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PUBLIC VERSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

IBM
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United States of America

Subject: **Case M.11468 – IBM / CERTAIN SOFTWARE AG PRODUCTS**
Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004[1] and Article 57 of the Agreement on the European Economic Area[2]

Dear Sir or Madam,

(1) On 16 May 2024, the European Commission ("**Commission**") received notification of a proposed concentration pursuant to Article 4 following a referral pursuant to Article 4(5) of the Merger Regulation by which International Business Machines Corporation ("**IBM**" or "**Notifying Party**, USA) intends to acquire from Software AG ("**SAG**", Germany – currently controlled by Silver Lake Group, L.L.C., USA), within the meaning of Article 3(1)(b) of the Merger Regulation, sole control over SAG Integration US LLC, a special purpose vehicle that will own SAG's webMethods and StreamSets enterprise technology software businesses (the "**Target**", USA) (the "**Transaction**").[3] IBM and the Target are collectively referred to as "**Parties**".

[1] OJ L 24, 29.1.2004, p. 1 (the 'Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this Decision.
[2] OJ L 1, 3.1.1994, p. 3 (the 'EEA Agreement').
[3] OJ C, C/2024/3496, 29.5.2024.

1. THE PARTIES

(2) **IBM** is a public company headquartered in Armonk, New York, USA. It is active worldwide in the development, production, and marketing of a wide variety of information technology ("**IT**") solutions, namely enterprise IT software and systems (such as servers, storage systems, cloud, and cognitive offerings) and IT implementation services (such as business consulting and IT infrastructure services).

(3) The **Target** comprises SAG's webMethods and StreamSets enterprise technology software, which will be carved out from SAG's other product lines into the newly created SAG Integration US LLC (or its direct or indirect subsidiaries). webMethods is a suite of application integration middleware tools deployed on-premises and in the cloud. StreamSets is a cloud-native real-time data streaming integration product.

2. THE CONCENTRATION

(4) The Transaction consists in the acquisition of sole control by IBM over the Target, pursuant to a sale and purchase agreement dated 18 December 2023, according to which IBM will acquire all of the issued and outstanding membership interests of the Target for a total value of approximately EUR 2.13 billion. Upon closing of the Transaction, the Target will be wholly owned by IBM.

(5) Therefore, the Transaction constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

3. EU DIMENSION

(6) The Transaction does not have an EU dimension within the meaning of Articles 1(2) and 1(3) of the Merger Regulation because the Target does not have an EU-wide turnover exceeding EUR 250 million or turnover exceeding EUR 25 million in at least three Member States.

(7) Nonetheless, the Transaction fulfils the two conditions set out in Article 4(5) of the Merger Regulation since it is a concentration within the meaning of Article 3 of the Merger Regulation and it is capable of being reviewed under the national competition laws of at least three Member States; in this case, four Member States (namely Austria, Germany, Ireland, and Sweden) were capable of reviewing it.

(8) On 29 February 2024, the Notifying Party, by means of a reasoned submission, requested that the Transaction be examined by the Commission pursuant to Article 4(5) of the Merger Regulation. A copy of that submission was transmitted to the Member States on 29 February 2024. The Member States competent to examine the Transaction did not express disagreement to the referral request within the period laid down by the Merger Regulation.

(9) Accordingly, the Transaction is deemed to have an EU dimension pursuant to Article 4(5) of the Merger Regulation.

4. RELEVANT MARKETS

4.1. Introduction

4.1.1. Approach to market definition

(10) The Parties' activities overlap in a number of plausible enterprise middleware markets. The Transaction also gives rise to a number of non-horizontal relationships.

(11) In determining the relevant markets, where possible, the Notifying Party provided its views on the product and geographic market definitions on the basis of previous Commission decisions.[4] The Notifying Party also relied on the segmentation adopted by the market intelligence companies International Data Corporation ("**IDC**") and/or Gartner, Inc. ("**Gartner**")[5] in order to identify the narrowest possible product markets on which the Parties are active.

(12) For the purpose of this Decision, the Commission carried out its competitive assessment on the basis of the narrowest plausible product market segments identified by the Notifying Party in accordance with IDC and Gartner segmentations for which market share data is available, and which are affected based on the most recent market share data available at the time of notification (namely, on the basis of the 2023 IDC and 2022 Gartner market share data).

(13) The Transaction gives rise to three horizontally affected markets, all under the Gartner taxonomy,[6] where the Parties' combined market shares exceed 20% and the HHI delta is above 150 at the worldwide or EEA-wide level,[7] namely: (i) the market for Application Integration Suites ("**AIS**"), (ii) the market for Business-to-Business Gateways ("**B2B Gateways**"), and (iii) the market for Business Process Automation ("**BPA**"). The Parties' activities do not give rise to any affected markets/segments based on the IDC taxonomy.

(14) The Transaction also gives rise to a number of conglomerate markets, all under the Gartner taxonomy, where IBM or the merged entity has a market share of 30% or more at the worldwide or EEA-wide level, namely: (i) AIS (ii) Prerelational-era Database Management System ("**Prerelational-era DBMS**"), (iii) Application Platform Software ("**APS**"), (iv) Transaction Processing Monitors ("**TPMs**") (Standalone), (v) Storage Resource Management ("**SRM**") and (vi) AD Mainframe Tools. The Parties' individual or combined shares do not exceed 30% under any IDC-defined markets/segments.

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4 E.g., Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*; Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*; Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA;* Commission decision of 15 March 2005 in case M.3697 – *Symantec / Veritas.*

5 IDC and Gartner classifications are not directly comparable with each other. This Decision refers to the segments as indicated by the Notifying Party in the Form CO.

6 The Gartner taxonomy refers to the market segmentations identified in the Gartner market reports.

7 In the meaning of point 25(g) Annex I to Commission Implementing Regulation (EU) 2023/914 of 20 April 2023 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings and repealing Commission Regulation (EC) No 802/2004, OJ L 119, 5.5.2023, p. 22; and point 5(d)(i) of the Commission Notice on a simplified treatment of certain concentrations under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, OJ C 160, 5.5.2023, p. 1.

4.1.2. Gartner segmentations

(15) Gartner categorizes the software industry intro three levels: (i) markets, (ii) subsegments; and for some subsegments, (iii) sub-subsegments.

(16) Gartner identifies the markets for: (i) Application Infrastructure and Middleware; (ii) Application Development, (iii) DBMS; and (iv) Storage Software.

(17) Gartner divides the market for Application Infrastructure and Middleware into the following subsegments: (i) AIS; (ii) Integration Platform as a Service ("**iPaaS**"); (iii) Full Life Cycle API Management ("**API Management**"); (iv) B2B Gateways; (v) BPA; (vi) APS; (vii) Digital Experience Platforms; (viii) Event Brokers and Messaging Infrastructure; (ix) Event Stream Processing Platforms; (x) High Control aPaaS; (xi) High Productivity aPaaS; (xii) Managed File Transfer Suites; (xiii) Other AIM; (xiv) Robotic Process Automation; and (xv) TPMs.

(18) Gartner divides the market for Application Development in the following subsegments: (i) AD Mainframe Tools; (ii) Create; (iii) Other AD; (iv) Plan; and (v) Verify.

(19) Gartner divides the market for DBMS in the following subsegments: (i) Prerelational-era DBMS; (ii) Nonrelational DBMS; and (iii) Relational DBMS.

(20) Gartner divides the market for Storage Software in the following subsegments: (i) SRM; (ii) Archive Software; (iii) Backup and Recovery Software; (iv) Other Storage Software; and (v) Software-Defined Storage.

(21) To the best of the Notifying Party's knowledge, Gartner does not publish sub-subsegment-level market data for any of the Gartner subsegments concerned by the Transaction.[8]

4.1.3. IDC segmentations

(22) IDC categorizes the software industry into four levels: (i) primary markets; (ii) secondary markets; (iii) functional markets; and for some functional markets (iv) submarkets.

(23) IDC identifies the primary market for Application Development & Deployment. IDC subsegments the primary market for Application Development & Deployment into a number of secondary markets, including the secondary markets for:

- Integration and Orchestration Middleware, which is further divided into the functional markets for: (i) Integration Software; (ii) Business-to-Business Middleware; and (iii) Event Stream Processing Software;

- Application Development Software, which is further divided into the functional markets for: (i) Business Rules Management Systems ("**BRMS**"); (ii) Development Languages, Environments and Tools; (iii) Modeling and Architecture Tools, and (iv) Software Construction Components;

[8] Form CO, paragraph 115.

- Application Platforms, which is further divided into the functional markets for: (i) Model-Driven Application Platforms ("**MDAPs**"); (ii) Deployment-Centric Application Platforms ("**DCAPs**"); and (iii) Robotic Process Automation Software.

(24) The Notifying Party understands that IDC publishes market share data only for very few submarkets concerned by the Transaction.[9]

(25) As mentioned above, no horizontally affected markets arise under the IDC taxonomy. Further, the Parties' individual or combined shares do not exceed 30% in any IDC-defined market. For completeness, in this Decision the Commission will reference the IDC classification, where relevant.

4.2. Market for Application Integration Suites (AIS)

4.2.1. Product market definition

(26) Application integration software is used to connect two or more separate applications, to coordinate requests from an applications' front-end and back-end services, and to connect applications to databases.[10]

(27) Integration platforms can connect applications through various different means, including through the use of connectors.[11] Connectors are out-of-box components designed to simplify the process of connecting various endpoints through prebuilt interfaces and functionalities. For instance, a Customer Relationship Management ("**CRM**") connector might be designed to seamlessly integrate a CRM system with an email marketing platform.[12]

(28) According to Gartner, AIS (formerly named Enterprise Service Bus ("**ESB**") Suites) are "*a set of software functionality, founded on an ESB, that can support optional mediation functions, particularly for application programming interface/service oriented architecture scenarios, and also can support traditional, heterogeneous application integration projects*".[13]

(29) IBM's AIS include: (i) IBM App Connect, (ii) IBM DataPower, and (iii) Red Hat Fuse.[14]

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9 Form CO, paragraph 111.

10 Form CO, paragraph 131. For example, a business might start using a new accounting application that they want to integrate with their existing enterprise resource planning ("**ERP**") application. With application integration software, businesses can connect these two separate applications and allow the transfer of information between them without having to write custom code.

11 Form CO, paragraph 137.

12 Form CO, paragraph 138.

13 ESB is an "integration hub" that sits between different systems and provides tools that make connectivity between them simpler, enabling some amount of re-use of the integration work performed. ESB was envisaged as the connecting point in a service-oriented architecture (SOA) – an architecture that provides functional building blocks that can be used to orchestrate business processes over systems and applications. In an SOA-based IT environment, each service sets up a single integration with the ESB. Software applications connect to the ESB and leave it to the ESB to transform the protocols, route the messages, and transform into the data formats as required, thereby providing the interoperability to get the transactions executed. ESB is traditionally built for on-premises applications although it can also be deployed in a hybrid cloud environment (Form CO, paragraphs 136 and 241).

14 Form CO, Annex RFI 2 Q 5.1.

(30) The Target's AIS include: (i) webMethods Integration Server, (ii) webMethods Adapters, (iii) webMethods EntireX, (iv) Terracotta, (v) webMethods ApplinX, and (vi) Braintribe.[15]

4.2.1.1. Commission's precedents

(31) In *Oracle/BEA*, the Commission identified application integration software and ESB as possible relevant markets, although it ultimately left the market definition open.[16]

(32) In *Oracle/Sun*, the Commission considered a potential market for application integration and process automation software and assessed the transaction at the narrower level of a potential subsegment for ESB, but it ultimately left the exact market definition open.[17]

(33) In *IBM/Red Hat*, the Commission identified application integration software, as well as a subsegment for API Management software,[18] as possible product markets. Nevertheless, the Commission left the exact product market definition open.[19]

4.2.1.2. The Notifying Party's views

(34) The Notifying Party considers that the Gartner-defined subsegment for AIS is a legacy and unduly narrow software category and, therefore, does not constitute a relevant product market.

(35) The Notifying Party submits that vendors address the customer demand for application integration through various integration offerings, including AIS, iPaaS,[20] and API Management software. Although each of these offerings constitutes a distinct subsegment under the Gartner taxonomy,[21] they all perform the same function of enabling communication and the exchange of services and data between applications.[22] Against this background, the Notifying Party notes that separating AIS from iPaaS and API Management software would not capture the demand- and supply-side substitutability between different forms of application integration tools.[23]

(36) More specifically, the Notifying Party states that, from a demand-side perspective, there is limited substitutability between AIS products. The AIS Gartner category is limited to legacy products that are founded on an ESB and based on a traditional on-premises software architecture. The Notifying Party states that customers

15 Form CO, Annex RFI 2 Q 5.2.

16 Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA*, paragraphs 7-12.

17 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 760-765 and 786-788.

18 Application Programming Interface (or "**API**") is a set of commands, functions and protocols that programmers use to create software or interact with an external system. API Management software supports the planning, design, implementation, publication, operation, versioning and retirement of APIs.

19 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraphs 67-68.

20 iPaaS is a vendor-managed cloud service / platform that enables end users to implement integrations between a variety of on-premises and cloud applications, services and data sources, both internal and external to their organisation.

21 See paragraph 17 above.

22 Form CO, paragraph 179.

23 Form CO, paragraph 186.

typically do not move away from their legacy AIS unless they modernize their applications or migrate their workloads to the cloud, for which several modern cloud architectures are available, including iPaaS. As such, existing AIS customers would more often switch to iPaaS rather than to AIS from other vendors.[24]

(37) In addition, the Notifying Party submits that while some customers may procure API Management software separately, there is increasing demand for integrated integration software platform solutions[25] that combine API Management with the overall integration platform. As a result, most integration platforms have built-in API Management capabilities.[26]

(38) Further, from a supply-side perspective, the Notifying Party submits that nearly all vendors of integration software offer AIS, iPaaS, and API Management software.[27]

(39) Therefore, in the Notifying Party's view the relevant product market should encompass AIS, iPaaS and possibly also API Management software.[28] According to the Notifying Party,[29] such product market definition would be in line with the IDC taxonomy, which recognises a functional market for Integration Software including all of AIS, iPaaS and API Management software, and a narrower submarket grouping together AIS and iPaaS (but excluding API Management).[30]

(40) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns under any plausible segmentation of the relevant markets.[31]

4.2.1.3. The Commission's assessment

(41) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.2.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(42) As mentioned above in Section 4.1.2, currently Gartner considers a market for Application Infrastructure and Middleware. Within the market for Application Infrastructure and Middleware Gartner identifies a subsegment for AIS. Gartner does not further divide AIS.

(43) The results of the market investigation did not suggest an alternative product market definition.[32] The vast majority of respondents that expressed a view use

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24 Form CO, paragraph 186.

25 Software that connects independently designed applications, systems and data in a single platform and enables them to work together in synchrony, is referred to as an integration platform.

26 Form CO, paragraph 186.

27 Form CO, paragraph 186.

28 Form CO, paragraph 189.

29 Form CO, paragraph 186.

30 The IDC functional market for Integration Software is divided into the following submarkets: (i) API Management Software, (ii) Integration Platforms, (iii) API Gateway Software, and (iv) Connectivity Adapters and Plug-in Software. The submarket for Integration Platforms comprises both AIS and iPaaS products (Reply to RFI 3, Question 12).

31 Form CO, paragraph 190.

Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(44) In any event, the Commission considers that, for the purposes of this Decision, the exact product market definition with regard to the supply of AIS can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition (i.e., a market for AIS), for which market share data is available, based on the Gartner segmentation.

(45) In Section 5.3.3, the Commission carries out an assessment on the basis of a plausible Gartner market for AIS.

4.2.2. Geographic market definition

4.2.2.1. Commission's precedents

(46) In *Oracle/BEA*[33] and *Oracle/Sun*,[34] the Commission concluded that the relevant geographic market for middleware and any subsegments thereof (including a possible subsegment for application integration ESB software) is worldwide. Similarly, in *IBM/Red Hat*, the Commission considered that the relevant geographic market for integration software and any possible subsegment thereof is worldwide, but for completeness it also assessed the potential effects of the transaction at the EEA-wide level.[35]

4.2.2.2. The Notifying Party's views

(47) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for all enterprise middleware is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares for AIS, for completeness. In any event, the Notifying Party considers that the geographic market definition can be left open.[36]

4.2.2.3. The Commission's assessment

(48) In the market investigation, respondents that expressed a view indicated that the market for AIS is at least EEA-wide or worldwide in scope.[37]

(49) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition regarding the supply of AIS can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(50) In Section 5.3.3, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

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32 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

33 Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA*, paragraphs 13-15.

34 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 766-769.

35 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 68.

36 Form CO, paragraphs 208-209.

37 Replies to Q1 – Questionnaire to competitors and customers, question C.2.

4.3. Market for Business-to-Business Gateways (B2B Gateways)

4.3.1. Product market definition

(51) B2B Gateways are software used to automate and monitor the interenterprise exchange of data.[38] In particular, according to Gartner, B2B Gateways are "*used to consolidate and centralise data/process integration and interoperability between a company's internal applications/systems and external endpoints, such as business partners or ecosystems*".[39]

(52) IBM's B2B Gateways software include: (i) IBM Sterling B2B Integrator, (ii) IBM Sterling B2B Integration SaaS, (iii) IBM Sterling Transformation Extender, (iv) IBM Sterling Control Center, (v) IBM Sterling Multi-enterprise Relationship Management, and (vi) IBM Sterling File Gateway.[40]

(53) The Target's B2B Gateways software include: (i) webMethods B2B, (ii) webMethods.io B2B, and (iii) webMethods eStandards.[41]

4.3.1.1. Commission's precedents

(54) There is no Commission precedent with regard to B2B Gateways.

4.3.1.2. The Notifying Party's views

(55) The Notifying Party considers that the Gartner B2B Gateways subsegment does not constitute a relevant product market as it is unduly narrow and, therefore, does not fully capture the relevant demand- and supply-side considerations.[42]

(56) The Notifying Party submits that, from a demand-side perspective, enterprises increasingly consider integrated business-to-business ("**B2B**") solutions that combine multiple B2B middleware functionalities, including both B2B Gateways and Managed File Transfer ("**MFT**")[43] software. Hence, segmenting the product market into B2B Gateways and MFT software would not reflect consumer demand for comprehensive B2B suites that allow enterprises to manage complex interenterprise exchanges.[44]

(57) Further, from a supply-side perspective, the Notifying Party states that numerous competitors are active in both the B2B Gateways and MFT subsegments, providing integrated solutions.[45]

(58) Therefore, in the Notifying Party's view the relevant product market should encompass Gartner's distinct subsegments for B2B Gateways and MFT software. According to the Notifying Party, such product market definition would be consistent with the IDC taxonomy, which recognises a functional market for

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38 Form CO, paragraph 153.
39 Form CO, Annex RFI 1 Q 2.3, page 7.
40 Form CO, Annex RFI 2 Q 5.1.
41 Form CO, Annex RFI 2 Q 5.2.
42 Form CO, paragraph 201.
43 MFT software provides secure and guaranteed delivery of a file over a network, between or within enterprises, across datacentres, or across systems.
44 Form CO, paragraphs 202 and 204.
45 Form CO, paragraphs 202 and 204.

Business-to-Business Middleware that includes both B2B Gateways and MFT software.[46]

(59) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns under any plausible segmentation of the relevant markets.[47]

4.3.1.3. The Commission's assessment

(60) The Commission has not identified any reasons in this case to deviate from its precedents in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC.[48] Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(61) As mentioned above in Section 4.1.2, currently Gartner considers a market for Application Infrastructure and Middleware. Within the market for Application Infrastructure and Middleware Gartner identifies a subsegment for B2B Gateways. Gartner does not further divide B2B Gateways.

(62) The results of the market investigation did not suggest an alternative product market definition.[49] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(63) In any event, the Commission considers that, for the purposes of this Decision, the exact product market definition with regards to the supply of B2B Gateways can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(64) In Section 5.3.4, the Commission carries out an assessment on the basis of a plausible Gartner market for B2B Gateways.

4.3.2. Geographic market definition

4.3.2.1. Commission's precedents

(65) Although the Commission has not previously assessed the middleware market for B2B Gateways, in its past decisions *IBM/ILOG*,[50] *Oracle/BEA*[51] and *Oracle/Sun*[52]

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46 Form CO, paragraphs 201 and 205.

47 Form CO, paragraph 206.

48 As mentioned in Section 4.3.1.1. there are no Commission precedents specifically with regard to the software market for B2B Gateways. Nonetheless, the Commission's precedents in the software sector define the software industry markets by reference to segments published by Gartner and/or IDC (see for example Sections 4.2.1.1. and 4.4.1.1.).

49 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

50 Commission decision of 10 November 2008 in case M.5317 – *IBM / ILOG*, paragraphs 21-23.

51 Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA*, paragraphs 13-15.

52 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 766-769.

the Commission concluded that the relevant geographic market for middleware and any subsegments thereof is worldwide. Similarly, in *IBM/Red Hat*, the Commission considered that the relevant geographic market for middleware is worldwide, but for completeness it also assessed the potential effects of the transaction at the EEA-wide level.[53]

4.3.2.2. The Notifying Party's views

(66) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for all enterprise middleware is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares for B2B Gateways, for completeness. In any event, the Notifying Party considers that the geographic market definition can be left open.[54]

4.3.2.3. The Commission's assessment

(67) In the market investigation, respondents that expressed a view indicated that the market for B2B Gateways is at least EEA-wide or worldwide in scope.[55]

(68) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition regarding the supply of B2B Gateways can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(69) In Section 5.3.4, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

4.4. Market for Business Process Automation (BPA)

4.4.1. Product market definition

(70) According to Gartner, BPA tools (formerly named Business Process Management Suites ("**BPM Suites**")) comprise software that orchestrate, automate and monitor end-to-end business processes, for example through process modelling, process orchestration, decision and workflow automation, and task management.[56]

(71) IBM's BPA solutions include: (i) IBM Business Automation Workflow, (ii) IBM BPM, (iii) IBM Blueworks Live, (iv) IBM Automation Decision Services, (v) IBM Operational Decision Manager, and (vi) Red Hat Decision Manager.[57]

(72) The Target's BPA solutions include: (i) webMethods Business Rules, (ii) webMethods BPM (which includes webMethods Optimize and webMethods Mobile Suite), and (iii) webMethods AgileApps.[58]

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53 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, for example paragraphs 41, 80 and 88.

54 Form CO, paragraphs 208-209.

55 Replies to Q1 – Questionnaire to competitors and customers, question C.2.

56 Form CO, Annex RFI 1 Q 2.2, page 67.

57 Form CO, paragraphs 286 and 344.

58 Form CO, paragraphs 287-288 and 345.

4.4.1.1. Commission's precedents

(73) In *IBM/ILOG*[59] and *Oracle/Sun*,[60] the Commission considered a possible market for process automation middleware. Similarly, in *IBM/Red Hat*,[61] the Commission identified a possible product market for BMP Suites under the Gartner taxonomy (that corresponds to Gartner's BPA subsegment today[62]). Nevertheless, the Commission left the exact product market definition open.

4.4.1.2. The Notifying Party's views

(74) The Notifying Party does not consider Gartner's BPA subsegment to constitute a relevant product market.

(75) The Notifying Party submits that Gartner's BPA subsegment comprises process-centric BRMS[63] and process-centric MDAPs.[64] In the Notifying Party's view, Gartner's BPA subsegment does not fully capture the demand- and supply-side dynamics relevant to the Transaction because: (i) it includes both BRMS and MDAPs – products that are complementary but not interchangeable with each other (given they largely serve different customer needs), and which are often sourced separately,[65] and (ii) it excludes data-centric solutions that exert significant competitive constraints on process-centric software.[66]

(76) In light of the above, the Notifying Party considers that the relevant product markets for assessing the Transaction would be (in line with the IDC classification) separate markets for BRMS and MDAPs that each include both process-centric and data-centric functionalities.[67]

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59 Commission decision of 10 November 2008 in case M.5317 – *IBM / ILOG*, paragraph 20.

60 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 760-765.

61 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 59.

62 Form CO, paragraph 289.

63 BRMS enable business managers to define business rules in a familiar language and manage them in a central repository. Business applications can then be programmed to draw on these rules. This eliminates the need to modify the source code of individual applications each time rules are implemented or updated.

64 MDAPs provide intuitive, easy-to-use environments to create business processes and develop and run simple applications based on these created models. MDAPs typically consist of graphical modelling environments (i.e., the platform) and point-and-click configurations as well as relatively simple scripting. MDAPs also support workflow automation and case management to develop and execute custom process workflows and automation (Form CO, paragraph 284).

65 Form CO, paragraphs 292-295.

66 Both data- and process-centric platforms are used to automate workflows that require manual steps or human decision-making but differ in the approaches to defining and executing these workflows. More specifically: (i) Process-centric platforms map an activity to various processes, each of which may be executed by a distinct application or micro-service, (ii) Data-centric platforms combine data from multiple sources into cases and execute processes based on a change in the data state. In data-centric platforms, the software's capabilities focus on enabling the efficient collection and organization of data into a profile or case that is relevant for business operations, and typically offer a more limited range of functionality for the design, modelling, and optimization of business processes than process-centric platforms (Form CO, paragraph 285 and 292).

67 Form CO, paragraphs 290 and 347.

(77) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns under any plausible segmentation of the relevant markets.[68]

4.4.1.3. The Commission's assessment

(78) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.4.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(79) As mentioned above in Section 4.1.2, currently Gartner considers a market for Application Infrastructure and Middleware. Within the market for Application Infrastructure and Middleware Gartner identifies a subsegment for BPA. Further, Gartner list Cloud Business Process Management Services as a sub-subsegment of BPA, but does not publish market data at sub-subsegment-level.

(80) The results of the market investigation did not suggest an alternative product market definition.[69] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(81) In any event, the Commission considers that, for the purposes of this Decision, the exact product market definition with regards to the supply of BPA can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(82) In Section 5.3.5, the Commission carries out an assessment on the basis of a plausible Gartner market for BPA software.

4.4.2. Geographic market definition

4.4.2.1. Commission's precedents

(83) In *IBM/ILOG*[70] and *Oracle/Sun*,[71] the Commission concluded that the relevant geographic market for middleware and subsegments thereof (including a possible market for process automation middleware) is worldwide. Similarly, in *IBM/Red Hat*, the Commission considered that the relevant geographic market for BPM Suites[72] is worldwide, but also assessed the potential effects of the transaction at the EEA-wide level for completeness.[73]

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68 Form CO, paragraph 298.

69 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

70 Commission decision of 10 November 2008 in case M.5317 – *IBM / ILOG*, paragraphs 21-23.

71 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 766-769.

72 As mentioned above at paragraphs 69 and 72 the BMP Suites subsegment under the Gartner taxonomy corresponds to Gartner's BPA subsegment today.

73 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 60.

4.4.2.2. The Notifying Party's views

(84) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for all enterprise middleware is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares for BPA, for completeness. In any event, the Notifying Party considers that the geographic market definition can be left open.[74]

4.4.2.3. The Commission's assessment

(85) In the market investigation, respondents that expressed a view indicated that the market for BPA software is at least EEA-wide or worldwide in scope.[75]

(86) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of BPA can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(87) In Section 5.3.5, the Commission carries out an assessment on the basis of a geographic market which is EEA-wide, as only at that level the Transaction results in an affected market.

4.5. Market for Prerelational-era Database Management System (DBMS)

4.5.1. Product market definition

(88) Prerelational-era DBMS refers to a residual category of non-relational database systems. Most DBMS today are relational, storing data in separate tables and defining relationships between these tables.

(89) IBM's prerelational-era DBMS is Information Management System ("**IMS**").[76]

(90) The Target is not active in Prerelational-era DBMS.[77]

4.5.1.1. Commission's precedents

(91) In *IBM/Informix*[78], the Commission considered the market for databases as a whole (without segmentation by relational and non-relational databases), and also considered possible segmentations by "legacy" and distributed environments, operative system and customer requirements, but ultimately left the product market definition open. In *Oracle/Sun and SAP/Sybase*[79], the Commission segmented the database market between relational and non-relational databases. It also considered further sub-segmentation, but ultimately left the question open.[80] In *IBM/Red Hat*[81]

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74 Form CO, paragraphs 300-301 and 351-352.

75 Replies to Q1 – Questionnaire to competitors and customers, question C.2.

76 Form CO, paragraph 426.

77 Form CO, paragraph 427 and footnote 350. SAG is active in DBMS through its Adabas DBMS, which are not part of the Target business to be acquired by IBM.

78 Commission decision of 19 June 2001 in case M.2460 – *IBM / Informix,* paragraphs 7-12.

79 Commission decision of 20 July 2010 in case M.5904 – *SAP / Sybase*, paragraph 16.

80 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 27 and 109, and Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 99.

the Commission identified the market for Non-Relational DBSM as a relevant product market, but ultimately left the market definition open.

4.5.1.2. The Notifying Party's views

(92) The Notifying Party does not consider Gartner's Prerelational-era DBMS subsegment to constitute a relevant product market.

(93) The Notifying Party considers that IDC's functional market for DBS[82] constitutes the relevant product market. The Notifying Party notes that, sub-segmenting the product market further would fail to capture the relevant demand- and supply-side substitutability considerations. In particular, all products falling under IDC's DBS functional market serve the same purpose ("*managing a database in such a way that it may be queried and randomly updated*") and do not warrant a segmentation purely based on type.[83]

(94) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns.[84]

4.5.1.3. The Commission's assessment

(95) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.5.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(96) As mentioned above in Section 4.1.2, currently Gartner considers a market for Pre-relational-era DBMS. A broader market together with Gartner-defined markets for Non-Relational DBMS and Relational DBMS would be a plausible alternative, as it would broadly correspond to the IDC functional market for DBS.

(97) The results of the market investigation did not suggest an alternative product market definition.[85] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(98) The Commission considers that, for the purposes of this Decision, the exact product market definition with regards to Prerelational-era DBMS can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(99) In Section 5.4.5, the Commission carries out an assessment on the basis of a plausible Gartner market for Prerelational-era DBMS.

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81 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 105.

82 Form CO, paragraph 429. The IDC functional market for DBS broadly corresponds to the combined Gartner subsegments for Prerelational-era DBMS, Non-Relational DBMS, and Relational DBMS.

83 Form CO, paragraph 430.

84 Form CO, paragraph 372.

85 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

4.5.2. Geographic market definition

4.5.2.1. Commission's precedent

(100) In *Oracle/Sun*, *SAP/Sybase*, and *IBM/Informix*, the Commission concluded that the relevant geographic market for databases is worldwide.[86] Similarly, in *IBM/Red Hat*, the Commission considered that the relevant geographic market for Non-Relational DBMS is worldwide, but also assessed the potential effects of the transaction at the EEA-wide level for completeness.[87]

4.5.2.2. The Notifying Party's views

(101) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for database software is worldwide. Nevertheless, the Notifying Party also provided Europe-wide shares of sales for DBS and Prerelational-era DBMS, for completeness.[88]

4.5.2.3. The Commission's assessment

(102) In the market investigation, respondents that expressed a view indicated that the market for Prerelational-era DBMS is at least EEA-wide or worldwide in scope.[89]

(103) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of prerelational-era DBMS can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(104) In Section 5.4.5, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

4.6. Market for Application Platform Software (APS)

4.6.1. Product market definition

(105) APS provides environments to build, host, and run applications. Application platform middleware provides environments to build, host, and run applications. As most applications share certain features and functions, an application platform provides these as boilerplate code, allowing developers to focus on custom code instead of creating basic, necessary features from scratch.[90]

(106) IBM's APS includes: i) WebSphere Application Server, ii) Red Hat JBoss Enterprise Application Platform and iii) Red Hat OpenShift.[91]

(107) The Target is not active in APS.[92]

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86 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 100.
87 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 106.
88 Form CO, paragraph 434.
89 Replies to Q1 – Questionnaire to competitors and customers, question C.2.
90 Form CO, paragraph 387.
91 Form CO, paragraph 451.
92 Form CO, paragraph 390.

4.6.1.1. Commission's precedents

(108) Gartner's taxonomy identifies a market for APS within the broader Application Infrastructure and Middleware macromarket. This Gartner subsegment broadly corresponds to the IDC functional market for DCAPs.

(109) In *IBM/Red Hat*, the Commission considered the market for DCAPs, excluding free and unsupported DCAPs, as a possible product market.[93]

(110) Similarly, in *Oracle/BEA* and *Oracle/Sun,* before the emergence of cloud-based DCAPs[94], the Commission identified a possible relevant market for DCAPs in accordance with IDC's and Gartner's classifications, although it left the exact product market definition open.[95]

4.6.1.2. The Notifying Party's views

(111) The Notifying Party does not consider Gartner's APS subsegment to constitute a relevant product market.

(112) The Notifying Party submits that Gartner subsegment of APS broadly corresponds to the IDC functional market for DCAPs.[96] However, the IDC functional market for DCAPs has been updated and now also subsumes Gartner's TPMs subsegment.[97]

(113) In light of the above, the Notifying Party considers that IDC-defined functional market for DCAPs (including the recent addition of TPMs) constitutes the relevant product market for assessing the Transaction.[98]

4.6.1.3. The Commission's assessment

(114) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.6.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(115) As mentioned above in Section 4.1.2, currently Gartner considers a market for APS. This market does not include TPMs. A plausible alternative would be a broader market for DCAPs (including TPMs), as suggested by IDC.

(116) The results of the market investigation did not suggest an alternative product market definition.[99] The vast majority of respondents that expressed a view use

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93 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 29.

94 Form CO, paragraph 392.

95 Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA*, paragraphs 9–12 and 34; Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 761–765 and 776.

96 Form CO, paragraph 391.

97 Form CO, paragraph 392.

98 Form CO, paragraphs 392-393.

99 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(117) The Commission considers that, for the purposes of this Decision, the exact product market definition with regards to APS can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(118) In Section 5.4.5, the Commission carries out an assessment on the basis of a plausible Gartner market for APS.

4.6.2. Geographic market definition

4.6.2.1. Commission's precedents

(119) There are no precedents in which the Commission assessed the geographic scope of the market for APS. There are only precedents for related markets.[100]

4.6.2.2. The Notifying Party's views

(120) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for application servers is worldwide. Nevertheless, the Notifying Party also provided Europe-wide shares of sales for DCAPs and APS, for completeness.[101]

4.6.2.3. The Commission's assessment

(121) In the market investigation, respondents that expressed a view indicated that the market for APS is at least EEA-wide or worldwide in scope.[102]

(122) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of APS can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(123) In Section 5.4.5, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

4.7. Market for Transaction Processing Monitors (TPMs)

4.7.1. Product market definition

(124) TPMs are control programs that ensures transactions are completed successfully. It primarily handles resource sharing (or load balancing), as well as ensuring the optimal use of resources by applications.[103]

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100 Form CO, paragraph 395.
101 Form CO, paragraph 395.
102 Replies to Q1 – Questionnaire to competitors and customers, question C.2.
103 Form CO, paragraph 366.

(125) IBM's TPMs include: IBM CICS Transaction Server, IBM TXSeries, IBM z/OS Connect Enterprise Edition, IBM z/Transaction Processing Facility, IBM Information Management System.[104]

(126) The Target is not active in TPMs.[105]

4.7.1.1. Commission's precedents

(127) In *Dell/EMC*[106] and *Oracle/BEA*[107], the Commission referred to TPMs as a possible subsegment of the overall middleware market. Similarly, in *IBM/Red Hat*[108], the Commission identified TPMs as a possible product market, although it ultimately left the market definition open. In *Oracle/Sun*[109], the Commission identified TPMs as a product within application server middleware, in accordance with IDC's classification although it ultimately left the market definition open.

4.7.1.2. The Notifying Party's views

(128) The Notifying Party does not consider TPMs subsegment to constitute a relevant product market.

(129) In the Notifying Party's view, the relevant product market should be IDC-defined functional market for Deployment-Centric Application Platforms ("**DCAPs**")[110] which encompasses Application Server software platforms, cloud DCAP software, and TPMs.[111] The Notifying Party submits that TPMs do not constitute a relevant market due to the competitive constraints imposed by cloud-based solutions (customers moving from on-prem workloads to the cloud) and modern APS (customers substituting TPMs with more modern platforms for workloads not yet migrated to the cloud).[112]

(130) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns.[113]

4.7.1.3. The Commission's assessment

(131) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.7.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

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104 Form CO, paragraph 368.
105 Form CO, paragraph 369.
106 Commission decision of 25 January 2016 in case M.7861 – *Dell / EMC*, paragraph 55.
107 Commission decision of 29 April 2008 in case M.5080 – *Oracle / BEA*, paragraph 8.
108 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 49.
109 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraph 777.
110 Form CO, paragraph 371.
111 Form CO, footnote 310.
112 Form CO, paragraph 371.
113 Form CO, paragraph 372.

(132) As mentioned above in Section 4.1.2, currently Gartner considers a market for TPMs. A plausible alternative would a be a broader market for DCAPs, as suggested by IDC. This alternative is supported by evidence of customers substituting TPMs with more modern application platforms for workloads that have not yet migrated to the cloud yet.

(133) The results of the market investigation did not suggest an alternative product market definition.[114] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(134) The Commission considers that, for the purposes of this Decision, the exact product market definition with regards to TPMs can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(135) In Section 5.4.5, the Commission carries out an assessment on the basis of a plausible Gartner market for TPMs.

4.7.2. Geographic market definition

4.7.2.1. Commission's precedents

(136) In *Oracle/Sun*[115], the Commission concluded that the relevant geographic market for middleware and subsegments thereof is worldwide. Similarly, in *IBM/Red Hat*[116], the Commission considered that the relevant geographic market for TPMs is worldwide, but also assessed the potential effects of the transaction at the EEA-wide level for completeness.

4.7.2.2. The Notifying Party's views

(137) The Notifying Party submits that, in line with the Commission precedents concerning software, the relevant geographic market is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares of sales for TPMs, for completeness.[117]

4.7.2.3. The Commission's assessment

(138) In the market investigation, respondents that expressed a view indicated that the market for TPMs is at least EEA-wide or worldwide in scope.[118]

(139) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of TPMs can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

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114 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

115 Commission decision of 21 January 2010 in case M.5529 – *Oracle / Sun Microsystems*, paragraphs 776-769.

116 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 50.

117 Form CO, paragraph 374.

118 Replies to Q1 – Questionnaire to competitors and customers, question C.2.

(140) In Section 5.4.5, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

4.8. Market for Storage Resource Management (SRM)

4.8.1. Product market definition

(141) According to Gartner, SRM provides data collection and automation agents that consolidate and operate on information from multiple platforms supporting storage management tools on multiple OSs, storage devices, and storage area network devices.[119]

(142) IBM's SRM is IBM Spectrum Control (comes with IBM Storage Insights).[120]

(143) The Target is not active in SRM.[121]

4.8.1.1. Commission's precedents

(144) In *Symantec/Veritas,*[122] a case from 2005, the Commission assessed an overlap in backup and archive software, which was a subsegment within the IDC functional market for storage software at the time.[123]

4.8.1.2. The Notifying Party's views

(145) The Notifying Party submits that the relevant product market should comprise all storage software, not just storage management software.[124]

4.8.1.3. The Commission's assessment

(146) Despite the lack of recent precedents, the Commission has not identified any reasons to deviate from its approach to the software industry markets that is used for the other product markets in this Decision. This approach is to consider references to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(147) As mentioned above in Section 4.1.2, currently Gartner considers a market for SRM. A plausible alternative would a be a broader market for storage management software, as suggested by Gartner. Another alternative would be the even broader marker for storage software, as suggested by the Notifying Party.

(148) The results of the market investigation did not suggest an alternative product market definition.[125] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

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119 Form CO, paragraph 377.
120 Form CO, paragraph 378.
121 Form CO, paragraph 379.
122 Commission decision of 15 March 2005 in case M.3697 – *Symantec / Veritas,* paragraphs 15-16.
123 Form CO, paragraph 380.
124 Form CO, paragraphs 381-382.
125 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

(149) The Commission considers that, for the purposes of this Decision, the exact product market definition with regards to SRM can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

(150) In Section 5.4.6, the Commission carries out an assessment on the basis of a plausible Gartner market for SRM.

4.8.2. Geographic market definition

4.8.2.1. Commission's precedents

(151) In *Symantec/Veritas* the Commission considered whether the broader market for storage software was worldwide or at least EEA-wide, but ultimately left the exact scope of the relevant geographic market open.[126]

4.8.2.2. The Notifying Party's views

(152) The Notifying Party submits that, in line with the Commission precedent, the relevant geographic market for SRM is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares of sales for SRM, for completeness.[127]

4.8.2.3. The Commission's assessment

(153) In the market investigation, respondents that expressed a view indicated that the market for SRM is at least EEA-wide or worldwide in scope.[128]

(154) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of SRM can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(155) In Section 5.4.6, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

4.9. Market for AD Mainframe Tools

4.9.1. Product market definition

(156) AD Mainframe Tools are used to develop, test, improve, and maintain applications that run on IBM's proprietary z/OS mainframes.[129]

(157) IBM's AD mainframe solutions include: IBM Developer for System z, IBM Application Discovery and Delivery Intelligence, IBM Application Delivery Foundation, IBM Application Performance Analyzer for z/OS, IBM Fault Analyzer for z/OS, IBM File Manager for z/OS, IBM Z Development and Test Environment,

126 Commission decision of 15 March 2005 in case M.3697 – *Symantec / Veritas*, paragraphs 17-21.
127 Form CO, paragraph 384.
128 Replies to Q1 – Questionnaire to competitors and customers, question C.2.
129 Form CO, paragraph 414.

IBM Z Open Development, IBM Debug Tool, DevOps Deploy, DevOps Test Workbench, DevOps API and Integration Tester, Engineering Workflow Management, IBM InfoSphere Optim Test Data Management, DevOps Test Virtualisation Server, DevOps Test Hub.[130]

(158) The Target is not active in AD Mainframe Tools.[131]

4.9.1.1. Commission's precedents

(159) In *IBM/Red Hat*[132] the Commission identified AD Mainframe Tools as a possible relevant product market, but ultimately left the market definition open.

4.9.1.2. The Notifying Party's views

(160) The Notifying Party submits that Gartner's AD Mainframe Tools segment does not correspond to any distinct IDC segment, but likely falls within the IDC secondary market for Application Development and Lifecycle Management.[133]

(161) Notwithstanding, the Notifying Party considers that the market definition can be left open as the Transaction does not give rise to competition concerns under either segmentation of the relevant markets.[134]

4.9.1.3. The Commission's assessment

(162) The Commission has not identified any reasons in this case to deviate from its precedents (see Section 4.9.1.1.) in which it defines the software industry markets by reference to segments published by market intelligence reports, notably reports adopted by Gartner and/or IDC. Therefore, the Commission will carry out its competitive assessment on the basis of the narrowest plausible product markets set out by such reports, which have been identified by the Notifying Party and for which market data is available.

(163) As mentioned above in Section 4.1.2, currently Gartner considers a market for AD Mainframe Tools. A plausible alternative would a be a broader market for Application Development and Lifecycle Management, as suggested by IDC.

(164) The results of the market investigation did not suggest an alternative product market definition.[135] The vast majority of respondents that expressed a view use Gartner and/or IDC reports on software markets and consider these are reliable sources to assess the markets relevant to the Transaction.

(165) The Commission considers that, for the purposes of this Decision, the exact product market definition with regards to AD Main Frame Tools can be left open, as the Transaction would not raise serious doubts as to its compatibility with the internal market even under the narrowest plausible product market definition, for which market share data is available, based on the Gartner segmentation.

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130 Form CO, footnote 373.
131 Form CO, paragraph 417.
132 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 185.
133 Form CO, paragraph 420.
134 Form CO, paragraph 420.
135 Replies to Q1 – Questionnaire to competitors and customers, question C.1.

(166) In Section 5.4.6, the Commission carries out an assessment on the basis of a plausible Gartner market for AD Mainframe Tools.

4.9.2. Geographic market definition

4.9.2.1. Commission's precedents

(167) In *IBM/Red Hat*[136] the Commission considered that the relevant geographic market for AD Mainframe Tools is at least EEA-wide, if not global, but ultimately left the market definition open.

4.9.2.2. The Notifying Party's views

(168) The Notifying Party submits that, in line with the Commission precedents, the relevant geographic market for AD Mainframe Tools is worldwide. Nevertheless, the Notifying Party also provided EEA-wide market shares of sales for AD Mainframe Tools, for completeness.[137]

4.9.2.3. The Commission's assessment

(169) In the market investigation, respondents that expressed a view indicated that the market for AD Mainframe Tools is at least EEA-wide or worldwide in scope.[138]

(170) In any event, the Commission considers that, for the purposes of this Decision, the exact geographic market definition with regard to the supply of AD Mainframe Tools can be left open, as the Transaction does not raise serious doubts as to its compatibility with the internal market irrespective of whether a worldwide or EEA-wide market is considered.

(171) In Section 5.4.6, the Commission carries out an assessment on the basis of both EEA-wide and worldwide markets.

5. COMPETITIVE ASSESSMENT

5.1. Introduction

(172) The Transaction gives rise to a number of horizontally affected markets[139] and conglomerate relationships between the Parties' activities. Section 5.3 assesses horizontal relationships between the Parties' activities in the affected markets. Section 5.4 assesses conglomerate relationships between the Parties' activities and, in particular whether the merged entity has, as a result of the Transaction, the ability to foreclose its rivals by potentially bundling or tying the Target's integration software with other IBM products, as well as by potentially degrading

136 Commission decision of 27 June 2019 in case M.9205 – *IBM / Red Hat*, paragraph 186.
137 Form CO, paragraph 421.
138 Replies to Q1 – Questionnaire to competitors and customers, question C.2.
139 In the meaning of recital 25(g) Annex I to Commission Implementing Regulation (EU) 2023/914 of 20 April 2023 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings and repealing Commission Regulation (EC) No 802/2004, OJ L 119, 5.5.2023, p. 22; and point 5(d)(i) of the Commission Notice on a simplified treatment of certain concentrations under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, OJ C 160, 5.5.2023, p. 1.

interoperability between certain IBM products and third-party products competing with the Target.

5.2. Market shares

(173) According to the Horizontal Merger Guidelines and the Non-Horizontal Merger Guidelines,[140] in the assessment of the effects of a merger, market shares constitute a useful first indication of the structure of the markets at stake and of the competitive importance of the relevant market players.

(174) In the following tables, the Commission presents the market shares of the Parties in all of the markets listed in Section 4 above to the extent such data is available.

(175) Table 1 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022[141] in the Gartner segment for AIS.

Table 1: AIS – EEA-wide and worldwide market shares by revenue – 2020-2022

Company	EEA[142]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Target	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[5-10]%	[5-10]%
Combined	*[30-40]%*	*[40-50]%*	*[40-50]%*	*[30-40]%*	*[30-40]%*	*[30-40]%*
Oracle	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Salesforce	[5-10]%	[0-5]%	[0-5]%	[10-20]%	[10-20]%	[10-20]%
Microsoft	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[10-20]%	[10-20]%
Cloud Software Group	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
SAP	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
Aurea Software	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Infor	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

140 Horizontal Merger Guidelines, paragraph 14; Non-Horizontal Merger Guidelines, paragraph 24.

141 The Parties have provided data available at the time of notification, namely 2022 and 2023 revenue shares across all IDC primary, secondary and functional software market classifications, and 2022 revenue shares across all Gartner markets and subsegments (worldwide, Europe, EEA). After notification, the Parties have provided 2023 revenue shares across Gartner markets and subsegments (worldwide, Europe) on 14 June 2024. The 2023 data is not materially different from the 2022 data.

142 This Table provides Gartner shares which include all revenue allocated by Gartner to the country categories for "Western Europe", "Central and Eastern Europe" and "Rest of Eastern Europe" (each comprising 16, 3 and 14 countries, respectively), with the exception of the Parties' EEA market share data for 2022, which have been calculated by the Parties by weighing the turnover of the Gartner country categories by GDP.

Company	EEA[142]			Worldwide		
	2020	2021	2022	2020	2021	2022
Magic Software	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Hitachi	-	-	-	[0-5]%	[0-5]%	[0-5]%
WSO2	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[5-10]%	[5-10]%	[0-5]%	[10-20]%	[5-10]%	[5-10]%

Source: Form CO, paragraph 243 and Annex 1.1.3.

(176) Table 2 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for B2B Gateways.

Table 2: B2B Gateways – EEA-wide and worldwide market shares by revenue – 2020-2022

Company	EEA[143]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[10-20]%
Target	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[5-10]%	[5-10]%
Combined	*[20-30]%*	*[20-30]%*	*[20-30]%*	*[20-30]%*	*[20-30]%*	*[20-30]%*
Axway	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
OpenText	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
SAP	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%
Seeburger	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
Microsoft	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Generix Group	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Cleo	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Cloud Software Group	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Vitria	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Hitachi	-	-	-	[0-5]%	[0-5]%	[0-5]%
Others	[30-40]%	[30-40]%	[30-40]%	[40-50]%	[40-50]%	[40-50]%

Source: Form CO, paragraph 278 and Annex 1.1.3.

143 See footnote 142.

(177) Table 3 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for BPA.

Table 3: BPA – EEA-wide market share by revenue – 2020-2022

Company	EEA[144]		
	2020	2021	2022
IBM	[30-40]%	[30-40]%	[30-40]%
Target	[0-5]%	[0-5]%	[0-5]%
Combined	*[30-40]%*	*[30-40]%*	*[30-40]%*
Oracle	[5-10]%	[5-10]%	[5-10]%
OpenText	[5-10]%	[5-10]%	[5-10]%
Nintex	[5-10]%	[5-10]%	[5-10]%
Kofax	[5-10]%	[5-10]%	[5-10]%
Appian	[0-5]%	[0-5]%	[0-5]%
Bizagi	[0-5]%	[0-5]%	[0-5]%
Cloud Software Group	[0-5]%	[0-5]%	[0-5]%
Camunda	[0-5]%	[0-5]%	[0-5]%
Pegasystems	[0-5]%	[0-5]%	[0-5]%
SS&C Technologies	[0-5]%	[0-5]%	[0-5]%
Others	[10-20]%	[10-20]%	[10-20]%

Source: Form CO, paragraph 307 and Annex 1.1.3.

(178) Table 4 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for Prerelational-era DBMS.

Table 4: Prerelational-era DBMS – EEA-wide and worldwide market shares by revenue – 2020-2022 (Gartner)

Company	EEA[145]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[30-40]%	[30-40]%	[30-40]%	[20-30]%	[20-30]%	[20-30]%
Target	-	-	-	-	-	-
Microsoft	[40-50]%	[40-50]%	[40-50]%	[40-50]%	[40-50]%	[50-60]%

144 See footnote 142.
145 See footnote 142.

Company	EEA[145]			Worldwide		
	2020	2021	2022	2020	2021	2022
Broadcom (VMware)	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
SAG (retained)[146]	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%
Fujitsu	-	-	-	[0-5]%	[0-5]%	[0-5]%
Rocket Software	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Hitachi	-	-	-	[0-5]%	[0-5]%	[0-5]%
InterSystems	-	-	-	[0-5]%	[0-5]%	[0-5]%
Others	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

Source: Form CO, paragraph 437 and Annex 1.1.3.

(179) Table 5 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for APS.

Table 5: APS – EEA-wide and worldwide market shares by revenue – 2020-2022 (Gartner)

Company	EEA[147]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[40-50]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Target	-	-	-	-	-	-
Oracle	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Broadcom (VMware)	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[5-10]%	[5-10]%
Google	[0-5]%	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
NEC	-	-	-	[0-5]%	[0-5]%	[0-5]%
TmaxSoft	-	-	-	[0-5]%	[0-5]%	[0-5]%
Hitachi	-	-	-	[0-5]%	[0-5]%	[0-5]%
Fujitsu	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Yonyou	-	-	-	[0-5]%	[0-5]%	[0-5]%
Huawei	-	-	-	[0-5]%	[0-5]%	[0-5]%
Magic Software	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

146 Reflects the Gartner revenues of Prerelational-era DBMS retained by SAG (*i.e.,* which are not part of the Transaction).

147 See footnote 142.

Company	EEA[147]			Worldwide		
	2020	2021	2022	2020	2021	2022
OpenText	[0-5]%	[0-5]%	[0-5]%	-	-	-
Aurea Software	[0-5]%	[0-5]%	[0-5]%	-	-	-
SAP	[0-5]%	[0-5]%	[0-5]%	-	-	-
Others	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[10-20]%	[5-10]%

Source: Form CO, paragraph 397 and Annex 1.1.3.

(180) Table 6 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for TPMs.

Table 6: TPMs – EEA-wide and worldwide market shares by revenue – 2020-2022 (Gartner)

Company	EEA[148]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[80-90]%	[80-90]%	[80-90]%	[70-80]%	[70-80]%	[70-80]%
Target	-	-	-	-	-	-
Oracle	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Hitachi	-	-	-	[0-5]%	[0-5]%	[0-5]%
Fujitsu	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
TmaxSoft	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
NEC	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SAG	[0-5]%	[0-5]%	[0-5]%	-	-	-
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

Source: Form CO, paragraph 375 and Annex 1.1.3.

(181) Table 7 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for SRM.

148 See footnote 142.

Table 7: SRM – EEA-wide and worldwide market shares by revenue – 2020-2022

Company	EEA[149]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Target	-	-	-	-	-	-
NetApp	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[10-20]%	[20-30]%
Hitachi	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
SolarWinds	[0-5]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Dell	-	[5-10]%	[0-5]%	-	[5-10]%	[5-10]%
HPE	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
OpenText	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[20-30]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[10-20]%

Form CO, paragraph 385 and Annex 1.1.3.

(182) Table 8 provides an overview of the Parties' and their main competitors' market shares for 2020, 2021 and 2022 in the Gartner segment for AD Mainframe Tools.

Table 8: AD Mainframe Tools – EEA-wide and worldwide market shares by revenue – 2020-2022

Company	EEA[150]			Worldwide		
	2020	2021	2022	2020	2021	2022
IBM	[30-40]%	[30-40]%	[30-40]%	[20-30]%	[20-30]%	[20-30]%
Target	-	-	-	-	-	-
Broadcom (VMware)	[30-40]%	[30-40]%	[30-40]%	[40-50]%	[40-50]%	[40-50]%
Rocket Software	-	[10-20]%	[10-20]%	-	[5-10]%	[10-20]%
BMC	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
SAG (retained)	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%
OpenText	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[5-10]%	[5-10]%

Form CO, paragraph 422 and Annex 1.1.3.

149 See footnote 142.
150 See footnote 142.

5.3. Horizontal effects

5.3.1. Legal framework

(183) The Horizontal Merger Guidelines[151] describe two main ways in which horizontal mergers may significantly impede effective competition. In particular, the proposed concentration might be creating or strengthening a dominant position: (i) by eliminating important competitive constraints on one or more firms, which consequently would have increased market power, without resorting to coordinated behaviour (non-coordinated effects); and (ii) by changing the nature of competition in such a way that firms that previously were not coordinating their behaviour, are significantly more likely to coordinate and raise prices or otherwise harm effective competition (coordinated effects).

(184) A merger giving rise to horizontal non-coordinated effects might significantly impede effective competition by creating or strengthening the dominant position of a single firm, one which, typically, would have an appreciably larger market share than the next competitor post-merger. Moreover, also mergers that do not lead to the creation of or the strengthening of a single firm's dominant position may create competition concerns under the substantive test set out in Article 2(2) and Article 2(3) of the Merger Regulation. Regarding mergers in oligopolistic markets, the Merger Regulation clarifies that "*under certain circumstances, concentrations involving the elimination of important competitive constraints that the merging parties exerted upon each other, as well as a reduction of competitive pressure on the remaining competitors, may, even in the absence of a likelihood of coordination between the members of the oligopoly, result in a significant impediment to effective competition*".[152]

(185) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant horizontal non-coordinated effects are likely to result from a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force. Not all those factors need to be present to make significant non-coordinated effects likely and it is not an exhaustive list.[153]

5.3.2. Horizontally affected markets

(186) Based on 2023 IDC and 2022 Gartner data, the Notifying Party has identified three affected segments, all under the Gartner taxonomy, where the Parties' combined market shares exceed 20% and the HHI delta is above 150: (i) the EEA-wide and worldwide market for the supply of AIS (Section 5.3.3), (ii) the EEA-wide and worldwide market for the supply of B2B Gateways (Section 5.3.4), and (iii) the EEA-wide market for the supply of BPA software (Section 5.3.5). As mentioned at paragraphs 13 and 25 above, the Parties' activities do not give rise to any affected markets/segments based on the IDC taxonomy.

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151 Horizontal Merger Guidelines, paragraph 22.

152 Merger Regulation, recital 25. Similar wording is also found in paragraph 25 of the Horizontal Merger Guidelines.

153 Horizontal Merger Guidelines, paragraph 26.

(187) The Transaction also results in horizontal overlaps in a number of other markets. However, none of these overlaps give rise to affected markets in the meaning of the Commission Implementing Regulation ("**Implementing Regulation**").[154] Therefore, these overlaps will not be analysed in this Decision.

5.3.3. Application Integration Suites (AIS)

5.3.3.1. The Notifying Party's views

(188) The Notifying Party considers that the Transaction will not give rise to competition concerns in the putative market for AIS at worldwide or EEA-wide level for the following reasons.

(189) First, the combined market share of the Parties in AIS will remain moderate ([30-40]% at worldwide level and [40-50]% at EEA-wide level).

(190) Second, the merged entity will continue to be constrained by a number of legacy AIS rivals, including Oracle, Salesforce, Microsoft, SAP and Cloud Software Group.[155]

(191) Third, AIS are in decline because their underlying ESB technology proved difficult for enterprises to maintain, scale and update. Legacy AIS are therefore being replaced, or at least competitively constrained, by other modern integration software solutions, including iPaaS, cloud-native integration tools, and API Management tools, which will continue to exercise significant competitive constraints on the legacy AIS vendors post-Transaction.[156]

(192) Fourth, Gartner overstates the Parties' position by excluding or underestimating open-source rivals which provide a viable low-cost alternative to proprietary software.[157]

(193) Fifth, customers of legacy AIS are large and sophisticated buyers with considerable internal expertise and strong bargaining power.[158]

5.3.3.2. The Commission's assessment

(194) The Commission considers that, for the reasons set out below, the Transaction is unlikely to raise serious doubts as to its compatibility with the internal market as a result of horizontal effects in a market for AIS at worldwide or EEA-wide level.

(195) First, a wide range of competitors will remain post-Transaction in the market for AIS which will continue to exert a competitive pressure on the merged entity, at both the EEA-wide and the worldwide level.

(196) In the market investigation, the vast majority of respondents that expressed a view considered that a large number of companies supply products that compete with the

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154 Recital 25(g) Annex I to Commission Implementing Regulation (EU) 2023/914 of 20 April 2023 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings and repealing Commission Regulation (EC) No 802/2004, OJ L 119, 5.5.2023, p. 22.

155 Form CO, paragraph 261.

156 Form CO, paragraphs 246-259.

157 Form CO, paragraphs 102 and 261.

158 Form CO, paragraph 261.

Target's and IBM's AIS offerings. Customers and competitors of AIS[159] consider that such suppliers include Salesforce, SAP, Microsoft, Oracle, Cloud Software Group, Informatica, Google, Amazon, Boomi, OpenText, Workato, WSO2, Seeburger and Talend.[160] Most of these suppliers are active at both the EEA-wide and worldwide level.

(197) For instance, one respondent noted: "*This is a highly fragmented market with numerous competitors*".[161] Another respondent identified at least 8 AIS suppliers which they "*usually consider every time [they] have to decide the evolution of [their] platform in this domain*."[162] Another respondent stated that: "*these types of software are quite generic products*" and identified more than 15 "*options available in the market*."[163] A customer noted that: "*There are sufficient adequate alternatives to the Target's Integration Server*".[164]

(198) Therefore, despite the Parties' combined share of [30-40]% at worldwide level and [40-50]% at the EEA-wide level, the Parties will continue to be constrained by a sufficient number of alternative AIS suppliers post-Transaction.

(199) Second, the level of differentiation between competing AIS products is low since alternative AIS have similar features and serve broadly the same use cases. In addition, market respondents did not identify any specific product characteristics or functionalities which are unique to IBM's or the Target's AIS and which competing suppliers do not offer or cannot match.[165] Against, this background, even though the majority of respondents that expressed a view considered that the AIS products of IBM and the Target compete closely,[166] customers will continue to have (as mentioned above) several alternative AIS suppliers with comparable offerings to choose from.

(200) Third, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the possible market for AIS.[167]

(201) Therefore, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of horizontal effects on a plausible market for AIS, at a worldwide or EEA-wide level.

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159 Replies to Q1 – Questionnaire to competitors and customers, question D.A.1 and D.A.3.

160 Form CO, Revised Annex RFI 2 Q 6.1: Salesforce (*Anypoint Connectors, Anypoint Exchange, Anypoint DataGraph*); SAP (*SAP Integration Suite*); Microsoft (*Azure Integration Services, Azure Logic Apps*); Oracle (*Infrastructure Application Integration*); Cloud Software Group (*TIBCO Platform - Integration*); Informatica (*Application Integration, Integration Hub*); Google (*Google Cloud Tasks, Google Cloud Scheduler, Google Cloud Composer*); Amazon (*Amazon AppFlow, AWS App Sync*); Boomi (*Boomi Platform - Integration*); OpenText (*Trading Grid Platform*); Seeburger (*Business Integration Suite Platform*); Talend (*Talend Application Integration*).

161 Replies to Q1 – Questionnaire to competitors and customers, questions D.A.2 and D.A.4.

162 Replies to Q1 – Questionnaire to competitors and customers, questions D.A.2 and D.A.4.

163 Replies to Q1 – Questionnaire to competitors and customers, question D.A.4.

164 Agreed minutes of call with a customer on 19 April 2024, paragraph 4.

165 Replies to Q1 – Questionnaire to competitors and customers, question D.A.7 and D.A.8.

166 Replies to Q1 – Questionnaire to competitors and customers, question D.A.5.

167 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.

5.3.4. Business-to-Business Gateways (B2B Gateways)

5.3.4.1. The Notifying Party's views

(202) The Notifying Party considers that the Transaction will not give rise to competition concerns in the putative market for B2B Gateways at worldwide or EEA-wide level for the following reasons.

(203) First, the Notifying Party submits that the combined market share of the Parties in the market for B2B Gateways is moderate ([20-30]% at worldwide level and [20-30]% at the EEA-wide level).[168]

(204) Second, the Notifying Party submits that the merged entity will continue to face strong competition from numerous competitors post-Transaction, including Axway, OpenText, SAP, Seeburger, and Microsoft.[169]

(205) Third, the Notifying Party considers that that the Parties' products are not close substitutes. According to the Notifying Party, IBM's B2B Gateway product ("IBM Sterling") is [*information on the Parties' product-level sale strategies*]. By contrast, the Target's B2B Gateway products ("webMethods B2B" and "webMethods eStandards") are [*information on the Parties' product-level sale strategies*].[170]

(206) Fourth, as mentioned above at paragraph 56, the Notifying Party submits that enterprises increasingly consider comprehensive B2B middleware suites (i.e., offers that combine multiple B2B middleware functionalities, including B2B Gateways). In view of the close integration of B2B Gateway capabilities in B2B middleware suites, the Notifying Party notes that B2B Gateways are significantly competitively constraint by B2B middleware suites.[171]

5.3.4.2. The Commission's assessment

(207) The Commission considers that, for the reasons set out below, the Transaction is unlikely to raise serious doubts as to its compatibility with the internal market as a result of horizontal effects in a market for B2B Gateways at worldwide or EEA-wide level.

(208) First, the Parties' combined 2022 market shares in a narrowly defined market for B2B Gateways will remain moderate ([20-30]% at worldwide level and [20-30]% at the EEA-wide level).

(209) Second, a wide range of competitors will remain post-Transaction in the market for B2B Gateways. The market is fragmented and the merged entity will continue to face competition from numerous established players, at both the EEA-wide and worldwide level.

(210) In the market investigation, the majority of the respondents that expressed a view considered that a large number of companies supply products that compete with IBM's and the Target's B2B Gateways. Such suppliers include Axway, SAP,

168 Form CO, paragraph 279.
169 Form CO, paragraph 279.
170 Form CO, paragraph 279.
171 Form CO, paragraph 279.

Microsoft, Cloud Software Group, Informatica, Cleo, OpenText, Jitterbit, Vitria and Seeburger.[172] Most of these suppliers are active at both the EEA-wide and worldwide level.

(211) Third, the level of differentiation between competing B2B Gateways is low since alternative B2B Gateways have similar features and serve broadly the same use cases. In addition, market respondents did not identify any specific product characteristics or functionalities which are unique to IBM's or the Target's B2B Gateways and which competing suppliers do not offer or cannot match.[173] Against, this background, even though the majority of respondents that expressed a view considered that the B2B Gateways of IBM and the Target compete closely,[174] customers will continue to have (as mentioned above) several alternative B2B Gateway suppliers with comparable offerings to choose from.

(212) Fourth, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the possible market for B2B Gateways.[175]

(213) Therefore, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of horizontal effects on a plausible market for B2B Gateways, at a worldwide or EEA-wide level.

5.3.5. Business Process Automation (BPA)

5.3.5.1. The Notifying Party's views

(214) The Notifying Party considers that the Transaction will not give rise to competition concerns in the putative market for BPA software at EEA-wide level for the following reasons.

(215) First, the Notifying Party submits that the combined market share of the Parties in the market for BPA at EEA-wide level is moderate ([30-40]%), and that the increment brought by the Transaction is de minimis ([0-5]%).[176]

(216) Second, the Notifying Party submits that the merged entity will be constrained by numerous players post-Transaction, including Oracle, OpenText, Kofax and Nintex.[177]

(217) Third, the Notifying Party considers that the Parties' BPA products are not close competitors. According to the Notifying Party, whereas IBM sells its BPA products [*information on the Parties' product-level sale strategies*], the Target offers its products [*information on the Parties' product-level sale strategies*].[178]

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172 Replies to Q1 – Questionnaire to competitors and customers, question D.B.1 and D.B.3.
173 Replies to Q1 – Questionnaire to competitors and customers, question D.B.7 and D.B.8.
174 Replies to Q1 – Questionnaire to competitors and customers, question D.B.5.
175 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.
176 Form CO, paragraph 309.
177 Form CO, paragraph 311.
178 Form CO, paragraph 310.

5.3.5.2. The Commission's assessment

(218) The Commission considers that, for the reasons set out below, the Transaction is unlikely to raise serious doubts as to its compatibility with the internal market as a result of horizontal effects in a market for BPA software at EEA-wide level.[179]

(219) First, the Parties' combined 2022 market shares in the market for BPA at EEA-wide level will remain moderate ([30-40]%).

(220) Second, the increment brought by the Transaction is low. As shown in Table 3, the Transaction results in an increment of [0-5]% at the EEA-wide level.

(221) Third, a wide range of competitors will remain post-Transaction in the market for BPA software at the EEA-wide level.

(222) In the market investigation, the vast majority of respondents that expressed a view considered that a large number of companies supply products that compete with the Target's and IBM's BPA offerings. Such suppliers include Salesforce, SAP, Microsoft, Oracle, Camunda, Pegasystems, Nintex, Boomi, Bizagi, Cloud Software Group, Informatica, Appian, Amazon, OpenText, Workato and Talend.[180] Most of these suppliers are active at both the EEA-wide and worldwide level.

(223) Fourth, the level of differentiation between competing BPA products is low since alternative BPA solutions have similar features and serve broadly the same use cases. In addition, market respondents did not identify any specific product characteristics or functionalities which are unique to IBM's or the Target's BPA products and which competing suppliers do not offer or cannot match.[181] Against, this background, even though the majority of respondents that expressed a view considered that the BPA products of IBM and the Target compete closely,[182] customers will continue to have (as mentioned above) several alternative BPA suppliers with comparable offerings to choose from.

(224) Fifth, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the market for BPA software.[183]

(225) Therefore, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of horizontal effects on a plausible market for BPA at EEA-wide level.

5.3.6. Conclusion

(226) In light of the above, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of a horizontal overlap between the Parties' activities on the plausible markets for the supply of (i) AIS, (ii) B2B Gateways and (iii) BPA software.

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179 As mentioned above at paragraph 185, the Transaction does not give rise to a horizontally affected market for BPA software at worldwide level.

180 Replies to Q1 – Questionnaire to competitors and customers, question D.C.1 and D.C.3.

181 Replies to Q1 – Questionnaire to competitors and customers, question D.C.7 and D.C.8.

182 Replies to Q1 – Questionnaire to competitors and customers, question D.C.5.

183 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.

5.4. Conglomerate effects

5.4.1. Legal framework

(227) According to the Non-Horizontal Guidelines, in the majority of circumstances, conglomerate mergers will not lead to any competition problems.[184]

(228) However, foreclosure effects may arise when the combination of products in related markets may confer on the merged entity the ability and incentive to leverage a strong market position from one market to another closely related market by means of tying or bundling or other exclusionary practices. While tying and bundling have often no anticompetitive consequences, in certain circumstances such practices may lead to a reduction in actual or potential competitors' ability or incentive to compete. This may reduce the competitive pressure on the merged entity allowing it to increase prices.[185]

(229) In assessing the likelihood of such a scenario, the Commission examines, first, whether the merged firm would have the ability to foreclose its competitors[186], second, whether it would have the economic incentive to do so[187] and, third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus causing harm to consumers.[188] These factors are cumulative and often examined together as they are closely intertwined.

(230) In order to be able to foreclose competitors, the merged entity must have a significant degree of market power, which does not necessarily amount to dominance, in one of the markets concerned. The effects of tying or bundling can only be expected to be substantial when at least one of the merging parties' products is viewed by many customers as particularly important and there are few relevant alternatives for that product.[189] Further, for foreclosure to be a potential concern, it must be the case that there is a large common pool of customers, which is more likely to be the case when the products are complementary.[190] Finally, bundling is less likely to lead to foreclosure if rival firms are able to deploy effective and timely counter-strategies, such as single-product companies combining their offers.[191]

(231) The incentive to foreclose competitors through tying or bundling depends on the degree to which this strategy is profitable.[192] Bundling and tying may entail losses or foregone revenues for the merged entity.[193] However, they may also allow the merged entity to increase profits by gaining market power in the tied goods market, protecting market power in the tying good market, or a combination of the two.[194]

(232) It is only when a sufficiently large fraction of market output is affected by foreclosure resulting from the concentration that the concentration may

184 Non-Horizontal Guidelines, paragraph 92.
185 Non-Horizontal Guidelines, paragraphs 91 and 93.
186 Non-Horizontal Guidelines, paragraphs 95-104.
187 Non-Horizontal Guidelines, paragraphs 105-110.
188 Non-Horizontal Guidelines, paragraphs 111-118.
189 Non-Horizontal Guidelines, paragraph 99.
190 Non-Horizontal Guidelines, paragraph 100.
191 Non-Horizontal Guidelines, paragraph 103.
192 Non-Horizontal Guidelines, paragraph 105.
193 Non-Horizontal Guidelines, paragraph 106.
194 Non-Horizontal Guidelines, paragraph 108.

significantly impede effective competition. If there remain effective single-product players in either market, competition is unlikely to deteriorate following a conglomerate concentration.[195] The effect on competition needs to be assessed in light of countervailing factors such as the presence of countervailing buyer power or the likelihood that entry would maintain effective competition in the upstream or downstream markets.[196]

5.4.2. Conglomerate relationships

(233) Based on 2023 IDC and 2022 Gartner data, the Notifying Party has identified several conglomerate relationships between related markets, all under the Gartner taxonomy where IBM or the merged entity has, at least in one of these markets, a market share of 30% or more[197] sat EEA-wide and/or worldwide level. These markets are set out in Table 9 here below.

Table 9: Overview of primary markets in conglomerate relationships (Revenue, 2022)

Segment	Scope	IBM share	Target share
AIS	Worldwide	[20-30]%	[5-10]%
	EEA	[20-30]%	[10-20]%
Prerelational-era DBMS	Worldwide	[20-30]%[198]	N/A
	EEA	[30-40]%	N/A
APS	Worldwide	[30-40]%	N/A
	EEA	[30-40]%	N/A
TPMs (Standalone)	Worldwide	[70-80]%	N/A
	EEA	[80-90]%	N/A
SRM	Worldwide	[30-40]%	N/A
	EEA	[30-40]%	N/A
AD Mainframe Tools	Worldwide	[20-30]%[199]	N/A
	EEA	[30-40]%	N/A

Source: Form CO, paragraph 363 and Annex 1.1.3.

(234) As set out above, in each market listed in Table 9, IBM already pre-Transaction holds a market share above 30%, except in the market for AIS where it holds just

195 Non-Horizontal Guidelines, paragraph 113.
196 Non-Horizontal Guidelines, paragraph 114.
197 Point 6.3(b) of Annex I to the Implementing Regulation.
198 This is not a reportable market in the meaning of point 6.3 (b) of Annex I, Form relating to the notification of a concentration pursuant to Council Regulation (EC) no 139/2004. See also paragraph 25 of the Non-Horizontal Merger Guidelines.
199 Idem as above, see footnote 199.

below 30% and would only reach 30% as a result of the Transaction.[200] The Target is not active in any of these market segments, except for AIS.

(235) In addition, IBM already has offerings in all middleware segments where the Target is active. Therefore, the Transaction does not create any new conglomerate relationships. Further, the Target only adds a modest increment in the middleware segments where IBM is already active.[201] Accordingly, the Transaction not only does not create any new conglomerate relationships, but it also does not significantly alter these pre-existing conglomerate relationships.

(236) Given the interrelated nature of middleware products and the high number of middleware products offered by IBM, it would be impractical to assess each conglomerate relationship separately. Instead, the relevant conglomerate relationships that are subject to similar, if not identical, competitive assessments have been grouped together below:

(a) Foreclosure of the Target's middleware rivals by tying or bundling the Parties' AIS (Section 5.4.3);

(b) Foreclosure of IBM's server Operating Systems ("OS")[202] rivals by tying or bundling the Parties' AIS (Section 5.4.4);

(c) Foreclosure of the Target's middleware rivals by tying or bundling IBM's Prerelational-era DBMS, APS or TPMs (Section 5.4.5); and

(d) Foreclosure of the Target's middleware rivals by commercially tying or bundling IBM's SRM or AD Mainframe Tools (Section 5.4.6).

5.4.3. Foreclosure of the Target's middleware rivals by tying or bundling the Parties' AIS

(237) Both Parties offer AIS to customers who may use it to integrate with middleware that competes with IBM's middleware offerings.[203]

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200 See footnote 199.

201 Form CO, Revised Annex 1.1.3 (Annex RFI 2 Q 37.1). There are only three middleware segments where the increment is above 5%, which is AIS, B2B Gateways and Full Life Cycle API management. In AIS, the Target has [10-20]% in the EEA and [5-10]% worldwide. AIS is assessed under Section 5.3.3 (horizontal), as a primary market in Sections 5.4.3 and 5.4.4 (see Table 9) (conglomerate) and as a secondary market in which market power could be leveraged into as part of the Target's middleware products in Section 5.4 (conglomerate). In B2B Gateways, the Target has [5-10]% in the EEA and [5-10]% worldwide. This is assessed under Section 5.3.4 (horizontal), and as a secondary market as part of the Target's middleware products in Section 5.4. In Full Life Cycle Management, the Target has [5-10]% in the EEA, but combined market shares remain below 20%. Full Life Cycle Management is assessed as a secondary market as part of the Target's middleware products in Section 5.4 (conglomerate).

202 Form CO, paragraph 400. Server OS manage computer hardware (e.g., processing, memory, and storage) and all other programs in a computer. In the traditional IT stack, OS sit above hardware and below middleware and applications.

203 Form CO, paragraph 453. To the best of IBM's knowledge, customers may use AIS together with the following middleware products of IBM: DCAPs (WebSphere Application Server, Red Hat OpenShift, CICS), Event Stream Processing Software (IBM MQ), DBMS (IBM Db2), B2B Middleware (Aspera, Sterling), MDAPs (Business Automation Workflow, BPM, Blueworks Live), BRMS (IBM Automation Decision Services, IBM Operational Decision Manager, Red Hat Decision Manager), and Data Integration and Intelligence Software (IBM DataStage and IBM Data Replication).

5.4.3.1. The Notifying Party's views

5.4.3.1.1. Ability to foreclose

(238) The Notifying Party submits that the merged entity would not have the ability to foreclose competing middleware vendors by tying or bundling the Parties' AIS because the merged entity will not have market power in the market for AIS and the merged entity will continue to be constrained by a number of legacy AIS rivals, including Oracle, Salesforce, Microsoft, and Cloud Software Group,[204] and by modern Integration Software Solutions, including iPaaS, cloud-native integration tools, and API Management tools that will continue to exercise out-of-market constraints.[205]

(239) In addition, IBM would lack the ability to foreclose competing middleware vendors by degrading their interoperability with the Parties' AIS given the use of open standards and public APIs in AIS.[206] In any event, customers can defeat interoperability degradations by building their own connectors with the tools and resources provided by AIS vendors or those provided by independent software vendors, consulting firms, and the open-source community.[207]

5.4.3.1.2. Incentive to foreclose

(240) The Notifying Party considers that the merged entity would not have any incentive to engage in a tying or bundling strategy because IBM's interest is in ensuring the widest possible support and distribution for its AIS products especially against the background of a falling demand for AISs and the migration to iPaaS and cloud-native integration tools.[208] Any perceived attempts to tie or bundle could be easily noticed and punished by partners.[209]

(241) In addition, IBM's AIS have to remain interoperable with third-party middleware to remain relevant amid diverse and evolving customer needs and technology.[210] Tying or bundling would entail losses or foregone revenues from the Parties' sales of AIS, which would be at odds with the Transaction rationale.[211]

5.4.3.1.3. Impact on effective competition

(242) Any putative tying or bundling can readily be defeated by rivals.[212] There are no functionalities that IBM and the Target could offer in combination that is not already offered or could not be offered by one or more of the major competitors.[213]

5.4.3.2. The Commission's assessment

(243) For the reasons set out below and based on the results of the market investigation, the Commission considers that the merged entity would not have the ability to

204 Form CO, paragraph 457.
205 Form CO, paragraph 458.
206 Form CO, paragraph 462.
207 Form CO, paragraph 463.
208 Form CO, paragraph 466.
209 Form CO, paragraph 467.
210 Form CO, paragraph 468.
211 Form CO, paragraph 469.
212 Form CO, paragraph 471.
213 Form CO, Paragraph 472.

foreclose the Target's middleware rivals by tying or bundling the Parties' AIS software with the Parties' middleware products. Therefore, given that the conditions under the Non-Horizontal Guidelines are cumulative[214], the Commission does not need to take a position of whether the two other conditions are satisfied.

5.4.3.2.1. Ability to foreclose

(244) For the reasons set out below, the Commission considers that the merged entity would not have the ability to engage in a strategy of tying or bundling the Parties' AIS software with the Parties' middleware products.

(245) First, for the purposes of this Decision, the Commission considers that the merged entity does not have a significant degree of market power in the EEA-wide or worldwide market for AIS.

(246) As set out above in detail in Section 5.3.3, post-Transaction, the Parties will continue to face competition from several established players such as Oracle, Salesforce (MuleSoft), Microsoft, and Cloud Software Group, at both the EEA-wide and the worldwide level.

(247) In the market investigation, the vast majority of respondents that expressed a view considered that several companies supply products that compete with the Target's and IBM's AIS products. Customers and competitors of AIS[215] consider that such suppliers include Salesforce, SAP, Microsoft, Oracle, Cloud Software Group, Informatica, Google, Amazon, Boomi, OpenText, Workato, WSO2, Seeburger and Talend.[216] Most of these suppliers are active at both the EEA-wide and worldwide level.

(248) Therefore, despite the Parties' combined share of [30-40]% at worldwide level and [40-50]% at the EEA-wide level, the Parties will continue to be constrained by a sufficient number of alternative AIS suppliers post-Transaction.

(249) In addition, the majority of respondents that expressed a view considered that even if customers have chosen an AIS supplier, in practice, customers do switch between different AIS software suppliers.[217] Further, the majority of respondents that expressed a view also considered that although switching from one AIS supplier to another is technically complex and needs some time, it is a real option.[218]

(250) Second, the Parties' competitors can replicate and challenge any tied or bundled products. Oracle, Salesforce, Microsoft and Cloud Software Group already have integrated middleware software offerings that include AIS.[219] The vast majority of respondents that expressed a view indicated that there are no specific software bundles or functionalities that the merged entity will be able to offer by combining IBM and StreamSets and/or webMethods products that are not already offered, or could not be offered, by one or more of the other software vendors.[220]

214 Non-Horizontal Guidelines, paragraphs 93-118.
215 Replies to Q1 – Questionnaire to competitors and customers, question D.A.1 and D.A.3.
216 Replies to Q1 – Questionnaire to competitors and customers, question D.A.1 and D.A.3.
217 Replies to Q1 – Questionnaire to competitors and customers, question D.A.11.
218 Replies to Q1 – Questionnaire to competitors and customers, question D.A.13.
219 Form CO, Table 91.
220 Replies to Q1 – Questionnaire to competitors and customers, question D.J.1.

(251) In addition, the majority of respondents that expressed a view consider that non-integrated rivals of the Parties that do not have product portfolios to compete with potential product bundles of the merged entity or face certain interoperability degradations, could still compete post-merger by, for instance, partnering with other vendors, relying on open-source products to develop competing bundles, decreasing the price of individual components or other methods.[221]

(252) Third, the vast majority of respondents, including the vast majority of customers that expressed a view consider that customers would be able to replicate any merged entity's offering or bundle by mixing and matching complementary software and service offerings from different vendors.[222]

(253) Fourth, none of the respondents to the market investigation that expressed a view raised any interoperability concerns,[223] including specifically relating to the Parties' AIS offerings, and the Target's rival middleware offerings.[224]

(254) Finally, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the market for AIS.[225]

5.4.3.2.2. Conclusion

(255) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of conglomerate effects, notably by tying or bundling the Parties' AIS software with the Parties' middleware products, considering that the merged entity would not have the ability to engage in such strategy.

5.4.4. Foreclosure of IBM's server OS rivals by tying or bundling the Parties' AIS

(256) Both Parties offer AIS to customers who may use it to integrate with Server OS or OS environments that compete with IBM's Server OS offerings.[226]

5.4.4.1. The Notifying Party's views

5.4.4.1.1. Ability to foreclose

(257) The Notifying Party submits that the merged entity would not have the ability to foreclose Server OS rivals by tying or bundling the Parties' AIS because the merged entity will not have market power in the market for AIS and the merged entity will continue to be constrained by a number of AIS rivals (as set out above in Section 5.4.3.2.1).[227] In addition, interoperability with the Party' AIS is not a

221 Replies to Q1 – Questionnaire to competitors and customers, question D.J.9.
222 Replies to Q1 – Questionnaire to competitors and customers, question D.J.11.
223 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.2 (as regards "the impact on your company") and F.1 (as regards "final comments").
224 Replies to Q1 – Questionnaire to competitors and customers, question E.3 and E.4 (AIS).
225 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.
226 Form CO, Table 90. IBM offers server OS (Gartner) / OS environments (IDC), which are z/OS, z/VSE, z/TPF, z/VM, Linux on IBM z, AIX, IBM i, Red Hat Enterprise Linux.
227 Form CO, paragraph 510.

significant source of product differentiation in Server OS and it is not highly valued by customers.[228] Finally, IBM would have no ability to affect any of its rival Server OS vendors, where customers may choose to deploy the Parties' AIS, *i.e.,* Windows (by Microsoft, the world's leading Server OS vendor), SUSE and Oracle.[229]

5.4.4.1.2. Incentive to foreclose

(258) The Notifying Party considers that the merged entity would not have any incentive to engage in a tying or bundling strategy because the success of its AIS depends on broad distribution and compatibility with various solutions, and any attempt to degrade interoperability or bundle products would hinder efforts to revitalize its AIS business (see also Section 5.4.3 above).[230]

(259) The only beneficiary of a foreclosure strategy would be IBM's Red Hat business unit, which provides the Red Hat Enterprise Linux Server OS. However, Red Hat is organized separately with its own leadership, and IBM's other business units have no interest in sacrificing the viability of their AIS and middleware offerings for a speculative and unlikely benefit for Red Hat.[231]

5.4.4.1.3. Impact on effective competition

(260) A degradation strategy of the merged entity would, at most, have a marginal competitive impact given that Microsoft, the world's leading Server OS vendor, and Oracle have their own AIS offerings, and SUSE's Server OS is based on the same open source code as IBM's Server OS.[232]

5.4.4.2. The Commission's assessment

(261) For the reasons set out below and based on the results of the market investigation, the Commission considers that the merged entity would not have the ability to foreclose IBM's Server OS rivals by tying or bundling the Parties' AIS software with IBM's Server OS. Therefore, given that the conditions under the Non-Horizontal Guidelines are cumulative[233], the Commission does not need to take a position of whether the two other conditions are satisfied.

5.4.4.2.1. Ability to foreclose

(262) For the reasons set out below, the Commission considers that the merged entity would not have the ability to engage in a strategy of tying or bundling the Parties' AIS software with IBM's server OS.

(263) First, for the purposes of this Decision, the Commission considers that the merged entity does not have a significant degree of market power in the EEA-wide or worldwide market for AIS. This assessment has been set out in detail in Section 5.3.3, as well as above in Section 5.4.3.

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228 Form CO, paragraph 511.
229 Form CO, paragraph 511.
230 Form CO, paragraph 512.
231 Form CO, paragraph 513.
232 Form CO, paragraph 514.
233 Non-Horizontal Guidelines, paragraphs 93-118.

(264) Second, the Parties' competitors can replicate and challenge any tied or bundled products. As set out above in Section 5.4.3, Oracle, Salesforce, Microsoft and Cloud Software Group already have integrated middleware software offerings, that include AIS and server OSs.[234] IBM's three principal server OS competitors where customers may choose to deploy the Parties' AIS are: Windows Server (offered by Microsoft), SUSE Linux Enterprise Server (offered by SUSE), and Solaris (offered by Oracle).

(265) The vast majority of respondents that expressed a view indicated that there are no specific software bundles or functionalities that the merged entity will be able to offer by combining IBM and StreamSets and/or webMethods products that are not already offered, or could not be offered, by one or more of the other software vendors.[235]

(266) In addition, the majority of respondents that expressed a view consider that non-integrated rivals of the Parties that do not have product portfolios to compete with potential product bundles of the merged entity or face certain interoperability degradations, could still compete post-merger by, for instance, partnering with other vendors, relying on open-source products to develop competing bundles, decreasing the price of individual components or other methods.[236]

(267) Third, none of the respondents that expressed a view identified a concern indicating that integrations with AIS is a relevant factor in choosing a server OS.[237] Further, in the market investigation, none of the respondents that expressed a view raised any interoperability concerns in general,[238] including specifically relating to the Parties' AIS offerings and IBM's Server OS offerings.[239]

(268) Fourth, the vast majority of respondents, including the vast majority of customers that expressed a view consider that customers would be able to replicate any merged entity's offering or bundle by mixing and matching complementary software and service offerings from different vendors.[240]

(269) Finally, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the markets for AIS and Server OS.[241]

5.4.4.2.2. Conclusion

(270) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of conglomerate effects, notably by tying or

234 Form CO, Table 91.
235 Replies to Q1 – Questionnaire to competitors and customers, question D.J.1.
236 Replies to Q1 – Questionnaire to competitors and customers, question D.J.9.
237 Replies to Q1 – Questionnaire to competitors and customers, question E.4 (Server OS).
238 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.2 (as regards "the impact on your company") and F.1 (as regards "final comments").
239 Replies to Q1 – Questionnaire to competitors and customers, question E.3 and E.4 (AIS and Server OS).
240 Replies to Q1 – Questionnaire to competitors and customers, question D.J.11.
241 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.

bundling the Parties' AIS software with IBM's server OS, considering that the merged entity would not have the ability to engage in such strategy.

5.4.5. Foreclosure of the Target's middleware rivals by tying or bundling IBM's Prerelational-era DBMS, APS or TPMs

(271) IBM offers Prerelational-era DBMS, APS and TPMs to customers who may use it together with middleware that compete with IBM's middleware offerings.[242]

5.4.5.1. The Notifying Party's views

5.4.5.1.1. Ability to foreclose

(272) The Notifying Party submits that the merged entity would not have the ability to foreclose competing middleware vendors by tying or bundling the Parties' Prerelational-era DBMS, APS, or TPMs because IBM does not have a significant degree of market power in the DBMS, APS or TPMs market.[243] In addition, many customers of IBM's APS or TPMs do not purchase these products together with other middleware products.[244] The Notifying Party also considers that several rivals can replace the IBM offerings with a comparable or broader suite of Prerelational-era DBMS, APS and TPMs.[245]

(273) In addition, the Notifying Party submits that IBM has no ability to degrade interoperability with APS because any attempt by IBM to alter Red Hat OpenShifts' platform neutrality in favour of the Parties' own middleware products would make IBM less competitive against CSPs, which are much larger and more successful than IBM itself. IBM has no ability to degrade interoperability with TPMs because APIs are made available publicly and are vendor agnostic.[246]

5.4.5.1.2. Incentive to foreclose

(274) The Notifying Party considers that the merged entity would not have any incentive to engage in tying or bundling because the success of IBM's Prerelational-era DBMS, APS, and TPMs relies on their ability to interoperate with other middleware products and vendors. Any attempt to undermine financially (or technically) the ability of IBM's customers to use these products as they prefer can be easily detected and accelerate the shift to competing solutions.[247]

(275) In addition, IBM has no incentive to degrade the interoperability of Red Hat's APS products, such as Red Hat OpenShift, due to IBM's commitment to preserve Red Hat's independence and neutrality for its acquisition and operates Red Hat as a distinct unit with its own leadership. Red Hat would have no interest in losing customers for a speculative and unlikely gain to IBM's competing middleware.

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242 Form CO, Table 90. This relates to Target's offerings in Integration Software (IDC) (webMethods, webMethods Adapters, webMethods API Gateway, webMethods EntireX, Terracotta); B2B Middleware (IDC) (webMethods B2B, webMethods MFT, webMethods eStandards); BRMS (IDC) (webM Business Rules); Data Integration and Intelligence Software (IDC) (StreamSets); Event Stream Processing Software (IDC) (webMethods Broker, webMethods Universal Messaging); and MDAPs (IDC) (webMethods BPM).

243 Form CO, paragraph 475.

244 Form CO, paragraph 476.

245 Form CO, paragraph 480.

246 Form CO, paragraph 482.

247 Form CO, paragraph 487.

Degrading interoperability would be unprofitable, given the strength of competitors like AWS, Google, and Microsoft, and the widespread availability of other open-source container platforms.[248]

5.4.5.1.3. Impact on effective competition

(276) Even if IBM had the ability and incentive to foreclose TPMs rivals this would not have a substantial effect on competition because a number of competitors already offer a similar portfolio breath or can establish partnerships with other industry players to meet customer demand. [249] In any event, any anticompetitive tying or bundling strategy with IBM's Prerational-era DBMS, APS, or TPM products, can readily be defeated by rivals as several major software vendors would be able to replace IBM's offerings with their own capabilities in this space. [250]

5.4.5.2. The Commission's assessment

(277) For the reasons set out below and based on the results of the market investigation, the Commission considers that the merged entity would not have the ability to foreclose the Target's middleware rivals by tying or bundling the IBM's Prerelational-era DBMS, APS or TPMs with the Target's middleware. Therefore, given that the conditions under the Non-Horizontal Guidelines are cumulative[251], the Commission does not need to take a position of whether the two other conditions are satisfied.

5.4.5.2.1. Ability to foreclose

(278) For the reasons set out below, the Commission considers that the merged entity would not have the ability to foreclose the Target's middleware rivals by tying or bundling the IBM's Prerelational-era DBMS, APS or TPMs with the Target's middleware.

(279) First, for the purposes of this Decision, the Commission considers that the merged entity does not have a significant degree of market power in the EEA-wide market for Prerelational-era DBMS, or in the EEA-wide or worldwide market for APS or TPMs.[252]

(280) As regards the EEA-wide market for **Prerelational-era DBMS**, as set out above in Section 5.2, IBM's market share is moderate based on 2022 data ([30-40]% at EEA-wide level). Post-Transaction, the Parties will continue to face competition from several established players. This includes players such as Microsoft, Broadcom, SAG (retained) and Rocket Software in the Prerelational-era DBMS market.[253]

248 Form CO, paragraph 494.
249 Form CO, paragraph 497.
250 Form CO, paragraph 496.
251 Non-Horizontal Guidelines, paragraphs 93-118.
252 Note that the worldwide market for Prerelational-era DBMS does not constitute an affected market (23.6%, 2022).
253 2022 market shares at the worldwide level.

(281) In the market investigation, several respondents that expressed a view considered that several companies supply products that compete with IBM's Prerelational-era DBMS products. Such suppliers include Microsoft, Broadcom, SAG (retained), Rocket Software, Intersystems, Fujitsu and Hitachi.[254] (Most of) these suppliers are active at both the EEA-wide and worldwide level.

(282) The majority of respondents that expressed a view considered that if customers have chosen a Prerelational-era DBMS supplier, in practice, customers do not switch between different Prerelational-era DBMS suppliers[255], nor is switching a real option.[256] However, based on these respondents' explanations, it appears that this lack of switching is not related to the Transaction, but because Prerelational-era DBMS is considered a legacy technology. These respondents explained that "*The market is at its end and switching is only possible to modern system architectures*."[257] Respondents indicated they considered that it would not be economically or technically sensible to switch between legacy technology vendors (within the "*old market*"). Instead, several respondents indicated that customers are likely to switch to more modern technologies such as relational DBMS.

(283) For instance, one respondent indicated that: "*Customers are more likely to migrate away from prerelational-era DBMS to a relational DBMS than to another prerelational-era DBMS.*"[258] Another respondent indicated: "*The market is at its end and switching is only possible to modern system architectures. Switching within the few offerings of the "old market" makes no economic or technical sense and does not bring any additional profit or business advantage*."[259] One respondent noted: "*We do not switch between between prerelation-era DBMS suppliers, we rather switch to relational or modern NoSQL DBMS solutions from varying vendors. Replacing one piece of legacy with another is hardly ever beneficial*."[260] Another respondent indicated: "*hierarchical databases are at the end of their life-span. Changing like for like is highly unlikely. Switching patterns are rather towards relational / nosql databases, where competition is high (MSSQL, Oracle, MongoDB etc.)*".[261] Another respondent noted: "*It makes absolutely no sense to switch to another platform within the few offerings of the "old world". It would always result in a switch to a new, modern world. The old world is unnecessarily costly and there is no longer any knowledge or employee to continue this "old world"*."[262] Finally, another respondent indicated: "*In our experience, systems based on hierarchical databases were robust and have remained for many years in their original databases (IMS, VSAN, ADABAS, etc.) being replaced by new architectures, either with relational databases (RDBMS). or modern non-sql (MongoDB, Cassandra, Couchbase, etc.)*."[263]

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254 Replies to Q1 – Questionnaire to competitors and customers, question D.D.1.
255 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
256 Replies to Q1 – Questionnaire to competitors and customers, question D.D.5.
257 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
258 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
259 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
260 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
261 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3.
262 Replies to Q1 – Questionnaire to competitors and customers, question D.D.5.
263 Replies to Q1 – Questionnaire to competitors and customers, question D.D.3. Translation from Spanish: "*Bajo nuestra experiencia, los sistemas basados en BBDD jerárquicas eras robustos y se han mantenido durante muchos años en sus BBDD originales (IMS, VSAN, ADABAS, etc.) siendo*

(284) As regards the **APS** market, post-Transaction, the Parties will continue to face competition from a number of established players. this includes players such as Oracle, Broadcom (VMware), Google, NEC, and TmaxSoft. In the market investigation, all of the respondents that expressed a view considered that several companies supply products that compete with IBM's APS products. Such suppliers include Oracle, Microsoft[264], Google, Broadcom (VMware), SAP, Salesforce (Mulesoft), Alibaba group, and Fujitsu.[265] Therefore, given IBM's market share at worldwide level of [30-40]% and despite IBM's market share at EEA-wide level of [30-40]%, the merged entity will continue to be constrained by a sufficient number of alternative APS suppliers post-Transaction.

(285) In addition, the majority of respondents that expressed a view considered that even if customers have chosen an APS supplier, in practice, customers do switch between different APS suppliers.[266] Further, the majority of respondents that expressed a view also considered that although switching from one APS supplier to another is technically complex and needs some time, it is a real option.[267]

(286) As regards the market for **TPMs**, in 2022, IBM's market share constitutes [80-90]% at EEA-wide level, and [70-80]% at worldwide level, however the Commission considers that these shares are not indicative of a significant degree of market power for the following reasons.

(287) First, as set out above in Section 4.7, TPMs are control programs that support online transaction-processing applications. TPMs, which is middleware software, support and handle interactions between applications on a variety of computer platforms. Historically, TPMs have largely been used in mainframe-based wide area networks. Accordingly, Gartner has defined TPMs largely around IBM's proprietary mainframe hardware technology and the software that run on, or relate to, the mainframe.[268]

(288) However, TPMs are considered a legacy technology. The total TPMs market has been declining between 2018 and 2022, *i.e.,* -[30-40]% in Europe and -[20-30]% worldwide. The Notifying Party submitted that TPMs are increasingly replaced by application platforms for applications based on "post-web" era programming languages, while Gartner defines TPMs as focusing primarily on supporting "pre-

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sustituidos por nuevas arquitecturas, ya con sea con Bases de Datos relacionales (RDBMS) o no-sql modernas (MongoDB, Cassandra, Couchbase, etc.)"

264 Form CO, footnote 397. Microsoft's .NET framework is a set of proprietary Microsoft technologies designed to quickly build, host, and deploy connected software solutions. It is embedded into (and only available with) Microsoft's Windows operating system. As the Microsoft .NET framework is not available as a standalone development environment outside of the Windows environment, Gartner's APS subsegment does not report data for Microsoft's .NET. Gartner previously explained in its methodology that "*Microsoft is a major player in the application platform software market, but because its application server technology is embedded in the Windows Server operating system and doesn't generate standalone revenue, it's difficult to make a direct market share comparison between Microsoft and other vendors."* However, Gartner also pointed out that Microsoft .NET's installed base is *"comparable to—and possibly larger than—the combined installed base of Oracle and IBM."* Gartner's share data therefore overstates the competitive position of IBM, Oracle, and other competitors at the expense of Microsoft .NET.

265 Replies to Q1 – Questionnaire to competitors and customers, question D.E.1.

266 Replies to Q1 – Questionnaire to competitors and customers, question D.E.3.

267 Replies to Q1 – Questionnaire to competitors and customers, question D.E.5.

268 Form CO, paragraph 475.

web" era programming languages. IDC no longer reports separate market shares for TPMs and instead includes them under DCAPs, where IBM's share remains below 30% both at the EEA-wide and the worldwide level.[269]

(289) In addition, IBM's market share in a worldwide market for servers (which includes the mainframe technology[270] that is the underlying product set around which Gartner defines the market for TPMs) is well below 5%. Alternative server suppliers offering mainframe technology include Dell, Fujitsu, HPE, Oracle, Unisys and NEC.

(290) Second, the Notifying Party submitted that several companies supply TPM products that compete with IBM's TPM products. Such suppliers include (1) Gartner-listed suppliers, which provide TPM technology that run on their own mainframe such as Oracle[271], Hitachi[272], Fujitsu[273], TmaxSoft[274], and NEC[275], and (2) suppliers which provide TPM technology that also run on IBM mainframes, such as Hitachi and Oracle. Several suppliers fall under both category (1) and (2).

(291) In the market investigation, the majority of respondents that expressed a view considered that a large number of companies supply products that compete with IBM's TPMs products, including Hitachi, Fujitsu, TmaxSoft, SAG (retained), Oracle and NEC.[276] Several respondents to the market investigation that expressed a view also identified Microsoft as a competitor.[277] While Gartner has not included Microsoft in its market reports regarding the market for TPMs, Microsoft Distributed Transaction Coordinator, a component of Microsoft Windows Server OS, is used in on-premises deployment environments to coordinate transactions that span multiple resource managers such as databases, message queues, and file systems. It offers transaction monitoring and coordination capabilities similar to IBM's main TPM offering.[278]

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269 Form CO, paragraph 44.

270 Form CO, footnote 402 and Annex RFI 3 Q 3.1.. The Notifying Party is not aware of any third-party reports that provide share estimates for mainframes as the relevant market. IDC reports market shares for servers, which include mainframes as well as other server types.

271 Notifying Party, Note on TPMs and Prerelational-era DBMS, 12 June 2024. Oracle's Tuxedo is a middleware platform designed for transaction processing that can be deployed on Linux on IBM z, allowing customers to leverage Tuxedo's capabilities within an IBM mainframe environment.

272 Notifying Party, Note on TPMs and Prerelational-era DBMS, 12 June 2024. Hitachi's VOS3 Server OS primarily runs on IBM mainframe hardware and provides TPM capabilities. Also, Hitachi's Open TP1 TPM can operate on both Hitachi's and IBM's mainframe hardware.

273 Form CO, paragraph 475. Fujitsu states that its BS2000 mainframe "*is a complete and self-sufficient IT infrastructure for your applications and offers a strong heartbeat for your data center*." Fujitsu's GS21 mainframe line is considered "*outstandingly suited as a central role to meet the demand in social infrastructure systems and mission-critical enterprise systems that need to run reliably*" and that "[*f*]*or well 50 years, the Fujitsu mainframes have continued optimizing their processing performance, functionality, and specifications to actively reflect customer needs*." Fujitsu also offers Server OS (OSIV/XSP and OSIV/MSP) as well as a dedicated TPM (openUTM) for mainframes

274 Form CO, paragraph 475. TmaxSoft notes that its TPM (Tmax from TmaxSoft) delivers "mission-critical performance, reliability, availability, and manageability" and enables customers to transform their infrastructure.

275 Form CO, paragraph 475. NEC offers various mainframe models, including its recently (2022) launched i-PX AKATSUKI/A100 Series equipped with NEC's original processors (NOAH-7). NEC's ACOS mainframe OS includes TPM capabilities.

276 Replies to Q1 – Questionnaire to competitors and customers, question D.F.1.

277 Replies to Q1 – Questionnaire to competitors and customers, question D.F.1.

278 Notifying Party, Note on TPMs and Prerelational-era DBMS, 12 June 2024.

(292) In addition, the majority of customers that expressed a view considered that if customers have chosen a TPMs supplier, in practice, they do not switch between TPMs suppliers.[279] However, the majority of respondents that expressed a view also considered that although switching from one TPMs supplier to another is technically complex and needs some time, it is a real option.[280]

(293) Second, as regards **TPMs**, in the market investigation, the vast majority of respondents that expressed a view did not consider that IBM's TPMs product and the Target's StreamSets or webMethods products are typically purchased together by a common pool of customers.[281] A common pool of customers is defined as (1) the companies who need the IBM product also need the Target product and/or (the teams working with the IBM product are typically the same as those working with the Target product.[282] Only one market respondent that expressed a view, considered that IBM's TPMs product and Target's StreamSets or webMethods products are directly related in the sense that "*the products are often purchased together by a common pool of customers* […]", however this respondent did not substantiate its response.[283]

(294) In addition, as set out in Table 10 below, the proportion of TPM customers (primary market) also purchasing IBM products in the relevant secondary middleware markets vary by market. In particular, in Integration Software, which accounts for the great majority ([60-70]% worldwide, in 2023) of the Target's product revenues, the proportion ([30-40]%) is lower than the levels that could indicate "*a large common pool of customers*" for the products concerned.[284] In addition, the proportion of Integration Software customers (secondary market) that also purchased IBM's TPMs (primary market) in the same year amounts to only [10-20]% out of all IBM Integration Software customers (see Table 11 below).

Table 10: Proportion of IBM TPM customers that purchase complementary middleware products per IDC subsegment (worldwide, 2023)

Primary market	Secondary market	Proportion of primary market customers that also purchased a product from the secondary market in the same year (2023)
TPMs	B2B middleware	[40-50]%
	Event Stream Processing Software	[50-60]%
	Integration Software	[30-40]%
	MDAPs	[20-30]%
	Data Integration and Intelligence Software	[40-50]%
	BRMS	[20-30]%

Source: Form CO, paragraph 478.

279 Replies to Q1 – Questionnaire to competitors and customers, question D.F.3.
280 Replies to Q1 – Questionnaire to competitors and customers, question D.F.5.
281 Non-Horizontal Merger Guidelines, paragraph 100.
282 Replies to Q1 – Questionnaire to competitors and customers, question D.J.3 and D.J.4.
283 Replies to Q1 – Questionnaire to competitors and customers, question D.J.3 and D.J.4.
284 Non-Horizontal Merger Guidelines, paragraph 100.

Table 11: Proportion of IBM Integration Software Customers that Purchase TPMs (worldwide, 2023)

Secondary market	Primary market	Proportion of primary market customers that also purchased a product from the primary market in the same year (2023)
Integration Software (IDC)	TPMs	[10-20]%
Application Integration Suites (Gartner)		[10-20]%
Full Life Cycle API Management (Gartner)		[10-20]%
Integration Platform as a Service (iPaaS) (Gartner)		[10-20]%
AIS + iPaaS (Gartner)		[10-20]%
AIS + iPaaS + Full Life Cycle (Gartner)		[10-20]%

Source: Notifying Party, Note on TPMs and Prerelational-era DBMS, 12 June 2024.

(295) As regards **Prerelational-era DBMS**, in the market investigation, all respondents that expressed a view did not consider that IBM's TPMs product and the Target's StreamSets or webMethods products are typically purchased together by a common pool of customers.[285] A common pool of customers is defined as (1) the companies who need the IBM product also need the Target product, and/or (2) the teams working with the IBM product are typically the same as those working with the Target product.

(296) Third, the Parties' competitors can replicate and challenge any tied or bundled products. For instance, Oracle and Hitachi already have integrated middleware software offerings that include Prerelational-era DBMS and other middleware software.[286] The vast majority of respondents that expressed a view indicated that there are no specific software bundles or functionalities that the merged entity will be able to offer by combining IBM and StreamSets and/or webMethods products that are not already offered, or could not be offered, by one or more of the other software vendors.[287]

(297) In addition, the majority of respondents that expressed a view consider that non-integrated rivals of the Parties (*i.e.,* potential targets of a putative foreclosure strategy) that do not have product portfolios to compete with potential product bundles of the merged entity or face certain interoperability degradations, could still compete post-merger by, for instance, partnering with other vendors, relying

285 Replies to Q1 – Questionnaire to competitors and customers, question D.J.3 and D.J.4.
286 Form CO, Table 91.
287 Replies to Q1 – Questionnaire to competitors and customers, question D.J.1.

on open-source products to develop competing bundles, decreasing the price of individual components or other methods.[288]

(298) Fourth, the vast majority of respondents, including the vast majority of customers that expressed a view, consider that customers would be able to replicate any merged entity's offering or bundle by mixing and matching complementary software and service offerings from different vendors.[289]

(299) Fifth, none of the respondents to the market investigation that expressed a view raised any interoperability concerns,[290] including specifically relating to IBM's Prerelational-era DBMS, APS and TPMs on the one hand, and the Target's rival middleware offerings on the other hand.[291]

(300) In addition, specifically regarding interoperability between Integration Software and IBM's TPM products, the Notifying Party submitted that interface with IBM's TPMs is not a material consideration for most Integration Software and other middleware customers. Connectors with IBM's TPM products account for only a small fraction of the large range of prebuilt connectors/adapters offered by Integration Software vendors. For instance, none of the 240 connectors Microsoft publishes itself, offers any connection to IBM TPMs and only one of the approximately 900 connectors published by non-Microsoft partners. None of the 109 adapters published by Oracle offer a connection for IBM's TPMs. Workato publicly reports that it has "*over a thousand connectors*." However, only one connects to IBM's TPMs.[292]

(301) Similarly, the Notifying Party also submitted that Prerelational-era DBMS is not particularly important for Integration Software and other middleware customers. None of IBM's main Integration Software rivals offer connectors for IBM's Prerelational-era DBMS solution. These include Oracle, Salesforce (MuleSoft), Boomi, Workato, and Cloud Software Group (TIBCO). By contrast, these rivals all offer connectors for IBM's relational DBMS (see above paragraph (282)).

(302) Finally, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the markets for Prerelational-era DBMS, APS and TPMs.[293]

5.4.5.2.2. Conclusion

(303) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of conglomerate effects, tying or bundling the IBM's Prerelational-era DBMS, APS or TPMs with the Target's middleware,

288 Replies to Q1 – Questionnaire to competitors and customers, question D.J.9.
289 Replies to Q1 – Questionnaire to competitors and customers, question D.J.11.
290 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.2 (as regards "the impact on your company") and F.1 (as regards "final comments").
291 Replies to Q1 – Questionnaire to competitors and customers, question E.3 and E.4 (Prerelational-era DBMS, APS and TPMs).
292 Notifying Party, Note on TPMs and Prerelational-era DBMS, 12 June 2024.
293 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.

considering that the merged entity would not have the ability to engage in such strategy.

5.4.6. Foreclosure of the Target's middleware rivals by commercially tying[294] or bundling IBM's SRM and AD Mainframe Tools

(304) IBM offers SRM and AD Mainframe Tools to customers who may use it together with middleware that compete with IBM's middleware offerings.[295]

5.4.6.1. The Notifying Party's views

5.4.6.1.1. Ability to foreclose

(305) The Notifying Party submits that the merged entity would not have the ability to anticompetitively foreclose the Target's rival middleware vendors by bundling or commercially tying IBM's SRM and AD Mainframe Tools because IBM does not have market power in the market for SRM and AD Mainframe Tools, and a large majority of the workloads addressed by Integration Software do not require SRM or AD Mainframe Tools. As a result, most of the demand for middleware would be unaffected by any hypothetical exclusionary practice of the merged entity leveraging its position in SRM or AD Mainframe Tools.[296]

5.4.6.1.2. Incentive to foreclose

(306) The Notifying Party submits that the merged entity would not have the incentive to engage in a tying or bundling strategy because IBM has never obliged a customer to use or purchase products that the customer would not otherwise choose or condition the availability of a discount on the use of a different product, despite already having a portfolio of middleware, SRM and AD Mainframe Tools. Furthermore, if it were profitable to bundle middleware with SRM or AD Mainframe Tools, IBM would be already offering such a bundle. However, any potential bundle is unlikely to be profitable because customers generally prefer to mix and match products from various suppliers, and there are numerous established alternatives to every product in both IBM's and the Target company's portfolios.[297]

5.4.6.1.3. Impact on effective competition

(307) A tying or bundling strategy of IBM's SRM and AD Mainframe Tools products would not be capable of generating anti-competitive effects. Any putative bundling can readily be replicated by rivals, either alone or in partnership with other firms. The Parties' main competitors supply a wide range of middleware products and

294 Form CO, footnote 372. The Parties would not be able to engage in technical tying as there is no interoperability between IBM's SRM and AD Mainframe Tools products with the Target's products.

295 Form CO, Table 90. The Target offers Integration Software (IDC) (webMethods, webMethods Adapters, webMethods API Gateway, webMethods EntireX, Terracotta); B2B Middleware (IDC) (webMethods B2B, webMethods MFT, webMethods eStandards); BRMS (IDC) (webM Business Rules) Data Integration and Intelligence Software (IDC) (StreamSets); Event Stream Processing Software (IDC) (webMethods Broker, webMethods Universal Messaging); and MDAPs (IDC) (webMethods BPM).

296 Form CO, paragraph 518.

297 Form CO, paragraph 519.

could therefore respond by employing a strategy equivalent to that of the merged entity.[298]

5.4.6.2. The Commission's assessment

(308) For the reasons set out below and based on the results of the market investigation, the Commission considers that the merged entity would not foreclose the Target's rival middleware vendors by commercially tying or bundling IBM's SRM and AD Mainframe Tools products with the Parties' middleware products. Therefore, given that the conditions under the Non-Horizontal Guidelines are cumulative[299], the Commission does not need to take a position of whether the two other conditions are satisfied.

5.4.6.2.1. Ability to foreclose

(309) For the reasons set out below, the Commission considers that the merged entity would not have the ability to engage in a strategy of commercially tying or bundling the Parties' SRM and AD Mainframe Tools products with middleware that competes with the Parties' middleware products.

(310) First, neither IBM's SRM and AD Mainframe Tools are closely related to the Target's middleware.

(311) In the first place, the Parties indicate that IBM's SRM and the Target's middleware products do not have the same end use. IBM's SRM offering IBM Spectrum Control provides automated control and optimization of storage and data infrastructure and analyses multi-vendor storage environments. IBM Spectrum Control closely interfaces with storage hardware systems and is typically used by customers operating storage systems from Dell-EMC, NetApp, Hitachi, Pure Storage, and HPE. IBM Spectrum Control also enables performance management at the port and switch levels for platforms from Broadcom and Cisco Systems. Customers of the Target's webMethods and StreamSets products do not typically operate storage systems that would require IBM Spectrum Control and therefore generally do not purchase IBM's SRM offerings (and vice versa). To the extent that there may be overlapping customers between IBM Spectrum Control and the Target's products, they do not purchase them for the same end use.[300]

(312) In the second place, the Parties indicate that IBM's AD Mainframe Tools and the Target's middleware products do not have the same end use. IBM's AD Mainframe Tools cover the different stages of application development for mainframe computers, such as deployment, post-deployment, tests, and monitoring. The tools provide different functions, including application analysis, management, development, debugging, anomaly correction, incident remediation, DevOps, performance analysis and a host of capabilities to enhance and simplify the activities of mainframe applications for developers. In contrast, the Target's webMethods and StreamSets use cases relate to cloud applications or on-prem deployments on x86 servers, and not mainframes.[301] Accordingly, such customers

298 Form CO, paragraph 521.

299 Non-Horizontal Guidelines, paragraphs 93-118.

300 Form CO, paragraph 516.

301 See also: Commission decision of 30 October 2019 in case M.9538 – Broadcom / Symantec Enterprise Security Business, paragraph 35: "[E]ven if there are customers that purchase both Broadcom's and SESB's products, these purchases are intended for different purposes, as

do not qualify as common customers for the "*same end use*", within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines.

(313) In the third place, even for overlapping customers, these products are not likely to be susceptible to tying or bundling practices, given that the products are not sold together to the same division within a customer organisation. None of the respondents to the market investigation indicated that IBM's SRM and the Target's StreamSets or webMethods products are directly related in the sense that "*the products are often purchased together by a common pool of customers (i.e., the companies who need the IBM product also need the Target product) and/or the teams working with the IBM product are the same as those working with the Target product*".[302] Similarly, none of the respondents to the market investigation indicated that IBM's AD Mainframe Tools and the Target's StreamSets or webMethods products are directly related.[303] Moreover, as set out below in paragraph 316, in the market investigation, all the respondents that expressed a view considered that several companies supply products that compete with the Target's and IBM's SRM and AD Mainframe Tools products.[304]

(314) Second, for the purposes of this Decision, the Commission considers that the merged entity does not have significant degree of market power in the EEA-wide or worldwide market for SRM or in the EEA-wide market for AD Mainframe Tools.[305]

(315) As set out above in detail in Section 5.2, in 2022, IBM's market share in the market for SRM and the market for AD Mainframe Tools will remain moderate (SRM: [30-40]% at worldwide level and [30-40]% at the EEA-wide level; and AD Mainframe Tools: [30-40]% at the EEA-wide level).

(316) In the market investigation, all the respondents that expressed a view considered that several companies supply products that compete with the Target's and IBM's SRM and AD Mainframe Tools products. Such SRM suppliers include NetApp, Hitachi, SolarWinds, Dell, and HPE.[306] Such AD Mainframe Tools suppliers include Broadcom (VMware), BMC, Rocket Software, SAG (retained), and OpenText.[307] (Most of) these suppliers are active at both the EEA-wide and worldwide level.

(317) Third, in addition, the majority of respondents that expressed a view considered that even if customers have chosen an SRM or AD Mainframe Tools supplier, in practice, customers do switch between different suppliers.[308] Further, the majority of respondents that expressed a view also considered that although switching from

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Broadcom's products are used for mainframe computers and SESB's products are used for other types of systems within the company or the company's network as a whole. Accordingly, such customers do not qualify as common customers for the "same end use", within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines."

302 Replies to Q1 – Questionnaire to competitors and customers, question D.J.3.

303 Replies to Q1 – Questionnaire to competitors and customers, question D.J.3.

304 Replies to Q1 – Questionnaire to competitors and customers, question D.H.1 and D.I.1.

305 Note that the worldwide market for AD Mainframe Tools does not constitute an affected market (23.9%, 2022).

306 Replies to Q1 – Questionnaire to competitors and customers, question D.H.1.

307 Replies to Q1 – Questionnaire to competitors and customers, question D.I.1.

308 Replies to Q1 – Questionnaire to competitors and customers, question D.H.3 and D.I.3.

one SRM or AD Mainframe Tools supplier to another is technically complex and needs some time, it is a real option.[309]

(318) Finally, the majority of market participants that expressed a view considered that the Transaction will have a neutral impact on their company and on competition on the market for SRM and AD Mainframe Tools.[310]

5.4.6.2.2. Conclusion

(319) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not raise serious doubts as to its compatibility with the internal market as a result of conglomerate effects, notably by commercially tying or bundling IBM's SRM and AD Mainframe Tools with the Target's middleware, considering these products are not closely related within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines, and even if they would be considered closely related, the merged entity would not have the ability to engage in such strategy.

6. CONCLUSION

(320) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This Decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

For the Commission

(Signed)
Margrethe VESTAGER
Executive Vice-President

309 Replies to Q1 – Questionnaire to competitors and customers, question D.H.5 and D.I.5.
310 Replies to Q1 – Questionnaire to competitors and customers, question E.1 and E.3.