purposes of automated voice identification (regardless of the technology used and other influencing factors), the shortest period of time of a spoken word (not a scream, which is the subject of detection by the SED system) needed for an analysis is usually 5 seconds of a continuous audio track, while achieving only the lowest predictive values of the probability of successful speech recognition and with sufficient signal quality and a sufficiently large comparative database of the speech of an identical speaker. At the same time, there are conclusions that human scream, as one of the modes of vocal

expression, represents a more challenging type of acoustic phenomenon for the purposes of automated, but also perceptual analysis and identification of a particular person, for which a longer continuous audio track is usually required (compared to a vocal expression under otherwise identical conditions). However, the SED system works exclusively with RECORDINGS of 0.5 s in length. Considering this, an individual RECORDING is not, given the parameters of the SED system and the current possibilities of sound analysis, with a convincing degree of probability, able to fulfil the criteria of PERSONAL DATA in the sense of the GDPR and, therefore, no other INFORMATION about the EVENT can become PERSONAL DATA in relation to a specific RECORDING.

As already described in the first part of this analysis, all the information handled during the secondary activity is sent from the individual HW devices to the COMPANY's server as an integral EVENT PACKAGE (possibly along with the file containing the RECORDING) at the moment the CORE SW of the HW device evaluates through the ALGORITHM that an EVENT with a certain value has occurred. This data is communicated via the GSM network as an SSL protocol which secures the data transfer by means of encrypted communication while using authentization certificates and a two-component encryption key so that every single data transfer is authenticated both on the side of the HW device and of the COMPANY's server (and/or the server identified by the customer in case of an AUTONOMOUS SED SYSTEM). However the potential strength of communication protection through the SSL protocol is also directly proportional to the strength of the encryption key, the SSL protocol represents today a standard means of securing distance communication in compliance with the requirements put by the GDPR on potential PROCESSING.

Considering the statements above, it can be concluded that solely within the secondary activity of the SED no PERSONAL DATA PROCESSING takes place and, therefore, the use of the SED system in itself within its secondary activity is not capable of establishing the status of a PERSONAL DATA CONTROLLER for the COMPANY's customer. Similarly, it can be concluded that the use of the SED system in itself in the context of the secondary activity is not capable of establishing the status of a PERSONAL DATA CONTROLLER for the COMPANY.

It can also be stated that for the reasons for which the SED system is not capable within its secondary activity of establishing the status of a PERSONAL DATA CONTROLLER on the part of the COMPANY or its customer, the use of the SED system does not constitute the COMPANY or its customer a PERSONAL DATA PROCESSOR.

3) <u>Tertiary SED Activity in Terms of the GDPR</u>

Information from the secondary activity, namely INFORMATION ON EVENT possibly along with RECORDINGS, is transmitted to the customer by means of electronic communication means in a manner which corresponds with the individually agreed terms and conditions of service provision by the COMPANY.

If the COMPANY's server is connected, the INFORMATION ON EVENT (possibly along with RECORDINGS) is also sent to the customer using the SSL protocol (see the

secondary activity of the SED system). If the COMPANY's server is not involved in the operation of the SED system, making it an AUTONOMOUS SYSTEM, the functions of the COMPANY's server are taken over by the customer's server, while, however, the SED system is still configured to transmit data via an SSL protocol irrespective of whether the server is operated by the customer or provided by a third party on the basis of its contractual relationship with the customer.

The conclusions concerning the secondary activity of the SED system will apply completely to evaluate the tertiary activity in terms of the GDPR; therefore, it can be concluded identically that **within the tertiary activity of the SED no PERSONAL DATA PROCESSING takes place and, therefore, the use of the SED system in itself within its tertiary activity is not capable of establishing the status of a PERSONAL DATA CONTROLLER for the COMPANY's customer. Similarly, it can be concluded that the use of the SED system in itself in the context of the tertiary activity is not capable of establishing the status of a PERSONAL DATA CONTROLLER for the COMPANY. It can also be stated that for the reasons for which the SED system is not capable within its tertiary activity of establishing the status of a PERSONAL DATA CONTROLLER on the part of the COMPANY or its customer, the use of the SED system does not constitute the COMPANY or its customer a PERSONAL DATA PROCESSOR.**

IV. Personal Data Processing Out of the SED Based on Information from SED

Considering the nature of the information handled by the SED system and the circumstances of its acquisition, it is stated repeatedly in the analysis that one cannot rule out that this information, in combination with other data, could become personal data. However, despite the purposes for which the SED system is intended, it cannot be presumed that this possibility is different from any other information commonly available in the public domain for collection and subsequent analysis.

The technical solution of the SED system (including the USER SW) discussed in the first part of this analysis does not allow to a reasonable extent, considering the current state of the art and scientific knowledge, either the customer of the COMPANY, a third party providing the customer of the COMPANY with server services, or the COMPANY, to PROCESS PERSONAL DATA as a result of using the SED system in any way presumable for the COMPANY while keeping the features of the COMPLETE SW, i.e., while using it in compliance with the contractual terms and conditions and with the law.

However, it cannot be excluded that the use of the SED system in interconnection with other services, activities and data can contribute to fulfilling the signs of PERSONAL DATA PROCESSING on the side of the COMPANY's customers or third parties that have access to the information generated by the SED system through the services they provide to the COMPANY's customers, i.e., especially to the INFORMATION ON EVENTS. In this respect, a specific role can be played by the providers of PLATFORMS, where (if it concerns a certified integration by the COMPANY) in addition to technical barriers for the interconnection of the INFORMATION ON EVENTS with other

information that can be managed within the PLATFORM (usually camera records, employee databases, etc.) the COMPANY according to its statement contractually restricts the possibility of automated interconnection.

Regarding the above, therefore, it can be recommended that the COMPANY's customers be instructed as part of the agreements on mutual obligations with the COMPANY in connection with the use of the SED system and of the COMPANY's services that the use of the SED system does not relieve them of the obligation to act in compliance with the rules on personal data protection, namely to comply with the obligations arising in particular from the GDPR, provided that they are involved in PERSONAL DATA PROCESSING on the basis of activities independent of the use of the SED system or activities that further process information from the SED system independently of it. In the case of the COMPANY's customers who typically process additional information as part of broader security solutions that constitutes PERSONAL DATA itself and who may also convert the SED system data into PERSONAL DATA (independently of the use of the SED system and COMPANY's activities) while interconnecting it with the INFORMATION ON EVENTS, it can be stated that an essential criterion for the extent of the obligations under the GDPR is also the degree of potential risk of misuse of such data in dependence on the dimensions of the monitored area as well as on the number of persons present in it. Pursuant to Art. 35, Para. 3(c) of the GDPR, these customers may be obliged to carry out a so-called data protection impact assessment in case of large-scale systematic monitoring of publicly accessible premises, as well as, pursuant to Art. 37, Para. 1(b) of the GDPR, to appoint a data protection officer if the processing operation, due to its nature, requires regular and systematic monitoring of data subjects.

In this context, however, it should be emphasized again that combining the SED system with other visual or audiovisual means goes beyond the sphere of the COMPANY. As regards the data protection rules, it is always necessary for the COMPANY's customer to assess the use of a combination of the SED system with other visual or audiovisual means in individual cases to determine the specific limitations and obligations arising for it as a PERSONAL DATA controller or processor.

Conclusion

This legal opinion contains an analysis of an SED system and conclusions in terms of the rules of personal data protection. All the notices and explanations contained herein are based on the information provided by JALUD Embedded s.r.o. and on a selection of legal regulations applicable and effective at the time of drawing it up, as well as on the legal opinions of the law firm. Therefore, it cannot be ruled out that the professional public does or would assume a different standpoint to some of the issues.

The basic purpose of the analysis contained in this legal opinion is to assess whether the SED system is a tool which while being used by the user or by JALUD Embedded s.r.o. establishes the status of a personal data controller or processor in the sense of the GDPR.

On the basis of the information available at the moment of processing this information it can be stated that no personal data is processed when using the SED system exclusively in accordance with its intention and JALUD Embedded s.r.o. instructions and without disturbing the integrity of its software solution. This is because the system does not enable to identify any specific natural person due to the lack of additional input information needed for it as the SED system does not record and does not otherwise work with other phenomena and their physical quantities than processing a limited quantity of selected audio tracks only in maximum length of 1.5 s and the locations of occurrence of such audio tracks and does not have any databases of necessary comparison samples available and possibilities to create such databases. Any hypothetical extraction of data in the SED system for further processing leading to creation or identification of personal data is excluded within the SED system and reduced considerably in case of its interconnection with other systems in a standard manner due to the limitations given by the technical characteristics of the software solution in use.

Further, it can be stated that the technical solution complies with the requirements of the GDPR on enhancement of the standard of personal data protection within the European Union and constitutes, within the meaning of the GDPR recital and its declared purpose, a technologically neutral solution preventing excessive processing of personal data while fulfilling the purpose (ensuring safety and protection of property, life and health in the public and private space, which is usually achieved by using solutions that usually process personal data).

It is recommended to inform potential users about the nature of the technology used by JALUD Embedded s.r.o. together with warnings about the potential consequences of combining it with other technologies commonly used for a similar purpose.

As in the case of the SED system it concerns a non-standard and new technical concept of information processing within personal data protection which, in connection with the services provided by JALUD Embedded s.r.o., can be responded specifically in the future by the Office for Personal Data Protection (and/or similarly by other supervisory authorities in the country where the SED system is used) and by the European Data Protection Board, it is recommended to follow their interpretative opinions.

Also, it would be advisable to reflect the adjudication practice of the courts of the Czech Republic and of the Court of Justice of the EU. It is also recommended to follow the adjudication practice in other member states of the EU, namely the Federal Republic of Germany and French Republic, whose approaches to personal data protection have a significant impact on the practice in other member states of the EU.