Using fax for Business Operations

A remark on Using fax for Document Exchanges.

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The Situation

Businesses need to communicate with customers, authorities, courts or fellow businesses. One of the more globally distributed forms of business communication is fax. According to a Bitkom survey* (German) held in 2016, approximately 80% of all businesses use fax regularly. However, can fax still be regarded as contemporary solution, considering the cease of ISDN in 2018?

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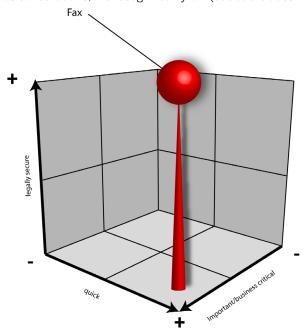


https://www.bitkom.org/Presse/Presseinformation/Unternehmen-nutzen-haeufiger-Faxgeraete-als-Soziale-Netzwerke.html

The Future of fax

The significance of fax has always been scrutinized: "What could I possibly be needing fax for?" is a common question. However, this is a redundant question, simply because it is the ideal solution whenever documents need to be transmitted easily and legally secure. There is no alternative option to fax. Regardless whether the transmission route consists of an analog/ISDN line or IP, only fax offers unchallenged benefits such as:

- Direct connection between sender and receiver ("end-to-end")
- Confirmation of successful delivery (so-called "qualified transmission protocol")
- Transmitted documents, such as cancellations, are recognized by law (due to the document property of fax)



What is the Purpose of This Document?

The purpose of this document is to enlighten businesses about the use of fax and its validity in court. Can I trust that my transmitted document has reached my addressee while being recognized by law? Can I continue to resort to fax for sending contracts and close/cancel deals lawfully?

Why is it Important?

The civil right consists of rights and obligations, commonly in form of laws but often in form of contracts.

Contracts are formed on basis of two corresponding declarations of will that have been agreed upon (offer and acceptance).

An offer is defined as unilateral declaration of will that has been formulated in such a way that the addressee merely needs to answer with yes to agree to the contract. All critical terms and conditions relating to the contract must be covered in an offer.

An acceptance is a declaration of will that that can only be concluded if the addressee answers immediately after receiving the offer. It must show a relation to the offer.

Considering the necessity of two corresponding declarations of will, users will have to verify that the document has been transmitted successfully and that they have been notified of the confirmation of the opposing party. Furthermore, the offer must be delivered in such a fashion that the receiver has an opportunity to answer it (not putting the contract under a doormat for example).

Nothing Without Proof

Anyone who is referring to a declaration of will in court is legally required to proof its successful delivery to the addressee. As highlighted above, he must prove that the opposing party was given an opportunity to react upon the offer (under reasonable circumstances).

In Austria and Germany, the civil process regulatory (Zivil-prozessordnung; ZPO) resorts to the "Strengbeweis", which essentially allows only a limited amount of evidence to support an assertion in court. This means the addressor could request a confirmation of delivery by the opposing party, which, in



case of dispute, would be hard to attain. Alternatively, he could obtain an expertise report - where financial expenses could soar up quickly. Similar scenarios for providing evidences exist throughout the world.

Apart from the "Strengbeweis", a so-called "Anscheinbeweis" (prima-facie evidence) may also be resorted to. The Anscheinbeweis consists of evidence that had been used for previous court rulings and their validity may be applied to back/oppose the current one. If, under normal circumstances, a given action continuously results in the same reaction, the court naturally assumes the next reaction to be foreseeable once the action occurs again.

How is fax Involved?

After having received an "OK-remark", supposing one would conclude that the addressee had successfully obtained a declaration of will (e.g. a contract) sent by fax and it was within the addressee's power to react to this form. The contract would then have been concluded legally.

Unfortunately, this conclusion is wrong.

How do Courts Judge This Matter?

Judges do not support this way of thinking. According to the current and continuous jurisdiction by the Bundesgerichtshof (German Federal Court), the "OK-remark" is no evidence but rather a circumstantial evidence for reception.

No Prima Facie but Strong Circumstantial Evidence!

If brought up in court, the "OK-remark" is a strong circumstantial evidence. This term is defined as "indication that may alone or in conjunction with other circumstantial evidences lead to inference of a certain action". Furthermore, they may cause a reversal in the burden of proof. Due to the rapidly developing technology, the receiver has been burdened with strict requirements for the reception of faxes. Thus, the person receiving a fax has to proof he never obtained it, instead of the person sending the fax having to proof the fax actually reached its intended recipient.

With the "OK-remark", courts possess valid criteria for their consideration of evidence that may question or solve the issue about proper document reception via fax.

The "Ferrari-Fax Procedure"

The "Ferrari- Fax procedure" enjoys a special status, particularly in court. The Bundesfinanzhof (German Federal Finance Court) has ruled that any form of written communication for governmental and juridical decisions can indeed be sent via the "Ferrari- Fax procedure" while losing none of its credibility. Furthermore, the same court has ranked it as legal form of communication.

The Fear is Great: How will Things Change After the Cease of ISDN?

As the conversion to All-IP is imminent, SIP trunks are gradually replacing analogue and digital (ISDN) lines. Providers are actively canceling contracts where users haven't already switched to the broadband connection or refuse to conclude IP contracts.

Despite the rather obvious benefits this new technology provides, concerns are still present. Users are doubtful about both the voice quality, which is perceived worse than that on classical lines and the error rate during a fax transmission via IP.

On the one hand, the ruggedness of a fax transmission that one is familiar with from faxing through homogeneous networks (such as ISDN) cannot be matched in heterogeneous networks. This is due to various media disruptions, e.g. if an analogue signal is converted to a digital. On the other hand, the "aged" technology partially found in businesses are merely capable of supporting IP to a limited extent.

The Innovation is Close...

And that's fair enough. If a company can continue using their existent technology, such as fax, doubts and concerns can often be disregarded. For in respect of security, fax transmission with IP is as secure as it was with ISDN.

There is even more to it: Users can utilize SIP trunks today and send /receive faxes without having to bother buying or connecting additional hardware- without any media disruptions.

Should your country prospect a broadband expansion, the IT infrastructure would essentially become a fully IP-based homogeneous system once the expansion has been carried out. This would again strengthen the communication processes.

Fax communication is constantly developed further, making document transmission safer and easier in the near future.



...but the Demand for fax Remains.

The demand for a safe and legal business communication method will persist in the All-IP environment. Contracts will need to be sealed, orders will need to be processed and cancellations will be need to be pronounced.

Fax is and will be the ultimate solution if the transmission of a document from A to B is of pivotal importance. It has never lost any of its major benefits since IP has taken over. On the contrary: Fax has profited in many regards.

Which Alternatives are Being Offered Instead of fax?

E-Mail:

Since its introduction in 1971, E-Mail has widely been traded as successor to fax. It offers many strong benefits to the latter: Distributed worldwide, almost anyone has access to E-Mail and is capable of handling it. E-Mail quickly became a universal communication tool. However, because E-Mail can be handled that easily, its most dominant benefit has also become its burden. Knowing that hundreds of E-Mails are awaiting processing every morning hampers an effective workday greatly. How do I separate important messages from unimportant messages? How do I safely store critical or classified documents?

In terms of legal security and acknowledgment in court, E-Mail had never been able to compete with fax. It is still regarded less secure than fax. This is mainly due to its systematic and architectural structure. Considered a "fire and forget" service, it lacks an end-to-end connection between sender and recipient. No one can guarantee a safe and reliant delivery of a message or document sent by E-Mail. Even if a read confirmation has been demanded, it may still get lost on its return route.

Pros:

- Easy
- Swift
- Worldwide distribution

Cons

- Insecure, vulnerable
- May be intercepted and modified
- No end-to-end-connection
- Suited for IP only (no backward compatibility)
- Unreliable (often fails to reach its intended recipient or get deleted by Spam filters)

EXCURSION: WRITTEN FORM AND FAX

The legislator in Germany has provided multiple possibilities for concluding a contract: Orally, conclusively by a conclusive act, via text- or written form or by a notarial certificate. Companies may even conclude a contract silently.

Companies commonly resort to the written form for concluding contracts. But what is a written form technically? This is a pivotal question as once a declaration of will has not been issued via a legal communication form, it is not valid!

The Written Form

The legal written form demands that a document is either signed by the author, has been issued with a notarial certificate or bears a notarial signature. Electronic documents must bear a qualified signature according to the signature law.

The Difference Between Written Form and Text Form

Both communication forms get confused very often. The difference is that the text form lacks the necessity of a signature, whereas the written forms must bear one. Hence, a written form is a document put in text form and complemented with a signature.

If a contract demands the written form, it is again subject to strict legal requirements. This necessity may only be disregarded if the two contracting parties refuse to adopt the written form. In this case, the contract can also be sent as E-Mail or fax.

Generally spoken, fax can only be used for urgent documents where the term threatens to expire shortly. The original document has to be handed in later.

The Electronic Form

As the written form demands a self-signed signature, documents sent through E-Mail, telefax or computerfax are commonly not in line with the requirements for written forms.

The recipient merely receives a copy of the signature, yet the law requires the existence of an original signature. E-Mails may bear a scanned signature, if any at all, so the same applies to them.

If a written consent is augmented with a "qualified signature according to the digital signature act", it may be transmitted electronically. Additionally, the recipient must agree to this



E-Postbrief

The E-Postbrief, often abbreviated E-Brief, offered by the Deutsche Post is a hybrid mail solution that commenced operation on 14.06.2010. Being an E-letter, it transmits encrypted messages via the Internet. If the recipient is no E-Postbrief customer, the message is printed out, stamped and delivered by a mail carrier.

The public poorly accepted this form of communication despite the array of benefits it provided to E-Mail, such as increased authenticity, improved data privacy and stronger integrity. As a result Lotto Hessen, among others, discontinued using this service in November 2012.

Apart from the limited amount of users, consumer advocates started criticizing this service, particularly its complicated accreditation process, non-transparent cost structure and missing security features.

As there is no written form apparent, lawyers have indicated that it is not eligible for court matters and therefore it cannot be used as evidence.

Pros:

- Safer than unencrypted E-Mail
- · Compose and send text digitally and deliver as postcard

Cons

- Insecure as the E-Postbrief is not covered by the privacy of correspondence statute
- Not suited for use by doctors and lawyers
- More expensive than a common postcard
- Significant delay of delivery for the printed version
- Electronic version is prone to virus scanners which may hinder transmission
- Does not comply with valid EU and DIN standards

Elektronisches Gerichts- und Verwaltungspostfach; EGVP (Electronic Inbox for Judges and Administration)

The German legislator has approved certain legal parameter that permitted the designing of an inbox that is in full accordance with the law for electronic legal regulations, namely the so-called Elektronisches Gerichts- und Verwaltungspostfach (EGVP).

Despite its well-intended and futuristic concept, it was heavily criticized by the actual users. Anyone that intended to use this

form of communication.

The "Ferrari-Fax Verfahren" (Ferrari-Fax procedure) enjoys an exceptional reputation. According to the Bundesfinanzhof (German Federal Finance Court), documents composed in written form for administrative or judicial decisions can be transmitted legally using the "Ferrari-Fax Verfahren".

The Conclusion:

If there is a choice between transmitting contracts using fax or E-Mail, one should always opt for fax. It offers a lot more legal security and may be used without the hassle of dealing with a complicated signature.

EXCURSION: VALIDITY OF SELECTED TRANSMISSION METHODS (EXAMPLES)

Evidence	Delivery certificate signed by a bailiff
Prima facie evidence	 Accepting a document from a deliverer along with a certification of delivery Certified mail with return receipt Receipt of delivery
Circumstantial evidence	• Fax (" OK-remark")
No validity	Simple letterE-MailSMSWhatsApp messageTwitteretc.

new method was faced with a highly confusing process that consisted of installing multiple programs and certificates. Furthermore, not all courts were accessible by the EGVP and had to be contacted alternatively.

The time-consuming process of incorporating digital documents to analogue court papers didn't ease the general disaffection. As example, all certificates had to be printed out and incorporated to the court papers with some being nine pages long, adding a considerate environmental burden.

Criticisms were honored and support for the EGVP Classic-Client (EGVP Installer) was discontinued by 31.12. 2016. The "besonderes elektronisches Anwaltspostfach" (beA) will eventually replace the EGVP in January 2018.

THE VISION: FAX OVER IP



Pros:

- Contemporary form of digital communication
- Cryptographic mechanisms improve security (electronic signatures)
- 24/7 accessibility

Cons

- Specially designed by the judicial for judicial lawsuits only
- Poor acceptancy
- Not very user friendly
- · Not all courts can be accessed
- Additional handling time for processing court papers
- · Secluded communication channel
- About to be replaced by the beA (see below)

Besonderes elektronisches Anwaltspostfach; beA (Peculiar Electronic Inbox for Lawyers)

The "Besonderes elektronisches Anwaltspostfach", known by its abbreviation beA, has been introduced to simplify communication between lawyers and judicial authorities while maintaining the necessary legal security. Testing was commenced on 29.09.2016 and, after several postponements, regular operation is due to begin on 01.01.2018. Up to this day, no lawyer is certain what he can expect from the beA. Hence, the beA has evoked similar skepticism as the EGVP, despite not even being in operation yet.

As the beA only regulates communication between lawyers and judicial authorities, many critics have picked up on this limitation apart from many other flaws. Given that the previous EGVP was intended for this purpose as well but eventually failed, they remain skeptical the beA will achieve its goal. Furthermore, communication to a client is disregarded by this solution and users, particularly elder lawyers with no fundamental IT knowledge, suddenly face problems integrating the beA to their IT infrastructure. After all, not many solicitor offices house the technical requirements. Lawyers who choose to utilize the beA receive an ID card which unlocks the service. Thus, larger solicitor offices need to administrate hundreds of ID cards, adding a surplus administration effort.

Authorities endeavor to improve the electronic legal communication constantly, yet questions remain whether this second attempt manages to establish itself.

Pros:

• Contemporary form of digital communication

• Safe due to encryption

Cons:

- Knowledge about IT and IT-infrastructure needed
- No inbox for general inquiries
- Surplus administration effort as every lawyer receives an individual security card
- Limited to communication between courts only
- No access for clients
- Additional communication channel that requires observation
- For lawyers only; notaries need to resort to an alternative solution (see below)
- Its predecessor (EGVP) has failed

Besonderes elektronisches Notarpostfach; beN (Peculiar Electronic Inbox for Notaries)

Shortly after the introduction of the "Besonderes elektronisches Anwaltspostfach" (beA), notaries received their own electronic inbox for secure digital communication with clients (beN).

Generally spoken, the same highlights as well as pros and cons that have been outlined for the beA apply to the beN. The beN is solely listed on this document for the purpose of completeness.

EXCURSION:

CAN I SEND SECURE FAXES IN AN IP ENVIRONMENT?

Intelligent fax Solutions Regulate fax Transmission via T.38 or G.711

The IP interface transmits faxes either via the G.711-Pass-Through or T.38-Realtime-Fax-over-IP protocol. T.38 has been developed to overcome challenges that fax would commonly face in an IP environment. It is universally regarded as a reliable and solid solution for routing faxes through the internet without any delay. As long as the trunk line and PBX support IP and fax features such as ECM (Error Correction Mode), we highly recommend using this method.

If, however, a classical trunk line is still in use, we suggest using the G.711-Pass-through method. The familiar modem tones transmit fax data through a direct telephone connection to the recipient. Intelligent fax solutions autonomously determine whether they employ T.38 or G.711, depending on the given scenario.



About Ferrari electronic AG

Ferrari electronic is a leading German manufacturer of hard and software for Unified Communications. The OfficeMaster range integrates fax, SMS and voicemail into all existing email and application systems. The hardware seamlessly connects a company's telecommunications infrastructure with the existing information technology. Customers benefit from greater efficiency and streamlined business processes. In August 2014, Ferrari electronic acquired innoventif Ltd. and thereby expanded their portfolio by the OfficeMaster CallRecording solutions. Thus call recording becomes an integral part of Ferrari electronic Unified Communications solutions. Companies can optimize their sales department, service quality and other processes with a wellrounded system. Ferrari electronic with this move gains new opportunities, customers gain additional value. Research, development and support of Ferrari electronic AG are located entirely at the company's headquarters in Teltow near Berlin. A pioneer in computerfax since 1989 with the product "ferrariFAX", Ferrari electronic remains market and technology leader in this area to this day. Today, more than 50,000 companies with approx. 5 million users utilize Unified Communications products by Ferrari electronic. The customer base includes companies of all sectors and sizes. Some of the more notable companies include Allianz Suisse, Asklepios Kliniken, Boehringer Ingelheim Pharma GmbH & Co. KG, EUROVIA, European School for Management and Technology, Griesson - de Beukelaer, Österreichische Kontrollbank AG. Stadthalle Wien and Techniker Krankenkasse.

Please refer to the following White Paper for additional information on the topic of document transmission via fax. The Validity of Fax over IP Electronic Transmission of Documents Using fax Exchanging Documents Within a Company

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10 Reasons why to Continue Using fax

Literally, everyone knows how to use fax. Paper fax is a bespoke

Every sender receives a qualified delivery report stating whether the

1. Fax is well Established

solution for document transmissions within companies and is regarded as reliant medium. Pharmacies receive vital medication information not via E-Mail, but via fax. In fact, many pharmacies possess individual faxing devices with paper output whereas the sender, e.g. pharmaceutical companies, utilize computer fax. Furthermore, production and storage facilities that are not connected to the Internet (DSL or ISDN) are always accessible via fax. Even cruise ships may receive

a fax via satellite connection. 2. Fax is Traceable

delivery was successful. This principle can be compared to a return receipt of a classical letter and equally applies to paper fax and electronic computer fax. The functional principle of a delivery report cannot be transferred to E-Mail. If an E-Mail user requests a confirmation of successful delivery from his addressee, he merely triggers a dialogue window that pops up on the recipient's mail client demanding confirmation. This tool is often unpopular and many user tend to turn it off.

3. Fax is Affordable

Fax may seem expensive if directly compared to E-Mail, however many seem to disregard the enormous investment in infrastructure that accompanies E-Mail if it is to be used efficiently. A network capable computer fax is a neat solution that integrates seamlessly into an E-Mail client and E-Mail adminis-

is a neat solution that integrates seamlessly into an E-Mail client and E-Mail administration. Hence, internal faxes sent within the IT infrastructure are free and external faxes merely cost a financial fracture of postages for letters would have cost. Financial accumulations are settled with the telephone bill. Choosing to send invoices via fax greatly reduces costs and reveals great innovation potential for companies.

4. Fax is Quick

The delivery of fax occurs instantly without significant delay, despite the fact that fax is a lot cheaper than a letter. Precious time that would have been lost for preparing a letter for dispatch can be used more efficiently thanks to fax. And composing a computer fax takes no more time than composing an E-Mail.

5. Fax is Easy

Modern Unified Messaging systems integrate fax (as well as SMS and Voice-Mail) seamlessly into an existent E-Mail infrastructure. The user types a fax like an E-Mail and simply enters the fax address number into the mail header while the Unified Messaging solution generates a fax including cover page, fax header and respective contact details. Although the time needed for composing a fax is no greater than that needed for composing an E-Mail, its effectiveness, particularly in court, is significantly higher.

6. Fax is Unerring

Whoever transmits a fax or E-Mail expects it to be noticed and read. This is the main flaw in E-Mail transmission: Due to Spam filters, more



7. Fax can be Integrated Easily

Fax can be utilized to greatly enhance technical possibilities within a company's infrastructure. For example, integration into a Cloud can be easily achieved. Users may occupy fax without dedicated E-Mail programs as Office applications, ERP solutions (Enterprise Resource Planning), CRM solutions (Customer Relationship Management) or DMS solutions (Document Management Systems) are all more than capable of sending E-Mails. SAP users, for instance, send binding offers straight out of the program and significantly accelerate their internal processes. Automated processes can also be integrated into a business operation, such as the forwarding of received documents using the direct-dial number.

8. Fax is Secure

Communication via fax means secured communication between two endpoints. The fax protocol transmits messages directly from the sending device to the receiving device. Any form of buffering, spying or intercepting is technically almost not executable and has never been recorded in the history of fax.

9. Fax is Legal

Bad news first: The legislator has granted only the transmission between two paper faxes as legal. As soon as a computer fax is involved, an electronic signature will be required. From this standpoint alone, the legislator treats electronic fax and E-Mail likewise. The signature saves information about the transmitted fax, compressing its content into a two-dimensional code. Having this code, one can prove that the outbound fax is identical to the inbound fax and no alterations had been made. Hence, invoices cannot be tampered with and the VAT (Value added tax) can be refunded safely. The good news is that professional Unified-Messaging solutions (such as the OfficeMaster Suite) possess an optional electronic signature for fax and therefore any documents bearing this signature may be used as circumstantial evidence in court.

10. Fax is Popular

Even if many customers regard fax as dying communication method, there is usually always a reason why fax should remain. Users love fax, they utilize it whenever they need to transmit a document swiftly, no matter if it is an order, cancellation or termination of a contract.

