Articles + Publications | September 3, 2025

Unpacking a New Era of Compliance for Submarine Cables

WRITTEN BY

Marc D. Machlin | Charlene C. Goldfield | Jeffrey R. Strenkowski

Published in Law360 on September 2, 2025.

After decades of operating under its old regulatory framework, the Federal Communications Commission has modernized its oversight of submarine cable infrastructure, a critical component of the world's telecommunications network responsible for 99% of global internet traffic.

On Aug. 7, the FCC approved a comprehensive update — a review of submarine cable landing license rules and procedures report and order — and further notice of proposed rulemaking.[1]

The order clarifies the requirements for obtaining a submarine cable landing license, streamlines the agency's application review process and implements measures to safeguard against threats from foreign adversaries.

The notice of proposed rulemaking invites comment on a host of additional FCC recommendations, including the integration of artificial intelligence within the submarine cable network to improve maintenance and detect and address physical and cybersecurity threats.

How It Works

Submarine cables are an important component of the global internet backbone. Contrary to popular belief, the world is not purely connected via satellites. Instead, it is these long strands of fiber that connect most of the modern communications network.

Their complexity is evidenced by the sheer planning involved — submarine cables are laid in a harsh marine environment, across seabeds, with the use of special ships and heavy machinery to lay the cable. But that complexity is often eclipsed by permitting and other regulatory challenges when traversing multiple jurisdictional boundaries.

Undersea cable technology continues to improve. Newer systems provide increased bandwidth capacity and improved durability with higher fiber counts, as well as advanced amplification technologies. This all translates into faster, more efficient data transmission.[2]

With a significant amount of the world's communications flowing through these cables, they are potentially

vulnerable to physical and cyber intrusion or destruction. Distantly placed cables offer the potential for espionage and sabotage, and recent reports of physical attacks have been reported on cables in the Baltic Sea, Red Sea and in areas near Taiwan.[3]

Additionally, these systems often suffer accidental damage from commercial fishing, shipping and underwater earthquakes.[4]

Legal Background

The Cable Landing Licensing Act, enacted in 1921, provides the structure for the U.S. government's oversight of undersea cables.[5] The CLLA requires entities to obtain a license from the president for landing or operating a submarine cable "directly or indirectly connecting the U.S. with any foreign country, or connecting one portion of the U.S. to any other portion thereof."[6]

In 1954, Executive Order No. 10530, providing for the performance of certain functions vested in or subject to the approval of the president, the president delegated to the FCC the responsibility to oversee the granting, withholding or revoking of submarine cables with the assistance and approval of the U.S. Department of State.[7] There are now approximately 90 FCC-licensed submarine cable systems.[8]

In 1997, the FCC issued the Foreign Participation Order, with an aim to promote the "national security, law enforcement, foreign policy, and trade policy concerns in the FCC's public interest review process."[9] The FCC's last significant cable landing license proceeding was in 2001, designated as the Cable Report and Order, which focused on competition in this space rather than national security.[10]

Since 2001, the FCC has reviewed license requests under Title 47 of the Code of Federal Regulations, Section 1.767, which outlines, among many other things, information required in an application and the FCC's procedures for processing applications.[11]

Recognizing the changes in technology over the past two decades, and the need for better coordination among various federal agencies, the FCC recognized that it was time to modernize submarine cable rules. Many of the issues addressed in the order attest to a rapidly expanding communications landscape in which not just carriers, but hyperscalers, now own or lease a substantial portion of the capacity of these subsea cables.

Clarifying the CLLA

For over 100 years, the FCC has been operating under the CLLA without further clarification. The FCC's new order seeks to clarify the requirements of the CLLA and define more precisely which submarine cables are subject to regulation.

The new order states that a cable landing license is required for any submarine cable that connects:

the continental U.S. with any foreign country; Alaska, Hawaii, or the U.S. territories or possessions with a foreign country, the continental U.S., or with each other; or points within the continental U.S., Alaska, Hawaii, or a territory or possession in which the cable is laid in areas beyond U.S. territorial waters, which extends 12 nautical miles

seaward from the coastline.[12]

The FCC requires a license, even at domestic points, if the cables traverse areas beyond U.S. territorial waters, including those connecting U.S. states, territories or possessions. The new rules also clarify that cables wholly within the continental U.S. and within territorial waters are exempt. For example, a license would not be required for a cable running between two points in California if the points are laid within U.S. territorial waters.

Alaska and U.S. territories like Guam continue to be a national security priority because of the foreign policy concerns in the Arctic region and the territories' proximity to military bases. In light of the specific inclusion of U.S. territories in the CLLA, it is no surprise that the CLLA is interpreted to cover subsea cable systems connecting to these areas.

The FCC also makes clear that a submarine cable includes the system that "extends to and includes the Submarine Line Terminal Equipment (SLTE) … whether located in a cable landing station or further in-land with data centers."[13] This is crucial, as some have debated whether the FCC and Team Telecom can regulate only the submarine cable itself, or also the equipment and/or devices adjacent to the submarine cable, including within data centers.

Applicants and Application Requirements

Submarine cables require significant investment, which is why they often have various owners, investors and lenders, often in what are termed "subsea cable consortiums." With so many entities involved, it was not always clear who was required to be an applicant and/or who was included as part of Team Telecom's review.

The new order clarifies that entities that own or control at least a 5% interest in a submarine cable system and use the U.S. end points must be applicants for a submarine cable license. Entities that control a cable landing station must also be license applicants. The FCC has shifted its position by excluding entities from licensing requirements that only own, but do not control, a cable landing station.

At this time, the FCC will not require owners or operators of SLTEs to be licensees, even though an SLTE is part of the submarine cable definition. However, the notice of proposed rulemaking seeks to collect input and information on this topic for purposes of possible future regulation.

The FCC's new rules also provide modified requirements when entities submit a request for modification, assignment, transfer of control or renewal of a cable license. For purposes of new applications, the FCC is taking a more proactive role in the front end of the process by requiring more information about the submarine cable, including cybersecurity and equipment information.

Historically, the FCC utilized standard questions tailored to submarine cable requests, and applicants could request streamlined processing, which requires the FCC to act on the application within 45 days after the release of a public notice announcing the application.[14] Streamlined processing is available if the applicants do not have 10% or more foreign ownership and meet other conditions outlined in Title 47 of the Code of Federal Regulations, Section 1.767(i) and (j).[15]

Under the new order, applicants will need to provide detailed information about the cable system, including continued reporting of the licensees' ownership at or above 10%, landing points, and third-party service providers, and must certify compliance with cybersecurity and physical security risk management plans that best tailor their organizational risk needs.

Licensees that follow the National Institute of Standards and Technology's Cybersecurity Framework — or one of the other enumerated frameworks — will presumptively be found to meet this requirement.

Foreign Adversary Concerns

In recent years, the FCC has intensified its focus on national security issues. Earlier this year, the FCC established a Council on National Security[16] and proposed new rules focused on foreign adversary data collection and licensee reporting on involvement of foreign adversaries.[17] It also strengthened prohibitions on equipment testing by entities associated with foreign adversaries.[18]

This new order continues the FCC's focus on foreign adversaries — this time in the submarine cable environment.

The order adopts a strong presumption against granting landing licenses to individuals or entities that are "owned by, controlled by, or subject to the jurisdiction or direction of a foreign adversary."[19] "Foreign adversaries" is defined to consist of China, Cuba, Iran, North Korea, Russia and the Maduro regime in Venezuela.[20]

This presumption also extends to entities listed on the FCC's covered list[21] for equipment and services pursuant to the Secure Networks Act,[22] and to entities whose previous authorizations have been denied or revoked on national security and law enforcement grounds, including current and future affiliates and subsidiaries.

The order also prohibits the landing of submarine cables in foreign adversary countries. These presumptions can only be overcome by clear and convincing evidence that granting the license would not pose national security risks or that the benefits would substantially outweigh any risks.

Existing licensees that meet any of the presumptions of denial criteria, or land in foreign adversary countries, will need to complete a foreign adversary annual report, which will be required 60 days after the new rules become effective.

An additional area of concern for the FCC is the way that access to the capacity of cables is sold, leased, purchased or owned. Recently, cable licensees have been issuing leases or other capacity access rights through indefeasible rights of use. Grantees are often not applicants or licensees, and are therefore not subject to any regulatory oversight.

Going forward, the FCC will prohibit cable licensees from entering into indefeasible rights of use with entities that are "owned by, controlled by, or subject to the jurisdiction or direction of a foreign adversary."

Information Collection

The FCC will also require a one-time information collection for all cable licensees. Licensees will be required to

provide updated information on the submarine cables to assess for insolvency, provide information on SLTE owners and operators, and certify whether equipment or services on the covered list are used on the cable.

New applicants will need to certify in their initial applications whether they will use third-party foreign adversary service providers in the operation of their cables.[23]

As part of the notice of proposed rulemaking, the FCC is also seeking information on whether to exempt initial applications, along with modifications, assignments, and transfer of control or renewal requests from Team Telecom review if the applicants meet all qualifications that "ensure the security, integrity, and resilience of the submarine cable system."[24]

These qualifications could include the utilization of enhanced cybersecurity and physical security standards, and a certification that no entity holding any interest in the submarine cable system is "owned by, controlled by, or subject to the jurisdiction or direction of a foreign adversary."

Moving Forward

The FCC's efforts at regulatory reform have come at an inflection point in the cable industry. Subsea cable infrastructure is expected to require billions of dollars in new capital investment in the coming years.[25] This investment is needed to provide increased capacity and improve the resilience of this critical global data transmission system.

In light of this sector's expected capital requirements, there will continue to be a need for foreign investment. For submarine cable systems under the FCC's jurisdiction, however, the order makes clear that ownership by persons or entities associated with foreign adversaries will rarely, if ever, be allowed.

Submarine cables present a complex array of legal and policy challenges. As highlighted by the new FCC order and ongoing Team Telecom work, submarine cables carry heightened national security vulnerabilities.

Entities involved — whether directly or indirectly — in submarine cable systems, their capacity, associated equipment and connected devices should familiarize themselves with the FCC's initiatives in these areas, especially those aimed at addressing national security and law enforcement concerns. Navigating these regulations can be demanding, as they are influenced by the evolving foreign policy landscape and rapid technological advancements.

---

[1] Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks (Aug. 13, 2025), https://www.fcc.gov/document/fcc-acts-accelerate-submarine-cable-buildout-security-0.

[2] NexGen Networks, Submarine Cable System Market Set to Reach $30.50 Billion by 2030, Driven by Growing Data Demand (Sept. 24, 2024), https://www.nexgen-net.com/post/submarine-cable-system-market-set-to-reach-30-50-billion-by-2030-driven-by-growing-data-demand.

[3] Dan Milmo, Risk of undersea cable attacks backed by Russia and China likely to rise, report warns, The Guardian (July 17, 2025), https://www.theguardian.com/technology/2025/jul/17/risk-undersea-cable-attacks-backed-russia-china-likely-rise-report-warns.

[4] See generally Colin Wall and Piere Marcus, Invisible and Vital: Undersea Cables and Transatlantic Security (2021), https://www.csis.org/analysis/invisible-and-vital-undersea-cables-and-transatlantic-security; see also Nathan Eddy, Subsea Cable Market Expands as AI, Geopolitics Reshape Global Wetworks (Apr. 15, 2025), www.datacenterknowledge.com/ables/subsea-cable-market-expands-as-ai-cloud-geographics-reslope-global-networks.

[5] Cable Landing Licensing Act, Pub. L. 8, 42 Stat. 8 (1921), https://www.govinfo.gov/content/pkg/COMPS-3115/pdf/COMPS-3115.pdf.

[6] Id. at § 1.

[7] Exec. Order No. 10530, 19 C.F.R. 2711 (1954).

[8] Submarine Cable Landing Licenses, Federal Communications Commission, https://www.fcc.gov/research-reports/guides/submarine-cable-landing-licenses.

[9] Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership, 89 FR 68117 (Aug. 23, 2024), https://www.federalregister.gov/documents/2024/08/23/2024-18604/process-reform-for-executive-branch-review-of-certain-fcc-applications-and-petitions-involving.

[10] Review of Commission Consideration of Applications Under the Cable Landing License Act, 67 FR 1615 (Jan. 14, 2002), https://www.federalregister.gov/documents/2002/01/14/02-789/review-of-commission-consideration-of-applications-under-the-cable-landing-license-act.

[11] 47 C.F.R. § 1.767, et seq.

[12] Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks ¶ 65 (Aug. 13, 2025), https://www.fcc.gov/document/fcc-acts-accelerate-submarine-cable-buildout-security-0.

[13] Id. at ¶ 71-75.

[14] Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership, 89 FR 68117 (Aug. 23, 2024) https://docs.fcc.gov/public/attachments/FCC-21-104A1.pdf.

[15] 47 C.F.R. § 1.767 (i), (j).

[16] Federal Communications Commission, Chairman Carr Establishes New Council on National Security Within

Agency (Mar. 13, 2025), https://docs.fcc.gov/public/attachments/DOC-410155A1.pdf.

[17] Protecting our Communications Networks by Promoting Transparency Regarding Foreign Adversary Control, 90 FR 26244 (June 20, 2025), https://www.federalregister.gov/documents/2025/06/20/2025-11360/protecting-our-communications-networks-by-promoting-transparency-regarding-foreign-adversary-control.

[18] In the Matter of Promoting the Integrity and Security of Telecommunications Certification Bodies, Measurement Facilities, and the Equipment Authorization Program, 90 FR 31945 (July 16, 2025), https://www.federalregister.gov/documents/2025/07/16/2025-13308/promoting-the-integrity-and-security-of-telecommunications-certification-bodies-measurement.

[19] Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks ¶ 42 (Aug. 13, 2025), https://www.fcc.gov/document/fcc-acts-accelerate-submarine-cable-buildout-security-0.

[20] 15 CFR § 791.4(a).

[21] Federal Communications Commission, List of Equipment and Services Covered By Section 2 of The Secure Networks Act, https://www.fcc.gov/supplychain/coveredlist.

[22] Secure Networks Act, 116 Pub. L. 124, 134 Stat. 158 (Mar. 12, 2020), https://www.govinfo.gov/content/pkg/PLAW-116publ124/pdf/PLAW-116publ124.pdf.

[23] These submissions may provide information confirming that firms based in China have a very strong position in the repair ship sector. Observers have cautioned that over-reliance on these repair ships creates vulnerability. See Daniel Runde, Erin Murphy and Thomas Bryja Safeguarding Subsea Cables: Protecting Cyber Infrastructure amid Great Power Competition (August 16, 2024), https://www.csis.org/analysis/safeguarding-subsea-cables-protecting-cyber-infrastructure-amid-great-power-competition.

[24] Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks ¶ 274 (Aug. 13, 2025), https://www.fcc.gov/document/fcc-acts-accelerate-submarine-cable-buildout-security-0.

[25] A 2024 Analysis Mason report indicates that spending on new subsea systems and operation of existing systems is expected to grow from $7.96 billion in 2023 to $9.80 billion in 2029. This growth is driven by the desire of governments to build more route diversity. Growth is also driven in part by the needs of hyperscalers such as Amazon, Meta, and Google to continue building new transcontinental routes needed for data centers and AI workloads. See NexGen Networks, Submarine Cable System Market Set to Reach $30.50 Billion by 2030, Driven by Growing Data Demand (Sept. 24, 2024), https://www.nexgen-net.com/post/submarine-cable-system-market-set-to-reach-30-50-billion-by-2030-driven-by-growing-data-demand.

RELATED INDUSTRIES + PRACTICES

- Energy
- Telecommunications + Infrastructure