

THE DIGITAL DIVIDE WON'T CLOSE ITSELF (I CHECKED)

BY EMMA STEVENS

The digital divide isn't some unsolvable riddle we've been doomed to puzzle over forever. It's a set of structural gaps—where we build, who we prioritize, and how we listen—that we've chosen to live with. In some places, those gaps are measured in megabits per second; in others, they're measured in years of lost opportunity. Closing them isn't just a fairy tale—it's a practical outcome of rethinking how and where we invest.

Closing the digital divide goes beyond simply increasing capacity. The Global Digital Inclusion Partnership is challenging this status quo of digital inclusion with an updated goal to provide communities with “Meaningful Connectivity”, a framework backed by organizations like the International Telecommunication Union (ITU) from 2022. This standard moves beyond the basic metric of “anyone who used the internet in the last 3 months” and raises the bar, establishing minimum thresholds across four key pillars: regular internet use, an appropriate device, enough data, and a fast connection (a minimum of 4G mobile connectivity).

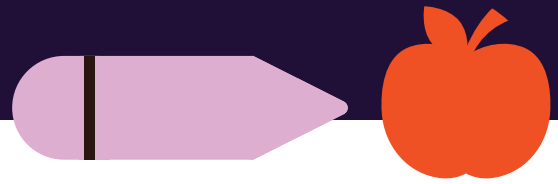
These metrics aren't unrealistic luxuries. They're the baseline for participating in modern society. Yet many North American communities, especially Indigenous ones, are being left behind because they're seen as *too small*, *too remote*, or *too difficult*. While many companies claim to support this cause through PR initiatives, true progress requires a

new approach; one that rethinks where and how the subsea cable and data center industries build.

PEERING INTO THE GAP

Estimates show Indigenous and rural Indigenous communities in North America face stark connectivity gaps: 2022 federal analyses put the share of people on U.S. tribal lands without fixed broadband anywhere from roughly 18% to 35% depending on methodology, with the FCC and Congressional reports typically citing about a quarter of residents as unserved vs 7% nationally. Even where service exists, many rely primarily on smartphones rather than home broadband. One analysis found about 33% of reservation residents depend on mobile-only access. The picture is similar in Canada, where only about one in four households in Indigenous communities currently has access to 50/10 Mbps service.

These aren't places without need—they're places without investment. The reasons are structural: high build costs, harsh environments, and infrastructure decisions that historically prioritize density and profit over equity. Closing the digital divide would require rethinking where and how we build. Prioritizing pairing renewable-first infrastructure with meaningful community partnerships could help to create a more balanced social impact and sustainable profitability.



THE EASY-BUILD BIAS

The digital infrastructure playbook of the last few decades has rewarded building in high-density, low-cost zones. Ashburn, Virginia became the poster child for the data center industry: reliable energy, abundant land, proximity to the “important” people. That model was more or less copy-pasted to Phoenix, Oregon, Silicon Valley, Toronto, and beyond.

Step outside those “easy build” regions and you run into challenges. However, places that don’t tick the conventional business-case boxes may hold the biggest opportunities for innovation.

The uncomfortable truth? Many corporate digital divide initiatives are crafted gestures that look good on paper but often fall short at demonstrable change because they’re designed without input from, or long term investment in, the communities they’re meant to serve.

WHERE THE USUAL CHECKLIST FAILS:

Let’s zoom in on a community with immense potential: Nome, Alaska. This remote village on the western edge of the state is famous as the finish line of the historic 1925 Serum Run, which inspired the Iditarod sled dog race. Today, Nome is poised for a different kind of race—to become a hub for emerging digital infrastructure.

As of July 1, 2024, the Nome Census Area counted an estimated 9,651 residents, with about 3,670 living in Nome city itself with roughly a third of them under the age of 18. American Indian and Alaska Native (Non-Hispanic) residents make up 74.6% of the population, many of whom are part of the federally recognized Nome Eskimo Community (NEC).

Between 2019 and 2023, 16.5% of households in the area had no broadband subscription (U.S. Census Bureau). The region’s power comes from a diesel-fueled microgrid, supplied only during the ice-free shipping season. Fuel costs swing with market volatility, and deliveries freeze—literally—if the port ices over in winter. That dependence on diesel leaves a heavy mark: an estimated 42.7 million kilograms of CO₂ emissions annually, ranking Nome 7th

for total pollution among Alaska’s counties.

Alright, let’s run the classic site-selection checklist. Reliable power? Not exactly. Large population? Nope. Plenty of land? Sure—if you’re cool with the permafrost. By traditional market logic, Nome wouldn’t even make the shortlist.

But to see only these challenges is to miss the strategic advantages.

Nome is positioned for connectivity with two subsea cables landing in the city, with a third trans-Arctic cable to Japan and Asia potentially on the horizon. This provides a first-mover advantage for bringing data to the area. The region is also ready for an energy transition, with local leaders

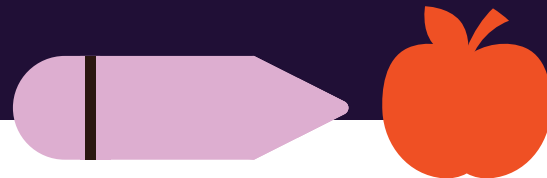
actively seeking to diversify away from diesel and embrace renewable sources like hydrokinetic, nuclear, geothermal, wind, or solar power. The cold Arctic climate provides a natural advantage by enabling year-round free air cooling for data centers.

Most importantly, investing in Nome offers an opportunity to support Indigenous Digital Sovereignty. According to the American Indian Policy Institute (AIPI), this concept encompasses both network and data sovereignty, empowering communities to control the infrastructure and data that flow through it. As Dr. Traci Morris, Executive Director of the AIPI, explained in a webinar hosted by the National Digital Inclusion Alliance, *“Putting in a network is an act of self-determination. It is nation-building.”*

Indigenous Digital Sovereignty covers both the information and the physical networks, governed by the community’s own policies. Building here requires not just permission, but partnership.

Bringing meaningful connectivity to these markets is also an ethical responsibility. Increasingly, global policy circles recognize that access to reliable, affordable internet is a basic human right. For Nome’s predominantly young population, that means more than social media and entertainment. It’s about unlocking remote learning options when the local school can’t offer advanced courses, enabling telehealth appointments when the nearest specialist is hundreds of miles away, and creating pathways to careers that don’t require leaving the community. In a

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place where the median age is measured in teenagers, denying meaningful connectivity is essentially denying the tools to shape their own future.

BUILDING A WIN-WIN MODEL

Yes, building in locations like Nome is harder. But hard doesn't mean unprofitable. By pairing renewable-first infrastructure with meaningful community partnerships, companies can build resilient, sustainable infrastructure that benefits both their bottom line and local economies.

Don't get too excited, just bringing your own power doesn't absolve you from community concerns. You need to actively engage with community stakeholders, especially in indigenous spaces. This could look like establishing an advisory board composed of community stakeholders like tribal elders, local business leaders, and community representatives. Another avenue is a Shared Ownership model. Partnership models, joint ventures, and shared revenue streams can transform potential pushback into active support by aligning the project's success with the community's definition of success.

You can also offset costs by utilizing the many federal programs dedicated to tackling these very challenges. For Nome, the Alaska Broadband Office, the Broadband Equity, Access, and Deployment (BEAD) Program, as well as the Tribal Broadband Connectivity Program (TBCP), offer funding opportunities to support bringing digital connectivity to these rural regions.

Companies like Greensparc are already putting this model into practice in the Interior of Alaska. They're building modular, scalable micro-data centers optimized for sustainability and resilience in challenging environments. By utilizing untapped renewable energy sources, these projects lower local connectivity costs while increasing global capacity.

"We believe connectivity is both a human right and an engine of growth, and we're excited and eager to share our blueprint with the world."

Building in overlooked places is both a moral imperative and a strategic business move.

The future of digital infrastructure lies in unconventional locations where renewable energy, local needs, and global

demand meet. If we only build digital infrastructure where it's easy, we'll keep leaving millions behind. But if we take on the hard builds—power them sustainably, and do it in partnership with the people who live there—we not only expand the internet's reach, we future-proof our own infrastructure.

The digital divide isn't inevitable. It's a choice. And so is closing it. **ST**



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