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Report No. 1427
November 12, 2019

The Honorable David J. Kautter
Assistant Secretary (Tax Policy)
Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220

The Honorable Charles P. Rettig
Commissioner
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224

The Honorable Michael J. Desmond
Chief Counsel
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224

Re: *Report No. 1427 – Report on Proposed Section 861 Regulations*

Dear Messrs. Kautter, Rettig, and Desmond:

I am pleased to submit our Report No. 1427 commenting on proposed regulations under Internal Revenue Code Section 861.

We commend the Department of the Treasury and the Internal Revenue Service for providing guidance with respect to transactions involving digital content. In recent years, the types of such transactions have proliferated. Our recommendations generally focus on minimizing differences in tax treatment among digital transactions that are functionally equivalent to one another.

We appreciate your consideration of our Report. If you have any questions or comments, please feel free to contact us and we will be glad to assist in any way.

Respectfully submitted,

Deborah L. Paul
Chair

Enclosure

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Report No. 1427

NEW YORK STATE BAR ASSOCIATION TAX SECTION

REPORT ON PROPOSED SECTION 861 REGULATIONS

November 12, 2019

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I. Introduction

This Report[1] ("**Report**") comments on proposed regulations (the "**Proposed Regulations**")[2] issued by the Internal Revenue Service (the "**Service**") and the Department of the Treasury (collectively with the Service, "**Treasury**") under section 861.[3]

We commend Treasury for providing guidance under section 861 with respect to transactions involving digital content. In recent years, the types of such transactions have proliferated to include digital media streaming, research and information databases, application ("app")-based programs and services, and digital cloud storage.

Our recommendations generally focus on minimizing distinctions under existing Treasury Regulations section 1.861-18 (the "**Existing Software Regulations**") and the Proposed Regulations that are not economically or practically meaningful in the digital context. As stated in the Preamble to the Existing Software Regulations, all else equal, "functionally equivalent transactions should be treated similarly."[4] We agree and consequently recommend that the scope of the term "digital content" be broadened to eliminate any difference in tax treatment between transfers of copyrightable and non-copyrightable content. Further, we recommend eliminating the distinction between on-demand access to digital content and temporary downloads of digital content, as the two are often "functionally equivalent." We recognize that the characterization of digital content transactions bears on many aspects of a taxpayer's liability, an important one of which is income sourcing, which in turn affects, among other things, the availability of foreign tax credits and the potential for withholding. We believe that clarifications are important to provide certainty to both taxpayers and Treasury in applying the rules. We also recognize that there are several possible approaches for sourcing income from cloud transactions, but recommend that sourcing rules generally apply consistently across digital content transactions.

[1] The principal drafters of this Report were Edward Gonzalez, B. Chase Wink, and Peter Benesch. Helpful comments were received from Kimberly Blanchard, Andy Braiterman, Robert Cassanos, Peter Connors, Charles Cope, Alison Geist, Brian Krause, Stephen Land, Luke Maher, David Miller, Richard Nugent, Deborah Paul, Yaron Reich, Michael Schler, Nathan Tasso, and Shun Tosaka. This Report reflects solely the views of the Tax Section of the New York State Bar Association ("**NYSBA**") and not those of the NYSBA Executive Committee or the House of Delegates.

[2] REG-130700-14, Internal Revenue Bulletin No. 2019-36.

[3] Unless otherwise indicated all section references are to the Internal Revenue Code of 1986, as amended (the "**Code**") and the Treasury Regulations issued thereunder.

[4] T.D. 8785, Background § I (Sep. 30, 1998).

II. Summary of Recommendations

A. We recommend that Treasury expand the definition of "digital content" subject to the Proposed Regulations to include non-copyrightable content. A wide variety of non-copyrightable content can be accessed and transferred electronically, such as recipes and U.S. federal court decisions. We do not believe that whether the underlying content is protected by copyright law should affect the U.S. federal income tax classification of transactions involving such content.

B. We recommend that Treasury streamline the classification of digital content transactions by eliminating economically meaningless distinctions between types of such transactions. Specifically, we recommend eliminating the distinction between on-demand access to digital content and temporary downloads of digital content.

C. Although there are many different ways that the income derived from cloud transactions could be sourced, there are two principal approaches: the "provider approach" and the "end-user approach." Each approach has its own advantages and disadvantages. Although we do not at this time have a recommendation on the best approach for sourcing income from cloud transactions, we suggest that the sourcing rule for digital content transactions be consistent to ensure that functionally equivalent transactions are treated similarly.

III. Summary of the Existing Software Regulations and the Proposed Regulations

A. The Existing Software Regulations

In September 1998, Treasury published the Existing Software Regulations to provide guidance regarding the taxation of transfers of "computer programs." The related Notice of Proposed Rulemaking identified two principles guiding the Existing Software Regulations: "(i) the rules should take into account the special features of computer programs, such as the ability to deliver copies electronically as well as physically, and to make perfect copies at little or no cost, and (ii) wherever possible, transactions that are functionally equivalent should be treated similarly."[5] The sections below detail (i) the transactions that are subject to the Existing Software Regulations and (ii) the treatment of such transactions under the Existing Software Regulations.

[5] 61 FED. REG. 220, 58152, *Background* § I (Nov. 13, 1996); *see also* T.D. 8785, *Background* § I (Sep. 30, 1998) (providing that "[t]he specific rules of the proposed regulations are based on certain key principles: that the special features of computer programs should be recognized and that functionally equivalent transactions should be treated similarly").

i. Transactions Subject to the Existing Software Regulations

The Existing Software Regulations generally apply to transactions that involve a "computer program." For purposes of the Existing Software Regulations, a "computer program" is "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result" and expressly includes "any media, user manuals, documentation, data base or similar item if the media, user manuals, documentation, data base or similar item is incidental to the operation of the computer program."[6]

The Preamble to the final Existing Software Regulations noted that Treasury considered "expanding the scope of the regulations to apply to transactions in other types of digitized information."[7] The Preamble acknowledged that "advances in technology now permit significant amounts of content, that are not merely incidental, to be included in even inexpensive mass-marketed programs" and highlighted comments that suggested that the Existing Software Regulations should either (i) expand the definition of "computer program" to include "data bases and content provided as a part of the transaction" or (ii) be applied to other categories of entertainment products or other "digitized information."[8] Treasury declined to do so, however, stating that "[i]t is intended that a computer program includes any media, user manuals or documentation, or similar items (in addition to data bases) if incidental to and routinely transferred along with the computer program."[9] As discussed further below, the Existing Software Regulations generally do not provide a comprehensive basis for categorizing the provision of online access to use a computer program.

ii. Treatment under the Existing Software Regulations

The Existing Software Regulations establish four categories for classifying a transaction involving the transfer of a computer program:

- ***A transfer of a copyright right in a computer program***: A transfer of a computer program is classified as a transfer of a copyright right if, as a result of the transaction, the transferee receives one or more rights that bear indicia of legal ownership of the computer program, such as the right to (i) make copies of the computer program for purposes of distribution to the public by sale or other transfer of ownership (or by rental, lease or lending); (ii) prepare derivative computer programs based upon the transferred computer program; (iii) make a public performance of the computer

6 Treas. Reg. § 1.861-18(a)(3).

7 T.D. 8785, *Background* § II.

8 *Id*.

9 *Id*.

program; or (iv) publicly display the computer program.[10] A transfer of a copyright right in a computer program may be treated as either (a) a sale, if all substantial rights in the copyright are transferred; or (b) a license generating royalty income, if it is not the case that all substantial rights have been transferred.[11]

- ***A transfer of a copyrighted article***: A transfer of a computer program is classified as a transfer of a copyrighted article if the transferee acquires a copy of a computer program but does not acquire any of the rights indicating legal ownership of the underlying computer program as described above (or only acquires a *de minimis* grant of such rights).[12] A transfer of a copyrighted article may be treated as either (a) a sale, if the "benefits and burdens of ownership" of the copyrighted article have been transferred; or (b) a lease generating rental income, if "insufficient benefits and burdens of ownership of the copyrighted article have been transferred."[13]
- ***Provision of services for the development or modification of the computer program***: A transaction involving a newly developed or modified computer program is treated as the provision of services based on all the facts and circumstances of the transaction, including the intent of the parties (as evidenced by their agreement and conduct) as to which party is to own the copyright rights in the computer program and how the risks of loss are allocated between the parties.[14]
- ***Provision of know-how relating to computer programming techniques***: The provision of information with respect to a computer program will be treated as the provision of know-how if the information (i) relates to computer programming techniques; (ii) is furnished under conditions preventing unauthorized disclosure, specifically contracted for between the parties; and (iii) is considered property subject to trade secret protection.[15]

Classifications are generally made based on the facts and circumstances, and neither the form adopted by the parties to a transaction nor the classification of the transaction under copyright law are determinative of treatment for purposes of the Existing Software Regulations.[16] If a transaction relating to a computer program includes more than one of the four

[10] Treas. Reg. § 1.861-18(c)(1)(i).

[11] Treas. Reg. § 1.861-18(f)(1).

[12] Treas. Reg. § 1.861-18(c)(1)(ii).

[13] Treas. Reg. § 1.861-18(f)(2).

[14] Treas. Reg. § 1.861-18(d).

[15] Treas. Reg. § 1.861-18(e).

[16] Treas. Reg. § 1.861-18(g)(1).

transaction types described above, such component parts must be evaluated as separate transactions (unless such component part is de minimis under the facts and circumstances).

B. The Proposed Regulations

As noted above in Part III.A, the Existing Software Regulations generally do not provide a comprehensive basis for categorizing the provision of online access to use a computer program. In addition, in the years following the promulgation of the Existing Software Regulations, transactions involving digital content have dramatically increased in both number and type, expanding far beyond the digital economy that existed in 1998 to include, among other transaction types, digital media streaming, research and information databases, app-based programs and services, and digital cloud storage. Digital content transactions are now commonplace, and the substance of such transactions does not fit neatly into the categories set forth in the Existing Software Regulations.

Rather than replace the Existing Software Regulations with a new conceptual framework to account for the evolution of digital content transactions, the Proposed Regulations layer new rules on top of the framework established by the Existing Software Regulations. In general, the Proposed Regulations seek to (i) clarify the treatment of transactions involving on-demand network access to computing and other similar resources (i.e., cloud transactions, as defined below); and (ii) extend the classification rules in the Existing Software Regulations to transfers of digital content other than computer programs.

i. Proposed Changes to the Existing Software Regulations

The Proposed Regulations broaden the scope of the Existing Software Regulations by applying the Existing Software Regulations to transactions involving "digital content." The Proposed Regulations define "digital content" as "a computer program or any other content in digital format that is either protected by copyright law or no longer protected by copyright law solely due to the passage of time, whether or not the content is transferred in a physical medium."[17] The definition of "computer program" remains the same in the Existing Software Regulations. As noted in the Preamble to the Proposed Regulations, "[d]igital content includes, for example, books, movies, and music in digital format in addition to computer programs."[18]

[17] Prop. Reg. § 1.861-18(a)(3). The Proposed Regulations make conforming changes throughout Treas. Reg. § 1.861-18 to reflect the broadening from "computer program" to "digital content."

[18] 84 Fed. Reg. 157, 40137, *Explanation of Provisions* § II.A (Aug. 14, 2019).

The Proposed Regulations also clarify that the right to perform or display digital content publicly for the purpose of advertising the sale of the digital content does not constitute the transfer of a copyright right for purposes of the Existing Software Regulations.[19]

ii. Proposed Regulations Regarding Cloud Transactions

As the Preamble to the Proposed Regulations concedes, the Existing Software Regulations "generally [do] not provide a comprehensive basis for categorizing many common transactions involving what is commonly referred to as 'cloud computing.'"[20] The Preamble to the Proposed Regulations also concedes that "[a]lthough certain cloud computing transactions may provide similar functionality with respect to computer programs as transactions subject to [the Existing Software Regulations] (for example, the transfer of a computer program via download may provide similar functionality as the same program accessed via a web browser), [the Existing Software Regulations do] not address the provision of online access to use the computer program."[21] Accordingly, the Proposed Regulations add a new set of rules for "cloud transactions."

1. Transactions Subject to the Proposed Regulations

Under the Proposed Regulations, a cloud transaction is "a transaction through which a person obtains on-demand network access to computer hardware, digital content . . . or other similar resources, other than on-demand network access that is de minimis taking into account the overall arrangement and the surrounding facts and circumstances."[22] For these purposes, a cloud transaction "does not include network access to download digital content for storage and use on a person's computer or other electronic device."[23] The Preamble provides that the definition is intended to be expansive, applying not only to "computer hardware and software [or] [Infrastructure as a Service], [Platform as a Service], and [Software as a Service] models" but also "to other transactions that share characteristics of on-demand network access to technological resources, including access to streaming digital content and access to information in certain databases."[24]

[19] Prop. Reg. §§ 1.861-18(c)(2)(iii), (iv); *see also* 84 Fed. Reg. 157, 40137, *Explanation of Provisions* § II.A (Aug. 14, 2019).

[20] *Id*. at *Background*.

[21] *Id*.

[22] Prop. Reg. § 1.861-19(b).

[23] *Id*.

[24] 84 Fed. Reg. 157, 40137, *Explanation of Provisions* § I (Aug. 14, 2019). As explained in the Preamble:

2. Treatment under the Proposed Regulations

Under the Proposed Regulations, a cloud transaction is classified "solely as either a lease of computer hardware, digital content . . . or other similar resources, or [as] the provision of services."[25] The determination of whether a cloud transaction is a lease or the provision of services takes into account all relevant factors, including whether: (i) the customer is in physical possession of the property; (ii) the customer controls the property (beyond the customer's network access and use of the property); (iii) the provider has the right to determine the specific property used in the cloud transaction and replace such property with comparable property; (iv) the property is a component of an integrated operation in which the provider has other responsibilities, including ensuring the property is maintained and updated; (v) the customer has a significant economic or possessory interest in the property; (vi) the provider bears any risk of substantially diminished receipts or substantially increased expenditures if there is nonperformance under the contract; (vii) the provider uses the property concurrently to provide significant services to entities unrelated to the customer; (viii) the provider's fee is primarily based on a measure of work performed or the level of the customer's use rather than the mere passage of time; and (ix) the total contract price substantially exceeds the rental value of the property for the contract period.[26]

As with the Existing Software Regulations, an arrangement that comprises multiple transactions generally requires separate classification for each transaction, with only such portions involving a cloud transaction being subject to the rules in the Proposed Regulations (unless such portions are de minimis).[27]

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> Cloud computing transactions typically are described for non-tax purposes as following one or more of the following three models: Software as a Service ("**SaaS**"); Platform as a Service ("**PaaS**"); and Infrastructure as a Service ("**IaaS**"). See, e.g., National Institute of Standards and Technology, Special Publication 500-322 (February 2018) ("**NIST Report**"). SaaS allows customers to access applications on a provider's cloud infrastructure through an interface such as a web browser. NIST Report, p. 9-10. PaaS allows customers to deploy applications created by the customer onto a provider's cloud infrastructure using programming languages, libraries, services, and tools supported by the provider. NIST Report, pp. 10-11. IaaS allows customers to access processing, storage, networks, and other infrastructure resources on a provider's cloud infrastructure. NIST Report, p. 11.

[25] Prop. Reg. § 1.861-19(c)(1).

[26] Prop. Reg. § 1.861-19(c)(2).

[27] Prop. Reg. § 1.861-19(c)(3).

IV. Recommendation: Expand the Scope of Digital Content to Include Non-Copyrightable Content

We believe that the definition of "digital content" in the Proposed Regulations is unnecessarily narrow, excluding many common transactions that are substantially similar and "functionally equivalent" and thus producing inconsistent tax treatment based on distinctions that are not economically meaningful. Accordingly, we recommend that the definition of "digital content" be expanded to include non-copyrightable information stored and transferred in an electronic format.

A. Treatment under the Proposed Regulations

As mentioned above, the Proposed Regulations define "digital content" as "a computer program or any other content in digital format that is either protected by copyright law or no longer protected by copyright law solely due to the passage of time."[28] Generally, copyright protections apply to "original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[29] This generally includes "compilations"[30] and "derivative works"[31] relating to otherwise-copyrightable materials. However, copyright protections do not apply to "any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work,"[32] nor do they extend to any work of the U.S. government (i.e., work prepared by an officer or employee of the U.S. government as part of such person's official duties).[33]

[28] Prop. Reg. § 1.861-18(a)(3).

[29] 17 U.S.C. § 102(a).

[30] 17 U.S.C. § 103(a). A "compilation" is "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship" and includes any work in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole (such as a periodical issue, anthology, or encyclopedia). 17 U.S.C. § 101.

[31] 17 U.S.C. § 103(a). A "derivative work" is "a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted" and includes any work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship. 17 U.S.C. § 101.

[32] 17 U.S.C. § 102(b).

[33] 17 U.S.C. § 105.

Accordingly, a wide variety of "content" that can be accessed and transferred electronically (e.g., using the internet) would not be included in the definition of "digital content." Consider, for instance, a person that acquires rights to the following materials that are transmitted to the buyer electronically: (i) text files of recipes; (ii) a number of U.S. federal court decisions; and (iii) a set of fonts and typefaces. None of these purchased materials are protected by copyright law: a recipe is "a statement of ingredients and procedure required for making a dish of food"[34] and thus not copyrightable; U.S. federal court decisions are work prepared by an officer or employee of the U.S. government as a part of such person's official duties and thus not copyrightable;[35] and fonts and typefaces are "mere variations of typographical ornamentation or lettering" and thus not copyrightable.[36] Because the rights acquired in such a transaction are not protected under copyright law (nor are they no longer protected by copyright law solely due to the passage of time), it appears that such a transaction would not involve a transfer of "digital content" under the Proposed Regulations and would therefore not be subject to either the Existing Software Regulations or the Proposed Regulations.[37]

By contrast, if the files transmitted to the buyer contained a picture, a song, or a poem, the transaction would be subject to the Existing Software Regulations or the Proposed Regulations (depending on certain other facts)[38] because pictures, songs, and written compositions are copyrightable materials. We do not believe that there is an economically meaningful difference between these transactions, as the transaction is "functionally equivalent" regardless of whether the content transferred is copyrightable, and consequently we do not believe that a distinction should be drawn between these transactions and transactions involving copyrightable content.

Notably, the scope of transactions covered by the Proposed Regulations is not strictly limited to transactions involving "digital content," and this may provide a road map for expanding the definition of "digital content." As discussed above in Part III.B.ii.1, the definition

[34] U.S. COPYRIGHT OFFICE, *Circular 33: Works Not Protected by Copyright*, at 2, available at https://www.copyright.gov/circs/circ33.pdf (last accessed Oct. 1, 2019) (hereinafter "**Circular 33**"); see also 17 U.S.C. § 102(b).

[35] 17 U.S.C. § 105.

[36] Circular 33 at 3; *see also* 17 U.S.C. § 103(b).

[37] We also note that foreign jurisdictions have differing copyright protections for certain categories of materials (e.g., typefaces, which are protected under copyright in many European countries and Canada but not in the United States), so predicating transaction classifications on copyright protections may lead to confusion for foreign taxpayers or multinational corporations. *See* Terrence J. Carroll, *Protection for Typeface Designs: A Copyright Proposal*, 10 Santa Clara High Tech. L.J. 139 (2012).

[38] For example, if the buyer acquired access to a database that contained such materials, such a transaction may be a cloud transaction under the Proposed Regulations.

of "cloud transaction" covers access to "computer hardware, digital content (as defined in [Proposed Regulations section] 1.861-18(a)(3)), *or other similar resources* (emphasis added)."[39] While it is not clear what would be considered "similar" to computer hardware or digital content, the reference to "similar resources" in the Proposed Regulations provides some flexibility in treating substantially similar transactions similarly.

Example 11 in Proposed Regulations section 1.861-19(d) ("**Example 11**") is instructive in this regard. This example centers on an online database of industry-specific materials that users access through a website, which aggregates and organizes information topically and hosts a proprietary search engine. The example notes that "[m]ost materials in [the provider's] database are publicly available by other means" and only "[c]ertain materials in [the provider's] database constitute digital content within the meaning of [Proposed Regulations section] 1.861-18(a)(3)." Nonetheless, the example concludes that the provision of access to the website and online database is a cloud transaction. While it is unclear whether the conclusion would be different if none of the materials in the database constituted digital content, we do not believe the conclusion should be different because the transactions are substantially similar and "functionally equivalent."

B. Suggested Approach

We suggest that Treasury (i) expand the scope of "digital content" to cover material that is "similar to" copyrightable materials, and (ii) clarify that the conclusion in Example 11 would not be different if the online database contained no copyrightable materials.

In addition, nomenclature should be changed to reflect that sales of digital content need not involve copyrightable materials . Specifically, (i) the term "copyrighted article" should be replaced with the term "digital copy" throughout Treasury Regulations section 1.861-18, as well as in Examples 7, 8, and 11 in Proposed Regulations section 1.861-19(d), and (ii) conforming changes should be made to the definition of "copyrighted article" in Treasury Regulations section 1.861-18(c)(3).

V. Recommendation: Eliminate Distinction Between Temporary Downloads and Streaming

We believe that the Proposed Regulations make artificial distinctions among digital content transactions that are economically equivalent. For instance, many types of digital content transactions – including the provision of digital media (e.g., music files and feature films) and app-based programs (e.g., document-editing program suites, whether downloaded

[39] Prop. Reg. § 1.861-19(b) (emphasis added).

onto a computer or a smartphone) – may be either downloaded (and thus subject to Proposed Regulations section 1.861-18) or streamed (and thus subject to Proposed Regulations section 1.861-10)[40] and, in most cases, the difference between downloading and streaming is incidental to the substance of the transaction, namely, temporary access to content. To that end, we recommend eliminating the distinction between on-demand access to digital content and temporary downloads of digital content, as such transactions are functionally equivalent.

The Proposed Regulations distinguish transactions based on the nature of the technology used rather than on the economic substance of the transaction. Generally, a transaction in which a user receives on-demand access to digital content is characterized as either a lease or the provision of services under Proposed Regulations section 1.861-19, while a similar transaction in which the user receives a temporary download of the same content is characterized as a lease of a copyrighted article under the Existing Software Regulations. However, the decision whether to provide users with on-demand access to digital content or temporary downloads of digital content is typically driven by the nature of the technology involved (e.g., the memory capacity of a user's computer, the download speeds available, etc.) and generally has no bearing on the economic substance of the transaction. Such differences in technology (i.e., differences that do not affect a user's rights in the underlying digital content but rather go only to the technological method of accessing the digital content) should not bear on the tax classification of the transaction. In particular, we believe that on-demand access to digital content should not be treated differently than temporary downloads of digital content. The two are often "functionally equivalent" and substantially similar, as explained in more detail below.[41]

For purposes of this Report, when we refer to "**temporary downloads**" of digital content, we are referring only to transactions that are downloaded and available to a user for a period of time (e.g., during the period the user is paying for a subscription) but become inaccessible (either through an electronic lock, or otherwise) after such period of time and thus are not properly characterized as a sale of a copyrighted article under the Existing Software Regulations or the Proposed Regulations.

[40] Although we recognize that "streaming," "online access," and other similar concepts related to digital media may, in some cases, not constitute "cloud transactions" within the meaning of Proposed Reg 1.861-19, for purposes of this Report we have generally assumed that in the contexts in which we are discussing them that such terms represent a subset of "cloud transactions" as defined in Prop. Reg. § 1.861-19.

[41] We believe that this is most easily accomplished by combining the rules in Existing Software Regulations and the Proposed Regulations into a single set of regulations (as distinguished from the current approach of two sets of regulations, -18 and -19, that address digital content transactions). Alternatively, if Treasury prefers two sets of regulations, we would recommend that -19 address all digital content transactions. *See also* American Bar Association Section of Taxation, Comments on Taxation of Cloud Transactions (From a Character Perspective), August 4, 2016.

C. Treatment under the Proposed Regulations

The Proposed Regulations clearly state that "network access to download digital content for storage and use on a person's computer or other electronic device" does not constitute a cloud transaction.[42] Thus, digital content downloaded to a user's device is characterized under Proposed Regulations section 1.861-18, while digital content provided online or otherwise streamed to a user is characterized under Proposed Regulations section 1.861-19.[43]

The distinction between "streaming" and temporary "downloading" of digital content may result in many common types of transactions that are "functionally equivalent" being treated differently. As we understand it, in many situations, technological and practical limitations, and not differences in business model, drive whether digital content is provided by means of (i) temporary user downloads of digital content to their own computers or other electronic devices or (ii) streaming. For example, pictures, books, and other text-based digital content are often temporarily downloaded and not streamed because the files containing such digital content are small enough that they can be easily transmitted to the user and temporarily stored by the user at a low cost. On the other hand, videos are often streamed rather than downloaded because the files containing such digital content are large and thus the cost of temporarily downloading and storing multiple video files by the user can be significant.[44] In other situations, such as music, users may both temporarily download and stream digital content because the files containing such digital content are small enough that they can be, on the one hand, easily transmitted to the user and stored by the user at a relatively low cost for offline access (e.g., when the user is on an airplane) and, on the other hand, accessed at a low cost when the user is connected to the internet or a cellular data network.

Typically, access to digital content that is temporarily downloaded instead of streamed may be re-accessed on the provider's server and re-downloaded by the user over time. Sometimes, users may have the option to temporarily download different versions of the same digital content.[45] Taken together, these characteristics suggest that distinguishing between

[42] Prop. Reg. § 1.861-19(b).

[43] Several examples in the Proposed Regulations further clarify that, if the downloaded content is de minimis in the context of the overall transaction, then the transaction can still be characterized as a cloud transaction. *See, e.g.*, Prop. Reg. § 1.861-19(d), examples 3 and 6.

[44] Even when a customer streams video files, many "streaming" services actually require some downloading of the relevant digital content (often referred to as "buffering") in order to minimize interruption in the consumption of the digital content that may be caused by intermittent internet service. Content providers may also pre-download content that the provider believes, based on a review of the user's previous behavior, the user is likely to consume in order to provide the user with a smoother experience.

[45] For example, users may be able to download smaller standard definition files or larger high definition files and different versions of the same digital content may be made available to users from time to time (e.g.,

temporary downloading and streaming makes the tax treatment of a transaction depend on technological limitations that are both incidental to the overall economics of the transaction and subject to change over time based on advances that are independent of changes to the underlying transaction between provider and user.

The examples in the Proposed Regulations demonstrate the dependence of the Existing Software Regulations and Proposed Regulations on arbitrary distinctions regarding whether digital content is downloaded or streamed. Consider, for example, Examples 6 and 7 in Proposed Regulations section 1.861-19 as described in the following table:

Example 7		**Example 6**
Word processing, spreadsheet, and presentation software	***Content Type***	Word processing, spreadsheet, and presentation software
Via proprietary app	***User Access***	Via proprietary app
Near full functionality available without internet connection	***Ability to Use Without Internet Connection***	Limited features are available without internet connection
Users may not alter program code	***User Rights to Content***	Users may not alter program code
Monthly fee based on number of program copies	***Form of Payment***	Monthly fee based on number of program copies
Provider makes regular updates available to users	***Content Updates***	Provider makes regular updates available to users
"Electronic lock" activated upon termination, preventing user from continuing to use app	***Termination of Arrangement***	"Electronic lock" activated upon termination, preventing user from continuing to use app
User's device	***Site of File Hosting***	Provider's servers

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when a higher quality version of the same content becomes available or when the user needs a standard definition file for use on a specific device).

Example 7		Example 6
Lease of a copyrighted article under Treas. Reg. § 1.861-18	***Treatment under Existing Software Regulations and Proposed Regulations***	**Cloud transaction – provision of service under Prop. Reg. § 1.861-19**

As a practical matter, the only functional difference between Examples 6 and 7 is the degree of functionality that requires continuous access to the internet, a characteristic that is driven primarily by technological choices rather than the economics of the underlying transaction. As noted above, the decision whether to host the digital content on the user's device (i.e., downloading) or on the provider's servers (i.e., streaming) is typically driven by the nature of the technology involved (e.g., the memory capacity of a user's computer or the download speeds available) and generally has no bearing on the economic substance of the transaction. We recognize that in Example 6, the user must have an internet connection to access the full functionality of the program suite, while the user in Example 7 may use the suite with full functionality offline; however, we do not believe that such a distinction is significant in light of the overall transaction. The substance of both transactions is the time-limited provision of a suite of professional software programs to the user. Distinguishing based on the degree of functionality that requires access to the internet results in treating functionally equivalent transactions differently.

Likewise, consider Example 20 in Treasury Regulations section 1.861-18 ("**Example 20**") and Example 11 (described above in Part IV.A) as described in the following table:

Example 20		Example 11
Catalog of copyrighted music files	***Content Type***	Catalog of industry-specific materials
Users download content from provider's online database	***User Access***	Users download content from provider's online database
Users may not alter content platform nor reproduce or distribute downloaded content	***User Rights to Content***	Users may not alter content platform and may only reproduce or distribute downloaded content if such content is not copyrighted

Example 20		Example 11
Monthly fee	***Form of Payment***	Fee based on number of searches on the platform
Provider secures licenses to digital content and maintains platform and servers necessary to provide content to users	***Provider Responsibilities***	Provider secures licenses to digital content where necessary and maintains platform and servers necessary to provide content to users
"Electronic lock" activated upon termination, preventing user from continuing to use content	***Termination of Arrangement***	User no longer has access to content
Lease of a copyrighted article under Treas. Reg. § 1.861-18	***Treatment under Existing Software Regulations and Proposed Regulations***	**Cloud transaction – provision of service under Prop. Reg. § 1.861-19**

Setting aside that Example 20 describes a transaction type that is no longer commonplace, as most music platforms allow users to either download or stream music files interchangeably at the user's preference, the two transactions are functionally equivalent. Both transactions involve the user receiving on-demand access to a curated and organized catalog of digital content in exchange for a fee, and the provider is responsible for maintaining both the content itself and the software and hardware necessary to grant users access to that content. Further, in both examples, some digital content (i.e., the music files in Example 20 and the industry-specific files in Example 11) is downloaded to the user's computer, and additional digital content (i.e., the software that organizes the files and allows users to search for and locate the files they wish to download) is hosted by the provider on the provider's servers. The central distinction between the two examples is the suggested importance of the software that organizes and effects distribution of the digital content files (i.e., the portion of the digital content that is accessed on-demand rather than downloaded).[46] This appears to us to be an arbitrary line to draw between

[46] Consider, for instance, that many music-file providers also allow users to play the music files through the providers' proprietary apps (rather than requiring users to use separate media playback software to use the files) and also provide users with recommendations for digital content that is similar to other digital content the user has previously downloaded. Many consumers care about these functions, suggesting that

such transactions. In Example 20, the downloaded digital content (i.e., the user's files) is considered to be the more important component of the transaction, and the digital content that is accessed on-demand (i.e., the software that organizes and effects downloads of that content) is deemed to be incidental, while in Example 11, the converse appears to be the case. We do not discern a clear principle that guides the determination of the relative importance of the temporarily downloaded digital content as compared with the digital content hosted on the provider's servers. But, even more importantly, we believe that such distinctions are arbitrary and should not result in different tax treatment.

These examples also highlight an additional practical challenge for both taxpayers and the Service in implementing the Proposed Regulations: how to determine the predominant character of a transaction as technology changes over time. Assume that the app described in Examples 6 and 7 allowed users to view feature films (rather than providing word processing, spreadsheet and presentation software) in exchange for a monthly fee, such that the user's right to view the content ended after a set period. Assume that, at the outset, the provider only allowed users to stream the films, as most consumer media players do not have sufficient memory capacity to hold large digital files. Because the transaction involves the user receiving on-demand access to digital content hosted on the provider's servers, it would be characterized as a cloud transaction under Proposed Regulations section 1.861-19.[47] Suppose that, over time, however, technological advancements improve the memory capacity of most consumer media players and the provider grants users the option to use partial or complete temporary downloads of the entire digital film library to improve user experience by ensuring uninterrupted play and minimizing lower-resolution streaming due to fluctuations in streaming speed. Such downloads take the form of secured files that expire at the end of the fee period. Because of these technological advancements, transactions that involve complete temporary downloads would be recharacterized as leases under Proposed Regulations section 1.861-18;[48] transactions that involve only streaming would continue to be characterized as cloud transactions under Proposed Regulations section 1.861-19; and transactions in which the film is partially temporarily downloaded and partially streamed would require additional analysis to determine their predominant character, which would involve arbitrary line-drawing regarding how much of a user's activity must involve temporarily downloaded content (as opposed to streamed content) before it is no longer a cloud transaction under Proposed Regulations section 1.861-19. This analysis is unnecessarily complex and burdensome, particularly when the transactions are

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the provider's hosting software is more important to the economics of the transaction than is suggested in Example 20.

[47] *See* Prop. Reg. §§ 1.861-19(c); (d), Example 9.

[48] *See* Treas. Reg. §§ 1.861-18 (c)(1)(ii); (h), Example 21.

functionally equivalent, and the only distinction among them is the memory capacity of the device on which the film is viewed.

We believe that the provision of access to digital content in the form of "pure" streaming (absolutely no downloading of such content) and temporary downloads are fundamentally equivalent transactions that should be treated consistently under the Proposed Regulations. Most often, the sole determining factor for whether digital content is streamed or downloaded is the nature of the technology involved (e.g., the speed of the user's internet connection, the computing capacity of the provider's servers, or the memory capacity of the device through which the user accesses the digital content). Such technological and practical limitations are unrelated to the digital content provided to the customer and should not result in a different tax treatment of the same underlying transaction between the content provider and the user, namely, time-limited access to digital content.[49]

D. Suggested Approach

We recommend that temporary downloads of digital content not be treated differently from streaming of digital content.[50] As evidenced by the distinctions drawn between Examples 6 and 7, as described above, we believe that the existing framework will likely precipitate disputes about the relative level of functionality in software, an area far outside the expertise of either the Service or the tax departments of taxpayers. A simplified regime along the lines we suggest, treating transactions with the same economic characteristics the same, would prove more administrable and easier to comply with.

We acknowledge that our approach would expand the ambit of digital content transactions subject to Proposed Regulations section 1.861-19, including potentially expanding to transactions that are not otherwise thought of as traditional "cloud" transactions (e.g., the temporary downloading of digital content). The Proposed Regulations generally treat transactions to which Proposed Regulations section 1.861-19 applies as the provision of

[49] A more meaningful distinction may be whether the provider of digital content has an ongoing obligation to provide non-de minimis functionality or digital content to the user over time. However, we believe that transactions that are economically and functionally equivalent should not be treated differently for tax purposes based on such arbitrary distinctions.

[50] We note that one-time transfers of digital content after which the provider has no continuing obligation to provide the user with online access or additional downloads (e.g., a user's one-time download of a suite of professional document editing software) would still be appropriately treated as a sale of a digital copy (or, under the current rules, a copyrighted article), and our recommendation does not seek to recharacterize such sales.

services.[51] As with the other transactions Treasury has analyzed in the examples to the Proposed Regulations, these transactions have certain features that under traditional principles and section 7701(e) are, on the one hand, more like leases and other features that are, on the other hand, more like services. We recommend that all transactions that are functionally equivalent be treated similarly. Moreover, we believe that, to the extent Treasury implements a source rule that applies to digital content transactions (as discussed further below in Part VI), the characterization of such transactions as a lease, service, or something else is of less importance than it otherwise might be.

VI. Recommendation: Establish Sourcing Rules That are Consistent for Digital Content Transfers

The Proposed Regulations would amend Treasury Regulations section 1.861-18(f) regarding sourcing transfers of copyrighted articles. In addition, the Preamble to the Proposed Regulations requests comments on "administrable rules for sourcing income from cloud transactions." An analysis of source for digital transactions would address deep questions about which jurisdiction, generally the provider's or the user's, should have the right to tax under international norms. As it relates to specific sourcing rules, our comments will only address practical and administrative considerations, however.

E. Potential Approaches to Sourcing

Although there are many different ways that income from cloud transactions could be sourced, two principal approaches present themselves: (i) the "**provider approach**," under which income from a digital content transaction is sourced based on the location at which the provider performs services (in the case of a service transaction) or provides the property (in the case of a leasing transaction); and (ii) the "**end-user approach**," under which income from a digital content transaction is sourced based on the location of the end-user.

i. Provider Approach

The provider approach is consistent with the sourcing rules for provision of services and leases in other provisions of the Code.[52] In the context of digital content transactions, however,

[51] *See also* American Bar Association Section of Taxation, Comments on Taxation of Cloud Transactions (From a Character Perspective), August 4, 2016.

[52] *See generally* § 861(a)(3), (4) (regarding services performed or property located (or the right to use property located) in the United States); § 862(a)(3), (4) (regarding services performed or property located (or the right to use property located) without the United States).

both the location where services are provided and the location of leased property can be unclear, absent additional guidance.

With respect to the performance of services, there is no clear existing authority regarding the location of performance. *Piedras Negras Broadcasting Co. v. Commissioner*[53] is instructive, as it provides a framework for analyzing sourcing issues for transactions in which the service provider and the end-user are not in the same location. In *Piedras Negras*, the court analyzed the source of certain income related to advertising that was radio broadcast from Mexico but targeted at customers in the United States. The Tax Court looked to the location of capital (e.g., broadcasting equipment) and labor (e.g., personnel) owned and operated by the taxpayer and ultimately held that the situs of the taxpayer's advertising services was the location of its radio broadcasting facilities in Mexico. The Court of Appeals for the Fifth Circuit affirmed, stating that the source of income is the "situs of the income producing service" (i.e., "the services required by the taxpayers under the contract").[54] Consistent with *Piedras Negras*, under the provider approach, transactions would generally be deemed to be performed at the location of the server and/or the personnel associated with the transaction.

It is important to note, however, that in the contemporary world, this is not how multinational companies typically operate. Instead of a single company owning assets and facing customers across multiple jurisdictions, as was the case in *Piedras Negras*, a U.S. taxpayer providing cloud computing services to a U.S. customer would not have any physical presence outside of the United States and would instead contract with an affiliate in a non-U.S. jurisdiction that owned the transmission assets. In establishing this relationship, most multinational companies would typically not establish an agency relationship; instead, the non-U.S. affiliate would provide data hosting and cloud computing services to its U.S. affiliate, while the U.S. affiliate provided services to the U.S. customer. The reverse would also typically be true for a customer located in such non-U.S. jurisdiction. This logically implies that under the provider approach the income earned by the non-U.S. affiliate would be sourced in the non-U.S. jurisdiction, while the income earned by the U.S. affiliate would be sourced in the United States (because it has no physical presence outside of the U.S.). Hence, in the case of most typical multinational taxpayers, the provider approach effectively collapses sourcing and transfer pricing considerations into a single inquiry.

[53] 43 B.T.A. 297 (1941), *aff'd* 127 F.2d 260 (5th Cir. 1942).

[54] 127 F.2d at 260-61. The Fifth Circuit has continued to affirm this principle, although not expressly for cloud and digital content transactions. *See, e.g.*, *Container Corp. v. Commissioner*, 107 A.F.T.R.2d (RIA) 2011-1831 (5th Cir. 2011) (citing to *Piedras Negras* for the proposition that "the source of payments for services is where the services are performed, not where the benefit is inured" in the context of certain guaranty fees).

Likewise, with respect to transactions characterized as leases, there is no clear existing authority regarding the "location" of the property. It can be argued that in the context of a digital content transaction, the leased property is "located" either in the jurisdiction in which the provider is a resident or at the location of the server(s) used to host and transmit the digital content to users. Similar to a traditional leasing arrangement, the end-user does not acquire the benefits and burdens of ownership of the digital content and instead only leases a copy, so the digital content being leased is still owned by the provider. Clarifications would be necessary regarding whether the appropriate source would be the location of the provider itself (on the theory that the ownership rights to the digital content – and thus the digital content itself – reside with the provider) or the location of the server(s) on which the provider hosts the digital content and through which the provider transmits the digital content to users (on the theory that users access and receive the digital content from such server(s) in the first instance, regardless of whether the content is accessed on-demand or temporarily downloaded).

The most significant benefit of the provider approach is that providers generally control the information necessary to determine how the income should be sourced (e.g., the location of the servers), so, in general, a provider approach sourcing rule may be comparatively easy to administer and verify, both for taxpayers and the Service. Unlike the end-user approach (as discussed below), the provider approach would (i) require significantly less tracing of customer activities, (ii) minimize the impact of users that access digital content through location-disguising tools, and (iii) preclude the need for apportioning income among multiple jurisdictions because of user travel during the contract period.

We understand, however, that this approach may be more susceptible to tax planning strategies, as providers would generally control the location of both the owner of the digital content and the servers used to transmit content to users.

ii. End-User Approach

Under the end-user approach, income would be sourced based on the location of the user. This approach is generally consistent with the approach for sourcing income from transfers of copyrighted articles in Proposed Regulations section 1.861-18(f)(2)(ii) as well as for leasing transactions more generally.[55] Consider the example of a company that provides users with access to video content on-demand. Under the end-user approach, the provider's income from the transaction would generally be sourced to the location(s) in which the customer streams such

[55] *See generally* § 861(a)(4) (regarding services performed in the United States); § 862(a)(4) (regarding services performed without the United States). We also note that some states have implemented this approach as well. For example, California uses an end-user approach for sourcing income from certain taxable sales. *See generally* CAL. CODE REGS. tit. 18, § 25136-2 (2019).

content over the course of the contract period, regardless of the location of either (i) the provider or (ii) the servers used in the provision of the content. The same would be true if instead the users lease individual film files (within the meaning of Treasury Regulations section 1.861-18(f)(2)) from the provider.

A benefit of the end-user approach is that it is less susceptible to tax planning, as providers do not control the location or movement of users. However, under the end-user approach, providers would be required to collect, store, and analyze a tremendous amount of user location data to make the sourcing determination for every transaction, each of which may require segmentation (as users may move or travel while the service is being provided). In addition to the privacy considerations associated with collecting and storing data on each user's location over the course of time that the service is provided,[56] we understand that there exists additional complications around whether providers can even collect such data reliably and accurately.[57]

F. Suggested Approach

Although we do not have a recommendation at this time on the best approach for sourcing income from cloud transactions as between the provider approach and the end-user approach, we suggest that the sourcing rules for digital content transactions treat economically equivalent transactions equivalently and that consistent rules should apply for sourcing digital content transactions. Practical and technical considerations should be weighed in determining the appropriate method of sourcing income from digital content transactions. Nevertheless, we believe that administrative difficulties can ultimately be overcome, perhaps through the use of rebuttable presumptions (where necessary or appropriate).

[56] For example, in certain jurisdictions, the collection and use of such information may require taxpayers to undertake additional legal obligations. *See generally* EU General Data Protection Regulation.

[57] For example, "virtual private networks," which can be used to disguise the physical location of persons using the internet, are becoming increasingly common among internet users. Such tools may effectively preclude providers from collecting accurate data on the location of users.