

Annex 2

Report on U.S. Protocol Specification Program & Private Licensing Programs

I. INTRODUCTION

1. My name is Gene Chellis. I am a Senior Director and manager of the Competitive & Regulatory Affairs team in the Microsoft Platforms Business Management group. I have been involved in the production and licensing of the technical documentation that Microsoft was ordered to submit pursuant to Article 5 of the 2004 Decision (the “WSPP Documentation”) and the technical documentation Microsoft was ordered to make available in the U.S. (the “MCPP Documentation”) since the very beginning of the project in 2001. Since 2003, I have managed the team responsible for coordinating the work required to meet these obligations, including the licensing programs. The following summary of the MCPP program and private licensing programs is based on my own knowledge as a result of my involvement in the production of the WSPP and the MCPP Documentation and on information I received from members of my team and others who were also involved in the MCPP program or private licensing programs.

2. The Microsoft Communications Protocol Program (MCPP) demonstrates that much of the documentation that the Commission and Trustee characterize as unusable is in fact being licensed by companies to produce products that incorporate the documented protocols. This is because many of the protocols covered by WSPP are also covered by MCPP, a protocol licensing program established pursuant to a final judgment entered as part of the settlement of antitrust proceedings against Microsoft in the United States. MCPP has been in place for more than three and a half years, and has been successful in attracting 28 licensees to date, 12 of which are already shipping products incorporating MCPP protocols.

3. Moreover, the three and a half year experience of the MCPP program demonstrates that an iterative process of refining technical documentation in collaboration with licensees and government agencies is ultimately very productive. As with any technical documentation of this scope and complexity, the MCPP documentation is subject to refinement and correction over

time. Microsoft has worked closely with the Technical Committee established under the U.S. Final Judgment to monitor compliance with MCPP to both establish appropriate processes for uncovering issues with the documentation and to address those issues, with revisions to the documentation as necessary. The MCPP program serves as a useful model for a protocol licensing program in which government agencies have worked cooperatively with Microsoft toward a common goal of refinement of the protocol documentation.

II. OVERVIEW OF THE PROGRAM

4. The MCPP program arose from the November 2001 settlement and the November 2002 final judgment (“Final Judgment”) in the cases brought by the U.S. Department of Justice and several state attorneys general, *United States v. Microsoft*, No. 98-1232 (D.D.C.), and *New York, et. al. v. Microsoft*, No. 98-1233 (D.D.C.). In Section III.E of that Final Judgment, Microsoft agreed to license certain client-server communications protocols as follows:

Starting nine months after the submission of this proposed Final Judgment to the Court, Microsoft shall make available for use by third parties, for the sole purpose of interoperating or communicating with a Windows Operating System Product, on reasonable and non-discriminatory terms (consistent with Section III.I), any Communications Protocol that is, on or after the date this Final Judgment is submitted to the Court, (i) implemented in a Windows Operating System Product installed on a client computer, and (ii) used to interoperate, or communicate, natively (i.e., without the addition of software code to the client operating system product) with a Microsoft server operating system product.¹

5. In accordance with this provision, Microsoft identified more than 100 communications protocols covered by this provision that are either proprietary protocols or proprietary extensions to standard protocols implemented in Windows. Over nine months, the Microsoft team developed more than 5,000 pages of technical documentation to document those protocols. On August 6, 2002, consistent with the terms of the underlying settlement which led to the entry of the Final Judgment, Microsoft began to offer licenses to the technical documentation and the underlying protocols.

6. In order to “assist in enforcement of and compliance with” the terms of the settlement, including Section III.E, the Final Judgment called for the creation of a three-member Technical

¹ Final Judgment (November 12, 2002) § III.E.

Committee (TC) with broad investigatory powers.² The Final Judgment required members of the TC to meet certain qualifications, both as to expertise “in software design and programming” and to avoid any conflicts of interest.³

III. MCPP TECHNICAL DOCUMENTATION

7. The MCPP and WSPP Technical Documentation are related in two ways. First, there is a substantial overlap of the documentation itself, because many protocols are common to both programs. Second, the underlying process of developing the initial release of the documentation has been the same in both cases.

8. Because they originated from different legal decisions, the MCPP and WSPP programs are somewhat different in scope; however, there is a substantial overlap between the two programs. The MCPP program is limited to client-server protocols, but covers protocols used to support a broad range of services. On the other hand, the WSPP program covers both client-server and server-server protocols, but is limited to those protocols needed to implement file and print service, and user and group administration. The overlap between the two programs can thus be described as client-server protocols needed to implement file and print service, and user and group administration. There are 42 such protocols out of the 52 WSPP protocols.

9. The protocols common to both programs are not only substantial in number, but also substantial in their significance for supporting services. For example, the protocols required for the task the Trustee sought to accomplish, that of initially adding a new user to a domain, are common to both programs. Most of the Trustee’s specific comments were directed to the Security Account Manager Remote Protocol and the Net Logon Remote Protocol, two protocols that appear in both WSPP and MCPP.

10. For those protocols that are common to both programs, Microsoft developed the documentation for such protocols in a single effort, not in parallel. On a rolling basis, revisions and updates are made to the documentation, and revised versions are built and distributed monthly to current licensees. Every effort is made to distribute identical documentation for the common protocols under both programs.

² Final Judgment (November 12, 2002) § IV.B.

³ Final Judgment (November 12, 2002) § IV.B.2.

11. Even for those protocols that are not common to both programs, MCPP and WSPP protocols are documented as part of the same overall process. A single team at Microsoft, the Competitive and Regulatory Affairs team, manages both protocol programs. Virtually all technical writers and editors on the team work in varying degrees on protocols for both programs. These writers and editors work to a single standard of quality, designed to create documentation that is consistent, as well as complete, accurate, and usable.

IV. SUCCESS OF THE LICENSING PROGRAM

12. The MCPP program has been successful in attracting a significant number of licensees, and many of these licensees have successfully developed products that incorporate MCPP protocol technology. The significant interest in licensing the MCPP protocols and the ability of licensees to successfully develop products incorporating such technology attests to the value of the documentation for their intended use and to the suitability of the overall process for refining the documentation.

13. To date, 28 companies have signed licenses for MCPP protocols,⁴ with the first license signed by Network Appliance in December 2002, four months after the start of the program.

14. The MCPP protocols are grouped into categories corresponding to a specific “server task.” Companies obtain licenses for a particular server task, covering the protocols needed for that server task. Of the 28 licensees, five companies, Unisys, Sun Microsystems, The SCO Group, Realm Systems, and ONStor, have signed licenses for the “General Server Task,” which covers all of the protocols offered under MCPP. In addition, another three companies, EMC Corporation, Network Appliance, and Hitachi, have signed licenses for the “File Server Task”: nearly all of the protocols for this server task are common to both MCPP and WSPP.

15. Twelve companies currently ship products that incorporate MCPP protocol technology. Among these are Network Appliance and EMC Corporation. Both of these companies have licensed the “File Server Task,” and therefore, both are using protocols also licensed under WSPP. Altogether, licensees have paid more than [___] million in royalties under MCPP.

⁴ Of the 28 licensees, two license only royalty-free protocols.

V. SUPPORT AND CORRECTION ASSISTANCE

16. Microsoft has established a variety of feedback and support mechanisms, in consultation with the TC and the U.S. agencies, for addressing the technical issues that inevitably arise in a documentation program such as the MCPP program. These mechanisms assist licensees in their development efforts and the TC in their efforts to validate the documentation, and lead to the refinement of the documentation itself, ultimately for the benefit of licensees.

17. Either licensees or TC engineers can raise individual support requests that can include, for example, a request for clarification of a technical concept; a notification of a perceived error or omission in the documentation; a request for better or different links to external material; or a suggestion for a usability enhancement.

18. Documentation team members review each new support request and assign it to a team member who will be responsible for the initial response. Although many support requests require only a relatively simple investigation, the team member will, as necessary, collaborate with other documentation team members, consult Microsoft developers who are expert in the code underlying the protocol, review original technical specifications, or verify the documentation against the operating system source code. The team member then drafts a proposed response, which may be reviewed and edited before being passed back to the licensee or TC engineer. TC engineers are invited to comment on the initial response. The TC and Microsoft then work together to agree on a solution for the issue raised and to close the request. There are procedures in place to resolve differences if agreement cannot be reached: these procedures are rarely used.

19. If a revision to the documentation is required, the same reviewing and editing procedures are used as for the creation of original documentation. Any revisions to the documentation are automatically included in the next monthly published version of the MCPP documentation and become available to licensees at that time.

20. For support requests originating with the TC, the documentation team works to a set of agreed upon service level guidelines, with higher priority requests slated for a faster response. Starting in February 2006, these guidelines take account of Microsoft's offer to license source code. Under the most recent guidelines, the TC differentiates between two types of issues: "those issues that can be readily resolved by reference to the source code or public information"

and those that cannot.⁵ For those that cannot, Microsoft has 60 days to completely resolve the issue. For those that can, the TC will develop a proposed solution and provide it to Microsoft, and Microsoft will use its best efforts to confirm the proposed solution and revise the documentation as necessary.

21. In addition to unlimited free correction assistance, Microsoft provides each licensee with 500 hours of free technical and consulting support, which can be used at any time during the term of the licensing agreement. This additional support includes access to a designated technical account manager or “TAM” to serve as the licensee’s point of contact for MCPP documentation and protocol questions and to coordinate all additional protocol support services. This support also includes access to the relevant product team developers for advice, guidance, and information regarding issues that arise during MCPP protocol implementation. These issues can include not only issues with the contents of the technical documentation itself or with the actual operation of MCPP protocols between Windows systems, but also issues with the operation of MCPP protocols between the licensee’s server products and Windows client products. Microsoft is committed to helping licensees in their efforts to build interoperable products.

VI. RELATIONSHIP BETWEEN MICROSOFT AND THE U.S. AGENCIES

22. Throughout the existence of the MCPP program, Microsoft and the U.S. agencies, primarily through the Technical Committee, have worked collaboratively toward improving the quality of the documentation, focusing their joint efforts on the ultimate goal of the program, that of fostering the development of interoperable products in the marketplace.

23. Over the course of 2004, Microsoft and the TC worked closely together to develop and implement a plan for reviewing and improving the documentation. Initially, the TC reviewed the documentation as part of a project that was intended to “form the basis for *dialog* between the TC and Microsoft regarding ways to improve the sufficiency of the documentation generally, so as to assist licensee implementation efforts.”⁶ During the months from January to April 2004,

⁵ Joint Status Report on Microsoft’s Compliance With the Final Judgments (“Joint Status Report”) (February 8, 2006), p. 5. Unless otherwise noted, all references to a Joint Status Report are to portions drafted by the U.S. agencies.

⁶ Joint Status Report (January 16, 2004), p. 10 (emphasis added).

the TC began by “reviewing the technical documentation, hiring a consultant to analyze the subject, and talking to current and prospective licensees about their experiences using the technical documentation.”⁷

24. Meanwhile, based on ongoing discussions with the TC, Microsoft had “already begun an effort to improve the quality of the technical documentation,” and in April 2004, the U.S. agencies were “conferring with Microsoft to ensure that the necessary work on the technical documentation is promptly completed.”⁸ By July 2004, the agencies and Microsoft had worked to “develop a standard for completeness to which the documentation will be held, and to monitor Microsoft’s progress in improving the documentation to meet that standard.”⁹

25. This plan to improve the documentation called for a close working relationship between Microsoft and the TC. In particular, Microsoft committed itself to “(1) provide to the TC, on a daily basis, the revised documentation; (2) prepare and provide, at least weekly, a log of revisions to the targeted schedule for the revised documentation; and (3) participate in a weekly meeting with the TC or their staff person to discuss any issues arising in the documentation process.”¹⁰

26. Throughout the remainder of 2004, Microsoft engaged in “a substantial effort to improve the technical documentation.”¹¹ The TC played a constructive role in this process, meeting weekly with Microsoft staff, continually reviewing the revised documentation, and offering “suggestions for further improving the documentation.”¹² This process culminated in the release of a new version of the documentation in early December 2004 that the U.S. agencies characterized as “a significant improvement over the original documentation.”¹³

27. Following this initial project, the U.S. agencies and Microsoft agreed to embark on additional year-long projects to further validate and refine the documentation. These projects were agreed upon as a “comprehensive plan to ensure the completeness and accuracy of the

⁷ Joint Status Report (April 14, 2004), pp. 4-5.

⁸ Joint Status Report (April 14, 2004), p. 5.

⁹ Joint Status Report (July 9, 2004), p. 5.

¹⁰ Joint Status Report (July 9, 2004), p. 6.

¹¹ Joint Status Report (October 8, 2004), p. 3.

¹² Joint Status Report (October 8, 2004), p. 3.

¹³ Joint Status Report (January 25, 2005), p. 3.

technical documentation and to accomplish further work on the documentation.”¹⁴ The goal was not just to test the documentation, but to find constructive ways to improve it.

28. The TC worked closely with Microsoft in a sustained and substantial manner on these projects. Microsoft was asked to “work closely with the TC . . . to define the scope of this project.”¹⁵ The TC indicated its intention “to hire up to twenty additional engineers to work on this project,”¹⁶ and as of October 2005, there were “fifteen TC staff members and one consultant dedicated to this activity.”¹⁷

29. As of October 2005, the U.S. agencies noted that they were “pleased with both the progress made by the TC and Microsoft’s cooperation in the project.”¹⁸ The TC and Microsoft continued to meet “on a weekly basis” to address issues arising from the projects, and to confer “regularly on this part of the project.”¹⁹ The agencies indicated satisfaction with the process for improving the documentation, noting that these “improvements in the documentation are already in the hands of licensees.”²⁰ The agencies also noted that a “substantial number of issues have also been closed with no change to the documentation required; for example, in some of these cases the TC has been able to locate the necessary information in sources other than the technical documentation itself.”²¹ Where there were setbacks in the projects, the U.S. agencies and Microsoft worked cooperatively to find “ways in which the process could be modified so that it could be completed in a reasonable time period, while still generating the benefits to licensees originally envisioned when the program was developed.”²²

30. From November 2005 through January 2006, as the TC increased its staff and expanded its validation work, Microsoft was unable to expand its staff rapidly enough to keep pace and provide timely responses. As a result, Plaintiffs noted that “Microsoft has fallen significantly behind in responding to technical documentation issues submitted by the TC.”²³ Microsoft has

¹⁴ Joint Status Report (January 25, 2005), p. 3.

¹⁵ Joint Status Report (January 25, 2005), p. 3.

¹⁶ Joint Status Report (January 25, 2005), p. 10.

¹⁷ Joint Status Report (October 19, 2005), p. 4.

¹⁸ Joint Status Report (October 19, 2005), p. 3.

¹⁹ Joint Status Report (October 19, 2005), p. 3.

²⁰ Joint Status Report (October 19, 2005), p. 5.

²¹ Joint Status Report (October 19, 2005), p. 5.

²² Joint Status Report (October 19, 2005), p. 7.

²³ Plaintiffs’ Response, January 23, 2006.

responded to this concern by committing substantial resources to finding and hiring as many additional qualified documentation writers as necessary, as rapidly as Microsoft can find them.

At a hearing on 14 February 2006 the District Court supervising Microsoft's compliance with the Final Judgment directed Microsoft to continue to add the resources needed to keep pace with the issues submitted by the TC and Microsoft is committed to doing so.

31. Partially in response to the U.S. agencies' concerns about the pace of work on these projects, on January 25, 2006, Microsoft announced that it would supplement the existing MCPP documentation and the 500 hours of free technical support by offering a license to use the Windows source code that implements the MCPP protocols, at no additional cost. The agencies called this "a constructive proposal that addresses many of [our] concerns with the technical documentation," and recognized that the source code would "assist MCPP licensees in implementing the MCPP protocols by answering questions that licensees may have based on review of the relevant technical documentation."²⁴ Since the licensees would now have access to source code, the agencies agreed that the TC should also examine the source code to determine if issues could be resolved before forwarding them to Microsoft. Anticipating that this approach would greatly facilitate the TC's validation efforts, the agencies also agreed to revise the service level guidelines accordingly. Microsoft anticipates continuing to work closely with the TC in efforts to refine the MCPP documentation and to assist licensees in developing interoperable products.

VII. PRIVATE PROTOCOL LICENSING PROGRAMS

32. Microsoft has engaged in a substantial number of private protocol licensing programs and has done so for several years. These programs have been successful in attracting licensees, and these licensees in turn have been successful in developing products that incorporate the licensed protocols. This success has been the result of providing detailed, usable documentation, in conjunction with continued interaction between Microsoft and licensees to address issues as they arise during the implementation process.

²⁴ Joint Status Report (February 8, 2006), p. 4.

A. Exchange ActiveSync Protocol

33. The Exchange ActiveSync Protocol enables mobile client devices, such as mobile Pocket PCs and SmartPhones, to synchronize email, calendar, and contacts with a computer that is running Microsoft Exchange Server 2003. Microsoft licenses the specification for the protocol, in addition to a small set of sample code.

34. The ActiveSync licensing program began in [___] with two initial licensees, Motorola and PalmOne, both major mobile client device manufacturers. Both are currently shipping products that incorporate the ActiveSync protocol. Since [___], three additional device manufacturers have signed licenses, Nokia, IXI Mobile, and Sony Ericsson. Two additional companies have signed developer licenses allowing them to develop software products that incorporate the ActiveSync protocol. These are DataViz and Symbian, and DataViz's products are already being used in devices on the market. In all, there are currently seven licensees, with more companies actively interested in licensing the protocol in the near future.

35. Interaction with licensees has always been an important component of the ActiveSync licensing program. The ActiveSync protocol must be integrated into a licensee's preexisting applications, and when a licensee's application has architectural or design features that conflict with the architectural assumptions of the protocol, this integration can be quite complex. Microsoft has been and continues to be committed to working with licensees on the successful implementation and integration of the ActiveSync protocol, whether the effort is relatively straightforward or quite complex.

36. Initially, licensees interacted directly with the development team. In order to preserve the development team's ability to focus on their primary development responsibilities, however, these interactions were incorporated into Microsoft's Product Support Services (PSS) division, at the Premier level. This required the development team to train PSS staff to be able to handle front-line support issues. Because the program is not expected to have more than 20-25 licensees, Microsoft is unlikely to recoup the costs and effort involved in establishing this function within PSS, even in the long term. Nevertheless, Microsoft understood that interaction with licensees could be an important contributor to the overall success of the program and was willing to make this investment.

37. Licensees appreciate the value of this additional interaction as well. Because such services are expensive to provide, particularly at the Premier level, which includes a designated Technical Account Manager to coordinate support, Microsoft charges a separate and substantial fee for this support. Virtually all licensees under the ActiveSync program purchase this support, despite its cost.

38. This process of working with licensees is designed to ensure that licensees are able to understand the protocol and to work with the protocol specifications. The ActiveSync protocol is intended to be used by a relatively small pool of companies. Because of this, it will likely never obtain the widespread use necessary to further refine the protocol. Without more opportunities for such refinement, additional support can be an important component of the program.

39. Even with the additional support provided by PSS, the development team remains significantly involved in working with licensees. Many implementation issues are resolved by the development team, at least the first time they are raised. The development team also solicits feedback from licensees on a regular basis. This feedback is then used to improve the licensed technology, including the specifications themselves.

B. Live Communications Server (LCS) Protocols

40. The Live Communications Server (LCS) protocols are those protocols implemented in Microsoft's Live Communications Server product. These protocols, primarily extensions to standard communications protocols such as SIP and SIMPLE, enable instant messaging (IM) and presence functionality to be integrated into productivity and other software. Microsoft licenses the specifications for either the client side or the server side of the protocols.

41. The LCS protocol licensing program began in August 2004. To date, there are seven companies that have licensed the LCS protocols, choosing the client-side protocols, the server-side protocols, or both. Discussions are underway with at least a half-dozen other companies.

42. As with the ActiveSync program, interaction with licensees is an important element of the LCS protocol program. Licensees currently interact directly with the product group. None of the LCS protocol licenses to date have contained any explicit developer interaction or support obligations on Microsoft's part. The concern has been that such an affirmative obligation might

overburden the product team. Nevertheless, partner managers provide a point of contact at Microsoft for licensee questions. These managers provide front-line support, answer questions, and pull in developers as necessary to resolve licensee issues. This relatively informal mechanism may well eventually migrate to an explicit provision in LCS licenses. Whether through an informal mechanism or an explicit contractual provision, interaction with licensees will continue to be important to the program.

C. Remote Desktop Protocol (RDP)

43. The Microsoft Remote Desktop Protocol (RDP) provides remote display and input capabilities over network connections for Windows-based applications running on a server. RDP is part of the MCPP program, but not part of the WSPP program, because it is not used to provide file or print service or user and group administration. Prior to its inclusion in the MCPP program, and even now in parallel with MCPP, Microsoft has licensed specifications for the client side of the protocol separately.

44. Licensing of client-side RDP began in October 2000. As of the end of 2005, there were two companies with an active license for client-side RDP, [____] and The Windermere Group. In addition, there have been more than 20 licensees of prior versions of the protocol. Licensees are permitted to and do continue to distribute products developed under an RDP license, even after the original license term has expired.

45. Despite the absence of a contractual obligation to provide support, Microsoft has provided support for client-side RDP on some occasions. In particular, in July and November 2005, Microsoft worked with Windermere to resolve a number of issues related to the use of certificates in RDP. This work resulted in clarifying changes to the RDP documentation.

D. Windows Media Networking Protocols

46. The Windows Media Networking Protocols are a collection of media streaming protocols designed to enable device manufacturers and software developers to build high-quality digital media capabilities into a broader range of products. These protocols are part of the MCPP program, but not part of the WSPP program, because they are not used to provide file or print service or user and group administration. Prior to their inclusion in the MCPP program, and

even now in parallel with MCPP, Microsoft has licensed specifications for the client side of the protocol separately.

47. Licensing of client-side streaming protocols began in 2000. Since that time, more than 60 companies have signed licenses for these protocols, with many of those companies shipping products that incorporate the licensed protocols.