

## **Re-engineering dispute resolution in an EDI-environment**

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### **0. Abstract**

Electronic data interchange (EDI - paperless trading using computer networks) demands different forms of dispute settlement than the traditional jurisdiction, such as courts hearings and arbitration. We argue that the less traditional ways of dispute settlement, known as ADR [Delden, 1988], are more appropriate than (traditional) adjudication. ADR has already been successfully applied a.o. with respect to conflicts arising from failed automation projects. We will, therefore, first evaluate various aspects of the forms of problem solving presently available, in the context of the specific characteristics of automation projects. The very nature of projects undertaken in the automation industry, especially the complexity and the length of the contract, requires that factors such as continuity and the aim of the project are taken into account. Recent developments in automation, like EDI, have resulted in a shift in trading patterns, making the traditional legal instruments appear to be increasingly inadequate. This raises the question of whether national laws are sufficient to provide the conditions necessary for this development, especially considering the border crossing nature of EDI. We will argue in this paper that the legal aspects of EDI cannot be determined effectively by national or international institutions, nor can international treaties provide a legal framework for EDI. It is our opinion that the EDI participants will increasingly tend to draft their own border crossing regulations. As a result of this, we expect that in the near future there will be a shift from an intervening (national) court adjudication to a more autonomously operating (international) business adjudication in which the rules are drafted on the basis of which conflict solving decisions will be made.

### **1. Characteristics of automation projects**

"Why do information systems still fail?", is the intriguing title of a book written by prof. J.A.M. Ooninx [Ooninx, 1982]. However, the crux of this paper is not the question why, but the question how conflicts resulting from the failure can best be solved. Sometimes people wonder what is so special about the

purchase of computers that the common legal procedures should be inadequate. Without giving the impression that automation projects are more special than other agreements made in trade and industry, we will indicate certain aspects which will demonstrate the need for a more satisfactory method of approaching and dealing with conflicts. The most important aspects were put into words by Van Aubel: "(...) the fact that the automation of a business administration touches the way a company works in its nervous system, (...) the fact that automation more than any other purchase of a product causes a long-standing business relationship and cooperation and (...) also the level of technique which is not always faultless (...)" [Aubel, 1988].

In order to be able to operate in an effective and efficient manner, organizations have become dependent upon computer systems to an extensive degree. An organization suffering from a faulty computer system could find its future existence under threat, especially if this proves to be a lengthy, time consuming error. The organization's vulnerability is clearly marked during the introduction of a computer system. If conflicts do arise in this phase, the organization can only be helped by finding a fast, pragmatic solution to make sure that the continued existence of the organization is guaranteed.

Once a computer system has been delivered and is working, this of course does not mean that the automation activities are at an end. Automation is a continuing process; adaptations of hardware and software are taking place constantly. The buyer's initial choice for a specific supplier means, in most cases, that this business relationship will continue as long as the computer system is operational. This can be for several years. It goes without saying that the success of the project will be largely determined by a cooperative attitude on the part of the contracting parties.

Furthermore, no computer system is faultless. It is our opinion that computer hardware is not intrinsically different from other electronic components as far as technical malfunctioning is concerned. It is the computer software, however, that has proved to be the elusive factor. It is almost impossible to test all the combinations employed in a computer program. The danger of a total collapse or seizure, therefore, is always a possibility. In practice, it is often hard to determine whether a failure was a consequence of a shortcoming in the computer program or whether it was caused by wrong input or an input that was not tested. The question of who is guilty is hard, if not impossible, to answer. It is advisable for parties to be more concerned with ensuring the continuity of the project and/or company rather than with the question of who is at fault.

In addition, we want to emphasize that the development of tailor-made software, software for a specific part of a specific company, is in general a

complex matter. Despite thorough analyses of the processes in a company, unforeseen problems do often occur once the realization of the project has been started. This is mostly due to the fact that during realization all kinds of details which could not be provided for during the analysis phase have now to be taken into account. This concerns not only the technical - programming - part, but also functional aspects. Automation often demands a further, more thorough, analysis of a company's activities than could be initially expected.

## **2. Forms of dispute settlement**

The forms of dispute settlement are many-sided. The theories behind the forms and classifications dealt with are also diverse. In addition to judicial verdicts (other) forms are: arbitration, summary arbitration proceeding, binding advice, intercession, mediation, conciliation, med-arb (mediation-arbitration), advising arbitration, fact-finding, rent-a-judge, summary jury trial and executive tribunal (usually referred to as "mini-trial") [Delden, 1988]. It is noteworthy that when dispute settlement is discussed, there appears to be some kind of sliding scale in which the forms are ordered. This scale starts with forms very similar to judicial verdicts and ends with forms that are completely different. An interesting presumption for our future legal perspective presented at the end of this paper is that if legal historical research was undertaken in order to examine the development of the various forms of dispute settlement then it would probably come up with the same order. This is interesting because no research has ever been carried out in order to evaluate the effectiveness of judicial decision making. This order might be an indication that the traditional court adjudication is not effective and leads to the conclusion that law cannot ignore economic patterns and market forces.

Since 1989, the automation branch in the Netherlands has had its own arbitration institute: the Foundation for Dispute Settlement in Automation<sup>1</sup>. Procedures for mini-trial, arbitration and summary arbitration are offered. We will deal briefly with two aspects which are often presented as advantages of these types of dispute settlement in automation: the informal nature of the hearings and the expertise available. Other aspects, which make arbitration a useful instrument in general, will be discussed in the following section.

The underlying idea of negotiating is an advantage of some of the ADR-techniques. The characteristics of automation projects set out in the previous section do, in our opinion, indicate that a dispute settlement in this environment needs primarily to concentrate on the continuation of cooperation between the

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<sup>1</sup> The Foundation for Dispute Settlement in Automation was founded in The Hague, June 29, 1989.

parties concerned. A third party (legal experts, automation experts, organization experts, etc.) can provide vital assistance in the initial formation period of an agreement, although this can also be the case when a dispute arises. Such continued negotiations do not necessarily have to have a formal character. It is important to achieve a creative solution in these matters such as finding common ground between two parties with divergent opinions. It is our belief that one can achieve a better atmosphere resulting in a more satisfactory agreement without falling back on a formal approach with its formal regulations. Apart from this, we have to keep in mind that in general arbitrators are described as having the same kind of role as judges. An important drawback to this role is the phenomenon of the 'instability of the solution': a judge cannot moderate the claim because he is not sure that he has made the right decision [Kerkmeester, 1988]. There is much to be gained by the fact that the arbitrator/conciliator/mediator, who has developed a more informal role in the proceedings, can withdraw from this trap.

One advantage of arbitration in automation cases which is often mentioned is the expertise of the arbitrator. We want to make some remarks about the value of expertise in arbitration. As mentioned above in the section dealing with automation, problems will usually require specific knowledge: of the organization involved, of the ins and outs of the line of business, of the possibilities and applications of specific system software and computer hardware, of communication protocols, of interfaces, of the software development methodology, of the application itself. Even apart from the question whether or not expert arbitrators can have such wide-ranging knowledge, one may presume that the expertise meant here cannot be seen as a part of the job description of such a person. The advantage of expertise is, therefore, relative [Oosterbaan, 1988]. All that can be said is that an expert is familiar with the daily routine associated with an automation project. And finally, show us two experts and we will show you two people with different opinions.

### **3. Criteria for decisions**

The various legal options compete with each other in a way which is rather unclear. It is not easy to decide which option will be the best. The general arguments either for or against certain options which we have found in the available literature are not sufficiently decisive. A few examples.

An important advantage of arbitration as opposed to judicial verdict is often stated to be the speed of the procedure. Since summary proceedings are very popular nowadays, it is doubtful whether this argument is tenable. From that

perspective, it is interesting to refer to the statement delivered by the president of the court in Haarlem, Van Haak. He stated that summary proceedings are judicial products, which effectively bring order in a very short time [Haak, 1988]. The immediate reaction to this was to draw up a new article for the law of arbitration. This gives arbitrators the power to deliver a verdict in a summary arbitration proceeding. This measure certainly evens up the balance between the two competing options.

Another argument which seems to be brought up 'as it suits' concerns the guarantees of the procedure. It is often argued in favor of the courts that it is important to lay down general principles for legal verdicts. As if this could only be achieved by a court! Alternative forms of dispute settlement emphasize, however, the advantages of the flexible nature of their procedure. Judicial courts, in turn, are not insensitive to this 'gap in the market' and are adopting a more flexible approach, in particular when discussing the possibilities offered by summary proceedings. Arbitration is also not averse to trying to attract a greater market potential by being double-sided. It stresses the advantage of greater flexibility, while, compared to other forms of ADR, it emphasizes the advantage of the more significant guarantees of the arbitration procedure. So what appears to be a disadvantage from one side can appear to be an advantage from the other side.

Finally, the costs of the procedure. Fortunately, we see less and less generalized statements that arbitration is cheaper than bringing an action (or the other way round). A fast arbitration procedure may well be cheaper than a lengthy conflict to be heard by a court, despite the sometimes enormous fees demanded by arbitrators. However, when a conflict can be solved quickly by a court, the arbitration procedure is then relatively a lot more expensive. The problem is that it is difficult to predict the length of the proceedings in advance.

The opinion varies with the speaker. The approach we prefer fits in with the situation in which a continuation of the cooperation is desirable. Then negotiations between the parties is the most useful course of action. However, negotiating can lead to undesirable consequences if the negotiating power of the parties is unequal. In that case the advantages of the 'informal' arbitration can play an important role [Kerkmeester, 1988].

#### **4. Developments in trade**

We have argued above that the choice of a specific form of dispute settlement can be determined by rational criteria. Decisive is the expected effectiveness. Non-legal forms of dispute settlement sometimes seem more effective than judicial verdicts or the more formal forms of arbitration, especially when there

is an underlying idea of negotiation. The advantages become very clear in disputes concerning automation. In our introduction, we pointed out another relationship between ADR and automation, which will be discussed below.

In his vigorously written 'handbook for a management revolution' Tom Peters says: "Technique is another autonomous variable, which has its impact on all aspects of business. As already mentioned it led to a revolution in banking, but fields mentioned below are also changed forever: (...)" [Peters, 1988]. The field interesting for our argument is distribution. "Because of computer and telecommunication techniques it is possible to start almost countless cooperations all over the world". Innumerable examples can be given which emphasize the increasing internationalization of trade.

One of these possibilities originating from computer and telecommunication techniques is EDI, the electronic exchange of structured data between the computers of parties involved in trade [Hofman, 1989]. Research by Ediforum<sup>2</sup> shows that in the Netherlands over 1500 companies are connected to more than 30 operational EDI networks. Since the EDI phenomenon is relatively new, we have to be careful, of course, about making general statements concerning what is usual, as far as EDI is concerned, or in making predictions as to what one can expect in the future.

What we do know, is that a totally new way of entering into trade agreements is developing. It is the field of Computer law that deals a.o. with the legal aspects of networks like EDI<sup>3</sup>. In the Netherlands, for example, a problem might be caused by article 6:221 of the (new!) Civil Code. This article distinguishes between oral and written offers. This might raise the question as to whether an offer via an EDI network should be classified as oral or as written. However, instead of waiting for a test case on this matter, it seems wiser to include an article in the interchange agreement concerning the validity and acceptance of the offer. This agreement states the terms and conditions with regard to the use of an EDI network [Esch, 1994].

Another example concerns the absence of written documents, with or without an original signature. Whatever may be said about the technical measures to track down the process of data flow, it is evident that the traditional rules of evidence are not applicable to EDI-transactions. What would a court think of an electronic signature (code, password, etc.) on a floppy disk as a piece of

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<sup>2</sup> Ediforum is a Dutch foundation which aims to stimulate the use of EDI in the Netherlands. Ediforum provides information on various aspects of EDI. It also represents Dutch parties in European and international organizations on EDI.

<sup>3</sup> See Juridische aspecten van netwerken (Legal aspects of networks), publication of the Dutch Association of Computers and Law for a more extensive discussion.

evidence? In the Netherlands, it is up to the court to decide whether or not this kind of evidence will be allowed in a dispute. Furthermore, because of the possibility that the electronic data have been manipulated, it may attach little significance to such evidence. The recommended approach would be to include the position of the parties regarding evidence in the interchange agreement, instead of relying on the judgement of the court as to whether *this* log file of *this* EDI system may be considered to be a "written" document, or that an electronic password is equivalent to a written signature in law [Vandenberghe, 1988].

Once the very use of EDI already requires specific legal arrangements, it will require only one step more to include also conditions in the interchange agreement on the settlement of disputes resulting from agreements made by using EDI. Consequently the VANS (value added network services) provider, being an independent third party involved with the storage and transmission of the data of the transaction, seems to be the obvious body to take on the role of mediator and, finally, to make the decision. The next question would then be whether or not it would be necessary after this kind of mediation to appeal to a court. For the time being, we feel that this will hardly be the case, as the market mechanism will take care that good thorough decisions are made by network managers. After all, if a network arbitrator makes decisions detrimental to a certain party too often, it will become advantageous for this party to switch to another EDI network for his transactions.

## 5. A future legal perspective

The international tendency towards more flexible dispute resolution in trade has also been noticed in the Netherlands, and has led to the foundation of the Dutch Mediation Institute<sup>4</sup>. As far as conflicts resulting from EDI transactions are concerned, Gijrath seems to be in favor of a choice between a formalized form of negotiation, like mini-trial by the Foundation for Dispute Settlement in Automation, and arbitration by the Dutch Arbitration Institute [Gijrath, 1993]. Yet why should another external party be brought in rather than a party already involved in the business? Especially when that external party is perceived as - again - a more or less formal institution whereas the latter has knowledge of the transaction, the way it has been carried out and the technical ins and outs. A good example is how a credit card company already involved in the business could perform mediation services.

The ease and advantages of using credit cards become very clear when buying a product from a mail order company based abroad. An order can be placed by

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<sup>4</sup> Stichting Nederlands Mediation Instituut, 's-Gravenzande, founded 1 October 1993.

simply giving the number of the credit card and the date of expiration. By doing this, it is not necessary to wait for delivery until a payment in advance has been made or checks sent by mail. Time is saved. One of the attractive sales conditions of mail order companies is often the guarantee that the client's money will be refunded if he is dissatisfied with the product. If the mail order company fails in its duty to refund, then the buyer is faced with a tricky problem. He or she has to decide whether to bring an international civil action. The first question which has to be answered is which law is applicable. At least one of the parties will need legal support to make a study of the legal system of the other party. The unsolved questions, which constantly abound in international trade, need to be resolved over and over. But what will the cost be? And what is the length of the proceedings? It is our opinion that, in future disputes of this nature, the credit card company which completed the transaction could play a vital role. Suppliers and buyers that make use of the services of the credit card company, could submit themselves to general conditions, including dispute settlement. In a case like the one described above, they could establish, for example, that the credit card organization is liable for the refund. Then all the purchaser will have to do is to take up contact with the local representative of the credit card organization. Although a credit card company was involved in this example, it goes without saying that other intermediary organizations in electronic commerce, like banks, international business information companies or EDI organizations, could also act as conciliators.

The law reflects needs at a certain moment in time. It is not necessarily the case that the present legal institutions will be the most effective in the future. It is quite possible that the settlement of disputes could be improved through bypassing the court. This brings into question the 'monopoly position' of the state courts. Supra national developments like a unified Europe, however, are also not well equipped to keep track of international economic developments. Not only the trade between countries in the EU is increasing, but trade with countries outside Europe is also growing very fast [Franken, 1991].

In this article we have shown the representatives of the authorities, the courts, acting as parties in a market economy. The idea that civil servants can also be rational and try to promote their own interest is at the core of the 'public choice' theory [Doel, 1990]. In our future legal perspective this view is also very useful. We expect a reinforced, continued battle between international companies, doing more legal work, and national and supra national organizations, which, as much as possible, try to avoid losing a part of the market in dispute settlement products. In democracies, this conflict should result in more availability to the public of the most useful ways of dispute settlement [Kerkmeester 2, 1989].



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