Dark Fiber Transactions:
A Primer on IRUs, Dark Fiber Leases and Related Legal Matters

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INTRODUCTION

This paper offers a brief discussion of the fundamental legal concepts surrounding dark fiber transactions. It is intended to assist municipal attorneys who may be called upon to evaluate the lease or sale of dark fiber owned by, or to be constructed by, their municipal client, or with regard to an acquisition of dark fiber use rights by the municipality from another entity.

The discussion is organized as follows:

I. What is "Dark Fiber"?
II. What is an "Indefeasible Right of Use"? (IRU)
III. IRU vs. Dark Fiber Lease
IV. Content of an IRU or Dark Fiber Lease Agreement
V. Other Issues Concerning Dark Fiber Transactions

I. What is "Dark Fiber"?

Physically, the term "dark fiber" refers to a strand of unused or unactivated fiber optic cable. The strand may or may not be immediately capable of transmitting optical communication signals. Dark fiber might be constructed and owned by one entity, and another entity may be called upon to install the equipment to activate and operate it. Or, dark fiber may already exist in cables in which some fiber optic strands have been activated, while some are unused. However dark fiber transactions are manifest, the key point for present purposes is that the ability and the right to transmit information over the strand – to activate or "light" the fiber – is legally and contractually distinguishable from the ownership interest in the underlying physical facility.

From a regulatory perspective, a transaction involving dark fiber generally does not implicate the arcane jungle that is federal communications regulation. The linchpin of the federal Communications Act, as amended by the Telecommunications Act of 1996 (Title II, 47 U.S.C. §151, *et seq.*), is the provision of "telecommunications service," which is defined as "the offering of telecommunications for a fee to the public, or to such classes of users as to be effectively available directly to the public, regardless of facilities used." 47 U.S.C. § 153(46). The embedded term "telecommunications" means "the transmission, between or among points specified by user, of information of the user's choosing, without change in the form or content of the information as sent or received." 47 U.S.C. § 153(43).

Because the grant of a right to use dark fiber does not involve the "transmission" of anything, it seems simple to say that dark fiber is not "telecommunications," is not a "telecommunications service," and is therefore not subject to federal regulation under Title II of the Act.

It is not so simple, however. Prior to 2008, most FCC Orders and case law in fact suggested that dark fiber *was* subject to the FCC's jurisdiction under Title II, as a "telecommunications

service." Courts relied on a 1993 FCC ruling that leasing dark fiber constitutes "wire communication," which was the operative term prior to the Telecommunications Act of 1996, and which included "all instrumentalities, facilities, apparatus, and services incidental to" the transmission of information.[1] Some courts went further, explicitly finding that leasing dark fiber constituted a telecommunications service.[2]

In 2008, however, the FCC reviewed its Dark Fiber Order and subsequent case law (after a remand from the D.C. Circuit Court) and announced that it had "not yet resolved this question of dark fiber service classification, although it raised this issue as it relates to universal service in a Further Notice of Proposed Rulemaking on schools and libraries universal service funding."[3]

In 2010, the FCC issued its Schools and Libraries Program Sixth Report and Order.[4] That Order noted that FCC's Third Report and Order, released in 2003, had found that "pending resolution of the regulatory status of dark fiber, it would not be eligible for E-rate discounts." The Order reversed the FCC's previous decision, acknowledging that "dark fiber has not been classified as either a telecommunications service or Internet access" but determining that dark fiber could be eligible for E-Rate funding.

Perhaps more tellingly, dark fiber revenue is not subject to assessment under the federal Universal Service Program, which assesses a fee based upon gross revenues from the provision of interstate and international "telecommunications" and "telecommunications service."[5] The USP contribution base does not include "[r]evenues form the sale or lease of transmission facilities, such as dark fiber or bare transponder capacity, that are not provided as part of a telecommunications service…."[6]

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1 The Commission found that dark fiber clearly fell within the Communications Act's definition of "wire communication," which included "all instrumentalities, facilities, apparatus, and services incidental to" the transmission of information "between two or more points by means of electronic communications." *Southwestern Bell Telephone Company, et al.,* Application for Authority Pursuant to Section 214 of the Communications Act of 1934 to Cease Providing Dark Fiber Service, File Nos. WP-C-6670, W-P-D-364, Memorandum Opinion and Order, 8 FCC Rcd 2589, 2593, para. 17 (1993)(*"Dark Fiber Order").*

2 *Global NAPS, Inc. v. New England Tel*., 156 F.Supp.2d 72, 78 (D. Mass. 2001) (finding that the FCC treats the leasing of dark fiber as the provision of a telecommunications service).

3 Federal Communications Commission (F.C.C.) Order on Remand, 23 FCC Rcd. 569 (2008).

4 Sixth Report and Order, available here: http://www.universalservice.org/_res/documents/about/pdf/fcc-orders/2010-fcc-orders/FCC-10-175.pdf.

5 As well as interconnected VoIP.

6 2016 Instructions to the Telecommunications Reporting Worksheet, FCC Form 499-A, at 32.

In practice, then, we are back to our original, simpler formulation: a sale or lease of "dark fiber" does not amount to "telecommunications" nor a "telecommunications service" under federal law because it does not involve "transmission" of information.[7] Fundamentally, dark fiber is property[8] in which a right of use may be conferred.

II. What is an "Indefeasible Right of Use"?

An "indefeasible right of use" (IRU) is a common method by which rights in fiber optic cables are transferred within the telecommunications industry.[9] It is not the only method (see discussion of dark fiber leases in Section III) but it is certainly one that telecommunications companies are comfortable with, and some may require it.

Pioneered by AT&T in the 1960s as a means of allowing access to undersea cables, and facilitated by the FCC in a 1964 decision stating that IRUs served the public interest,[10] an IRU typically is an agreement granting the exclusive use of unactivated fiber optic cable (a "dark fiber IRU") or capacity (a "capacity" or "lit fiber" IRU) for a period of time that usually corresponds to the theoretical useful life of the asset (in the case of fiber optic cable, typically 20 years). It often includes a right or option to acquire ownership of the asset at the end of the term.

Normally, a grantee's payment for an IRU is front-loaded, and is almost entirely made at the inception of the grant. In that sense, an IRU is "irrevocable," in that the primary obligation of the grantee – to pay for use of the fiber for the duration of its useful life – has been met. In many respects an IRU is as close to an outright sale as is possible, without actually transferring title.

An important consequence of this structure is that an IRU purchaser is normally allowed to treat its investment in the facility as a capital cost, rather than as an expense. While this may be of little concern for local governments acquiring an IRU, it can be very important to private sector telecommunications companies that acquire an IRU.

Court decisions interpreting the precise nature of IRU are few. A bankruptcy court case was called upon to do so in 2006, and ultimately held that an IRU was a property right that survived the disposition of the property as the result of the bankruptcy proceeding.[11] While the court specifically limited its holding to the IRU agreement at issue, its discussion of IRUs in general is instructive so we quote it here at length:

> No court has determined the precise legal nature of an IRU. Some decisions provide guidance. For instance, the Second Circuit described an IRU as an "ownership

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7 This is generally the case under state law formulations of regulated communications services as well, but is not necessarily so. It is important to verify this issue with regard to the laws of the particular state.

8 Whether dark fiber is real or personal property varies from state to state. It may depend on whether the underlying real estate is owned by the same entity

9 To our knowledge, the use of an IRU is limited to the telecommunications industry.

10 *In re American Tel. & Tel. Co.*, 37 F.C.C. 1151, 1161 (1964).

11 *Worldcom, Inc. v. PPL Prism, LLC,* 343 B.R. 430 (Bankr. SDNY, May 16, 2006)

> interest." *Western Union International Inc. v. Federal Communications Com., 568 F.2d 1012, 1015 n.3 (2d Cir. 1977)*. Other courts have compared IRUs to leases. *See, e.g., In re E.spire Communs., Inc., Sec. Litig., 127 F. Supp. 2d 734, 738 n.6 (D. Md. 2001)*; *Taft v. Ackermans, No. 02 Civ. 7951, 2005 U.S. Dist. Lexis 6340, at *5 (S.D.N.Y. Apr. 12, 2005)*. Some tax cases have treated the acquisition of an IRU as a purchase. Lichtenstein & Rohe, *supra* at 86 n.9 (citing *Rev. Rul. 73-77, 1973 C.B. 34*; *Rev. Rul. 69-2, 1969-1 C.B. 25*). In 1975, the General Counsel's Office of the Internal Revenue Service drafted a ruling that "equated an IRU to ownership of electronic transmission channels." *Id.* at 86 n.10 (citing I.R.S. *G.C.M. 36,334 (July 2, 1975), available at* 1975 WL 37603).
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> Secondary legal sources have attempted to determine the contours of IRUs. An IRU can mix property and contract rights, and "viewed from different angles, an IRU may appear to be a lease or sale of the assets underlying the IRU or simply a service contract." Subramanian, *supra* at 2095; *see also* Lichtenstein & Rohe, *supra* at 83. A court should decide that a particular IRU constitutes a property interest if the IRU "identifies specific assets to be devoted to the IRU holder for a definite term. ..." Subramanian, *supra* at 2097. Most importantly, an IRU represents a property interest if "a right of use and economic possession are conveyed." *Id. at 2109. . . .*
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> Some authors think that dark fiber IRUs "are easy to conceptualize as sales." Lichtenstein & Rohe, *supra* at 86. This analogy to a sale seems valid even if a separate agreement provides for maintenance by the grantor of the IRU.

Worldcom, Inc. at 439.

In addition, the court emphasized that specific language in the IRU Agreement between MCI Worldcom and Cambrian appeared to contemplate the transfer of an ownership interest:

> The recitals section of the IRU Agreement states that "Cambrian desires to *sell* to WorldCom and WorldCom desires to *purchase* from Cambrian the *exclusive right to use* certain fibers . . ." (IRU Agreement at 1 (emphases added).) The Agreement further provides that "upon WorldCom's final acceptance of the WorldCom Fibers, Cambrian shall *sell, convey, transfer, assign and deliver* to WorldCom and WorldCom shall accept and *acquire* from Cambrian all of Cambrian's *beneficial title and interest* in and to the WorldCom Fibers, including without limitation an exclusive, indefeasible right of use in the WorldCom Fibers ('IRU')." (*Id*. P 2.01 (emphases added).) MCI is to be considered as "the absolute owner." (*Id*. P 13.01.) The Agreement even speaks of an "ownership interest" in the fibers. (*Id*. P 25.02.) … Additionally, Cambrian's invoice charges MCI for the IRU "for a *lease* term of 20 years." … MCI had the option of purchasing legal title to the fibers at the end of the 20-year term for ten dollars.

Id., at 440.

The court held that the MCI Worldcom IRU was not a license but “an ownership interest closer to an easement or a lease”:

> The IRU Agreement precisely identifies the fibers subject to the IRU. The results of the tests by Cambrian before formal acceptance by MCI also singled out these fibers. Moreover, the right to use the fibers is exclusive to MCI. Therefore, MCI's IRU is not a license." *Worldcom, Inc.*, at 440.
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> MCI's interest is an ownership interest closer to an easement or a lease. In *Coinmach Corp. v. Harton Associates*, 304 A.D.2d 705, 758 N.Y.S.2d 388 (N.Y. App. Div. 2003), the Court identified "a lease rather than a license" because the agreement "contained a description of the specific premises to be occupied by plaintiff, specified the amount of rent to be paid, and provided for the plaintiff's exclusive use and occupancy for a fixed period of time. ..." *Coinmach, 758 N.Y.S.2d at 389*; *see also Nextel of New York, Inc. v. Time Management Corp.*, 297 A.D.2d 282, 746 N.Y.S.2d 169, 170 (N.Y. App. Div. 2002). In the instant matter, MCI's IRU represents an exclusive right to use specific fibers for a determinate price and definite duration.
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> The concept of sale for a term of years even more aptly describes MCI's interest in the fibers because, but for the ten-dollar payment necessary to acquire title at the end of the agreement term, MCI prepaid for the IRU.

Id. at 440-41.

In spite of its extensive discussion, the court in *Worldcom, Inc.* did not ultimately determine precisely what the MCI Worldcom IRU was – i.e., a lease, an easement or a sale for term of years. Once it determined that the IRU in question conveyed a property interest, rather than a mere contractual interest, its inquiry was complete.

Finally, note that in 2010 the National Telecommunications and Information Administration (NTIA), in its FAQ for Round 2 of the BTOP broadband stimulus program, observed: "An IRU agreement is the contractual grant of usage rights in facilities or equipment used to provision broadband service. It may combine elements of a sale, a lease, and a service contract."[12]

III. IRU vs. Dark Fiber Lease

As noted above, an IRU is not the only means by which a right to use dark fiber (or lit fiber) may be granted. A straightforward lease may be appropriate as well, and may be preferable in some circumstances.

To begin with, it is important to note that the title of the agreement – whether "Lease" or "IRU" – does not necessarily make it so. A contract that purports to be an IRU may in fact be a lease.[13]

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12 National Telecommunications and Information Administration, "Broadband Technology Opportunities Program, Frequently Asked Questions," (May 28, 2010) http://www2.ntia.doc.gov/files/nofa2_faqs_5_28_10.pdf.

13 Indeed, the *Worldcom, Inc.* court and the secondary sources cited above suggest that an IRU is a "species of lease."

Less likely, but still possible, a document that says it is simply a "lease" might have many or all of the characteristics of an IRU. Characterizing the agreement accurately may have important ramifications for local jurisdictions that are subject to restrictive state or local laws concerning the lease of municipal property.

In practice, the terms are often used interchangeably, and they are fundamentally very similar. Both an IRU and a dark fiber lease involve an exclusive, irrevocable (so long as the IRU fee or lease payment is made), possessory interest in certain property, for the term of the agreement. Both may (but need not) be transferable, as specified in the contract. In both an IRU and a lease, the title to the property remains with the grantor/lessor.

However, the distinguishing characteristics of an IRU, as described in the previous section, indicate that a dark fiber lease – not an IRU – probably should be employed in the following circumstances:

- If the payments for use (as opposed to maintenance, etc.) are spread periodically over the term, rather than upfront. (An arrangement that involves a periodic maintenance fee may still be an IRU.)

- If the term of the agreement is significantly shorter than the theoretical useful life of the asset. For example, if the term is 5 years, and the useful life of the asset is 20 years, it may be less appropriate to call the agreement an IRU.

- If the grantee is unconcerned with treatment as a capital expense, for tax or other purposes.

IV. Content of an IRU or Dark Fiber Lease Agreement

Outlined below are a few of the key provisions often found in a dark fiber IRU or lease agreement. In addition to language granting the right of use, payment terms, breach and remedy provisions, and various other terms normally found in an ordinary property lease, a dark fiber IRU or lease may include the following:

- **A specific description** of the dark fiber itself, including route, locations served (if applicable), and number of strands. The strands themselves may or may not be described with particularity.
- **Premises entries and demarcation points:** Identification of how the fiber will enter buildings, allocation of responsibility within the premises, and the location of network boundaries.
- **Access to facilities** for splicing, etc: Terms describing the conditions under which the grantee or lessee will be able to access the dark fiber. Security is a significant concern here.

- **Testing and acceptance:** Particularly in the case of newly constructed fiber, the grantee will require the grantor to test the fiber optic strand and produce an "OTDR"[14] report proving that the fiber is suitable for activation and use. In a development contract, a certificate of acceptance is typically the trigger for the use rights and obligations to commence.
- **Use conditions / Acceptable Use Policies.** A grantor may require a grantee to use the dark fiber only for particular purposes, or may proscribe the grantee from using the fiber for particular purposes. For example, a telecommunications company that leases surplus dark fiber may prohibit a grantee from using the fiber to offer a service that competes with the company. Or, a grantor may require a grantee to use the fiber consistent with certain nondiscrimination and interconnection terms and conditions (as may be required for BTOP-funded facilities). A grantee might also be in a position to force a grantor to permit the grantee's affiliates to directly use the fiber, or to procure from an existing master contract with the grantor.
- **Encumbrances**. An agreement might need to state that it is subject to one or more encumbrances. For example, under the federal Department of Commerce rules,[15] BTOP-funded facilities are subject to a "Federal interest," in which the federal government retains an "undivided equitable reversionary interest" in the property for the duration of its useful life.[16] BTOP rules require that an IRU agreement involving such facilities must state that it is subject to the Federal interest.[17]
- **Maintenance / relocation terms:** The agreement must address respective rights and obligations in the event of physical damage to the fiber (emergency maintenance), as well as periodic or routine maintenance obligations. Maintenance is sometimes addressed as a separate exhibit to the IRU or lease, or may be an entirely separate agreement. How to handle necessary relocation of the dark fiber should be addressed as well. In both cases, it is possible – even likely – that third parties are using other strands in the same cable. In that case, a pro rata allocation of costs may be appropriate.
- **Disposition upon termination:** Does the grantee have an option to purchase the asset at the end of the term? Does the agreement renew on the same terms?

VI. Other Issues Involving Dark Fiber Transactions

In this section we provide a sample of just a few less-obvious issues sometimes encountered in dark fiber transactions involving local governments.

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14 An "Optical Time Domain Reflectometer" is an optoelectronic instrument used to characterize an optical fiber.

15 15 C.F.R. §§ 14.30-37, 24.31.

16 NTIA, Broadband Technology Opportunities Program, Fact Sheet: Federal Interest Documentation Requirements, Ver. 2, July 1, 2011.

17 NTIA Broadband Technology Opportunities Program, Fact Sheet: Sale/Lease and IRU Fact Sheet, November 2012.

As an initial matter, much depends on the context of the transaction, which will involve either (1) dark fiber owned by the local government entity, in which the locality is seeking to grant an IRU or lease, or (2) dark fiber owned by another entity (probably a private party) in which the local government seeks to acquire rights of use. In the former, the municipality might have current excess capacity in an existing municipal utility network, or a city government / institutional network. Or, the fiber might not yet exist, with construction and the IRU or lease executed as a part of some form of public private partnership in furtherance of a particular objective.

Implications of barriers to municipal entry. In at least the 19 states that have some form of barrier to municipal provision of telecommunications, it is important to verify the scope of the prohibition, and to assess its impact on a dark fiber transaction, if any. In particular, it is important to be mindful of state definitions that may include facilities *used to provide* communication services (similar to the pre-1996 definition of "wire communication" under Federal law).

In addition, local governments should be careful of the effect of agency. That is, if a local government within a state that prohibits government provision of telecommunications services leases dark fiber to a private entity for the provision of telecommunications services, and includes some conditions on its use (for example, requiring further deployment of a broadband network, etc.), can it be argued that the locality is itself providing the prohibited service?

Nondiscrimination. If a locality owns surplus fiber optic cable, under what circumstances *must* the city provide access? Can the city lease some fiber to one entity but decline to do so for others? This set of issues is far too complex for a complete discussion here, so we simply flag it for consideration based on local facts and local law.

Regulations concerning lease of government property. Some local governments are subject to strict state or local rules and procedures concerning the lease of government property, which may not fit well with realities of telecommunications industry. In general, telecommunications companies are highly protective of information that reveals an expansion or a change in footprint. A rule requiring the locality to solicit bids for a dark fiber lease, and possibly obligating the locality to select the highest bidder, can be cumbersome at best, and at worst can serve as a strong disincentive for private sector companies to make use of dark fiber owned by local governments.

Private use exception to tax-favored financing. Again, a complete discussion is not possible in this document, but in short, some forms of municipal financing impose limits on the extent to which a financed expenditure may benefit a particular party.

BTOP encumbrances and conditions. As discussed previously, telecommunications facilities that were procured or constructed with support from the U.S. Department of Commerce broadband stimulus programs carry with them some important conditions. First, as noted, an IRU in BTOP-supported fiber (if permitted under the NTIA rules) must note that the fiber is subject to the "Federal interest" in the fiber. Second, under BTOP, programmatic rules generally "flow through" to subsequent users of the facilities. As a result, nondiscrimination and

neutral interconnection obligations that apply to a BTOP-supported owner of the facility also will apply to a party acquiring a right to use the facility, and the agreement must make that clear.