

# Response to Freedom of Information request — Submarine cable (Maya-1) damage

Office of Utility Regulation and Competition (OfReg) · 7 October 2024 · FOI Request: Submarine Cable

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## In response to your requests:

### **1. Please confirm whether either of the two submarine cables experienced any damage whatsoever between January 2024 and the present date.**

CJFS: 06 January 2024 – failure of a terrestrial link in Jamaica; traffic on the Cayman Jamaica Fiber System (CJFS) was affected, however there was no actual fault on CJFS itself. We provide this information because there may be misinformation suggesting that the cable had a fault.

Maya 1: 21 June 2024 – fault on the north segment, which terminates in Cancun, Mexico. The cable remained operational via the south path, so once providers established redundant links on Maya 1 they could utilise Maya 1.

### **2. If damage occurred, please specify the extent of the damage to each cable, including location and nature.**

CJFS: no damage reported.

Maya 1: cable damaged in the wet segment off Cancun, Mexico.

### **3. If damage occurred, what was the date of the damage to the submarine cable(s) identified and reported?**

Maya 1 – outage occurred on 21 June 2024.

### **4. If damage occurred, please disclose the dates when repair work was initiated and completed.**

- 21 June – initial trouble-shooting work.
- 26 June – full power configuration (power down and power up entire cable).
- 27 June – fault initially confirmed to be in the ocean off Cancun.
- 3 July – temporary redundant paths on Maya 1 established for all local operators, in addition to traffic going over CJFS (data traffic travelling over two cables at this point).
- 16 July – Maya 1 powered down; divers surveyed the cable from the suspected fault location off the Cancun cable station. Significant chafing damage from contact with the rocky seafloor or a boat anchor was found. The dive team cut the cable, brought it onboard, sealed the end in an "open" condition to limit shunt/collateral faults, and lowered it to the seabed. Stations other than Cancun then finished powering the cable; all traffic other than that terminating in or transiting Cancun returned to a normal (non-hazardous) condition.
- 16 July – 31 August – cable operator waiting for Mexican authorities to approve the necessary permits.
- 31 August – cable ship departs Curacao headed to Mexico (permits still outstanding).
- 3 September – cable ship arrives in Mexico.
- 4 September – repair works begin.

- 10 September – north segment of cable repaired; cable fully operational.

**5. Were any temporary solutions or alternative arrangements implemented during the repair period?**

Traffic passed over two cables: all local service providers maintained usual links via CJFS, and redundant paths were established over the Maya 1 south segment via Panama.

**6. What were the potential impacts on internet service, data transmission and communication networks?**

Impact related to providers having to reroute traffic and establish further un-provisioned redundant links.

**7. Provide details on any disruptions or outages experienced by users, businesses or service providers.**

Increased latency and decreased throughput may have been experienced by some heavy data users. Average users would not have noticed a difference.

**8. What measures are being taken to prevent similar incidents (upgrades, maintenance, risk mitigation)?**

Generally sub-sea cables are designed to be physically resilient; however, all infrastructure has limits and risks (e.g. ship-anchor damage, trawling nets, extreme weather). The Office is developing layered measures to protect critical infrastructure within the jurisdiction and is also considering approaches to licensing satellite internet service provision. (Context: in 2020 the government issued a Directive to OfReg requiring it to impose an obligation on internet service providers to establish local data-peering relationships, imposed on all existing providers. This has limited the ability of low-orbit satellite operators to meet that obligation, as it requires establishment of terrestrial infrastructure. For satellite service to act as a failsafe to terrestrial disasters, requiring local infrastructure negates its usefulness.)

**10. Please provide any relevant reports, documents or communications related to the damage, repair and impact assessment.**

Submarine cables are "Critical National Infrastructure" as defined in the Utility Regulation and Competition Act and the Information and Communications Technology Act — "...systems and assets, whether physical or virtual, so vital to the Islands that the incapacity or destruction of the systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters." The requested outage reports and communications include details (locations, vulnerabilities, equipment references, technical information, specific locations of equipment, etc.) of the outage and its impact on critical national infrastructure. This information is sensitive in that, in the hands of a bad actor, it could be used to negatively impact the security and economy of the Cayman Islands. For this reason the entire records are considered **exempt under section 15(a) of the FOI Act** ("The disclosure thereof would prejudice the security, defence or international relations of the Islands"). The records also name and provide contact information for individuals not employed by government or OfReg but who work in a technical capacity with the operator or its affiliates; certain parts are therefore also considered **exempt under section 23(1) of the FOI Act** (unreasonable disclosure of personal information).

Notwithstanding the above, we remain willing to provide any other general information related to the above, where it does not undermine the exemptions identified.