EUROPEAN COMMISSION

Brussels, 19.10.2018
C(2018) 7020 final

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 Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

To the notifying party:

Subject: **Case M.8994 - Microsoft / GitHub**
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,

(2) On 14 September 2018, the European Commission ("Commission") received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004[3] by which Microsoft Corporation ("Microsoft" or the "Notifying Party", USA) acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the whole of GitHub Inc ("GitHub", USA) (the "Transaction"). Microsoft and GitHub are hereafter collectively referred to as the "Parties".

1. THE PARTIES

(3) Microsoft is active in the design, development and supply of computer software (including various software development and operations ("DevOps") tools), hardware devices and related services, cloud-based solutions, online advertising, recruiting and professional social network services.

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 L 24, 29.1.2004, p. 1 (the "Merger Regulation").

Commission européenne, DG COMP MERGER REGISTRY, 1049 Bruxelles, BELGIQUE
Europese Commissie, DG COMP MERGER REGISTRY, 1049 Brussel, BELGIË

Tel: +32 229-91111. Fax: +32 229-64301. E-mail: COMP-MERGER-REGISTRY@ec.europa.eu.

(4) GitHub is active in the supply of DevOps tools and in particular the popular source code hosting platform for version control and collaboration on software development, for use online ("GitHub.com"), and on-premises ("GitHub Enterprise"), and job listing services. As of the time of the notification, GitHub has more than 28 million registered users, […] million monthly active users, and […] million monthly active contributors. It hosts approximately […] million source code repositories, more than […]% of which are public repositories used for open source code development.

(5) Developers can join GitHub and create public repositories, or contribute to open source projects in existing public repositories, at no charge. Developers or organizations who wish to obtain additional features – such as private repositories, support, service-level-agreement guarantees, etc. – must purchase a subscription.

2. THE CONCENTRATION

(6) Pursuant to an agreement and plan of merger signed on 4 June 2018, GitHub will become a wholly-owned subsidiary of Microsoft. As a result, Microsoft will acquire sole control over GitHub.

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

3. UNION DIMENSION

(8) The Transaction does not have a Union dimension within the meaning of Article 1(2) or Article 1(3) of the Merger Regulation as the EU turnover of one of the Parties (GitHub) in the last financial year for which data is available at the date of the notification amounted to [less than 250] million.

(9) 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 four Member States, namely Austria, Cyprus, Germany and the United Kingdom.

(10) On 18 June 2018, the Notifying Party informed the Commission by means of a reasoned submission that the Commission should examine the Transaction pursuant to Article 4(5) of the Merger Regulation. The Commission transmitted a copy of that submission to the Member States on 19 June 2018.

(11) As none of the Member States competent to review the Transaction expressed its disagreement as regards the request to refer the case, the Commission deems the Transaction to have a Union dimension pursuant to Article 4(5) of the Merger Regulation.

4. RELEVANT MARKETS

4.1. Introduction

(12) The Parties' activities overlap in DevOps tools. They both offer a source code hosting platform for version control and collaboration, as well as code editors and integrated development environments ("IDE").

(13) Moreover, there are several non-horizontal links between the Parties' activities, in particular between, on the one hand, source code hosting platforms for version control and collaboration and, on the other hand, other DevOps tools and cloud services.

4.2. Relevant markets

4.2.1. DevOps tools

(14) DevOps tools are tools that organisations and individuals use when performing various tasks necessary to develop and release a piece of software. The term DevOps is used to convey the fact that the development ("Dev") and operations ("Ops") teams are integrated instead of operating in silos.

(15) Both Parties are active in the supply of DevOps tool. Within DevOps tools, their activities overlap in relation to the supply of source code hosting services for version control and collaboration and code editors/IDEs.

(16) Moreover, as various DevOps tools are often used in combination with each other, non-horizontal links exists with respect to the Parties' overlapping DevOps tools, namely between on the one hand source code hosting platform for version control and collaboration and on the other hand code editors/IDEs.

(17) Non-horizontal links also exists with respect to the Parties' non-overlapping DevOps tools, namely between:

- on the one hand Microsoft's Continuous Integration/Continuous Deployment ("CI/CD") tool that facilitates automatic, continuous integration of new source code into app builds and automatic deployment, Microsoft's virtual white board tool called Agile Planning, Microsoft's packaging tool allowing developers to package app source code into an app build and share it with other developers for testing and debugging, and Microsoft's testing tool enabling testing new features through a series of automated processes before they are deployed to users; and

- on the other hand, GitHub's source code hosting platform for version control and collaboration.

(18) Finally, a non-horizontal link exists between GitHub's source code hosting platform for version control and collaboration and Microsoft's cloud platform offering infrastructure-as-a-service ("IaaS") and platform-as-a-service ("PaaS").

Product market definition

Past decisions

(19) While the Commission has not assessed the boundaries of relevant market(s) for DevOps tools in past decisions, it has analysed software development tools.[4]

(20) The Commission's previous analysis indicated that the software development process consists of five main stages that largely reflect the stages of the DevOps lifecycle, with different categories of tools needed at each stage: (1) analysis; (2) design; (3) implementation (or coding); (4) testing; and (5) delivery and upgrading.

(21) The Commission, however, eventually "*left open the question of whether an overall market for software development tools exists, or whether distinct product markets have to be defined within the area of software development tools*."[5]

Notifying Party's view

(22) The Notifying Party claims that there is no sound basis for defining distinct product markets for different categories of DevOps tools because of the variety of products with overlapping functionality and developers' ability to mix-and-match solutions from distinct providers based on their individual preferences.

Commission's assessment

(23) When developing and releasing software, developers accomplish various tasks and for each of these tasks they use a specific category of DevOps tool.

(24) From the demand-side perspective, the different categories of tools are not substitutes to accomplish these various tasks.

(25) From the supply-side perspective, even if some providers offer suites of products covering different tasks (while others offer point solutions for one specific task), this does not mean that supply-side substitution would justify a relevant market encompassing all DevOps tools.

(26) The responses to the market investigation tend to confirm the above. All DevOps tools customers that replied to the market investigation indicated that they use a wide variety of DevOps tools covering the various tasks that developers need to accomplish to develop new software. The overwhelming majority of DevOps tools customers also indicated that they either always source DevOps tools separately via different licences/subscriptions from potentially different providers or at least sometimes source them separately and sometimes bundled together in the same licence.[6]

4 Case No COMP/M.4747 *IBM / Telelogic*, Commission decision of 5 March 2008, paragraphs 14-19.

5 *Ibid*, at paragraphs 59 and 122-123; Case M.8223 –*Micro Focus/HPE Software Business*, Commission decision of 8 March 2017, paragraphs 24 and 32.

6 See replies to Questionnaire Q2 to DevOps tools customers, questions 3 and 4.

(27) In any event, for the purpose of this decision, product market definition can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether there is an overall market for different categories of DevOps tools or whether there are separate markets for each category of DevOps tools.

Geographic market definition

Past decisions

(28) In past decisions analysing software development tools, the Commission left open the question whether the relevant geographic market was EEA-wide or worldwide, but the market investigation in those cases indicated a possibly worldwide market.[7]

Notifying Party's view

(29) The Notifying Party claims that DevOps tools (including hosting platforms for version control and collaboration) are available worldwide and developers work in coding languages that are used globally.

Commission's assessment

(30) For the purpose of this decision, geographic market definition for DevOps tools can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether any plausible market is EEA-wide or worldwide in scope.

4.2.2. Source code hosting services for version control and collaboration

(31) A version control system is a piece of software that allows tracking and managing changes to source code in the development phase. Many forms of version control software exist, including decentralised systems like Git[8] and centralised systems like Subversion, Perforce or Microsoft's Team Foundation Version Control ("TFVC"). Decentralised (or distributed) systems allow each developer on a team to make a local copy of the source code being developed, including the entire history of changes to that code. This functionality gives each developer the flexibility to work simultaneously on his or her respective local copy and then

7 Case No COMP/M.4747 *IBM / Telelogic*, Commission decision of 5 March 2008, paragraphs 124-126; Case M.8223 –*Micro Focus/HPE Software Business*, Commission decision of 8 March 2017, paragraphs 34-36.

8 Git is by far the most-widely used version control system. It is an actively maintained open source project originally developed in 2005 by Linus Torvalds, the creator of the Linux operating system kernel. As such, it is not controlled by GitHub or by any other source code hosting platforms for version control and collaboration. Git provides all the mechanisms for managing changes to source code and sharing those changes with others. As a distributed version control system, each Git repository can reside on each developer's computer with the full history of changes. However, Git does not come with a graphical user interface, does not provide any hosting service for users' repositories, and does not provide any mechanisms for developers to discuss the changes being made within a code base. Instead, many source code hosting platforms for version control and collaboration provide these additional services and are built on top of the open source Git version control software, including GitHub, Microsoft's VSTS and TFS platforms, GitLab, Bitbucket, AWS CodeCommit, Google Cloud Source Repositories Gitea, SourceForge, Kallithea, Assembla, and many others. See Form CO, https://git-scm.com/, and https://www.atlassian.com/git/tutorials/what-is-git.

synchronise the various copies with a master version of the source code maintained on a central server or public cloud service. In "centralised" version control systems, users work off a central copy of the code on a server or in the cloud.

(32) The code files and the history of changes are stored in folders called repositories.

(33) These repositories can either be public repositories whose contents are publicly accessible or private whose contents are protected from access by unauthorised and unauthenticated users. In order to collaborate with other developers on the source code, a developer would have to give access to the repositories to other developers by creating a copy either in the cloud or on an on-premises server connected to the Internet. Instead of storing the central copy of the repositories on the cloud or in an on-premises server, developers can choose to host their repositories on a source code hosting platform for version control and collaboration (such as GitHub), which usually provide a user-friendly interface and some additional features. The providers of a source code hosting platform for version control and collaboration usually offers these hosting platforms for use either online (as a service) and/or on-premises (or hosted on a third-party cloud).

(34) Both GitHub and Microsoft offer source code hosting services for version control and collaboration.

(35) GitHub provides the most popular source code hosting platform for version control and collaboration both online (GitHub.com) and on-premises (GitHub Enterprise). The online platform provides users with access to a cloud service to host the repositories where source codes can be stored for collaboration, to an open source version control system (Git), to a user-friendly interface, as well as to a centralised location for developers to discuss and review with other developers the changes that they are making to source code hosted in a Git repository. The on-premises platform offers the same service, except for the access to the cloud service.

(36) Microsoft offers two source code hosting platforms for version control and collaboration, i.e. Visual Studio Team Services ("VSTS") and Team Foundation Server ("TFS"), both of which include a Git-based and proprietary centralised version control service (TFVC). VSTS is cloud-based and TFS is on-premises.

Product market definition

Past decisions

(37) In past decisions, the Commission did not assess the boundaries of the relevant market(s) for source code hosting services for version control and collaboration.

Notifying Party’s view

(38) The Notifying Party claims that there is no separate market for source code hosting services for version control and collaboration within the DevOps tools market. However, if such a potential market was to be looked at, no further sub-segmentation by type of repository (public vs private or online vs on-premises) should be considered, because of the existence of supply-side substitution.

Commission's assessment

(39) From the demand-side perspective, there appears to be limited (if any) substitutability between platforms that are hosted online and those hosted on-premises, as well as between public and private repositories. The vast majority of customers that replied to the market investigation indicated that they would not consider using an on-premises Git-based solution or an online Git-based solution with private repositories as a credible alternative for a Git-based online platform with public repositories, or vice versa.

(40) Demand-side substitution also appears to be limited between Git-based platforms and other decentralised solutions, and even more between Git-based platforms and centralised solutions.[9]

(41) From the supply-side perspective, GitHub and its main competitors – GitLab and Atlassian – all provide a Git-based source code hosting service for version control and collaboration both on-premises and online, with public and private repositories.

(42) For those only providing the service online, respondents to the market investigation provided mixed responses as to whether it would be feasible to start offering an on-premises solution in a timely manner and without incurring significant additional costs.

(43) By contrast, the majority of respondents to the market investigation indicated that providers of source code hosting services on-premises for version control and collaboration could start offering an online solution with private repositories in a timely manner and without incurring significant additional costs. While extending an offering from online with public repositories to online with private repositories appears to be easy, the reverse, however, appears to be more difficult as this would require having a sufficient number of developers ready to adopt the new service to have a critical mass of potential contributors to the customers' source code projects.[10]

(44) In any event, for the purpose of this decision, product market definition can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether there is an overall market for source code hosting services for version control and collaboration or whether there are separate markets depending on the version control system the platform is built on (Git and other decentralised systems or centralised systems) and depending on the type of repository (public vs private or hosted vs on-premises).

Geographic market definition

Past decisions

(45) In past decisions, the Commission did not assess the boundaries of the relevant geographic market(s) for source code hosting services for version control and collaboration.

9 See replies to Questionnaire Q2 to DevOps tools customers, questions 5-7.

10 See replies to Questionnaire Q1 to DevOps tools and Iaas/PaaS competitors, questions 4-8.

Notifying Party's view

(46) Irrespective of the definition of the product market, the Notifying Party claims that competition in source code hosting services for version control and collaboration takes place globally.

Commission's assessment

(47) For the purpose of this decision, geographic market definition for source code hosting services for version control and collaboration can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether any plausible market is EEA-wide or worldwide in scope.

4.2.3. Code editors and IDEs

(48) Developers can write code using any text editing application such as Microsoft's Notepad. Many of them, however, use a code editor, which is a text editor designed specifically for editing source code. Developers can also write code using applications called IDEs. IDEs typically include a code editor as well as additional features such as intelligent code completion, a compiler/interpreter, build automation tools, a debugger and testing tools.

(49) GitHub and Microsoft overlap in code editors and IDEs. GitHub has developed the Atom code editor and Atom IDE, which are both open source, offered for free and maintained by the open source community. Microsoft offers Visual Studio Code and the Visual Studio IDE.

Product market definition

Past decisions

(50) In past decisions, the Commission has not assessed the boundaries of the relevant product market(s) for code editors and IDEs.

Notifying Party's view

(51) The Notifying Party claims that there is no separate market for code editors and IDEs. However, if such a potential market were to exist, code editors and IDEs would likely be part of the same product market as there is significant demand-side substitution.

Commission's assessment

(52) Respondents to the market investigation tend to confirm the Notifying Party's claim of demand-side substitution between code editors and IDEs.[11]

(53) In any event, for the purpose of this decision, product market definition can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether there is an overall market for code editors and IDEs or whether there are separate markets for code editors and IDEs.

[11] See replies to Questionnaire Q2 to DevOps tools customers, questions 8-11.

Geographic market definition

Past decisions

(54) In past decisions, the Commission did not assess the boundaries of the relevant geographic market(s) for code editors and IDEs.

Commission's assessment

(55) For the purpose of this decision, geographic market definition for code editors and IDEs can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether any plausible market is EEA-wide or worldwide in scope.

4.2.4. IaaS/PaaS services

(56) Cloud computing allows organisations to outsource their computing needs to third-party service providers. Customers that decide to deploy workloads in the cloud can choose from a wide range of services that enable them to manage autonomously to a greater or lesser extent the computing environment. IaaS and PaaS are two different forms of cloud computing services offering a "stack" of hardware and software components/functionalities on-demand to customers.

(57) Typically, IaaS comprises the basic capabilities provided by a physical server i.e. (i) data processing (or computing); (ii) data storage; and (iii) networking; each supported by (iv) "virtualisation" software allowing to simulate individual "virtual machines" ("VM") allocated to specific customers often referred to as "tenants", and residing on clusters of physical servers hosted in a datacentre. PaaS typically comprises the additional software capabilities running on the physical infrastructure and required to ultimately execute applications i.e. runtime operating systems and middleware. Providers offer a wide and rapidly expanding range of services across IaaS and PaaS, pushing into new areas to cater to customer demand.

(58) Microsoft's Azure cloud platform offers IaaS and PaaS services. GitHub does not offer any IaaS or PaaS services.

Product market definition

Past decisions

(59) In past decisions, the Commission considered the following potential distinctions within IT outsourcing services: (a) public cloud computing services, (b) IaaS, (c) infrastructure outsourcing services, and (d) application outsourcing services. However, the Commission ultimately left the product market definition open.[12]

[12] Case No COMP/M.7458 – *IBM / INFBusiness of Deutsche Lufthansa*; Commission decision of 15 December 2014, paragraph 20; Case M.8180 –*Verizon / Yahoo*, Commission decision of 21 December 2016, paragraph 72.

Notifying Party's view

(60) The Notifying Party submits that IaaS and PaaS form part of an overall market due to both demand-side and supply-side substitution. All major public cloud service providers offer a full range of IaaS and PaaS services to customers and customers choose from a wide range of services and determine the extent to which they want to manage the software environment that they want to have available.

Commission's assessment

(61) For the purpose of this decision, product market definition can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether there is an overall market for IaaS and PaaS or whether there are separate markets for IaaS and PaaS.

Geographic market definition

Past decisions

(62) In past decisions, the Commission left open whether the geographic scope of the market was EEA wide or worldwide.[13]

Notifying Party's view

(63) The Notifying Party submits that the market for IaaS/PaaS is worldwide or at least EEA-wide in scope.

Commission's assessment

(64) For the purpose of this decision, geographic market definition for IaaS/PaaS services can be left open because the Transaction does not raise serious doubts as to its compatibility with the internal market regardless of whether any plausible market is EEA-wide or worldwide in scope.

5. COMPETITIVE ASSESSMENT

5.1. Analytical framework

(65) Under Article 2(2) and (3) of the Merger Regulation, the Commission must assess whether a proposed concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position.

(66) In this respect, a merger may entail horizontal and/or non-horizontal effects. Horizontal effects are those deriving from a concentration where the undertakings concerned are actual or potential competitors of each other in one or more of the relevant markets concerned. Non-horizontal effects are those deriving from a

[13] *See* Case No COMP/M.7458 – IBM / INF *Business of Deutsche Luftansa*; Commission decision of 15 December 2014, paragraphs 30-32; Case M.8180 – *Verizon / Yahoo*, Commission decision of 21 December 2016, paragraph 75.

concentration where the undertakings concerned are active in different relevant markets.

(67) As regards non-horizontal mergers, two broad types of such mergers can be distinguished: vertical mergers and conglomerate mergers.[14] Vertical mergers involve companies operating at different levels of the supply chain.[15] Conglomerate mergers are mergers between firms that are in a relationship which is neither horizontal (as competitors in the same relevant market) nor vertical (as suppliers or customers).[16]

(68) A case where a merger entails both horizontal and non-horizontal effects may for instance be when the merging firms are not only in a vertical or conglomerate relationship, but are also actual or potential competitors of each other in one or more of the relevant markets concerned. In such a case, the Commission will appraise horizontal, vertical and/or conglomerate effects in accordance with the guidance set out in the relevant notices.[17]

(69) The Commission appraises horizontal effects in accordance with the guidance set out in the relevant notice, that is to say the Horizontal Merger Guidelines.[18] Additionally, the Commission appraises non-horizontal effects in accordance with the guidance set out in the relevant notice, that is to say the Non-Horizontal Merger Guidelines.

5.1.1. Horizontal effects

(70) The Horizontal Merger Guidelines distinguish between two main ways in which mergers between actual or potential competitors on the same relevant market may significantly impede effective competition, namely non-coordinated and coordinated effects.

(71) As regards horizontal non-coordinated effects, under the substantive test set out in Article 2(2) and (3) of the Merger Regulation, also mergers that do not lead to the creation or the strengthening of the dominant position of a single firm may be incompatible with the internal market. Indeed, the Merger Regulation recognises that in oligopolistic markets, it is all the more necessary to maintain effective competition.[19] This is in view of the more significant consequences that mergers may have on such markets. For this reason, the Merger Regulation provides that "*under certain circumstances, concentrations involving the elimination of important competitive constraints that the merging parties had 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*

14 Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Non-Horizontal Merger Guidelines"), OJ C 265, 18.10.2008, recital 3.

15 Non-Horizontal Merger Guidelines, recital 4.

16 Non-Horizontal Merger Guidelines, recital 5.

17 Non-Horizontal Merger Guidelines, recital 7.

18 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Horizontal Merger Guidelines"), OJ C 31, 05.02.2004.

19 Merger Regulation, recital 25.

members of the oligopoly, result in a significant impediment to effective competition".[20]

(72) 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. That list of factors applies equally regardless of whether a merger would create or strengthen a dominant position, or would otherwise significantly impede effective competition due to non-coordinated effects. Furthermore, not all of these factors need to be present to make significant non-coordinated effects likely and it is not an exhaustive list.[21] Finally, the Horizontal Merger Guidelines describe a number of factors, which could counteract the harmful effects of a merger on competition, including the likelihood of buyer power, entry and efficiencies.

(73) A merger in a concentrated market may also significantly impede effective competition due to horizontal coordinated effects where, through the creation or the strengthening of a collective dominant position, it increases the likelihood that firms are able to coordinate their behaviour and raise prices. A merger may also make coordination easier, more stable or more effective for firms that were already coordinating before the merger.[22]

5.1.2. Vertical effects

(74) A merger is said to result in foreclosure where actual or potential rivals' access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing these companies' ability and/or incentive to compete.[23] Such foreclosure may discourage entry or expansion of rivals or encourage their exit. Such foreclosure is regarded as anti-competitive where the merged entity — and, possibly, some of its competitors as well — are as a result able to profitably increase the price charged to consumers.[24]

(75) Two forms of vertical foreclosure can be distinguished. The first is where the merger is likely to raise the costs of downstream rivals by restricting their access to an important input (input foreclosure). The second is where the merger is likely to result in foreclosure of upstream rivals by restricting their access to a sufficiently large customer base (customer foreclosure).

5.1.3. Conglomerate effects

(76) In the majority of circumstances, conglomerate mergers do not lead to any competition problems but in certain specific cases there may be harm to competition.[25] The main concern in the context of conglomerate effects is that of

---

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

21 Horizontal Merger Guidelines, paragraph 26.

22 Horizontal Merger Guidelines, paragraph 39.

23 Non-horizontal Merger Guidelines, paragraph 29.

24 Non-horizontal Merger Guidelines, paragraph 29.

25 Non-horizontal Merger Guidelines, paragraph 92.

foreclosure. [26] Conglomerate mergers may allow the merged entity to combine products in related markets and this may confer on the merged entity the ability and incentive to leverage a strong market position from one market to another by means of tying or bundling, or other exclusionary practices. [27]

(77) In assessing the likelihood of conglomerate effects, the Commission examines, first, whether the merged firm would have the ability to foreclose its rivals, second, whether it would have the economic incentive to do so and, third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus causing harm to consumers. In practice, these factors are often examined together as they are closely intertwined. [28]

5.2. Identification of potentially affected markets and other markets where the Transaction may raise serious doubts

(78) Microsoft and GitHub are active in the supply of DevOps tool. Within DevOps tools, their activities overlap and give rise to potentially horizontally affected markets only in the supply of source code hosting services for version control and collaboration and code editors/IDEs. Section 5.3 assesses horizontal non-coordinated effects in the potential markets for DevOps tools.

(79) There are also non-horizontal links between the Parties' products. In particular, Microsoft offers various DevOps tools that are often used in combination with source code hosting platforms for version control and collaboration such as the one offered by GitHub to develop applications. Similarly, Microsoft is active in IaaS/PaaS services. Developers most often deploy the applications that they are developing using a source code hosting service for version control and collaboration to cloud services (IaaS/PaaS). As GitHub has a share of more than 30% of the potential market for source code hosting services for version control and collaboration, the Transaction may potentially lead to conglomerate effects to the detriment of competing DevOps tools and/or competing IaaS/PaaS. These two potential non-horizontal non-coordinated effects are analysed in section 5.4.

(80) Finally, GitHub collects data that may be valuable to develop improved DevOps tools and/or IaaS/PaaS. This decision therefore also analyses whether, post-Transaction, there would be a risk that the merged entity would refuse or degrade access to GitHub's data to its downstream DevOps tools and/or Iaas/PaaS competitors. This last potential non-horizontal non-coordinated effect is also analysed in section 5.4.

5.3. Horizontal non-coordinated effects

5.3.1. Potential overall market for DevOps tools

(81) The Commission concludes that the Transaction does not raise serious doubts as to its compatibility with the internal market as regards the potential market for DevOps tools as a result of horizontal non-coordinated effects. The overlap between the Parties would be minimal and many competing players would remain post-Transaction.

---

26 Non-horizontal Merger Guidelines, paragraph 93.

27 Non-horizontal Merger Guidelines, paragraph 93.

28 Non-horizontal Merger Guidelines, paragraph 94.

(82) First, the potential overall market for DevOps tools is fragmented. Vendors are highly diverse, ranging from small companies selling only one- or two-point solutions,[29] to very large IT corporations with a broad portfolio.[30]

(83) Second, the Parties' shares in such a potential market are low. According to IDC, Microsoft's worldwide share by revenue in DevOps tools is only [5-10]%, and GitHub's share is only [0-5]%.[31] The sources available to the Parties do not provide estimates of EEA shares but there is no reason to believe that EEA shares would be materially different from worldwide shares. As such, if the relevant product market were to encompass all categories of DevOps tools, this would not constitute a horizontally affected market.

(84) Third, competitors on this potential overall market would include IBM ([5-10]% worldwide market share), CA Technologies ([5-10]% worldwide market share), Micro Focus which recently acquired Hewlett Packard Enterprise's software business segment, including its DevOps tools ([5-10]%), New Relic ([5-10]%), Google ([0-5]%), Atlassian ([0-5]%), VMware ([0-5]%), AppDynamics ([0-5]%), Amazon, GitLab and many others.

5.3.2. Potential market for source code hosting services for version control and collaboration

5.3.2.1. Market shares

(85) The combined market shares of the Parties are high irrespective of the exact market definition for source code hosting services for version control and collaboration. More specifically, based on a user survey provided by the Parties, GitHub would have a worldwide user share of [40-50]% in the potential overall market for source code hosting services for version control and collaboration (including all type of services irrespective of whether they are based on Git, other decentralised version control systems and centralised control systems, and whether this service is hosted online or on-premises) while Microsoft would have a worldwide user share of [5-10]%. Based on the same survey data, the Parties estimate GitHub's and Microsoft's respective worldwide user share would be [50-60]% and [0-5]% in a potential market for source code hosting services for decentralised version control and collaboration, whether hosted online or on-premises. The Parties have no reason to believe that EEA shares would be materially different.

(86) Based on another user survey, the Parties estimate that GitHub's and Microsoft's respective worldwide user share would be [30-40]% and [0-5]% in a potential market for source code hosting services for decentralised Git-based version control and collaboration. In the online segment of such a potential market, the estimated respective worldwide user shares would be [40-50]% and [0-5]%, while in the on-premises segment, the respective user shares would be estimated at [5-10]% and [0-5]%. The Parties have no reason to believe that EEA shares would be materially different.

---

29 Solutions limited to one or two functions.

30 See Form CO, paragraph 229.

31 See IDC, Worldwide DevOps Software Market Shares, 2016: Year of Growth and Innovation, July 2017.

(87) The Commission has also looked at alternative metrics in order to estimate the Parties' market share, such as the share of monthly active users and monthly gross addition of repositories. An assessment of the Parties' market position based on these alternative metrics confirms that the Parties' combined market share is high.[32]

5.3.2.2. Notifying Party's view

(88) Despite the high combined market shares, the Notifying Party considers that the overlap between the Parties' activities does not raise competition concerns.

(89) First, the Notifying Party submits that, as reflected in its internal documents, the rationale of the Transaction is mainly a reputational leverage to improve the perception of Microsoft's products in the eyes of developers. The main driver of the Transaction for Microsoft is the fact that GitHub is loved by the open source community of "Modern Developers" – i.e. Millennial and late Generation X developers that prefer open source architecture and operating systems, such as Linux, over Windows. Despite its increasing contribution to the open source community over recent years, Microsoft still does not have a good reputation among Modern Developers. With the Transaction, Microsoft aims at demonstrating its very strong commitment towards the open source community, by keeping GitHub's developer-first ethos and maintaining it as an independent open platform for all developers in all industries. Microsoft hopes that this will change its reputation and that eventually more developers – many of whom work in companies and may play a role in the procurement of DevOps tools and cloud services – will increasingly consider Microsoft's cloud offerings (Azure) and its various DevOps tools as credible options even for open source software projects.

(90) Second, Microsoft only has a very limited market presence while there are many other providers of source code hosting services for version control and collaboration.

(91) Third: (i) barriers to entry and expansion are low; (ii) switching is technically easy because the source code of a project on GitHub as well as the entire history of the changes made to the code is also stored on each developer's personal computer and can therefore be moved to another hosting service; and (iii) multi-homing is common.

(92) Fourth, Microsoft is not a close competitor of GitHub in source code hosting services for version control and collaboration. Microsoft is barely present in public repository services (Microsoft's VSTS and TFS products only offer private repositories), which account for more than […]% of GitHub repositories. In private repositories whether online or on-premises, GitHub is lagging behind Atlassian's Bitbucket, GitLab and others. Moreover, Microsoft and GitHub are not close competitors in private repositories. Microsoft's strength is with enterprise developers within companies that built their on-premises IT solutions on Microsoft's Windows platform ("Central IT Developers") that use VSTS as part of the Microsoft stack. By contrast, GitHub is used principally by teams developing line-of-business applications where VSTS has limited traction.

[32] See replies to Questionnaire Q1 to DevOps tools and Iaas/PaaS competitors, question 9.

5.3.2.3. Commission's assessment

(93) The Commission concludes that the Transaction does not raise serious doubts as to its compatibility with the internal market as regards the potential market for source code hosting services for version control and collaboration as a result of horizontal non-coordinated effects.

(94) First, Microsoft's online hosting platform VSTS is not a credible alternative to GitHub's online source code hosting platform for version control and collaboration with public repositories. Almost all customers that responded to the market investigation and that use public repositories on GitHub.com, consider GitLab and Bitbucket as the most likely alternatives they would consider switching to if GitHub was not available and do not consider Microsoft at all. [33]

(95) Second, as regards private repositories hosted online, GitHub's users do not seem to consider Microsoft's VSTS a credible alternative. The vast majority of users of private repositories on GitHub.com that responded to the market investigation do not even consider VSTS a possible alternative to GitHub.com. The only customer that considered VSTS a potential alternative, considered it as third potential option behind Bitbucket and GitLab. GitLab and Bitbucket are considered the most likely alternatives to GitHub.com for private repositories by the vast majority of respondents.[34]

(96) Third, the same is true for users of GitHub Enterprise (on premises solution). Again GitLab and Bitbucket are considered the most likely alternatives, whereas Microsoft's on premises solution does not appear as a credible alternative. [35]

(97) Fourth, Microsoft and GitHub are not close competitors. They actually address different categories of customers. Customers of VSTS and TFS are typically older Central IT Developers using a broader set of Microsoft products and services such as Microsoft’s Visual Studio and .NET platforms, while GitHub’s users are primarily young Modern Developers using open source tools and platforms.[36]

(98) Fifth, developers have ample choice to develop code collaboratively on a Git-based system similar to GitHub. There is Bitbucket, GitLab, but also Gitea, AWS CodeCommit, Google Cloud Source Repositories, Kallithea, SourceForge, etc. The vast majority of GitHub's and Microsoft's DevOps tools competitors that responded to the market investigation acknowledged that, post-Transaction, there will remain sufficient alternative providers of source code hosting services for version control and collaboration for developers.[37]

(99) Sixth, the majority of GitHub's customers that responded to the market investigation confirm that it is easy for developers to switch hosting platform.[38] In particular, they confirm that the source code of a project on GitHub as well as the entire history of the changes made to the code are also stored on each developer's

33 See replies to Questionnaire Q2 to DevOps tools customers, question 15.
34 See replies to Questionnaire Q2 to DevOps tools customers, question 14.
35 See replies to Questionnaire Q2 to DevOps tools customers, question 16.
36 Form CO.
37 See replies to Questionnaire Q1 to DevOps tools and IaaS/PaaS competitors, question 18.
38 See replies to Questionnaire Q2 to DevOps tools customers, question 24.

personal computer and can therefore be moved to another hosting service fairly easily.

(100) The ease of switching is facilitated by multi-homing of users between GitHub and competing Git-based version control services. According to the data provided by the Notifying Party, in the past 12 months […]% of GitHub users also visited GitLab and/or Bitbucket.[39] This indicates that most users of GitHub are familiar with the user interface and other features of competing service providers which reduces any learning cots involved in switching.

(101) Moreover, switching does not appear to raise complex coordination issues. According to the information provided by the Notifying Party, […]% of public repositories hosted on GitHub have just a single contributor and a further […]% of public repositories have between one and five contributors. Moreover, most public repositories on GitHub do not attract contributions from anyone else than the developer that created the repository.

(102) Possibility of switching also mitigates any potential network effects from which GitHub may benefit. Such network effects may arise notably in relation to public repositories where the value of a hosting service like GitHub for its users may increase as its total number of developers (and hosted projects) grows. Nevertheless, the ease and propensity of users to switch, as described in paragraphs (99)-(101), are likely to weaken any such network effects. Indeed, when Microsoft first considered acquiring GitHub in […], it identified the risk of mass switching of users: "[…]."[40]

(103) Seventh, while Microsoft acknowledges that it could technically block the portability of issues[41] and pull requests[42] that can currently be ported to another version control service using GitHub's Application Programming Interface (APIs)[43] by shutting down these APIs, it appears unlikely that it would have the incentive to do so.

(104) In the first place, blocking the portability of such data would be ineffective at preventing developers from switching to a rival version control service, because only a very small fraction of developers use these features on GitHub ([…]% for

---

39 Form CO, paragraph 267.

40 […].

41 "Issues" is a bug tracker offered by GitHub that enables users to post "issues" relating to their coding work on a project and ask others to comment, for instance, on how to solve a coding problem or install and use a given application. See https://help.github.com/articles/about-issues/.

42 A pull request is a feature offered by GitHub that lets developers tell others about changes they have pushed to a GitHub repository. Once a pull request is sent, other developers can review the set of changes, discuss potential modifications, and push follow-up changes if necessary. See https://help.github.com/articles/about-pull-requests/.

43 In computer programming, an application programming interface is a set of subroutine definitions, communication protocols, and tools for building software. In general terms, it is a set of clearly defined methods of communication among various components. See https://en.wikipedia.org/wiki/Application_programming_interface.

pull requests, […]% for issues and […]% for wikis[44]), and some of this data could still be accessed on GitHub.[45]

(105) In the second place, any attempt by Microsoft to block the portability of such data would be counterproductive because it would necessarily also degrade the interoperability of third party tools that rely on such data with GitHub services, as GitHub cannot selectively degrade access to its APIs.

(106) In the third place, degrading the portability of such data would most likely alienate the open source community and turn Modern Developers away from Microsoft's products and services, undermining the rationale for the Transaction as described in paragraph 88.

5.3.3. Potential market for code editors and IDEs

(107) The Commission concludes that the Transaction does not raise serious doubts as to its compatibility with the internal market as regards the potential market for code editors and IDEs as a result of horizontal non-coordinated effects.

(108) First, based on survey data submitted by the Notifying Party, their combined worldwide user share would be: (i) approximately [20-30]% ([20-30]% Microsoft, [5-10]% GitHub) in a potential combined market including code editors and IDEs; (ii) [30-40]% in a potential market including only code editors ([20-30]% Microsoft, [10-20]% GitHub); and (iii) [20-30]% in a potential market including only IDEs ([20-30]% Microsoft, [0-5]% GitHub).[46] However, post-Transaction the Parties will continue to compete against a large number of code editors and IDEs in a differentiated product space in which developers choose the tools that they prefer amongst the many options available to them.

(109) Second, GitHub's Atom IDE and code editor are open source software developed by a community on GitHub. Even if post-Transaction, Microsoft decided to cease supporting Atom, anyone could 'fork'[47] the code and launch a copy of Atom.

5.4. Non-horizontal non-coordinated effects

5.4.1. Conglomerate non-coordinated effects to the detriment of competing DevOps tools

5.4.1.1. Potential concern

(110) The Commission has assessed a potential concern raised by respondents to the market investigation whereby Microsoft could leverage the popularity of GitHub's source code hosting services for version control and collaboration to boost its own sales of DevOps tools (in particular Visual Studio IDE, Visual Studio Code, and/or any of VSTS's tools). Microsoft could undertake such leveraging by:

---

44 Wiki is a place in the user's repository where they can share content about their project (e.g., what it is, how it has been designed, how to use it, core principles, etc.).

45 Based on information submitted by the Notifying Party, the portability of wiki data cannot be restricted since wikis reside in repositories and thus can be exported using the Git protocol.

46 The Parties have no reason to believe that EEA shares would be materially different.

47 In software engineering, a project fork happens when developers take a copy of source code from one software package and start independent development on it. As Atom and Atom IDE are open source they can be forked. See https://en.wikipedia.org/wiki/Fork_(software_development).

(i) further integrating Microsoft's DevOps' tools with GitHub; (ii) limiting GitHub's interoperability with competing DevOps tools; or (iii) limiting the integration of competing DevOps tools with GitHub.

5.4.1.2. Notifying Party's view

(111) The Notifying Party claims that this concern is not justified because it would have neither the ability nor incentive to foreclose providers of competing DevOps tools.

(112) First, GitHub users would rather move their projects to competing Git-based source code hosting services for version control and collaboration, such as GitLab or Bitbucket, rather than be bound to use any of Microsoft's DevOps tools. There would be no barrier to switching because the source code of a project on GitHub as well as the entire history of the changes made to the code is also stored on each developer's personal computer and can therefore be moved to another hosting service. Moreover multi-homing is common.

(113) Second, Microsoft would not only lose developers and therefore revenues from GitHub's source code hosting service for version control and collaboration activity, it would also alienate the open source community of developers and turn them away from all of Microsoft's products and services, thereby undermining the very rationale of this Transaction.

5.4.1.3. Commission's assessment

(114) The Commission concludes that Microsoft will have neither the ability nor the incentive to foreclose providers of competing DevOps tools by further integrating Microsoft's DevOps tools with GitHub.

(115) First, this would undermine the Transaction rationale (as described in paragraph 88) and limit the integration of competing DevOps tools with GitHub. This has been confirmed by the analysis of Microsoft’s internal documents where there was no mention of such a strategy; on the contrary, Microsoft’s intention is to cater for the needs of developers, first among all openness and freedom of choice.

(116) Second, even if Microsoft were to start engaging in such conduct, it is unlikely to be successful.

(117) In the first place, GitHub users that responded to the market investigation indicated that they would not let themselves pressured to adopt Microsoft's DevOps tools that they are not currently using. More specifically, all GitHub's customers that expressed an opinion on the matter replied that if, post-Transaction, Microsoft would further integrate Microsoft's DevOps with GitHub while limiting the possibilities for competing DevOps tool to offer equally integrated solutions with GitHub, their developers would either switch to other source code hosting services for version control and collaboration (such as GitLab and Bitbucket) or to a lesser extent would continue to use GitHub but not adopt

Microsoft's offering. Instead, they would continue using their preferred product even if less well integrated with GitHub.[48]

(118) In the second place, the vast majority of customers that responded to the market investigation confirmed that their developers would move away from GitHub to one of its competitors if they were unhappy with Microsoft's way of dealing with GitHub.[49]

(119) In the third place, as explained in paragraphs 94-95, several alternative providers of source code hosting platforms for version control and collaboration exist to which customers could turn and with which DevOps tool providers could integrate and there are no significant barriers for customers to switch to these alternatives.

5.4.2. Conglomerate non-coordinated effects to the detriment of competing IaaS/PaaS

5.4.2.1. Potential concern

(120) The Commission has assessed a potential concern raised by respondents to the market investigation whereby Microsoft could further integrate Microsoft's cloud platform Azure with GitHub and degrade or limit interoperability of competing IaaS/PaaS with GitHub to prevent GitHub users from deploying their application to their preferred IaaS/PaaS, and thereby foreclose competition in IaaS/PaaS.[50]

5.4.2.2. Notifying Party's view

(121) The Notifying Party claims that this concern is not justified because it would have neither the ability nor the incentive to foreclose competition in IaaS/PaaS.

(122) First, Microsoft would not have the ability to prevent a developer from deploying code to the destination of its choice. This is because deployment from GitHub does not involve any GitHub API. If a developer is deploying from GitHub using a CI/CD tool, that tool reaches into the user’s repository to pull source code via the Git protocol – not via a GitHub API.

(123) Second, customers would simply leave GitHub if they were not able to deploy to their IaaS/PaaS service of choice. The choice of a IaaS/PaaS provider is not at all driven by how well it integrates with source code hosting platform for version control and collaboration, rather a source code hosting platform for version

48 This is true irrespective of the category of DevOps tools Microsoft would attempt to integrate further with GitHub and irrespective of whether the developers use GitHub's on premises platform or online with public or private repositories. See replies to Questionnaire Q2 to DevOps tools customers, questions 26-31.

49 See replies to Questionnaire Q2 to DevOps tools customers, question 32.

50 Another concern raised in the market investigation is that Microsoft may engage in mixed bundling of GitHub's hosting platform with Microsoft Azure's IaaS/PaaS offering, which would lead to the foreclosure of competing hosting platforms for version control and collaboration. Given the limited market share of Microsoft in IaaS/ PaaS ([5-10]-[10-15]% depending on the exact market definition), the Commission concludes that the merged entity would not have sufficient market power in IaaS/PaaS to foreclose its competitors in the potential market for source code hosting services for version control and collaboration. Moreover, and in any event, providers of hosting platforms for version control could team up with a cloud platform like Amazon (which has a much stronger position than Microsoft in cloud services) or Google to combine their offers and deploy a counterstrategy.

control and collaboration succeeds or fails based on how well it integrates with IaaS/PaaS services.

(124) Third, even if Microsoft were to prevent developers from deploying to competing IaaS/PaaS, this would not significantly foreclose competition in IaaS/PaaS, because GitHub's footprint on overall IaaS/PaaS workloads is too limited to have any competitive significance.

5.4.2.3. Commission's assessment

(125) The Commission concludes that Microsoft will have neither the ability nor incentive to foreclose competition in IaaS/PaaS by further integrating Microsoft's Azure with GitHub and by degrading or limiting interoperability of competing IaaS/PaaS with GitHub.

(126) First, this would undermine the Transaction rationale. This has been confirmed by the analysis of Microsoft's internal documents where there was no mention of any such strategy; on the contrary, Microsoft's intention is to cater for the needs of developers, first among all openness and freedom of choice.

(127) Second, this view is shared by competing providers of IaaS/PaaS. For example, according to Google, "*today Microsoft is fully committed to open source and would not undermine the open nature of GitHub*".[51]

(128) Third, even if Microsoft were to start engaging in such conduct, it is unlikely to be successful.

(129) In the first place, GitHub users that responded to the market investigation indicated that they would not let themselves pressured to deploy on Azure, rather than on their preferred IaaS/PaaS. More specifically, all GitHub's customers who expressed an opinion on the matter replied that if, post-Transaction, Microsoft would further integrate its Azure IaaS/PaaS with GitHub while limiting the possibilities for competing IaaS/PaaS providers to offer equally integrated solutions with GitHub, their developers would switch to other source code hosting services for version control and collaboration (such as GitLab and BitBucket).[52]

(130) In the second place, as explained in paragraphs 94-95, several alternative providers of source code hosting platforms for version control and collaboration exist to which customers could turn to and with which IaaS/PaaS providers could integrate and there are no significant barriers for customers to switch to these alternatives.

5.4.3. Vertical non-coordinated effects regarding access to data

5.4.3.1. Potential concern

(131) GitHub collects three categories of data: user-generated content, users' personal information, and metadata.

[51] See minutes of the conference call held with Google on 5 September 2018.

[52] See replies to Questionnaire Q2 to DevOps tools customers, questions 26-31.

(132) The user-generated content consists of source code, revision history, identity of author, commit messages,[53] as well as the data created using additional tools and features offered by GitHub (GitHub issues data, GitHub Projects[54] data, GitHub pull request data, Wiki pages data, Integrators data[55]). This data is stored in public and in private repositories. The users' personal information consists in data collected by GitHub about its users to create accounts and provide the service, such as user name, password, and email address. Metadata consists in data generated from the normal commercial operations of GitHub.com, such as measuring and understanding aggregate usage of GitHub.com features, understanding the types of devices accessing GitHub.com (for example, Chrome browser, iPhone and Firefox), and billing information.

(133) The Commission has assessed a potential concern raised by respondents to the market investigation whereby Microsoft could refuse or degrade access to GitHub's data to its downstream DevOps tools and/or IaaS/PaaS competitors. Should this data be an important input for the development of improved products, these competitors may be unable to offer products on par with those of Microsoft, and the intensity of competitive constraints in any of the potential markets for DevOps tools and IaaS/PaaS, as well as the level of choice, may be reduced.

5.4.3.2. Notifying Party's view

(134) The Notifying Party claims that this concern is not justified because it would have neither the ability nor incentive to refuse or degrade access to GitHub's data to its downstream DevOps tools and/or IaaS/PaaS competitors.

(135) First, Microsoft will not have the ability to degrade access to such data. Virtually all user-generated content and related data in public repositories (source code, revision history, identity of author, commit messages) is accessible to third parties not only via the GitHub API/webhooks[56] but also through the open source Git protocol, which GitHub does not control.

(136) Second, as regards the data created using additional tools and features offered by GitHub (GitHub Issues data, GitHub Projects data, GitHub pull request data, Wiki pages data, Integrators data), although it is accessible to third parties only via the GitHub API/webhooks, this data has also been archived by third parties and is publicly accessible through alternative suppliers.

(137) Third, user-generated data in private repositories is already unavailable to third parties today. Moreover, it is confidential to the user.

---

53 The changes or edits to a code are known as "commits". Each commit has an associated commit message, which is a description explaining why a change was made. See Form CO, paragraph 158.

54 GitHub Projects is a project management and issue tracking tool which allows GitHub's users to create project boards to organize and prioritize their work.

55 Integrators data includes data generated on behalf of users by third parties integrating with GitHub, such as when a third-party tool creates a "check" in GitHub to reflect tests passed or running. According to the Notifying Party, GitHub does not control what data an integrator chooses to provide to the customer, so the scope of the integrator data can vary.

56 Webhooks provide a way for notifications to be delivered to an external web server whenever certain actions occur on a repository or organization. Using the GitHub API, developers can make these, trigger CI builds, update a backup mirror, or even deploy to your production server. See https://help.github.com/articles/about-webhooks/.

(138) Fourth, user personal information and metadata is not competitively significant and its use by Microsoft would not offer a competitive edge over its competitors.

5.4.3.3. Commission's assessment

(139) The Commission concludes that Microsoft will have neither the ability nor incentive to refuse or degrade access to GitHub's data to its downstream DevOps tools and/or IaaS/PaaS competitors, in a way that would foreclose competition in those potential markets. This has been confirmed by the analysis of Microsoft's internal documents where there was no mention of any such strategy; on the contrary, Microsoft's intention is to cater for the needs of developers, first among all openness and freedom of choice.

(140) The Commission has reached this conclusion for: (1) data currently accessible to third parties, i.e. user-generated data in public repositories; and (2) data currently not accessible to third parties (i.e. business operations information, personal information and data in private repositories).

Data currently accessible to third parties

(141) First, Microsoft will not have the ability to restrict access to most of the data that is currently accessible to third parties (source code, revision history, identity of author, commit messages in relation to public repositories). This data is accessible not only via the GitHub API/webhooks but also through the Git protocol, which GitHub does not control. GitHub wiki data is also accessible through the Git protocol that Microsoft cannot block without fundamentally altering the architecture of Git.[57]

(142) Second, in addition to such data, GitHub collects issues data, projects data, pull request data and integrators data. Although Microsoft could block access to such data by shutting down the GitHub APIs, it will not have the incentive to do so.

(143) In the first place, shutting down the GitHub APIs would generally reduce the attractiveness of GitHub as it would necessarily degrade the interoperability of all third party tools that rely on such data. Indeed, Microsoft would be unable to shut down the GitHub APIs for certain use cases or for specific competitors. Consequently, Microsoft would have to break existing project workflows and degrade the overall user experience on GitHub, with the risk of losing many customers to competing version control systems.[58]

(144) In the second place, if Microsoft were to engage in such a strategy, it would undermine the trust that GitHub has gained with Modern Developers by keeping its platform open.[59]

(145) Fourth, even if Microsoft were to block access to issues data, projects data, pull request data and integrators data, this is unlikely to lead to anticompetitive effects.

---

57 See Microsoft's response to the Commission's request for information of 1 October 2018 (RFI 5), paragraph 28.

58 See Microsoft's response to the Commission's request for information of 1 October 2018 (RFI 5), paragraphs 14 and 31.

59 See Microsoft's response to the Commission's request for information of 1 October 2018 (RFI 5), paragraphs 31-32.

(146) In the first place, these categories of user-generated data do not seem to be competitively important inputs that Microsoft could reserve for itself. Microsoft currently does not have any concrete plans to use them, and does not see the value that it could bring.[60]

(147) In the second place, none of the respondents to the market investigation indicated otherwise.[61] Rather the majority of competitors that responded to the market investigation did not consider any of the GitHub data as essential to their activity.[62]

(148) In the third place, competitors have access to equivalent user-generated data that Microsoft does not and cannot control. Currently, GH Torrent, Google Big Query and GH Archive provide access to data in GitHub public repositories and Microsoft cannot block access to these existing data repositories.[63]

(149) In the fourth place, there are alternative data sources that provide insights into developer activity, including public repositories hosted on GitLab, Bitbucket and other sites providing version control services. The same is true of Stack Overflow[64] and similar Q&A sites. These sites – like issues and pull requests – can be mined to obtain insights into the problems and bugs that developers are facing and how they can be fixed. Stack Overflow data can be analysed using Google BigQuery.

(150) In the fifth place, a majority of competitors that responded to the market investigation indicated that, post-Transaction, there will remain sufficient alternative providers of data equivalent to that currently accessible on GitHub for their respective activities.[65]

Data currently not accessible to third parties

(151) First, as the rest of the data generated by GitHub (business operations information, personal information and data in private repositories) is currently not accessible to third parties, and as absent the Transaction there is no evidence demonstrating the likelihood that GitHub would start offering access to this data, the Transaction will not lead to any restriction of access to such data.

(152) Second, in any event, none of this data is likely to be competitively significant. Based on the information available to the Commission, user-generated data in private repositories is not a competitively unique and critical input, as it is similar in nature to the data contained in GitHub public repositories or in repositories of competing source code hosting platforms for version control and collaboration such as GitLab and Bitbucket.[66]

---

60 See Microsoft's response to the Commission's request for information of 1 October 2018 (RFI 5), paragraph 30.

61 Questionnaire Q1 to DevOps tools and IaaS/PaaS competitors, questions 31-32 and 39.

62 Questionnaire Q1 to DevOps tools and IaaS/PaaS competitors, question 31.

63 See Microsoft's response to the Commission's request for information of 1 October 2018 (RFI 5), paragraph 33.

64 It is a site dedicated to software developers.

65 Questionnaire Q1 to DevOps tools and IaaS/PaaS competitors, question 32.

66 See Form CO, paragraph 326.

(153) Third, Microsoft's post-merger access to the user-generated data in private repositories and personal information will be subject to important constraints, as per GitHub's Terms of Services.[67] Microsoft could not access such data to its benefit, while denying access to competitors, without breaching GitHub's Terms of Services with its customers.

6. CONCLUSION

(154) 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
Member of the Commission

[67] According to the Notifying Party, GitHub protects private repositories from unauthorised access. GitHub employees may not access the contents of private repositories except for support, with user knowledge and consent, to maintain the integrity of the service, or for security reasons. Users of private repositories may by opting in enable GitHub to perform a "read-only" analysis of that specific private repository. That means the data is scanned by machine and never read by GitHub staff. See About GitHub's Use of Your Data (available at https://help.github.com/articles/about-github-s-use-of-your-data/).