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## Under the microscope

Thomas Vinje of Clifford Chance analyses antitrust enforcement in the IT industry, a sector that has faced increasing scrutiny from the European Commission



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## Introduction

Since the early days of mainframes, the information technology industry has attracted some of the highest-profile antitrust investigations in history. This is a dynamic industry that tends to reinvent itself continuously. Indeed, its very dynamism has led some to argue that competition law has a very limited role to play in the sector. That conclusion, however, is not shared by the regulators at the European Commission (“Commission”), who worry especially about entry barriers arising from economies of scale and network effects, and interoperability and standards issues. The past year alone has seen the resolution of several key IT-related cases, as well as notable policy developments in mergers, agreements and unilateral conduct. The Commission’s scrutiny of the sector reflects current trends in IT, notably the rise of mobile computing devices, cloud computing and the increasing popularity of open-source products.

## Back to the future: mainframes once more in focus

One of the earliest and most contentious investigations ever conducted by the Commission in the IT sector related to IBM’s actions in the mainframe market. The IBM investigation, initiated in 1980, led to an *undertaking* in 1984,<sup>1</sup> which the Commission oversaw until withdrawn by IBM in light of changed market conditions in 1995. Over a decade and numerous IT-related investigations later, the Commission has again put the mainframe market in the spotlight. Mainframes may appear to be decidedly “old school” technology, but vendors including in particular IBM are still actively developing and marketing them as alternatives to bulky and energy-intensive server “farms,” i.e. groupings of large numbers of connected servers. Two companies – T3 and TurboHercules, both suspected to have ties with Microsoft – launched complaints against IBM before the Commission. In July 2010, the Commission announced it had opened a formal investigation into IBM’s mainframe-related conduct.<sup>2</sup> The Commission will investigate whether IBM unlawfully ties its mainframe operating system with its own hardware, thereby preventing customers from using the same operating system on non-IBM hardware. The Commission appears to be concerned

about an alleged weakening of competitive constraints on IBM’s mainframe hardware coming from cheaper third-party hardware and hardware emulators. The case has also attracted attention from the US Department of Justice.

## Maintaining competitive markets through interoperability and standard-setting

**Interoperability.** Interoperability remains an important ingredient of competitive IT software markets. The Court of First Instance confirmed as much in its 2007 *Microsoft* judgment, holding that Microsoft abused a dominant position in client PC operating systems by refusing to supply interoperability information to developers of workgroup server operating systems, thereby reserving the latter market to itself.<sup>3</sup> In addition to client PC operating systems, Microsoft also occupies strong positions in other markets, including office productivity (Microsoft Office) and collaboration software (Outlook). In December 2009, Microsoft undertook to supply interoperability information for these products to competitors, thereby responding to Commission concerns that a lack of interoperability with these widely used Microsoft products could impede competition in the relevant markets.<sup>4</sup>

Meanwhile, former Competition Commissioner Kroes, now in charge of the Digital Agenda, has questioned whether competition proceedings are the best way to promote interoperability, or whether a legislative measure requiring interoperability disclosures for companies having significant market power might be preferable. Undoubtedly, her challenge will be to identify and take into account in her proposal all the factors that need to be addressed in mandating interoperability disclosures, including identifying those who would have to make such disclosures, as well as their scope and timing, in an *ex-ante* manner, without the benefit of access to all the material facts that competition scrutiny offers.

But interoperability disclosures are not merely relevant in Article 102 cases involving unilateral refusals to supply such information. In its *Cisco/Tandberg* merger review, the Commission was concerned that, post-merger, the parties would occupy a dominant position in ‘dedicated room’

videoconferencing solutions.<sup>5</sup> The Commission feared that competitors would have little chance of competing with Cisco/Tandberg post-merger, as they did not have access to the proprietary T1P protocol driving communication between Cisco's high-end video conferencing solutions. To resolve these concerns, the Commission accepted divestment of the T1P protocol to an independent industry body, which will license the T1P protocol. Cisco also committed faithfully to implement the T1P protocol in subsequent versions of its videoconferencing products, thereby alleviating concerns that the interoperability disclosures of the independent industry body could be rendered worthless if Cisco did not itself comply with the T1P protocol.

**Standard-setting.** Although interoperability disclosures relating to proprietary, non-standard software products may in some instances be necessary to ensure interoperability, an arguably more important means of establishing interoperability (and robust competition) is through common standards. Indeed, most interoperability in the IT industry relies on implementation of common standards.

When standards are agreed, competition issues can arise if firms participating in the standard-setting fail to disclose any IP rights in the candidate standard. They might then be able to extract excessive royalties from implementers of the standard. The *Rambus* investigation by the Commission centred around precisely these concerns: Rambus was preliminarily found to have concealed its patents in a DRAM memory standard only to subsequently charge excessive royalties for its patents. The Commission closed its investigation – the first Commission review of the so-called patent ambush problem – after accepting commitments from Rambus imposing price caps on its royalty rates.<sup>6</sup>

The patent ambush problem at issue in *Rambus* will be addressed in the Commission's new Horizontal Guidelines. Because of their vital importance for safeguarding interoperability, competition and innovation, standard-setting agreements are to some extent free from the chilling effect of individual competition-law scrutiny under Article 101. The Commission's Draft Horizontal Guidelines, to be adopted in December 2010, aim to provide participating firms with some certainty that their standard-setting agreement will not be regarded as anticompetitive. However, in order to benefit from this 'safe harbour,' the agreement must comply with certain principles of fair standard setting, notably *ex-ante* disclosures of IP rights reading on the candidate standard, and licensing of the standard on (F)RAND terms. The Guidelines do not aim to prescribe what (F)RAND terms might be, but they do suggest methods for establishing (F)RAND terms.

**The success of the mobile OS depends on attracting two types of users: on the one hand, developers, on the other, consumers**

### Maintaining merit-based competition in mobile platforms

The quickly growing use of smartphone devices, platforms and applications is expected to reduce computer users' reliance on PC applications. While smartphones as such are not a new concept, only recently have developments in mobile infrastructure and mobile computing power enabled the use of powerful software and allowed for a full internet experience on mobile devices. The Commission has emphasised the importance of competition and innovation in the mobile 'platforms' or operating systems driving these devices.<sup>7</sup>

Apple has been at the forefront of these developments: its iPhone, introduced in January 2007, and its iPad, introduced in April 2010, are among the most sought-after gadgets in the industry. Moreover, Apple was the first to introduce an 'app store': a convenient service from which users can purchase, download and install thousands of applications written by third-party developers, thereby extending the functionality and usefulness of their iPhone. Others soon followed, and mobile-device and platform makers are now attracting users

with a variety of 'apps' which, in turn, requires attracting developers writing such apps. Apple has retained its first-mover advantage: its operating system still has more 'apps' developed for it than rival platforms combined.

On 25 September, the Commission issued a press release revealing that it had, in the spring of 2010, initiated a preliminary investigation into whether Apple anticompetitively restricted

its developers from using 'cross-platform' development tools, which allow developers to write their mobile 'apps' for multiple mobile platforms in one go. The Commission's concern appears to have been that, by limiting the use of such tools, developers writing for Apple's iPhone would be artificially restricted from writing apps that run on other mobile platforms as well. This would reduce the number of apps for other platforms, rendering them less attractive than Apple's platform. The US Federal Trade Commission expressed similar concerns. The publicly confirmed interest of both agencies in Apple's developers policy may have helped prompt Apple to change its developer licensing agreement; in September, Apple announced it would relax all restrictions on which development tools could be used to programme for its iOS devices.<sup>8</sup>

Mobile operating systems ("OS") are examples of two-sided markets. The success of the mobile OS similarly depends on attracting an 'ecosystem' of two types of users: on the one hand, developers seeking to write apps to sell to a large audience and on the other hand, consumers seeking to extend the functionality of their mobile devices through new apps. Similarly, search engines such as Google and Bing provide free,

so-called algorithmic web-search services on one side, while paid-for search results fund these operations on the other side of the platform.

Two-sided platforms form an increasingly important part of online content and applications. Video portals such as YouTube, auction sites such as eBay and search engines such as Google and Bing all operate as two-sided platforms. Competition Commissioner Almunia has emphasised the significant value generated on these platforms, which is driven by network externalities: the more users join the platform on one side, the more valuable the platform becomes for the other side, and vice versa. Thus, the more consumers for Apple's iOS, the more interesting the platform becomes for developers, and more developers means more apps for consumers. Similarly, more sellers means more buyers on eBay, and more viewers draw more contributors to YouTube.

In markets characterised by two-sided platforms, the first mover may obtain an insurmountable advantage: as it is the first to attract users on both sides, subsequent users have an incentive to join the first-moving platform as well, rather than join a competing platform with fewer other users. The dominant platform can use anticompetitive means of restricting users to join rival platforms, thereby reinforcing the entry barriers that rival platforms face in attempting to attract a critical mass of users of their own. The Commission's preliminary investigation into Apple's developer restrictions can also be explained in this context: Apple's prohibition on cross-platform tools limited its developers from writing for other platforms, which would subsequently have fewer apps and thus attract fewer consumers (which, in turn, meant fewer developers). Yet, Commissioner Almunia indicated that two-sided platforms also raise difficult issues of market definition, such as establishing the market volume and the market power of the individual platforms where such market power may not be directly evident from revenues.<sup>9</sup>

### Busting chips and screens cartels

In markets where products have become commoditised, the IT sector has not been spared from the Commission's rigorous anti-cartel enforcement.

In May 2010, the Commission adopted a decision in the DRAM cartel case, its first use of the settlement procedure in a cartel case. With the cartel members having acknowledged their role in fixing the prices of DRAM memory chips charged to PC manufacturers, Commissioner Almunia was quick to point out that the use of the settlement procedure did not indicate

a less rigorous enforcement. To the contrary, the Commission used the settlement procedure to speed up the conclusion of the case, thereby "*freeing up resources more rapidly to investigate other suspected cartels.*"<sup>10</sup> Indeed, it announced that several other cartel settlements were in the pipeline.

The Commission furthermore finalised an investigation into a cartel involving LCD screens – an investigation that has also triggered private actions for damages by aggrieved purchasers of the LCD screens.

### Assessing the relevance of open-source in software markets

One of the most visible developments in the software industry has been the rise of strong open-source alternatives to proprietary software offerings: in markets such as office suites, web browsers, operating systems and databases, open-source products are increasingly being deployed to replace proprietary software products. Relying on specially designed licences, notably the GNU General Public License ("GPL"), the open-source development model was specifically intended to prevent any single entity from controlling the software code, enabling anyone to contribute to the code and use the software. So how does the open-source model affect competitive analysis? How strong is the competitive threat that open-source software products can exercise, and is the continuation of open-source as a competitive threat guaranteed, in light of the ability of others to take an open-source project forward if an acquiring company diminishes its investment in it?

**One of the most visible developments in the software industry has been the rise of open-source alternatives to proprietary software**

The merger review in *Oracle/Sun* constitutes the Commission's first significant assessment of the

competitive threat exercised by open-source software.<sup>11</sup> Through its acquisition of Sun Microsystems, Oracle acquired a large open-source portfolio, comprising such projects as the OpenOffice.org office suite, the Java programming language and platform and the MySQL database. The Commission's review of the merger focused mainly on the latter aspect of the merger – i.e. databases. In particular, the Commission investigated whether, to the extent MySQL – the leading open-source database management system – overlapped with Oracle's proprietary 11g database offering, Oracle would have the ability and incentive to hamper further development of MySQL in order to weaken an alleged competitive constraint on Oracle's database.

MySQL's open-source licence proved central to this assessment. On the one hand, the Commission cited the open-source nature of MySQL and its consequent free availability as arguments for its importance as a competitive constraint on other databases,

including Oracle's proprietary database. Because of its free availability under the GPL open-source licence, many people had downloaded MySQL – even if little was known about how many MySQL downloads actually ended up as deployments. On the other hand, the same open-source licence meant that even after Oracle's acquisition of Sun, it would not have full control over the code. Development of MySQL could continue by independent developers – individuals as well as any firm having an interest in having a strong database to rely on – even in the absence of Oracle's contributions.

One question arising here is whether third parties would have an incentive to invest their time to contribute to MySQL development even if the fruits of such development would, because of its open-source licence, necessarily be shared with others. Professor Eben Moglen, chairman of the New York-based Software Freedom Law Center,<sup>12</sup> submitted an opinion addressing precisely this point: the very existence and success of open-source software is based on 'voluntary' contributions to open-source projects – both by individuals and corporations. Simply put, open-source software would not exist if developers were solely interested in contributing to software to the extent they could sell licences.

Open-source played an additional important role as the Commission found that there were viable substitutes for MySQL which themselves were open-source projects, notably PostgreSQL and Ingres.

In its 2007 *Microsoft* judgment, the Court of First Instance also confirmed the Commission's finding that, absent Microsoft's exclusionary conduct, open-source competitors would have exercised an increasing competitive constraint on Microsoft's proprietary workgroup server operating systems.

### Setting the rules for competition in online distribution

In April 2010, the Commission adopted a new Vertical Restraints block exemption, in which particular attention was paid to the issue of online commerce. Block exemptions categorically safeguard some agreements between firms, which may otherwise be unlawful under Article 101 TFEU, from individual competition scrutiny. Block exemptions are an important policy lever, as many companies will attempt to construct their agreements to comply with the exemption in order to prevent scrutiny under Article 101 TFEU.

In particular, the new Vertical Restraints block exemption aims to promote the use of online commerce while protecting (luxury) brand owners' investments in goodwill. Thus, the new

block exemption is sceptical about provisions restricting online sales (e.g., restricting sales to other member states or limiting the proportion of online sales), but gives brand owners some leeway to prevent free-riding by distributors, for example, through quality-control provisions or requirements for retailers to have one or more bricks-and-mortar stores. The new Vertical Restraints block exemption safe harbour applies only where both the seller and the buyer have market shares below 30%, reflecting the fact that buying power is increasingly an issue in some industries.

The Commission also launched a public consultation on e-commerce,<sup>13</sup> which may result in a revision of the current e-Commerce Directive, adopted in 2000. Among other issues, this review is likely to focus on the current regime on intermediary liability, including the question of whether the current classification of intermediaries (hosting, caching and mere conduit) remains appropriate given the emergence of new types of online intermediaries.

### Preserving the promise of cloud computing

Among the most significant recent developments is the increasing popularity of 'cloud computing'.<sup>14</sup> Cloud computing allows companies and individuals to use software stored and run remotely on demand through the internet, reducing the need to invest in one's own IT infrastructure. Indeed, author Nicholas Carr has compared the cloud-computing migration to the early days of electricity: whereas companies used to generate their own electricity through their own generators, the rise of centralised electricity allowed companies simply to plug into the centralised power infrastructure, thus significantly increasing efficiency and reducing costs.<sup>15</sup> Commissioner Almunia has emphasised the benefits of cloud computing to consumer welfare, and has stated that anticompetitive behaviour threatening cloud computing would be subject to scrutiny by the Commission.<sup>16</sup>

Cloud computing reduces IT users' dependency on client PC software. With a browser running on any type of operating system, they can access applications available over the Web. But the promise of cloud computing can be fulfilled only if access to cloud-computing resources is not restricted.

The Commission, in its December 2009 commitment decision in the *Microsoft* browser case, expressed the preliminary view that, by seeking to control the market for web browsers as the essential gateway to cloud-computing services and limiting competition and innovation in that market, Microsoft was able to limit the migration to cloud computing, thus protecting its Windows desktop monopoly.<sup>17</sup>

**The promise of cloud computing can only be fulfilled if access to cloud computing resources is not restricted**



To address these concerns, the Commission accepted commitments from Microsoft designed to reinstate competition on the merits in web browsers. The commitments principally consist of a web browser choice screen intended to enable end-users to make an explicit choice of one or more web browsers.

The evolution towards cloud computing is no doubt on the regulators' minds in the context of the European Commission's investigation of Google's allegedly anticompetitive practices. Although this investigation is limited to Google's practices in relation to Web search, it is likely to have broader implications for competition in adjacent markets related to cloud computing, where Google on the basis of its pre-eminent position in search might be considered to have a leg up.

Web-search has become the main means of locating information on the internet, and some have expressed concerns that large search engines can use their market power unfairly to exclude rival information services. Two complaints against Google, which the Commission has confirmed it is looking into, allege that Google unfairly 'penalises' search results of rival 'vertical' search services Foundem and Ciao! (both shopping search engines) by ranking such results artificially low. Google has defended its 'universal search' system, which, it says, accurately ranks results by relevance.

The Commission has already gained considerable experience assessing competition in search markets, through its investigations in *Google/DoubleClick*,<sup>18</sup> the failed *Google/Yahoo* joint venture and more recently, the *Microsoft/Yahoo* Search Business transaction. This transaction involved the acquisition by Microsoft of certain assets from Yahoo, effectively combining the web-search activities of Yahoo with Microsoft's Bing search engine. Seemingly a 3-to-2 merger, the market was characterised by very high entry barriers, due in part to the need to invest in the continuous development of an accurate search-ranking algorithm.

Making improvements to the search-ranking algorithm is difficult without a high volume of search queries to study,

thus creating a vicious circle. Combining the search traffic of Microsoft and Yahoo could help solve this problem. With the notifying parties furthermore struggling to gain market share vis-à-vis market leader Google, the Commission did not see any competition concerns arising from the Microsoft/Yahoo tie-up, and cleared the merger unconditionally.

### Looking ahead

The IT sector remains an important part of the Commission's enforcement agenda, with Commissioner Almunia having emphasised the importance of the industry to growth and job creation.

One policy area over which the Commission has little control in terms of workload is merger review. Last year's merger review practice shows a decline in the number of notifications in line with the economic downturn, although IT cases continue to attract attention.

The past year has seen an uptake in the use of the commitment procedure to resolve concerns of abusive conduct by dominant firms – not only in IT cases, but in other industries as well. The commitment procedure – essentially a settlement procedure – is regarded by some as an appropriate means of concluding Article 102 cases, where the harm to competition is sometimes more difficult to qualify (and quantify) than in, for example, cartel cases. With the standard for commitment decisions now clarified in the CJEU's *Alrosa* judgment, we can expect the Commission to continue this trend.

On the standards front, the Commission will be watching for the effect of the new Horizontal Guidelines on the standard-setting process, in particular on 'patent ambush' tactics, such as those investigated in *Rambus*, and on the determination of (F) RAND licensing terms for standards. ■

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### Footnotes

- 1 See [1984] EC Bulletin 95.
- 2 See <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1006&format=PDF&aged=0&language=EN&guiLanguage=en>.
- 3 Case T-201/04 Microsoft.
- 4 See <http://www.microsoft.com/presspass/presskits/eu-msft/docs/MicrosoftInteroperabilityUndertaking16Dec2009.doc>.
- 5 Case COMP/M.5669 Cisco/Tandberg.
- 6 Case COMP/C-3/38.636 Rambus.
- 7 See <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/610&format=PDF&aged=0&language=EN&guiLanguage=en>.
- 8 See <http://www.apple.com/pr/library/2010/09/09statement.html>.
- 9 See <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/610&format=PDF&aged=0&language=EN&guiLanguage=en>.

- 10 See <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/247&format=PDF&aged=0&language=EN&guiLanguage=en>.
- 11 Case COMP/M.5529 Oracle/Sun.
- 12 See <http://www.softwarefreedom.org/resources/2009/Oracle-Sun-EC-opinion.pdf>.
- 13 See [http://ec.europa.eu/internal\\_market/consultations/2010/e-commerce\\_en.htm](http://ec.europa.eu/internal_market/consultations/2010/e-commerce_en.htm).
- 14 The 'cloud' is simply a reference to the cloud diagram typically used to indicate the internet.
- 15 Nicolas Carr, *The Big Switch: Rewiring the world: from Edison to Google*, W. W. Norton 2008.
- 16 See <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/610&format=PDF&aged=0&language=EN&guiLanguage=en>.
- 17 Case COMP/C-3/39.530 Microsoft (tying).
- 18 See <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/610&format=PDF&aged=0&language=EN&guiLanguage=en>.