

Endnotes

- 1 Kok, E., Rauer, J., Sachdeva, P. and Pikul, P. (2025). *Scaling bigger, faster, cheaper data centers with smarter designs*. [online] McKinsey & Company. Available at: <https://www.mckinsey.com/industries/private-capital/our-insights/scaling-bigger-faster-cheaper-data-centers-with-smarter-designs> [Accessed 15 Dec. 2025].
Einhor, G, and King, D. (2025). *The \$3.3 trillion climate question: Can data centres take the heat?* [online] World Economic Forum. Available at: <https://www.weforum.org/stories/2025/10/data-centres-3-3-trillion-question-heat-cooling/#:~:text=In%20the%20age%20of%20AI,are%20rising%20up%20the%20agenda?> [Accessed 15 Dec. 2025].
- 2 Kok, E., Rauer, J., Sachdeva, P. and Pikul, P. (2025). *Scaling bigger, faster, cheaper data centers with smarter designs*. [online] McKinsey & Company. Available at: <https://www.mckinsey.com/industries/private-capital/our-insights/scaling-bigger-faster-cheaper-data-centers-with-smarter-designs> [Accessed 15 Dec. 2025].
Einhor, G, and King, D. (2025). *The \$3.3 trillion climate question: Can data centres take the heat?* [online] World Economic Forum. Available at: <https://www.weforum.org/stories/2025/10/data-centres-3-3-trillion-question-heat-cooling> [Accessed 15 Dec. 2025].
- 3 Best, P., Cowie, M., Kearton, A. and EY Global (2025). *How New Zealand can power sustainable data centres while the world sleeps*. [online] Available at: https://www.ey.com/en_nz/insights/energy-resources/how-new-zealand-can-power-sustainable-data-centres-while-the-world-sleeps [Accessed 15 Dec. 2025].
- 4 DataBank (2024). *Quantum Computing And Its Potential Disruption To Data Centers*. [online] Available at: <https://www.databank.com/resources/blogs/quantum-computing-and-its-potential-disruption-to-data-centers> [Accessed 15 Dec. 2025].
- 5 Ministry of Business, Innovation and Employment (2025). *NZ partners with Korea to advance quantum communication technology | Ministry of Business, Innovation & Employment*. [online] Available at: <https://www.mbie.govt.nz/about/news/nz-partners-with-korea-to-advance-quantum-communication-technology> [Accessed 15 Dec. 2025].
- 6 Kukutai, T., Clark, V., Culnane, C. and Teague, V. (2022). *Māori data sovereignty and offshoring Māori data*. [online] Te Kāhui Raraunga. Available at: https://www.kahuiraraunga.io/files/ugd/b8e45c_c035c550c8244c70a1025cd90a97298e.pdf [Accessed 15 Dec. 2025].
- 7 Department of Internal Affairs (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/OIA-202507-DIA-letter-of-response-redacted-Redacted.pdf> [Accessed 15 Dec. 2025].
- 8 Department of Internal Affairs (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/OIA-202507-DIA-letter-of-response-redacted-Redacted.pdf> [Accessed 15 Dec. 2025].
- 9 Department of Internal Affairs (2025). *Amazon Web Services Cloud Services Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/amazon-web-services-cloud-services-agreement-acsa> [Accessed 15 Dec. 2025].
- 10 Amazon (n.d.). *Amazon locations*. [online] Available at: <https://www.amazon.jobs/content/en/locations> [Accessed 16 Dec. 2025].
- 11 Milne, J. (2025). *Opinion: Amazon gives up building its own Auckland data centre, as power prices soar*. [online] RNZ. Available at: <https://www.rnz.co.nz/news/on-the-inside/571891/opinion-amazon-gives-up-building-its-own-auckland-data-centre-as-power-prices-soar> [Accessed 15 Dec. 2025].
- 12 Amazon Web Services (n.d.). *AWS Global Infrastructure*. [online] Available at: <https://aws.amazon.com/about-aws/global-infrastructure> [Accessed 16 Dec. 2025].
- 13 Department of Internal Affairs (2025). *Catalyst Cloud Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/catalyst-cloud-framework-agreement> [Accessed 15 Dec. 2025].
- 14 Catalyst Cloud (n.d.). *NZ cloud services | All Of Government Cloud Framework Agreement*. [online] Available at: <https://catalystcloud.nz/customers/public-sector1> [Accessed 15 Dec. 2025].
- 15 Catalyst Cloud (n.d.). *National Infrastructure*. [online] Available at: <https://catalystcloud.nz/about/national-infrastructure> [Accessed 16 Dec. 2025].
- 16 Catalyst Cloud (n.d.). *National Infrastructure*. [online] Available at: <https://catalystcloud.nz/about/national-infrastructure> [Accessed 16 Dec. 2025].
- 17 Department of Internal Affairs (2023). *Datacom Cloud Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/datacom-cloud-framework-agreement> [Accessed 15 Dec. 2025].
- 18 Datacom (n.d.). *60 years of using tech to help organisations shape their own futures*. [online] Available at: <https://datacom.com/nz/en> [Accessed 16 Dec. 2025].
- 19 Datacom (n.d.). *Secure data centre solutions*. [online] Available at: <https://datacom.com/nz/en/products/data-centres> [Accessed 16 Dec. 2025].
- 20 Datacom (n.d.). *Secure data centre solutions*. [online] Available at: <https://datacom.com/nz/en/products/data-centres> [Accessed 16 Dec. 2025].
- 21 Department of Internal Affairs (2023). *Google Cloud Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/google-cloud-framework-agreement> [Accessed 15 Dec. 2025].
- 22 Google (n.d.). *Our locations*. [online] Available at: <https://about.google/company-info/locations> [Accessed 16 Dec. 2025].
- 23 Google (n.d.). *Discover where the internet lives*. [online] Available at: <https://datacenters.google/locations> [Accessed 16 Dec. 2025].
- 24 Google (n.d.). *Discover where the internet lives*. [online] Available at: <https://datacenters.google/locations> [Accessed 16 Dec. 2025].
- 25 Department of Internal Affairs (2024). *Microsoft Cloud, Software and Services Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/microsoft-cloud-software-and-services-agreement> [Accessed 15 Dec. 2025].
- 26 Microsoft (n.d.). *Microsoft Office Locations | about Microsoft*. [online] Available at: <https://www.microsoft.com/en-us/about/office-locations> [Accessed 16 Dec. 2025].
- 27 Microsoft (n.d.). *Microsoft Datacenters*. [online] Available at: <https://datacenters.microsoft.com/globe/explore> [Accessed 16 Dec. 2025].
- 28 Microsoft (n.d.). *Microsoft Datacenters*. [online] Available at: <https://datacenters.microsoft.com/globe/explore> [Accessed 16 Dec. 2025].
- 29 Department of Internal Affairs (2024). *SAP Cloud Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/sap-cloud-framework-agreement> [Accessed 15 Dec. 2025].
- 30 SystemAnalyse Programmentwicklung (SAP) (n.d.). *The History of SAP*. [online] Available at: <https://www.sap.com/australia/about/company/history.html> [Accessed 16 Dec. 2025].

- 31 SystemAnalyse Programmentwicklung (SAP) (n.d.). *Data center locations*. [online] Available at: <https://www.sap.com/australia/about/trust-center/data-center.html> [Accessed 15 Dec. 2025].
- 32 SystemAnalyse Programmentwicklung (SAP) (n.d.). *Data center locations*. [online] Available at: <https://www.sap.com/australia/about/trust-center/data-center.html> [Accessed 15 Dec. 2025].
- 33 Department of Internal Affairs (2021). *TechnologyOne Cloud Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/technologyone-cloud-framework-agreement> [Accessed 15 Dec. 2025].
- 34 TechnologyOne (n.d.). *Making life simple for our community*. [online] Available at: <https://www.technology1.co.nz/company/about-us> [Accessed 15 Dec. 2025].
- 35 Department of Internal Affairs (2023). *Oracle Software Framework Agreement*. [online] Available at: <https://www.dns.govt.nz/products-and-services/products-and-services-a-z/oracle-software-framework-agreement> [Accessed 15 Dec. 2025].
- 36 Oracle (n.d.). *About Oracle | Company Information | Oracle New Zealand*. [online] Available at: <https://www.oracle.com/nz/corporate> [Accessed 15 Dec. 2025].
- 37 Oracle (n.d.). *Public Cloud Regions*. [online] Available at: <https://www.oracle.com/nz/cloud/public-cloud-regions> [Accessed 16 Dec. 2025].
- 38 Oracle (n.d.). *Public Cloud Regions*. [online] Available at: <https://www.oracle.com/nz/cloud/public-cloud-regions> [Accessed 16 Dec. 2025].
- 39 Malone, M. (2025). *The making of Microsoft's New Zealand data centre*. [online] New Zealand Herald. Available at: <https://www.nzherald.co.nz/business/markets-with-madison/the-making-of-microsofts-domestic-data-centre/Q325RQX4WFG7ZMLC7QHS3T3BCI> [Accessed 15 Dec. 2025].
- 40 Palmer, R. and Xia, L. (2025). *Amazon and the case of the missing New Zealand data centres*. [online] Available at: <https://www.rnz.co.nz/news/political/571948/amazon-and-the-case-of-the-missing-new-zealand-data-centres> [Accessed 16 Dec. 2025].
- Milne, J. (2025). *Amazon gives up building its own Auckland data centre, as power prices soar* [online] Available at: <https://newsroom.co.nz/2025/09/02/amazon-aborts-construction-of-west-auckland-data-centre> [Accessed 16 Dec. 2025].
- 41 Government Communications Security Bureau (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/GCSB-Response_Redacted.pdf [Accessed 15 Dec. 2025].
- 42 Government Communications Security Bureau (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/GCSB-Response_Redacted.pdf [Accessed 15 Dec. 2025].
- Government Communications Security Bureau (2025). *New Zealand Information Security Manual*. Available at: <https://nzism.gcsb.govt.nz/ism-document> [Accessed 15 Dec. 2025].
- New Zealand Security Intelligence Service (NZSIS) (n.d.). *Protective Security Requirements*. [online] Available at: <https://www.protectivesecurity.govt.nz/classification/overview#e2100> [Accessed 15 Dec. 2025].
- Note: The OIA response explains that the protection requirements are set out in the *New Zealand Information Security Manual (NZISM)*, last updated November 2025, and the Protective Security Requirements (see the website <https://www.protectivesecurity.govt.nz>). The manual 'details processes and controls essential for the protection of all New Zealand Government information and systems. Controls and processes representing good practice are also provided to enhance the baseline controls. Baseline controls are minimum acceptable levels of controls and are often described as "systems hygiene".'
- The Protective Security Requirements website outlines the types of classifications that will require protective security measures to keep the information safe and secure: 'Classifications are divided into two categories:
- Policy and privacy – classified to protect public interest or personal privacy
 - National security – classified to protect the security, defence, or international relations of New Zealand.'
- 43 TeleGeography (n.d.). *Submarine Cable Map - Cables connected to New Zealand*. [online] Available at: <https://www.submarinecablemap.com/country/new-zealand> [Accessed 15 Dec. 2025].
- 44 TeleGeography (n.d.). *Submarine Cable Map - Cables connected to New Zealand*. [online] Available at: <https://www.submarinecablemap.com/country/new-zealand> [Accessed 15 Dec. 2025].
- 45 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 46 Burdette, L. (2024). *What To Know About Submarine Cable Breaks*. [online] TeleGeography. Available at: <https://blog.telegeography.com/what-to-know-about-submarine-cable-breaks> [Accessed 16 Dec. 2025].
- 47 Pennington, P. (2025). *The new threat to the undersea cables keeping our internet going*. [online] RNZ. Available at: <https://www.rnz.co.nz/news/political/545872/the-new-threat-to-the-undersea-cables-keeping-our-internet-going> [Accessed 16 Dec. 2025].
- As we go to print, 'Finnish police have detained a vessel sailing from Russia, which is suspected of damaging an undersea telecoms cable running from Helsinki to Estonia across the Gulf of Finland'.
- Pomeroy, G. (2026). *Finnish police seize ship suspected of sabotaging undersea cable*. [online] BBC. Available at: <https://www.bbc.com/news/articles/c62040np372o> [Accessed 10 Jan. 2026].
- For a map of New Zealand's submarine cable map in the context of overseas dependencies and threats, see our June 2025 infographic: <https://www.mcguinnessinstitute.org/publications/infographics>
- 48 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 49 Fonua, F. (2022). *How one tweet got Tonga 50 satellite terminals*. [online] RNZ. Available at: <https://www.rnz.co.nz/international/pacific-news/462270/how-one-tweet-got-tonga-50-satellite-terminals> [Accessed 15 Dec. 2025].
- 50 Hameed, H. (2025). *Closing the Pacific Digital Divide through a Multi-Access Connectivity Strategy*. [online] Access Partnership.

- Available at: <https://accesspartnership.com/opinion/closing-pacific-digital-divide-multi-access-connectivity-strategy> [Accessed 16 Dec. 2025].
- 51 Chorus (2024). *Chorus*. [online] Available at: <https://www.chorus.co.nz/get-better-internet/satellite-internet-and-starlink-is-it-for-you> [Accessed 15 Dec. 2025].
- 52 Kukutai, T., Clark, V., Culnane, C. and Teague, V. (2022). *Māori data sovereignty and offshoring Māori data*. [online] Te Kāhui Raraunga. Available at: https://www.kahuiraraunga.io/files/ugd/b8e45c_c035c550c8244c70a1025cd90a97298e.pdf [Accessed 15 Dec. 2025].
- 53 Kukutai, T., Clark, V., Culnane, C. and Teague, V. (2022). *Māori data sovereignty and offshoring Māori data*. [online] Te Kāhui Raraunga. Available at: https://www.kahuiraraunga.io/files/ugd/b8e45c_c035c550c8244c70a1025cd90a97298e.pdf [Accessed 15 Dec. 2025].
- 54 U.S. Department of Justice (2023). *Criminal Division | CLOUD Act Resources*. [online] Available at: <https://www.justice.gov/criminal/cloud-act-resources> [Accessed 16 Dec. 2025].
- Department of Internal Affairs (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/OIA-202507-DIA-letter-of-response-redacted-Redacted.pdf> [Accessed 15 Dec. 2025].
- 55 Kukutai, T., Clark, V., Culnane, C. and Teague, V. (2022). *Māori data sovereignty and offshoring Māori data*. [online] Te Kāhui Raraunga. Available at: https://www.kahuiraraunga.io/files/ugd/b8e45c_c035c550c8244c70a1025cd90a97298e.pdf [Accessed 15 Dec. 2025].
- 56 Estonian Business and Innovation Agency (n.d.). *e-Governance - Data Embassy*. [online] e-Estonia. Available at: <https://e-estonia.com/solutions/e-governance/data-embassy> [Accessed 16 Dec. 2025].
- 57 Xiaoying, Y. (2025). *China Powers AI Boom with Undersea Data Centers*. [online] Scientific American. Available at: <https://www.scientificamerican.com/article/china-powers-ai-boom-with-undersea-data-centers> [Accessed 16 Dec. 2025].
- 58 Vicinanza, D. (2025). *Data centres in space: they're a brilliant idea, but a herculean challenge*. [online] The Conversation. Available at: <https://theconversation.com/data-centres-in-space-theyre-a-brilliant-idea-but-a-herculean-challenge-246635> [Accessed 16 Dec. 2025].
- 59 Sytas, A. and Strzelecki, M. (2025). On NATO's eastern flank, bunkers and anti-drone nets set to protect power grids. *Reuters*. [online] 30 Sep. Available at: <https://www.reuters.com/business/energy/natos-eastern-flank-bunkers-anti-drone-nets-set-protect-power-grids-2025-09-29> [Accessed 16 Dec. 2025].
- 60 Fryberger, B. (2024). *Data center security: internal and external risks*. [online] Available at: https://www.ey.com/en_us/data-centers/data-center-security-internal-and-external-risks [Accessed 16 Dec. 2025].
- 61 Government Communications Security Bureau (2023). *Official Information Act request*. [Letter] Available at: <https://www.gcsb.govt.nz/assets/GCSB-Documents/OIA/OIA-Responses/2023-06-22-GCSB-response-data-centre.pdf> [Accessed 16 Dec. 2025].
- 62 Zorman, H. (2024). *The Environmental Impact of Data Centers – Concerns and Solutions to Become Greener*. [online] Park Place Technologies. Available at: <https://www.parkplacetechologies.com/blog/environmental-impact-data-centers> [Accessed 16 Dec. 2025].
- 63 U.S. Department of Justice (2023). *Criminal Division | CLOUD Act Resources*. [online] Available at: <https://www.justice.gov/criminal/cloud-act-resources> [Accessed 16 Dec. 2025].
- Department of Internal Affairs (2025). *Overseas dependencies and threats – Data centres and international submarine cables*. [Letter] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/OIA-202507-DIA-letter-of-response-redacted-Redacted.pdf> [Accessed 15 Dec. 2025].
- 64 Best, P., Cowie, M., Kearton, A. and EY Global (2025). *How New Zealand can power sustainable data centres while the world sleeps*. [online] Available at: https://www.ey.com/en_nz/insights/energy-resources/how-new-zealand-can-power-sustainable-data-centres-while-the-world-sleeps [Accessed 15 Dec. 2025].
- 65 Best, P., Cowie, M., Kearton, A. and EY Global (2025). *How New Zealand can power sustainable data centres while the world sleeps*. [online] Available at: https://www.ey.com/en_nz/insights/energy-resources/how-new-zealand-can-power-sustainable-data-centres-while-the-world-sleeps [Accessed 15 Dec. 2025].
- 66 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 67 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 68 Meenaktshi, H. and Tanna, S. (2025). *Red Sea cable cuts disrupt internet across Asia and the Middle East*. [online] RNZ. Available at: <https://www.rnz.co.nz/news/world/572390/red-sea-cable-cuts-disrupt-internet-across-asia-and-the-middle-east> [Accessed 15 Dec. 2025].
- 69 Paik, A. and Counter, J. (2024). *International law doesn't adequately protect undersea cables. That must change*. [online] Atlantic Council. Available at: <https://www.atlanticcouncil.org/content-series/hybrid-warfare-project/international-law-doesnt-adequately-protect-undersea-cables-that-must-change> [Accessed 16 Dec. 2025].
- 70 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 71 Murphy, E.L. and Bryja, T. (2025). *The Strategic Future of Subsea Cables: Singapore Case Study*. [online] Center for Strategic & International Studies. Available at: <https://www.csis.org/analysis/strategic-future-subsea-cables-singapore-case-study> [Accessed 16 Dec. 2025].
- 72 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes]

- Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 73 **Case study – Singapore as a regional hub**
- Singapore has become a critical hub for undersea cable networks, connecting countries in Asia with the Middle East, Europe and North America. Singapore has attracted investment from both regional and global tech and communication firms, through its geographic location, pro-business regulatory environment and forward-looking digital policy. Over the past two decades, Singapore has increased undersea cable capacity significantly, while promoting the importance of geographic route diversity to mitigate potential risks and limit accidental breaks. This focus on promoting undersea cable infrastructure has led to Singapore becoming the leading data centre hub in Asia, allowing for higher sustainability standards for both energy and water efficiency.
- Murphy, E.L. and Bryja, T. (2025). *The Strategic Future of Subsea Cables: Singapore Case Study*. [online] Center for Strategic & International Studies. Available at: <https://www.csis.org/analysis/strategic-future-subsea-cables-singapore-case-study> [Accessed 16 Dec. 2025].
- Lawson, M., Cox, D., Chan, D., Simpson, E., Huang, M., Robinson, P. and Saville, E. (2025). *Navigating data centre opportunities across APAC - Singapore*. [online] King & Wood Mallesons. Available at: <https://www.kwm.com/global/en/insights/latest-thinking/navigating-data-centre-opportunities-across-apac-singapore.html> [Accessed 16 Dec. 2025].
- 74 Clare, M.A., Yeo, I.A., Bricheno, L., Aksenov, Y., Brown, J., Haigh, I.D., Wahl, T., Hunt, J., Sams, C., Chaytor, J., Bett, B.J. and Carter, L. (2023). Climate change hotspots and implications for the global subsea telecommunications network. *Earth-Science Reviews*. [online] 237. doi:<https://doi.org/10.1016/j.earscirev.2022.104296>.
- 75 Clare, M. (2023). *Submarine Cable Protection and the Environment*. [online] International Cable Protection Committee. Available at: https://iscpc.org/publications/submarine-cable-protection-and-the-environment/ICPC_Public_EU_September_2023.pdf [Accessed 15 Dec. 2025].
- 76 Mehboob, C. (2024). *What lies beneath: There's more to cables than geopolitics*. [online] Lowy Institute. Available at: <https://www.loyyinstitute.org/the-interpretor/what-lies-beneath-there-s-more-cables-geopolitics> [Accessed 16 Dec. 2025].
- 77 Runde, D.F., Murphy, E.L. and Bryja, T. (2024). *Safeguarding Subsea Cables: Protecting Cyber Infrastructure amid Great Power Competition*. [online] Center for Strategic and International Studies. Available at: <https://www.csis.org/analysis/safeguarding-subsea-cables-protecting-cyber-infrastructure-amid-great-power-competition> [Accessed 16 Dec. 2025].
- 78 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 79 Ministry of Business, Innovation and Employment and Ministry of Transport (2025). *OIA 2025/07 – Overseas dependencies and threats – Data centres and international submarine cables*. [Meeting notes] Available at: <https://www.mcguinnessinstitute.org/wp-content/uploads/2025/07/20250722-Notes-from-Meeting-between-MBIE-MOT-and-McGuinness-Institute-final.pdf> [Accessed 15 Dec. 2025].
- 80 Radio New Zealand (2024). *First satellite controlled by NZ one step closer*. [online] RNZ. Available at: <https://www.rnz.co.nz/news/national/535343/first-satellite-controlled-by-nz-one-step-closer> [Accessed 15 Dec. 2025].
- 81 Jha, D., Manti, N.P., Carlo, A., Zarkan, L.C., Breda, P. and Jha, A. (2022). Safeguarding the final frontier: Analyzing the legal and technical challenges to mega-constellations. *Journal of Space Safety Engineering*, 9(4), pp.636–643. doi:<https://doi.org/10.1016/j.jsse.2022.08.006>.
- 82 Peeters, W. (n.d.). *Cyberattacks on Satellites*. [online] London School of Economics and Political Science. Available at: <https://www.lse.ac.uk/ideas/projects/space-policy/publications/Cyberattacks-on-Satellites> [Accessed 16 Dec. 2025].
- 83 New Zealand Technology Industry Association Incorporated (NZTech) (2025). *Empowering Aotearoa New Zealand's Digital Future Our national data centre infrastructure*. [online] Available at: <https://technewzealand.org.nz/wp-content/uploads/sites/8/2025/09/NZTech-Data-Centres-Report-Final-DIGITAL-002.pdf> [Accessed 16 Dec. 2025].
- 84 Minister for Foreign Affairs (Aus) (2025). *Joint Fact Sheet on Australia-U.S. Ministerial Consultations (AUSMIN) 2025*. [online] Australian Government Department of Foreign Affairs and Trade. Available at: <https://www.foreignminister.gov.au/minister/penny-wong/media-release/joint-fact-sheet-australia-us-ministerial-consultations-ausmin-2025> [Accessed 16 Dec. 2025].
- 85 Estonian Business and Innovation Agency (n.d.). *e-Governance - Data Embassy*. [online] e-Estonia. Available at: <https://e-estonia.com/solutions/e-governance/data-embassy> [Accessed 16 Dec. 2025].