

Before the
OFFICE OF MANAGEMENT AND BUDGET
Washington, DC 20503

In the Matter of)	Docket No.:	88 FR 8374
Guidance for Grants and Agreements)	Document No.:	2023-02617
)		

**COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

The Telecommunications Industry Association (“TIA”) appreciates the opportunity to provide input regarding the Office of Management and Budget (OMB) Guidance for Grants and Agreements focused on the implementation of the Build America, Buy America Act (“BABA”) provisions of the Infrastructure Investment and Jobs Act (“IIJA”). TIA is a U.S.-based trade association that represents more than 400 trusted, global manufacturers of telecommunications equipment and services. From fiber optic systems in the ground, to wireless in the air, to satellites in orbit – TIA members design, produce, market, and manage the information communications technology (“ICT”) equipment and services that connect Americans across the nation with high-speed broadband networks. TIA members employ tens of thousands of people in the United States including in manufacturing, software development (either as part of a system or as a standalone product), R&D, deployment, sales, and software.

In an effort to support effective policy on this issue, TIA’s comments will:

1. Outline relevant federal broadband infrastructure programs and describe the impact BABA provisions will have on these programs;
2. Underline the importance of upholding U.S. commitments to international agreements;

3. Provide suggestions related to content calculations for manufactured products; and
4. Share TIA’s perspective regarding the application of the “construction materials” definition to fiber optic cables and related products.

As OMB considers these comments, it is important to keep in mind that fiber optic cable on its own does not provide internet service. Electronics are needed on both ends of the fiber in order to “light it up” and carry the signals to customers. It is those electronics, not the fiber optic cable itself, which will pose the biggest challenge in terms of BABA compliance. Without a waiver of or changes to BABA requirements for electronics – there will be no effective broadband deployment using federal funds, whether through Fiber to the Premise or any other technology.

I. BROADBAND AND DOMESTIC CONTENT REQUIREMENTS

The IIJA contains a number of programs relevant to broadband infrastructure including the Tribal Broadband Connectivity Program, the Connecting Minority Communities Pilot Program, the Broadband Equity, Access, and Deployment (“BEAD”) Program, and the Enabling Middle Mile Broadband Infrastructure Program. In total, these programs account for a \$65 billion investment into broadband of which \$48.2 billion will be administered by NTIA’s newly-established Office of Internet Connectivity and Growth.¹ These existing programs also complement a range of existing broadband programs in other departments, some of which may have to comply with these new Buy America requirements – such as the Treasury Department’s Capital Project Funds and the Rural Utilities Service’s (“RUS”) ReConnect program – and others which will likely not have to comply with Buy America requirements such as the FCC’s

¹ NTIA, *NTIA’s Role in Implementing the Broadband Provisions of the 2021 Infrastructure Investment and Jobs Act* (March 12, 2023, 2:51 PM) available at: <https://broadbandusa.ntia.doc.gov/news/latest-news/ntias-role-implementing-broadband-provisions-2021-infrastructure-investment-and>.

independently-administered Universal Service Fund and Rural Digital Opportunity Fund programs.²

These programs leverage a range of technologies including fiber optic systems, fixed wireless access, satellite internet, and mobile wireless connectivity to connect consumers to the internet. Each of these technologies use a combination of manufactured products and construction materials including but not limited to fiber optic cable, wireless radios, cell towers, active electronics such as customer premises equipment, switches, routers, user terminals and other products. These general categories include dozens of discrete products, which themselves include hundreds of discrete components. Production is often delegated to Original Equipment Manufacturers who source components from subcontractors. Semiconductors – a single component of the final manufactured good – cross borders 70 or more times during the production process.³ As these components are assembled into a finished product, they are further transformed across a complex global value chain where software – not hardware – often provides the most significant source of value. In short – ICT is not cement or steel, and the challenges raised by the imposition of Buy America requirements are orders of magnitude more complex than those posed by those industries.

Because broadband products are significantly differentiated from others used in federal infrastructure in terms of their complexity and the degree to which they use global value chains, they have received waivers or exemptions from “Buy America” or “Buy American” domestic

² As an independent regulator, the FCC and its broadband programs are excluded per OMB, M-22-11, *Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure* (Apr. 18, 2022), available at <https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>.

³ AT Kearney, *Why a resilient supply chain is imperative – and how to create one*, May 11, 2021. Available at: <https://www.kearney.com/technology/article/-/insights/why-a-resilient-semiconductor-supply-chain-is-imperative-and-how-to-create-one>.

content requirements. Many ICT products purchased by the Federal Government – for example – fall under an exemption in Federal Acquisition Regulations for Commercial-Off-The-Shelf (“COTS”) IT products.⁴ In other cases – such as in the 2009 American Rescue and Recovery Act (“ARRA”) – the federal government has acknowledged that waivers were both a) in the public interest *and* b) that the products required to construct these networks likely met the “non-availability” standard. Per NTIA’s 2009 waiver:

“Application of the Buy American provision would be inconsistent with the public Interest...It would be difficult, if not impossible, for a BTOP applicant to have certain knowledge of the manufacturing origins of each component of a broadband network and the requirement to do so would be so overwhelmingly burdensome as to deter participation in the program...”

*While, arguably, the Secretary of Commerce could have relied on the “non-availability” exception for granting a waiver, the burden placed on the Department of Commerce in sourcing and evaluating the availability of each component of broadband equipment would be significant, and the task of sourcing and evaluating would be difficult to complete.”*⁵

Importantly, past waivers have not included exemptions for products that *do* exist in sufficient quantities in the United States such as fiber optic cable and simple equipment used in the construction of cell towers.⁶

As a result of these complex supply chains, and because such requirements have never been applied to the ICT sector, **there is no combination of products that meet Buy American requirements and will connect Americans to the internet from end-to-end.** Further – in part because semiconductors are the primary physical driver of value across all layers of the

⁴ FAR 5139.101-90.

⁵ Broadband Technology Opportunities Program; Buy American Exception under the American Recovery and Reinvestment Act of 2009; 74 FR 31410, (July 1, 2006). (available at <https://www.govinfo.gov/app/details/FR-2009-07-01/E9-15514>).

⁶ Ibid.

broadband ecosystem⁷ and because building new fabs is projected to take at least three years⁸ – there is no viable path to comply with strict Buy America requirements in the short term. Buy America waivers simply will be required for effective broadband deployment in the short-to-medium term.

II. COMPLIANCE WITH INTERNATIONAL TRADE AGREEMENTS

Ensuring that the BABA requirements are consistent with U.S. obligations under international agreements has been cited as a priority by Congress, Executive Branch Agencies, and President Biden himself. Relevant instances include:

1. IIJA § 70925, which states that BABA requirements, “shall be applied in a manner consistent with United States obligations under international agreements.”⁹
2. OMB Guidance M-22-11, which confirms that BABA “must be applied in a manner consistent with the obligations of the United States under international agreements.”¹⁰
3. The U.S. Department of Commerce and U.S. Department of Homeland Security “Assessment of the Critical Supply Chains Supporting the U.S. Information and Communications Technology Industry,” which recommends that all Buy America programs be “consistent with U.S. international trade obligations” and include “tolerances for assembly in allied or partner nations.”¹¹
4. President Biden’s remarks at the State of the Union provided immediately in advance of the release of this proposed rule from OMB, wherein the President noted that Buy America programs would be “totally consistent with international trade rules.”¹²

⁷ Per a private survey conducted by TIA in early 2022. Available on request.

⁸ Intel Corporation, *What Does It Take to Build A Fab?*, (March 12, 2023, 3:47 PM) Available at: <https://www.intel.com/content/dam/www/central-libraries/us/en/documents/what-does-it-take-to-build-a-fab.pdf>.

⁹ Infrastructure Investment and Jobs Act, Public Law No. 117-58, § 70925, 135 (2021).

¹⁰ OMB, M-22-11, *Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure* (Apr. 18, 2022), available at <https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>.

¹¹ U.S. Department of Homeland Security and the U.S. Department of Commerce, *Assessment of the Critical Supply Chains Supporting the U.S. Information and Communications Technology Industry*, (February 24, 2022) available at https://www.dhs.gov/sites/default/files/2022-02/ICT%20Supply%20Chain%20Report_2.pdf

¹² Joseph Robinette Biden, *2023 State of the Union Address*, (Washington, DC, February 7, 2023) available at <https://www.whitehouse.gov/state-of-the-union-2023/>

However, this proposed rule has created uncertainty¹³ about whether BABA will be applied in a manner consistent with U.S. obligations under international agreements because it omits any reference to those agreements in the rule itself.

America's commitments should not be seen as optional. Failing to align with standards outlined in trade agreements such as the Government Procurement Agreement ("GPA") could lead to significant disruption in the implementation of broadband infrastructure programs. Existing programs, such as the RUS ReConnect program, have been able to apply limited Buy America requirements because they have explicitly included exceptions for U.S. global partners and allies.¹⁴ Removing the exceptions for these entities would likely cause infrastructure program grantees to be unable to source essential parts of the connectivity ecosystem. Further, it could limit the ability of U.S. manufacturers to reach global markets. If the U.S. abrogates its commitments under the GPA or other treaties, officials from other countries have indicated that they may take corresponding action to limit U.S. access to their own government procurement.¹⁵ The opportunity to connect the 14.5 million Americans¹⁶ without broadband access represents a significant opportunity for industry. At the same time, companies manufacturing in the U.S. – which export \$36.3 billion in communications equipment on an annual basis¹⁷ – do not want to

¹³ Jean Heilman Grier, *Trade Agreements Ignored in New 'Buy America' Rules*, Perspectives on Trade, <https://trade.djaghe.com/?cat=829>

¹⁴ The Rural Utilities Services included a list of 13 countries from which products would be treated as Buy America compliant, while most other federal government programs provide https://www.rd.usda.gov/files/UEP_Engineering_EligibleCountries.pdf

¹⁵ A list of statements on Buy America by senior foreign officials from the EU, Canada, China, Mexico, and the UK can be found in TIA's previous comments on proposed changes to the FAR at Patrick Lozada, *Comments of the Telecommunications Industry Association in the Matter of Federal Acquisition Regulation: Amendments to the FAR Buy American Act Requirements* (October 28, 2021). Available at: <https://tiaonline.org/wp-content/uploads/2021/10/2021.10.28-TIA-Buy-American-Comments.pdf>.

¹⁶ Federal Communications Commission, *Fourteenth Broadband Progress Report* (January 19, 2021), <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/fourteenth-broadband-deployment-report>.

¹⁷ CompTIA, *Tech Trade Snapshot* (May, 2022). Available at: https://comptiacdn.azureedge.net/webcontent/docs/default-source/research-reports/research-brief---comptia-tech-trade-snapshot-vfinal.pdf?sfvrsn=4bd88156_0

lose the opportunity to serve the 3.7 billion people around the world who have no internet access as a result of Buy America provisions.¹⁸

To remain consistent with President Biden and Congress' stated intent, TIA recommends the following:

1. That OMB add language re-affirming that Buy America requirements will be applied in a manner consistent with the obligations of the United States under international agreements. This would mirror previous BABA guidance from OMB Guidance M-22-11.¹⁹
2. That OMB state that products procured from "designated countries" listed in Part 52 of the FAR shall be considered as meeting BABA requirements.²⁰ Including these Trade Agreements Act ("TAA") countries would more closely match existing government procurement standards, thereby supporting effective program implementation.

While this standard may still not be sufficient to enable all broadband technologies, it will nonetheless create greater optionality for grantees in sourcing as they seek to connect unserved Americans to the internet.

¹⁸ World Economic Forum, *Coronavirus Has Exposed the Digital Divide Like Never Before* (April 22, 2020) <https://www.weforum.org/agenda/2020/04/coronavirus-covid-19-pandemic-digital-divide-internet-data-broadband-mobile/>

¹⁹ OMB, M-22-11.

²⁰ 48 C.F.R. § 52.225-5.

III. DEFINITIONS OF MANUFACTURED PRODUCT

In the guidance, OMB proposes leveraging the “cost of components” from the Federal Acquisition Regulation (“FAR”) at 48 CFR 25.003.²¹ That definition is:

1. For components purchased by the contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product or construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

2. For components manufactured by the contractor, all costs associated with the manufacture of the component, including transportation costs as described in item 1., plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.²²

OMB’s proposed rule states that the rationale is to provide, “consistent and clear market requirements for industry to meet one standard.”²³ There is merit in providing a common standard, however leveraging the FAR definition for value in manufactured products ignores the fact that most commercial IT purchases covered by the FAR are exempt from “Buy America” requirements. Bringing in only the FAR definition, without accounting for the IT exemption, creates a situation wherein OMB creates divergent requirements for technology products. As a result of the divergent standards, Federal agencies and other non-infrastructure government purchasers would have access to a much wider range of products than contractors and other parties responsible for implementing Federally financed infrastructure would have access to.

One way to account for this would be to bring in the IT exemption from the FAR into BABA program implementation. This exemption was codified into law by Congress in Section 517 of the Consolidated Appropriations Act of 2004, which stated that “the Buy American Act

²¹ OMB, *Guidance for Grants and Agreements* (February 9, 2023), 88 FR 8374 <https://www.federalregister.gov/documents/2023/02/09/2023-02617/guidance-for-grants-and-agreements>.

²² 48 C.F.R. § 25.003.

²³ *Ibid.*

shall not apply to the acquisition by the Federal Government of information technology” in order to “promote government access to commercial information technology.”²⁴ Creating common requirements by leveraging the IT exemption would significantly improve the ability of Federal agencies, state broadband offices, and grantees to implement broadband infrastructure projects.

Another would be to incorporate intangible elements that drive product value in the ICT sector, most notably software and U.S. intellectual property. There is precedent for this. The Administration’s ICTS report – drafted by DHS and Commerce in response to E.O. 14017²⁵ – suggests that one way to support American ICT supply chains would be by “including design contributions” as part of the consideration of U.S. content for Buy America programs.²⁶ Additionally, CBP already considers the hours and approximate costs of U.S.-based research, development of software specifications, programming of source code, software integration and build, and testing and validation in determining that certain networking products are substantially transformed in the U.S. and thus a U.S.-end product by virtue of the addition of U.S.-origin software.²⁷

Finally, it is worth mentioning that Congress created room for the potential inclusion of IP, software, and other sources of value in IIA § 701912 (6)(B)(ii), where it states:

*(ii) the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, **unless another standard for determining the minimum amount of domestic content of the***

²⁴ Consolidated Appropriations Act, 2005, Pub. L. No. 108–447, § 517, 118 STAT. 3267 (2004).

²⁵ Exec. Order. No. 14017, 86 FR 11849.

²⁶ U.S. Department of Homeland Security and the U.S. Department of Commerce, *Assessment of the Critical Supply Chains Supporting the U.S. Information and Communications Technology Industry*, (February 24, 2022) available at https://www.dhs.gov/sites/default/files/2022-02/ICT%20Supply%20Chain%20Report_2.pdf

²⁷ See, e.g., CBP HQ Ruling Letter H2510154 (Feb. 23, 2018) (finding that the gateway products “derive their core functionality as communication devices from the installation of the U.S.-developed software”).

*manufactured product has been established under applicable law or regulation,*²⁸

By choosing to include this clause allowing OMB to use “another standard” to determine a minimum amount of domestic content, Congress gave OMB the authority to establish a standard like this in further rulemaking. TIA encourages OMB to use this opportunity to establish a standard that incorporates software, IPR, and other intangible sources of value in the context of content calculation.

IV. FIBER OPTIC CABLE AND CONSTRUCTION MATERIALS

Fiber optic cable has a history of being treated in a differentiated manner from other broadband products in the context of domestic sourcing requirements. Most notably, the 2009 ARRA waiver of Buy America requirements for broadband excluded fiber optic cable.²⁹ Accordingly, TIA has never advocated for a waiver of Buy America requirements for optical fiber, optic glass, or other glass products.

In this context, it is important to provide a precise and specific standard for these materials in order to advance OMB’s stated goal of providing “clear and consistent market requirements.” Eliminating ambiguity will help send clear signals to the market and to grantees in a way that supports investment in U.S. jobs and effective implementation of broadband infrastructure programs. To this end, TIA offers the following suggestions, which are specific to fiber optic broadband products:

²⁸ IJA, § 701912 (6)(B)(ii).

²⁹ Notice of Limited Waiver of Section 1605 (Buy American Requirement) of the American Recovery and Reinvestment Act of 2009 (ARRA) for the Broadband Initiatives Program; 74 FR 31402 (July 1, 2009). <https://www.federalregister.gov/documents/2009/07/01/E9-15511/notice-of-limited-waiver-of-section-1605-buy-american-requirement-of-the-american-recovery-and>

Recommendation 1: Define the Processes Involved in Manufacturing Optical Fiber and Fiber Optical Cable

Because the standard for construction materials relies on the definition of relevant manufacturing process, it is important to precisely define the range of processes that take place in the manufacturing of optical fiber and fiber optic cable. For these products, the relevant processes are as follows:

“Core”: the process of producing an ultra-pure glass with specific properties that becomes the transmission path in the final fiber optic cable.

“Preform”: the process of adding layers of material to the Core which provide various optical properties, resulting in a large single piece of glass used to produce optical fibers.

“Draw”: process by which the Preform is heated and pulled through a draw tower, adding an exterior acrylic coating, resulting in a single strand of optical fiber.

“Stranding”: the process by which multiple strands of optical fiber are combined or wrapped in different colored buffer tubes or ribbons.

“Jacketing”: the process of encasing optical fibers in a protective sheath or jacketing material, generally with some form of strengthening material.

These individual processes could be spelled out in “Definitions” §184.3. Accordingly, TIA proposes that “Construction Material Standards” §184.6: be modified as follows:

§ 184.6 Construction Material Standards.

(e) *Fiber optic cable*. All manufacturing processes, from the completion of the Core, through completion of the initial Ppreform fabrication stage, through completion of the Draw, through completion of the fiber Sstranding and Jjacketing processes, occurred in the United States.

(f) *Optical fiber*. All manufacturing processes, from the completion of the Core, through completion of the initial Ppreform fabrication stage, through completion of the Drawfiber-stranding, occurred in the United States.

Recommendation 2: Distinguish Between “Optical Fiber” and “Fiber Optic Cable” as Construction Materials and Other Cable Products

The proposed rule from OMB uses overlapping terms to describe fiber broadband products including: “optical fiber,” “fiber optic cable,” and “optic glass.” These terms are sometimes colloquially used in imprecise ways. The term “optical fiber” refers to an input into “fiber optic cable,” which is the end product that would be purchased by broadband grant recipients. The term “optic glass” is not commonly used by industry to describe specific products used in broadband networks.

Because of these unclear and overlapping definitions, we recommend OMB distinguish between “fiber optical cable” which should be treated as a construction material and “specialty cable” products, which are substantively distinct and should be treated as a manufactured product. Specialty cable products include:

- **Drop Cable:** Drop Cables are a “last mile” product that run from a distribution point to the subscriber/user, connecting them over the last roughly one hundred feet of a very large network. There are several types of drop cable including outdoor, indoor, and outdoor indoor drops. While some Drop Cables have fiber optic components, others use a combination of materials including metal conductors, foamed dielectric, shielding, aluminum, and plastic jacketing to support their function. Drop cables involve a different, less complex cabling process that involves less equipment, technical skill, and time than fiber optic cables; and insufficient capacity exists in this segment to support widespread broadband deployment.
- **Submarine Cable:** Submarine communications cables are a vital part of global communications infrastructure and are the “backbone” of global data flows, transporting large amounts of data between countries, states, and regions. These cables will be particularly vital in supporting broadband buildout to unserved populations in Hawaii and various U.S. island territories covered under the IIA because these regions do not share land-based connections with the continental United States.

While optical fiber is a component of nearly all undersea cables, it is only one part of a complex manufactured product. These cables are designed significantly differently in order to resist the environmental pressures exerted by the ocean, to support constant and long-distance data transmission, to limit damage from boats and marine life, and to reduce the need for challenging subsea maintenance through technologies like self-

healing rings. Other components of this product include strength wires, copper sheaths, an insulation jacket, and thick layer of armor.

Confirming that submarine cable is a manufactured product would be consistent with NTIA's proposed Middle Mile waiver, which identified submarine cable as a manufactured product.³⁰

The distinct nature of specialty cables like drop cables and submarine cables means that they also have different supply chains. If treated as construction materials, there is unlikely to be sufficient – if any – BABA-compliant capacity for these vital products.

Recommendation 3: Leverage the De Minimis Standard to Support Fiber Deployment

TIA welcomes OMB's stated goal in the proposed rule of seeking to avoid disqualifying construction materials with only *de minimis* additions of non-construction materials, particularly when those materials “do not add significant value to, or substantially transform, the otherwise qualifying construction material.”

For the ICT sector, the construction materials that this would apply to are fiber optic cable and optical fiber. As stated previously, the processes for manufacturing fiber are: Core, Preform, Draw, Stranding, and Jacketing. Consistent with OMB's proposed guidance, these processes should be performed in the U.S. for a product to be consistent with BABA standards for construction materials. However, simple assembly operations performed after jacketing — such as cutting U.S.-made fiber optic cable to length and adding connectors to create “connectorized cable” — should not affect the origin of U.S.-made fiber optic cable. These processes do not add significant value to and do not substantially transform U.S.-made fiber optic cable. To this end, we recommend that the below language in red be added to §184.3:

³⁰ NTIA, *Limited Applicability Nonavailability Waiver of the Buy America Domestic Content Procurement Preference as Applied to Recipients of Middle Mile Grant Program Awards* (September 19, 2022) available at: <https://www.commerce.gov/sites/default/files/2022-09/NTIA%20Middle%20Mile%20BABA%20Waiver.pdf>.

§ 184.3 Definitions.

Produced in the United States means the following, for: . . .

(3) *Construction materials.* All manufacturing processes for the construction material occurred in the United States. See § 184.6 for more information on the meaning of “all manufacturing processes” for specific construction materials.

(i) “All manufacturing processes” to be performed in the United States do not include the addition of *de minimis* material that do not add significant value or result in substantial transformation of materials that otherwise meet the standards in § 184.6.

(ii) For U.S.-made fiber optic cable that meets the standards in § 184.6, “all manufacturing processes” to be performed in the United States do not include simple assembly operations performed after the Jacketing stage, including the process of cutting U.S.-made fiber optic cable to length and attaching *de minimis* parts such as connectors.

Adding a *de minimis* provision would also be consistent with CBP rulings regarding fiber optic cable, which recognize that U.S.-made optical fibers are the “essence” of a fiber optic cable, and that “simple assembly” operations such as cutting fibers to length and adding connectors does not result in the substantial transformation of U.S.-made fiber optic cables.³¹

V. CONCLUSION

In conclusion, TIA appreciates the opportunity to provide comment on OMB’s ongoing rulemaking pursuant to the implementation of Build America Buy America (BABA) requirements. Ensuring that these program guidelines are scoped effectively for the unique needs of the ICT sector will be fundamental to seeing whether unserved Americans across the United States will be able to get access to high-speed broadband internet. By ensuring that BABA is

³¹ See, e.g., Customs Country of Origin Determination HQ 562754 (Aug. 11, 2003) (holding that process of drawing preform into optical glass fiber which is made into optical fiber cable, resulted in substantial transformation, but subsequent process of cutting U.S.-made fiber to-length, removing sheathing, and attaching plastic connectors to each end of the U.S.-made cable “are considered simple assembly operations” and did not substantially transform U.S.-made optical fiber).

implemented in a manner consistent with U.S. commitments to international trade agreements, incorporating sources of value such as software and IPR in the context of calculations for manufactured products, and establishing clear definitions for the fiber optic cable industry that are inclusive of *de minimis* processes such as connectorization, OMB can help make the promises of the IIA a reality. While this is a necessary step forward, it is by no means the final one. Fiber optic cables are only one part of a broader system where electronics and software – not glass – play a decisive role in powering networks, and where some waivers will ultimately be needed. We look forward to working with OMB, NTIA, and other agencies to address these challenges.

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