

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NOKIA OF AMERICA CORPORATION,

Petitioner

v.

ALEXANDER I. SOTO AND WALTER G. SOTO,

Patent Owners

U.S. Patent No. 8,238,754

Issue Date: August 7, 2012

Title: SYSTEM AND METHOD FOR PLUGGABLE OPTICAL MODULES
FOR PASSIVE OPTICAL NETWORKS

Case No. IPR2023-00960

**DECLARATION OF THOMAS J. J. STARR IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,238,754**

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AT&T Ex. 1010

**Nokia of America Corporation
IPR2023-00960, Ex. 1010
Ex. 1010.001**

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TABLE OF EXHIBITS

Exhibit	Short Name	Description
Ex. 1001	'754 Patent	U.S. Patent No. 8,238,754
Ex. 1002-1	'754 File History	File History of U.S. Patent No. 8,238,754
Ex. 1002-2	'514 File History	File History of U.S. Patent Application No. 60/886,514
Ex. 1003	Prucnal Declaration	Declaration of Dr. Paul Prucnal
Ex. 1004	Prucnal CV	<i>Curriculum Vitae</i> of Dr. Paul Prucnal
Ex. 1005	Shraga	U.S. Patent No. 6,697,374
Ex. 1006	Wood	U.S. Patent No. 7,088,921
Ex. 1007	Togami	U.S. Patent No. 6,439,918
Ex. 1008	Fujimori	U.S. Patent No. 7,206,366
Ex. 1009	Liu	U.S. Patent No. 6,005,694
Ex. 1010	Starr Declaration	Declaration of Thomas J. J. Starr
Ex. 1011-1	G.984.3 Draft Recommendation	ITU-T Study Group 15, Temporary Document 7, Draft new Recommendation G.984.3 – Transmission Convergence Layer for Gigabit Passive Optical Networks
Ex. 1011-2	Contribution 104	ITU-T Study Group 15, Contribution 104, Draft new Recommendation G.984.3 – Transmission Convergence Layer for Gigabit Passive Optical Networks
Ex. 1012	OKI Article	<i>SFF & SFP Optical Transceivers</i> , OKI Technical Review Issue 190, Vol. 69, No. 2 (April 2002)
Ex. 1013	Ramaswami	Rajiv Ramaswami & Kumar Sivarajan, <i>Optical Networks, A Practical Perspective</i> (2d ed. 2002)

Exhibit	Short Name	Description
Ex. 1014	Kramer IEEE	Glen Kramer & Gerry Pesavento, <i>Ethernet Passive Optical Network (EPON): Building a Next-Generation Optical Access Network</i> , IEEE Communications Magazine (February 2002)
Ex. 1015	Kazi	Khurram Kazi, <i>Optical Networking Standards, A Comprehensive Guide for Professionals</i> (2006)
Ex. 1016	SFP MSA	SFF Committee, INF-8074i Specification for SFP (Small Formfactor Pluggable) Transceiver, Rev. 1.0, May 12, 2001).
Ex. 1017	XFP MSA	10G small form factor pluggable, XFP Revision 4.5 (initial publication March 2002)
Ex. 1018	XENPAK MSA	INF-8474i Specification for Xenpak 10 Gigabit Ethernet Transceiver, Rev. 3.0, September 18, 2002 (publicly announced March 12, 2001)
Ex. 1019	Kramer OSA	Glen Kramer, et al., <i>Supporting differentiated classes of service in Ethernet passive optical networks</i> , Journal of Optical Networking, Vol. 1, Nos. 8 & 9 (August & September 2002)
Ex. 1020	EC&M Article	Small Form Factor Connector Basics by Paul Rosenberg, EC&M.com (Sept. 1, 2001).
Ex. 1021	Going Serial Article	Going Serial in Gigabit Ethernet Designs by Martin Lund, EDN.com (June 20, 2002).
Ex. 1022	G.984.2	ITU-T G.984.2 (03/2003) Gigabit-capable Passive Optical Networks (GPON): Physical Media Dependent (PMD) layer specification
Ex. 1023	G.984.1	ITU-T G.984.1 (03/2003) Gigabit-capable Passive Optical Networks (GPON): General Characteristics
Ex. 1024	ITU-T A.1	ITU-T A.1 (10/2000) Work methods for study groups of the ITU Telecommunication Standardization Sector (ITU-T)

Exhibit	Short Name	Description
Ex. 1025	SG15 Contributions List	List of contributions from Oct. 2003 Geneva, Switzerland Meeting
Ex. 1026	SG15 TD-PLEN List	List of Plenary temporary documents from the Oct. 2003 Geneva, Switzerland Meeting
Ex. 1027	WP1 TD List	List of WP1 temporary documents from Oct. 2003 Geneva, Switzerland Meeting
Ex. 1028	WP1 TD5	Report of Q.2/15 Rapporteur meeting, 13-14 August 2003, Santa Clara, USA
Ex. 1029	TD-58GEN	List of participants at the Oct. 2003 Geneva, Switzerland
Ex. 1030	TD-7PLEN HTML	Webpage printout of The G.984.3 Draft Recommendation page
Ex. 1031	Contribution 104 HTML	Webpage printout of Contribution 104
Ex. 1032	DCO	Doc. No. 58, Docket Control Order, <i>NextGen Innovations, LLC v. Fujitsu Network Communications, Inc. et al.</i> , No. 2:22-cv-00307-JRG-RSP (E.D. Tex.) (consolidated cases)
Ex. 1033	Caseload	U.S. District Court – Judicial Caseload Profile (Sept. 2022)
Ex. 1034	Agilent New Fiber Optic Transceiver	<i>Agilent Technologies' New Fiber Optic Transceivers Offer Industry's Lowest EMI Emissions</i> , Agilent Technologies Inc. (July 10, 2001)

I, Thomas J. J. Starr, declare as follows:

I. Introduction

1. My name is Thomas J. J. Starr, and I have been retained as an expert by counsel for Petitioner Nokia of America Corporation to address the public availability of ITU-T SG15/Q2 Draft Recommendation G.984.3, entitled “Transmission Convergence Layer for Gigabit Passive Optical Networks (for consent).”

2. I have personal knowledge of the facts contained in this Declaration, am of legal age, and am otherwise competent to testify. Unless otherwise stated, the matters contained in this declaration are of my own personal knowledge and, if called as a witness, I could and would testify completely and truthfully with regard to the matters set forth herein.

3. I reserve all available rights to supplement this Declaration if further information becomes available, or if I am asked to consider additional information. This Declaration represents only those opinions I have formed to date.

4. Further, I reserve all available rights to consider and comment on any additional expert statements or testimony of NextGen’s expert(s) in this matter.

5. I am being compensated at my usual consulting rate of \$350 per hour for my time spent working on issues in this matter. My compensation does not depend on the outcome of this matter or the opinions I express.

6. My opinions are based on my years of education, research, and experience, as well as my study of the relevant materials.

7. I currently serve as chairman of Working Party 1 of the ITU-T Study Group 15, which addresses the development of Passive Optical Network (PON) standards, including the G.984.3 Standard Recommendation. I have served as WP1/15 chairman since 2009, an ITU-T Study Group 15 participant since 1997, and a participant in other ITU-T study groups since about 1984.

8. I have extensive experience in the DSL and optical industries. I am listed as an inventor on 40 patents and am a co-author of three technical books: *Broadband Access* (2014), *DSL Advances* (2003), and *Understanding Digital Subscriber Line Technologies* (1999).

9. For purposes of this Declaration, counsel for Nokia have informed me that petitions for *inter partes* review are analyzed from the perspective of a person of ordinary skill in the art (“POSITA”) as of the effective filing date of the patent application. It is my opinion that a person of ordinary skill in the art pertinent to the ’754 Patent would have had at least a Bachelor’s Degree in electrical engineering, computer engineering, or similar discipline and had approximately two years of experience with optical networks, including PONs. Additional graduate education might substitute for experience. A person with a different degree but with additional relevant experience could still qualify if the additional experience compensates for

the different educational background. Such a POSITA would have had knowledge of design considerations known in the optical industry and would have been familiar with then existing products and solutions and would have understood how to search available literature for relevant publications, including the ITU Server.

II. General Practices of the ITU

10. Unless otherwise noted, the following is a description applicable to the time period from 2000 through at least 2004, regardless of whether I use the present or past tense.

11. The ITU is an agency of the United Nations that specializes in information and communication technologies, and the ITU-T is the Telecommunications Sector of the ITU.

12. The ITU-T publishes approved recommendations and standards in the telecommunications industry, as well as a variety of documents related to the development of its recommendations and standards. One type of published documents includes written contributions submitted to meetings for the purpose of discussion and establishment of industry standards for communication technologies around the world. Another type of published documents are draft recommendations of standards submitted to meetings for discussion and potential adoption as the finalized standard.

13. Gigabit Passive Optical Networks (GPON) standardization work takes place within ITU-T Study Group 15, Question 2 (abbreviated herein as SG15/Q2), which falls under Working Party 1 and was organized in order to study optical systems for access networks. A “Question” is a label for a working group led by a “Rapporteur.”

14. SQ15/Q2 meets regularly in Geneva during the same periods of time as other Questions of Study Group 15. Between meetings in Geneva, SG15/Q2 also meets on its own in meetings known as Rapporteur meetings. I attended my first SG15 meeting in 1997 and my first SG15/Q2 meeting in about or around 2002.

15. Draft recommendations are known as “temporary documents” or “TDs.” Temporary documents, despite their name, are not temporary, but are archived and available indefinitely like any other ITU-T meeting document. For SG15/Q2, documents are assigned document identifiers that reflect the location of the meeting. The document identifiers for draft recommendations to meetings are of the form “TDxxx/WP1” or “TDxxx/P,” where “xxx” represents a sequentially assigned number. “WP1” indicates Working Party 1, and “P” or “PLEN” indicates that the document was introduced at a Study Group Plenary meeting, which are, unlike Rapporteur meetings, larger meetings that all Questions within the Study Group attend.

16. In my experience, documents, including contributions and draft recommendations, are made available to all members at least a week prior to the meeting where they will be discussed. These documents are uploaded to the ITU server before the beginning of the meeting. In fact, according to the ITU-T A.1 (10/2000) “Work methods for study groups of the ITU Telecommunication Standardization Sector” (abbreviated herein as “A.1”) published in October 2000 by the ITU World Telecommunication Standardization Assembly, by which all standards groups must operate, states that any documents received less than seven days before the meeting will not appear on the agenda of the meeting and will not be distributed to meeting participants. Ex. 1024 at § 3.2.6. Meeting participants and all other individuals who had access to the ITU Server could then download all documents for the meeting, including contributions and draft recommendations, from the ITU Server.

17. The ITU Server required a user to have a login credential called a TIES account. These credentials were freely available to people who worked for ITU-T member companies, even if they rarely or never attended meetings of SG15/Q2. *See* <https://www.itu.int/net/ITU-T/info/answers.aspx?Fp=faqs.aspx&Qn=35&ewm=True> (last visited June 26, 2023) (“The TIES service is available without any charge only to persons or companies meeting any of the following conditions: You are working in a government

Administration in one of the ITU Member States. . . . Your company is a Sector Member of the ITU. . . . Your company is a Sector Associate. . . . You are working in a permanent mission of a country that is one of the ITU Member States. . . .”; *see also* <https://www.itu.int/en/ITU-T/ewm/Pages/documents-access.aspx#2> (last visited June 26, 2023). For example, when I worked at AT&T, I had colleagues who had access to the ITU Server and documents contained therein, but did not attend SG15/Q2 meetings or participated directly in the discussions or work of the study group. It is my position that a POSITA in the early 2000s, such as myself and my colleagues, would have had access to the ITU Server and associated documents.

18. Acquiring ITU membership is a simple process, requiring the entity seeking membership to apply and indicate its membership category (member state, sector member, associate member, academic member) and pay the membership fee accordingly. The ITU places no restrictions on which organizations can apply for membership and, in particular, the largest companies interested in optical technology at the time, such as Alcatel, Lucent, Adtran, Verizon, Huawei, and Nortel, were all members.

19. The ITU Server was and continues to be, to my knowledge, organized in a temporal manner, with a separate folder (a directory) created to hold documents and contributions for each meeting. Users regularly navigated to the folder corresponding to the meeting of interest and view and download any or all

documents in the folder. The documents for each meeting are then archived for user long-term access. As explained further below, lists of documents (including contributions and draft recommendations) prepared for each Rapporteur and Study Group meeting were maintained on the ITU Server. The list of files included hyperlinks that allowed a user to click on them to open the listed documents. Exhibit 1025 is a printout of the list of contributions, and Exhibit 1026 is a printout of the list of plenary temporary documents, from the meeting held in October 2003 in Geneva, Switzerland. At the October 2003 Geneva meeting, in particular, there were over 350 individuals from over 140 different organizations in attendance. Ex. 1029.

A. Electronic Accessibility of Documents

20. In the ordinary course of SG15/Q2's regularly conducted business activities, and pursuant to its standard business practices, all draft technical specifications, contributions, proposals, reports and other temporary documents to be discussed or considered in relation to its standards activities were and, to the best of my knowledge, continue to be, available electronically to members worldwide. See <https://www.itu.int/en/ITU-T/publications/Pages/recs.aspx> (last visited June 26, 2023). The GPON Recommendations are part of the G series, available at <https://www.itu.int/itu-t/recommendations/index.aspx?ser=G> (last visited June 26, 2023).

21. Based on my knowledge, by the year 2000 there were around 1000 individual members of the ITU; that number remains consistent today. Anyone working for any member entity has access to the ITU documents through their organizations' primary ITU representative, and ITU server access information can be disseminated throughout the organization to its employees. Most entities in the telecommunications industry are members of the ITU, including equipment vendors, system vendors, integrated circuit developers, equipment testing laboratories, service providers, and national administrations, as well as academic organizations such as universities. This allows for tens of thousands of people from dozens of governmental agencies and hundreds of member companies from around the world to have access to the work and documents of SG15/Q2. See <https://www.itu.int/en/about/Pages/default.aspx> (last visited June 26, 2023) ("By joining ITU, you can become part of a community of more than 20,000 professionals. Nowhere else in the world will you find such a rich and diverse network of experts and leaders in the global ICT ecosystem.").

22. Furthermore, any non-member can freely access a list of all documents for each meeting, allowing them to view the titles and descriptions of each document, as well as overview of the work and meetings of Study Group 15. See https://www.itu.int/en/ITU-T/studygroups/2022-2024/15/Pages/exec_sum_2022-09.aspx (last visited June 26, 2023). Additionally, if a non-member wishes to access

the contents of any document, obtaining membership was and remains a relatively simple process. The ITU website states that “ITU-T Membership is open to all commercial companies and non-profit organizations.” *See* <https://www.itu.int/net/ITU-T/info/answers.aspx?Fp=faqs.aspx&Qn=11&ewm=False> (last visited June 26, 2023).

23. As discussed above, employees of member companies would regularly access the ITU Server to view and download SG15/Q2 documents that had been uploaded prior to scheduled meetings. Thus, those skilled in the art and the interested members of the public—those working to develop standards for telecommunications and working to implement the standards—had ready access to the relevant documents via the ITU Server. *See, e.g.,* Ex. 1024.

24. In the ordinary course of my standard business practices, while employed at AT&T and as the Chairman of Working Party 1 in Study Group 15, I regularly accessed and downloaded documents from the ITU Server. Based on my experience with the ITU-T, with standardization generally, and with the telecommunications industry, I would expect any person developing or implementing a standardized telecommunications system, or components thereof, to consult the corresponding standards-setting organization specifications, contributions, and other documents associated with those systems. I would also

expect engineers and product managers at companies developing or implementing PON systems or transceivers to consult the contributions and other documents of SG15/Q2. A key purpose of the ITU-T creating recommendations and standards and making participants' SG15/Q2 contributions, including draft recommendations, available is so that engineers and other individuals have ready access to them when developing and implementing PON systems and devices. Indeed, access to and evaluation of these documents was necessary to the work that ITU-T SG15/Q2 performed.

25. Further, there was no expectation of confidentiality regarding documents uploaded for SG15/Q2 meetings, nor any restrictions on distributing or copying within member organizations. In fact, it was well known to members that any document submitted and tagged "confidential" would be rejected by the ITU. The focus and purpose of the meetings was to share contributions and evaluate proposals and recommendations. Many of the members, and the companies they represented, were developing technology in parallel with the emerging standards, and therefore it was important to be able to consider and share proposals that were being made in the standards-setting organizations, and particularly in SG15/Q2, to assess whether a proposal or recommendation would have an impact on a product being developed. Those sharing contributions and recommendations to SG15/Q2 understood that their documents, and the concepts contained therein, could be widely

disseminated within member organizations and thus distributed to, potentially, tens of thousands of individuals.

26. By 2003, SG15/Q2 was well-known to persons in the telecommunications industry as a source of information and contributions, proposals, meeting announcements and agendas, meeting reports, technical discussions, and other key documents regarding PON industry standards and technological advances. Further, SG15/Q2 was known worldwide as the primary PON standardization body responsible for the majority of PON standard development. ITU-T standards, along with the work of SG15/Q2, were discussed regularly at prominent industry meetings, such as the IEEE, among members and non-members alike.

27. I would expect that ordinary skilled artisans at member companies, which represented nearly all of the companies interested in the development of PONs, would have regularly accessed the ITU's website and the ITU Server to obtain documentation of the work of SG15/Q2, and to download documents from the ITU Server, as I myself did frequently.

B. Preparation and Availability of Documents for Meetings

28. Members would, in the ordinary course of ITU's regularly conducted business activities, prepare and draft contributions and draft recommendations or other technical papers in advance of meetings for a particular Study Group/Question.

Throughout the time I was attending SG15 meetings in the early 2000's, those submitting contributions to SG15/Q2 were required to upload electronic copies *See, e.g.,* Ex. 1024 at § 3.1.1. The contributions would then be available online and could be freely accessed electronically worldwide using a TIES account. Members would log in and request a contribution number for a given meeting, and a row in the running document list (described further below) would be generated so that the contributor could then upload the contribution to the ITU Server. All members participating in the SG15 could then access the file, such as, for example, the G.984.3 Draft Recommendation uploaded for the October 2003 Geneva, Switzerland Study Group 15 Meeting and Contribution 104 uploaded prior to the August 2003 Santa Clara, California SG15/Q2 Rapporteur Meeting, both discussed in greater detail *infra*.

29. Along with the announcement of every SG15 meeting, the ITU-T would distribute to all organizations a “collective letter” disclosing the location and date of the meeting and the date when all documents would be available before the meeting. In my experience, members attending meetings would download all uploaded contribution and draft recommendation documents locally to their computer in advance of a meeting so that they could review the documents before the meeting began. It was my habit to download all of the relevant documents available for each meeting I attended, including the October 2003 Geneva,

Switzerland meeting. Specifically, I downloaded both the G.984.3 Draft Recommendation and Contribution 104, and any other documents from the October 2003 meeting referenced herein.

30. Per the ITU-T A.1 Standard, the organization would post all input documents (including contributions, temporary documents, draft recommendations, and liaison statements) as soon as electronic versions of those documents were available. Ex. 1024 at § 3.4. This meant that if documents were submitted electronically, they would be available on the ITU Server almost immediately. Once uploaded to the ITU Server, documents such as draft recommendations were available to SG15 participants world-wide.

31. The ITU generates a web page consisting of the HTML listing of documents for each meeting. This web page was accessible to anyone and the documents could be accessed by clicking hyperlinks on the web page by logging into the ITU Server. For the October 2003 Geneva, Switzerland meeting, these hyperlinks can be seen in the listing of contributions in Ex. 1025 and the listing of Plenary temporary documents in Ex. 1026.

32. In particular, meeting documents were easily accessible because of the organization and navigability of the ITU website. During the 2001-2004 time period, and still today, ITU documents were grouped under “study periods,” organized temporally, that were further categorized by study group and meeting. *See*

<https://www.itu.int/en/ITU-T/studygroups/2022-2024/Pages/default.aspx> (last visited June 26, 2023); *see also* <https://www.itu.int/ITU-T/2001-2004/index.html> (last visited June 26, 2023); *see also* <https://www.itu.int/ITU-T/2001-2004/com15/index.asp> (last visited June 26, 2023). From the study group page of each study period, anyone could navigate to the webpage entitled “SG15 Meeting Documents,” which further breaks down individual meetings by date and location, containing links to any associated contributions or temporary documents. *See* <https://www.itu.int/md/T01-SG15/en> (last visited June 26, 2023). By selecting a meeting from the webpage, any individual was able to view the list of documents for each meeting, categorized by date, title, and working party question topic. *See, e.g.,* <https://www.itu.int/md/T01-SG15-031021/sum/en> (last visited June 26, 2023). From this point, any user with a TIES account could select individual documents to view. Further, access to ITU-T documents was and is facilitated by the ITUSearch function, which allows any individual to search ITU documents and publications using key words.

33. In addition to downloading files in advance of the meeting, members would also have access to these files in real-time during meetings via the Internet. After each meeting, the SG15/Q2 Rapporteur would prepare a report, which would become a document for the next meeting. For instance, the report of the August 2003 SG15/Q2 Rapporteur Meeting, held in Santa Clara, California, dated September 9,

2003, was offered as a document for the October 2003 meeting in Geneva, Switzerland. Ex 1030. In my experience, the draft report ordinarily declares which meeting it covered and would identify the host, the attendance, the number of documents addressed, and the duration of the meeting. *Id.* In my experience, the contributions referenced and acknowledged in the report following a meeting represented contributions and documents that were available and accessible at that meeting.

III. Publication of the G.984.3 Draft Recommendation and Contribution 104

34. It is my opinion that the G.984.3 Draft Recommendation and Contribution 104 were published documents available to all interested individuals with access to the ITU Server before the earliest alleged priority date of the '754 Patent, as discussed further below.

35. Based on my personal knowledge and personal records of contributions I downloaded from the ITU Server, I recognize Ex. 1011-1 as a true and correct copy of ITU-T SG15/Q2 7-TD/PLEN Draft Recommendation G.984.3, entitled "Transmission Convergence Layer for Gigabit Passive Optical Networks (for consent)," which was a draft recommendation to the October 21-31, 2003 meeting of SG15/Q2, held in Geneva, Switzerland. Ex. 1011-1. I also recognize Ex. 1011-2 as a true and correct copy of ITU-T SG15/Q2 Contribution 104, entitled "Draft new

Recommendation G.984.3: Transmission Convergence Layer for Gigabit Passive Optical Networks (for consent),” which was a draft recommendation to the August 2003 meeting of SG15/Q2, held in Santa Clara, California. Ex. 1011-2.

36. On its face, the G.984.3 Draft Recommendation refers to the October 21-31, 2003 ITU-T SG15 meeting held in Geneva, Switzerland, which I attended as the representative of AT&T, along with one of the authors of the G.984.3 Draft Recommendation, Frank J. Effenberger. Thus, based on my personal knowledge and experience with SG15’s standard business practices, this information tells me that the G.984.3 Draft Recommendation was available prior to that meeting to at least all attending ITU-T SG15 members and everyone who had access to the ITU Server. The availability of the document is confirmed by the posted date of the G.984.3 Draft Recommendation, and the documents, business practices, and my personal knowledge as outline further below.

37. The G.984.3 Draft Recommendation provided in TD-7/PLEN was posted and available to all members electronically via the ITU Server at least by October 17, 2003. Ex. 1030 (including a hyperlink for the G.984.3 Recommendation and indicating “Posted: 2003-10-17”).

38. As noted above, I attended the October 21-31, 2003 Geneva Switzerland meeting. As part of my standard business practices, I would have downloaded all contributions for the meeting from the ITU server in the manner

described above so that I could review them in advance of the meeting, including the G.984.3 Draft Recommendation. During the meeting I was able to, and would, as part of my standard business practices, access the ITU Server over the Internet to review additional documents generated and uploaded during and throughout the meeting.

39. Further, the relevant portions of the G.984.3 Draft Recommendation were available on the ITU Server even earlier in the form of other documents. For example, the G.984.3 Draft Recommendation was discussed at the August 2003 SG15/Q2 meeting held in Santa Clara, California, where the document was introduced as a contribution numbered “18.” *See* Ex. 1028. In fact, it is my understanding that, based on the attendee list of the Santa Clara meeting, one of the named inventors of the ’754 Patent, Walter G. Soto, was in attendance. *See* Ex. 1028. After the discussions of this meeting, the G.984.3 Draft Recommendation was submitted as Contribution 104 for the October 2003 Geneva, Switzerland meeting, and was available on the ITU Server as early as August 25, 2003. *See* Ex. 1031; *see also* Ex. 1011-2. At this point, all ITU members and their employees would have had access to Contribution 104, and even non-members could see its presence on the ITU website.

40. Thus, based on my personal knowledge and experience with SG15/Q2’s ordinary operating procedures, and other publicly available documents

as noted above, I conclude that the G.984.3 Draft Recommendation and Contribution 104 were available at least to all ITU-T SG15/Q2 members before the earliest possible alleged priority date of the '754 Patent, October 30, 2003.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on June 27, 2023.

A handwritten signature in black ink, reading "Thomas J. J. Starr". The signature is written in a cursive, flowing style. Below the signature is a horizontal line.

Thomas J. J. Starr