



Bundeskartellamt examines the effects of a planned acquisition of T-Systems assets by IBM on the market for mainframe infrastructure outsourcing

Sector: Information technology, mainframe computers

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The Bundeskartellamt examined the planned acquisition of considerable assets of T-Systems' mainframe¹ business by IBM in second phase merger review proceedings. On 4 June 2019 the parties IBM and T-Systems withdrew their notification of the intended merger after the Bundeskartellamt had expressed its preliminary competition concerns and announced that it was considering prohibiting the proposed merger.

The Bundeskartellamt based its concerns on comprehensive investigations with the two parties, their competitors and customers. According to the authority's preliminary assessment the merger would have significantly impeded effective competition on the market for mainframe infrastructure outsourcing in the European Economic Area (hereinafter: "EEA") by further strengthening IBM's dominant position.

Mainframes are powerful computers used by large companies and public institutions worldwide to store and process large amounts of information and for high-speed bulk data processing. Due to their high reliability, availability and ease of maintenance, they are used for critical business processes. The mainframes in this case are proprietary systems which IBM has produced and sold since 1964. Many companies, however, commission outsourcing providers like IBM and T-Systems for the operation of these computers rather than operate them themselves.

Through Ehnigen-based **IBM Deutschland GmbH**, which is a wholly-owned indirect subsidiary of International Business Machines Corp., the IBM group is active worldwide in the development,

¹ The term mainframe (computer) will be used herein solely as a synonym for IBM mainframe computers.

production and marketing of a wide range of information technology (hereinafter: IT) solutions which comprise software systems (servers, storage systems, applications) and services (consulting and IT infrastructure services). Frankfurt-based **T-Systems International GmbH** is a wholly-owned indirect subsidiary of Deutsche Telekom AG in Bonn which is represented in over 20 countries and which is active in the area of information technology services. It offers integrated solutions for business customers.

The **planned merger** would have included T-Systems' key mainframe hardware and software as well as several hundred specialist personnel to operate these high-performance computers, but not T-Systems' existing end customer contracts. The parties had also planned to enter a long-term cooperation agreement by which IBM was to provide its mainframe services to T-Systems' end customers as a subcontractor. Both parties were to remain active as competitors on the end customer market. The planned merger would have been an **acquisition of a substantial part of the assets and of control** pursuant to Section 37(1) no. 1 and no. 2 lit. a) of the German Competition Act (GWB).

The relevant **product market** is the market for mainframe infrastructure outsourcing services, on which the T-Systems business unit to be acquired is active. This market has to be considered separately from the mainframe applications outsourcing market.

So far, the Bundeskartellamt did not have to formally acknowledge the existence of a market for IT infrastructure outsourcing or mainframe infrastructure outsourcing. It is true that the European Commission repeatedly dealt with mergers in the area of IT outsourcing services; however, it could always leave open the exact product market definition for lack of relevance. Having mentioned that, the European Commission based its decision in the 2011 IBM abuse proceedings on an especially defined mainframe maintenance market.² In the past, the Bundeskartellamt used specific functional market segmentations defined by market research companies like Gartner, IDC, etc. for rough orientation. However, this did not mean that markets were defined accordingly in each individual case. Market surveys by the European Commission, which applied these market segmentations³ in its previous decisions, confirmed that they represent typical segments

² C18/6 EU OJ of 21 January 2012, summary of the decision of the European Commission of 13 December 2011, COMP/39.692 – IBM maintenance services, para. 3.

³ In many cases the point of reference for the sub-segmentation of the IT services segments was always the sub-segmentation according to Gartner in the study "Forecast IT Services by Service Type, 2011-2017."

in these industries. When it comes to merger control proceedings concerning IT services, the Bundeskartellamt defines industry-specific market segments in addition to functional market segments in some cases. In individual cases the Bundeskartellamt may decide to differentiate the market segmentation further or to define market segments deviating from market research companies because of specific customer needs in an effort to comply with the concept of demand-side substitutability that applies in the context of merger control.

IT outsourcing is the functional IT services segment affected by the merger project. The Bundeskartellamt defined the following sub-segments of IT outsourcing based on the market research institutes' definitions for antitrust examinations. A final product market definition has not been necessary so far:

- a) Cloud Computing Services
- b) Infrastructure as a Service (IaaS)
- c) Infrastructure Outsourcing Services including further conceivable sub-categories for data centre services, network outsourcing, terminal devices or help desks
- d) Application Outsourcing Services

Mainframe infrastructure outsourcing services are data centre services that are purchased separately in most cases, which means that separate contracts are concluded or at least separate lots are issued for tender for general IT outsourcing services on the one hand and mainframe infrastructure outsourcing services on the other hand. From the customers' perspective, mainframe infrastructure outsourcing services (secondary services) cannot be substituted with other infrastructure outsourcing services due to the fact that they are based on a proprietary system (primary service). If another secondary service were to be procured, the existing infrastructure would have to be replaced, which would require substantial investments in terms of associated time and costs. The fact that mainframe infrastructure outsourcing services are often part of a more comprehensive agreement regarding a multitude of IT services is not relevant in the context of market definition due to the lack of substitutability. In addition, providers of secondary services cannot apply supply-side substitution as specific investments in terms of know-how and infrastructure are required, which would again require substantial investments in terms of associated time and costs. Customers also expect providers to have a sufficient level of expertise in the area of mainframe-specific secondary services as the infrastructure is highly

relevant to their business operations. For these reasons, it is normally neither possible to either have this service provided by general outsourcing providers at short or medium term nor to re-integrate (insource) the mainframe sector on the customers' side.

Development and maintenance of mainframe system applications are not part of the market. Customers use these applications for their business processes. These applications are not affected by the operating system as such and do not require profound knowledge about the mainframe technology. For this reason, application outsourcing is offered by a considerably larger number of service providers.

The **relevant geographic market** is the European Economic Area, in particular due to sector-specific regulatory requirements and data protection requirements. IBM is active throughout the EEA while its competitors have regional focus areas, e.g. the DACH⁴ region, Scandinavia or the BENELUX⁵ region.

According to the Bundeskartellamt's preliminary assessment, the merger would have **increased IBM's dominant position** on the EEA market for Mainframe Infrastructure Outsourcing Services. This assumption is based on the fact that this merger would increase IBM's market position beyond the threshold indicated in Section 18(4) German Competition Act (GWB). In addition to the fact that the threshold for market dominance is exceeded, however, the merger would also very likely cause unilateral effects that would clearly impede effective competition on the mainframe infrastructure outsourcing market pursuant to Section 36(1) GWB.

IBM's **market share** already by far exceeds the threshold value for the assumption of market dominance, even without the planned merger. Finanz Informatik and Fiducia & GAD IT are its major competitors in terms of turnover, although their market shares are considerably lower. However, their turnovers are only a very limited reflection of their competitive potential with regard to third-party customers, as the customers of both companies are mostly members of their own savings banks or cooperative banks. All other market players have a market share of less than 10%. When it comes to third-party customers, especially T-Systems, Atos, DXC, Finanz Informatik and HCL are able to restrict IBM's room for manoeuvre to a certain extent. According to the Bundeskartellamt's analyses, T-Systems in particular has been an active and successful

⁴ Germany-Austria-Switzerland.

⁵ Belgium-Netherlands-Luxemburg.

competitor of IBM's in the last ten years and was, to a limited extent, a limiting factor in active customer acquisition.

On the input services market IBM is the sole **manufacturer of IBM mainframes**, the sole supplier of spare parts and exclusive licensor of the proprietary z/OS operating system. IBM therefore benefits from a strong flow of information. Service providers have to procure input services to be able to offer mainframe infrastructure outsourcing services on the market. The Bundeskartellamt's investigations have shown that all of IBM's competitors procure input services from IBM. On their own the providers can offer in particular basic operating system services (services for installation, maintenance and operation of hardware and software of the zSeries servers down to operating system level) based on IBM's input services. Therefore, the basic operating systems are of particular significance for the overall business success on the market. Basic operating system services thus enable providers to differentiate themselves from their competitors and are a prerequisite for cost-based competition between the service providers. However, the actual provision of the services was supposed to be shifted from T-Systems to IBM in the course of the merger process.

IBM's room for manoeuvre would not have been limited by **potential competitors**, e.g. by further providers entering the market. The market is marked by high barriers to market entry, i.e. the high staff and materials expenses for new outsourcing suppliers, the specific expertise and experiences required for dealing with the dated computer technology (legacy system), and the high costs and efforts associated with a change of provider. These high barriers to market entry are confirmed by the fact that no new competitors have entered the market in recent years. According to the Bundeskartellamt's knowledge, there have not been any new market entries in the last five years from companies other than those already active in the mainframe sector. Instead, competitors or previously in-house operated mainframe infrastructure divisions were acquired. Additionally, insourcing, i.e. the re-integration of the mainframe sector by end customers, is not a relevant competition factor in view of the small number of corresponding cases.

In the case at hand the transfer of essential assets relevant to T-Systems' "mainframe" business combined with the cooperation contract between the parties to the merger would have resulted in a further **strengthening of IBM's** market position on the market for mainframe infrastructure outsourcing services. The strengthening of the dominant undertaking does not require direct

growth of the purchaser's market share or the seller leaving the market *and* handing his customer relations over to the purchaser. In the case examined by the Bundeskartellamt, IBM's room for manoeuvre would be enhanced by the acquisition of significant and scarce human resources, improved access to sales markets and an impairment of competition in terms of price and quality in competitive bidding between the parties to the merger.

Trained and experienced **personnel** is very important for providers of mainframe infrastructure services; however, human resources in this area are scarce and in high demand as there are no trainees for legacy systems and training new staff takes a long time. Mainframe specialists are thus an asset on the market. Had T-Systems' experts switched to IBM, IBM's staff capacities in the mainframe infrastructure segment would have increased, not just for the fulfilment of subcontractor obligations. IBM would also have had additional staff for own end customer services or the acquisition of new business opportunities on the end customer market. Given that such experts are a scarce resource, IBM would have had another competitive advantage on the market.

IBM's access to the sales market would also have improved as IBM experts would have provided mainframe infrastructure services for T-Systems' end customers, despite the fact that IBM would not have been the contractual partner of the end customers. There would have been direct contact between IBM's mainframe specialists and end customers' IT experts at the working level over several years. End customers would have gathered experience with IBM services and would have had the chance to develop an opinion about the quality of IBM's work.

This merger project would have reduced **IBM's incentive** to win tenders or enquiries in the market against its important competitor T-Systems by offering attractive prices, especially in the DACH region. IBM would have generated revenue from directly concluding contracts or indirectly from the fees charged by T-Systems for IBM's mainframe services for end customers. This situation would have enabled IBM to decide whether or not to enter into a "bidding competition" with T-Systems in order to become the contractual partner for the services provided or whether it would be satisfied with the role of a pre-supplier, which would have saved the company considerable efforts associated with a bidding process. Both options would have allowed IBM to benefit from the conclusion of a contract with the customer, i.e. its opportunities for additional turnover would have improved despite potential third-party competition.

If a seller's market position is weakened towards the purchaser as a result of the transaction and the seller is a competitor of the purchaser, this situation alone is sufficient to assume a self-

reinforcing effect. The dominant company's room for manoeuvre is enhanced or at least safeguarded as a result.

It is true that the Bundeskartellamt assumed that T-Systems would not leave the market completely as it would have used the mainframe services to complete its portfolio. However, its activity volume and competitive aggressiveness would have decreased considerably. **T-Systems' room for manoeuvre** on the affected market, which was already limited before, would have been restricted even further as it would have also depended on IBM's personnel and production capacities. Incentives for competition would have been reduced. This effect would not have been ruled out by a potential reversal of the outsourcing contract between the parties either.

As a result of the merger project, T-Systems would have had a considerably smaller incentive to win new customers in the area of mainframe outsourcing if it had to take over the customer's production capacities and personnel for that purpose, which is normally the case in outsourcing constellations. The acquisition would have contradicted the objective of the IBM/T-Systems transaction, namely to reduce fixed costs. The transfer of the corresponding capacities to IBM would at least have to be coordinated. Therefore, T-Systems would not have had the opportunity to independently **acquire new customers** in that area.

T-Systems' incentive to attract large new customers or a large number of new customers would have decreased as a result of the changed **cost structure** for mainframes from permanent fixed costs to variable costs for services actually rendered by IBM. After the merger, there would not have been any substantial running costs when no service was rendered. As a consequence, the pressure to keep or acquire a large number of customers in the mainframe sector would have been eliminated. T-Systems' calculation and consequently its market behaviour would have changed considerably, turning T-Systems into a less aggressive competitor of IBM's.

With T-Systems procuring technical services from IBM rather than **generating any substantial value itself** on the market after the merger, its ability to compete in terms of quality or price for the service in question would have decreased. Post merger quality competition in the area of mainframe services would have been excluded to a large extent, at least towards IBM, as the technical service proper would have been exclusively provided by IBM. With regard to the price T-Systems would normally only have charged customers with the pre-service costs it paid to IBM for the service plus a commission margin. Price and quality of mainframe services, however, are significant competitive parameters on the market and a key criterion when selecting a new

provider, the market investigations showed. IBM would also have benefitted from T-Systems' limited ability to compete in relation to the quality and the price.

A potential **reversal** of the outsourcing contract between IBM and T-Systems after the expiry of that contract would not have changed the structural modifications on the relevant market which would have existed since the conclusion of the merger. Due to the major efforts they require, such processes are very rare in the mainframe infrastructure market.

Due to the withdrawal of the notification by the parties, the proceeding was concluded by the Bundeskartellamt without a final decision. The merger cannot therefore be implemented.