eID Interoperability for PEGS

NATIONAL PROFILE BULGARIA

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Executive summary

The project eID Interoperability for PEGS aims to propose a solution to the legal, technical and organisational issues related to the creation of an interoperable Pan-European identity management infrastructure. The EU Member States, Candidate Countries and EEA Countries are introducing more sophisticated ways to manage identities in the eGovernment area. Different member states are implementing different structures as their identity management solution. The main challenge for the eID Interoperability for PEGS project is to propose a general architecture that, while taking into account the existence of different models, is able to cope with them by obtaining the final goal of interoperability.

The project should conclude with several different proposals how to build interoperability without affecting member states' own existing infrastructures.

This document describes the current situation regarding the use of electronic authentication means in Bulgarian eGovernment applications.

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1 Documents

1.1 Applicable Documents

[AD1]	Framework Contract ENTR/05/58-SECURITY

1.2 Reference Documents

[RD1]	eGovernment in the Member States of the European Union – 5th Edition – May 2006 http://ec.europa.eu/idabc/servlets/Doc?id=24769
[RD2]	European Electronic Signatures Study http://www.law.kuleuven.ac.be/icri/itl/es_archive.php?where=itl
[RD3]	DIRECTIVE 1999/93/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 1999 on a Community framework for electronic signatures http://europa.eu.int/information_society/eeurope/i2010/docs/esignatures/esignatures_en.pdf
[RD4]	Decision 2003/511/EC of 14 July 2003 on the publication of reference numbers of generally recognised standards for electronic signature products in accordance with Directive 1999/93/EC of the European Parliament and of the Council, OJ L 175, 15.7.2003, p.45 http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_175/l_17520030715en00450046.pdf
[RD5]	DIRECTIVE 2004/18/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/l_134/l_13420040430en01140240.pdf
[RD6]	IDABC Work Programme Third Revision http://ec.europa.eu/idabc/servlets/Doc?id=25302
[RD7]	DIRECTIVE 2004/17/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_134/l_13420040430en00010113.pdf

2 Glossary

2.1 Definitions

In the course of this report, a number of key notions are frequently referred to. To avoid any ambiguity, the following definitions apply to these notions and should also be used by the correspondents.

- *Entity:* anyone or anything that is characterised through the measurement of its attributes in an eIDM system. This includes natural persons, legal persons and associations without legal personality; it includes both nationals and non-nationals of any given country.

- *eIDM system*: the organisational and technical infrastructure used for the definition, designation and administration of identity attributes of entities. This Profile will only elaborate on eIDM systems that are considered a key part of the national eIDM strategy. Decentralised solutions (state/region/province/commune…) can be included in the scope of this Profile if they are considered a key part of the national eIDM strategy.

- *eIDM token (or 'token')*: any hardware or software or combination thereof that contains credentials, i.e. information attesting to the integrity of identity attributes. Examples include smart cards/USB sticks/cell phones containing PKI certificates, …

- *Authentication*[1]: the corroboration of the claimed identity of an entity and a set of its observed attributes. (i.e. the notion is used as a synonym of "entity authentication").

- *Authorisation*: the process of determining, by evaluation of applicable permissions, whether an authenticated entity is allowed to have access to a particular resource.

- *Unique identifiers*: an attribute or a set of attributes of an entity which uniquely identifies the entity within a certain context. Examples may include national numbers, certificate numbers, etc.

- *Official registers*: data collections held and maintained by public authorities, in which the identity attributes of a clearly defined subset of entities is managed, and to which a particular legal of factual trust is attached (i.e. which are generally assumed to be correct). This includes National Registers, tax registers, company registers, etc.

[1] For the purposes of this Profile, the notion of authentication is considered to be synonymous with 'entity authentication', as opposed to 'data authentication'. The notion of 'identification should be avoided to avoid confusion.

- *eGovernment application*: any interactive public service using electronic means which is offered entirely or partially by or on the authority of a public administration, for the mutual benefit of the end user (which may include citizens, legal persons and/or other administrations) and the public administration. Any form of electronic service (including stand-alone software, web applications, and proprietary interfaces offered locally (e.g. at a local office counter using an electronic device)) can be considered an eGovernment application, provided that a certain degree of interactivity is included. Interactivity requires that a transaction between the parties must be involved; one-way communication by a public administration (such as the publication of standardised forms on a website) does not suffice.

- *eSignature*: data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication with regard to this data. Note that this also includes non-PKI solutions.

- *Advanced electronic signature*: an electronic signature which meets the following requirements:

  (a) it is uniquely linked to the signatory;

  (b) it is capable of identifying the signatory;

  (c) it is created using means that the signatory can maintain under his sole control; and

  (d) it is linked to the data to which it relates in such a manner that any subsequent change of the data is detectable;

  Again, this definition may cover non-PKI solutions.

- *Qualified electronic signature*: advanced electronic signatures which are based on a qualified certificate and which are created by a secure-signature-creation device, as defined in the eSignatures Directive[2].

- *Validation*: the corroboration of whether an eSignature was valid at the time of signing.

[2] See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0093:EN:HTML

2.2 Acronyms

A2A ..... Administration to Administration

A2B ..... Administration to Businesses

A2C ..... Administration to Citizens

CA ..... Certification Authority

CRL ..... Certificate Revocation Lists

CSP ..... Certificate Service Provider

eID ..... Electronic Identity

eIDM ..... Electronic Identity Management

IAM ..... Identity and Authentication Management

IDM ..... Identity Management

OCSP ..... Online Certificate Status Protocol

OTP ..... One-Time Password

PKCS ..... Public-Key Cryptography Standards

PKI ..... Public Key Infrastructure

SA ..... Supervision Authority

SOAP ..... Simple Object Access Protocol

SCVP ..... Server-based Certificate Validation Protocol

SSCD ..... Secure Signature Creation Device

USB ..... Universal Serial Bus

TTP ..... Trusted Third Party

XAdES ..... XML Advanced Electronic Signature

XML ..... eXtensible Markup Language

XML-DSIG ..... XML Digital Signature

3 Introduction

3.1 General status and most significant eIDM systems

The most significant IDM system, containing a key set of data for all natural persons in Bulgaria, is the Unified System for Civil Registration and Administrative Service of the Population (USCRASP - http://www.grao.bg/). The data kept in USCRASP is mandatory for all other administrative information systems. The unique identifier for all Bulgarian citizens and for all foreign citizens permanent residing in Bulgaria is the Unified Citizen Number (UCN). A similar kind of unique identifier for all non-nationals continually residing in the country is the Personal Number of the Foreigner (PNF).

Bulgaria does not issue any electronic ID cards or other eIDM tokens for natural persons. The only eIDM token concerning the natural persons which is planned to be issued after 31st of October 2007 is a passport with an electronic component containing some basic identification data.

Due to the reform at the present moment the most significant eIDM system for legal and other entities in Bulgaria is the BULSTAT Register. This register contains the key identification data for every company, non-profit organisation, public institution, other kind of legal entity, branch of foreign company, self-employee etc. in Bulgaria. Before the end of 2007 another major eIDM system – the Commercial Register – will become operational. The new Commercial Register will be the first entirely electronic IDM system in the country.

At the moment all entities registered in the BULSTAT Register have • unique identifier – the BULSTAT number. These numbers are also issued to all natural persons registered in the BULSTAT Register, but their BULSTAT numbers are identical to their UCN. When the Commercial Register becomes operational the BULSTAT number of every company will be transformed in a Unique Identification Code (UIC).

An ID "paper" BULSTAT card is issued for every entity registered in the BULSTAT Register. On demand, the traditional "paper" BULSTAT card could be replaced by an eID card containing a microprocessor chip with the identification data entered in the BULSTAT Register. However, at this stage the electronic BULSTAT cards are optional.

After the adoption of the new Electronic Governance Act[3] (EGA) the above mentioned unique identifiers will serve for electronic identification of the entities with regard to their access to electronic administrative services. On the basis of the relevant unique identifier the administrative bodies will be obliged to obtain all other identification data directly for the relevant IDM system – USCRASP, the BULSTAT Register or the Commercial Register.

[3] The draft Electronic Governance Act was submitted to the Bulgarian National Assembly on 31st of July 2007, http://www.parliament.bg/bills/40/602-01-105.pdf.

3.2 Background and traditional identity resources

3.2.1 eGovernment structure

• he use of eIDM systems in the context of eGovernment can not be considered well coordinated or based on common policies. At the present moment the Bulgarian eGovernment is at a stage of development whereby the available electronic services are developed more as separate elements than as being a part of an organised structure. The eGovernment projects are usually implemented separately within the administrative bodies and under the control and the coordination of these bodies.

The general rules and requirements with regard to the horizontal integration between the administrative bodies, the persons charged with public functions and the organisations providing public services will be laid down in the new EGA. According to a draft of the EGA the above persons will be obliged to collect all the necessary identification data for the users of their electronic services *ex officio* from the initial data administrator (i.e. the IDM system/other official register etc.). Thus all entities will be identified on the basis of their unique identifier, and the administrative bodies, the persons charged with public functions and the organizations providing public services will obtain the identification data directly from the relevant IDM system (USCRASP, Commercial Register and Register BULSTAT).

As far as the main structure of the Bulgarian administration is based on two layers of subjection, the development of the Bulgarian eGovernment ought to be seen also in two directions:

- *Central (national) eGovernment*
    - Under the coordination of the central (national) bodies;
    - Under the coordination of the regional (territorial) bodies;
- *Local eGovernment*
    - Under the coordination of the bodies of the local self-governance.

Since August 2005 the Minister of the State Administration and Administrative Reform is competent for the development, organisation, coordination and supervision of the implementation of the state policy in the field of the eGovernment. Another state authority in charge of the development of some aspects of the eGovernment in Bulgaria is the Chairperson of the State Agency for Information Technologies and Communications.

The local eGovernment initiatives are mainly coordinated by the local authorities.

3.2.2 National eGovernment cooperation and coordination

After the establishment of the new Ministry of the State Administration and the Administrative Reform (August 2005) several projects for the development of the general eGovernment framework for improving the coordination in relation to the integration of new eGovernment applications and for ensuring the interoperability of the eGovernment applications, have commenced. The government has manifested a political will for combining the efforts of both institutions - Ministry of the State Administration and the Administrative Reform and State Agency for Information Technologies and Communications. The most significant step for improving the eGovernment coordination will be the adoption of the new EGA. On the base of the new EGA provisions the Ministry and the State Agency will adopt jointly several secondary legislative acts.

Generally, both main operational IDM systems (USCRASP and Register BULSTAT) in Bulgaria are accessible for the administrative bodies. However the data exchange between these systems and the information systems of the administrative bodies can not be considered as based on unified policies.

At the present moment most of the eGovernment applications use the UCN for the identification of their users. Unfortunately almost all of the operational eGovernment applications obtain the UCN directly from the certificate for the electronic signature of the user. This practice imposes atypical functions on the certificates of the electronic signatures and their content. Thus the functions of the main IDM systems with regard to the identifications of the entities are displaced by the secondary sources of identification data – the certificates for electronic signatures.

3.2.3 Traditional identity resources

The main traditional identity resources in Bulgaria are USCRASP (for natural persons), Commercial registers at the district courts and Register BULSTAT. The Bulgarian state authorities traditionally relied mostly on the combination of the USCRASP, created in 1977, and the mandatory “paper” based identity card, introduced after 1999 with the adoption of the Bulgarian Identity Documents Act. The traditional “paper” ID tokens for the legal entities identification are the court decision for registration and the BULSTAT ID card.

USCRASP is a national database for administrative identification and registration of the natural persons which is kept up to date based on the national Population Registers and Registers of the Civil Status Certificates. According to Art. 25 of the Civil Registration Act (CRA) USCRASP includes the following data for all natural persons registered in it:

1. Name;
2. Pseudonym or other names of the person abroad;
3. Gender;
4. Date of birth;
5. UCN/PNF;
6. Citizenship;
7. Place of birth;
8. Birth certificate - number, date and place of compilation;
9. Official residence;
10. Family status;
11. Certificate of Marriage - number, date and place of compilation;

12. Spouse - UCN or date of birth, name, gender, official residence, citizenship, and for the deceased - number, date and place of compiling the death certificate;
13. Bill of divorce - number, date and place;
14. Children - UCN or date of birth, name, gender, official residence, citizenship, and for the deceased - number, date and place of compiling the death certificate;
15. Mother - UCN or date of birth, name, gender, official residence, citizenship, and for the deceased - number, date and place of compiling the death certificate;
16. Father - UCN or date of birth, name, gender, official residence, citizenship, and for the deceased - number, date and place of compiling the death certificate;
17. Brothers/Sisters - UCN or date of birth, name, name of the other parent - if they are not with the same mother or father, gender, official residence, citizenship, and for the deceased - number, date and place of compiling the death certificate;
18. Issued identity document - type, number, date of issuance;
19. Legal restrictions (type);
20. Changes of all the items from 1 to 20 inclusive, previous official residence, peculiarities, date of compiling the Personal Registration File, name and signature of the official;
21. Deceased – date and place of the death;
22. Death certificate - number, date and place of compiling.

Each municipality keeps the information for the population on its territory up to date and maintains the Population Registers and Registers of the Civil Status Certificates. All Population Registers and Registers of the Civil Status Certificates are incorporated in the centralised data base of USCRASP. USCRASP obtains weekly notifications for all changes of identification data kept in it from the several institutions which are described in the relevant section below. Persons are first entered into USCRASP depending on their status, but the most common possibilities include registration at birth, naturalisation or obtaining permission for constant stay in Bulgaria. Personal Registration Carton for each person entered in these registers is kept 130 years after the date of its compiling. Access to the information in these registers is restricted.

All Bulgarian citizens and foreigners who have permission to stay for more than three months in the country have identity cards. Depending on the case, this card would be an 'identity card' (Bulgarian citizens), 'identity card for continually staying foreigner', 'identity card for permanent residing foreigner' or "card for refugee" or other kind of temporary identity documents.

The identity card contains a number of data printed on it, specifically: full name[4], UCN/PNF, nationality, date and place of birth, gender, date and place of issuance of the card, date of expiry, title and number of the card, picture of the bearer, official residence, height, eyes colour and peculiarities if any. The card is mandatory, and is issued to any child from the age of 14. The card also contains a picture of the person and a scanned copy of his/her handwritten signature. The validity duration of the ID card depends on its type. ID cards for foreigners are similar, containing largely the same data.

Information regarding legal entities is traditionally kept in Commercial Registers, which are maintained at the district courts[5] in the districts where the legal persons are established. Identification information for the legal entities is also kept in the BULSTAT Register at the Registry Agency. Thus at the present moment there are two simultaneous registrations for most of the legal entities – at the

[4] Generally most of Bulgarian citizens have three names.

[5] The district courts where the current Commercial Registers are kept are 28.

Commercial Registers and at the BULSTAT Register. After the start of the new Commercial Register at the Registry Agency this parallel registration will remain only for non-profit entities.

After July 2007 the new administrative and centralised electronic Commercial Register should become operational. All data kept in the Commercial Registers at the district courts will be transferred to the Registry Agency in electronic form. The current registers at the district courts contain all acts which were submitted to the court by the legal representatives of the entities as well as the court resolutions for entering the relevant data. As a result of the reform in the Commercial Register the databases of the BULSTAT Register and of the current Commercial Registers will be consolidated in one unified electronic base register.

Along with the above mentioned registrations at the Commercial Registers at the district courts and at the BULSTAT Register until the end of 2005, another registration – the tax registration – was also mandatory. As a result of a major reform at the present moment the tax administration (National Revenue Agency) obtains ex officio all necessary identification data for the entities from the BULSTAT Register. The data exchange between the BULSTAT Register and the National Revenue Agency could be considered as a major success in the field of eIDM up to now.

Summarily, the BULSTAT Register contains information for all legal entities established under Bulgarian law or having an establishment in Bulgaria, for all institutions, as well as for natural persons who are independently professionally active as entrepreneurs or self-employees. Given this diversity of subjects, the registered information also varies, but it generally includes the BULSTAT number, name, place of establishment, legal form (in case of legal entities), legal status[6], date of establishment, management bodies, legal representatives, scope of activity, capital, founders and any other legally required identification data. All entities registered at the BULSTAT Register have identity BULSTAT cards.

Thus, the traditional identity infrastructure can be said to consist of centrally kept but locally maintained paper registers for natural persons and legal persons, and of an identity cards (personal ID cards, BULSTAT cards or both) to all entities registered in them.

3.3 eIDM framework

3.3.1 Main eGovernment policies with regard to eIDM

Background

At the present moment most of the eGovernment applications use the UCN for the identification of their users, but almost all of the operational eGovernment applications obtain it directly from the certificate for the electronic signature of the user. This practice imposes atypical functions on the certificates for the electronic signatures and their content. Thus the functions of the main IDM

[6] This includes e.g. all acts for establishment, changes or striking off of the legal entity.

systems with regard to the identifications of the entities are displaced by secondary sources of identification data – the certificates for electronic signatures.

Currently the universal electronic signature is the only type of electronic signature that can be used for eGovernment applications, where formal requirements for documents exchange are established by law. The certificates for such signatures are issued by certification service providers registered at the Bulgarian Communications Regulation Commission (at present four such providers are registered). These certificates could be used also for any other purposes.

In order to correspond to the requirements of the eGovernment applications that are operational at present, the government institutions have pushed the certification service providers to include some special attributes in the certificates for universal signatures (like the UCN, for example). This practice reveals serious problems with eIDM principles in Bulgarian eGovernment at the moment.

Prior registration is often required as a precondition for granting access to particular eGovernment services. Since the legislation presently in force does not determine any particular rules in respect to the authentication process within the usage of eGovernment services (except for usage of electronic signatures), each administrative body implements its own rules and requirements for provision of electronic services. Two main approaches could be distinguished:

- prior announcement by the user;

  "Paper" announcement has to be submitted to the relevant state authority (the authority which provides the service) in writing. The announcement should reveal information about the user, such as: identification data, representative (if the user is a legal entity) and information about certificate for universal electronic signature which will be used for the purposes of this particular eGovernment service.

- prior online registration/submission of the announcement;

  The information about the certificate of the user in this case is usually submitted by filling in different online registration forms. The announcement has to be signed with the signature which will be used for obtaining the eGovernment service.

Authentication policies

In October 2006 a draft of new EGA was elaborated. The new legislative act will lay down the main rules with regard to eIDM in Bulgaria and will unify the existing authentication policies. After the adoption of the new eGovernance Act, special regulations for the usage of electronic signatures for eGovernment applications will also be adopted.

The key principle of EGA with regard to the eIDM policies is related to the requirement that all administrative bodies, persons charged with public functions and organisations providing public services should obtain automatically the identification information for the entities directly from the so

called prior data administrator only on the base of their unique identifier. Thus there should be only one authentic source for each piece of information, to be reused by all eGovernment applications.

However until now there is no official authentication policy in Bulgaria that defines a strict hierarchy of the different authentication systems in use.

Unique Identifiers

All entities, registered in Register BULSTAT have unique identifier – BULSTAT number. Furthermore all natural persons (nationals or non-nationals) registered in USCRASP have UCN/PNF. Both types of identification numbers are used as a unique identifier and are printed on the relevant personal ID or BULSTAT card. These numbers can be used for obtaining more information related to the entities from USCRASP and Register BULSTAT but also from many other official registers and data bases (property register, commercial register, tax and social security data bases etc.). The BULSTAT number will be also transformed in Unique Identification Code for all entities entered into the new centralized Commercial Register at the Registry Agency.

The above identification number will also be the unique identifier for the purposes of all eGovernment applications according to the draft EGA. It will serve for electronic identification of the entities with regard to their access to all available electronic administrative services. On the basis of the relevant unique identifier the administrative bodies will be obliged to obtain all other identification data directly from the relevant eIDM system.

The EGA will ensure that every entity will be able to indicate its unique identifier when applying for any available electronic administrative service except in cases where the identification of the applicant is not necessary.

Official registers and tokens

The main official registers that are used for eIDM purposes at the present moment are USCRASP and BULSTAT Register. The identification of the natural persons is based on their “paper” ID cards as well as on the identification data kept in USCRASP. For eGovernment purposes there is a possibility to check up UCN/PNF and the identification data by electronic means. The identification of the entities entered into BULSTAT Register can also be verified through the traditional “paper” BULSTAT cards, as well as through an online check in the BULSTAT Register.

Official sources of identification data are also the Commercial registers at the district courts but the main token for identification of the entities entered in them is the “paper” certificate for good standing issued by the relevant court where the entity is established. The validity of this kind of certificates is up to 6 months from the date of their issuance.

eID cards and eIDM tokens

Until now there are no plans for introducing an eID card for natural persons in Bulgaria. However, according to the last amendment of the Bulgarian Identity Documents Act (BIDA) passports with an integrated electronic component will be issued after 31st of October 2007. The electronic component will contain the information which is printed on the passport, picture, finger prints and place of birth of the passport owner. The formats of the electronic data will be in accordance with the recommendations of the International Civil Aviation Organisation (ICAO), DOC 9303. The data in the electronic component will be electronically signed.

Generally the identity BULSTAT cards for the entities entered in the BULSTAT Register are "paper" cards. As an option since August 2005 the legal representative of each entity is entitled to demand the issuance of a BULSTAT card with an integrated microprocessor chip containing the data entered in the BULSTAT Register. At this stage, the issuance of BULSTAT cards with microprocessor chip is optional, and these cards are not popular as an eIDM token. For now there are no practical advantages to owning such an eIDM token (such as e.g. facilitated access to electronic administrative services).

3.3.2 Legal framework

The main legal framework for the existing IDM systems and for the identification tokens is laid down in:

- the Civil Registration Act (promulgated on 27 July 1999) regarding the population registers, USCRASP and the unique identifier of the natural persons, which is the basic legal source;
- the Bulgarian Identification Documents Act (in force as of 05 April 1999) regarding the ID cards and the new passports with integrated electronic component;
- the Register BULSTAT Act (in force as of 11 August 2005) regarding the unique identifier of the entities and the new electronic BULSTAT cards for the entities entered in this register;
- the Commercial Register Act which will be in force as of 1 July 2007 and which will introduce the electronic and centralized registration of all commercial entities and will regulate their unique identifiers;

As mentioned above, there is no legal framework for eIDM in Bulgaria. The main legislative act which will regulate the electronic identification principles is EGA. EGA will likely be adopted by the Bulgarian Parliament in a few months. Bulgaria has no specific regulations with regard to the process of authentication in general. The Bulgarian e-Documents and e-Signatures Act (EDESA) of 6 October 2001 transposes the provisions of the e-Signatures Directive, but does not apply to authentication as such. At the present moment there are no mandatory eIDM token. The main existing IDM systems - USCRASP and BULSTAT Register, combine electronic data bases and "paper" ID tokens with unique identifiers.

The state and municipal administration has electronic access to USCRASP. The information kept in USCRASP is available only for the person whom it concerns or in case where particular and lawful interest is proved but there is no operational electronic information service with this regard. For the general public an option for electronic verification of the correctness of the UCN is introduced. The BULSTAT Register data base is accessible for the all state administrations. A paid electronic information service is provided by the BULSTAT Register with regard to private sector needs.

The main certification and privacy policies are laid down in EDESA and in the Personal Data Protection Act. Special requirements regarding electronic transmission of personal data are also stipulated in Regulation No 1 from 7 February 2007 for the minimal level of technical and organizational measures and the admissible kinds of protection of the personal data issued by the Bulgarian Personal Data Protection Commission.

Legal entities can be represented electronically by their legal representatives or by other persons authorised by them. EDESA distinguishes two persons related to the electronic signature – the titular and the author. The author signs the electronic statement with his electronic signature on behalf of the titular and could be only a natural person. In cases where the titular is a natural person who signs the statement by himself, he will be also seen as an author. If the titular is a legal entity or a natural person who will be represented by other person, then information about the grounds of the representation power of the author must be entered in the certificate. Another option is the prior notification submitted to the relevant administrative body that the legal entity will be represented electronically by a duly authorised natural person.

3.3.3 Technical aspects

As described above there is no legal framework regarding the eIDM in Bulgaria. For this reason there are no built up eIDM infrastructure and operational eIDM system till now. With this regard there are no relevant technical aspects and characteristics of the eIDM systems that could be analysed in the present section. As far as no unified policies and technical standards are adopted until the present moment the information below can not be considered applicable in all cases.

However for the access to USCRASP a universal electronic signature[7] is needed. The online database of the BULSTAT Register is available after prior registration using a username and password.

The eGovernment application usually connects directly to the corresponding CA validation service in order to verify the signature. The registered certification service providers are obliged to maintain an electronic register of the certificates issued by them using LDAP access. Often the administration keeps a local copy of the CRL, which is updated every three hours. The name of the titular and the signatory, as well as their UNC/BULSTAT can be verified online by direct check in at the databases of the national authorities in charge of keeping these data.

3.3.4 Organisational aspects

As noted above, identification of the citizen is primarily based on his UCN. Similarly, identification of the companies and organisations is based on their UICs (BULSTAT numbers).

[7] The certificate for universal electronic signature is kind of certificate for “qualified” electronic signature but issued by certificate service provider registered in the Bulgarian Communications Regulation Commission.

Each municipality keeps the information for the population on its territory up to date and maintains the Population Registers and Registers of the Civil Status Certificates up to date. All Population Registers and Registers of the Civil Status Certificates are incorporated in the centralized data base of USCRASP which is kept by the Bulgarian Ministry of Regional Development and Public Works. The centralised data base of USCRASP is maintained on the base of all paper and electronic notifications submitted by the municipalities to the Ministry. Weekly notification for all changes of identification data of the persons entered in USCRASP is also submitted by the Ministry of Interior, the Ministry of Justice, the Ministry of Health, the Ministry of Education and Science, the Ministry of Labour and Social Policy and by the courts.

The information in the BULSTAT Register is entered and maintained by the administration of the Registry Agency on the base of applications submitted by the legal representatives of the legal entities or by the natural persons registered in it. The entities that are obliged to submit applications for their registration in the BULSTAT Register are explicitly listed in the Register BULSTAT Act. These entities are also obliged to notify the Registry Agency of each change of their status or of any other information entered in the BULSTAT Register.

3.4 Interoperability

As the Bulgarian eIDM systems and policies are still in process of development, there is no relevant information concerning their cross-border interoperability which could be described in this section.

3.5 eIDM Applications

The main eIDM application used by public sector bodies as well as by private sector is the online data base of the BULSTAT Register. The other existing eIDM application is the electronic data base of USCRASP which is accessible only for the state and municipal authorities. However both applications have mostly informational functions.

3.6 Future trends/expectations

As indicated above, the focus of the Bulgarian approach is on the use of unique identifiers. The major future step in the development of eIDM in Bulgaria will be the adoption of EGA. EGA will outline all main future trends with regard to the eIDM systems.

3.7 Assessment

The greatest advantage of the traditional Bulgarian IDM system is the existence of unique identifiers for both natural persons and legal entities. These unique identifiers are used successfully for identification by both public and private sectors until now. In this regard it is appropriate that the existing traditional unique identifiers be used also for the purposes of eIDM in Bulgaria.

However the current stage of development of eIDM in Bulgaria is inadequate compared to the existing eIDM systems in other EU countries. Insofar as wrong practices are presently applied by the different state authorities in relation to the identification of the entities for the purposes of the eGovernment applications, the reform in IDM policies will cost significant efforts.

As a negative aspect of the Bulgarian's eIDM approach could be considered the lack of any plans for implementation of eID cards.