

Mobile Government in Germany: Legal Aspects and Demands on Mobilizing the Administration

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Abstract: *Mobile Government stands for a local flexible application of electronic information and communication technology to enable communication with or within government and administration by means of mobile devices and without fixed access points. The term "Mobilized Administration" refers to a part of Mobile Government, because it only refers to the administration as the mobile partner of communication. Administration in this context means not only public authorities but also private bodies acting on behalf of the administration. This kind of Mobile Government is especially interesting from a legal point of view, because most far-reaching effects on the administration caused by the innovations, improvements and changes going along with a Mobilized Administration may be expected. To realize this new kind of administration and to put into effect all the advantages in an optimal manner, unplanned legal obstacles and basic requirements have to be identified and taken into account in the preliminary stages. Similarly, the dangers have to be restricted with foresight by an appropriate technical design and legal configuration.*

Keywords: Mobilized Administration, legally compatible technical design, preventive adoption of law, data protection, electronic filing, mobile signature.

1. Why Mobile Government?

Mobility of the administration is at first sight not new. Rescue parties, police, field representatives of every administration domain and administration service provider like the refuse disposal service have been existent scopes of administration work for a long time. As Mobile Government is in its infancy yet, it is still necessary to give reasons for the importance and timeliness of the topic.

The genesis of Mobile Government is composed by several developments. First the dissemination and the further development of Electronic Government have to be mentioned. Above all, the administration expects many different types of transactions to perform by this means. Electronic Government implicates an increasing level of digitalisation and networking of the administrative work. In addition, there is an attempt to alter the administration, to adapt the administration to the demands of the service society even more. The administration shall become more friendly towards citizens and more efficient than today. A rather external effect appears in the still increasing spread of broad-band networks and mobile devices with more and more functionalities. This establishes mobile communication and local flexibility in society, which produces the expectation to the state to support and to use this technology for the collective good. For maintaining his influence on society, state and administration have to comply with this expectation.

At present, there are only a few projects or administration services that could be defined as Mobile Government in Germany. Digital police radio with noticeable augmented functionalities compared to the analogue technology still gets stuck in the stage of passing of a resolution. The actual project of the Bundeskriminalamt (Federal Bureau of Criminal Investigation) to send police portraits and search notifications by SMS to registered citizens (Bundeskriminalamt, 2005) has not been a success yet and is discussed controversially. At some communities, there are WAP capable information portals of the

community administration. The most advanced project is MoBueD (Mobile Citizen Services) of Berlin (MoBueD, 2005). MoBueD is based on the idea of mobile workplaces which go out to structurally less integrated regions and offer services to the public there, hence making it unnecessary to have centralized offices that the public has to travel to.

In brief the added value of mobile access for the administration is that the local inflexibility of the original internet access will cease to exist and administrative proceedings can be handled according to the requirements of the on-site findings. There is no need any more to centralize administration in big buildings around their record archive. Using the internet information does not need to be located at the workplace, because it can be retrieved from any location. This effect makes the development of decentralized front-offices and centralized back-offices possible. The whole structure of administration could become more decentralized and more accessible for the public. Increasing the on-site presence of administrative field staff using the possibilities of mobility administrative proceedings could be handled more effectively (NECCC, 2001). Among other conventional options to contact the administration like visits, telephone calls or communication via internet, the option of the administration visiting the citizen or the business establishment could emerge. Within the scope of Electronic Government, the administration is still confined to certain places even if some time limits caused by office hours are abolished (Roggenkamp, 2003). The constitutional aims of transparency and publicity of administrative proceedings could be advanced by a more intensive contact between administration and citizen (Roßnagel, 2000, p. 269). At last decisions of better quality and increased individuality could become possible.

2. Definitions

To clarify the terminology, Mobile Government and the Mobilized Administration shall be defined. As archetype in doing so serves the definition of Electronic Government of the German University of Administration Sciences at Speyer, which is very wide-spread in Germany (v. Lucke & Reinermann, 2000). Mobile Government stands for the locally non-fixed use of electronic information and communication technology to allow communication with or within government and administration by means of mobile devices and without the application of regular installed access points.

The term “Mobilized Administration” refers to a part of Mobile Government, because it covers only the administration as the mobile partner of communication. Administration in this context means not only public authorities but also private bodies acting on behalf of the administration. This kind of Mobile Government is especially interesting from a legal point of view, because most far-reaching effects on the administration caused by the innovations, improvements and changes going along with a Mobilized Administration may be expected. Due to the further development of high resolution mobile devices and the future penetration of UMTS technology, the technical and legal limitations of mobile internet usage will disappear. Special research on this aspect will become less important. But as the administration starts to get mobile and begins to apply mobile information and communication technology more widely, the way of administrative acting and the internal structure of administration could change at the same time. This process creates many legal questions, because the acting and the structure of administration is linked to many legal and constitutional ties. Next to the substantive law, that can be undetermined in certain cases, the procedure of administrative acting is a guarantee of the legality. For this reason the process of mobilizing the administration needs to be researched.

3. Categories of Mobilized Administration

Legal and other attributes of Mobilized Administration are not always the same caused by the manifold functions and forms of organisation of the administration. Just the same way demands on Mobilized Administration can change depending on the specific subject. For this reason categorizing the topic according to several criterions is a necessary first step. Firstly the different combinations of partners of interaction will serve as a criterion. Usually the abbreviations G2C, G2B, G2G (Government to Customer, Government to Business, Government to Government and reverse) are

used in the context of Electronic Government literature. Secondly the level of interaction delivers an important criterion. The administrative interactions shall be divided into information, communication and transaction services. Another categorisation results from the different functions of administration. Two important sections are the administration of community services and the surveillance of the compliance with laws and regulations. Besides these sections exist others like public procurement, which are not so much of relevance for this categorisation. The differentiation according to already mobile administrative proceedings and new ones is another possibility at this level.

4. Visions of possible applications

The purpose of the following examples is to demonstrate different imaginable applications and effects of a Mobilized Administration.

The first example aims at the effects of applying the concept of Mobilized Administration on such parts of administration in which field staff and therefore mobility are already installed. So far, this scope of functions is widely congruent with those parts of administration that are dealing with surveillance of legality and enforcement.

To exemplify this type of administration, a revenue office field staff member may be adequate. Visiting a business company and inspecting the relevant accounting documents, he would be able to access the electronic records of his office at any time and, in addition, be able to recall all the information that he currently needs. Vice versa, he would be enabled to take his results and important documents on file immediately. This could happen via local data transfer from devices of the visited company or by instant scanning and certifying. Delays resulting from synchronisation processes or subsequent manual data transfer wouldn't exist anymore because of the direct access to centrally stored data.

These already existing examples of field work can be enhanced by supporting information and communication technology. Quality improvements can result from mobile record access, the extensive possibilities of documentation and taking evidence by multi-media based recording, or the wireless usage of local devices and services. The procedure of local inspections will not be replaced anytime soon by any kind of remote access. On the one hand, business companies won't be willing to provide an administration controlled interface, and on the other hand the administration won't be able to work with all the possible data types. However, the IT infrastructure of the companies could be shared on site using technologies like split devices. Nevertheless an own device of the field staff will remain necessary for reasons of security and independence. That applies particularly for an own mobile communication device.

A second field for improvement exists in the service orientated tasks of administration like administration of community services, the granting of licences or consultations. Up to now, these tasks have been performed at fixed work places inside of responsible public authorities. The citizens had to frequent the administration. Within the scope of Electronic Government, the opportunity for online transaction is partially provided. A Mobilized Administration could promote the administrative service orientation and call on the citizen. Mobile transaction would be an innovation in this field.

An example could be an extensive offer to small firms and founders of a new business to support them. Field staff could arrange loans, negotiate subsidies for new innovations and convey access to knowledge from state-run research. Minor subsidies could be granted immediately. In doing so field staff could access the associated record and further information like subsidy programs and basis of calculation on mobile devices. The basis for decision-making could be documented in a similar manner like described above.

In the past casual on-site inspections were carried out with records fixed on a terminal board. A development is conceivable that may result in a public authority mobilized to a great extent. This

authority almost wouldn't require a real office, acting primarily on-site. Due to the internet and the electronic storage of records information has not to be stored locally at the building of the public authority. Information is available and can be modified anywhere at any time. Even the coordination of the field staff could be handled mobile.

In both examples mobilizing the administration enables an increase of efficiency and an acceleration of administrative procedures. Also, the quality of documentation as well as the quality of the informational basis of decision-making should improve in both cases. Above all, the second example demonstrates that a more accessible administration could emerge. This kind of administration could work against digital divide, too, and complement Electronic Government as a way of accessing the administration. After all, a considerable number of citizens view personal contact to the administration as an important factor (Bayer, Blom, Engelshove, Häming, Schwarze, Strotmann, Vogelsang & Weyde, 2004, p. 20). Unlike Electronic Government, which means the administration is contacted only virtually, a Mobilized Administration uses the advantages of the internet as a new technology, but it doesn't leave out the physical, real world while doing so. Referring to Mobilized Administration, the whole potential of information technology and internet usage is connected with personal contact and view. In the future the utilization of technologies of context awareness and location based services could also be possible e.g. if an inspector queries the states of objects using signals of RFID chips.

5. Legal requirements and obstacles for the Mobilized Administration

To realize the concept of a mobile administration, potential advantages as well as technical challenges have to be identified and worked with. In particular, the legal requirements for a Mobilized Administration must be identified, legal rules must be established and obstacles have to be eliminated. Some of these requirements and obstacles shall be introduced in the following section.

5.1 Mobile signatures

The possibility to produce documents on-site or to fill in an electronic form on-site is a constitutive requirement for the activity of mobile administrative field staff. The authenticity and integrity of the document must be ensured for a subsequent usability, if these documents shall be taken on file immediately. This function is achieved by the electronic signature (Roßnagel, 2002, S. 16). The legal framework for electronic signatures is already set by the European directive on electronic signatures (Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures). But a signature process, which is able to meet both legal requirements and the needs of mobile usability, has to be established yet.

Actually, several versions of technical solutions are possible. But only those have full probative value which can be considered and accepted as advanced electronic signatures based on a qualified certificate and created by a secure-signature-creation device in compliance with Art. 5 sec. 1 of the directive. As a first possibility the signature can be produced on a server of the service provider. These signatures can comply with the requirements for qualified electronic signatures, if the signature creating data of the service provider is used. The service provider would act as representative for the user in this case. But this signature doesn't prove the authenticity of the declaration because the original signatory could argue that his declaration had been manipulated on the way to the server. It would be a high risk for the user if he delivers his secure-signature-creation device and his signature creating data to the service provider, because every abuse would be attributed to him. Another possibility consists of local working solutions, which proceed on the mobile device of the signatory. A differentiation can be made between solutions working with only one card (the SIM-card of the signatory) and solutions working with two cards. Working with only one card, the signature-creating data is stored on the SIM-card of the user. Otherwise the signature-creating data is stored on a second card. In this case every signature card can be used. For both versions the software module that produces the hash-data, and the secure signature-creation device are located inside the mobile device.

The PIN that is used must not be the one that unlocks the mobile device. Depending on the technical design, these mobile signatures can meet the requirements of qualified signatures (Ranke, 2004, p. 374). Applying the one-card solution, some questions of competition law have to be considered because of the mandatory connection to the mobile network operator. However, an actual market for mobile signatures would have to develop before questions of competition law come into play (Ranke, Fritsch & Rossnagel, 2003, p. 100). Considering that the administration needs to choose a solution, it is to recognize that a one card solution causes a dependency on the mobile network provider. It wouldn't be possible to change the mobile network provider independent of the signature service provider. Just as well an own state-driven certification provider can't be realized.

5.2 *Electronic storage of records and filing*

In order to be able to give account for its activity, storing, filing and organisation of records are crucial points for the interior organisation of the German administration and indeed for the capability of any administration. All administrative knowledge about a certain case is concentrated in the files and records, without being dependent on individual persons. In addition, the file is an important tool to coordinate and govern the administration. A field staff member depends on access to records to be enabled to handle a single case on-site. In both examples mentioned above this is only possible if the records are stored electronically and reproduce all the functions of paper based records. Above all, the steering function of the file has to be reproduced or even enhanced (Menne-Haritz, 1995). Furthermore ensuring the access to previous procedures, all records have to be archived electronically. The legal preconditions increasingly exist. European guidelines already some effect in some areas. For example, the Directive on invoicing in respect of value added tax (Council Directive 2001/115/EC of 20 December 2001 amending Directive 77/388/EEC with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of value added tax) provides that revenue authorities have to accept electronic invoices. In Germany, the way is opened to electronic administrative communication and for the certification of electronic reproductions of paper documents or electronically signed documents after format changes by the third law on changing administration procedure (3. *Verwaltungsverfahrensaenderungsgesetz* (law from 21.8.20002, BGBl I p. 3322) in §§ 3a, 33, 37 *VwVfG*. Tax law has been aligned by § 87a *AO* and social law by § 36a *SGB I*).

But there are no legal regulations that constitute detailed requirements for electronic storing, yet. However, in many cases the administrative bodies or ministries own the competence to pass regulations by themselves. Further regulations will follow with the *JKomG*, the judiciary communication law that is currently in the stage of draft.

5.3 *Legal caused format discontinuities*

The extensive mobile access to all the data concerning a case is a basic requirement for the presented examples of a Mobilized Administration. A record that is only partially available by electronic means doesn't deliver complete information on-site. Therefore it is not useful. Such vacancies of records can emerge due to legal exceptions of electronic form. The German concept was to introduce the electronic form by blanket clauses (§ 3a *VwVfG*, § 36a *SGB I*, § 87a *AO*). Exceptions from the permit of electronic form have to be directed by law. Exceptions still exist, mainly in cases of documents that have to be mandatory presentable like identity cards or documents concerning certificates. But most exceptions only affect the form of administrative acting. Exceptions of this kind do not exclude on principle an additional storing of the document in electronic form. Citizens are free to use electronic form in the majority of all cases. Meanwhile many public registers like the commercial register can be kept electronically, too. According to the current situation format discontinuities are more an organisational than a legal problem.

5.4 Arrangement of Competencies

In a federal state like Germany the administration is generally decentralised. Administration competences are distributed between many different bodies depending on the subject matter and the location of the object or subject the administration is dealing with. For the concept of a Mobilized Administration, the arrangement of competences is highly important. Mobilized Administration tends to relocate administration procedures closer to the sphere of citizen. To utilize field staff most efficiently, several competences of separated administrative bodies should be administered by one field staff member (Lenk & Traunmueller, 1999). Referring to the example of subsidies and knowledge transfer, the competences are distributed between all levels of administration. Subsidies can be based on funding of communities or area wide initiatives of countries as well as the federal government. Additionally, on each level various authorities are responsible which results in even more separation of competences. The splintered arrangement of competencies marks the exact opposite of the described idea of a mobile administrative front-office that has broad authorities to process transactions, decisions and prearrangements on-site in all kinds of fields of administrative activity. But even if it may sound like it, in order to install the desired form of Mobile Administration, competences don't have to be arranged in a completely new fashion. Similarly, federalism does not in itself create a problem for mobilizing the administration. However, it is clear that a legal foundation needs to be installed to allow comprehensive actions of field staff. This legal foundation must be shaped in such a way that it promotes the vision of an administrative "window" to the public through which typical wants and needs of the citizens' life situations can be dealt with all at once. Important benefits of increased efficiency would be lost if the field staff couldn't act comprehensively and be capable to manage matters completely. These expectations result in a certain pressure on legal development.

6. Legal dangers resulting from Mobilized Administration

Establishing a Mobilized Administration holds a number of perils for public rights as well. Before realizing the described concepts, these perils have to be identified and strategies to avoid them should be developed. Some of these perils already exist in the field of Electronic Government and will only receive a modification by mobility. Others are created by mobility alone.

6.1 Data protection

Data protection is endangered considerably in the field of Electronic Government already (Yildirim, 2004, p. 64ff). Problems primarily result from the augmentation and the potential combination of data. A Mobilized Administration endangers data protection even more, because field staff get personal impressions on-site and can collect all kinds of information when they are visiting the individuals. The affected person typically doesn't know which collateral data is perceived and collected by the visiting staff. This causes a problem of transparency of data collection. In addition, the precept of parsimony at data collection could be mutilated.

Problems of necessity and the limitation of use to specific circumstances could arise if field staff visits the citizens acting as a "window" to the administration or rather as a mobile front office for different authorities. The following example should demonstrate this effect: field staff would unitarily collect data in preparation for the decisions if it conceptualises an individual solution requiring the cooperation of several authorities. The different authorities in the background would receive data that they don't really need. This would be an efficient procedure but it is problematic in respect of § 13 sec. 1 BDSG and in general from a data protecting point of view. The data is determined to the purpose of a certain decision. For other authorities this special data is not necessary. This problem could be solved by designing a procedure of data collection and distribution.

A further problem could result from the tendency of outsourcing ICT-services. Mobilizing the administration also makes outsourcing possible and creates opportunities for public-private-partnerships. Potential fields for that are not only data transfer and networking services, archiving and

support of data processing devices but also the assignment of granted contractors instead of own field staff. First there is to differentiate between outsourcing and commissioned data processing. Commissioned processing or collection is admissible without legal permission. This situation is governed by § 11 BDSG which states that the administration remains responsible for the compliance with data protection law. If the process of collection or the processing of data were outsourced to a third party, a legal permission would be necessary.

6.2 Data security

Particular dangers exist in the field of data security. In Electronic Government, a certain level of protection resisted from the mere fact that all significant data processing took place in internal networks and within public buildings. The applied devices were protected by their environment. The data transfer between citizen and administration via internet bears a higher risk. That doesn't mean that there are no dangers for internal administrative networks, however, access can be controlled more easily. The Mobilized Administration causes manifold elements of uncertainty. Data traffic runs over public but privately operated telecommunication networks. A part of the connection is wireless and particularly vulnerable. A duty to sufficiently secure the data is imposed by Art. 19 sec 1 to 3 of the European directive on data protection (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) and accordingly from the transformation into national law. How far this obligation goes and which measures it requires has to be clarified in respect of the individual service.

Another aspect of data protection can be seen in securing a limited and exclusive access to the data. In the scope of a Mobilized Administration, this point bears a considerable risk. The list of dangers ranges from the abuse of an access authorisation (which could be spied on much easier outside the administration building) to the loss of a mobile device. Concentrating on these examples, it's obvious that sensible data would be put at a considerable risk. An unauthorised user of an administrative mobile device could manipulate or spy on very sensible data, too. To secure the devices a periodical biometrical identification of the user could be advisable.

6.3 Protection against unannounced visits

Mobilizing the administration will shift administrative acting towards the personal environment of the citizen. As both examples deal with business companies, they are not the right examples to demonstrate this effect. But an advisory service as for the business company could also be imaginable for the private sector, for example in the field of social welfare. Interferences with civil rights could occur. It is one of the desired positive effects of a Mobilized Administration to be able to offer individual consultation and homelike ambiance for the citizen. This however bears risks at the same time. An example could be the unannounced visit of field staff. This could be the case if administrative staff decided casually to deal with a case on-site or at the desk. For the private scope, a need for protection in a similar case has been identified and regulated. The European directive on contracts (Council Directive 85/577/EEC of 20 December 1985 to protect the consumer in respect of contracts negotiated away from business premises) states that the consumer is protected against consequences resulting from being surprised by a visit. It mentions in the legislative reasons the effect of being surprised and unprepared as well as being disadvantaged due to this. Regarding the relationship to the administration, this disadvantage is even more evident keeping in mind the structural mismatch that is characteristic for the relationship between state and citizen anyway. Moreover, the administration as addressee of civil rights is bound even more closely to respect privacy granted by Art. 1 sec 1, 2 sec 1 GG. As the power of revocation and duties to supply information are no adequate remedies in an administrative relationship, the remedies of the directive can't be adopted. The interest of the citizen is more respected by an obligation of the administration to announce every visit before and to visit the citizens for consultation only upon request.

6.4 Individualisation

Another aspect of the Mobilized Administration is the trend towards highly individualized decisions. This trend could also be demonstrated by the example of field staff visiting the citizen. Mobilizing the administration turns out to be Janus-faced once more. On the one hand, individualized decisions improve the finding of just solutions for the single case and help to avoid wrong allocation of rare resources. On the other hand, granting general equality under public law gets more and more difficult. Until now, equality was guaranteed by flat-rate type of grants of payment or goods and services. Grants depend on certain categories of situations that define the amount of payment. The categories are fixed by decrees or internal administrative regulations. Acting on-site, the administration could analyse the situation more exactly. The quantity of parameters could increase and the parameters could be reviewed according to their importance for the individual case again. But at the same time, a comparison between two decisions concerning similar cases becomes more and more difficult.

6.5 Loss of control

The increasing decentralisation caused by a Mobilized Administration and the potential disintegration of organisational structures in favour of a rather virtual organisation could result in an increasing loss of control. Corruption is one of emerging dangers from loss of control: corruption is more difficult to detect if administration members are mobile and are working rather independently from each other. On the other hand, field staff may lose the protection that had been provided to them by working in the environment of a public administration building. On-site it's a home play for the citizens who may be able to put a lot more pressure on the field staff.

7. Legally compatible technology development and preventive adoption of law

The concept of a Mobilized Administration is a consequence of technological advance. At this point in time, the Mobilized Administration is not reality yet, thus, it can be influenced and shaped. Therefore, right now is the best point in time to influence the development. It's the right time to avert perils for existing objects of legal protection like the ones presented above. Vice versa it's the right time to promote the aims of legal protection using the possibilities of technological developments.

There are two approaches in doing so. One approach is the design of the underlying technology. One example is the equipment of mobile devices with options to electronically signed documents or with mechanisms for a secure authentication. The purposes for this design are based on legal demands. The other approach is the preventive adoption of laws to guide the application of technology. To achieve this it is necessary to analyse the effects of different kinds of application on legally protected rights. It is necessary to detect and identify potential infringements of basic public rights, if they are not regulated by the applicable law at present. Finally, law can be adopted to prevent negative effects.

It is possible and reasonable to take advantage of experiences made during the implementation of Electronic Government during the development of a Mobilized Administration. Even though the development of Electronic Government is not finished yet, risks, dangers and shortcomings can already be recognized. It is also possible to migrate concepts of solutions for certain problems from Electronic Government to Mobile Government, paying special attention to the additional effects of mobility.

8. Conclusions

The future belongs to the electronic processing of administrative proceedings and E-Government. The Mobilized Administration could connect the benefits of E-Government like efficiency or availability with face-to-face contact. It could pave the way to compensate lacking abilities of handling with information and communication technology of parts of the population and increase satisfaction with administrative services. This is the reason why a Mobilized Administration is the important part of the

Mobile Government development. But like E-Government Mobilized Administration will only be accepted if a sufficient protection against the risks is ensured. On the other hand administration is adapting to electronic processing and E-Government today. To establish the Mobilized Administration of tomorrow the foundations have to be laid now.

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The author studied law at the Ruprecht-Karls University Heidelberg till 2001 and absolved his probationary period at the Regional Court at Karlsruhe from 2001 to the end of 2003. After that he started as researcher at the Institute of European Media Law (EMR) at Saarbruecken in 2003. Since March 2004 he is member of the Project Group Constitution Compatible Technology Development at the University of Kassel and working in the interdisciplinary research project “mik21” - Migrationskompetenz als Schlusselfaktor der Oekonomie des 21. Jahrhunderts“ (Migration competence as key factor of the 21st century economy, <http://www.mik21.de>). This project is focussing on the research of mobile internet developments concerning the fields of mobile living, mobile working and mobile government. He is doing his PhD thesis on the field of mobile government researching the legal aspects of mobilizing the administration.