Technology and Territory

Connectivity Readiness Assessment

What your community has, what it needs, and what it should do next

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Representative excerpts from a full engagement report.

Inside this sample

SECTION 1

How to read this report

This assessment documents the connectivity your organization has today, states what each facility actually requires, and sets out the options available to close the gap. It is written to be used: the inventory and requirement tables are the working record your team maintains after the engagement ends, and the same tables support funding applications and provider negotiations.

The report makes no assumption that a particular technology is correct. Fibre, fixed wireless, radio and satellite each carry a different profile of cost, capacity, latency and deployment time, and most communities are best served by a combination. The purpose of the assessment is to make that decision defensible.

- Findings are stated against evidence, not impression.
- Every recommendation carries an estimated cost range and a time to deploy.
- Where information was unavailable, the report says so rather than estimating.

Scope of this sample

This document contains representative excerpts. A full engagement report runs approximately 40 to 60 pages, depending on the number of sites assessed.

SECTION 2

Site and service inventory

Every site the organization pays for, what it receives, what it costs, and when the contract ends. Most organizations have never held this in a single table, and assembling it commonly identifies duplicate services and contracts that renew on unfavourable terms.

Site	Service type	Downstream	Monthly	Term ends
Band administration office	Fibre	150 Mbps	$310	2026-08
Health clinic	Fixed wireless	50 Mbps	$240	2026-03
School	Fibre	300 Mbps	$520	2027-01
Water treatment plant	Satellite (GEO)	15 Mbps	$390	month-to-month
Public works garage	Fixed wireless	25 Mbps	$180	2026-05
Emergency services	Satellite (LEO)	100 Mbps	$189	month-to-month

In the sample above, two observations follow immediately from the table alone: the water treatment plant carries the lowest capacity and the highest cost per megabit of any site, and four of six contracts expire within eighteen months, which creates a negotiating window.

SECTION 3

Requirements by facility

What each facility needs is a function of what happens inside it, not of what it currently receives. A health clinic transmitting diagnostic images and a maintenance garage running email do not belong in the same service tier, and treating them identically is the most common source of both overspending and under-service.

Facility	Driver	Capacity	Availability	Priority
Health clinic	Telehealth, imaging	100 Mbps	99.5%	Critical
Water treatment	SCADA telemetry, alarms	10 Mbps	99.9%	Critical
Emergency services	Dispatch, interoperability	50 Mbps	99.9%	Critical
School	Learning platforms	500 Mbps	99.0%	High
Administration	Business systems	150 Mbps	99.0%	High
Public works	Email, scheduling	25 Mbps	97.0%	Standard

Note that the water treatment plant requires the least capacity of any critical site and the highest availability. Bandwidth and reliability are separate requirements, and conflating them leads communities to buy the wrong service for their most essential systems.

SECTION 4

Current service performance

Provider service-level commitments describe what was promised. This section records what was delivered, drawn from the outage log maintained during the assessment period and from throughput testing at each site.

Site	Outages	Longest	Availability	Meets need
Band administration office	3	4h 10m	99.4%	Yes
Health clinic	11	2 days	97.1%	No
School	2	1h 05m	99.7%	Yes
Water treatment plant	9	18h 40m	98.2%	No
Public works garage	6	6h 30m	99.0%	Yes
Emergency services	4	3h 15m	99.3%	No

Two critical facilities fall materially short of their availability requirement. The health clinic recorded a two-day outage during the period, and the water treatment plant lost telemetry on nine occasions. These findings, not price, should drive the sequencing of any improvement plan.

SECTION 5

Technology options

This section is written in plain language for council and administration. It compares what each technology does well and badly. It does not recommend one: that recommendation appears in Section 7, against the requirements established above.

Option	Capacity	Latency	Deploy time	Best suited to
Fibre	Very high	Very low	12-36 months	Permanent core sites
Fixed wireless	Moderate	Low	2-6 months	Sites within line of sight
Radio (VHF/UHF)	Low	Low	1-4 months	Voice, telemetry, safety
Satellite (LEO)	High	Moderate	Days	Remote and interim service
Satellite (GEO)	Moderate	High	Weeks	Backup and low-priority sites

- Fibre carries the highest capital cost and the longest lead time, and is the only option that does not degrade with weather or congestion.
- Low-earth-orbit satellite has changed the economics of remote service, but capacity is shared and contended.
- Radio remains the most reliable option for telemetry and emergency voice, and is frequently retained alongside a broadband service.

SECTION 6

Questions to ask providers

The questions below are drawn from the full toolkit. They are written to be asked verbatim, and the answers recorded in writing. Providers answer these questions readily when asked directly and rarely volunteer the information otherwise.

- Is the quoted capacity dedicated or contended? If contended, what is the contention ratio at peak?
- What availability is committed in the contract, how is it measured, and what is the remedy when it is not met?
- What is the committed time to restore service, and does it differ between business hours and nights, weekends and holidays?
- Where is the nearest field technician based, and what is the travel time to this community in winter conditions?
- What equipment is owned by the community at the end of the term, and what must be returned?
- Are installation costs recoverable under a funding program, and will the provider supply the documentation required?
- What are the terms of renewal, and what notice is required to avoid automatic extension?

How to use this section

Record every answer in writing and attach it to the inventory. Answers given verbally during a sales conversation do not survive a change of account manager.

SECTION 7

Roadmap and funding readiness

Findings are sequenced by consequence, not by cost. Sites where the current service fails a critical requirement are addressed first, and work that must precede a funding application is identified separately so that deadlines are not missed.

Priority	Action	Horizon	Indicative cost
1	Redundant path for water treatment telemetry	0-3 months	$8k-14k
2	Health clinic service replacement	0-6 months	$12k-25k
3	Consolidate contracts to common renewal date	3-9 months	administrative
4	Fibre feasibility study for core sites	6-12 months	$25k-60k
5	Community-wide capacity plan to 2032	12-18 months	$18k-40k

- Costs are indicative ranges for planning only and are not quotations.
- Items 1 and 2 address documented failures against critical requirements and should proceed regardless of funding outcomes.
- Items 4 and 5 are the documentation most federal and provincial connectivity programs require at application.